

TAHOE REGIONAL PLANNING AGENCY (TRPA)  
TAHOE METROPOLITAN PLANNING AGENCY (TMPO)  
AND TRPA COMMITTEE MEETINGS

NOTICE IS HEREBY GIVEN that on **Wednesday, September 28, 2022**, commencing at **no earlier than 10:00 a.m., on Zoom and at the Tahoe Regional Planning Agency, 128 Market Street, Stateline, NV**, the **Governing Board** of the Tahoe Regional Planning Agency will conduct its **regular business meeting**.

Pursuant to the State of California's Code section 54953(e) as enacted by California AB-361 Governing Board members may appear in person or via Zoom. Members of the public may observe the meeting and submit comments in person at the above location or via Zoom. Details will be posted on the day of the meeting with a link to Zoom. The agenda is attached hereto and made part of this notice.

To participate in any TRPA Governing Board or Committee meetings please go to the Calendar on the <https://www.trpa.gov/> homepage and select the link for the current meeting. Members of the public may also choose to listen to the meeting by dialing the phone number and access code posted on our website. For information on how to participate by phone, please see page 3 of this Agenda.

NOTICE IS FURTHER GIVEN that on **Wednesday, September 28, 2022**, commencing **8:15 a.m., via Zoom**, and at the **Tahoe Regional Planning Agency**, the **TRPA Legal Committee** will meet. The agenda will be as follows: **1)** Approval of Agenda; **2)** Approval of Minutes; **(Page 7) 3)** Appeal of Plan Revision ERSP2019-0389-01 Verizon Cell Tower, 1360 Ski Run Blvd., South Lake Tahoe, California, Assessors' Parcel Number 025-580-007; Appeal No. ADMIN2022-0036 (action); **(Page 261) 4)** Closed Session with Counsel to Discuss Existing and Potential Litigation; **5)** Potential Direction Regarding Agenda Item No. 4 (action); **6)** Committee Member Comments; Chair – Williamson, Vice Chair – Novasel, Aldean, Hicks, Rice, Yeates; **7)** Public Interest Comments

NOTICE IS FURTHER GIVEN that on **Wednesday, September 28, 2022**, commencing **no earlier than 9:30 a.m., via Zoom**, and at the **Tahoe Regional Planning Agency**, the **TRPA Operations & Governance Committee** will meet. The agenda will be as follows: **1)** Approval of Agenda; **2)** Approval of Minutes; **(Page 15) 3)** Recommend approval of August Financials (action); **(Page 97) 4)** Recommend approval for Release of City of South Lake Tahoe Water Quality Mitigation Funds (\$540,152.48), Air Quality Mitigation Funds (\$200,000.00), and Stream Environment Zone (SEZ) Mitigation Funds (\$87,395.97) towards the Tahoe Valley Stormwater and Greenbelt Improvement Project (action); **(Page 119) 5)** Recommend approval for Release of El Dorado County Water Quality (WQ) Mitigation Funds (\$60,000.00), for the Oflyng Water Quality Project (action); **(Page 125) 6)** Upcoming Topics; **7)** Committee Member Comments; Chair – Aldean, Vice Chair –Gustafson, Cegavske, Diss, Hill, Hoenigman; **8)** Public Interest Comments

NOTICE IS FURTHER GIVEN that on **Wednesday, September 28, 2022**, commencing **no earlier than 1:30 p.m., (at the conclusion of the Governing Board meeting) via Zoom and at the Tahoe Regional Planning Agency**, the **TRPA Local Government & Housing Committee** will meet. The agenda will be as follows: **1)** Approval of Agenda; **2)** Approval of Minutes; **(Page 73) 3)** Review and provide direction on evaluation metrics for allocation of the State of California's Regional Early Action Planning 2.0 (REAP 2.0) Grant funds in the Lake Tahoe region to accelerate progress towards state housing goals and climate commitments; provide direction and guidance on proposed uses of the REAP 2.0 funds (action); **(Page 676) 4)** Committee Member Comments; Chair – Novasel, Vice Chair – Hill, Aldean, Cegavske (Ex Officio), Faustinos (Ex Officio), Friedrich, Gustafson, Rice; **5)** Public Interest Comments

NOTICE IS FURTHER GIVEN that on **Wednesday, September 28, 2022**, commencing **no earlier than 2:00 p.m., via Zoom**, and at the **Tahoe Regional Planning Agency**, the **TRPA Ad Hoc Executive Director Search Committee** will meet. The agenda will be as follows: **1)** Approval of Agenda; **2)** Approval of Minutes; **(Page 91)** **3)** Status Report and Recommendation on Executive Director interviews from the Prothman Company (action); **(Page 683)** **4)** Committee Member Comments; Chair – Aldean, Vice Chair –Hoenigman, Gustafson, Lawrence, Yeates; **5)** Public Interest Comments

September 21, 2022

John B. Hester  
Interim Executive Director

This agenda has been posted at the TRPA office and at the following locations and/or websites: PostOffice, Stateline, NV, North Tahoe Event Center, Kings Beach, CA, IVGID Office, Incline Village, NV, North Lake Tahoe Chamber/Resort Association, Tahoe City, CA, and Lake Tahoe South Shore Chamber of Commerce, Stateline, NV

<b>TAHOE REGIONAL PLANNING AGENCY</b>	
GOVERNING BOARD	
Zoom/Tahoe Regional Planning Agency	September 28, 2022
128 Market Street, Stateline, NV	No earlier than 10:00 a.m.

All items on this agenda are action items unless otherwise noted. Items on the agenda, unless designated for a specific time, may not necessarily be considered in the order in which they appear and may, for good cause, be continued until a later date.

Members of the public may email written public comments to the Clerk to the Board, [mambler@trpa.gov](mailto:mambler@trpa.gov). All public comments should be as brief and concise as possible so that all who wish to participate may do so; testimony should not be repeated. The Chair of the Board shall have the discretion to set appropriate time allotments for individual speakers (3 minutes for individuals and group representatives as well as for the total time allotted to oral public comment for a specific agenda item). No extra time for participants will be permitted by the ceding of time to others. Written comments of any length are always welcome. In the interest of efficient meeting management, the Chairperson reserves the right to limit the duration of each public comment period to a total of 1 hour. All written comments will be included as part of the public record. Public comment will be taken for each appropriate item at the time the agenda item is heard and a general public comment period will be provided at the end of the meeting for all other comments

TRPA will make reasonable efforts to assist and accommodate physically handicapped persons that wish to attend the meeting. Please contact Marja Ambler at (775) 589-5287 if you would like to attend the meeting and are in need of assistance.

The Governing Board agenda and staff reports will be posted at <https://www.trpa.gov/governing-board-documents-september-28-2022/> no later than 7 days prior to the meeting date. Any member of the public with questions prior to the meeting may contact Marja Ambler, [mambler@trpa.gov](mailto:mambler@trpa.gov) or call (775) 589-5287. On meeting day please contact TRPA admin staff at [virtualmeetinghelp@trpa.gov](mailto:virtualmeetinghelp@trpa.gov) or call (775) 588-4547.

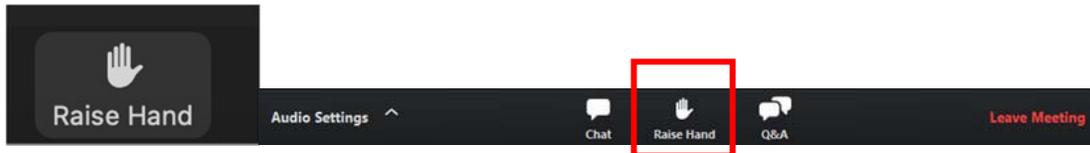
## Zoom Webinar - Public Participation

### To Participate Online:

1. Download the Zoom app on your computer, tablet, or smartphone.
  - The computer app can be downloaded here:  
<https://us02web.zoom.us/client/latest/ZoomInstaller.exe>
  - The tablet or smartphone app can be found in the app store on your device.
2. On the day of the meeting, join from the link or phone numbers posted under the appropriate meeting date and time on the TRPA website ([www.trpa.gov](http://www.trpa.gov)).
3. Ensure that you are **connected to audio** either through your computer (provided it has a microphone) or using your phone as a microphone/speaker. You can manage your audio settings in the tool bar at the bottom of the Zoom screen.



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1. Dial the call-in number posted at the calendar event for the appropriate meeting ([www.trpa.gov](http://www.trpa.gov)).
2. At the appropriate time for public comments, you will be able to “raise your hand” **by dialing \*9 if you are on your phone**. With your hand raised, a TRPA staff member will unmute you and indicate that you can make your comment.

If you do not have the ability or access to register for the webinar, please contact TRPA admin staff at [virtualmeetinghelp@trpa.org](mailto:virtualmeetinghelp@trpa.org) or (775) 588-4547.

### Additional Resources from Zoom:

- [Joining and Participating in a Zoom Webinar](#)
- [Joining a Zoom Webinar by Phone](#)
- [Raising Your Hand in a Webinar](#)

## AGENDA

- I. CALL TO ORDER AND DETERMINATION OF QUORUM
- II. PLEDGE OF ALLEGIANCE
- III. APPROVAL OF AGENDA
- IV. APPROVAL OF MINUTES **Page 21**
- V. TRPA CONSENT CALENDAR (see Consent Calendar agenda below for specific items)
- VI. PLANNING MATTERS
  - A. Briefing on Transportation and Sustainable Recreation Initiative: **Informational Only** **Page 235**
    - 1) Destination Stewardship: TRPA Staff and USFS Representatives
    - 2) Keeping Tahoe Moving: TRPA and TTD Representatives
  - B. Transportation Advisory Committee Charter **Action** **Page 239**

Adjourn as the TRPA and convene as the TMPO
- VII. PLANNING MATTERS
  - A. Final 2023 Federal Transportation Improvement Program **Action** **Page 251**

Adjourn as the TMPO and reconvene as the TRPA
- VIII. APPEAL
  - A. Appeal of Plan Revision ERSP2019-0389-01 Verizon Cell Tower, 1360 Ski Run Blvd., South Lake Tahoe, California, Assessor's Parcel Number 025-580-007; Appeal No. ADMIN2022-0036 **Action** **Page 261**
- IX. REPORTS
  - A. Executive Director Status Report **Informational Only**
    - 1) Tahoe In Brief – Governing Board Monthly Report **Informational Only** **Page 665**
  - B. General Counsel Status Report **Informational Only**
- X. GOVERNING BOARD MEMBER REPORTS

XI. COMMITTEE REPORTS

- A. Local Government & Housing Committee **Report**
- B. Legal Committee **Report**
- C. Operations & Governance Committee **Report**
- D. Environmental Improvement, Transportation, & Public Outreach Committee **Report**
- E. Forest Health and Wildfire Committee **Report**
- E. Regional Plan Implementation Committee **Report**
- G. Ad Hoc Executive Director Search Committee **Report**

XII. PUBLIC INTEREST COMMENTS

Any member of the public wishing to address the Governing Board on any item listed or not listed on the agenda including items on the Consent Calendar may do so at this time. TRPA encourages public comment on items on the agenda to be presented at the time those agenda items are heard. Individuals or groups commenting on items listed on the agenda will be permitted to comment either at this time or when the matter is heard, but not both. The Governing Board is prohibited by law from taking immediate action on or discussing issues raised by the public that are not listed on this agenda.

XIII. ADJOURNMENT

**TRPA CONSENT CALENDAR**

Item	Action Requested	
1. August Financials	<b>Approval</b>	<b><u>Page 97</u></b>
2. Release of City of South Lake Tahoe Water Quality Mitigation Funds (\$540,152.48), Air Quality Mitigation Funds (\$200,000.00), and Stream Environment Zone (SEZ) Mitigation Funds (\$87,395.97) towards the Tahoe Valley Stormwater and Greenbelt Improvement Project	<b>Approval</b>	<b><u>Page 119</u></b>
3. Release of El Dorado County Water Quality (WQ) Mitigation Funds (\$60,000.00), for the Oflyng Water Quality Project	<b>Approval</b>	<b><u>Page 125</u></b>
4. Kennelly Family Trust – Existing boat ramp to multiple parcel pier Conversion Washoe County APNs 122-181-26 & 122-181-27 865 & 869 Lakeshore Boulevard, Incline Village, Nevada TRPA File # ERSP2021-0055	<b>Approval</b>	<b><u>Page 131</u></b>
5. Nessebar Holdings II, LLC New Multiple-Parcel Pier, 4950 & 4960 North Lake Boulevard, Placer County, California, Assessor’s Parcel	<b>Approval</b>	<b><u>Page 183</u></b>

Numbers (APNs) 115-050-034 & 115-050-033, TRPA File Number ERSP2022-0001

6. APC Membership reappointment for the El Dorado County Lay Member, Jason Drew

**Approval**     **Page 233**

The consent calendar items are expected to be routine and non-controversial. They will be acted upon by the Board at one time without discussion. The special use determinations will be removed from the calendar at the request of any member of the public and taken up separately. If any Board member or noticed affected property owner requests that an item be removed from the calendar, it will be taken up separately in the appropriate agenda category. Four of the members of the governing body from each State constitute a quorum for the transaction of the business of the agency. The voting procedure shall be as follows: (1) For adopting, amending or repealing environmental threshold carrying capacities, the regional plan, and ordinances, rules and regulations, and for granting variances from the ordinances, rules and regulations, the vote of at least four of the members of each State agreeing with the vote of at least four members of the other State shall be required to take action. If there is no vote of at least four of the members from one State agreeing with the vote of at least four of the members of the other State on the actions specified in this paragraph, an action of rejection shall be deemed to have been taken. (2) For approving a project, the affirmative vote of at least five members from the State in which the project is located and the affirmative vote of at least nine members of the governing body are required. If at least five members of the governing body from the State in which the project is located and at least nine members of the entire governing body do not vote in favor of the project, upon a motion for approval, an action of rejection shall be deemed to have been taken. A decision by the agency to approve a project shall be supported by a statement of findings, adopted by the agency, which indicates that the project complies with the regional plan and with applicable ordinances, rules and regulations of the agency. (3) For routine business and for directing the agency's staff on litigation and enforcement actions, at least eight members of the governing body must agree to take action. If at least eight votes in favor of such action are not cast, an action of rejection shall be deemed to have been taken.

Article III (g) Public Law 96-551 Tahoe Regional Planning Agency Governing Board Members: Chair, Cindy Gustafson, Placer County Supervisor Representative; Vice Chair, Hayley Williamson, Nevada At-Large Member; Shelly Aldean, Carson City Supervisor Representative; Barbara Cegavske, Nevada Secretary of State; Belinda Faustinos, California Assembly Speaker's Appointee; John Friedrich, City of South Lake Tahoe Councilmember; A.J. Bud Hicks, Presidential Appointee; Alexis Hill, Washoe County Commissioner; James Lawrence, Nevada Dept. of Conservation & Natural Resources Representative; Sue Novasel, El Dorado County Supervisor; Wesley Rice, Douglas County Commissioner; William Yeates, California Senate Rules Committee Appointee; Ashley Conrad-Saydah, California Governor's Appointee; Vince Hoenigman, California Governor's Appointee; Jessica Diss, Nevada Governor's Appointee.

TAHOE REGIONAL PLANNING AGENCY  
LEGAL COMMITTEE

TRPA  
Zoom

August 24, 2022

**Meeting Minutes**

CALL TO ORDER AND DETERMINATION OF QUORUM

Vice Chair Ms. Novasel called the meeting to order at 8:34 a.m. on August 24, 2022.

Members present: Ms. Novasel, Mr. Rice, Ms. Williamson, and Mr. Yeates.

Members absent: None.

I. APPROVAL OF AGENDA

Mr. Marshall stated that there is no need for a closed session (Agenda Item No. 5) this month.

Ms. Novasel deemed the agenda approved as amended.

II. APPROVAL OF MINUTES

Ms. Novasel asks for approval of minutes from the July 27, 2022 Legal Committee meeting. Mr. Yeates makes the motion to approve the minutes with the corrections that he emailed to Ms. Huston.

**Motion carried** by unanimous voice vote.

III. ELECTION OF CHAIR

Mr. Yeates nominated Ms. Williamson to serve as chair of the Legal Committee. Ms. Williamson

**Motion carried** by unanimous voice vote.

IV. APPEAL OF DENIAL OF APPLICATION FOR EXISTING MOORING BUOY, 201 LAKEMILL RD., DOUGLAS COUNTY, NEVADA, ASSESSORS' PARCEL NUMBER (APN) 1418-10-710-005, TRPA FILE NO. BUOY2022-0273; APPEAL NO. ADMIN2022-0022

Mr. Marshall presents for TRPA staff. This an appeal of a denial by a buoy application by the Dobbins. The basis for their application is that they are littoral land owners so the question is whether or not TRPA staff was justified in rejecting the application finding the applicants [parcel] to be non-littoral.

[Slide 3] To orient the committee, the turquoise parcel on the slide is the Dobbins' parcel. Lot Z is described in red on this slide is the Glenbrook Homeowners' Association ("GHOA") parcel that lies between the Dobbins' parcel and the lake/lowwater. For TRPA's presentation, we will be

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focusing on the highwater mark which is lakeward of the Dobbins' parcel; close, but not abutting, which is what's required by the code.

[Slide 4] The record that the staff reviewed included the pictured 2009 Bathymetric survey that illustrates where the highwater line is in red and where the lakeward side of the Dobbins' parcel is in green. Since the green line does not abut the red line, TRPA staff found that the Dobbins parcel is non-littoral and not eligible for a buoy under their application. [Slide 5] This slide shows part of the Dobbins' argument of why they should be considered littoral. First, they argue that the GHOA Lot Z was not legally created and therefore the Dobbins parcel should extend to lowwater. TRPA's response to those very technical subdivision arguments is that TRPA approved a subdivision for this area in 1978 which has not been challenged and therefore is still valid and the lot recognized by TRPA in that subdivision has not been challenged in any proceeding. Therefore, it's valid.

The other argument that the appellants make is that sometime in the past the lot was littoral and, as a result of sand accretion, the highwater mark has marched lakeward. On this slide there is a dark blue line that nips the corner of the Dobbins parcel on the northwest corner. This is the line that the Dobbins' consultant prepared in their examinations and determined that perhaps in the 1980s the highwater abutted the Dobbins' parcel and therefore the parcel today should be considered littoral. TRPA staff examined this argument and determined that a) it was pretty speculative and b) in any event it did not meet the definition in TRPA code to be currently recognized as littoral.

Mary Marsh Linde presents for the appellants. Since 1988 when she was practicing with Larry Hoffman, author of *The Relatively Flat Lot*, she started focusing her practice on real estate. She's practiced 42 of her 47-year career in real estate law. This is a novel issue and one that the committee is not likely to be off the cuff familiar with so she's asking for the Legal committee's patience as she unpacks this issue. The underlying key issue is that at the time that Glenbrook Unit 2 was authorized by TRPA to be formed and the final subdivision map was recorded in May 1978, the state of Nevada owned to the highwater mark. It was not until July 1979 that the state relinquished the title down to the lowwater mark (6223'). At the time of the May 1978 recording this lot [Dobbins' lot] incorporates the highwater mark. The problem with that is that the state of Nevada owned the highwater mark at that time and the law is very clear; you cannot subdivide state land without consent of the state and you can't convey state land without first coming into title from the state. Title from the state never happened. In 1978, the developer purported to convey what is purported to be Lot Z to the homeowners association [GHOA]. This is the platform under which TRPA undertook to approve the GHOA buoy field.

This depiction of unit 2, importantly varies from the tentative map. No Lot Z was proposed in the tentative map. It was, by some chain of events that are not relevant here nor are they particularly well known, added to the final map. Nevada subdivision law says you can't put any lot into your final map that didn't have approval in the tentative map. It's interesting to note that in 1978, the developer, Glenbrook Properties, purported to sign off on the ownership certification for this map. It says, as every map of the time does, "We certify that we are the owners of all of the land included on this map." They couldn't truthfully certify that they owned Lot Z. When the certification was made by the developer as part of the mapping process that they owned that part of the lakeward portion of the land that was not in the tentative map, that was not accurate. It's interesting to note that at that very time, the gentleman with the developer who signed the certification was busy lobbying the State of Nevada to change the ownership of the to the lowwater mark. They knew what they were doing when they tried to do that but here's what they did. The map was amended September 8, 1978, so shortly after the

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recording of the original Platt, the amended Platt was certified and recorded probably without involving TRPA because it would not have been required. The effect of the amendment is to erase Lot Z. Lot Z by function of the Nevada Revised Statutes (“NRS”) 278.477, when you have an amended map that changes the boundary, that boundary is the new boundary and the old one ceases to exist.

Ms. Linde went to the recorders office and dug out the old maps to determine what happened to Lot Z? According to a surveyor she’s worked with in the past, once you move that boundary line, that boundary line is the final boundary line; it doesn’t magically reappear. So really, there’s no Lot Z for two reasons.

Mr. Yeates asked with the amendment if the highwater or the lowwater is the boundary line? Ms. Linde responded that they believe it’s highwater because it does not purport to go below this line [the lakeward terminus of the Dobbins parcel].

Mr. Yeates states that the argument is then that the point on the Dobbins parcel touches the highwater mark under the amended map so they have littoral rights. Ms. Linde agrees because Lot Z disappeared as a legal proposition.

Mr. Yeates clarifies that whatever TRPA did with Lot Z, it is irrelevant to Ms. Linde’s argument which is that the point of the Dobbins property is on the lake and therefore they’re littoral.

Ms. Linde continues that the conundrum arises for TRPA because they proceeded on the assumption that we attacked [the legality of Lot Z] in 2010 in the legal memorandum in support of the Buoy application made in 2009. It was void when it was formed so it couldn’t be the recipient of the reversion that happened when the state relinquished its title to 6223’. Ms. Linde has since discovered that the developer actually abandoned its attempt to have Lot Z recognized as a legal parcel because that’s the effect of that amendment. This issue was analyzed by a respected and senior law firm in San Francisco, which Ms. Linde will not name due to politically inappropriateness. They agreed with Ms. Linde’s analysis as to Mr. Dobbins’ lot. In the June 2010 memorandum, Ms. Linde was arguing the same consequence on behalf of three neighbors down on that road who has since opted not to press any arguments. Where they were not ready to agree was with an arguable remainder [of Lot Z] that was not within the highwater mark and therefore would have been conveyed validly [to GHOA]. As a remainder as the time of the relinquishment under the Nevada Supreme Court case of Nicholson v. Harvey would attach to the closest lakeward property line. That could be the foundation for the [GHOA] buoy field.

Mr. Yeates asked that if the argument Ms. Linde is making now was in the appeal nor was it made to State Lands when they disagreed with the argument that there’s no Lot Z, in Jim Lawrence’s 2009 letter. Mr. Yeates is trying to understand how novel the argument is regarding the amendment to the recorded Platt is. Ms. Linde replies that it’s the same issue of invalidity but on a second grounds. Mr. Yeates confirms he understands the invalidity but because, as TRPA staff has pointed out, TRPA has made decisions on that [GHOA] buoy field based on Lot Z.

Ms. Williamson states that she would like to hear Mr. Marshall’s rebuttal after Ms. Linde is finished her presentation.

Ms. Linde states that she only discovered this [the issue of the amended maps] point two nights ago which is why it’s only been raised now and they’re happy to have the committee take time to consider or have them come back as they [the committee] needs to do to achieve clarity on this because it is a question of Law. Ms. Linde comes to the same basic point, from her analysis,

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approval of the Dobbins' buoy application does not have to undo the GHOA buoy field approvals because of the reversion effect of the strip. The fact is that the other people along Lakemill do not touch the highwater mark. At the most, the exposure would be two lots having littoral rights under Ms. Linde's analysis.

Mr. Yeates clarifies that lots 17-19 [on the Glenbrook Unit No. 2-A map provided by Ms. Linde] do not have the projection down [to highwater] that Ms. Linde is arguing that Lot 16 [the Dobbins parcel] and Howard [Lot 15] must have. Ms. Linde confirms this is correct. Mr. Yeates states that there appears to be a vacant line which Ms. Linde is arguing that those landward properties would move towards the Lake if, in fact, this amendment took out Lot Z.

Ms. Linde states that she's not prepared to decide what happens to the other parcels, only to explain what happened to the Dobbins parcel, and to suggest that it would not be that tricky to create a correct parcel [Lot Z] that had the reversion. There is an arguable strip of land that is not displayed that would have occupied that portion that is above the highwater mark and to the other property lines of the other lots. That could be a big enough strip. Ms. Linde is not clear on how big the strip would need to be because there's no discussion about how immediate the relationship has to be between the highwater mark and littoral right. It [the Code] says "abut or adjoin" but in the Dobbins case they're [the highwater mark and the property line] "like kissing cousins" if not actually in the water. Ms. Linde states that she's not here to try to resolve definitely the effect of the earlier approvals of the Lot Z buoy fields and in no way are trying to disturb them to accommodate and acknowledge the correct analysis of Lot 16 [Dobbins lot] and its projection lines.

Mr. Marshall states that his is all fascinating and that this is essentially a question of quiet title. The question is really if this is the context in which to resolve that at a minimum creative argument. The question for Legal Committee, whether or not for TRPA's purposes was the decision made supported by the documents in the record. This is de novo review under TRPA Rules of Procedure but to be clear, should they determine to be littoral as a result of any quiet title action, that doesn't preclude the Dobbins from coming back and re-applying. The question before the Legal Committee is was it appropriate on this record to deny the buoy application because they couldn't establish that they were littoral.

Mr. Marshall makes the second point that the subdivision is a meets and bounds discussion. The lakeward projection of this parcel is not to the meander line or some indication that moves you down to highwater if, in fact, they're not at highwater. [Slide 5] This just establishes that the highwater mark is lakeward of the meets and bounds description of the Dobbins parcel and therefore was never littoral to TRPA perspective. Since it didn't make it to highwater it couldn't, by operation of Nevada law, extend to lowwater.

### Committee Comments & Questions

Ms. Novasel asks for a definition of meets and bounds. Mr. Marshall responds its how these parcels are actually described with the numbers on the map. It's not described as a parcel "lakeward to the meander line" for example which is how a lot of littoral parcels in older subdivisions are described. What a court would look at is where is the exact line on the subdivision map because this was a relatively recent subdivision by Tahoe standards.

Mr. Yeates asks if Lot Z were erased for the moment, if the point where this parcel ends, per meets and bounds, TRPA asserts that it never touched highwater. Mr. Marshall confirms this is

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correct. Mr. Yeates clarifies that the decision made to deny the Dobbins application is that they're not littoral [because their parcel does not touch the highwater mark].

Ms. Williamson asks how close the red and green lines are on Slide 5. Mr. Marshall states that he doesn't know the scale of this map but that it's very close. Ms. Linde adds that the tentative map shows that wave runup crosses the Dobbins parcel boundary line. Mr. Marshall states that wave runup is different than highwater and that TRPA would not accept that as establishing a littoral parcel. Mr. Marshall clarifies that "adjoining" means that the highwater line and the property line of the parcel touch or are the same line. The situation with the Dobbins parcel is not a new scenario and is fairly common around the lake where there are strip parcels between privately owned parcels and the lake. Often the subdivider will grant a strip parcel in front of the lake parcels for the benefit of everyone in the subdivision including back lot owners and lakefront owners.

Ms. Linde agrees but that what the Nevada Supreme Court found in *Nicholson v. Harvey* was that the meander line is not the proper line to consider, it is the actual water body i.e. where does the water actually go? Ms. Novasel has Ms. Linde clarify that that the Nevada Supreme Court meant the highwater mark and not the meander line. However, pinpointing the exact highwater mark is tricky and in this case there's no opportunity for anyone to occupy lakeward of the Dobbins parcel so as a practical matter it is the lakefront parcel. It is not defined in regulation or elsewhere how one abuts or one adjoins. In other words the Dobbins parcel is pretty abutting and TRPA was provided documentation that show the northern most point of the Dobbins parcel underwater. Ms. Linde states that it's somewhat academic if not entirely academic whether that [the distance between the boundary of the Dobbins parcel and the highwater mark] is a foot or six inches. It also changes with the accretion of sand. There are a number of questions to resolve and it's important to keep this in perspective. We're here talking about one buoy in a field that right now has 73 buoys which, under current regulations, could allow 278 buoys because the current regulations allow as many buoys as there are lots in the homeowners association. What we're talking about is the next step of having to litigate quiet title meanwhile getting an injunction against removal of the buoy which is supposed to come out in October enjoining that while they litigate and come to a final determination as to the quieting title. It seems to Ms. Linde that's that an awful lot of effort to go through for the sake of a few inches. Ms. Linde has never encountered a real estate question that involving going back to 1906 to figure out who had what and what went to the highwater shore, etc. and going through all of the assembly notes with regards to the reversion.

Ms. Williamson agrees that the history is fascinating and that there's one legal path where TRPA denies the appeal, the Dobbins brings an action to quiet title, file an injunction if they want to as these are all legal steps at their disposal. The question before the Legal Committee even with the de novo review is did the record below support the decision, absent these new facts, based on the maps in the record. Ms. Linde clarifies that it's also under the assumption that Lot Z is correct which they've argued from 2010 that it is not.

Mr. Marshall states that TRPA also follows state of Nevada's determination that Lot Z exists and that the Dobbins parcel is therefore non-littoral which determination was made in 2009. To that extent these arguments [about the validity of Lot Z] have been rejected. Whether there are nuanced arguments about Lot Z, from TRPA's perspective 1) TRPA recognizes Lot Z and from there uses it to regulate the GHOA buoy field and 2) the state of Nevada recognizes Lot Z and does not recognize the Dobbins parcel as being littoral. Mr. Marshall states these are grounds on which staff determined the Dobbins parcel is not littoral and that this is an appeal of a denial. As a result, of that the Legal Committee's review is de novo and so the question to be answered

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is whether this lot is littoral which can be bolstered by the presence of Lot Z or, even without Lot Z, staff's perspective is that the surveys and maps reviewed demonstrate that the Dobbins parcel is not littoral. Whether or not Lot Z exists or who owns that lot is not controlling because the determination of littoral status comes down to whether or not the parcel in question abuts or adjoins the highwater mark.

Ms. Williamson asks, since abut and adjoin seemed to be used interchangeably, if Mr. Marshall can give an example of how they differ. Mr. Marshall responds that there are lots where the highwater nips just part of the parcel which would be abutting highwater in part differentiated from full adjoining where the entire parcel side touches highwater. Regardless of how those words are interpreted, they both mean there has to be no daylight between the two lines at some point on the parcel.

Ms. Novasel notes that part of the definition requires a littoral parcel to abut or adjoin highwater at time of the application which would make the argument of shifting sands irrelevant. Mr. Marshall agrees that if we're reopening littoral status based on historic littoral drift or other things in the past, that would open a can of worms in terms of a lot of lakefront lots.

Mr. Yeates asks that if TRPA were to determine that this lot is littoral if that would do anything to Nevada's decision. In Nevada Division of State Lands ("NDSL") letter their definition of littoral is a parcel line down to 6223' which is the lowwater line. Then they acknowledge Lot Z as an interceding parcel that prevents the Dobbins parcel from being littoral which is not the argument presented to the Legal committee right now. Whether or not Z exists, TRPA is looking at littoral status as a parcel boundary line at 6229.1' which wouldn't be disagreeing with NDSL's determination because theirs is based on 6223'. Mr. Marshall states that there are two things to take from the NDSL letter 1) their position on Lot Z and 2) if it runs to 6223' then it wouldn't be dispositive or contrary to them if we're using 6229'. Now NDSL looks at running to highwater as opposed to lowwater.

Mr. Williamson asks whether this is truly so novel as Ms. Linde described or, if the appeal were to be granted, would it open up a lot of other issues. Mr. Marshall states that it would because the situation of a parcel being very close to highwater but not abutting or adjoining is not new. Lakefront parcels that have a strip in front of them is not unique or that are only deeded down to meets and bounds. TRPA Staff Matt Miller agrees that this is not unique as described by Mr. Marshall. Mr. Marshall states that TRPA has consistently denied buoys applying under littoral status where the highwater lines and parcel boundary lines are not directly adjoining or abutting.

Ms. Linde comments that there were four different surveys of this parcel and they do not all concur by a span of a foot or two based on the different surveys of Lake Tahoe. Even by the efforts of one of the best surveyors at Lake Tahoe, Resource Concepts, there was not a difference in the highwater and property boundary lines. Removing Lot Z as an impediment to a littoral parcel plus or minus a foot or a few inches. It's inconsistent to the nature of a shoreline to determine a lakefront parcel to be a few inches off and therefore not be littoral. Ms. Linde states there are other ways of resolving this that doesn't open "pandoras box" through a settlement agreement or having the decision apply only to this case which would narrow the effect from the decision.

Mr. Rice states that in his opinion this will make a very interesting court case.

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Public Comment

No public comment.

Final Committee Comments

Mr. Yeates made a motion to deny the appeal.

Ayes: Ms. Novasel, Mr. Rice, Ms. Williamson, and Mr. Yeates.

**Motion carried.**

Presentation can be found at <https://www.trpa.gov/wp-content/uploads/Agenda-Item-No.-VIII.-A.-Appeal-No.-ADMIN-2022-0022.pdf>.

Amended Map of Glenbrook Unit 2: <https://www.trpa.gov/wp-content/uploads/Legal-Comm-Item-4 -Agenda-Item-VIII.A-AmendedGlenbrookMap.pdf>

NRS Ch. 278, section 278.477: [https://www.trpa.gov/wp-content/uploads/Legal-Comm-Item-4 -Agenda-Item-VIII.A-NRS\\_278\\_278.477-AmendmentofRecordedSubdivisionMap.pdf](https://www.trpa.gov/wp-content/uploads/Legal-Comm-Item-4 -Agenda-Item-VIII.A-NRS_278_278.477-AmendmentofRecordedSubdivisionMap.pdf)

V. CLOSED SESSION WITH COUNSEL TO DISCUSS EXISTING AND POTENTIAL LITIGATION

No closed session.

VI. POTENTIAL DIRECTION REGARDING AGENDA ITEM NO. 5

No direction.

VII. COMMITTEE MEMBER COMMENTS

None.

VIII. PUBLIC INTEREST COMMENTS

None.

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VII. ADJOURNMENT

Mr. Yeates moved to adjourn.

Meeting adjourned at 9:28 a.m.

Respectfully Submitted,

A handwritten signature in black ink that reads "K. Huston". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

Katherine Huston  
Paralegal

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TAHOE REGIONAL PLANNING AGENCY  
OPERATIONS AND GOVERNANCE COMMITTEE

TRPA/Zoom Webinar

August 24, 2022

**Meeting Minutes**

I. CALL TO ORDER AND DETERMINATION OF QUORUM

Chair Ms. Aldean called the meeting to order at 8:32 a.m.

Members present: Ms. Aldean, Mrs. Cegavske, Ms. Gustafson, Mr. Hicks, Ms. Hill

Members absent: Mr. Hoenigman

II. APPROVAL OF AGENDA & MINUTES

Ms. Gustafson made a motion to recommend approval.

Ayes: Ms. Aldean, Ms. Gustafson, Ms. Hill

Abstain: Mrs. Cegavske

Absent: Mr. Hoenigman

**Minutes approved.**

III. Recommend Approval of July Financials

Mr. Chris Keillor, TRPA Finance Director, provided the presentation. He brought up a chart and explained that it shows that TRPA's fees are strong. The Current Planning division's high level of activity is similar to the last two years. Shoreline and AIS fees are on target. The state revenues have been billed. Nevada's payment was received last week, and the California payment will probably arrive in September. Grants are negative because we bill in arrears. For expenses, compensation is at 6% year-to-date. The agency has two vacancies as well as other new positions opening up. Contracts are showing a lag, which is normal.

Mr. Keillor then moved on to a chart showing revenues and expenses. For revenues, the state funds have been billed, as discussed in the previous chart. Grants lag because we bill in arrears, but fees are strong. For expenses, labor is on track. Most contract payments in July went to fiscal year 2022. Pay ranges have not been updated in the last 12 months. We will do that next year.

Mr. Keillor then brought up a chart showing the monthly/cumulative cash flow. The only revenue received in July was the fee revenue. The state revenues will start coming in, so we will see a big jump in August.

Next, Mr. Keillor discussed recent grant awards. We have multi-year funding coming in, for example from the LTRA funds. Most of this goes to AIS work. The Tahoe Keys project was a big consumer of that money. We also had a grant for monitoring algae in the lake. We got some money from Nevada for the scanning and digitizing of our records, and we're still waiting on a California grant for that—our Digital Initiative grant.

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TSAC continues to be supported well. In Transportation, we have the OWP bringing in grant money as well. Julie Regan is also doing a lot of work around LTRA and re-upping that. This is all good news here.

Next, Mr. Keillor discussed upcoming state budget requests. The first three on the list all have good support: staff salary adjustments; the Digital Transformation (scanning project); and the Bi-State Transportation Plan. The next three were not supported: the inflation adjustment; the climate adaptation monitoring; and the aquatic biodiversity project (Meyers AIS). The California General Fund expects to be having financial difficulties in the next year or two, so they are not approving any additional requests. Most of our money comes from the environmental license plate fund, which is healthy, but not enough to cover these other items. They shot down the inflation adjustment just because it's their policy in the Department of Finance that they don't fund inflation increases.

Nick Haven, TRPA Long Range and Transportation Division Manager, jumped in to clarify that for the Bi-State Transportation Plan, the \$5 million dollar request is for the Emerald Bay Corridor Plan. Mr. Haven pointed out that in Nevada, we're working with DCNR on EIP bonds, but it doesn't show up here in budget requests because it's going through the bond program through DCNR. It's about \$2.5 million dollars. We're dubbing it the "7-7-7" strategy: \$7 million federal, \$7 million state, and \$7 million local-private. So if you add the \$5 million you see here in this chart with the roughly \$2 million for the EIP bonds, you get the state \$7 million listed on the chart in front of you.

Mr. Keillor then clarified the Aquatic Biodiversity (Meyers AIS) line item, saying that this particular line item is to build a permanent AIS inspection station in Meyers. We weren't going to ask Nevada to pay for that since it's in California, so that's why it shows "N/A" in the Nevada column on this chart before you now. Next year we will be asking Nevada to fund a Spooner Summit station. The parking lot location will be directly across from the Spooner Lake entrance. For the Meyers location, we're already in alignment with CTC. It will be on CTC land.

Mr. Keillor then explained that the Nevada contribution is still \$366,000 per year short of the 2/3 to 1/3 ratio, so we'll be making some requests to shorten that gap.

Finally, Mr. Keillor brought up some photos showing where the TRPA building is at with roof work. We're almost done with this project. Most sections are completed. We have solar panels that were re-installed. We're also working on final contracting issues with the retaining wall and hoping to get that done before grading season. We've also made good progress on our front lobby area. We're getting ready to open our front doors with a receptionist in the front lobby.

Mr. Keillor concluded his presentation and asked for questions.

#### Committee Comments & Questions

Ms. Hill said she appreciates that TRPA is continuing to help with the operations support of TTD and is excited about where we're going with the grants for the state of Nevada.

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Public Comments & Questions

None.

Ms. Gustafson made a motion to recommend approval.

Ayes: Mrs. Cegavske, Ms. Gustafson, Ms. Hill, Ms. Aldean

Absent: Mr. Hoenigman

**Motion carried.**

- IV. Recommend Approval for Authorization of request for advance allocation of Regional Early Action Planning 2.0 funds as required by the California Department of Housing and Community Development for receipt of funds to accelerate progress towards state housing goals and climate commitments through regional actions (action)

Karen Fink of the TRPA Housing Program began the presentation by saying that the state of California has funded a new grant for Metropolitan Planning Organizations intended to help regions meet housing needs and reach climate goals. It's called the Regional Early Action Planning (REAP) 2.0 grant. This grant helps regions meet their Sustainable Communities Strategy (SCS) and helps local jurisdictions meet their regional housing needs assessment requirements. In the Tahoe region, we're approaching implementing both of these through the Tahoe Living Strategic Initiative. For this grant, MPOs will administer the funds, so they need to create a robust public outreach process to determine the best use of the funds for the region. TRPA is eligible for \$604,000, and we're also able to apply for up to ten percent of that as a cash advance towards outreach activities and program development. Today we're asking for your authorization for the Executive Director to sign that advance allocation application. We'll be back before the end of the year with the full grant application.

Ms. Fink concluded her presentation and asked for questions.

Committee Comments & Questions

Ms. Gustafson asked whether the remaining funds would be for planning purposes or for actually implementing the projects and programs.

Ms. Fink answered that HCD has allocated that the funds be used for either planning or implementation, so part of what we're doing with our outreach process is determining what is the best mix of that for our region.

Ms. Gustafson and Ms. Hill both commented that they would like to see the funds used for implementation, but understand that planning is important, too.

Public Comments & Questions

None.

Ms. Gustafson made a motion to recommend approval.

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Ayes: Ms. Gustafson, Mrs. Cegavske, Ms. Hill, Ms. Aldean

Absent: Mr. Hoenigman

**Motion carried.**

V. Quarterly Treasurer's Report (Informational Only)

Mr. Chris Keillor, TRPA Finance Director, gave the presentation. He showed a chart illustrating security, yields/return, and basis, explaining these are all in flux and going up due to inflation. The yield curve is flat. We are strategically staying short-term and low-risk on investments until rates stabilize. The principle pool will be competitive at maturity. Eighty percent of investments are held for others (mitigation funds and securities). We have a huge amount of funding held by the local government funds in state investment pools for the two states. We always use those as working capital accounts, putting that money there and then spending it down over the course of the year to cover expenses. The rest of the world is in a tough spot. Europe is in a recession and China is way down from where they used to be.

Mr. Keillor concluded his presentation and asked for questions.

Committee Comments & Questions

None.

Public Comments & Questions

None.

VI. Upcoming Topics (Informational Only)

Mr. Chris Keillor, TRPA Finance Director, provided the upcoming topics presentation. For future Operations and Governance Committee meetings, on the agenda for September are several transportation items (for FTIP and TDA), as well as the City of South Lake Tahoe mitigation fund release. After that, upcoming agendas will include: CTC acquisition using Excess Coverage mitigation fees (in October); the planning fee inflation adjustment (in November); mitigation fee adjustments and inflation (TBD); and the TRPA fiscal year 2022 audit (in December).

Committee Comments & Questions

None.

Public Comments & Questions

None.

VII. Committee Member Comments

None.

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VIII. Public Interest Comments

None.

IX. ADJOURNMENT

Ms. Gustafson made a motion to adjourn.

Ayes: [All]

Chair Ms. Aldean adjourned the meeting at 9:08 a.m.

Respectfully Submitted,

Georgina Balkwell  
Senior Management Assistant  
Current Planning Division

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TAHOE REGIONAL PLANNING AGENCY  
GOVERNING BOARD

Zoom/TRPA

August 24, 2022

**Meeting Minutes**

I. CALL TO ORDER AND DETERMINATION OF QUORUM

Chair Ms. Gustafson called the meeting to order at 9:30 a.m.

Members present: Ms. Aldean, Mrs. Cegavske, Ms. Diss, Ms. Faustinos, Mr. Friedrich, Ms. Gustafson, Mr. Hicks, Ms. Hill, Mr. Lawrence, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

Members absent: Ms. Conrad-Saydah, Mr. Hoenigman

II. PLEDGE OF ALLEGIANCE

Mr. Yeates led the pledge.

III. APPROVAL OF AGENDA

Mr. Hester said Consent Calendar Item No. 2, Nessebar Multiple-Parcel Pier will be continued to the September 28, 2022, Governing Board Meeting.

Ms. Aldean made a motion to approve the agenda as amended.

Ayes: Ms. Aldean, Mrs. Cegavske, Ms. Faustinos, Ms. Gustafson, Ms. Hill, Mr. Lawrence, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

Absent: Ms. Conrad-Saydah, Ms. Diss, Mr. Friedrich, Mr. Hoenigman

**Motion carried.**

IV. APPROVAL OF MINUTES

- 1) June 22, 2022
- 2) July 27, 2022

Ms. Aldean and Mrs. Cegavske submitted clerical changes to Ms. Ambler.

Mr. Lawrence moved approval of the June 22, 2022, and the July 27, 2022, minutes as amended.

Ayes: Ms. Aldean, Mrs. Cegavske, Ms. Diss, Ms. Faustinos, Ms. Gustafson, Ms. Hill, Mr. Lawrence, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

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Absent: Ms. Conrad-Saydah, Mr. Friedrich, Mr. Hoenigman

**Motion carried.**

V. TRPA CONSENT CALENDAR

1. July Financials
2. Nessebar Holdings II, LLC New Multiple-Parcel Pier, 4950 & 4960 North Lake Boulevard, Placer County, California, Assessor's Parcel Numbers (APNs) 115-050-034 & 115-050-033, TRPA File Number ERSP2022-0001 **(continued)**
3. Deep Blue Water, LLC New Multiple-Parcel Pier, 26, 28, and 30 Calaneva Drive, Washoe County, Nevada, Assessor's Parcel Numbers (APNs) 123-041-24 (previously 123-041-13), 123-041-25 (previously 123-041-18), and 123-041-26 (previously 123-041-19), TRPA File Number ERSP2020-0123
4. Governing Board Committee Membership Appointments
5. Appointment of a TRPA Governing Board Delegate and Alternate to the Tahoe Transportation District Board of Directors

Ms. Aldean said the Operations and Governance Committee recommended approval of item number one. Revenues are at about 37 percent of budget due to the contributions by the states which are recognized upon billing as opposed to when they're received. Expenditures are approximately three percent which is well within the budget expectations.

Ms. Gustafson said item two was continued and three, four, and five were not heard by any committee.

Board Comments & Questions

Ms. Aldean asked when the new committee appointments go into effect.

Mr. Marshall said it's generally the next meeting, but the action takes effect immediately. If there's a subsequent meeting today, those would be effective immediately.

Public Comments & Questions

None.

Ms. Aldean moved approval of the consent calendar as amended.

Ayes: Ms. Aldean, Mrs. Cegavske, Ms. Diss, Ms. Faustinos, Ms. Gustafson, Ms. Hill, Mr. Lawrence, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

Absent: Ms. Conrad-Saydah, Mr. Friedrich, Mr. Hoenigman

**Motion carried.**

Mr. Yeates moved to adjourn as the TRPA and convene as the TMPO.

**Motion carried.**

VI. TAHOE METROPOLITAN PLANNING ORGANIZATION CONSENT CALENDAR

1. Authorization of request for advance allocation of Regional Early Action Planning 2.0 funds as required by the California Department of Housing and Community Development for receipt of funds to accelerate progress towards state housing goals and climate commitments through regional action

Ms. Aldean said the Operations and Governance Committee recommended approval of item number one.

Board Comments & Questions

None.

Public Comments & Questions

None.

Mr. Lawrence moved approval of the consent calendar.

Ayes: Ms. Aldean, Mrs. Cegavske, Ms. Diss, Ms. Faustinos, Mr. Friedrich, Ms. Gustafson, Ms. Hill, Mr. Lawrence, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

Absent: Ms. Conrad-Saydah, Mr. Hoenigman

**Motion carried.**

Mr. Yeates moved to adjourn as the TMPO and reconvene as the TRPA.

**Motion carried.**

VII. ADMINISTRATIVE MATTERS

- A. Resolution recognizing former Governing Board member Mark Bruce, Nevada Governor Appointee

Ms. Gustafson read the Resolution into the record.

Mr. Bruce thanked staff and the Board for the kind heart felt words and the resolution. He's appreciative of the fact that everyone had so many thoughtful and kind things to say about him at his last meeting in June.

Public Comments & Questions

Darcie Collins, CEO, League to Save Lake Tahoe said she's worked with Mr. Bruce since he first came onto the TRPA Governing Board. She was so proud to have discussed many issues with him and feels like they made a lot of accomplishments. One of the most impressive items of progress was when they got to discuss the Event Center and the many conversations through the Bi-State Consultation efforts around transportation. It was fun to have the opportunity to be innovative, to utilize his contacts and just have the motivation that Mark brought, not just to those conversations, but everything he did during his time as a Board member.

Board Comments & Questions

Mrs. Cegavske thanked Mr. Bruce for his service on the Board and committees of TRPA and everything he's done for Lake Tahoe and the state of Nevada. He always accepted her phone calls and was very gracious. All the other things that he does are wonderful assets to what he does on a regular basis.

Ms. Diss thanked Mr. Bruce for his service, and his breadth of experience and dedication to both Lake Tahoe and the state of Nevada, she has big shoes to fill. He's built a wonderful path that she hopes to continue down and is grateful to him for that.

Mr. Yeates appreciated staff's emphasis on his calm demeanor because that wasn't necessarily his demeanor! He's grateful to him when he was his Vice Chair when Mr. Yeates was unable to chair during the Events Center. He always kept Mr. Yeates informed during that time and was very much appreciated.

Mr. Rice said since he came onto this Board, Mr. Bruce made him feel very comfortable. He was appreciative with the fact that he appreciated his stories. He appreciated Mr. Bruce's wisdom and calm demeanor.

Ms. Aldean made a motion to approve the Resolution as read into the record, honoring Mark Bruce as a former Nevada Governor Appointee to the TRPA Governing Board.

Ayes: Ms. Aldean, Mrs. Cegavske, Ms. Diss, Ms. Faustinos, Mr. Friedrich, Ms. Gustafson, Ms. Hill, Mr. Lawrence, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

Absent: Ms. Conrad-Saydah, Mr. Hoenigman

**Motion carried.**

B. Best In Basin Awards

TRPA staff Mr. Cowen presented the awards.

An elite group of projects were completed in 2020 and 2021 that are being recognized today as the Best in the Basin. These projects and actions each exhibit outstanding planning and execution and lead the way in environmental stewardship in the Lake Tahoe Region. This marks the 30<sup>th</sup> running of the Tahoe Regional Planning Agency Best in Basin awards and the ceremony always provides a moment to pause and appreciate the hard work, masterful planning, and the collaboration that goes into projects happening in the region year in and year out.

Today, they'll be recognizing seven projects and then wrap up with a glimpse back at the history of the Best in the Basin awards.

**Tahoe Pines Restoration and Public Access Improvement Project: Best Water Quality & Restoration Project**

Partners: California Tahoe Conservancy, California Natural Resources Agency, U.S. Bureau of Reclamation, the California Department of General Services, Burdick Excavation Company, Stantec Engineering, and the Washoe Tribe of Nevada and California.

Winning an award for water quality and restoration this year, the California Tahoe Conservancy were lead implementers on the Tahoe Pines Restoration and Public Access Improvement Project which acquired an old campground site on the Upper Truckee River at Highway 50 in Meyers. The project removed coverage and restored a section of Upper Truckee River and a critical floodplain where four creeks come together.

The project area, while once a private campground, is also in a prime location near the center of Meyers for community benefit, public access, and recreation. The Tahoe Pines project also provided a parking area with Best Management Practices for water quality, improved trails that provide full ADA access, and replaced a bridge over the river to make it a great place for residents and visitors to recreate and enjoy the river.

**Brautovich Park Stream Environment Zone Restoration and Park Rehabilitation Project: Best Water Quality & Restoration Project**

Partners: Douglas County, Nevada Tahoe Conservation District, Design Workshop, and IMPACT Construction.

The Brautovich Park Stream Environment Zone Restoration and Park Rehabilitation Project restored over a half-acre of Stream Environment Zone in the North Benjamin neighborhood of Upper Kingsbury Grade and revitalized a community park that was in need.

The Nevada Tahoe Resource Conservation District partnered with Douglas County on the project that removed 3,500 cubic yards of fill from a historic wetland, relocated recreation amenities out of a sensitive stream environment zone, added Water Quality Best Management Practices to the site, increased stormwater treatment for the North Benjamin neighborhood, and revitalized a unique community park. This is also an Environmental Improvement Program Project.

**Incline Village Golf Course Maintenance Drainage and Wash Pad Improvement Project: Best Water Quality Best Management Practices.**

Partners: Incline Village General Improvement District Public Works, PR Design and Engineering, Inc., and Cruz Construction Co.

Incline Village General Improvement District brought great sensitivity and environmental design to a project to create a wash pad for golf course maintenance vehicles that also tied in with BMPs on other parts of the golf course property.

The Golf Course Maintenance Drainage and Wash Pad Improvement Project installed exemplary BMPs that included a closed loop vehicle wash station that saves water and protects water quality.

**Dennis T. Machida Greenway Memorial Trail: Best Public & Environmental Improvement Program Project**

Partners: El Dorado County Department of Transportation, California Tahoe Conservancy, City of South Lake Tahoe, Lake Tahoe Community College, Tahoe Transportation District, and South Tahoe Public Utility District.

Winning an award for best Public Project and EIP Project, the Dennis T. Machida Greenway Memorial Trail is a new section of the South Tahoe Greenway that is an important active transportation project. The new trail has closed gaps in the shared use path network in the City of South Lake Tahoe, connected neighborhoods, educational institutions, and local recreation amenities, incorporated innovative and sustainable project features like an elevated boardwalk structure to minimize environmental impacts to sensitive areas. The one-mile trail between Glenwood Way and Sierra Boulevard, which crosses Al Tahoe Boulevard and Black Bart Avenue expands the bicycle network and provides connections with other projects in the South Shore, including the Sierra Boulevard Complete Streets Project for which the City of South Lake Tahoe received a Best in Basin award in 2019, and new buildings and programs at Lake Tahoe Community College, the Community Play Fields and Bijou Park, and the Al Tahoe bikeway, and South Tahoe Middle School with some of South Shore's more dense neighborhoods where workers, students, and families live. The trail has been dedicated to Dennis Machida, the late, past executive director of the California Tahoe Conservancy who was an ardent supporter of biking and walking trails and who left his mark on Lake Tahoe and many people in many ways.

The Conservancy led the project, design, planning, permitting, funding, and management and is the visionary organization behind the Greenway Trail. El Dorado County's experienced transportation department managed the construction and permit compliance, the City of South Lake Tahoe provided key planning and permitting support and services and is now the keeper and maintainer of the trail, and Lake Tahoe Community College was instrumental in the Trout Creek section of trail and the epic bike bridge by executing a crucial land swap with the Conservancy and contributing voter-approved bond funds for the bridge construction.

**NV Energy Resilient Corridor 4100 Project: Best Defensible space and Forest Health Project**

Partners: NV Energy, North Lake Tahoe Fire Protection District, Tahoe Douglas Fire Protection District, Nevada Division of Forestry, Lake Tahoe Nevada State Parks, and Nevada Division of State Lands.

NV Energy partnered with the North Lake Tahoe Fire Protection District and numerous fire protection and forest agencies to manage vegetation under the East Shore power line corridor called the 4100 line. The 4100 Line project removed and thinned brush and removed unhealthy, potentially hazardous trees under power lines and up to 200 feet on either side. The project improves safety and reliability of power infrastructure and also creates a fuel break or potential control line in the basin.

In that way, the project is supported by the Lake Tahoe Basin Multi-Jurisdictional Fuels Strategy. As an exemplary EIP project, the fuel break also connects to other treatments on US Forest Service and private land and Nevada Division of Forestry treatments in the area to provide a larger landscape fuel break. The 4100 line project has so far has treated nearly 40 acres of power line corridor in North Lake Tahoe and the East Shore. Complementary projects are also underway in other parts of the basin with Liberty Utilities and the 4100 project will tackle further segments literally down the line.

**Eyes on the Lake –Aquatic Invasive Species Early Detection: Best Environmental Improvement Program Project**

Partners: The League to Save Lake Tahoe, Tahoe Resource Conservation District, Marine Taxonomic Services, Inc.

Moving from the forest to the lake bottom now, winning an award for best EIP Project is the League to Save Lake Tahoe's Eyes on the Lake citizen science aquatic invasive species early detection program. The League to Save Lake Tahoe's citizen science program provides training to marinas and citizens in both California and Nevada to help identify and report sightings of aquatic invasive species, especially invasive weeds that are already in the lake, so new infestations within the watershed can be prevented -a process called Early Detection Rapid Response. The League, in concert with the Tahoe Resource Conservation District have been both financially and strategically instrumental in quickly dispatching SCUBA divers from Marine Taxonomic Services to aid in the early detection rapid response process.

In 2021, Homewood Marina spotted a possible invasive weed infestation and responded through Eyes on the Lake. The Tahoe Resource Conservation District called upon divers at Marine Taxonomic Services who surveyed, mapped, and removed the infestation within one month. Overall, 1,635 surveys have been completed through the program since 2013, with eight new infestations of invasive weeds outside of marinas reported by paddleboarders with smart phones. All of these have been treated, eradicated or are under current management and surveillance. Eyes on the Lake is also now one of the tools available on the Tahoe Citizen Science web app put together by UC Davis Tahoe Environmental Research Center, the League to Save Lake Tahoe and the Desert Research Institute. TRPA's Dennis Zabaglo and Emily Frey have also been instrumental in bringing partners together.

**Homewood Marina Electric Boat Charging: Best Sustainability Action**

Partners: JMA Ventures, LLC, Homewood High and Dry Marina, Nautique, Superior Boat Repairs & Service, Ingenuity Electric, and the Tahoe Fund.

Nominated for a Best in Basin Award in Sustainability, the Homewood High & Dry Marina electric boat charging station is receiving this award today for its innovation in clean boating and providing the first high-performance e-boat charging facility on the lake. Advancements in battery-powered vehicles has expanded into the marine industry and electric power boats are becoming more available. The marina installed the station in 2020 to charge the first zero-emissions electric water sports boat sold in North America, build by Nautique. The addition of a charging station at the marina is helping reduce reliance on fossil fuel, reduces harmful emissions and engine noise on the lake, and, similar to technology advancements that helped the marine boating industry move away from carbureted two-stroke engines, is making way for a new generation of clean boating practices.

Thanks to the charging station, Homewood marina is now home to four high-performance electric boats, including state-of-the-art wakeboard and surf boats, with room for more. The station has so far charged up 4,550 kilowatt hours and saved 450 gallons of fuel and more than two tons of CO2 emissions.

**Country Club Heights -Phase 3 Erosion Control Project: Honorable Mention –Best Water Quality & Erosion Control Project**

Partners: El Dorado County Department of Transportation, California Tahoe Conservancy, USDA Forest Service, California Conservation Corps, and RAPID Construction Inc.

Achieving Honorable Mention in the awards program this year, El Dorado County and the California Tahoe Conservancy recently completed the Country Club Heights -Phase 3 Erosion Control Project.

This is the property where the old Elks Lodge used to exist and there were a lot of flooding and stormwater problems. The project improved water quality of stormwater runoff, soil conservation, and enhanced recreation in this popular area with a permeable shared used path for easier access to the Upper Truckee River.

Thank you to our judges: Kat McIntyre, TRPA; Shannon Friedman, TRPA; Beth Vollmer, TRPA; Wyatt Ogilvy, Ogilvy Consulting.

### **30 Years of Best in Basin Projects:**

One of the reasons TRPA established this award program was because of how different Lake Tahoe is and how innovative people and partner agencies had to be in the early years of the Regional Plan. What was innovation back then is a pretty common place today, but that's the point. They are seeing few BMP retrofits be nominated in the program, partly because the knowledge in the basin is so much more widespread, but also because most of the retrofits are done. Fewer single family home projects are being nominated in the program, also because knowledge of how to work sensitively is more widespread, but also because there are local area plans and streamlined permitting so, Regional Plan compliance is seamless. These aspects of the Best in the Basin Awards are only further evidence that the Regional Plan is working. And the environmental benefits of these past award winners are continuing and compounding as well. More than 750 EIP projects are finished, but priorities are changing with the changing climate, so there may be more need for innovation.

### **2010 Best Restoration Project: Homewood Mountain Resort Road Restoration**

Mr. Cowen took a tour of some past projects recently to see how they were doing. It was eye opening, and hope to revisit more of these with in subsequent years. Projects like this road restoration project at Homewood Mountain Resort in 2010 blew the judges away in how out-of-the-box it was with soil science. Today the area is not only healthier, it's practically unblemished.

### **2016 Best Defensible Space Project: Lake Valley Fire Hazardous Wood Roof Replacement Program**

Lake Valley Fire Protection District was recognized in 2016 for helping 343 homeowners from Meeks Bay to the City of South Lake Tahoe and Christmas Valley replace combustible wood shake roofs with non-combustible roofing materials. In order to be eligible for a \$7,500 grant, homeowners were required to complete their defensible space.

### **2022 Caldor Fire Christmas Valley Homes: Best Defensible Space Project**

Captain Martin Goldberg with Lake Valley Fire helped implement that grant program and nearly one year ago fought the Caldor Fire around these homes. Captain Goldberg told him on the night of the main attack, he was putting out spot fires next to some of the homes he helped with the program. That early, innovative work to reduce the threat of catastrophic wildfire gave him and others safer places from which to fight the fire and reduce the threat to the rest of the basin.

Certainly, there is much to appreciate with these award winners this year and every year. Going forward, they are shifting the Best in Basin nomination period to continue on a two-year cycle and will now also alternate with the Lake Spirit Awards to run every other year as well.

Presentation can be found at:

[Agenda-Item-No.-VII.B.-Best-In-Basin-Awards.pdf \(trpa.gov\)](#)

#### Governing Board Comments & Questions

Ms. Novasel is proud of all the winners and is especially impressed with the electric boats and would like to see the Lake go all electric one day.

Ms. Aldean said from a BMP standpoint, their biggest challenge is long term maintenance. It might not be a bad idea when they revisit these projects if they've been well maintained for an extended period of time, recognizing those people as well to ensure that they're still functional and doing what they're expected to do.

Mr. Cowen said truly innovation is not done. They're facing climate change impacts, and the Best in the Basin awards are going to continue to recognize outstanding planning and design to protect Lake Tahoe.

Mr. Friedrich congratulated all the award winners and agreed with Ms. Novasel with the future of electric and the electric boat project. He was kicking that around when he was with Liberty Utilities a year before the project went in. He looks forward to their expansion plans and he too would love to see all the boats electric on the Lake. Then on the Dennis Machida Bike Trail, many of them remembered how hard Dennis Machida worked day in a day out. It was great collaboration and encouraged all his fellow board members to take a ride on that and help Mr. Middlebrook's vision to connect it from Van Sickle to Meyers. There's no reason it couldn't be done with the right will and funding. Extra kudos to Donaldo Palaroan with all the challenges they had during Covid and the supply chain issues.

Mr. Lawrence thanked all the award winners for their innovation and projects. It's nice to see such innovative thinking and everything they're doing for the basin. He also thanked Mr. Cowen and the team for doing this Best in the Basin award. As a board member they spend most of their day struggling over policy issues and hand wringing over some real complicated stuff. This is a good reminder that regardless of what they do here in the decisions they have to make that there are good people in the community that are doing good things for Lake Tahoe. It's reinvigorating every time they do this.

Ms. Gustafson echoed what the other Board members have said. She thanked everyone for being such a demonstration of collaboration. The only way they save this Lake and protect it is because they all come together and put aside their differences and come up with new solutions and ideas and think out of the box. It's a remarkable place to be and place in time, and if not now, when.

#### Public Comments & Questions

None.

VIII. APPEAL

- A. Appeal of Denial of Application for Existing Mooring Buoy, 201 Lakemill Rd., Douglas County, Nevada, Assessors' Parcel Number (APN) 1418-10-710-005, TRPA File Number BUOY2022-0273; Appeal No. ADMIN2022-0022

Mr. Hicks said he has a home in the Glenbrook subdivision and consequently has an interest in this particular matter. Although, he is a nonvoting member, he will not be participating in this matter today.

Ms. Aldean said due to the fact that her family was involved with the development of the Glenbrook subdivision and the preparation and recording of the Unit Two Subdivision Maps, she'll be recusing herself from this matter today on the advice of legal counsel.

Mr. Marshall said Mr. Lawrence is also recusing himself.

Mr. Lawrence said he'll be recusing himself because of his prior involvement as the State Lands Registrar, and a previous letter he wrote regarding the status of the pier through the eyes of the Nevada Division of State Lands about ten years ago.

Ms. Williamson provided a report from the Legal Committee.

Ms. Williamson said Legal Committee wrestled with this one and are looking forward to the Board's discussion. Ultimately, they did deny the appeal and found the parcel non-littoral. She passed it over to Mr. Marshall to discuss some of the nuanced issues in this Appeal.

(Slide 3) Mr. Marshall said the Dobbins parcel is located in Glenbrook Bay highlighted in turquoise. The Dobbins applied for a buoy permit from TRPA under the 2018 Shoreline Plan. They have had a buoy in the Glenbrook Homeowner's Association (GHOA) and they have not received a permit to date from the Nevada Division State Lands or TRPA for that buoy. They applied to TRPA to get a permit for that buoy and staff reviewed the matter, and as indicated at page 249 of the packet, rejected the application on a number of grounds. The principal reason that is being discussed today is the littoral status of the parcel. In order to qualify for a buoy, except under certain circumstances when you are non-littoral, you need to be a littoral landowner in order to qualify for a buoy. TRPA defines a littoral status as abutting or joining the high-water line of Lake Tahoe. If you do not need meet that criterion, then you cannot apply as littoral parcel owner. As indicated in the staff report, it determined that they were not the littoral based on this.

(Slide 4) The red line is the high-water line, and the green line is the lakeward or western side of the Dobbins parcel. Because the Dobbins parcels lakeward extent does not reach to the high-water line, it's close but doesn't abut or adjoin, therefore, the parcel itself is non-littoral. There is another kind of issue that is floating around here, which is the presence of another parcel that is in between the Dobbins parcel and low water. (Slide 3) Shows Lot Z which TRPA recognizes in the 1978 subdivision, and which gives GHOA the littoral strip that allows them to have a littoral buoy field, and that's how they recognize and regulate the buoy field offshore of all these Lake front parcels that are to the left of the slide with the dots and boats, etc.

TRPA approved that subdivision and location of that Lot Z, therefore, that is the littoral parcel in

TRPA's regulatory eyes, not the Dobbins parcel, because the Dobbins parcel doesn't extend to low water. The Legal Committee heard extensive back and forth regarding the status of Lot Z and whether or not the lot itself is littoral.

(Slide 5) This is a 2010 Bathymetric survey that TRPA relied upon for staff's conclusion to reject the application. This is before the Board today for an appeal of a denial. Staff denied the application, the applicant then filed an appeal of that decision to bring the matter before the Board. The Board reviews denials on a de novo basis. It's before the Board to determine whether or not this Code criteria are met in order to determine whether or not they're eligible for a buoy as a littoral lot. That's the grounds upon which they filed their appeal.

They'll soon see why they spent a significant amount of time hashing over details. Then Mr. Marshall will discuss the relevance of whether or not there is actually a Lot Z.

Ms. Linde, Attorney on behalf of Mr. Dobbins said she started practicing TRPA related law in 1980. Mr. Marshall will confirm that this is one of the more complex issues that she's ever been called upon to noodle through.

(Slide 5) The top blue line is what the surveyor determined comes right to the westerly point of the Dobbins parcel. It is their position that the Dobbins parcel is littoral. One of the reasons that it was denied littoral status was the presumptive existence of Lot Z. Referring to the exhibit, there's thin parcel at the water's edge, which is called Lot Z on the original subdivision map of May 1978. At the time that subdivision map was drawn, and TRPA had every reason to assume it was correct, but it wasn't because that parcel Lot Z would be within the ownership of the state of Nevada, which owned to the high watermark until July of 1979. It wasn't validly created; therefore, it wasn't validly conveyed to the Homeowners Association. Shortly after this May 1978 version of the Unit Two map was recorded, an amended map was recorded, which is shown on Exhibit 2. It goes away with all of Lot Z. Under the Nevada Law NRS 278.477 an amended map that moves a boundary is the effective new boundaries. So, the old boundary ceases to exist, and the new boundary is the binding boundary.

To deny this parcel littoral status because of the intercession of Lot Z, is not correct, because Lot Z does not legally exist. She understands that a lot of decisions by this Board have been pinned to the presumptive validity of Lot Z. They discussed that briefly and had some ideas about how the Homeowner's Association buoy field could still be pinned to a validly existing ownership claim in the Homeowner's Association because there's a strip of land in front. The Dobbins parcel comes down to a point, but the other parcels are further back. That gap there is to what she refers to in terms of what could sustain the buoy field in the absence of Lot Z.

The other point is that as it was seen on their survey that high watermark touches the point in that map which was surveyed by a very well-respected surveyor who practiced in the basin for many decades who determined that the point does touch the high-water mark. The question then becomes rather arcane, it is to what extent is 6,221, some magic touch point because they're dealing with a body of water. They're dealing with moving sand, high and low waters, and so it becomes rather arbitrary that what they saw was a small gap between the red and the green on the Bathymetric map could account for a few inches, and that would disqualify it under the staff's interpretation from the littoral status. That seems that seems inconsistent with the reality of how surveys are done. Because yes, the best Bathymetric says there was a gap between the property line and the high-water mark. Whereas, Resource Concepts map suggests, not.

They're talking about a rather vague and in all events insubstantial distance between one survey and the other. It's not as if there was enough space for an actual lot to exist to intervene between the surveyed high watermark, the point of this property and any other interest. They are here today to suggest that this property should be deemed littoral. It is a Homeowners Association buoy field and does not have an interest in upsetting that situation and there are a lot of buoys out there. An important fact is that under TRPA current regulations the ability to have one buoy per homeowner lot in the buoy field. As it is now, they are 1 of 73, but they could be 1 of 278 under that regulation.

She was hoping that everyone would keep things in perspective and to understand the effect of illegality that was present in the map when it was recorded in May of 1978, is not correct and is still illegal. The consequence to everyone else of that situation might be one thing, but it's different for them because their lot abuts or adjoins whatever that vague term is, and it's not defined in TRPA's regulation. It abuts or adjoins the waters of Lake Tahoe and is frequently under the waters of Lake Tahoe on a high-water year. That point is underwater, and photos can be found in the record. They've filed a memorandum and exhibits in June of 2010 with pictures of the property being underwater.

Presentation can be found at: [Agenda Item No. VIII.A Dobbins Appeal](#)

#### Board Comments & Questions

Mr. Yeates agreed that the Legal Committee wrestled with this and wasn't really sure what the motion should be. He made the motion primarily to maintain the staff's decision going to the Board by denying that this was a littoral parcel. For him, he's accepting Mr. Dobbins attorneys' good point that there's a little bit of difference here between what they see or don't see. There's a part of him that thinks, boy, there are a lot of other big issues they're dealing with and could they come up with a good solution here. But there's a precedent here because this isn't the only kind of situation along Lake Tahoe which staff pointed out and that's for them to consider here. There's discussion in the packet here about well, this is kind of a shame to do this, and could end up going onto litigation. He's not inviting litigation, but at the same time, maybe this is more appropriate. Because a lot of this is a Quiet Title issue which is not before them. The issue is the littoral location of this parcel and what kind of precedent they want to establish here. It's a tough call, but it is the precedent that concerns him the most and would have him lean to support the staff's position simply because he doesn't know all that the staff knows about dealing with all these projects throughout the Lake.

Mr. Marshall referred to the 2010 Bathymetric survey that they're relying on for littoral status. The line that they're depending on is a darker blue line that just nips the corner of the Dobbins lot. Let's be clear about the representation of what that line is. That line is the representation by Resource Concepts of what the line would have been some number of years ago. It is not the current high-water line so staff could not make a finding that the parcel is littoral at this time, because that's not what that survey represents. You'll see where it references the old high watermark, not the actual present high watermark which is what this was in 2010 on slide 4 when the last surveys were done at high watermark.

From TRPA's staff's perspective, there is no evidence before them that shows a survey of work that the Dobbins parcel abuts or adjoins the high watermark. He echoed Mr. Yeates' point that this is fundamentally a question between GHOA and Dobbins as to who owns that parcel that goes from the lakeward side of the Dobbins parcel down to lower water which is a Quiet Title action. He's not trying to instigate litigation but if they truly believe that they're littoral then that needs to be satisfied in a

court of law with GHOA present. Then if they establish that's their ownership down to low water, then they can come back and reapply as a littoral lot.

From the information presented to staff, there was no survey that established a high-water line at any point that was littoral that their lakeward boundary abutted and adjoined the high-water line. The Legal Committee concluded that whether or not the Dobbins parcel abuts or adjoins the high watermark at this point to make them littoral and that's where the recommendation is based on to support staff's finding that it was non-littoral and therefore not eligible for a buoy.

Mr. Friedrich said it sounds like it's close but not quite there and presumably the precedent setting concern would be what else is considered close? Is this the level of close, then are they extending the rules to this distance, and someone else comes in that's not quite as close, do they also then potentially fit, would that be the precedent setting concern?

Mr. Marshall said correct and how do they distinguish between relative degrees of closeness, is what they're getting at. Quite honestly, they've seen closer, and they've seen just as close and not as close on the hundreds of permits that staff reviews implementing the Shoreline Plan.

Ms. Linde said the effect of the invalidity of Lot Z would be to have the property line of the Dobbins parcel extend to the low watermark at 6,223. At that point, when you establish and accept the irretrievable invalidity of Lot Z, she's sure that they could have a perfunctory Quiet Title action declaratory relief action. Because the first fact that Lot Z was not validly created but that's not the ultimate fact. The fact is that the amended map erased Lot Z, and it does not exist any longer, with the result that the property line of Dobbins now extends to 6,223.

Ms. Gustafson asked if the buoy field was granted based on Lot Z of existing.

Mr. Marshall said that's correct.

Ms. Gustafson said so, if they're talking about that not being valid, they have to rethink that entire area of buoys?

Mr. Marshall said if they base their decision that Lot Z is not in fact a valid lot. He would caution them on that conclusion because of the fact that they've already approved the subdivision that created it. But that question of whether or not there is some claim that the Dobbins can make vis-à-vis GHOA, is a question that they need to settle.

Ms. Gustafson said then it could be precedent setting for the entire Homeowner's Association, correct?

Mr. Marshall said that's correct.

Ms. Gustafson said that's a very dangerous precedent around the basin because there's many of these buoy fields for condominiums or HOA's that have been approved and provide access.

Mr. Marshall said but they are created under different circumstances. It's not necessarily that this Quiet Title action creates a precedent that will undermine other situations, because a lot of those subdivision maps are unique. They share a lot of commonality.

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Ms. Gustafson said but they grant a certain number of buoys based on the membership or on the land mass of those HOA common areas.

Mr. Marshall said the lesser of what buoy field could fit in front of the Lot Z or the number of residences served.

Ms. Gustafson said if there was a correction down the line if Lot Z went away, that would change.

Mr. Marshall said that's kind of requiring some speculation, because they don't know exactly what it is. Ms. Linde's point is that there could be another lot remaining in front of other parcels, just not the Dobbins parcel. They would have to wait and see what a court might say about that. It's clear that there's a good percentage of Lot Z that not only runs in front of these parcels, but also hooks around and there's some part of the parcel that is upland of Lake Tahoe.

#### Public Comments & Questions

Mr. Dobbins is a 42-year homeowner in Glenbrook. This is the first time he's been able to witness what goes on at these meetings, and it's been very revealing in that it seems that the Board looks for reasons not to approve this application. This has gone on over the years and is very discouraging. He believes they are in the right, but it appears that the Board does not agree. Having lived in Glenbrook for all of these years and seen many people get buoys permitted. For instance, there's five or six in one area and he's always asked, how does this happen? Sometimes you feel that decisions are made based on who you know. He's never understood why they moved the buoy field in front of his house in the first place, he didn't like it, but he took it because there's not much he can do about it. The buoy field was located to the north of him. Whether they have a proper case or not, they've tried over all these years to work through TRPA, and it seems when he gets the tax bill, it states that he's lakefront, but guesses that's irrelevant to the Board. He hopes there's some equity in the Board's decision.

#### Board Comments & Questions

Mr. Yeates made the motion to grant the Appeal.

Mr. Friedrich said he's reminded of the action that they took in May 2022 related to the approval of new mooring buoys for non-littoral HOA buoy fields and is there any relevance of that decision to today's deliberation?

Mr. Marshall said not directly. Indirectly, it might address whether GHOA might be eligible if for some reason Lot Z goes away, could they seek approval for a buoy field under the non-littoral status? Again, they would have to wait and see what happens in the future on that. But it doesn't directly affect the Dobbins application and the littoral status of their lot.

Nays: Mrs. Cegavske, Ms. Diss, Ms. Faustinos, Mr. Friedrich, Ms. Gustafson, Ms. Hill, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

Recused: Ms. Aldean, Mr. Lawrence

Absent: Ms. Conrad Saydah, Mr. Hoenigman

**Motion failed.**

IX. PLANNING MATTERS

A. Innovation Initiative Update

Mr. Hester provided an introduction.

Mr. Hester said this is the second of monthly reports looking into the initiatives in more detail. This month, it is the Digital First or Innovation Initiative. A lot of the information you'll get today are more about administrative decisions they make but they wanted to be sure they were transparent with the Board about what they are presenting and planning to do and get their input because it will result in the initiation of some Code Amendments.

Mr. Stockham, Stockham Consulting will provide a presentation on permit processing improvements that the Board will be asked to endorse and then Mr. Kasman will follow with some related information on the technology and data that the Research and Analysis Department is working on.

TRPA is constantly working at the synergy between these three functions: Research and Analysis taking the lead on data and technology, Long Range and Transportation Planning Department taking the lead on policies and regulations, and the Permitting and Compliance Department taking the lead on permit processing. All those things working together create accelerated threshold attainment which is one of their strategic objectives know as pillars. Today, they're focusing on the permit processing improvements and the data and technology.

Mr. Stockham previously worked at TRPA as the Planning Manager for the Regional Plan Update. Since leaving TRPA he has been the Community Development Director for the City of Reno, where he's processed huge numbers of applications, and he and his staff have worked on all kinds of process improvements that they think TRPA can learn from. He's also worked as a consultant for applicants with the number of firms, including his own. He's now under contract with TRPA to review cases and help implement process improvements. He has a lot of experience and knowledge and with multiple perspectives that have been included in this report.

Mr. Stockham said he's been working with staff and other stakeholders to try to implement some improvements. Today he'll provide an overview of an action plan for permitting improvements.

TRPA has complicated ordinances with important environmental protection goals. But it's a very time intensive, cumbersome process to get permitting done at Lake Tahoe and they're trying to work to improve that which in turn will better support environmental redevelopment and all the positives that come along with that. Concurrently, aligning process improvements with all the technology improvements that Mr. Kasman and his team have been working on is very important because when they set these technology systems in place it's much harder and more expensive to change after the fact. They want to look at some permitting improvements, not major regulatory changes, but focusing more on efficiencies and doing that together with the technology work.

They used a collaborative process to develop the Action Plan that's being presented today. It's been ongoing coordination with staff, especially Ms. Jepson and Ms. Good who have been incredibly helpful through this process. It became clear to him that the case load and the time required to handle the permit loads that are coming through is pretty intensive. He also very much appreciated the

stakeholders who contributed to this process such as project applicants, the League to Save Lake Tahoe who is going to assume bit of an oversight check and balance role in this process, and the other staff members and stakeholders who contributed. With that team they built this Action Plan step by step with initially discussing ideas, then getting more detailed, and ultimately, they are completing the Action Plan.

TRPA has an amazing planning and permit team. The sophistication is higher than you see in most places. The complexity of these ordinances is greater, but the system's been strained by concurrent factors such as Covid-19 which affected everything and remote work, and all those impacts has been disruptive. But at the same time, Tahoe saw an unprecedented real estate boom. Not just in numbers of applications but also in the complexity of those applications, and that's created strains. Then you layer on top of that all the pent-up demand from Shorezone ordinances finally being passed and being able to be processed. It's been a perfect storm of a whole bunch of additional work coming at a time when the typical administrative processes that have been used here weren't feasible with remote work, and Covid and everything else. Staff have experienced some permitting delays, overburdened and doing a lot of weekend work trying to keep up. They want to remedy that but understanding that there are budget limitations where they can't just hire 20 new people to take care of it.

They came up with six priority topics to focus on through the implementation program. The first one, efficiency, consistency, and predictability is an overarching goal, and then the others get to more specific issues.

One of the biggest things they heard is that the process can be inefficient and unpredictable. People don't know when they submit an application with great confidence that it's going to be approved or denied. There's a fair bit of subjectivity and they also don't know the timelines. An overarching goal is to try to be more predictable, consistent, and efficient. A lot of this is through the implementation of some of these best administrative practices that they see a lot in larger jurisdictions that handle billions of dollars a year of permitting. TRPA has traditionally been more of a small-town type of organization, with relatively small permitting loads. But implementing things like written procedure manuals, increased delegation, using templates, shared forms for permit documents as opposed to specifically prepared documents. Those will all help create efficiencies, and consistencies in review processes and outcomes.

The second topic involves minor things. A lot of stakeholders reported that small improvements, little permits things like that can take almost as long as a very big project. TRPA doesn't have a special minor permit category and are recommending that they create one. That would be the easier applications and review process. They have to be careful what the criteria are for those but essentially changes to allow easy things to happen more efficiently. Also looking at increasing opportunities to bundle and concurrently process different types of applications. A lot of times there are several applications you have to go through to finally being able to build house or something. Additionally, looking at Exempt and Qualified Exempt list and making some targeted expansions there. Also, they'll look at review processes, and likely recommend some additional delegation of approval authority to staff for more routine matters.

The third one involves the Code standards. This isn't about changing coverage regulations. But there are a lot of interpretations and kind of rules of thumb that have developed over the years that aren't written in Code. They are recommending some short-term Code Amendments to put in Code what those interpretations are so it's clearer what's allowed and not allowed. They're recommending near

term organizational changes so that every document that's referenced in the Code is conveniently accessible in one location, and then long term this effort would be supported if they continue to look at some of the major ordinances. That is not part of this project, but he sees opportunities for example, look at the coverage regulations and better protect water quality through alternative approaches. But again, that's not part of directly related to this effort but it would be complementary.

They have several recommendations focusing on public communication and customer service. There have been some strains with remote work which isn't unusual. There's a lot more detail in the Action Plan, but the presentation is being kept at a high pretty high level.

Similarly expanding tools for staff development and training. There are opportunities to have lower-level staff members do certain functions and reviews that are currently handled by senior principal planner level staff. Through implementation of a written procedure manual that the newer staff could follow and increase delegation and training.

Everyone says you should start with a biggie and end with a biggie, and funding is a biggie. From what he's seeing in the budget information and fees, etc., the application fees do not fully fund the cost of review, so that can be a fair policy decision to make, but in an era of greatly increasing development, the overall general fund hasn't increased at the same rate as development has. The busier things get, if you don't have full cost recovery, the greater the strains become and is what the Permitting and Compliance Team has been working through in recent years. He recommended that TRPA transition to a system of full cost recovery so, the application fees cover the cost of review. Initially, there's probably no getting around continuing to add staff and doing that. But a real focus here is to make efficiency improvements in order to not dramatically increase fees in order to achieve cost recovery. Essentially, focusing on the cost of review and trying to reduce the time expense needed to review each type of application.

Longer term, another kind of supportive action that's not directly related here is doing a more independent type fund for permitting and separating that out from the general fund to a greater degree, and ultimately in busy times, if there's a system like that, they should be building up a surplus to cover slowdowns and not have to have dramatic changes in staffing levels when the normal ebbs and flows in the economic cycle occur.

This will be implemented through 12 coordinated projects to be completed in the next 18 months. The phase 1 projects focus on some of the easier, less time intensive improvements that can be done, and preparatory work staffing up for the effort, etc. Phase 2 involves a lot of the heavy lift and work should begin immediately assuming the Governing Board directs them to move forward. It will take 12 months to do administrative interpretations with written procedure manual. Some of these process improvements aren't feasible to pull together and get approved in six months. Phase 3 would start in about one year after Phase 2 is completed along with secondary priorities that will also require some time. Those items are good ideas, but maybe not quite as high priority as those Phase 2 items.

The supportive work mentioned is not being proposed to the implementation program, but continuing work on improving some of these core ordinances would be very supportive of this effort. There's only going to be so much simplification that can occur as long as they're implementing the current rules for coverage and height. They're just incredible, complex, and incredibly time-intensive to administer. Fee structure that's ongoing, kind of that concept of cost recovery. And then the work that Mr. Kasman will be speaking about continuing to enhance the Accela and Lake Tahoe Info platforms and using those

technologies to automate and improve efficiency of certain actions through technologies that are available today.

Presentation can be found at: [Digital First: Innovation Initiative \(trpa.gov\)](https://trpa.gov)

#### Board Comments & Questions

Ms. Aldean said obviously there are a lot of advances in technology and understands that can expedite the processing of applications, and so forth, but that personal touch and to reach a live person is essential. All of them have probably tried to get in touch with their credit card or utility company, and just keep pressing the 0 until somebody actually responds. It's incredibly frustrating not to be able to speak to a live human being. She's assuming that's not what they're suggesting here, as they move toward increased mechanization and automation.

Mr. Stockham, Stockham Consulting said not at all. Under the public communication and customer service category, they have some recommendations for staff to be more readily available in real time to answer questions. It would be through a dedicated customer service individual. Right now, the planners rotate through that role and try to juggle that with their other assignments. And, through a written customer service policy that would have clear guidelines for response times out, of office messages, etc.

Ms. Aldean said in terms of the minor permitting activities, is there any opportunity for further delegation to local jurisdictions?

Mr. Stockham, Stockham Consulting said yes.

Ms. Aldean said when permits are issued, doesn't staff ask for a deposit up front, and then bill time staff time against that amount? Then have the caveat that the amount may have to be increased to cover the actual expense of processing the permit?

Mr. Stockham, Stockham Consulting said yes, for some applications they do, for others they don't. When it gets to cost recovery some types of applications are recovering costs. Through his review work of permits, he had an addition to a lakefront home, and through the fee calculations, their fee was under a \$1,000. It was a small addition but there's just no chance that type of improvement can be reviewed against the Shoreline ordinances and things like that for a \$1,000. It's more targeted changes that they're suggesting.

Ms. Aldean asked if they would recommend that in all cases an upfront deposit be required, and then bill against it.

Mr. Stockham, Stockham Consulting said potentially, but he thinks for minor type applications that the logistics of implementing that may not be worthwhile and that there may be a fee schedule that they regularly check for additions. But they may want to add a Shoreline fee or things like that. Right now, they have a fee that's added on top if you're developing in a Town Center. But there isn't one when you're kicking in some of the scenic ordinances or other time intensive topics.

Ms. Aldean said then they're recommending something in addition to the annual inflationary adjustments in the typical rate?

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Mr. Stockham, Stockham Consulting said he's recommending a re-look at the fee structure and not just increasing it up a few percent each year, but actually changing the structure, because there may be applications that are overpaying. It has become very clear that there are certain types of applications that are inexpensive, but intensive to review.

Mr. Hester said they'd also like to work with Mr. Keillor to ensure that they are covering all the overhead.

Ms. Aldean asked if it were correct that they have an expedited permitting process if the applicant is willing to pay more.

Mr. Stockham, Stockham Consulting said yes, there is.

Mr. Marshall said there is an application to expedite review, which is different than outsourcing. The outsourcing review is when they hire someone like Mr. Stockham that allows the review to take place on someone else's relevant timeline as opposed to where they are in the queue with TRPA.

Ms. Aldean asked if it could ultimately expedite the process.

Mr. Marshall said yes.

Ms. Aldean said under Action 6.E it states that "Identify staff and consulting resources to help relieve the current backlog of project applications and establish teams to implement this Action Plan. She thought that staff was using Lyn Barnett which was giving applicants that that option to outsource. How is this different and is that something they're already doing?"

Mr. Stockham, Stockham Consulting said that is separate from the outsourcing. If someone is submitting an application with the regular fees the Permitting and Compliance team is pretty stacked up. There are several reviews to get to before you. That recommendation focuses on staffing up so there isn't that backlog. So, when applications come in, they can be reviewed timely. Again, it can only go so far because there's budget limitations. If budget was no factor, you'd probably be hiring six or eight additional planners.

Ms. Aldean said under Phase 2, Projects, item 6: Codifying Administrative Interpretations, would that include legal interpretations as well? It should if it doesn't.

Mr. Marshall said he's not certain what the difference is between an administrative determination and a legal determination. It's how they apply the Code. That will involve consultation with the Legal Department. Yes, it has legal input but there isn't anything that's just a purely legal interpretation.

Ms. Aldean said Legal Counsel advises the administrative process. So, through whatever administrative result will reflect that legal input.

Mr. Marshall said correct, those are all signed off by the Legal Department.

Mr. Lawrence said listening to the presentation in general regarding improving efficiencies and streamlining, it seemed like a lot of the recommendations were more in the customer service consistency kind of realm, and less about reducing project review time. To him, makes sense. It was

even mentioned about having front counter help, and when he worked at TRPA, they rotated through, and he didn't think it was the best system. There was a period of time when Gary Weigel was the person on the front counter. It seemed like things got better and it sounds like it's gone back to the rotation. Looking at customer service, consistency, and getting procedures manuals in place makes a lot of sense, it will do the Agency and public well in the long run. He's a little confused on what they are trying to do with the review time and backlog. Is there a North Star that they're trying to get to and have an average review time of 30 days or a backlog of 50 or less, for example. What's an acceptable amount?

Mr. Stockham, Stockham Consulting said they're related. He's not sure there's a hard finish line goal where it's black and white. But in general, a system that when an application comes in the door, the review begins within a week, or so, would be a good place to be. What they're seeing now is that there isn't enough staff and oftentimes applications will sit several months before the review can begin. TRPA has a 30-day completeness review, plus 120 days. Some big applications will certainly continue to take that but if it's a 50 square foot addition to a house that shouldn't take an extended amount of time to get through the process. In those cases, 80 to 90 percent of the time that application is waiting for someone to be available to review it. Eliminating that wait time is a key goal.

Mr. Hester said before they got overwhelmed the way we did, and went through the Covid shift, they had worked up some performance measures based on the type of application. Something that was just a staff review would be one amount of time, something that went to the Hearings Officer would be more and something that went to the Governing Board would be more, and if it had an Environmental Impact Statement that would also be more. Hopefully, when they get to the different procedures put into manuals and different teams at different levels of complexity, they can revisit that and maybe come up with some performance measures that are stratified by difficulty of the review. That's where they're headed strategically, but they don't have those numbers right now.

Mr. Lawrence said he'd be interested knowing what the backlog is, what the average review time is, and how long do projects sit and wait, and what they trying to get to before investing a lot of resources in improving the process, because he doesn't have a good sense of that. He gets the customer service aspect and is important as far as review time. If they could define minor permits, that would be awesome. He thought that they had delegated most of those to the local governments as part of the Regional Plan Update, but it sounds like there's still a handful of minor permits that they could look into as a group or a category.

Lastly, cost recovery, as a director he gets it. It's nice to recover costs in reviewing projects, and to be able to hire staff. He's been on the other end of it working with folks like the Bureau of Management that are 100 percent on cost recovery. It works great for those that have a lot of resources. If you're a local government or a nonprofit organization, or whoever that does not have a lot of resources, and you're in a cost recovery framework your projects go to the bottom of the pile and the wait time is actually even longer than if you didn't have cost recovery. Cost recovery should be an element, but they should be cautious about going to 100 percent cost recovery without knowing what the ramifications would be for those smaller entities that need to get some good projects done.

Mr. Stockham, Stockham Consulting said part of that cost recovery recommendation is to maintain kind of targeted intentional subsidies for things like affordable housing, etc. Cost recovery or not recovering cost is certainly a policy decision. It just gets to a point of where's money going to come from and again are focusing on trying to be more efficient, and to reduce that cost review so they can

recover costs without more fees.

Ms. Hill commended staff for pulling this together and being so transparent about how they can improve. This is something she wanted a presentation on at the Operations and Governance Committee last year when she was new on the Board because she had heard from some constituents who felt like they didn't know where they were in the process. A lot of these suggestions will help on the customer end. She agreed that they don't want to be in a situation where they're putting quality or customers, or even good projects at risk with cost recovery. But certainly, if there's a way to ensure that they're staffed up to get projects through, and to be transparent on where the projects are is great and appreciated. She worked with Mr. Stockham when she worked at the City of Reno. She asked him if he touched base with the local governments. She was curious if Washoe County or any of the other counties around the Lake were able to give input on this process.

Mr. Stockham, Stockham Consulting said there was some coordination, but it was more focused on the TRPA nuts and bolts of the permitting system. There were a lot of discussions with staff and with applicants going through the TRPA process. Although there should be some side benefits for delegated permits to local agencies. He understands that not all the local agencies have taken on those responsibilities and if they can simplify some of these steps necessary for approval, maybe some additional local government delegation would occur.

Ms. Hill doesn't think Washoe County has quite done that and she's pushing them to do so. She knows that the staff is working hard and hopes they understand that she appreciates all the work that they have been putting in during challenging times.

Mr. Hester said they've separated Mr. Stockham's item from Mr. Kasman's item and to make it clear they're in the process of replacing a 15-year-old version of their permit tracking software with its current version and some of the process improvements Mr. Stockham is talking about will show up in the way they implement that new version of the software. Something they want to do that's been done in Reno, Sparks, and Washoe County is that an applicant can go online and look and see exactly where their project is in the process. When he was with the City of Reno, when they first started this, people would say that staff had the information for three months, but they could go online and look at it to show that they had it for six weeks, and now it's been back at the architect, etc. It starts making the whole process more transparent, and it gets to Mr. Lawrence's comment about then they can set performance standards that mean something. He'd like their performance standards to be ones that represent how long they as staff spend working on something and recognize that some of the time it's not with them anymore and they can't control that. There are a lot of good synergies between both pieces you'll hear about.

Mr. Friedrich had a few comments about delegating more to local jurisdictions and the Memorandum of Understandings to do that. Yesterday, at the City Council meeting it came up with the Planning Department about the time and complexity of some of these reviews and with the status quo needing more support and funding for that. He encouraged them to have those conversations with the local planning departments before recommendations come back to push more out to the local jurisdictions.

Mr. Stockham, Stockham Consulting said these are essentially topics they're recommending staff focus on. They are not here in front of you with specific solutions to endorse. There's going to be a process to develop each of these improvements.

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Ms. Aldean said Mr. Hester used to prepare a monthly permitting progress report for the Board. Is that data going to continue to be collected and posted online, or maybe provided as an insert in the packets?

Mr. Hester said that's where they're headed. He receives a weekly report from Ms. Jepson, and they are always within the 30-day completeness review, if not, 99.9 percent. They are a little bit over the 120 with Shoreline and part of that is working out the new procedures from the Shoreline Plan. Ms. Jepson redistributes the cases if they getting to the 120 days if it's anything besides Shoreline. Yes, the Board will get more reports and hopefully they'll get to a point where they can report out on the different levels of permits.

Ms. Aldean said she's been at the local government level involved with enterprise funds, and they can be tricky. In a number of instances, the general fund had to lend money to the enterprise fund because when there's an economic slowdown, there's the same number of staff members but very little for them to do because applications aren't coming in. Obviously, they have a lot of people who are undertaking projects, but suggested to be careful about developing enterprise funds, and expecting them to raise the money to support their activities, because that is a slippery slope.

Mr. Stockham, Stockham Consulting said yes, he's experienced enterprise funds and there's pros and cons. They're not recommending an enterprise fund in the initial implementation program, it's just something staff may want to consider in the future.

Mr. Hester said one of the aspects of at least tracking it separately is that they want to make sure that if there are boom times, and they can set some money aside that then during the down times they can smooth out revenue impact. But they aren't anywhere near that yet.

Ms. Gustafson applauded the affordable or workforce housing issues, because if they want to incentivize those sorts of programs, they need to expedite and simplify that. One of the things she's heard from a lot of her constituents is only people with a lot of money in big development, hire all the right experts to get them through the TRPA process, and it's not very transparent. She has never applied for anything, that's just what she hears from people. Those people say they aren't going to bother trying to get a permit because they've heard it's just a mess. That isn't true, but that transparency, and some of the processes they're talking about will help the smaller projects and homeowners that may not comply with the local jurisdiction Memorandum of Understandings. Having that idea of an Ombudsman or more transparency on our website will help individuals play by the rules and do the right thing because asking for forgiveness is kind of a motto that goes around versus the permission, because it seems overwhelming to an individual homeowner who is trying to do what they think is simple.

Mr. Stockham, Stockham Consulting said they heard that a lot, and their hope would be that this minor application process would be simple enough that they wouldn't need to hire an expert to help with.

Ms. Gustafson said don't forget the local jurisdictions often have public works projects that are larger and more complicated and take review time. Even though there's a Memorandum of Understanding for residential, they would still have to comply with TRPA permits for the larger projects. Wrap in those technical experts for ideas that would help them get the project through, because they want to encourage those projects to address environmental issues. Especially when they're dealing with individuals who might not live in the basin and work here day to day, could go to the Department of

Public Works in Auburn or Placerville or Washoe County and may throw up their hands because they're not used to having to go through that level of regulatory review. They try to make sure they understand that and understand who the technical experts are on the County staff but wrapping them into these discussions might help find additional ways to streamline.

Mr. Stockham, Stockham Consulting said they will do that. Some credit to TRPA staff Mr. Nielsen in that they had started to brainstorm on some of these improvements and he had a nice extensive list of public infrastructure projects that could have a streamlined review. They anticipate giving those consideration, if not also implementing them.

Ms. Gustafson said a long time ago, in a previous career, they talked about the Environmental Improvement Program projects or those public projects and wanting to sponsor planners at TRPA to expedite those reviews.

Mr. Hester said that TRPA staff Ms. Friedman works in the Environmental Improvement Program Department and assists with EIP projects permittees get through the process.

Ms. Gustafson said they're trying to be part of the solution and trying to offset some funds for that position, as one district.

Ms. Regan, TRPA Deputy Director said there was a workshop yesterday, where they had 30 to 40 partners for Cutting the Green Tape. Kim Chevallier, Environmental Improvement Department Manager has been working with Ms. Friedman along with many other staff members including Kat McIntyre, Forest Ecosystem Health Program Manager to work with all the partners on restoration projects. In light of everything they've been talking about at the Board with the climate crisis, and the need to increase pace and scale of restoration. The workshop had representatives from California Fish and Wildlife, the US Army Corp of Engineers, the Forest Service, and the Lahontan Water Board. They were particularly looking at the Taylor Tallac invasive weeds project on the south end of the Lake but that could apply to many other projects. Not only on the permitting side of the house, but they are also looking at improvements, partnership-wide with the 100 different implementers of the EIP, including public works. This Cutting the Green Tape is an initiative that's been championed by Secretary Wade Crowfoot in the California Natural Resources Agency. TRPA staff is engaged with all those folks looking at it at a statewide scale, too, and all these things connect.

#### Public Comments & Questions

Jan Brisco, Tahoe Lakefront Owners Association and consultant. She thanked Mr. Stockham and TRPA staff. They know how difficult this is, and they appreciate their time and focus on this issue. One of the things that comes to mind is that the Rules of Procedure require a monthly report to the Board on projects. Unfortunately, there are a lot of projects that she doesn't think are even being looked at. They have several of the buoy applications from phase one that have been in there for two or three years now, and they are trying to get those resolved. There have been two allocations for new moorings that have happened, and some of those applicants who've been waiting for an answer could have been taking advantage of those allocation allotments, and have not been able to get into that, since no action has been taken on their on their application. There are critical issues and am glad to hear that Mr. Hester and staff are going to be providing the Board with that information. More to the point is that files are not really accessible online. And while Mr. Hester indicated that you can go online and see where your application is, very often those aren't updated, they don't have timely

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information, and then they have to bother staff with their questions. That seems to be very inefficient and through Mr. Stockham's recommendations and staff's commitment, they can see that change and then all files are made available for public review.

Regarding outsourcing of applications, very often the consultant that they try to outsource with declines to review the project, so they are not always able to do that. She'd say about 80 to 90 percent of lakefront applications have to be outsourced because the time it takes through staff is nearly six months or longer in some cases. That gets to Mr. Lawrence's comments and others is that they need to focus on this and drill down to the specifics of it. They stand by and want to participate in that and try to help, because they know where the problems are from her side of the table, and hope that staff will use their expertise and suggestions in a wise way.

When you pay for outsourcing applications plus the TRPA application fees, that's basically double and is around \$20,000 to \$30,000 in some cases for a simple project. Lastly, they want the Memorandum of Understanding files from the local jurisdictions available on the TRPA website because they can't always get them from the local jurisdictions. It's almost impossible to get anyone from El Dorado County to return their calls. They spend weeks trying to get some response, and this isn't proper government, and the MOU projects are hundreds of those. They should be able to have the local jurisdictions send those files to TRPA to be included on the Accela system and TRPA website. Thank you and they are in support of this project.

Natalie Yanish, Contractors Association of Truckee Tahoe thanked everyone for all the work they do. Tahoe is very much locked in time. They have a housing infrastructure that is basically degrading because of all the permitting that are required and mitigation fees to do any sort of project in Lake Tahoe. It makes it very difficult for anyone to rehabilitate a property, and/or build a property here just because of those fees. Going to an enterprise fund is also tricky. She appreciated the comments that came from Ms. Alden about that because it does make it a little bit more complicated and unaffordable to build any sort of project here in Tahoe as far as housing issues go.

#### Board Comments & Questions

Ms. Aldean made a motion to endorse the Permitting Improvement Action Plan as shown in Attachment A, taking into consideration the comments made on the record today.

Ayes: Ms. Aldean, Mrs. Cegavske, Ms. Diss, Ms. Faustinos, Mr. Friedrich, Ms. Gustafson, Ms. Hill, Mr. Lawrence, Ms. Novasel, Mr. Rice, Ms. Williamson, Mr. Yeates

Absent: Ms. Conrad-Saydah, Mr. Hoenigman

**Motion carried.**

(Presentation continued)

Mr. Kasman said what Mr. Stockham laid out in the Action Plan pairs well with the work that they're doing through the Innovation Initiative. It also pairs with the Strategic Plan that talks about accountability, a high-performance organization, and accelerating threshold attainment and is what the Innovation Initiative is about.

TRPA has been using the Accela permitting software for about the past 15 years now. They just went

through a process to upgrade the system and to move into a hosted environment with Accela that offers them a lot of opportunity to now enhance that software in a way that is going to change the way that they do business. The 15-year-old software had been upgraded but relied on old workflows and old processes that were hindering their ability to make some of these changes. By updating it, that will improve customers ease of use. This is a system that they use for online applications or paper submitted applications. They track their completeness, the project review, permitting, as well as inspections and construction. This is the software that they use end to end to do this and is the same software that's currently being used in Washoe County, Placer County, the City of Reno, Douglas County, and Sacramento.

There's a lot of opportunities to not only learn and use this new package, but also to learn from other jurisdictions that have been using it and build upon their success. They'll be rolling out very shortly, an electronic plan review which all of these improvements are designed to streamline their processes and to reduce that amount of time that Mr. Lawrence talked about in terms of the back and forth with applicants, how long it takes them to review and issue a permit. By using these electronic tools, they can accelerate the review times.

There's an opportunity for them to create real-time dashboards where applicants will be able to see where their application is in the process, how many days it's been in review, and be able to see where that is in terms of applicant responsibility and TRPA responsibility. They'll also have dashboards to see the overall performance. Where are they in terms of application volumes, where are they in terms of their 30-day completeness, and 120-day project reviews. As they look at layering on additional timeframes, they will adjust those dashboards to reflect that. All this information will be publicly available and can package it for monthly reports. They'll also have an internal dashboard that management will be able to view workload by planner and be able to identify where they need to maybe shift workloads around to be able to get to everything on time.

From the applicant side, there's also email and text notifications that are now available. The applicant, the property owner, and consultants will be able to receive real-time notifications on their applications.

The Digital First Initiative is all about identifying new and better ways of doing things, updating their systems and tools and looking at throughout the industry, where modernization and opportunities are to streamline and to use automation. Here they mentioned digital Code, and Mr. Stockham talked about a lot about opportunities within the Code. TRPA's Code of Ordinances is very difficult to interpret. Using those opportunities to use technology to offer examples, or to show on the ground what this looks like and bring in more of that modern view where it's not just words on the paper. But you see these code pieces in situates and see how they're being implemented in order to help guide project applicants on how to do it for their own projects. Eventually, they'll get to using digital maps and information from their systems to help applicants fill out their applications.

Again, getting to that question of the need to hire a consultant. If they can help people complete their applications, they may not need to hire a consultant unless they choose to. Getting to the point that they have their zoning information, the Code, and digital maps all available so TRPA, public, and applicants are all working off the same set of information. In many cases, they can use their technology, whether it's GIS, zoning codes, or other things to streamline the project checklist. They'll be able to have that automated and look at whether a proposed project complies with what the rule says, and if so, it can be passed through the system. If not, then it would be kicked out for further

evaluation, and would be prioritized for those planners that now have more free time and available to look at these more complex projects. It's about how do they simplify those processes as Mr. Stockham mentioned how to streamline the reviews and use automated checklists to then focus on the more complex projects that they need to spend more time on.

A key part of the Digital First Innovation Initiative is about not only digitizing all of the files in the file room and making that information available publicly through the Lake Tahoe Info platform but it's also about preserving that information. The Caldor Fire last year, was less than five miles away from this office, and that information being stored is irreplaceable. Document preservation is key their business continuity, but also unlocking that information so applicants, project proponents, property owners know what they could do on their parcel.

If this information was digitized, then they can use this Geo processing and digital tools for both regional analysis with Regional Plan changes, as well as down to the project level and help applicants fill out their applications and know what they can do. This is where planning is going. As they look at this scanning or digital preservation project, they have requested funding from the states of Nevada and California. Nevada has given them \$250,000 allocation for this project, and they have funding requests in through the state of California for matching funds. The call to action is to help support them in those in those requests so they can digitize these files and move forward with these projects. They are bringing on a consultant to do the scanning and the data entry and now just need the funding. The file room has more than 200,000 records in their file room, and the vast majority of them have not been scanned. They need to increase the scale and pace with which they're doing these projects.

Lake Tahoe Info is the central resource for information in the region. There are more than 2,100 registered users in the system today where dozens of questions can be answered. This has become the central repository for Tahoe. They have an open-source license on the Environmental Improvement Program Project Tracker that there are more than a dozen other agencies throughout the country that are now using that platform to track their projects, accomplishments, and funding. They've licensed the entire Lake Tahoe info umbrella to Puget Sound partnership for their info platform. They've been able to use a lot of their funding and leverage to then work with other agencies to extend the platform and it's been highly successful and unique public partnership.

Staff will be back with some other highlights about the Tahoe Boating app and other things that they're doing in GIS that are incredible but wanted to focus today's presentation on the permitting side of things.

Presentation can be found at: [Digital First: Innovation Initiative \(trpa.gov\)](https://trpa.gov)

#### Board Comments & Questions

Mrs. Cegavske asked if they had selected a consultant for the scanning work.

Mr. Kasman said they'll be doing a Request for Proposal to select a contractor.

Mrs. Cegavske said the Secretary of State's office had someone come in and do that work and recommended that they check with that company also.

Mr. Kasman said they will definitely have quality assurance and controls in place for this project.

Public Comments & Questions

None.

- B. Briefing on the Lake Tahoe Transportation Equity Study TRPA staff Ms. Smith and Ms. Flint, DKS Associates provided the presentation.

TRPA staff Ms. Smith and Ms. Flint, Regional Director of Communications and Strategic Planning for DKS Associates provided the presentation.

Ms. Smith said the Transportation Equity Study is a recommendation from the Regional Transportation Plan. It is a great study to help them achieve a number of their Regional Transportation Plan (RTP) policies and to implement TRPA's mission to enhance and revitalize our local communities.

(Slide 2) Is a snapshot of the timeline of the study. They kicked it off back in February 2022 and since then they've conducted a number of different focus group meetings. They've met one on one with multiple different stakeholder groups. This week and next week they'll be hosting a couple of community workshops as well.

Ms. Smith will overview the need for the study and some of the initial analysis and the Ms. Flint will provide a presentation on the public outreach to date.

When the Board adopted the 2020 Regional Transportation Plan that there was a recommendation to conduct a Transportation Equity Study ahead of the next RTP update. The Regional Transportation Plan was a massive document, there were a lot of new advancements as part of this, including a revenue analysis, a look at innovative transportation solutions, congestion management process, public participation plan, and then as part of this RTP they also had a renewed look at environmental justice with a focus on equitable transportation solutions for the basin.

And as part of that environmental justice analysis, they identified five different community priority zones where the most transportation disadvantaged community members are located, and where they're working on prioritizing transportation investments for those zones. Those were Kings Beach, Incline Village, Bijou, Sierra Tract, and Tahoe Valley. (Slide 3) The map on the right is an example of one of those community priority zones, and that's showing what the transportation investment is supposed to look like in 2045.

This Transportation Equity Study is building off of the environmental justice analysis that they did in the RTP and will help them enrich the information that they have for transportation funding and project prioritization decisions. This study is incredibly important right now, because they're seeing a lot of the funding sources on both the Federal and State levels are increasingly tied to equity. For example, the Justice40 Initiative requires that 40 percent of transportation investments benefit disadvantaged communities and project applicants have to demonstrate how their projects will benefit disadvantaged communities. (Slide 4) A list of sources that are primarily discretionary competitive grant sources. They're hoping that the information they gather through this study will help Tahoe applicants be competitive when applying for this funding and ensure that they can meet their

action items under the 7-7-7 framework in the Transportation Action Plan.

(Slide 5) This graphic from the Robert Wood Johnson Foundation shows that equality means that everybody gets the same bicycle and equal treatment, and equity means that everybody gets a bicycle in their size. Equity is all about meeting people where they are, and in the context of transportation specifically it's about focusing on those transportation disadvantaged communities and prioritizing transportation investments for them.

(Slide 6) Shows the communities that they're focused on as part of this study. They're focusing on outreach to this group of people in particular, because these are the people who are more likely to depend on public transit, walking, and biking because they are less likely to have access to private transportation due to a number of different factors ranging from cost, affordability of transportation services, physical mobility and accessibility limitations. They're doing a lot of outreach and trying to break down language barriers with the public members from the Spanish speaking community and Tagalog speaking community.

With a focus on those priority communities, they are looking at any and all barriers that might impact a person's access to safe and convenient transportation. They're looking at availability and accessibility of transit services, and infrastructure. They're looking at the cost of services, affordability of private transportation. They're looking at how long and how much time a person spends traveling from Point A to Point B, and how many different transfers they might have to make and how many different modes of transportation they might have to use. They're also looking at the adequacy of transportation conditions such as the pavement and sidewalk condition, perceived safety, number of sidewalk crossings, and whether or not a sidewalk is plowed. As part of the study, they're looking into emergency preparedness and resiliency because how well a transportation system operates is critical in emergency situations, like a mass evacuation from wildfire, which many of us experienced this time last year.

As part of the study, they're doing some analysis spatially to understand where our priority communities live, and what access to services looks like for them. (Slide 8) One example looking at access to healthcare services for people with disabilities. The map on the left shows the density of individuals with disabilities on the South Shore. This Census data from the American Community Survey. The darker green areas are neighborhoods with a higher density of people with disabilities. The map on the right shows the proximity to Medicare and Medi-Cal Healthcare providers. Green is closer to those providers in red is further away. This relationship is important, because people with disabilities often rely on more frequent access to medical care, and they also often rely on access to Medicare and Medi-Cal to receive that care. The further that they are away from Medicare and Medi-Cal providers exacerbates the mobility challenges that they face. Putting those two maps together, they can better understand the unique relationship between where people with disabilities are located and where they have more limited access to Medicare and Medi-Cal services.

(Slide 9) This map the darker red areas are areas with both a higher density of people with disabilities and areas that are further away from Medicare and Medi-Cal providers. In the context of this study, they would want to focus on those darker red areas for transportation services for people with disabilities. However, looking at things spatially, is only one piece of the problem, and to truly understand the issues in context, they have to engage meaningfully and regularly with people with disabilities or advocates from that community. For example, they recently met with advocates from the disabled community, and before they had met with them, they did not know anything about this

dental provider. (Slide 10) That red star is located on the map is this dental provider called the Smile Shop and are the only Medi-Cal dental provider in the Tahoe Basin. Before they spoke with advocates from this community, they did not know that this dental provider is located on the second floor of a building without an elevator. Although this is a nearby provider it isn't an accessible option for people who can't use stairs. Those people would then have to go outside of the basin to access dental care. This is one of the main reasons that this study is centered around public outreach and engagement, so that we can identify these unseen barriers and work with their partners to find solutions to them.

(Presentation continued)

Ms. Flint said they are very committed and excited about working on this project because it is equity focused. It's not a backward-looking document, it's going to be a forward-looking document that builds on the policies that are already here. One of first things they did was to look at the Regional Transportation Plan as well as other documents that have been created. The purpose of their effort is to connect with these underserved and sometimes overlooked populations throughout the basin. Her team spent a couple of weeks here meeting everyone they possibly could in both North Lake and South Lake. They wanted to ensure that they were connecting with the most important communities within the area. They also wanted to make sure that they were collaborating with other efforts. There's currently a second thing that's happening here for Destination Stewardship which is all about how visitors interacting travel to here and there. They teamed with them to make sure that their engagement efforts were happening concurrently and in tandem so, they weren't doing separate things with a separate purpose. That helps them build on those additional things they're trying to get to which is leveraging the relationships that exist within the basin, and then establishing new ones. The new ones are critically important because they are looking at quantitative and qualitative data.

The qualitative data is the stories that they're hearing from people and the individual interactions that they're telling us about, based on their experience.

(Slide 13) A number of their efforts included collaboration with the Washoe Tribe elders as well as Chairman Smokey Serrell. They had a series of four specific focus groups, looking at all kinds of things from people who are mobility challenged, low income, people of color, employers, employees, and anyone and everyone that has a reason to get around the basin. This would also include recreational purposes. On top of that they set up another dozen meetings with individual stakeholders representing first responders such as Police and Fire. They're talking to individuals that work and provide homeless services for those folks that perhaps are representing seniors or students, anyone and everyone.

It was fascinating because there were a lot of consistencies in what they told them and a lot of things that they did not know such as access to parking and some other issues that they had in terms of getting around. They combined that data with what they had and they're moving forward with the set of indicators which is how they would build on this Equity Study. Taking the indicators and it needs to be something specific enough that they can draw a line to say, here's how they'll measure it. You want everyone to be happy, how do you measure that, it has to be something that's quantifiable. What's important about that is the grant programs that are happening now both at the State and Federal level, require it. They have to be able to demonstrate they're going to do it, show how they're going to illustrate their success in doing it, and then be able to memorialize that in an action report.

(Slide 14) They've had a couple of hundred surveys that went out in Spanish, English, and Tagalog.

They've also had these different meetings with the groups to be as comprehensive as possible, and then also going to place based things because there are folks that may not have a computer or cell phone.

(Slide 15) Infrastructure is the first of the six basic types of indicators they're looking at which relates to infrastructure, meaning anything that relates to the design of a road, the size, or width of a trail, whether someone can get to something based on its physical structure. It also looks at multimodal access, ADA compliance, and hand broadband will likely come into this. Broadband is incredibly important for things like resiliency which means when you've got to get out of dodge, and sometimes that happens you want to have an infrastructure network that supports that ability and connects things like traffic lights, etc. to ensure that they go smoothly. From an equity standpoint they want to make sure that it exists basin wide and ignoring some pockets and only investing in others.

(Slide 16) Engagement is a core value of both TRPA and DKS. How are you talking to people? It used to be in equity discussions that the idea was you translated your FAQ into Spanish, and you called it good, and that just does not cut it anymore. Now, they have to do is identify advocates within the community, people that they know are already working with these groups, and push information out through them and identify what barriers exist to get that information out there. In this instance, they're looking at what are the communications channels? What kind of languages does TRPA need to prepare for? Again, leveraging those community advocates and ensuring that funding is adequate in order to make that happen. They have to be able to be committed to put enough force behind an effort to make sure that the engagement is real and meaningful.

(Slide 17) The proximity of services is not only for the resident population, but also for visitors that are coming into the basin for either recreation or relaxation. It's where are these services located at? Is the service frequent enough and does the service provide safe services, what are the cost of services, accessibility for mobility challenged, are there buses to accommodate wheelchairs, is there the ability for someone that's blind to be able to hear a crossing signal, etc.

One of the items that came up in their group was training of service providers, because a lot of times these folks that are on the buses are providing a service to a rider, they may be the only person within proximity to an emergency happening at that time. Are these folks prepared to deal with these kind of circumstances?

(Slide 18) Year-Round Access: They need to make sure that there's equitable opportunities and easy opportunities to get to employment centers, access to things like healthcare, food, amenities, essential goods and services. That varies, depending on where you are in the basin. Some areas have great access to everything, and others do not. A number of their respondents talked about accessibility to elected officials and a vast majority of the folks they talked to don't feel that they have that access and feel that they are not in the process. How do you change that? There are some policies and things that other agencies have done. There's also the option to nourish or encourage minority candidates to run for office. These are all things they can think about as they move forward.

(Slide 19) Environment: Making sure that the choices and investments that are made are equitable in terms of their impact on water, fire, flood mitigation, climate change, and air quality. Again, that the habitat is protected universally throughout the basin, and not just in one area or another. This is an area that was one of the things that started the environmental justice movement in Southern California 30 years ago because of the highways going through poor air quality in some areas. It's a

little different up here but it does make a difference. For example, if there are certain types of things used for snow clearing or ice reduction. What impact does that have on the water? What impact does it have on water or homes there in proximity to that?

(Slide 20) Technology means they'll be looking at equity indicators that relate to things like messaging systems. How many people have asked how many parking places are available at Emerald Bay? What is the traffic like at X, Y, and Z? What's the best route to get out in terms of emergency services and systems, alerts, or the ability to tie in signals to all be green one way to get people out of town.

They're looking at things like that from an equitable standpoint, as far as how they can get the maximum of people to and from places safely such as micro-mobility options and then intelligent transportation system.

Over the next few months, they'll be vetting these ideas with members of the public and this Board. This week they're doing two outdoor concert events. They felt that these were more conducive to getting people to stop by the booth and share some ideas than expecting them to go to a public meeting. Next week, they'll also doing the same thing with two Spanish language workshops with one at the South Lake Tahoe Family Resource Center, and one at the Sierra Community House on the North Shore.

Once they get through the Fall, they'll developing these policies based on these criteria, and then bring that back to the Board for your discussion.

(Slide 23) Proposed Project Schedule. They'll be providing to everyone a summary report that will list the comments and summary notes from all the stakeholder meetings. What's important is to document everything. For example, when you come back and you have a grant application and policies, you have the documentation that shows how you got there. Not that you just decided to do it, because this would make your score better. Make no mistake, this type of work is cutting edge right now and TRPA is one of the few agencies that are ahead of the pack on those that are going to be applying for these grants. That's true for both California, Nevada, and the Federal level. In January and February, they'll be going back in with our stakeholder meetings and will come back to the Board with a more fleshed out list of these policies. Adoption will be in the springtime of 2023.

When you hear policies or implementing policies, especially as it relates to equity, there can be a fear factor in that to what extent does it tie them to Board policies or actions that are going to be inconsistent with the Strategic Plan or inability to implement? They will work closely with TRPA staff, as well as industry leaders that they connect with to find policies that are complementary to what they're trying to achieve here. But also meets that level of an actionable item that can be tracked and work for this community, which is why it's going to be a different equity index here than it might be in Sacramento, San Francisco, Carson City, etc. The idea is that when they're complete with this, those member agencies that choose to, will be provided word document of all of the background materials, and information that was there. If you choose to move forward and establish equity policies for your own organizations, you would be able to build on that, or adjust on that to meet your needs.

Presentation can be found at: [Agenda-Item-No.-IX.B-Transportation-Equity-Study.pdf](#)

Board Comments & Questions

Ms. Faustinos is pleased at the process that they've identified. It's consistent with lots of best practices in terms of community engagement, and the approaches that you need to take because you have to have varied entry points into a population. She'd like to dig in a little bit more into the staff report to understand more on what their response rates were. This is one tougher pieces of this community engagement process is that end up getting feedback from who you end up getting feedback from but understanding the demographics of that group. Was the feedback from mostly from younger folks or older folks and how do the development of their policies get impacted by who you get the information from, and how well does it set you up for the future, is important. There's a lot of processes that's going to go on from here and would like to understand better about how that's going to flow through. The real kicker ends up being how are they consistent in their practices of community engagement because that's typically not funded in a lot of spaces. You can do it for a plan but unfortunately what happens a lot of times, you lose that connection to the communities that you started developing this with because it becomes a resource issue. How are they going to operationalize that? It's important that they just don't have a one-time action and figure out how to support that that relationship into the future.

Ms. Flint, DKS Associates said regarding demographics, one of the things that they do in this study, and they'll see it in their new dashboard that TRPA will be launching shortly is look at the totality of all the demographics that they are trying to reach, then they have to be representative of each one of those demographic groups, specifically people over 65 with or without a car, with a disability, with the language, all those different people have to be represented. That's one of the reasons that they had to do so many stakeholder meetings in order to get that fabric that is consistent. This is not in the plan at this point, but what some other agencies have done in terms of nurturing those meaningful relationships and the Sacramento Area Council of Governments is doing this with applying for and received an equity, inclusion, and diversity grant. They \$3 million to fund their local community groups and stakeholders to help them facilitate meetings and push out that information. There's a lot of different ways to go at it but Ms. Faustinos is absolutely right, it becomes tricky with the funding.

Ms. Smith said another part of the study will be a review of their public participation plan which they have to update every four years ahead of the Regional Transportation Plan and DKS will be providing recommendations on how they can improve that ahead of the next RTP update.

Mr. Friedrich said this may be an overlap in your slides between infrastructure and environment. In the environment slide it talked about the equitable impacts to the environment, presumably from transportation infrastructure projects, was that the idea?

Ms. Flint, DKS Associates said it can be. It can also be if you are setting aside land for example that is going remain open space, or untouched, is all that land in one particular place, perhaps, is frequented by a more affluent population or do you find an equal commitment to preservation of land and environmental issues?

Mr. Friedrich said his question would be on the flip side on the impacts and how they're currently looking at it. The Biden Administration just put in a \$1 billion Infrastructure and Investments Jobs Act funding program to remove highways that have historically divided low-income people of color communities. How are they looking at the equitable distribution of impacts of things like highway bypasses or transit hubs both on the cost and benefit side? They've had projects that have been

proposed to go through low-income neighborhoods, and not through wealthy neighborhoods. They've had transit hubs that may benefit lower income workers that are opposed by people wealthier folk, for example. How that would be brought to bear in this study and what kind of marks would be given, or evaluation criteria for those types of choices?

Ms. Flint, DKS Associates said the Tahoe Transportation District is doing one now with the mobility hub. The California Environmental Quality Act which looks at mitigations and impacts that a project has. But in this case, from an equity standpoint if you adopt policies that are specific to weighing those types of issues which are sticky, you could have policies that basically talk about things like that, and you can have them be "should" examine, or you could have them be "shall" examine and that will be a discussion that the Board will have. What happens in the past is that you'd have to look at the users, the community of benefit, community of use, and then develop a scoring mechanism or criteria that says, you need to reach such and such a level. At DKS they do a lot of cost-benefit analysis, for corridor studies, mobility hubs, etc. This is another measurement tool that would go into the mix of cost and all the other things that they normally look at. It depends on the preference of the Board as far as how far or how not far you want to take that by adopting a policy, because they can't tell them they must do it, they can only tell you that these are some options for your consideration. She anticipates that when that comes up, they'll probably want to spend a couple of meetings going through that for each one of these sections to make sure that all the Board members are on board and have had an opportunity to ask questions.

Mr. Friedrich another question would be equitable access for regional transportation. It's around 8 or 10 percent of people in the US have no access to an automobile. There's been discussion around Basin entry fee and some input has been, well, the leaders don't support it because of the equity impacts. But what about people have no car and if they're assessing a fee on people who are fortunate to have a car who have more resources than those who don't perhaps, they can make an argument that it's transportation equity to support a program to get people up here who otherwise have no way to get to the basin.

Ms. Flint, DKS Associates said they've heard that several times.

Mr. Friedrich said he would like to see that brought to the discussion because it relates to that question, for example. Looking at folks who have zero access to an automobile given that the entire system is built around that and looking at the access to the basin from that perspective and will that be included.

Ms. Flint, DKS Associates said yes, it will. They've had several folks that specifically discussed that, and, in some cases, it was discussed in a very forceful and energetic manner. Again, it depends on how you set it up. The policy is to look for alternatives to getting people here without taking a private vehicle that opens up a lot of real estate to figure out what the right tool is to make that happen. The suggestion that was made that if they were going to do something like Mr. Friedrich was suggesting that the funds that were generated by such an action would be used to offset the cost of public transportation to bring people in from the Nevada and California side into the basin, thus, reducing traffic, greenhouse gas emissions, and reducing overall impact on the environment.

Mr. Friedrich said while addressing inequity to those who have no car. He would love to see that perspective brought in, because he thinks the equity argument of say, a Basin entry fee is often shortsighted, not really looking at people who are in that category of no car.

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Mr. Rice said it made the hair on the back of his neck stand up when you say Basin access fee. Don't look for that to happen in our lifetime. Number one, Douglas County would never go for that and two, he doesn't think even as liberal as the Nevada's getting, he doesn't see that in their future at all. In the presentation the mobility hub for the Tahoe Transportation District was mentioned. He's on that Board but he doesn't know that there's been any coordination with your group, TTD, or the South Shore Transportation Management Association. Do they plan on having coordination with those agencies in the future?

Ms. Flint, DKS Association said she coordinated last night with Danielle Hughes, and continue to coordinate with her today. They're going to be looking for a lot of the same information that they are gathering for this story. DKS reached out to her and was told that they would be more than happy to share their findings and information and if there were opportunities for joint meetings or ways that they could support that effort, they're more than happy to do so.

Mr. Rice said one of the requirements for the building the Event Center was free public transportation. Are they planning on tying into that and coordinating with the different agencies around the Lake that have transportation systems to make them mesh better than they do now?

Ms. Flint, DKS Associates said that would be premature for her to tell them what kind of specific policy there might be, but certainly they would be looking for ways to maximize connections within the basin. And that goes beyond public transportation. Another item they talked about was first responders, and a better connection between the various fire stations, for example, that while they're connected on mutual aid and things like that that there could be a better connection and several of the Fire Chiefs expressed a desire to have that conversation. TRPA is uniquely suited to help provide the playing field to have that discussion. Whereas, if it comes from one or the other of the Sheriff's Department, there tends to be a little bit of an ownership issue. She thinks that happened several years ago that made it less successful. They will be looking at possible recommendations for policies that collaborate and coordinate efforts maximizing not only the financial investment but increase the ability to deliver a higher quality of service basin wide.

Ms. Hill said this was really an informative presentation and am excited to see the outcomes. She asked if they knew that they are also doing a study up in Incline Village and Crystal Bay on transportation with a private consultant.

Ms. Flint, DKS Associates said she believes they've connected.

Ms. Smith said yes, they've been in contact with Amy Cummings along with the US 50 project discussion that will be up next on the agenda.

Mr. Lawrence echoed Ms. Faustinos comments about the process that they're using which seems to be very collaborative and inclusive. He's excited to see what comes out of this. A couple of things that he'll be looking for are that there's been a lot of well-intentioned legislation regarding different things in this space, but they're not funded. And it's not something a staff person can just take on as an extra duty. Hopefully, the recommendations and policies will be mindful of that. Second, he'll be very interested to see how their study lines up with the Justice40 provisions. Some of his conversations with the Nevada Department of Transportation, and then internally with their Division of Forestry, they're wrestling with how to address Justice40. There are some projects that have a huge benefit to underserved community, but it's not necessarily in their geographic location. For example, a forest

health project could be done that might detract from catastrophic wildfire and then they don't get the smoke impacts in Reno. But they haven't been able to get that direction from DC regarding exactly how Justice40 is going to be applied to different projects, whether it's a geographic location, or if it's 40 percent of a user group, so, he'll be interested to hear as they go through this process, how they're applying these findings to how it meets provisions like Justice40.

Ms. Williamson said this was a really interesting presentation and am happy to see the public comment piece of this. One of the things they're looking for is feedback to improve TRPA's public outreach and engagement, and through their public comment, it will be interesting to hear remarks and how the public is appreciating or not appreciating the engagement efforts through this outreach. Some people, particularly after Covid might have more of an online presence. She likes that they're going places and meeting people where they're at in the community inside and outside of the basin and at different hours of the day. It's important that they're meeting people where they're at, and one thing that will be helpful to her is if they start to hear feedback on that there are particular methods or places where people are engaging more or less, because then as TRPA, they can build on that as well.

Ms. Gustafson said a lot of the North Shore residents are commuting now and aren't living in the basin. Getting out to their employers to talk about this issue is important. Because there is no more affordable housing within the basin, especially in the North Shore where they've seen a mass exodus of many of their working employees. And those who maybe don't have vehicles or are carpooling up, and how they can work with Washoe County and other areas in Nevada to help that.

Ms. Flint, DKS Associates said they met with four of the largest employers in the basin, among them being Palisades, Heavenly, and hospital system to find out what they were doing with the challenges. It was interesting, because some of them were implementing bus service because they cannot afford to put people here.

Ms. Gustafson said the school district is a critical one as well.

Ms. Flint, DKS Associates said they met with them as well.

#### Public Comments & Questions

Steve Teshara on behalf of the Tahoe Chamber said he seconded what Ms. Gustafson said about reaching out to employers because a lot of people don't live in the basin anymore. He also hopes that they include resorts here on the South Shore in addition to Barton Health, Heavenly, Northstar, and Palisades Tahoe because it's good for the employers to know that this is going on. Because there's going to be some issues and some outcomes of this, that they'll say they weren't aware of that. They want to be aware and what affects their workforce.

#### C. Briefing on the US 50 East Shore Corridor Management Plan

TRPA staff Ms. Glickert, Ms. Rosenburg, Assistant Director for Planning, Nevada Department of Transportation, and Mr. Gant, Wood Rogers provided the presentation.

The US 50 East Shore Corridor Management Plan starts on the northern end at Spooner Summit where US Highway 50 meets State Route 28 and on the southern end in the South Shore adjacent to the

Event Center at Lake Parkway. Corridor management plans are a sub area within an area plan. Corridor plans are focused on their major transportation corridors. Last year, staff briefly introduced this plan to the Board. At that time, they also discussed some of the other projects going on the on the east side which included Warrior Way that may have a signal there in the future, and the Round Hill Pines entrance.

The lead for this corridor project is the Nevada Department of Transportation which are funding the development of the plan.

(Slide 2) Within the Regional Transportation Plan they identify several focus areas to help them achieve the goals of the Plan and reduce Vehicle Miles Traveled. One of those focus areas is Communities. Through corridor management plans the elements almost always include transit, trails, and technology. In those plans, they like to combine all those elements to provide safe, secure, and efficient transportation for the communities. This map illustrates how the region is divided into Corridors. Corridor Planning is basically a sub region within an area plan focused on the roadway and adjacent land uses. Through corridor planning land use and transportation are closely linked and the region's economic vitality, environmental sustainability is all supported.

Corridor Planning is a key strategy within the RTP to manage the travel within those corridors and is often where they see the congestion and parking issues exacerbated. Each management plan is unique, they provide a vision and a coordinated set of goals for land managers to work toward. Each plan concludes with specific project recommendations for future implementation. These recommendations are then fed upward into the Regional Transportation Plan and most recently into regional efforts for bringing in additional transportation funds. The US 50 East Shore along with State Route 28 and 89 are priorities identified in the Bi-State Transportation Action Plan. State Route 28 and 89 corridors have provided great insights into US 50 East Shore planning. However, this corridor plan on the East Shore is a little unique, it has several neighborhoods and full-time residents unlike the other two that are focused on recreation.

Collaboration on corridor planning is essential to success. (Slide 3) Are all of the agencies that have been coming together on a regular basis and being informed through focused one-on-ones and as the project development team for the plan is supported by a great team of consultants.

(Presentation continued)

Ms. Rosenberg said safety is their top priority on all transportation facilities and all users of the transportation system. Other goals of the One Nevada Transportation Plan include preservation, mobility, sustainability, connecting communities, and transforming economies. The US 50 corridor in the Tahoe Basin serves all these goals. It's not only a beautiful corridor but also provides a critical connection to communities and economies in and out of the basin. It provides a critical connection for tourism and recreation, but also services to support the year-round population and workforce.

NDOT views this corridor management plan not just as a study they need to do on a roadway for upcoming projects, but an opportunity for partnership to ensure multiple goals are met for multiple agencies and stakeholders. This effort, while funded and led by NDOT, has been done entirely in close partnership with the TRPA Transportation team. This team has been with them every step of the way, and the process is better for it. They've done more public engagement, and public partnering on this study than she can remember. It's important that they have a shared vision of the future of this

corridor, and that this vision include the continuation of that vital connection in a safer, more efficient, and more inclusive way.

(Presentation continued)

Mr. Gant said the limits of this specific corridor management plan is about 13 miles from Spooner Summit down to Lake Parkway. There are a lot of unique features about this corridor compared to State Route 89 and 28 and what those corridor management plans had to encounter, and a big part of that comes with the broad range of users that are represented along here. It's not just residents, commuters, and recreationalist but is also a local and regional commerce and is one the only corridors in the basin that runs multiple states all the way across and ties into the East Coast. It has a different feel, a different flavor to it, and is a different corridor compared to a lot of the other ones in the Tahoe Basin. However, it also experiences a lot of the same demands and challenges that some of those other corridors do as well. There are six study goals that have been identified to support this corridor management plan and keep them moving in the right direction. That includes improving safety and is paramount, and that is one of the key outcomes of this study is trying to improve safety in this corridor.

It also includes enhancing the visitor experience, promoting economic vitality, protecting Lake Tahoe, expanding multimodal transportation choices, which is another major focus area, and promoting and enhancing agency collaboration.

There's a lot of agencies and land managers involved in this process, and they're working hand in hand to create a coordinated study at the outset.

Public outreach has been at the heart of this, and they started off last summer with a public canvassing tour and did a similar tour again in the spring. Last summer's tour was a listening session and understanding what the community sees as some of the challenges and concerns in the corridor. Some of the feedback they heard during last summer's public canvassing tour included 62 percent of residents prioritize high speeds as being a major challenge in the corridor. They get a lot of head nods when they talk about speeding being an issue. Similarly, 56 percent prioritize the difficulty turning in out of side streets and driveways. With the speeds and the nature of the corridor itself and having to you know cross multiple lanes to perhaps get in the direction you're trying to go it's difficult to access in and out of side streets and cross streets.

As part of that outreach last summer, they did recognize early on that a lot of the feedback they were getting was from residents, so they did another survey with more recreational focus and some of the high-level feedback they got was that 79 percent of them noted the lack of safe bicycle and pedestrian facilities throughout the corridor. The second listening tour in the spring was an opportunity to start floating some initial ideas out to the public and getting feedback. Again, they followed that canvassing tour approach where they set up in short durations of time but in multiple locations throughout the corridor at different times of day and days of the week. With that, they started to get a lot more feedback, whereas in last summer's canvassing tour we had 80 total people show up at those events and in the spring, they doubled that with 170 people showing up.

They're just starting to filter out the feedback from the study and some of the concepts that they were looking to get feedback on. Some of the takeaways from the spring outreach include that most folks are in favor of reducing operating speeds out there, similar to what they heard last spring. They have

the data to show that speed is an issue and people feel it too. Similarly adding turn lanes to address safety and access at those cross streets again that got a lot of head nods. Some high-level concepts were floated in the spring to look at lane repurposing and the feedback on that was very mixed. The largest concern was if there were opportunity to repurpose lanes out there, is that going to create congestion? Certainly, with some of the swings they see in use of the corridor during peak visitation periods, that's an understandable concern. There's strong support for eliminating roadside parking throughout the corridor, particularly at Zephyr Cove. Everybody that they spoke with unanimously understands the benefit of trying to eliminate on highway parking and move that to off highway locations and similarly one of the concepts that was floated during the spring was a potential for converting the State Route 28 and US 50 intersection into a roundabout, because the left turn movements there are so difficult, and that got quite a bit of support from the folks that they engaged with. And so did the inclusion of roadside multimodal improvements on US 50 south of Elks Point Road. Once you get south of Elks Point Road there are no on highway bike and pedestrian facilities, yet you see a lot of folks out there walking and bicycling because there's a lot of destinations that are connected through that that piece.

For each one of these canvassing tours, they send out over 4,200 mailers to addresses in Douglas County, and a lot of people showed up with those mailers in hand, so they know they're working. Similarly, they've also met with several HOA's and GID's. This also includes the Star Group, Barton Health, the Presbyterian Conference Center, recreation groups, and other individuals along the way.

They're looking at what they can do within this corridor and the range of solutions to address a broad range of needs and concerns out there. One of the things that they've tried to be very clear with and upfront with is there is a broad range of needs in the corridor. So, it's not just improving safety and recreation access, it's also everything from commerce to transit. The amount of needs out there outweigh the available highway right-of-way space that they have and understand that there's a balancing act and is the intent of the study to find balance amongst the competing needs throughout the corridor.

There are a range of opportunities that are under consideration as part of the spring outreach. They did roll out with some different concepts that look to reimagine US 50 and what that roadway configuration looks like, and to try to balance safety as well as other needs. That is an important component of the study but there are another range of options that they are looking at and taking into consideration through a more holistic approach and this includes expanding transit throughout the corridor and understanding that is going to be a key strategy for servicing high demand periods and recreation that they won't always have capacity for. Other strategies include expanding the Tahoe East Shore Trail and multimodal improvements as well. Again, it's a key opportunity to create those transportation choices that were discussed in the previous presentation for both residents and visitors.

Parking management strategies are huge. He mentioned eliminating the on-highway parking on US 50, but they have to create opportunities and what are those opportunities to replace that off the highway and how are they going to manage those? Because they know during peak periods, there's going to be more demand than they'll ever have capacity for. Other opportunities include enhancing recreation and visitors experience and are trying to look at that through the lens of the visitors and what can they do to make their experience better? They've been focusing on things like vista points and better access to locations like Logan Shoals.

Leveraging technology and expanding communications is also another key strategy that they're looking at which was also discussed in the previous presentation. They all know that communications are key up in the basin and depending on your venue it can be spotty at times. Closing that gap helps make these other strategies work. It's kind of a backbone piece of making all these strategies work together. Also, implementing demand management strategies which there are things that they can do to try to move the needle a little bit on what those peak demand periods look like and can they spread those out a little bit. They're trying to take an "all of the above" approach and not focus on just the highway and highway operations, all these things have to come together to create that balance.

In developing more specifically a lot of the highway solutions that they're taking a look at; the study team did identify five different study parameters. The first parameter is extending the Tahoe East Shore Trail, as an established priority in the basin and it's an important part of this study. A lot of the folks that they had conversations with kind of questioned do they really need? Is this something they should be spending time on? Their approach is this is a given they're going to move forward with it and implement it. Second, is expanding the paved roadway capacity is inconsistent with adopted policies, trying to create that balance because adding a bunch of lanes on US 50 is not the way to do it. That's another parameter they've established. Third, direct impacts primarily in the form of private property acquisition should be limited to the greatest extent possible. Again, trying to address a lot of the needs out there and not looking to take private property and work to the best possible within the public right-of-way. Fourth, multimodal strategies are key to addressing the swing and demands and the high demands that they see throughout the corridor. No matter what they do, it has to be multimodal focused because they will never provide enough capacity through other modes to make things happen. Fifth, safety and evacuations are front of mind for everybody, especially after last year.

When they're looking at potential opportunities, they are considering reconfigurations, in the most constrained sections of the corridor. They've identified some of those to be to the north as you change character of the roadway when you come from that rural feeling of US 50 coming down Spooner, you make the turn at Glenbrook, and suddenly you're in more suburban location. The area changes, it becomes more constrained, and you have driveways. They've identified that location as being an area of focus. Similarly, once you get south of Logan Shoals through Cave Rock down to Skyland is one of the most constrained areas of the corridor that they're looking to serve and balances those needs through potential reconfigurations. Lastly, south of Zephyr Cove towards Round Hill Pines is another very constrained section of the corridor. They've heard several people refer to that as dead man's curve.

The overall intention is to improve safety by reducing speeds. The intention is not to create congestion but to get people to drive the speed they're supposed to be driving. But these reconfiguration opportunities also create opportunities to incorporate turning movements, turn lanes, acceleration and deceleration lanes. Since some of these areas are very constrained, they also use these reconfiguration opportunities to incorporate the Tahoe East Shore Trail.

He mentioned the "all the above" approach and transit being key to that but recognize that they have to integrate all these opportunities and strategies with transit as a key backbone. They've identified several different opportunities that they pulled out of the Regional Transportation Plan and Tahoe Transportation District Master Plan to look at which one of these can support what it is that they're trying to do on this corridor and improve throughput while also making it safe and accessible for all. And there's a range of transit strategies that are key to playing that role.

Some other supporting strategies beyond the traditional roadway infrastructure include technology and ITS and focusing on getting the word out. If they can stop additional people from coming to the basin during high congestion times, then they're not adding to that congestion, and they could solve the problem before the problem gets worse. Technology and ITS is huge for that as well as things like parking management.

Adaptive corridor management is another strategy that they're looking at. This is something that TRPA has taken on in other areas around the basin, and this is certainly another location that is applicable, as is expanding communications. Transportation demand management as well as parking management all the way down to leveraging micromobility devices. On peak weekends you see people on US 50 on those scooters and there's demand for that, and they need to respect that.

Looking at the overall study process they've developed a four-step overall process. The first step was that education, understanding what the issues and concerns are which they started with last summer's public canvassing tour. Step two is looking at potential backbone configurations and what that core piece of US 50 look like? Again, that's where they went out in the spring to get feedback from the public on. They're in step three which is refining that backbone in conjunction with supporting strategies and opportunities, and are in the middle of that right now, and getting close to transitioning over to developing the final corridor management plan and overall implementation plan.

They are transitioning over to that Draft Corridor Management Plan framework as they head towards fall. Of course, going back out to the public one more time to get feedback on those elements before they finalize the plan hopefully around the end of the year. This is just the end of this plan, as the intention is to have a long-term implementation plan. It's already started with things like the Round Hill Pines entrance, and then next year with the Warrior Way signal. The Nevada Department of Transportation has an upcoming pavement preservation project that they'll be looking to identify some easy wins out of this to incorporate into that project. The intent is to keep that momentum moving forward similar to what's been done on some of the other corridor management plans.

Presentation can be found at: [US 50 East Shore Corridor Management Plan \(trpa.gov\)](https://trpa.gov/US-50-East-Shore-Corridor-Management-Plan)

#### Board Comments & Questions

Mr. Hicks thanked Ms. Glickert and Mr. Gant not only for the presentation today but the presentation that they gave to the Glenbrook Homeowners Association a week ago. As they heard earlier today, Glenbrook is a hard community to please. They were exceptional and they answered a lot of questions. Their knowledge on the subject is so extensive and it's appreciated. It is important to talk to groups out in the community not only to the full-time residents in the basin but also the short-term summer people. People hear rumors and misunderstandings of what's going to be done. It's important to get the information out to them again and again and be willing to talk to those people in the way that you do. They're doing a great job at it.

Ms. Aldean echoed Mr. Hicks comments, it was a great presentation. The issue of on highway parking along State Route 28 has always been an issue. Even if they put up no parking signs people who are desperate to spend time at the Lake will generally defy those signs. The only alternative is to create a lot of unhappy visitors by ticketing those cars but often collections are problematic. Maybe it's a monetary issue, but why haven't they put up wooden guard rails along that section of SR 28. That's not what they're talking about today, but you have to change behaviors. Even if there are some offsite

parking areas, generally those are fairly limited in terms of the total number of parking spaces available to the general public, especially during peak seasons. To her, the only way to change behavior is to make those on street parking areas unavailable by eliminating them. Otherwise, she doesn't feel they're going to change behaviors. If the objective is to gently coerce people into taking transit to their destination, they've got to coax them into doing that by making what is traditionally been an area where they have parked unavailable to them. The same applies to the Zephyr Cove area. Some those shoulders in some cases are a little wider than the shoulders along SR 28 and more tempting for people wanting to park to access the beach. Please factor that into your thinking because long term it's probably the best solution.

Mr. Friedrich asked if they could speak to the role of TRPA vis-à-vis the Nevada Department of Transportation, and Douglas County, for example on the on-street parking issue. By extension, he would have the same question for Emerald Bay on highway parking. Who decides and what's the role of TRPA in making that decision?

Mr. Gant, Wood Rodgers said he can speak to the perspective of the US 50 Corridor Management Plan. It comes down to collaboration. Everything in the basin is intertwined. Then you add the Forest Service to that list. Specifically, around Zephyr Cove, a lot of it comes down to the frank conversations. They've had those and walked out in the field together as a group, including Douglas County, Forest Service, Ms. Glickert, and NDOT to understand what the issues are and what the opportunities are? What do you need as an agency to make this happen on your end and I'll tell you what I need as an agency to make this happen on my end. They've had very open conversations about that but they're getting there with identifying some opportunities north of Warrior Way and east of Zephyr Cove for those off highway parking and starting to come up with what those configurations look like. A lot of it comes down to understanding what each of the agencies need and having a frank conversation about it upfront.

Mr. Friedrich said regarding cracking down on speeding, what would be TRPA's role vis-à-vis the Highway Patrol issuing more tickets and more patrols. What are some strategies that this Board can take?

Ms. Rosenberg, Nevada Department of Transportation said speeding is their top priority statewide right now for safety. It's the leading cause of fatal and injury crashes. What NDOT has authority for is maintaining and operating the highways of the State. They're doing what they can and some of the concepts that they're developing here to encourage a different behavior whether it's parking or slowing down, they partner very closely with the Nevada State Police and Highway Patrol where appropriate. Like many state agencies, they are having some staffing challenges right now. On State Route 28 they worked with them in terms of what would it take for them to enforce this more and it was provide parking somewhere else, and they were happy to enforce it. She doesn't know that they've had a conversation with them about increasing patrols on speeding on US 50 yet, but they're happy to take that on. What they're doing is part of this study is how do they encourage people to slow down naturally rather than the enforcement approach, or in conjunction with the enforcement approach.

It's still kind of early, and as this study and plan come together and get finalized, they'll continue these conversations with their partners. If they take on some of the engineering solutions, then they need the enforcement and the education. The "e" in safety is everybody, enforcement, education, and engineering, etc. It's how do they continue to develop this corridor and operate it once the plan is

wrapped up in addition to that conversation as they're developing it.

Mr. Gant, Wood Rodgers said Mr. Friedrich is asking specifically what TRPA could do. One of the things that is key in this particular situation is speaking with a unified voice. One of the things that they've heard, and is a misconception is that NDOT is embarking upon this study and effort solely to try to incorporate bike lanes or whatever on onto to US 50, that's not the case. First and foremost, it's their first goal is to improve safety. If they're all speaking with that same voice of this is a safety focus that they can also accommodate other modes and that's part of the safety conversation, that helps bring TRPA and NDOT together.

Ms. Glickert said it's a multitude of things. It's about protecting the environment and bringing all those other goals into this planning process, not just the transportation and equity related ones and how they want transit. It's all the policies that they already have in place, that then apply here. They have policies about safety, equity, and the environment. For TRPA, it's awesome to be at the table with their partners. The Forest Service is on board with the removal of those spaces and managing that area. It's about collaboration and having that one voice and getting everyone on the same page is where they're at. And that gets back to the collaboration that TRPA brings.

Mr. Friedrich said a coordinated campaign basin wide to have everyone slow down and do what they can to support enforcement of that carrot and stick would be big step in the right direction. And to get people not to park on the road on the East or West Shore's would both big steps in the right direction, etc. He would be happy to entertain options to send a message from this Board in the future.

Ms. Regan, TRPA said their role as the Metropolitan Planning Organization is a leadership role in the basin with their partners, the Tahoe Transportation District, and all the partners that Mr. Gant illustrated in that collaborative framework. What they did in the Bi-State Consultation on transportation in the first phase of work they did a Memorandum of Understanding for the State Route 89 corridor. They also have an MOU for the State Route 28 corridor that they can bring that to bear to get law enforcement to the table. There are a lot of barriers to making this work which have been highlighted. But to summarize the "E's", education is key. They just launched a new Take Care slow down program right before the Summit. Much more will be done to engage our Take Care messaging for Tahoe for education and enforcement. The Tahoe Fund helped convene a partnership discussion around parking enforcement on these corridors, but the key question is, if those spaces aren't there where else can people park? They've had judges say they're not going to enforce tickets unless there's another option with a shuttle or a place to park. Certainly, the engineering solution, there will have to be more barricades. But all the "E's" have to work in concert to enable an outcome in the change of behavior. They're attacking it from a number of ways, but the answer is collaboration, because there's a lot of different jurisdictions involved. The Board as policymakers have a key leadership role in convening that partnership.

Mr. Rice said Zephyr Cove and Round Hill Pines have been sticking points over here on the on the East Shore. He's glad to see NDOT stepping in. There are some things that are going to happen but there's so many rumors that are going around. He's constantly getting phone calls from people asking if it was true that they're going to make all of Highway 50, one lane in each direction. There needs to be more outreach with what they intend to do and dispel all these rumors. Having acceleration and deceleration lanes are going to be very helpful. Comments that he gets are what's it going to do to the traffic? Is it going to be backed up all the way through the area of Cave Rock. There's been many instances where traffic was backed up all the way from Stateline to Cave Rock which is inexcusable.

One thing he's glad to see is the signal at Warrior Way and doing away with the parking all the way from Zephyr Cove to Skyland, as well as Round Hill Pines. There are times where you can't even get your mail from the Round Hill Shopping Center because people have parked there to walk to the beach. He's looking forward to the reduction of parking on the highways. He thanked NDOT for all the work that they're putting into this.

#### Public Comments & Questions

Steve Teshara speaking today as both the Government Relations Director for Tahoe Chamber, and as the Chair of the Board for the South Shore Transportation Management. One gem on this good team is Karen Mullen, because she has done a lot of the work for outreach. She is very familiar with many of them in the basin and worked here for many, many years. When Ms. Mullen wants to bring the team in and talk to your Board or group, it's really effective. Mr. Gant is a great leader of the team, but Ms. Mullen has done a really good job both in terms of the Chamber, Star, and other community groups. From the South Shore Transportation Management Association perspective, they've have been supporting for many years the expanded Kahle Drive Vision Project. That shows the connections of dedicated bike and sidewalks between Stateline between the intersection of Lake Parkway and Highway 50 and Stateline all the way past the Kahle Drive intersection all the way up to Elks Point Drive. It's sort of laid out there and in TRPA's Regional Plan too.

Hopefully, the team will take that into account because that is part of what people have as an issue, because they all see people walking and riding bikes along the roadway between Elks Point, Kahle Drive, and beyond that. That's become increasingly popular, and they want to encourage people to use other modes than just vehicles. More recently both the Chamber and the TMA have accelerated their outreach to NDOT to try and get some funding for the construction of a roundabout at Lake Parkway and Highway 50 which is the Nevada side of the Highway 50 project, and then do as part of the package those sidewalk and bike trail connections. And of course, the intersection at Kahle Drive which is not appropriately constructed and knows that NDOT is very keen on that. That's part of their plea with Douglas County to help contribute the final piece of money that we need to redo Kahle Drive. There are a lot of interconnecting pieces here.

#### Board Comments & Questions

Ms. Gustafson echoed all the comments and thanked all the partners.

#### D. 2022-2023 Annual Work Plan Update

Mr. Hester said this item is to provide to the Board as context for the six initiative presentations they've been receiving since the board retreat. This item is informational only today. The updates include the new Governing Board members, new staff, and addition of the programs beyond the four departments.

Today, he'll cover how this work plan fits into what they do. The work plan does focus on climate change and is throughout all of the initiatives.

(Slide 4) This is the process that they'll be working on starting in early 2023. The long-term strategic objectives or pillars, or what they look at as the long-term goals no matter what the initiatives are. The Board all set that and can adjust that if they think it's necessary in 2023. Then staff will continue with

the initiatives or can change the focus of them somewhat. That then goes into the annual work plan document they have in front of them today. That also goes into when Mr. Keillor puts together the annual budget with the department heads and other staff.

(Slide 5) The big focus of the current work plan is on climate change. Across the top of this graphic, you'll see how they work through their existing regulations. They refine them, and implement new things which is the plan, do, check act. On the bottom are the three aspects of climate change planning that's evolved over the last eight or so years. He'll talk about mitigation, adaptation, and resiliency. In the center they all come together using the tools that they have for their day-to-day operations at TRPA which are the Threshold Standards, Regional Plan, Code of Ordinances, and implementing projects as the Environmental Improvement Program does.

They spent a couple of years working on the latest Threshold Standard and a new category called Sustainable Communities and that's the Vehicle Miles Traveled per capita. That's specifically and directly designed to address climate change and greenhouse gas reduction.

Some of the things they do in the planning realm include Regional Plan which has mixed use Town Centers that reduce the demand for VMT because there are multiple uses, so people don't have to drive. The Regional Transportation Plan provides for non-automobile modes of transportation or less VMT. Some of you may recall in our area plans they call for each local government to have a Greenhouse Gas reduction strategy in there. Then there's a series of climate smart code amendments that the Board will hear about in about two months that are underway right now.

The biggest thing for implementation is that the EIP added climate adaptation and sustainability as a focus area. There are projects in that category, and they'll also see reduced VMT through traffic. They'll remember the project mitigation model that they just updated with the mobility mitigation fee that used the air quality implementation fee that results in reduced VMT or neutral VMT with every project.

Climate change planning: Mitigation was the focus of the 2014 Plan that won national awards to reduce greenhouse gas emissions. That happens for example, when the states require renewable portfolios, or when the vehicle fleet gets electrified, those are the kind of things that reduce emissions. Adaptation is making changes to realize that climate change is coming. Those are items like hardening infrastructure for floods, extending piers for drought. The Board will hear a little bit about those kind of things in a couple of months. Resilience is setting both adaptation and mitigation and other actions up, so that they can resume life "normally" after an event like a flood or a fire. Resilience is what they're after and is what mitigation and adaptation is all about.

(Slide 8) This is their current standard status of greenhouse gas emissions and the trends from the inventories done in 2005 and 2010. So, they're on a good track. Transportation is a big source. TRPA is directly involved in that through the Metropolitan Planning Organization. Energy has a lot to do with what the states are mandating for electric generation by utilities. But they can also impact that by allowing things like solar collectors and battery storage and their work to electrify the fleet. Transportation works with that. They have a big role in both of those particularly transportation.

(Slide 9) California Senate Bill 32 and Executive Order B-55-18 called for California to be neutral, which means offsetting with carbon reduction projects to reduce the CO2 released into the atmosphere.

Nevada Senate Bill 254 in 2019, Net Zero which means offsetting with carbon removal that actually

takes CO2 out of the atmosphere.

(Slide 10) The last accounting was done in 2018 before Covid that compares emissions on the left to what is sequestered. Depending on how you measure, they are close or maybe have achieved that Net Zero in terms of carbon in the basin. Obviously, a lot of this they can't control within the basin.

(Slide 11) Staff brought housing to the Board in July and Innovation today. They'll hear about the other four over the next four months, and those are the pillars or strategic objectives that each one relates to.

(Slide 12) The transportation part of Transportation and Destination Stewardship or Sustainable Recreation is electrifying the fleet for example. How do they help in that? They've put together a Plug in Electric Vehicle Readiness Plan that goes from the Interstate 80 corridor down to the US Highway 50 corridor. They did that with the Tahoe Donner Public Utility District and has resulted in a lot of new stations for charging including some here at TRPA. That is how they work on the supply side of transportation by making available the option to not use a gas or a fossil fuel burning vehicle. They also do other supply things on the transportation front with alternative modes like bike lanes, etc.

On the demand side is what do the users of the system want to get to and how do you manage that? Using a water planning analogy; you don't always plan to get more water sometimes you also plan on how to help people manage the demand for that. That's what they're moving into on the transportation side when they looked at Destination Stewardship. They've figured out over the last few years, that about 50 percent of trips don't come because of the things they have managed in the past like land use and development rights, but a lot of them come because there are people that just want to come up for day visits for tourism, hiking, visiting the Lake, etc. They're working with their partners on the best ways to manage this significant component of demand, especially as areas get hotter. More and more people are coming to the basin to recreate. They have a big challenge there to work on Destination Stewardship on the demand side of the transportation and recreation model.

Housing is to have viable communities. People need to be able to work and live there, and they need people to be able to teach at our schools, work in our stores, etc. They need all those for those reasons, but also as relates to climate, one of obvious problems is that if people don't live where they work is there's a commuting problem more greenhouse gas emissions, and a more congested transportation system.

TRPA is aligning the Environmental Improvement Program around the climate. Cutting the Green Tape study is all about increasing the pace and scale of the EIP projects. You've also heard about funding and they're working on a Memorandum of Understanding with the Forest Service for the Lake Tahoe Restoration Act funds. They've expanded their engagement to landscape level networks to learn about the best practices, and possibly add to the knowledge base on best practices.

There's been a lot of work done on the Thresholds over the past few years. Currently, staff is updating the framework. They are working with the Tahoe Science Council to look at what are the input measures, for example, and how are they performing street sweeping? What are the output measures like? How well is that reducing sediment? And what are the outcomes they're after such as the Secchi depth clarity? Much better than the way they used to do Thresholds, instead of saying a standard has to fit in a category, they now have categories that are tagged because there are a lot of things that apply to multiple categories. It's more systemic type approach to Thresholds.

The priority categories are Watersheds and Water Quality, Forest Health, Biodiversity, and Air Quality. The others that they still have to work on are Recreation, Scenic, Noise, Soils, and Sustainable Communities per capita VMT standard. Innovation is about processes, policies, and technology and how they use that all that together.

(Slide 18) The core activities are most of the thing's staff is doing that the Board doesn't always see. They are the things that they have to do by the Compact or required by funding entities. Staff won't be coming to the Board with these types of items. About 90 plus percent of the permits they process, they don't see. They don't see the boat inspections; they don't see a lot of things staff works on. These 51 core activities listed in the Work Plan plus the initiatives are carried out by the entire Agency. There are about 68 staff because in the summer they add two to three monitoring staff and two to three boat crew staff.

That's the majority of their Work Plan and wanted to recognize the talented and hardworking staff that you don't see all the time.

Please contact him with any questions or comments. This will be useful as they go through the initiatives and vector towards the next Strategic Planning update in 2023.

Presentation can be found at: [Annual Work Plan](#)

#### Board Comments & Questions

Mr. Yeates said our General Counsel is usually involved in just about everything they do. Whether it's enforcement or that they're going to speed up the permit process, change codes, etc. This all has to go through Legal. They talk about climate change in our policies and how it will happen. Mr. Yeates has a legal degree, but it was trying to do stuff that he had to do with his State Attorney General hassling over every step that they did on a threshold thing and had it not been for Mr. Marshall helping him negotiate with them, it would have taken forever. Mr. Marshall deals with six counties, one city, and two states and they're different. One of the things that was said to him when he was appointed to the Board was the people in Nevada think you're a crazy environmental lawyer, and Nevada is a little bit different. Ms. Berkbigler used to remind him a lot that they just don't do that kind of stuff in Nevada. The point is that one of the things that Mr. Hester says that this is going to help Mr. Keillor develop the budget for next year, and he thinks they're woefully underfunded when it comes to Legal. They are lucky that they have someone like Mr. Marshall right now. He doesn't know that there'll be another person like him and certainly you may not have as the next executive director, a lawyer which Ms. Marchetta was. You may have someone that's focused on other policy issues that will rely heavily on the General Counsel and advising him or her as to how do these policies link with all this other stuff. The kind of stuff that a County Counsel does for Placer County.

If they want to change fundamental policies, so they can do more workforce housing, that's a lot of work and a lot of work out of a legal department to do that. Every time they have a Shoreline enforcement problem it goes through Mr. Marshall. There needs to be more than one Mr. Marshall. There needs to be attorneys that he will train and that are divided up among Planning, Permitting, Transportation, and Shoreline/Shorezone. He does it all, but that's not fair. When Mr. Keillor puts together the next budget for both states need to say they need a more robust Legal Department, and this is why and they make the pitch because for the future of this Agency, they need to have a lot more attorneys.

Mr. Marshall said there's a larger message to Mr. Yeates' point. Whether it's him or any other staff, they're working at capacity. If they want to do a lot of the other innovative things that Mr. Hester has talked about, it's not just himself. It's indicative of larger issues that they're going to have that the Agency has struggled with for a long time. Some of you that are involved with other state and local agencies have this in different forms as well. It is a reconciliation of what their objectives are and what are their resources to do that. If you want to have certain objectives and you want to keep talented staff, then they need to provide the necessary resources.

Ms. Gustafson said that's an excellent point and when she looks at their County Counsel's office, or at the complexity of the issues here, the County has subject matter experts throughout the County Counsel's office for the various departments with a legal team of around 30.

Mr. Friedrich said the City of South Lake Tahoe adopted what he calls the strongest renewable energy resolution in the country, a 100 percent renewable at all time periods connected to their local grid. Is there an action that the Board could take that would help prioritize those kind of mitigation measures with projects in the basin. For example, if there's a conflict between scenic and rooftop solar, the Biomass ban, or if there was coverage for battery storage. Is there any legislative kind of policy initiative that they would take to help them in those situations to prioritize meeting climate goals?

Mr. Hester said yes, Mr. Stock and one of their student interns did a survey with stakeholders for what sort of climate smart amendments do they need for the Code. A lot the things he mentioned such as Biomass, Solar Collectors, and Scenic were brought up in that survey and it's going to be presented to the Board in October.

Mr. Friedrich said in his view, one of their biggest exports could be knowledge of the relationship between climate change and the degradation of Lake Tahoe. They hear it all the time from the scientists as the biggest threat. No matter what they do here, it's a global problem, but they can inspire people to be part of the solution where they live. They could see what they're doing here in Tahoe and take action where they live. When you visit Monterey Bay Aquarium or the San Diego Zoo, or other places, it's very clear the link between the climate and those ecosystems.

He would love to see some inclusion in October of how they can really ramp up that connection where everywhere you go, you not only see the solutions, but your help to make that link and given tools to be part of that solution at home, because in the end of the day that's something they could really contribute to the larger effort to turn the tide on this.

Ms. Hill agreed that they need to figure out how to staff up so we can meet all these initiatives.

Mr. Rice said being on the Legal Committee, he's had privilege of working with Mr. Marshall on many occasions. If they can't clone him, then maybe they could go out and get some assistance for him.

Mr. Marshall said he's had some of those conversations internally and it's a budget decision. Right now, it's a finite set zero sum. It's where they want to put those dollars and so far, they haven't hit any major legal road bumps. At some point, he'll no longer be doing this so, they've been thinking about what that means for the Agency, and how to transition into something else.

Ms. Gustafson said Ms. Williamson had to leave and was going to call back in to make some comments on this. In case she doesn't, she wanted to echo Mr. Yeates' comments. She shared those same

concerns about Legal Counsel and adding to that.

Public Comments & Questions

None.

Board Comments & Questions

Ms. Gustafson said they all appreciate Mr. Marshall's efforts. The organization of this plan and the areas other than Legal were well covered and strategized, and they look forward to working on those initiatives. She appreciated that the Board is getting more involved in looking at the long range of where they're headed and preparing themselves to have input on these topic areas.

X. REPORTS

A. Executive Director Status Report

Mr. Hester introduced new staff member, Rachel Shaw, Assistant Transportation Planner. Ms. Shaw has done some great work over at the City of South Lake Tahoe, among other things, she worked on the Complete Street Project.

Mr. Haven said Ms. Shaw is the newest member of the Long Range and Transportation Department and her focus will be on transportation.

Ms. Shaw said she's been in South Lake Tahoe for about 1.5 years working with the Tahoe Resource Conservation District, and then with the City of South Lake Tahoe.

Mr. Hester said for about two decades TRPA has sponsored an environmental scholarship fund. They've granted 29 students over the years in the amount of \$13,550. This year, they gave two scholarships of \$750 each to Jacqueline Avery from North Tahoe High School and Talia Tofanelli from South Tahoe High School. Talia's quote to them was "The earth is what they all have in common. I don't want to protect the environment; I want to create the world where the environment doesn't need protecting." These are motivated, young people who want to spend their careers working in the environment. They're honored to give them these scholarships. If you'd like to contribute, make out a check TRPA with a memo for environmental scholarship and send that to Victoria Ortiz.

1) Tahoe In Brief – Governing Board Monthly Report

Mr. Hester said Board members were provided with the Tahoe In Brief monthly report. If you have any suggestions or comments to improve this, please let him know. Staff has switched from working on a quarterly report that's retrospective to this which will give the Board more information on what's coming up.

Executive Director Report (continued)

Ms. Regan said in addition to welcoming Ms. Shaw, TRPA has had two extraordinary interns this summer: Olivia Craig and Kamryn Kubose. They both have worked on many of the items that you've been seeing the summer on the Equity Study, Corridor Planning, and Long Range Planning issues.

## GOVERNING BOARD

August 24, 2022

This year was the 26<sup>th</sup> Annual Summit sponsored by US Senator Rosen. A lot of work goes into those summits behind the scenes that no one ever sees, and it really is a huge leadership role for TRPA to coordinate with their Congressional offices, with the many staffers from the Federal, State, and Local levels, as well as their partners.

Recently, they did presentation for staff, because they have a lot of new staff that didn't really understand the summit tradition. The first Summit was done with President Clinton and Vice President Gore in 1997. This made the cover of the Tahoe Daily Tribune and a big expose in the Reno Gazette Journal with a recap of all the issues which are eerily familiar today such as Forest Health and Transportation and some new ones like climate change and invasive species. She thanked staff for putting together the Environmental Improvement Program report which was in the Summit bag. They report every year on the partnership of the EIP and the accomplishments from the year before. They also had a big milestone with the Bi-State Consultation on Transportation, co-chaired by Mr. Lawrence and Secretary Crowfoot convened that partnership which is a continuation over the course of many years, and were able to celebrate that in this document to identify the plan forward for funding framework.

### B. General Counsel Status Report

Mr. Marshall said an item that's particularly relevant since they were talking about US Highway 50 today is the Tahoe Cabin v. Nevada Department of Transportation and the Federal Highways Administration litigation over the Round Hill Pines Project that named TRPA in this litigation. They brought on new counsel and TRPA is now being dismissed out of that action. It is still progressing with the lawsuit against Federal Highways for the National Environmental Policy Act violations.

There was another interesting Nevada Supreme Court case that came out last week on a Douglas County Homeowners Association. They have Covenants, Conditions, and Restrictions (CC&R) that said their homes could only be used for residential uses and the litigation was over the question of whether Short Term Rentals can be banned as a result to that kind of limitation to residential use. Which they hear a lot about when people come to the Board and talk about STR's. The Supreme Court found that STR's are within the ambit of residential use. There wasn't any particularly special language in those CC&Rs, in that it was generally like other CC&Rs used primarily for or exclusively for residential uses, as distinguished from purely commercial uses and STR's are kind of a combo or can be. That was an interesting development that they saw in state law.

### XI. GOVERNING BOARD MEMBER REPORTS

Mr. Hicks said the Forest Health and Wildfire Committee hasn't met in several months. He suggested staff schedule a meeting to provide the committee on upcoming topics and things that they can do in the forest health area. They've spent the past few years modifying and updating both the ordinances, but there's other things that they need to do. Each committee member should give some thought to topics of interest things that they should be addressing.

There are a lot of grants of Federal money that have come through in recent legislation and would interesting to know how much of that can they steer into forest health projects in the Tahoe Basin. Is there anything that they as an Agency can do to either help identifying those funds or getting them to the right agencies?

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Ms. Gustafson said there's so much work going on in innovation in our nonprofit sector, and they might be interested to come to the Forest Health Committee, and whether it's the Tahoe Fund, or even the Community Foundation. Obviously, biomass is a big issue.

Mr. Yeates said the work between TRPA staff and the California Tahoe Conservancy staff would be an ideal situation for some kind of workshop or a presentation. For example, he's been wondering what's happening with Tahoe West and the restoration work that's going on from the Caldor Fire. There's a lot of timber is being cut and there's a lot of bare land. He's read in the New York Times and the Sacramento Bee that California is prime for one of these, massive super storms except this time the storm will stay and would be nasty with all those bare hills up there. He agreed a presentation would be nice. On the Thresholds he knows they're thinking about how to adjust some of the thresholds to address the changes they have to make in their goals in forest health.

Mr. Hicks said he appreciated that. Staff knows who is involved in these issues and who is knowledgeable about them.

Ms. Novasel said every one of her constituents was evacuated during Caldor Fire and affected every square foot of her district. Today, the Forest Service had a group from the Senate that went to Sierra at Tahoe. While at the Summit luncheon, Secretary Crowfoot said he would be interested in hosting a meeting with the new Executive Directors of TRPA and the California Tahoe Conservancy.

Ms. Aldean said they received some preliminary input from Steve Worthington at Prothman Group regarding the search for the new Executive Director. As of yesterday, they had one completed application, but they did have a couple of other qualified interested professionals. People tend to procrastinate in submitting applications. The deadline for applications is September 11<sup>th</sup>. Prothman conducted a TRPA stakeholder survey and the top soft skills that were identified for the new ED, included someone who is collaborative, communicative, a good listener, strategic in their thinking, and flexible in their decision making.

Mr. Friedrich said they City had the Recreation Center groundbreaking a couple of weeks ago. The Lake Link Microtransit has had a good start. It's a free service that runs until 9:00 p.m. on weekdays and 10:00 p.m. on weekends. A lot of the local jurisdictions have pitched in for that pilot and hope to build on it. The Sugar Pine Project is moving forward hopefully with a groundbreaking this fall for the first 78 units. Yesterday, at the City Council, as some of you know, the city took a position not in favor of diverting Highway 50 through the Rocky Point neighborhood. They're moving forward with an affordable housing project on the land that was in that proposed alignment next to 7 Eleven. Yesterday, they voted to move forward with developers of the Aspens at South Lake Tahoe, RMI and Noven for 100 percent affordable housing project on that property. The City is currently in negotiations with them for the terms of that. That is one where they'll be very interested in density coverage, and height flexibility.

Ms. Gustafson said Placer County received a report from Meadow View Place, which is just outside the basin, and unfortunately, they still have vacancies in their two- and three-bedroom units. They've been open for six months. While they have a crisis, what they've learned on North Shore is that they don't have enough people that earn so little that they qualify for the tax credit type of affordable housing and is why they're working so much on these programs that are achievable housing. It puts a huge burden on the local jurisdiction to raise that kind of money to make that difference in the tax credit financing. Something to consider as they move forward on other things, they can do to help

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those types of programs and help the local jurisdictions, or plead for a different AMI, since their wages up here is so much higher than Sacramento.

XII. COMMITTEE REPORTS

A. Local Government & Housing Committee

No report.

B. Legal Committee

No report.

C. Operations & Governance Committee

No report.

D. Environmental Improvement, Transportation, & Public Outreach Committee

No report.

E. Forest Health and Wildfire Committee

No report.

F. Regional Plan Implementation Committee

No report.

G. Ad Hoc Executive Director Search Committee

No report.

XIII. PUBLIC INTEREST COMMENTS

Steve Teshara, Citizen at-large of the region said wanted to take a moment to mark the passing of Larry Hoffman. Mr. Hoffman was very much a regular player at TRPA back from the days of the 1984 Regional Plan, the litigation, the consensus process, the 1987 Regional Plan, a staunch champion for private property rights and an advocate for many projects in front of the Governing Board. Larry was certainly a key mentor for him as he grew up in his career at Tahoe and we were all saddened to learn that he recently passed away. After he left Tahoe, he was an incredible world traveler in a small RV, literally around the world, and some of them used to get emails from Larry describing his various adventures around the world. He was a wonderful person, very involved at Tahoe, the North Shore, and Placer County. Donations can be made in Larry's honor to the Sugar Pine Foundation. Mr. Teshara made his yesterday. Rest in peace, Larry Hoffman.

Ms. Gustafson said she'll send out his obituary as well as the link for donations. Mr. Hoffman furthered a lot of people's careers through his guidance.

XIV. ADJOURNMENT

Ms. Gustafson adjourned the meeting at 3:28 p.m.

Respectfully Submitted,

A handwritten signature in cursive script that reads "Marja Ambler". The ink is dark and the signature is centered on the page.

Marja Ambler  
Clerk to the Board

*The above meeting was recorded in its entirety. Anyone wishing to listen to the recording of the above-mentioned meeting may find it at <https://www.trpa.gov/meeting-materials/>. In addition, written documents submitted at the meeting are available for review. If you require assistance locating this information, please contact the TRPA at (775) 588-4547 or [virtualmeetinghelp@trpa.gov](mailto:virtualmeetinghelp@trpa.gov).*

TAHOE REGIONAL PLANNING AGENCY  
LOCAL GOVERNMENT AND HOUSING COMMITTEE

Zoom/TRPA

May 25, 2022

**Meeting Minutes**

I. CALL TO ORDER AND DETERMINATION OF QUORUM

Chair Ms. Novasel called the meeting to order at 9:41 a.m.

Members present: Ms. Aldean, Mr. Friedrich, Ms. Gustafson, Ms. Hill, Ms. Novasel, Mr. Rice, Ms. Faustinos, Mr. Lawrence

II. APPROVAL OF AGENDA

Mr. Hester stated no changes to the agenda.  
Ms. Novasel deemed the agenda approved as posted.

III. APPROVAL OF MINUTES

Ms. Gustafson moved approval of the January 6, 2021, and June 9, 2021, minutes as presented.  
**Motion carried.**

IV. APPOINTMENT OF VICE-CHAIR

Ms. Novasel said this is her last year on TRPA since she'll be termed out as the El Dorado County District V Supervisor. This is a good point right now to think about succession planning.

Ms. Novasel asked the committee for nominations. Hearing none, she nominated Ms. Hill for Vice Chair.

Ms. Hill said she's honored to be the Vice Chair and learn from Ms. Novasel. This committee is incredibly important to the future of livability at Lake Tahoe.

Public Comments & Questions

None.

Committee Comments & Questions

Mr. Rice made a motion to nominate Ms. Hill as Vice Chair.  
**Motion carried.**

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- V. Item 4a: Discussion and possible action/recommendation of height, density, and coverage options to encourage affordable and workforce housing, including amendments to Chapters 30, 31 and 37

TRPA staff Ms. Fink and Ms. Bettinger provided the presentation.

Ms. Fink said today she'll provide an update for the actions that TRPA has taken this past year and highlight how the Tahoe Living Working Group work integrates with the Governing Board committee work. In addition, she'll present on what the local jurisdictions have done related to affordable and workforce housing.

In July 2021, the Governing Board approved the Phase 1 Housing Amendments. Also, last year, they approved an update to the Vehicle Miles Traveled (VMT) Threshold which included a provision related to affordable housing. Included in today's presentation are the new incentives that they have related to affordable housing in TRPA's Regional Plan.

TRPA policies now allow Accessory Dwelling Units (ADU) on all residential parcels on the California side. Staff have received 20 ADU applications since that Code went into effect. Through those Phase 1 housing amendments, the Governing board also approved increases to residential densities when tourist development is undergoing a redevelopment project to residential. Now there are some significant fee waivers in place for affordable, moderate, and achievable housing. For several years, they've had a fee waiver of their application fees, but last year, as part of the VMT Threshold update the Governing Board approved waving the mobility, mitigation fee for affordable, moderate, and achievable deed restricted housing. Those two fees together can result in a waiver of about \$3,000 to \$10,000 in fees which can be significant, particularly for a smaller project like an ADU.

There are many exciting things going on at the local level with implementing their housing elements and other housing actions. (Slide 3) is not comprehensive but highlights a few innovative programs and projects that are happening. The City of South Lake Tahoe was able to put quite a bit of general funds and leverage significant State and Federal grants for the Sugar Pine Village Project. Placer County just made some updates yesterday to their Workforce Housing Preservation program which makes available first-time home buyer funding for local workers. Washoe County is also working on their Washoe Tahoe Housing Partnership.

They're now in Phase 2 of the Tahoe Living: Housing and Community Revitalization Initiative. What will be presented today is kind of the main piece that the Tahoe Living Working Group and staff have been working on as part of that Phase 2. The Governing Board appointed the Tahoe Living Working Group in January of 2021 as a committee of the Advisory Planning Commission. The purpose of that working group was to be able to have practitioners and people who really have experience working in the housing field who can provide direct input on how their existing policies are working or may not be working. As they bring policy proposals forward, they can share their real-world experience, and let them know what they think will work, and not work.

The Tahoe Living Working Group is a 20-member group of stakeholders. There are affordable housing developers, builders, social service providers, representatives from the public land agencies, environmental organizations, and each of the local governments are represented on the working group. They also have Governing Board representatives from this committee and from the Regional Plan Implementation Committee. Lastly, they've also had participation from other Governing Board members with an interest or expertise in housing such as Mr. Beyer and Mr. Hoenigman.

Staff is bringing forward today the first set of concepts that they've vetted with the working group and are now presenting it to the Local Government and Housing Committee and the Regional Plan Implementation Committee for input before the next phase which is the environmental analysis process. Staff will then bring it back with code amendments for recommendations of approval.

The focus of this phase is to continue to look at ways that they can better implement the land use pattern that was envisioned in the Regional Plan to support transit, walkable communities, reduce greenhouse gas emissions, help achieve the climate goals, as well as achieving the affordable housing goals in the Regional Plan, and the local governments affordable housing targets. Ms. Bettinger will present on those concepts along with the work of their consultant Cascadia partners who did a financial feasibility analysis on these policies. Ms. Fink will follow up with some changes that they're proposing to the achievable definition.

(Presentation continued)

Ms. Bettinger said this will be a two-part presentation. First, will be the results of a performer analysis that their consultants Cascadia did last Fall. Then she'll present on the proposal for how to address some of these things that came out in the analysis.

Cascadia is a real estate, land use, and housing firm that's based out of Portland, Oregon to explore the feasibility of building more workforce housing through testing some alternative development standards for both TRPA standards. In this analysis they looked at density, coverage, and height. It also highlights other constraints that they haven't talked in as much detail about.

The analysis looked at three different scenarios. First, what it would take to build a duplex on a 5,000 square foot lot in the Kings Beach residential subdistrict in Placer County. They used a 5,000 square foot lot because they found that is the median size lot already zoned for multi-family in the basin. By using this size of a parcel in this analysis they can sort of more broadly apply these results throughout the Region, not just focusing specifically on Placer County.

The next scenario looked at what it would take to build a fourplex on a slightly larger parcel at 8,000 square feet in the Incline Village residential area. This is outside of the Town Center, so not all the highest development standard incentives exist. They found that the findings in this zone were very similar to the first scenario on Kings Beach. The full results are included in the staff packet and on the website.

The last scenario looked at building a multi-unit affordable development on a 12,000 square foot parcel within the City of South Lake Tahoe's Ski Run Boulevard Town Center. This is a little bit different scenario because the Town Center areas provide for higher development standards.

Kings Beach Residential Subdistrict, Placer County: Even though the Kings Beach residential primarily consists of single-family homes right now, the statement of purpose in the zone is that the Kings Beach residential area is anticipated to have a mixed residential use type.

They're trying to encourage a mix of residential housing types in this zone as shown on slide 11. This opens the opportunity to explore what it means to build more than just a single-family home in this area, and specifically building housing types that are known to be more affordable than single-family homes such as middle housing types.

For Scenario 1, Cascadia modeled a duplex on a 5,000 square foot lot. The intent of this scenario is to understand how the existing Code of Ordinances impacts duplex development and test out some alternative development standards that might help further support duplex development in this specific area.

(Slide 13) is a summary of existing standards compared to the alternative test standards that they used. The alternative test standards are shown in blue. In the middle column the current allowable density is 15 units per acre.

In this scenario, they asked them to go up to 20 units per acre and explore how the feasibility changed. The maximum height in this area is 3 stories and they asked them to go up to 3.5 stories. On the maximum lot coverage, now, they assumed that this is a high capability, relatively flat parcel and the maximum allowable coverage could go up to 30 percent. Then alternatively, they asked them how the feasibility would change if they went up to 70 percent. They've also included setback and parking requirements in this table for reference. Although, these are primarily implemented at the local government level. This is not in one of the Town Centers where they want to see kind of the highest growth, but is in their highest density, multi-family areas outside of Town Centers.

(Slide 14) The first big finding of modeling a duplex under existing Code is that you can't build anything, you run into a no build scenario. If you look at the units per acre calculation, two units on a 5,000 square foot lot exceeds the density allowance of 15 units per acre in this zone. The 15 units per acre doesn't equate to 15 units per parcel, that calculation needs to be done as shown on this slide to identify how many actual units there could be on the property. In this case, to get two units on a 5,000 square foot lot, you would need at least 17.5 units per acre density allowance to do that. They didn't end the test there, they wanted to explore how other developments standards might impact the duplex development as well. Assuming that they increase maximum density to allow a duplex they wanted to know what was the next biggest obstacle that they would run into.

(Slide 15) They found that 30 percent lot coverage maximums are kind of a major barrier because it does make for an awkward and inefficient duplex. The 909 square feet is the maximum unit size with 30 percent coverage. There's a couple of reasons that they can't build larger units. One, is because the space for parking goes towards the maximum amount of coverage, and it really eats into the space that there is for the overall living for the overall living space. In this case, Cascadia included garages which essentially take up pretty much the entire first floor of the development which doesn't leave a lot of space for the living space. Although, three stories are allowed, the roof pitch requirements limit livable square footage on the third floor. This further limits the amount of maximum square footage that you could have access to. The takeaway was that you'd be left with small duplex units and typically they're too small to be family size or market feasible.

The financial analysis shows a rate on investment comes in the negative which is far from the target rate of around 12 to 15 percent that developers typically like to see. The minimum amount this duplex would need to be sold for is about 19 percent over current market trends. Overall, due to the size and financial performance, this duplex really isn't something that a developer would be interested in building which is why they don't see many new duplexes being built in Kings Beach or in a lot of the multi-family zones throughout the basin.

Another finding from Cascadia's analysis was that setbacks and lot coverage result in a very different buildable area. (Slide 17) Shows that setbacks take up about 44 percent of the site which leaves about 66 percent buildable. Alternatively, coverage standards at 30 percent, more than half of the buildable

area is left vacant. This is important, because this area that is left vacant has a dollar amount which is almost \$52,000 in land costs. Here, they observed a misalignment between coverage and setback standards which has a cost to it.

(Slide 18) What is technically allowed under the existing Code doesn't always align with development standards. The bottom graphic shows the housing types in red are technically allowed but the single-family home is typically the most feasible housing type in this area.

How does a duplex under existing Code compare with a duplex under recommended alternative standards? One, a more comfortable duplex could be built by increasing the lot coverage standards gives a little bit of wiggle room to include bigger units and make this duplex a lot more feasible. Under building and parking coverage, going from 30 to 34 percent allows for a significant increase in units which makes the development more feasible. Having a few extra square feet makes the units more family size and more comfortable. It also improves the rate of return on investment. They went from a negative 3.1 percent under alternative standards to 7.5 percent. While this doesn't quite reach the target, it's significantly improves it. You can also see that with the minimum feasible sale price, it was 19 percent above market rate and now it's 7 percent above market rate. While they're still not hitting the targets, they are getting closer.

(Slide 20) Alternative test standards do comfortably accommodate a duplex within average 3-bedroom unit size and does improve the rate of return.

As part of the analysis, they wanted to test how current development standards affect the feasibility of multi-family housing. The first thing that they ran into was the maximum density doesn't allow for the feasibility to build a duplex. Assuming increases to density, the 30 percent lot coverage does still create an awkward and inefficient layout. It's not that feasible to build more than a large single-family unit, or a very small duplex.

Assuming increases to density and lot coverage, setbacks do consume close to half of the site, limiting development to no more than a triplex. Assuming increases to density and buildable area, the parking requirements severely limit the potential for denser housing because the parking requirements for multi-family and single-family are the same.

Lastly, the 36-foot maximum height starts to become a significant barrier when they're building slightly larger multi-family. In this case, at 6 units and beyond, going back to that roof pitch requirement, it's not necessarily the height that's limiting but it's the amount of usable space on the top story with that roof pitch requirement.

Scenario 2 came out with very similar results to Kings Beach.

Scenario 3 is Ski Run Boulevard located in the Tourist Core in the City of South Lake Tahoe. It is Town Center that has a variety of amenities, services, transit, and bike paths. This area supports a wide range of mixed uses which includes multi-family residential. Because this area is in close proximity to a lot of these amenities and uses, Ski Run is identified as a preferred affordable housing area.

As part of this process, they modeled a multi-unit deed restricted affordable development. This is a little different than the last scenario in that they're specifically looking at a fully deed restricted development, similar to what they're looking at with the Sugar Pine development in the South Shore.

Whereas, in Scenario 1 it was not deed restricted. They're using 12,000 square feet as the parcel size. They found that the median size of vacant lots in the Ski Run Boulevard area is about 12,000 square feet.

(Slide 25) Summary table of existing standards versus test standards in blue. Because this is in a Town Center and they already have some of incentives for maximum height and coverage allowances, they allow higher height and coverage in Town Centers already and a little higher density as well at 25 units per acre. In this scenario they wanted to increase this up to 40 units per acre, to see how that impacts the feasibility.

Under the existing Code, up to 6 units could be built. This is based on that 25 units per acre. They're using 770 square feet as the average size of a unit. They found that this is a typical unit size for an affordable development. The building and parking coverage come in at about 34 percent coverage. It does take into account the parking reduction that the city offers for affordable housing development. The subsidy required per unit is about \$375,000 per unit. In order to make this project work, that would be the cost per unit.

In a couple of findings, they learned that the maximum density is essentially holding someone back from the other development opportunities that other standards have to offer. Because building and parking only covers 34 percent of the lot, less than half of the coverage allowed under existing standards is utilized. Although, the existing Code allows for up to 4 stories, a 6-unit development, they found in this case doesn't require more than 3.5 stories. Other standards are offering a lot more in this specific Town Center area and maximum density is kind of the only thing that is hindering the development potential on this lot. Setbacks, and lot coverage result in different buildable areas. There's sort of a misalignment between these two standards. In this case, it's opposite from the previous scenario in that setbacks are consuming more of the lot than the 70 percent allowable coverage. Cascadia found that these standards are taking turns in defining the buildable areas.

How does what they can build under existing Code compare with what they can build if they do increase maximum density? (Slide 29) They're seeing an increase from 6 to 11 units, which is almost double and are keeping the same unit size for comparison. The building and parking coverage increases from 34 to 56 percent. At the bottom of the slide, you'll see that the subsidy needed per unit does decrease. They know that subsidies in affordable housing are scarce and oftentimes very competitive. Even though it is only a 10.5 percent reduction in the subsidy needed per unit, it could tip the scale to make this project go from infeasible to feasible.

Increasing maximum density can help decrease the amount of funding required to subsidize deed restricted affordable units. This is a significant finding when it comes to just increasing maximum density in this zone because while they have higher allowances for height and coverage, the density is holding them back in this situation. While this does include parking reductions for affordable housing, again, the city does offer these parking reductions for deed restricted affordable housing. About 33 percent of the lot is used up by parking. It's important to test and understand the impact of parking reductions in order to calibrate them in a way that supports affordable housing development.

Maximum density limits development to no more than 6 units. That's great but if they could have more and better utilize the incentives that they have for other development standards, why not do that.

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Assuming increases in density, setbacks again, are the next place that they bump into, and they consume about 43 percent of the site which is more than the coverage allowances do in this zone.

Parking requirements remain a significant barrier and limits the development to no more than 13 units unless parking reductions were decreased. Assuming increases to density and lower parking minimums, maximum height and lot coverage become a significant barrier at more than 20 units.

Cascadia's three takeaways were that there's no there's no single silver bullet. They saw in all these scenarios that they just can't change one standard and make a large impact. An example of this is density. Just increasing density is not enough, they'll run into other standards. They go hand in hand, and it's important to think about the big picture about how they can address these altogether.

The second was barriers to multi-family development increase with density. This might be sort of a given, but there are a lot of standards in the basin that are very friendly to single-family development but become very significant barriers with building multi-family. For example, in the Ski Run scenario the parking requirements take up so much of the lot, how can they better calibrate those to reflect what they want to see?

Third, changing development standards is a relatively hard process and takes a lot of political will. Cascadia recommended that they should tackle the development standards that they see could have the largest impact in terms of breaking down barriers.

Cascadia's analysis concluded.

(Presentation continued)

Ms. Bettinger said in the analysis the development standards implemented at both TRPA and local jurisdiction level influence and ultimately dictate what gets built in the basin. The analysis showed that for most of the areas in the basin it is a lot easier to build single-family homes than it is to build the multi-family types that the workforce relies on. Throughout the past year, the housing team has been focused on developing options that open doors for solutions to a number of big Regional Plan goals. Among these are encouraging workforce housing development, but they also want to better connect the housing and transportation network to create walkable communities that are close to services, amenities, and transit, and concentrate development in the Town Centers. Advancing on all these goals does positively impact the climate and sustainability of Tahoe. Today, they'll present on some conceptual policy options related to how they can address height, density, and coverage to further get at some of those goals.

This summer they'll be moving these options through the environmental analysis. The purpose of presenting these today is to get input on what should be included in this package for further analysis.

Density is implemented by allowing certain units per acre. It's the standard that controls the number of units that could be placed on a lot, depending on how big the parcel is. Many parcels that are smaller and closer to Town Centers can't have more than one unit because they're too small. In the first example, they couldn't build a duplex under existing density standards. By using relatively low-density standards paired with a lot of smaller parcels in the basin, they are inadvertently excluding the missing middle housing types like duplexes, triplexes, and fourplexes that are often affordable by design types that were highlighted in the Opticos presentation to the committee last year. As a result of this, many

of the parcels in the basin that are zoned from multi-family, either end up being developed as a single-family home, or often remain as vacant lots. Their proposal also focuses on Town Centers today where existing densities are currently 25 units per acre and they're finding that this is not high enough to support the transit and walkable development that they want to see.

The second scenario in the analysis showed that even at 25 units per acre, density constrains the development opportunities that increased coverage and height in Town Centers can offer.

The first conceptual proposal would allow a minimum of 3 units or a triplex on any parcel that is already zoned for multi-family housing in the basin and would be regardless of the existing units per acre standard or size of the parcel. This incentive would be only for deed restricted affordable, moderate, or achievable. This would apply in areas that are already zoned for multi-family as show in purple on slide 36. In these areas current densities range from about 8 units all the way up to 25 units per acre in the Town Centers. Again, this proposal would allow a minimum of 3 units regardless of whether they could get those 3 units with existing density allowances.

In addition to the analysis, highlighting the need for increased density in Town Centers, they've also received a few comments encouraging them to look at increasing density in the "downtown and surrounding areas." through this process. Town Center densities at 25 units per acre are too low to support the type of development that they want to see in these areas. For reference, densities for tourist uses go up to about 40 units per acre in a lot of these areas. They would like to use 40 units per acre as starting point for looking at residential densities in this area and are open to the idea of going even higher if the analysis shows that that is needed. This is not the first time they've increased densities above 25 units per acre. In 2010, TRPA's Code of Ordinances was amended to allow for up to 30 units per acre for affordable housing projects in Kings Beach. This option will also allow the local governments to decide if they want to utilize this increased density. They would increase Regional Plan densities in in these specific areas, but it would be implemented at the local jurisdiction level through their area plans. Not every area is appropriate for higher density. In terms of applicability, they would like to analyze this higher density option for developments that are building a certain percentage of deed restricted housing. This option is a little different than some of the other options that they're bringing forward today in that this wouldn't be for 100 percent deed restricted developments. It would be for a development that for example is 75 percent market rate, and they're setting aside 25 percent of the units for deed restricted affordable, moderate, or achievable.

Coverage was the next development standard that Cascadia identified in their analysis. Coverage or impervious surface can often prevent the infiltration and treatment of water and stormwater runoff which leads to water quality impacts in the Lake. Coverage also contributes to soil erosion and limits vegetation growth. These are all reasons why TRPA regulates the amount of coverage that could be built on a lot and is based on the land use classification system that looks at how much development lands in the basin can tolerate. Higher capability lands can tolerate more development, more severe disturbances, and remain stable. Other more sensitive areas like stream environment zones and steep slopes can become highly unstable after just a bit of development, or a slight disturbance. In the past the Agency has recognized that coverage limitations impact their development objectives in the basin. As a result, they have put in place incentives to encourage development that helps them meet the Regional Plan goals. For example, the higher coverage and height allowances in the Town Centers is a great example of when they've provided incentives to help meet the Regional Plan goals.

Through the working group process and further reinforced by the Cascadia analysis, the current

coverage system does encourage single-family over multi-family because coverage allowances are the same to build both, even though typically more coverage is needed for multi-family. They've also heard that in the Town Centers where higher coverage is already allowed that it can be difficult to find and transfer in. Even though it can go up to 70 percent coverage in Town Centers, there still needs to be coverage transferred in at a cost. Outside of Town Centers a lot of parcels that are suitable for workforce housing exist just outside of these Town Center boundaries. In the Ski Run Town Center is relatively small, and there are quite a few parcels that are just adjacent to this boundary that hold a lot of the denser development right now, and a lot of pseudo-affordable housing exists in this area right now. If they want compact development close to Town Centers, they need to identify alternative ways of looking at coverage for workforce housing that maintains the same level of water quality and soil protection, but also allows more flexibility on coverage limits for specific workforce housing types.

Based on these objectives, staff presented two options for input on today. The first option would allow property owners to build above base allowable coverage up to a maximum of 70 percent similar to Town Centers for deed restricted multi-family or Accessory Dwelling Units outside of Town Centers. This additional coverage would be available for the deed restricted unit only and would be a maximum of 70 percent coverage. For example, if someone wanted to build an ADU and they're already at their maximum amount of coverage they could build this ADU and increase their coverage to do that. The Cascadia analysis showed that only about 34 percent of coverage would be needed for a duplex. In Scenario 2, in Incline Village it showed that 42 percent of coverage would be needed for a fourplex. While they would be allowing up to 70 percent, it's not every case that 70 percent would be needed.

Similar to their existing Town Center incentives this would be limited to high capability lands and would require that BMP's be installed to treat the runoff from any additional coverage. They do anticipate that these units would primarily be located in the bonus unit boundary, because this incentive would be for deed restricted housing only and the cost associated with obtaining a development right is pretty high and a limited amount of them. Anytime they allow additional coverage over base allowable it needs to be mitigated through transferring in coverage. While this option does give flexibility in terms of the overall coverage limits, they know that transferring in coverage can be hard to find and costly. Essentially, with this option they're allowing more coverage but there's still a high cost associated with that. Through the environmental analysis they would like to look at whether there are any alternative mitigation strategies that could help applicants find coverage or alleviate some of these costs associated with transfer requirements.

The second option would take an alternative approach to water quality and soil protection for specifically for deed restricted housing. They would like to look holistically at water quality soils and coverage together and use some of the more advanced technology that they have available to them today. They have a lot of GIS data that can help them identify a broader range of land constraints, such as erosion or high ground water, insensitive areas that should be considered with development or redevelopment. In most other areas outside of the basin this data is paired with stormwater management regulations and putting green stormwater infrastructure systems in place to provide a more modern alternative to water quality and soil protection.

Due to the basin's history and the way that it was developed, they don't have a lot of this stormwater infrastructure already in place. But by looking at this alternative approach to coverage in a in a very limited capacity for specifically workforce housing they could see some environmentally beneficial redevelopment while implementing at the same time, multiple provisions and getting at that those goals of the Regional Plan. They would like to test this option in more urban areas, specifically in areas

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that would be appropriate for workforce housing. This would require a strong partnership with the local jurisdictions or a similar entity. Oftentimes, there are general improvement districts in Nevada that they would like to work with to sort out what this would look like.

The last development standard that Cascadia identified in their analysis was height. Current TRPA height standards encourage residential development that blends in and is it compatible with surrounding uses and the environment. The analysis did show that height is not as much of a concern as some of the other standards. Specifically increasing height from 3 to 3.5 stories has relatively little effect on the feasibility for smaller scale multi-family projects such as a duplex. In general, this is consistent with what they've heard from the Tahoe Living and Working Group and meetings with the local jurisdiction staff. They know height is not so much of an issue when they're building smaller scale multi-family but when they get into the larger 20 plus unit multi-family developments, it does become more of a challenge.

The height chapter of the Code of Ordinances currently outlines maximum height for buildings using the percent slope retained across a building site and the specified roof pitch. The intent of regulating roof pitch is that the resulting building will be attractive and compatible with surrounding uses. They did see in the Cascadia analysis that the existing roof pitch requirements does limit the amount of usable space on the top floor. They also know that in addition to just creating an inefficient building, it also doesn't accommodate the energy efficiency needs to create more sustainable developments and doesn't meet modern design standards. They've seen a lot of project applicants come in for area plan amendments trying to allow for a more flexible roof pitch. By doing this they wouldn't need to change the height allowances, but better utilize the height that already exists. They also wouldn't compromise neighborhood character by increasing allowable height.

They've heard the need for greater flexibility in Town Centers potentially above what is already allowed, and what they're proposing today. The flexibility that's needed is really dependent on the parcel, and it's difficult to put in place these blanket incentives that might not work in every case. To help address this, they would like to explore the option of again partnering with a local government to implement some pilot programs that could combine some of TRPA's development standard incentives with flexibility from the local jurisdictions on their standards. In their meetings with local government staff, they did talk about certain areas where higher density, coverage, height, reduced parking, and potentially setbacks could be appropriate like in the Tourist Core. These areas would need to be near transit services and larger employment centers and could be an opportunity to introduce even more flexible development standards than what they're proposing today.

They presented these concepts to the Tahoe Living Working Group in March 2022 and have incorporated their feedback into what they've presented today. Staff would like input on which of these concepts they should move forward with and if there are any concepts or components that they should be adding or removing from this list. Staff will be attending the Regional Plan Implementation Committee next month to further refine these concepts before beginning the environmental analysis and code amendments this summer.

Presentation can be found at: [Local-Government-Housing-Committee-Agenda-Item-IV.A-Affordable-and-Workforce-Housing-Development-Standards.pdf](#)  
[Committee Comments & Questions](#)

Ms. Gustafson said she supported looking at all these options. Obviously, there is a housing crisis and a

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lot of barriers. Some of the other efforts they're making county wide they continue to look at California Senate Bill 9, and the implications of that and using only a 1,200 square foot lot from minimum and really reducing those requirements, so that they can get secondary units with restrictions, whether that's a deed restriction or a type of use restriction. She likes the ideas that there's other ways to address stormwater management requirements to protect the environment. She looks forward to both the pilots and the options that have been presented.

Mr. Lawrence said this has been a long process and has enjoyed being part of it. He's learned so much from the local government representatives about the challenges and thanked Ms. Novasel for her leadership on the committee. Regarding the setback barriers, he couldn't figure out whether those were TRPA setback standards or local government setback standards and was assuming local. He supported all of the options as well to be explored. He would like to see every single barrier lifted and get as much affordable housing as possible, but they are also an environmental agency protecting the health of the basin and is mindful that there's a Regional Plan that's based on an environmental document with restrictions regarding development capacity, how they use allocations, and land coverage restrictions. Their environmental document is hanging on a lot of those restrictions. They do need to be cautious and not just increase coverage. They need to look at it, but there needs to be a very strict look on how it ties to the environmental document that supported the Regional Plan Update. Lastly, he'd like to learn more about the green stormwater. From state of Nevada perspective, they have funded a lot of road projects between the Nevada Department of Transportation and local governments and is curious on how this is above and beyond what is existing in order to get that sort of variance.

Ms. Faustinos said it's been fantastic to be part of this process and working with local government that has to deal with these issues on a day-to-day basis is pretty significant. They need to ensure that there's good public engagement as part of this process, because local government are the ones that are going have to deal with these issues. As they find out more about where these opportunities exist to make sure that there's extensive public engagement to be able to mitigate some of the negative feedback they might be getting.

Mr. Rice said this is something they've been grappling with on the Nevada side for quite a while. He's been a proponent of affordable housing. This is necessary, they have to do something, but they need to be mindful that they don't over correct themselves, so that they don't impede the progress that this Agency has made over the years. When he moved here 31 years ago, TRPA did not stand for the Tahoe Regional Planning Agency, it was a little rougher than that. This organization has made great strides in protecting the Lake. He's heard criticism that they should concentrate on the Lake and don't worry about social engineering, which in fact this is social engineering, and is that their role? He wants to be mindful of that as well. We need to something but wants to make sure that they tread carefully.

Ms. Aldean agreed with what's both Mr. Lawrence and Mr. Rice have said. Everything they do is a delicate balancing act, but she does support investigating these various options and feels pilot programs are important in order to inform the general public about what the ultimate impacts of their decisions might be and with providing them with visual aids and real-life examples of what can be done to address the affordable housing issue while still for protecting the Lake and adhering to their environmental standards.

Ms. Aldean referred to page 291 of the packet. Going from 25 units per acre to 40 units per acre is a 62 percent increase. She feels that 20 percent is a pretty modest percentage of the units that should be deed restricted. She understands, again, that it's a delicate balancing act with respect to making these

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projects financially feasible. To the greatest extent possible, if they're going to make some fairly substantial concessions here, they need to be as aggressive as possible with respect to the number of units that need to be deed restricted in these various projects since they're giving the developer a fairly substantial incentive. Looking at the Recreation Center in South Lake Tahoe that the Board recently approved is an institutional use in her opinion and would hate to see homes or multi-family units look institutional. In addition to respecting the environment at Lake Tahoe, they have to respect to the extent that they can the architectural history of the area as well. While making some concessions on the roof pitch, she'd hate to see duplexes and triplexes with flat roofs. They also have to take into consideration snow loads. Going through this process, evaluating all these options, looking at the pros and the cons, the benefits and the disadvantages is important. She encouraged staff to move forward.

Ms. Hill said she's also excited about what these options will look like. In working with developers over the last 1.5 years as a commissioner, they need to be clear standards that everyone understands. She has some concern about a pilot project because she feels like that could create confusion. In Washoe County at the Lake, they still have staff getting up to speed on their area plan changes. They need to ensure that they can help people through this process people understand what they can do. Otherwise, they may get frustrated and build something that wouldn't benefit the working families that they need to live at Lake Tahoe, operate all the different businesses, and work in the community. That is her only concern, she just wants to see clarity, and that's why on coverage, Scenario 2, the soil protection measures, she wants to make sure that staff understands how that would be implemented. She agreed that they have to balance Lake clarity and environmental issues which TRPA has done that and will continue to do that. This is just a way to ensure that they can have functioning businesses in the communities, because it is that much of an emergency in Incline Village and Crystal Bay where they are having major issues staffing restaurants that aren't even open seven days per week. This is an emergency in figuring out that balance. She's heard from Washoe County staff that they're doing a good job and can't wait to hear what those outcomes are.

Mr. Friedrich said this was a very thoughtful presentation and covered a lot of material. He supported studying all these elements and the pilot programs as well. The workforce housing group was very supportive of pilots, and that's how you get information and tested in real world conditions. He doesn't see this as social engineering, he sees it as planning based on priorities and that's what the Agency is all about, making choices. To that extent to his colleagues concerns about environmental impact, perhaps they could add to the analysis opportunities to look at trade-offs. For example, there's a housing crisis on one hand, and they also have a proliferation of vacation rentals in their neighborhoods on the other. Could they be taking a new look at requiring Tourist Accommodation Units for vacation rentals? If density is a concern with more people living in new affordable housing developments, could they look at stronger parking management strategies, or other ways to mitigate increased traffic impacts, or disincentives for these large single-family, monster homes, especially close to the Lake, based on the fee structures. To the extent they can meet this critical housing need in a way that also protects the Lake might require looking at some of those kinds of trade-offs. Perhaps they need to look at where they're subtracting while they're adding, to make sure they're not having a greater Lake impact and that may be a way to have our cake and eat it, too. That won't make all constituencies happy, but they have to choices and policy priorities and that's not social engineering, its planning based on what are the top priorities and how do they balance those various competing interests?

Ms. Novasel said she was impressed with this item and excited about the thought of where they could go next. They are all doing this in their local jurisdictions in talking about how to do this. She agreed, they can't get proper staffing right now. This is an emerging issue for the local communities and that

workforce housing. This is incredibly important work, and the possibility of a pilot program is great.

Ms. Novasel said El Dorado County doesn't have a very big Town Center area and there's frankly no residential building right now within it. Close to it, they do have some areas where there are multi-family dwellings. She asked if they could look at that possibility that was mentioned if something was say an "x" amount of miles, whether it was a mile or two away, they don't even have any transit out there at the Town Center which is another impact. Something to look at would be near the Town Center, if there was a way to incorporate that where that made sense within those areas, perhaps a pilot program might be interesting. Someone brought up the of increasing coverage, and how that could affect their Regional Plan. When she was in Boulder, Colorado, she was impressed by the fact that they have such a great plan, and that they have urbanized areas with multi-family dwellings, and this goes for a lot of Colorado within a dense area and then on the outside they have these incredible open space green areas. Is there a way to mitigate more density with more open green space around it. Perhaps that is the conversation that will help get us to where we need to get environmentally to understand if that makes sense for them. Lastly, the discussion about using other development rights, such as Tourist Accommodation Units to offset some of these coverage issues. Maybe there's the possibility of doing some transfers there, and that would help. The Sugar Pine Project had some issues with trying to get coverage, and if there was a way to balance that out through development rights, perhaps that's something they could look at.

#### Public Comments & Questions

Carole Black, Incline Village resident said this was an impressive and awesome presentation. Please remember that all Tahoe area Town Centers are not equal in terms of size, accessibility, environments, issues, etc. In addition to the local government regulation overlay that you mentioned, to also consider recognizing NTRCA processes and regulations differences as you have in this presentation. Please don't forget parking, Incline Village is limited on street availability and very limited parking capability on the lots. She wants to be sure that none of these changes undermine the Short Term Rental restrictions in Nevada. Right now, she doesn't believe that there's limitations on Accessory Dwelling Units added, being used as Short Term Rentals. Although if the deed restrictions are enforced hopefully, that might help. She requested that they consider enforcement requirements with penalties at both the individual and jurisdiction levels for deed restrictions. These, she believes as others have said, having these capabilities available for workforce is critical. But she's also heard that deed restrictions aren't particularly well enforced. Maybe that's true, maybe it's not but having some teeth in that component might be helpful.

Philip Gilanfarr said staff compiled a great presentation and captured the challenges they have. It's been many years now that they've attempted to develop affordable housing or workforce employee housing. They've ran into a lot of brick walls; the primary ones are coverage and density. Height was discussed, height is not quite as challenging, but density and coverage are. The second piece is obviously this is a part of the Nevada portion, and that the jurisdictions don't have the ability to help guide them on deed restrictions and the language proper because California has a good sense for that, but Nevada has not picked that up. In order to protect these units, they need to come up with some better language that that allows those deed restrictions to be incorporated. The other comment is that there are some plan areas like Ponderosa Ranch for instance that doesn't allow employee housing. Yet, it's walkable to the Hyatt and the Sierra Nevada College. They have a client who has indicated that they would love to incorporate some workforce housing on their property but of course, it's now an industrial zone and is not recognized as something that could be done. He's hoping that in this review

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that maybe that's an opportunity to look at some of the plan areas that are adjacent to Town Centers to see if there's a way of incorporating housing into those areas if they have proper transportation or walking and bike paths. He also supported a pilot project.

Steve Teshara on behalf of the Tahoe Chamber added his commendations to staff and the consultant team that worked on this. This is the level of detail they need to get into to try to solve these intractable challenges. He appreciated the approach that one size doesn't fit all, and they'll have to work with the local government partners to see in what areas what things can be done. The adjacency to transit is an important consideration, as is areas of large employment. As Commissioner Hill said, they need functional businesses and public services such as the local government workers, utility workers, and first responders. They need to get into the level of detail and explore all the options that have been laid out and understand why certain things don't work the way they are presently constituted. The environment and the environmental protections are important, but they need to also consider what are the environmental impacts on Tahoe if they provide affordable and achievable workforce housing within the basin itself.

Sherry Barker, Nevada Tahoe Resource Team Land Agent and runs the land bank for the State of Nevada wonders if one of the ideas has been to look at adding, possibly a high-rise type of community in each county, and possibly with a parking garage. This could accommodate similarly to large hotels and hold a lot of individuals and make transit easier. There could possibly be one bus or shuttle that works with each of the high-rise communities. It's an idea to help reduce coverage, and to create less building and all the permits that would be required, and other items that take time, money, and effort.

Gavin Feiger, League to Save Lake Tahoe thanked staff for putting this together. They've been part of the Tahoe Living Working Groups since its inception. They've been the only environmental voice consistently taking part. They've definitely been heard and are working closely with staff and like the direction that almost all of this is going. First, he agreed with what Mr. Lawrence had to say about making sure that anything that's pursued is pursued through the lens of the Regional Plan and its associated environmental document. There could be some opportunities for trade-offs as Mr. Friedrich and Ms. Novasel mentioned. They could get into more details through the working group. These are all great details and he's excited to see some of them move forward. They can't talk about coverage without talking about parking. Are they trying to find places for cars or for people to live? If they look at the percentage of coverage that's going to parking, it doesn't make sense and he knows it's complicated, but those two things have to be considered together. He agreed with Ms. Aldean in that the 20 percent of what could be called inclusionary zoning to qualify for density increases is not enough. Lastly, a bit outside of the scope of what they're talking about today, looking back at the decision to allow Short Term Rentals as a residential use is a big picture thing that really does need to be considered and would not take the level of environmental review that some of these others would.

#### Committee Comments & Questions

Ms. Novasel said they don't need a formal motion; it was just to get a sense from the committee which options that staff should pursue.

- VI. Item 4b: Discussion and possible action/recommendation of changes to the achievable housing definition, including amendments to Chapter 90 of the TRPA code of ordinances.

Ms. Fink provided proposed changes to the achievable definition.

They've been hearing that their achievable deed restriction language since it's just income based it allows for people who are working remotely for a company outside of the basin to occupy those units. The remote workers are an important part of the community and economy, the intent of this program is to set aside housing to support our local employers. After receiving feedback, they started looking at putting an employment requirement into the achievable definition for how households that make over a 120 percent of area median income. That's similar to what Ms. Gustafson mentioned about Placer County recently approving and City of South Lake Tahoe also has a similar provision that they've recently approved to focus on deed restrictions that are for people that are working locally rather than tied to an income cap.

(Slide 3) Existing achievable definition requires that the household income be less than 180 percent to 550 percent of area median income and that amount varies with by the county because it's tied to the median home price.

(Slide 4) They're proposing that if the household makes less than a 120 percent of area median income, classified as affordable or moderate that they wouldn't put any sort of employment requirement on it because there's a lot of people that are students or on disabilities, etc. But if someone makes more than a 120 percent of area median income, they would require that at least one member of the household work 30 hours or more for a local employer, or be a full-time equivalent employee, such as teacher. They've also added a provision proposed that people who are retirees who have lived in the deed restricted unit for seven years or more, would also qualify. After input, staff will finalize the code language and move it forward to the Board with either the next housing amendment package or other code amendment packages.

Presentation can be found at:

[Local-Government-Housing-Committee-Agenda-Item-No.-IV.B-Achievable-Housing-Definition.pdf](#)

#### Committee Comments & Questions

Ms. Gustafson supported the flexibility in the language. One of the concerns that Placer County heard when they adopted theirs was that people often do buy a retirement home here and maybe they work 30 hours a week for a year or two, retire, and keep that unit from meeting some of our workforce challenges. That's why they used the seven-year window. Is that the same here?

Ms. Fink said yes, they modeled that after Placer County. They also observed that Vail had a similar condition.

Ms. Gustafson said originally, they had talked about five years, and then went to seven. She feels that it's subjective but the whole concept is there's a lot of people who move from out of the area and say, let's have a retirement home in Tahoe and will work 30 hours per week for a couple of years. At their Placer County Board of Supervisors meeting, they had a chart showing some sample teacher and executive assistant type salaries, combined incomes, and how their numbers could never keep up with that, especially with housing costs escalating on North Shore which is up over \$1 million right now for a

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home. There is no affordability for even at 245 percent, unless you have a lot of family assistance, or other income. She likes these criteria and keeping it as flexible as possible. It will come to enforcement and how they deal with that. What they learned from Vail, Colorado was annual validations of employment. Then how do you enforce it if they're not employed any longer which will get into code enforcement and another legal abilities that the local governments will have to jump into.

Mr. Lawrence is also supportive. He thinks that they need to take a look at this definition. He appreciated the background on the seven years, it makes sense. Enforcement is critical and it's always a challenge, but it sounds like there's some lessons learned.

Mr. Rice said the rub for him is the fact that in Nevada none of this is applicable. Accessory Dwelling Units are required in California, and they've had to look at modifying their rules here at the TRPA, and they don't have such a rule in the state of Nevada. He's been working for quite a while trying to get Kahle Drive taken care of. With Barton Health expanding and moving into the Nevada side to the old Lakeside Inn. It's quite a large property and this is going confound some of the problems that they're having over there, especially around the Kahle Drive area. He's not sure what would be acceptable. Having moved here 31 years ago, his house was in the \$300,000 range, and now the house next door and across the street are marketed at over a \$1 million. He's not sure what they can do on the Nevada side but fully supports what they're trying to do on the California side.

Ms. Aldean said the focus of this exercise is directed at housing for people who are moderate income earners. That is a given and is not sure why they're saying that the achievable income category includes permanent residents who meet at least one of the following criteria. They all have to be moderate income or below. The options are that they have to be moderate income, or below, and at least one occupant has to work in these 30 hours, etc., or as a retired person who has lived in a deed restricted unit in the basin for seven years. The given is that they meet the income requirements and then they further define their ability to occupy these units by whether or not they're employed, or whether or not they're retired and have lived in the basin for seven years. She suggested rewording it to limit the achievable income category to include permanent residents who have a household income, not an excess of 120 percent of the respective county areas median income, moderate income households and below, and at least one of the following criteria. Is that what was intended?

Ms. Fink said in part, because she went quickly through the original slides, she didn't give some of the background. But the achievable category is different than the moderate income category. They have an affordable income category and that is for people who make 80 percent or less of area median income. Then there's a moderate income category and that's for people who make less than 120 percent of the area median income. In 2018, as part of the Development Rights Strategic Initiative, the Board approved the achievable category, which is for people who make incomes above moderate income, because they're finding that even people who make above moderate income cannot find or afford housing because home prices are so high. This achievable category is specifically targeted to people who do make more than 120 percent of area median income. But what they're trying to build into this is that if they make a relatively high income, they also need to be employed by a local employer in order to qualify to live in that housing.

Ms. Aldean said it's a little confusing. She wondered if they could redefine achievable. They lead in with a definition of an achievable income category and then they're talking about moderate income folks. She also suggested that updating the compliance requirements and the deed restriction template to state that TRPA shall conduct a random audit. This addresses the concern that was expressed by one of

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the callers. They need to be a little bit more proactive with respect to confirming that everyone who has received these benefits is adhering to the limitations under the deed restrictions. This is well done and a good step in the right direction.

Mr. Friedrich asked if there is any area median income cap while meeting the local employee requirement. In other words, could you make a \$1 million and qualify?

Ms. Fink said they've gone back and forth on this. When they brought this to the Tahoe Living Working Group, they were proposing to maintain those existing achievable income caps and add the local employment requirement. They could do that but they're finding that the income caps are kind of meaningless especially as housing prices skyrocket. The income caps just go up and up. Basically, anyone who has enough money to buy a non-deed restricted home is going to do that. If someone needs to live in a deed restricted unit, they're going to be the ones that use those. They're not really worried about people with really high incomes utilizing these units that's not in their financial interest. For simplicity's sake, and for consistency with Placer County and the City of South Lake Tahoe, they're proposing to remove the income cap, but could put that back in if everyone feels that's important.

Ms. Gustafson said the reason is that deed restriction, why would someone not just buy on the regular market. If someone makes \$1 million, they're going to try to make as much money as they could on their property. The deed restriction for Placer County requires that it's sold to somebody who also meets those criteria. It's a built-in cap to how much equity you could grow in that house. They modeled it after the Vail, Colorado program because they found it was working. But it was keeping the increases in value in those homes lower than a competitive market home.

Mr. Friedrich said that all makes sense and that clarification and discussion was helpful to him and is ready to support this proposal as well.

Ms. Novasel said she is supportive of this and feels this is another giant step towards allowing affordable type housing in our local jurisdictions.

#### Public Comments & Questions

Carole Black said if someone were to buy using the achievable ranges, a unit that becomes restricted under what they're proposing, are they allowed to rent it? That goes for any of these. If they are restrictions, to whom could it be rented to?

Ms. Novasel said the quick answer is no, not short term.

Philip Gilanfarr said there are some of these situations where they want to be able to sell these units with the deed restriction and wants to make sure that they still have that opportunity. Because there are people who want to be able to buy them, not just rent them at the affordable level.

Ms. Fink said the units can be rented or sold, but the person living in the house has to meet the requirements of the achievable deed restrictions and could not be rented as a short term rental.

#### Committee Comments & Questions

Ms. Novasel said there is no formal action on this item and staff was just requesting feedback from the committee.

LOCAL GOVERNMENT & HOUSING COMMITTEE

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VII. COMMITTEE MEMBER COMMENTS

Mr. Lawrence said this issue is extremely important to the Tahoe Basin and the state of Nevada. Governor Sisolak recently made announcements of affordable housing opportunities and focusing some of the American Rescue Plan Act funds on the getting some affordable housing projects done.

VIII. PUBLIC INTEREST COMMENTS

None.

IX. ADJOURNMENT

Ms. Gustafson moved to adjourn.

Ms. Novasel adjourned the meeting at 11:30 a.m.

Respectfully Submitted,



Marja Ambler  
Clerk to the Board

*The above meeting was recorded in its entirety. Anyone wishing to listen to the recording of the above-mentioned meeting may find it at <https://www.trpa.gov/meeting-materials/>. In addition, written documents submitted at the meeting are available for review. If you require assistance locating this information, please contact the TRPA at (775) 588-4547 or [virtualmeetinghelp@trpa.gov](mailto:virtualmeetinghelp@trpa.gov).*

TAHOE REGIONAL PLANNING AGENCY  
AD HOC EXECUTIVE DIRECTOR SEARCH COMMITTEE

TRPA/Zoom Webinar

July 27, 2022

**Meeting Minutes**

I. CALL TO ORDER AND DETERMINATION OF QUORUM

Ms. Gustafson called the meeting to order at 8:32 a.m.

Members present: Ms. Aldean, Ms. Gustafson, Mr. Hoenigman, Mr. Lawrence, Mr. Yeates

II. APPROVAL OF AGENDA & MINUTES

III. Election of Chair and Vice-Chair (action);

Ms. Gustafson nominated Ms. Shelly Aldean to serve as Chair and Mr. Vince Hoenigman as Vice Chair.

Committee Comments & Questions

None.

Public Comments & Questions

None.

Mr. Yeates made a motion to recommend approval.

Ayes: [All]

**Motion carried.**

IV. Status Report from Prothman Company;

Mr. Steve Worthington of the Prothman Company provided the presentation. He opened by saying that the company has completed 20 stakeholder interviews, including Board members and staff. We asked them about traits, experiences, and challenges. We've gathered that information and are building it into our position profile and our screening process. We also received three sets of written responses and are in the process of putting together a survey to a mailing list of 100 people which TRPA's Human Resources [HR] Department has provided, including 64 TRPA staff and the Volunteer Planning Commission, as well as 18 partner organizations that are stakeholders. The position profile draft will be submitted to HR today. The target is to post the position Monday.

Ms. Sonja Prothman of the Prothman Company continued the presentation. Ms. Prothman added that once the position is posted on Monday, we'll begin our outreach process. This will be a quiet time, but we'll be working on outreach, placing ads, sending emails. You may not hear much from us, and that is normal. We'll be busy doing our recruitment and working on behalf of you all. The recruitment window is five weeks.

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Mr. Worthington added that he spoke with Joanne Marchetta, the outgoing Executive Director of TRPA, and that she was very helpful in providing a list of landscape conservancy organizations, whom we're adding to our mailing list. We use both email and direct mail.

Ms. Prothman added that later in the process, we will put together a summary sheet for you detailing who we contacted and all of the details. Ms. Prothman then encouraged the Committee to reach out to her if they know anyone who may be interested in applying for the position.

#### Committee Comments & Questions

Mr. Hoenigman asked Ms. Prothman and Mr. Worthington whether they had any information that the Committee could post to their own networks.

Mr. Worthington said yes, they would have information available for the Committee on how to share the information with their contacts and on social media and would be getting that information to the TRPA HR Department.

#### Public Comments & Questions

None.

- V. Discussion and direction on the recruitment process, schedule, and other related matters pertaining to the selection of a permanent Executive Director (action);

Ms. Angela Atchley, TRPA Human Resources Director, gave the presentation. Ms. Atchley referenced the schedule she provided to the Committee for their recruitment process. September 11<sup>th</sup> is the proposed date for the closing of the recruitment. The job is due to be posted August 1<sup>st</sup>. September 28<sup>th</sup> is the date that Prothman proposes to present the finalists to the Committee. At our last meeting there was some concern about whether having a one-month gap between making the selection of our finalists in late September, and then having the late-October Governing Board meeting, would be too long of a timeframe. So Prothman is proposing having a separate Governing Board meeting the week of October 17<sup>th</sup> in order to move up the final selection process.

Mr. Worthington of the Prothman Company explained that September 11<sup>th</sup> is the date he would begin looking at the applications and select an initial round of candidates for a Zoom interview with him. Those first interviews take approximately 7-10 days, and then Mr. Worthington writes up a written report, which he brings to the Committee on September 28<sup>th</sup>. He said his preference would be for an in-person meeting. The Committee would then select the final candidates for a final interview with the Board. With your selection made, we then notify the candidates. At that point we need about two weeks for an in-depth background review of the candidates, and also scheduling them for travel and for the interviews. You will have all of these materials, along with their complete application materials, by the time the candidates come in for their interviews.

Mr. Worthington went on to explain that October 17<sup>th</sup> is an alternate date that could get things moving along more quickly, especially because we're competing with other employers. We're also considering a community reception the night before the interviews, and for that, you could invite anyone you think would give you the feedback you're looking for. For our interview process, that involves a series of panels: the Board, staff, stakeholders and partner agencies. Those panels run concurrently, and it is a very full day.

Committee Comments & Questions

Ms. Aldean asked about the possibility of having stakeholder panel interviews during the Board meeting on October 26<sup>th</sup>, followed by the Governing Board interviews the next day, if that Board meeting agenda would allow for it.

Mr. John Hester, interim TRPA Executive Director, said that would be a possibility and would allow the Committee to watch the stakeholder panel interviews take place.

Mr. Lawrence agreed that that would be a preferable plan.

Mr. Yeates and Ms. Aldean pointed out that final candidates would be flying in to the area and staying overnight for the two-day process.

Ms. Prothman interjected to point out that the Committee should be clear on their goals for watching stakeholder panel interviews. Does the Committee feel that is necessary? The day is very long and very stressful for the candidates already. In between panel interviews, each candidate will likely have a tour of the Agency as well. The panel interviewers will also be observing, collecting and presenting to the Board each candidate's strengths and weaknesses. The Board and all the panelists will be present during this briefing and will have a chance to answer any further questions. The Board will get a full briefing from the stakeholder panel interviewers; therefore, the Board may not need to watch the stakeholder panel interviews.

Ms. Aldean said that while she's not married to the idea of having the Board members present in the room during stakeholder panel interviews, she does feel that it would be valuable for the Board to witness each candidate in-person during those interviews. Either way, Ms. Aldean added, it will be a two-day process. It would be less challenging logistically to do this if we had only two or three final candidates.

Ms. Gustafson brought up the possibility of having the community reception on the night of the Governing Board meeting, rather than the night before the Governing Board meeting.

Ms. Aldean assured Ms. Prothman that the Governing Board members would be available both on the 26<sup>th</sup> and on the 27<sup>th</sup> of October, no matter what the final schedule ends up being. She added that we do have some flexibility in scheduling all the candidate events and panel interviews.

Mr. Hoenigman remarked that with such a tight schedule, it would seem a bit rushed to have to make final decisions right after the interviews. Would there be any time to perhaps process the information and make final decisions the following day?

Ms. Prothman said that final decisions wouldn't necessarily have to be made the night of the 27<sup>th</sup>. The entire two-day process will give the Committee members and Board members a very well-rounded view of each candidate. Ms. Prothman assured the Committee that their top one or two candidates would rise to the top after the two days are completed.

July 27, 2022

Mr. Hoenigman pointed out that the Board is only allowed to make a decision at a Board meeting, meaning a final decision would indeed need to be made that day, or else be pushed back one more month to the next Board meeting.

In light of this, Mr. Worthington encouraged the Board to schedule a special Board meeting the following week.

Mr. Hester interjected that he would work with Legal Counsel to start working on what types of options are available to the Board for this matter.

Ms. Prothman added that candidate acceptance and contract negotiations would take time as well.

Ms. Aldean asked Mr. Worthington whether the evening candidate reception would be facilitated by their staff to prevent anyone from monopolizing a candidate's time.

Mr. Worthington said that yes, he would be facilitating the event and monitoring each candidate to help ensure that everyone present has a chance to meet with and speak to each candidate.

Mr. Yeates asked whether any October Governing Board items could be moved to the November meeting to give the October meeting interview process more time.

Mr. Hester said they would consider it.

Public Comments & Questions

None.

- VI. Committee Member Comments; Chair – Open, Vice Chair –Open, Aldean, Gustafson, Hoenigman, Lawrence, Yeates;

Committee Comments & Questions

None.

- VII. Public Interest Comments;

None.

- VIII. ADJOURNMENT

Ms. Gustafson made a motion to adjourn.

Ayes: [All]

Ms. Aldean adjourned the meeting at 9:25 a.m.

Respectfully Submitted,

Georgina Balkwell  
Senior Management Assistant  
Current Planning Division

*The above meeting was recorded in its entirety. Anyone wishing to listen to the recording of the above mentioned meeting may find it at <https://www.trpa.gov/meeting-materials/>. In addition, written documents submitted at the meeting are available for review. If you require assistance locating this information, please contact the TRPA at (775) 588-4547 or [virtualmeetinghelp@trpa.gov](mailto:virtualmeetinghelp@trpa.gov).*





STAFF REPORT

Date: September 21, 2022  
To: TRPA Governing Board  
From: TRPA Staff  
Subject: August Financial Statements, Fiscal Year 2023

Summary and Staff Recommendation:

We are two months, or 16% of the way into the 2023 fiscal year. Results from the first few months of the fiscal year are frequently distorted, and great care should be taken in examining these reports. Many of the A/P checks we wrote in July were for the prior fiscal year.

Staff recommends acceptance of the August Financial Statements for Fiscal Year 2022.

Required Motion:

In order to accept the Financial Statements, the Governing Board must make the following motion based on the staff report:

- 1) A motion to accept the August 2022 Financial Statements

In order for the motion to pass, an affirmative vote of any eight Board members is required.

Background:

Significant financial events during the month include: 1) Receiving our full annual contributions from both California and Nevada funding the agency for the balance of the fiscal year. 2) Finalizing an agreement with the USFS for the first tranche of \$5M per year of LTRA funding.

We have now completed one month (16%) of the fiscal year. Revenues are at 38% of the annual budget, and expenditures at 8% of budget. Revenues are high because we have billed both states for their contributions and Planning Fees remain high. Grants are billed in arrears. On the expenditure side, only Labor truly reflects the current fiscal year. Most of our contract payments during August were for Fiscal Year 2022 expenses and do not appear in these statements. This is normal.

YTD Revenues and Expenses

Revenues are at 38% of budget. We recognize revenue when billed, so the states' contributions are shown in their entirety. Those funds will be spent down over the balance of the fiscal year. The remaining unbilled State funding is for the Tahoe Science Advisory Commission (TSAC). That

is billed as spent, like a grant. Fees for services are strong matching or exceeding prior years. This includes Current Planning fees, AIS fees, and Shoreline fees. Current Planning Fees are at a record level, higher than the prior 3 years and at 22% of budget. Project applications continue to run at a remarkably high level. Shoreline fees are at 6% of budget, and AIS fees are at 25%. Both are subject to wide seasonal variations and are at expected levels. We bill Grants in arrears, at the end of the quarter, so those revenues lag expenditures.

Expenditures are at 8% of budget. Compensation expenses are at 13% of the annual budget, consistent with the timing of payrolls and vacancies. Contract expenses were negligible at 2% due to normal lags, and with most payments made in July were for FY 2022 expenses.

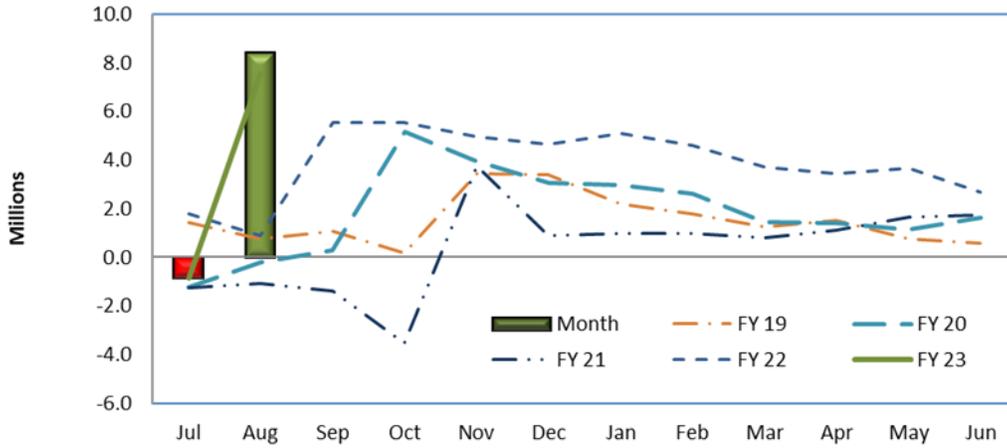
Revenue	State & Local	Fees	Grants	Total
Fees for Service		830,768		830,768
Grants		600	844	1,444
State Revenue	7,106,422			7,106,422
Local Revenue				
Rent Revenue		42,938		42,938
Other Revenue				
TRPA Rent				
Revenue		114,830		114,830
Revenue Total	7,106,422	989,136	844	8,096,402
Expenses				
Compensation	684,676	272,068	111,940	1,068,684
Contracts	52,441	72,739	127,623	252,803
Financing	(70)	11,269		11,199
Other	66,776	152,547	1,995	221,318
Rent	118,096	2,863		120,959
A&O/Transfers	(208,969)	153,753	55,216	
Expenses Total	712,950	665,239	296,774	1,674,963
Net	6,393,472	323,897	(295,930)	6,421,439

\* Excludes mitigation funds

#### Cash Flow

Cash flow was a record \$8.4M for the month. Cash receipts were \$10.2M due to receiving the annual contributions from both California (\$5.0M) and Nevada (\$2.1M). Disbursements were \$1.8M which is right on the 5-year average for August. All expenditures were within budget.

## Monthly/Cumulative Cash Flow



### TRPA Balance Sheet

TRPA’s Balance Sheet is strong due to billing and receiving both State’s contributions. That money will be spent down over the course of the fiscal year. Half of our net assets are due to monies held in trust, either mitigation fees or project securities.

	TRPA	Grants	Trust	Total
Cash & Invest	13,161,501	2,102,645	24,869,173	40,133,319
A/R	296,664	1,020,517		1,317,181
Current Assets	162,024			162,024
LT Assets	8,972,869			8,972,869
<b>Total Assets</b>	<b>22,593,058</b>	<b>3,123,162</b>	<b>24,869,173</b>	<b>50,585,393</b>
A/P	163,764	453,837		617,601
Benefits	943,823			943,823
Deferred Rev	81,973	112,538		194,511
Deposits	150,530	2,845		153,375
LT Debt	8,298,000			8,298,000
Mitigation			2,555,378	2,555,378
Securities			6,526,799	6,526,799
<b>Total Liabilities</b>	<b>9,638,090</b>	<b>569,220</b>	<b>9,082,177</b>	<b>19,289,487</b>
<b>Net Position</b>	<b>12,954,968</b>	<b>2,553,942</b>	<b>15,786,996</b>	<b>31,295,906</b>

*When reading the detailed reports (attached), be aware that fund balances may not be intuitive. Negative balances mean revenues exceeded expenses. Positive fund balance occurs when expenses exceed revenue. This reflects the formatting in our accounting system.*

Contact Information:

For questions regarding this agenda item, please contact Chris Keillor at (775) 589-5222 or [ckeillor@trpa.org](mailto:ckeillor@trpa.org).

Attachment:

A. August Financial Statements

Attachment A

August Financial Statements

**Tahoe Regional Planning Agency**  
**Actuals vs. Budget by Program**  
*Fiscal YTD August 2022*

<b>TRPA Totals</b>	<b>Ann Budget</b>	<b>YTD</b>	<b>Remaining</b>	<b>% Spent</b>
<b>Revenue</b>				
State Revenue	7,681,010	7,106,422	574,588	93%
Grants	8,535,737	1,444	8,534,292	0%
Fees for Service	3,834,965	830,768	3,004,197	22%
Local Revenue	150,000		150,000	
Rent Revenue	249,348	42,938	206,410	17%
TRPA Rent Revenue	688,980	114,830	574,150	17%
Other Revenue				
Revenue Total	21,140,040	8,096,402	13,043,638	38%
<b>Expenses</b>				
Compensation	8,228,554	1,068,684	7,159,870	13%
Contracts	11,521,382	252,803	11,268,578	2%
Financing	617,450	11,199	606,251	2%
Rent	739,125	120,959	618,166	16%
Other	820,485	218,803	601,682	27%
A&O/Transfers	14,772	0	14,772	0%
Expenses Total	21,912,223	1,672,447	20,239,775	8%
<b>TRPA Net</b>	<b>(772,183)</b>	<b>6,423,955</b>	<b>(7,196,138)</b>	

**Agency Mgmt**

<b>Revenue</b>				
Fees for Service				
Grants	3,000		3,000	
State Revenue	6,232,422	6,232,422		100%
Other Revenue				
Local Revenue	150,000		150,000	
Revenue Total	6,385,422	6,232,422	153,000	98%
<b>Expenses</b>				
Compensation	1,944,269	275,355	1,668,914	14%
Contracts	314,491	11,779	302,712	4%
Financing	174	50	224	
Rent	2,249		2,249	
Other	181,312	4,849	176,464	3%

Expenses Total	2,442,496	291,933	2,150,563	12%
<b>Agency Mgmt Net</b>	<b>3,942,926</b>	<b>5,940,489</b>	<b>(1,997,563)</b>	151%

	Ann Budget	YTD	Remaining	
<b>Current Planning</b>				
Revenue				
Fees for Service	2,983,563	618,020	2,365,543	21%
Grants	3,600	600	3,000	17%
State Revenue	124,000	124,000		100%
Other Revenue				
Revenue Total	3,111,163	742,620	2,368,543	24%
Expenses				
Compensation	2,012,896	278,620	1,734,275	14%
Contracts	790,751	72,031	718,720	9%
Financing	55,288	11,249	44,039	20%
Other	78,585	3,397	75,188	4%
A&O/Transfers	1,107,790	147,417	960,373	13%
Expenses Total	4,045,309	512,714	3,532,595	13%
<b>Curr Plan Net</b>	<b>(934,146)</b>	<b>229,906</b>	<b>(1,164,052)</b>	

<b>Envir. Imp.</b>				
Revenue				
Fees for Service	851,402	212,748	638,654	25%
Grants	5,701,827	156	5,701,982	0%
State Revenue	750,000	750,000		100%
Revenue Total	7,303,229	962,592	6,340,637	13%
Expenses				
Compensation	1,257,905	157,657	1,100,248	13%
Contracts	6,085,922	68,750	6,017,172	1%
Financing	15,000		15,000	
Rent	47,571	6,129	41,443	13%
Other	91,259	4,516	86,743	5%
A&O/Transfers	300,348	23,937	276,411	8%
Expenses Total	7,798,006	260,989	7,537,016	3%
<b>Env Imp Net</b>	<b>(494,777)</b>	<b>701,603</b>	<b>(1,196,380)</b>	

	<b>Ann Budget</b>	<b>YTD</b>	<b>Remaining</b>	
<b>L RTP</b>				
Revenue				
Grants	2,401,088	1,000	2,400,088	0%
Fees for Service				
Other Revenue				
Revenue Total	<u>2,401,088</u>	<u>1,000</u>	<u>2,400,088</u>	<u>0%</u>
Expenses				
Compensation	1,423,441	178,856	1,244,585	13%
Contracts	1,386,788	65,738	1,321,050	5%
Rent	325		325	
Other	33,098	3,205	29,894	10%
A&O/Transfers	448,841	37,615	411,226	8%
Expenses Total	<u>3,292,493</u>	<u>285,413</u>	<u>3,007,079</u>	<u>9%</u>

<b>L RTP Net</b>	<b>(891,405)</b>	<b>(284,413)</b>	<b>(606,992)</b>
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**R & A**

Revenue				
Grants	426,222		426,222	
State Revenue	574,588		574,588	
Revenue Total	<u>1,000,810</u>		<u>1,000,810</u>	
Expenses				
Compensation	1,165,427	164,379	1,001,047	14%
Contracts	2,206,682	2,230	2,204,452	0%
Other	4,541	1,358	3,183	30%
A&O/Transfers	13,628		13,628	
Expenses Total	<u>3,390,277</u>	<u>167,967</u>	<u>3,222,310</u>	<u>5%</u>

<b>R &amp; A Net</b>	<b>(2,389,467)</b>	<b>(167,967)</b>	<b>(2,221,500)</b>
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	<b>Ann Budget</b>	<b>YTD</b>	<b>Remaining</b>
<b>Infrastructure</b>			
Revenue			
Other Revenue			
Rent Revenue	249,348	42,938	206,410
TRPA Rent Revenue	688,980	114,830	574,150
Revenue Total	<u>938,328</u>	<u>157,768</u>	<u>780,560</u>
Expenses			
Compensation	96,148	13,816	82,332
Contracts	736,747	32,276	704,472
Financing	546,989		546,989
Rent	688,980	114,830	574,150
Other	429,516	203,993	225,522
Expenses Total	<u>2,498,380</u>	<u>364,915</u>	<u>2,133,465</u>

<b>Infrastructure Net</b>	<b>(1,560,051)</b>	<b>(207,147)</b>	
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**Other**

Expenses			
A&O/Transfers	1,885,378	208,969	1,676,409
Expenses Total	<u>1,885,378</u>	<u>208,969</u>	<u>1,676,409</u>

## TRPA Selected Current Planning Fees

*Fiscal Year-to-Date August 2022*

Fee Type	2020	2021	2022	2023	This year vs. Last 3 Years
RESIDENTIAL	95,439	91,165	88,423	123,318	31,642
OTHER_REV	32,859	31,100	42,678	47,583	12,037
GENERAL	78,257	31,422	22,036	40,287	(3,618)
REVISIONS	11,836	19,234	9,867	33,027	19,381
MOORING		6,660	6,872	27,669	23,158
SECURITIES	11,971	12,697	13,340	24,125	11,456
TREE_RMVL	20,907	25,986	21,097	23,799	1,136
FULL_SITE	12,500	12,412	13,780	22,320	9,423
ALLOCATION	14,381	19,188	18,565	20,481	3,103
RECR_PUBLIC	4,775	11,845	19,916	16,506	4,328
LAND_CHALL	5,436	32,696	18,085	15,103	(3,636)
COMMERCL_TA	21,271	20,782	9,353	11,966	(5,169)
LLADJ_ROW	1,248	1,285	4,248	6,970	4,710
SOILS_HYDRO	4,435	3,514	9,823	6,528	604
LAND_CAP	2,136	2,750	1,701	5,970	3,774
MONITORING	2,800			5,000	4,067
SHOREZONE	23,500	21,630	(637)	4,366	(10,465)
VB_COVERAGE	2,497	3,141	1,044	3,631	1,404
IPES	2,190	3,699	2,897	3,190	262
NOTE_APPEAL		2,976	1,022	3,152	1,819
STD	2,136	(592)	1,920	2,887	1,732
ENFORCEMNT	9,794		1,939	2,681	(1,230)
TRANS_DEV		6,390	2,997	2,370	(759)
PRE-APP	848		1,311	2,370	1,650
GRADING	2,891	4,250	3,614	2,305	(1,280)
PARTIAL_SITE	400	2,060	2,120	2,230	703
VB_USE	2,808	964		2,092	835
Row Labels	2,020	2,021	2,022	2,023	2
QUAL_EXEMPT	2,124	910	1,496	1,970	460
SIGNS		1,062	1,168	1,731	988
LMTD_INCENT	1,041			388	41
CONSTR_EXT	696	678	738	340	(364)
QE SHOREZONE	1,731	1,236	1,590	335	(1,184)
RES_DRIVE	194	600	206	217	(116)
SUBDIV_EXIST	1,002		981		(661)
UNDRGRD_TANK	1,765	407			(724)
STD3	2,067				(689)
TEMP_USE	1,120				(373)
<b>Totals</b>	<b>381,076</b>	<b>374,168</b>	<b>326,213</b>	<b>468,931</b>	<b>108,445</b>

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
<b>Agency Mgmt</b>				
GF Revenue				
Revenue				
State Revenue	(6,232,422)	(6,232,422)		100.0%
Local Revenue	(150,000)		(150,000)	
Revenue Total	(6,382,422)	(6,232,422)	(150,000)	97.6%
<b>GF Revenue Total</b>	<b>(6,382,422)</b>	<b>(6,232,422)</b>	<b>(150,000)</b>	<b>97.6%</b>
<b>Gov Board</b>				
Expenses				
Contracts	1,000		1,000	
Other	16,813	1,873	14,940	11.1%
Rent	2,249		2,249	
Expenses Total	20,062	1,873	18,189	9.3%
<b>Gov Board Total</b>	<b>20,062</b>	<b>1,873</b>	<b>18,189</b>	<b>9.3%</b>
<b>Executive</b>				
Expenses				
Compensation	716,698	97,182	619,516	13.6%
Other	4,758	120	4,638	2.5%
Expenses Total	721,456	97,302	624,154	13.5%
<b>Executive Total</b>	<b>721,456</b>	<b>97,302</b>	<b>624,154</b>	<b>13.5%</b>
<b>Legal</b>				
Expenses				
Compensation	301,309	42,007	259,302	13.9%
Contracts	113,654		113,654	
Other	5,732		5,732	
Expenses Total	420,695	42,007	378,688	10.0%
<b>Legal Total</b>	<b>420,695</b>	<b>42,007</b>	<b>378,688</b>	<b>10.0%</b>
<b>Communications</b>				
Expenses				
Compensation	234,160	36,866	197,293	15.7%
Contracts	20,000		20,000	
Other	22,664	940	21,724	4.1%
Expenses Total	276,824	37,806	239,018	13.7%
<b>Communications Total</b>	<b>276,824</b>	<b>37,806</b>	<b>239,018</b>	<b>13.7%</b>
<b>Finance</b>				
Revenue				

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
Financing		(70)	70	
Revenue Total		(70)	70	
Expenses				
Compensation	429,431	65,535	363,896	15.3%
Contracts	52,055		52,055	
Other	293	513	(219)	174.7%
Expenses Total	481,779	66,048	415,731	13.7%
<b>Finance Total</b>	<b>481,779</b>	<b>65,978</b>	<b>415,801</b>	<b>13.7%</b>
HR				
Expenses				
Compensation	262,672	33,765	228,906	12.9%
Contracts	127,782	11,779	116,003	9.2%
Other	63,205	1,403	61,801	2.2%
Expenses Total	453,659	46,948	406,711	10.3%
<b>HR Total</b>	<b>453,659</b>	<b>46,948</b>	<b>406,711</b>	<b>10.3%</b>
<b>Agency Mgmt Total</b>	<b>(4,007,948)</b>	<b>(5,940,509)</b>	<b>1,932,561</b>	<b>148.2%</b>
Current Planning				
Current Planning				
Revenue				
Fees for Service	(2,243,563)	(493,592)	(1,749,970)	22.0%
Revenue Total	(2,243,563)	(493,592)	(1,749,970)	22.0%
Expenses				
Compensation	1,262,743	184,251	1,078,492	14.6%
Contracts	430,540	58,031	372,510	13.5%
Financing	49,087	9,080	40,007	18.5%
Other	5,485		5,485	
A&O/Transfers	729,360	106,423	622,937	14.6%
Expenses Total	2,477,214	357,784	2,119,430	14.4%
<b>Current Planning Total</b>	<b>233,652</b>	<b>(135,808)</b>	<b>369,460</b>	<b>-58.1%</b>
Current Planning Reimbursed				
Revenue				
Fees for Service	(150,000)	(84,820)	(65,180)	56.5%
Revenue Total	(150,000)	(84,820)	(65,180)	56.5%
Expenses				
Contracts	118,000		118,000	
Expenses Total	118,000		118,000	

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
<b>Current Planning Reimbursed Total</b>	<b>(32,000)</b>	<b>(84,820)</b>	<b>52,820</b>	<b>265.1%</b>
<b>Code Enforcement</b>				
Expenses				
Compensation	389,139	54,241	334,898	13.9%
Other	7,360		7,360	
A&O/Transfers	224,767	31,330	193,437	13.9%
Expenses Total	621,266	85,571	535,695	13.8%
<b>Code Enforcement Total</b>	<b>621,266</b>	<b>85,571</b>	<b>535,695</b>	<b>13.8%</b>
<b>Boat Crew</b>				
Revenue				
State Revenue	(124,000)	(124,000)		100.0%
Revenue Total	(124,000)	(124,000)		100.0%
Expenses				
Compensation	94,977	23,397	71,580	24.6%
Other	40,076	1,495	38,581	3.7%
Expenses Total	135,053	24,892	110,161	18.4%
<b>Boat Crew Total</b>	<b>11,053</b>	<b>(99,108)</b>	<b>110,161</b>	<b>-896.6%</b>
<b>Settlements</b>				
Revenue				
Fees for Service	(150,000)		(150,000)	
Grants	(3,600)	(600)	(3,000)	16.7%
Revenue Total	(153,600)	(600)	(153,000)	0.4%
Expenses				
Contracts	138,993	14,000	124,993	10.1%
Other	20,600		20,600	
Expenses Total	159,593	14,000	145,593	8.8%
<b>Settlements Total</b>	<b>5,993</b>	<b>13,400</b>	<b>(7,408)</b>	<b>223.6%</b>
<b>Legal - Direct or Disallowed</b>				
Revenue				
Fees for Service		(18,543)	18,543	
Revenue Total		(18,543)	18,543	
Expenses				
Contracts	32,000		32,000	
Fees for Service		4,563	(4,563)	#DIV/0!
Expenses Total	32,000	4,563	27,437	14.3%

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
<b>Legal - Direct or Disallowed Total</b>	<b>32,000</b>	<b>(13,980)</b>	<b>45,980</b>	<b>-43.7%</b>
<b>Shorezone</b>				
Revenue				
Fees for Service	(440,000)	(25,628)	(414,372)	5.8%
Revenue Total	(440,000)	(25,628)	(414,372)	5.8%
Expenses				
Compensation	266,037	16,731	249,305	6.3%
Contracts	71,218		71,218	
Financing	6,201	2,170	4,032	35.0%
Other	5,064	1,902	3,162	37.6%
A&O/Transfers	153,663	9,664	143,999	6.3%
Expenses Total	502,183	30,467	471,716	6.1%
<b>Shorezone Total</b>	<b>62,183</b>	<b>4,839</b>	<b>57,344</b>	<b>7.8%</b>
<b>Current Planning Total</b>	<b>934,146</b>	<b>(229,906)</b>	<b>1,164,052</b>	<b>-24.6%</b>
<b>Envir. Imp.</b>				
Env. Improv.				
Revenue				
State Revenue		(375,000)	375,000	
Revenue Total		(375,000)	375,000	
Expenses				
Compensation	537,118	85,384	451,734	15.9%
Contracts	21,218		21,218	
Other	5,829	1,647	4,182	28.3%
Expenses Total	564,165	87,031	477,133	15.4%
<b>Env. Improv. Total</b>	<b>564,165</b>	<b>(287,969)</b>	<b>852,133</b>	<b>-51.0%</b>
<b>Watercraft Inspection Fees</b>				
Revenue				
Fees for Service	(731,678)	(174,110)	(557,568)	23.8%
Revenue Total	(731,678)	(174,110)	(557,568)	23.8%
Expenses				
Compensation	76,775	5,875	70,900	7.7%
Contracts	582,066		582,066	
Financing	15,000		15,000	
Other	27,067		27,067	
Rent	30,771	2,863	27,908	9.3%
A&O/Transfers				

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
Expenses Total	731,678	8,738	722,941	1.2%
<b>Watercraft Inspection Fees Total</b>	<b>0</b>	<b>(165,372)</b>	<b>165,373</b>	
<b>CA Gen Fund AIS Prevention</b>				
Revenue				
State Revenue	(375,000)	(375,000)		100.0%
Revenue Total	(375,000)	(375,000)		100.0%
Expenses				
Contracts	375,000		375,000	
Expenses Total	375,000		375,000	
<b>CA Gen Fund AIS Prevention Total</b>		<b>(375,000)</b>	<b>375,000</b>	
<b>NV Gen Fund AIS Prevention &amp; Control</b>				
Revenue				
State Revenue	(375,000)		(375,000)	
Revenue Total	(375,000)		(375,000)	
Expenses				
Compensation	68,926	13,148	55,779	19.1%
Contracts	231,601	2,800	228,801	1.2%
Other	57,673	2,869	54,803	5.0%
Rent	16,800	3,266	13,534	19.4%
A&O/Transfers				
Expenses Total	375,000	22,083	352,918	5.9%
<b>NV Gen Fund AIS Prevention &amp; Control Tot</b>	<b>0</b>	<b>22,083</b>	<b>(22,082)</b>	
<b>USFWS AIS Control Lake Tahoe 2</b>				
Revenue				
Grants	(1,317,017)		(1,317,017)	
Revenue Total	(1,317,017)		(1,317,017)	
Expenses				
Compensation		18,096	(18,096)	
Contracts	1,317,017	65,950	1,251,067	5.0%
A&O/Transfers		10,452	(10,452)	
Expenses Total	1,317,017	94,498	1,222,519	7.2%
<b>USFWS AIS Control Lake Tahoe 2 Total</b>		<b>94,498</b>	<b>(94,498)</b>	
<b>USFS LTRA Ski Run Marina</b>				
Revenue				
Grants	(187,875)		(187,875)	

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
Revenue Total	(187,875)		(187,875)	
<b>Expenses</b>				
Compensation	58,872	891	57,980	1.5%
Contracts	95,000		95,000	
A&O/Transfers	34,004	515	33,489	1.5%
Expenses Total	187,876	1,406	186,470	0.7%
<b>USFS LTRA Ski Run Marina Total</b>	<b>1</b>	<b>1,406</b>	<b>(1,405)</b>	
<b>Shorezone Mitigation Funds</b>				
<b>Revenue</b>				
Fees for Service	(49,645)	(20,300)	(29,345)	40.9%
Revenue Total	(49,645)	(20,300)	(29,345)	40.9%
<b>Expenses</b>				
Contracts	49,645		49,645	
Expenses Total	49,645		49,645	
<b>Shorezone Mitigation Funds Total</b>		<b>(20,300)</b>	<b>20,300</b>	
<b>AIS Prevention (SNPLMA Rnd 12 Final)</b>				
<b>Revenue</b>				
Grants	(1,577,773)		(1,577,773)	
Revenue Total	(1,577,773)		(1,577,773)	
<b>Expenses</b>				
Compensation	277,582	11,031	266,550	4.0%
Contracts	1,139,574		1,139,574	
Grants	180	156	24	86.4%
A&O/Transfers	160,435	6,462	153,973	4.0%
Expenses Total	1,577,771	17,649	1,560,122	1.1%
<b>AIS Prevention (SNPLMA Rnd 12 Final) Total</b>	<b>(2)</b>	<b>17,649</b>	<b>(17,651)</b>	
<b>ANS Mgmt Plan - Meeks Bay Control</b>				
<b>Revenue</b>				
Grants	(149,092)		(149,092)	
Revenue Total	(149,092)		(149,092)	
<b>Expenses</b>				
Contracts	149,092		149,092	
Expenses Total	149,092		149,092	
<b>ANS Mgmt Plan - Meeks Bay Control Total</b>	<b>0</b>		<b>0</b>	

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
<b>AIS Decon Unit Purchase (DBW)</b>				
Revenue				
Grants	(75,000)		(75,000)	
Revenue Total	(75,000)		(75,000)	
Expenses				
Contracts	75,000		75,000	
Expenses Total	75,000		75,000	
<b>AIS Decon Unit Purchase (DBW) Total</b>				
<b>DBW Meyers Station Grant</b>				
Revenue				
Grants	(101,280)		(101,280)	
Revenue Total	(101,280)		(101,280)	
Expenses				
Compensation		6,215	(6,215)	
Contracts	101,280		101,280	
A&O/Transfers				
Expenses Total	101,280	6,215	95,064	6.1%
<b>DBW Meyers Station Grant Total</b>	<b>(0)</b>	<b>6,215</b>	<b>(6,216)</b>	
<b>AIS Prevention Equipment (DBW Grant)</b>				
Revenue				
Grants	(259,764)		(259,764)	
Revenue Total	(259,764)		(259,764)	
Expenses				
Compensation	30,906	5,266	25,640	17.0%
Contracts	228,858		228,858	
A&O/Transfers				
Expenses Total	259,764	5,266	254,498	2.0%
<b>AIS Prevention Equipment (DBW Grant) Tot</b>	<b>0</b>	<b>5,266</b>	<b>(5,266)</b>	<b>1170280.0%</b>
<b>Warm Water Fish Control (Prop 1 CTC)</b>				
Expenses				
Contracts	100,000		100,000	
Grants	(100,000)		(100,000)	
Expenses Total				
<b>Warm Water Fish Control (Prop 1 CTC) Tot</b>				
<b>Taylor Tallac Restoration Project</b>				

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
<b>Revenue</b>				
Grants	(125,000)		(125,000)	
Revenue Total	(125,000)		(125,000)	
<b>Expenses</b>				
Contracts	125,000		125,000	
Expenses Total	125,000		125,000	
<b>Taylor Tallac Restoration Project Total</b>				
<b>USFS Lake Tahoe West - P3</b>				
<b>Revenue</b>				
Grants	(35,850)		(35,850)	
Revenue Total	(35,850)		(35,850)	
<b>Expenses</b>				
Compensation	22,724		22,724	
A&O/Transfers	13,126		13,126	
Expenses Total	35,850		35,850	
<b>USFS Lake Tahoe West - P3 Total</b>	<b>(0)</b>		<b>(0)</b>	
<b>BMP Enforcement in NV (NV 319)</b>				
<b>Revenue</b>				
Grants	(136,228)		(136,228)	
Revenue Total	(136,228)		(136,228)	
<b>Expenses</b>				
Compensation	56,465	494	55,971	0.9%
Contracts	60,000		60,000	
A&O/Transfers	19,763	173	19,590	0.9%
Expenses Total	136,228	667	135,561	0.5%
<b>BMP Enforcement in NV (NV 319) Total</b>	<b>(1)</b>	<b>667</b>	<b>(667)</b>	
<b>Stormwater Planning Support</b>				
<b>Revenue</b>				
Fees for Service	(70,079)	(18,338)	(51,741)	26.2%
Revenue Total	(70,079)	(18,338)	(51,741)	26.2%
<b>Expenses</b>				
Compensation		10,970	(10,970)	
Other	691		691	
A&O/Transfers		6,336	(6,336)	
Expenses Total	691	17,306	(16,615)	2504.9%

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
<b>Stormwater Planning Support Total</b>	<b>(69,388)</b>	<b>(1,032)</b>	<b>(68,356)</b>	<b>1.5%</b>
<b>Monitoring Asian Clams Sand Harbor (NDSL)</b>				
Revenue				
Grants	(1,379,803)		(1,379,803)	
Revenue Total	(1,379,803)		(1,379,803)	
Expenses				
Compensation	38,180		38,180	
Contracts	1,319,571		1,319,571	
A&O/Transfers	22,053		22,053	
Expenses Total	1,379,803		1,379,803	
<b>Monitoring Asian Clams Sand Harbor (NDSL)</b>	<b>0</b>		<b>0</b>	
<b>Lakewide AIS Control (ANS Task Force)</b>				
Expenses				
Compensation	32,103		32,103	
Grants	(50,645)		(50,645)	
A&O/Transfers	18,542		18,542	
Expenses Total	0		0	
<b>Lakewide AIS Control (ANS Task Force) Total</b>	<b>0</b>		<b>0</b>	
<b>Lahontan Caldor Fire Monitoring</b>				
Expenses				
Compensation	2,380	286	2,094	12.0%
Contracts	116,000		116,000	
Grants	(118,380)		(118,380)	
A&O/Transfers				
Expenses Total	0	286	(286)	
<b>Lahontan Caldor Fire Monitoring Total</b>	<b>0</b>	<b>286</b>	<b>(286)</b>	
<b>NDF Healthy Forest/Lake</b>				
Expenses				
Compensation	55,874		55,874	
Grants	(88,300)		(88,300)	
A&O/Transfers	32,426		32,426	
Expenses Total	(0)		(0)	
<b>NDF Healthy Forest/Lake Total</b>	<b>(0)</b>		<b>(0)</b>	
<b>Cal Fire Defensible Space</b>				
Expenses				
Grants	0		0	

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
Expenses Total	0		0	
<b>Cal Fire Defensible Space Total</b>	<b>0</b>		<b>0</b>	
<b>Envir. Imp. Total</b>	<b>494,777</b>	<b>(701,603)</b>	<b>1,196,380</b>	<b>-141.8%</b>
<b>L RTP</b>				
Long Range & Transp. Planning				
Expenses				
Compensation	610,187	109,831	500,355	18.0%
Contracts	161,000	460	160,540	0.3%
Other	2,249	286	1,963	12.7%
Expenses Total	773,435	110,577	662,859	14.3%
<b>Long Range &amp; Transp. Planning Total</b>	<b>773,435</b>	<b>110,577</b>	<b>662,859</b>	<b>14.3%</b>
<b>TMPO</b>				
Expenses				
Compensation		40	(40)	
Contracts	93,649	3,605	90,044	3.8%
Other	23,996	924	23,072	3.9%
Rent	325		325	
Expenses Total	117,969	4,569	113,401	3.9%
<b>TMPO Total</b>	<b>117,969</b>	<b>4,569</b>	<b>113,401</b>	<b>3.9%</b>
<b>L RTP Total</b>	<b>891,405</b>	<b>115,145</b>	<b>776,260</b>	<b>12.9%</b>
<b>R &amp; A</b>				
Research & Analysis				
Expenses				
Compensation	1,115,787	161,447	954,339	14.5%
Contracts	1,269,140	2,230	1,266,910	0.2%
Other	4,541	1,358	3,183	29.9%
Expenses Total	2,389,468	165,035	2,224,432	6.9%
<b>Research &amp; Analysis Total</b>	<b>2,389,468</b>	<b>165,035</b>	<b>2,224,432</b>	<b>6.9%</b>
<b>Nearshore Trib Monitoring (Lahontan)</b>				
Revenue				
Grants	(214,001)		(214,001)	
Revenue Total	(214,001)		(214,001)	
Expenses				
Compensation	4,749	674	4,075	14.2%
Contracts	209,252		209,252	

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
A&O/Transfers				
Expenses Total	214,001	674	213,327	0.3%
<b>Nearshore Trib Monitoring (Lahontan) Total</b>	<b>(0)</b>	<b>674</b>	<b>(674)</b>	
Lake Tahoe West GIS Support				
Expenses				
Contracts	250,000		250,000	
State Revenue	(250,000)		(250,000)	
Expenses Total				
<b>Lake Tahoe West GIS Support Total</b>				
<b>R &amp; A Total</b>	<b>2,389,467</b>	<b>165,710</b>	<b>2,223,758</b>	<b>6.9%</b>
Infrastructure				
General Services				
Expenses				
Compensation	96,148	13,816	82,332	14.4%
Contracts	26,723	135	26,589	0.5%
Other	103,722	5,838	97,884	5.6%
Rent	688,980	114,830	574,150	16.7%
Expenses Total	915,574	134,619	780,955	14.7%
<b>General Services Total</b>	<b>915,574</b>	<b>134,619</b>	<b>780,955</b>	<b>14.7%</b>
IT				
Expenses				
Contracts	256,925	31,432	225,493	12.2%
Other	209,305	47,510	161,796	22.7%
Expenses Total	466,230	78,942	387,288	16.9%
<b>IT Total</b>	<b>466,230</b>	<b>78,942</b>	<b>387,288</b>	<b>16.9%</b>
Building				
Revenue				
Rent Revenue	(249,348)	(42,938)	(206,410)	17.2%
TRPA Rent Revenue	(688,980)	(114,830)	(574,150)	16.7%
Revenue Total	(938,328)	(157,768)	(780,560)	16.8%
Expenses				
Contracts	453,099	709	452,390	0.2%
Financing	546,989		546,989	
Other	49,594	143,531	(93,937)	289.4%
Expenses Total	1,049,682	144,240	905,442	13.7%

TRPA Detailed Financials  
Fiscal YTD August 2022

Row Labels	Ann Budget	YTD	Remaining	Percent Spent
<b>Building Total</b>	<b>111,353</b>	<b>(13,528)</b>	<b>124,882</b>	<b>-12.1%</b>
CAM				
Expenses				
Other	66,894	7,114	59,780	10.6%
Expenses Total	66,894	7,114	59,780	10.6%
<b>CAM Total</b>	<b>66,894</b>	<b>7,114</b>	<b>59,780</b>	<b>10.6%</b>
<b>Infrastructure Total</b>	<b>1,560,051</b>	<b>207,147</b>	<b>1,352,904</b>	<b>13.3%</b>
Other				
Other				
Expenses				
Compensation	328,469		328,469	
Other	2,173		2,173	
A&O/Transfers	(1,885,378)	(208,969)	(1,676,409)	11.1%
Expenses Total	(1,554,737)	(208,969)	(1,345,768)	13.4%
<b>Other Total</b>	<b>(1,554,737)</b>	<b>(208,969)</b>	<b>(1,345,768)</b>	<b>13.4%</b>
<b>Other Total</b>	<b>(1,554,737)</b>	<b>(208,969)</b>	<b>(1,345,768)</b>	<b>13.4%</b>

STAFF REPORT

Date: September 21, 2022

To: TRPA Governing Board

From: TRPA Staff

Subject: Release of City of South Lake Tahoe Water Quality Mitigation Funds (\$540,152.48), Air Quality Mitigation Funds (\$200,000.00), and Stream Environment Zone (SEZ) Mitigation Funds (\$87,395.97) towards the Tahoe Valley Stormwater and Greenbelt Improvement Project

Summary and Staff Recommendation:

Staff recommends that the Governing Board approve the City of South Lake Tahoe’s request, subject to the conditions cited below. The request is consistent with the Environmental Improvement Program and Regional Transportation Plan objectives, Chapter 65 of the TRPA Code of Ordinances, and the Governing Board’s policy guidelines for the release of mitigation funds.

Required Motion:

To approve the requested release, the Board must make the following motion:

- 1) A motion to approve the release subject to the conditions contained in this memorandum.

In order for the motion to pass, an affirmative vote of any eight Board members is required.

Table 1 Proposed Funding Release			
EIP #	PROJECT	Fund	Amount
01.01.01.0033	Tahoe Valley Stormwater and Greenbelt Improvement Project	WQ	\$540,152.48
01.01.01.0033	Tahoe Valley Stormwater and Greenbelt Improvement Project	AQ	\$200,000.00
01.01.01.0033	Tahoe Valley Stormwater and Greenbelt Improvement Project	SEZ	\$87,395.97
<b>Total Funding Requested</b>			<b>\$827,548.45</b>

Request:

The City of South Lake Tahoe is requesting the release of Water Quality Mitigation Funds (\$540,152.48), Air Quality Mitigation Funds (200,000.00), and Stream Environment Zone (SEZ) Mitigation Funds (\$87,395.97), towards construction of the Tahoe Valley Stormwater and Greenbelt Improvement Project.

**Background:**

The project includes multi-benefit stormwater, SEZ, bicycle and pedestrian path improvements, and recreational amenities. The central area of the project, known as the Tahoe Valley Greenbelt, includes a community park setting with foot paths, upgrades to existing Class 1 bike trails and new Class 1 bike trails. Upgrades to the existing trails include removal of pavement in SEZ areas, and construction of an elevated boardwalk trail to allow SEZ restoration and preservation. New and upgraded paths will improve connectivity within the project area and to regional networks. Year-round bike trail access through the lower flood prone section will encourage cycling and walking, reducing motor vehicle use.

Water quality and SEZ improvements, will include upgrading existing drainage ways and drainage systems to spread, treat, infiltrate, and retain flows from roadways, commercial areas, and other high priority areas in accordance with the Lake Tahoe TMDL. Water quality treatment facilities will provide an average annual stormwater treatment capacity of 27 acre-feet.

Recent inflationary economic conditions and supply-chain issues have escalated construction costs beyond the existing project budget. Based on the bid received from the lowest responsive and responsible contractor, Herback General Engineering, the requested funds will provide sufficient budget to award the contract and complete construction of Phase 1.

Other funding sources include State Water Resource Control Board Prop 1 (\$7,304,824.00), City of South Lake Tahoe General Fund (\$769,212.00), Southern Nevada Public Land Management Act (\$300,000.00), Tahoe Regional Planning Agency SEZ Mitigation Funds (\$134,547.00), and Tahoe Regional Planning Agency Air Quality Mitigation Funds (\$130,000.00).

The unencumbered account balances for City of South Lake Tahoe as of June 30, 2022 are as follows: Water Quality Mitigation Funds (\$690,040.00), Air Quality Mitigation Funds (\$563,667.94), and Stream Environment Zone (SEZ) Mitigation Funds (\$181,274.48), which is sufficient to cover this request.



Conditions:

Staff recommends approving the release of these funds subject to the following conditions of approval:

1. The City shall only use the funds for the project cited above and as approved by TRPA.
2. TRPA reserves the right to withhold funds to ensure project priorities, goals, and objectives are consistent with those of the Environmental Improvement Program and TRPA's Regional Plan.
3. The City agrees to follow all laws, codes, and regulations adopted by federal, state, and local authorities/agencies.
4. The City agrees to maintain a report detailing the use and expenditures of all funds used on the project. These records shall be made available for review and audit by TRPA within thirty (30) calendar days upon written request.
5. All mitigation funds not used as described above shall be returned to TRPA. Upon written approval from TRPA, these funds may be re-allocated to another project.
6. The City agrees to request from TRPA a final inspection no later than 30 days after completion of the project.
7. TRPA approved signage shall be used on all projects during construction to identify TRPA as a funding source and shall include the EIP logo.
8. The City agrees to report the applicable EIP Performance Measures achieved by this project.

Regional Plan Compliance: The proposed release complies with the TRPA Regional Plan and Code of Ordinances.

Contact Information: If you have any questions regarding this item please contact Tracy Campbell at [tcampbell@trpa.gov](mailto:tcampbell@trpa.gov) or by phone at (775) 589-5267, or Kimberly Chevallier, Environmental Improvement Program Department Manager at [kchevallier@trpa.gov](mailto:kchevallier@trpa.gov) or by phone at (775) 589-5263 .

Attachment:

- A. EIP Project Fact Sheet

Attachment A  
EIP Project Fact Sheet



# Tahoe Valley Stormwater and Greenbelt Improvement Project

Project Number	01.01.01.0033
Action Priority	Reduce Stormwater Pollution From: Roads and Highways, Forest Roads, Public and Privat Parcels
Implementers	City of South Lake Tahoe
Primary Contact	Stan Hill (shill@cityofslt.us)
Stage	Planning/Design
Duration	2009 - 2023

## Stormwater Management Program ➤ Reduce Stormwater Pollution From: Roads and Highways, Forest Roads, Public and Private Parcels

The Tahoe Valley Stormwater and Greenbelt Improvement project includes multi-benefit stormwater, SEZ, bicycle and pedestrian improvements and recreational amenities. Water quality and SEZ enhancements will include improving existing drainage ways and drainage systems to spread, treat, infiltrate, and retain flows from roadways, commercial areas, and other high priority, directly connected urban areas in accordance with the Lake Tahoe TMDL. Pedestrian and bicycle improvements and all-weather crossings will improve connectivity within the project area and to regional networks.



2016- Inadequate drainage creates flooding on South Avenue (major access road to Barton Hospital)

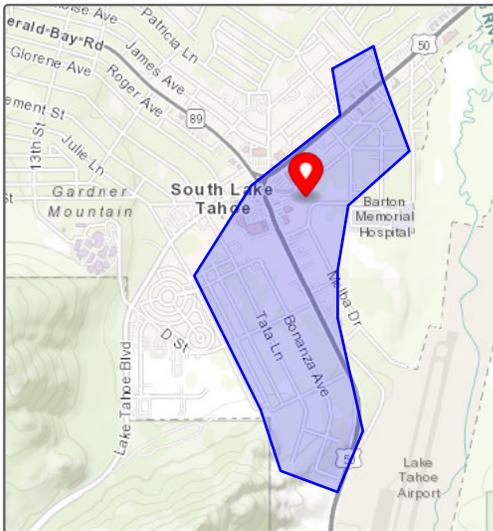
### Key Accomplishments

Accomplishments to be provided upon completion of project

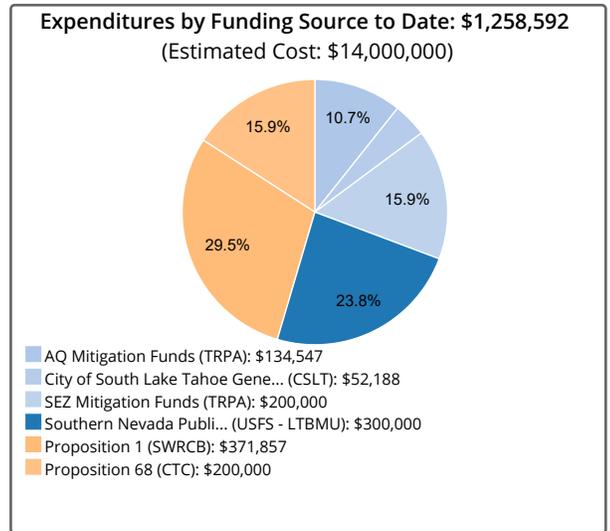
### Threshold Categories

- Air Quality
- Recreation
- Soil Conservation
- Water Quality

### Location



### Expenditures



Photos

Before



Homeless camp and fuel loading in greenbelt SEZ area



Sediment in road shoulder runoff - Bonanza Ave.

During

CONCEPTUAL PLAN



Tahoe Valley Greenbelt Concept Plan

Project Fact Sheet Data as of 09/17/



**STAFF REPORT**

Date: September 21, 2022

To: TRPA Governing Board

From: TRPA Staff

Subject: Release of El Dorado County Water Quality (WQ) Mitigation Funds (\$60,000.00),  
for the Oflyng Water Quality Project

Summary and Staff Recommendation:

Staff recommends that the Governing Board approve El Dorado County’s request for the release of Water Quality Mitigation Funds (\$60,000.00) for the Oflyng Water Quality Project, subject to the conditions cited below. The request is consistent with the Environmental Improvement Program objectives, Chapter 60 of the TRPA Code of Ordinances, and the Governing Board’s policy guidelines for the release of mitigation funds.

Required Motion:

To approve the requested release, the Board must make the following motion:

- 1) A motion to approve the release subject to the conditions contained in this memorandum.

In order for the motion to pass, an affirmative vote of any eight Board members is required.

Request:

El Dorado County is requesting \$60,000.00 towards the Oflyng Water Quality Project.

<b>Table 1 Proposed Funding Release</b>			
<b>EIP #</b>	<b>PROJECT</b>	<b>Fund</b>	<b>Amount</b>
01.01.01.0099	Oflyng Water Quality Project	WQ	\$60,000.00
	<b>Total Funding Requested</b>		<b>\$60,000.00</b>

Background:

The Project will help to address water quality impacts from the development of the Country Club Heights subdivision in the Oflyng Project area. Improvements will direct storm water runoff into infiltration improvements providing a direct reduction in the transport of fine sediment to Lake Tahoe. Other improvements include off-line infiltration systems, infiltration basin, rolled curb & gutter, and rock slope protection.

Recently opened bids for this project were higher than the programmed funding. The United States Forest Service (USFS) has awarded additional funds to assist with the shortfall. The requested mitigation funds will meet the federal match requirements and complete project implementation funding.

Other funding sources include the United States Forest Service (\$1,400,000.00), State Water Resource Control Board Prop 1 (\$85,000.00), and Tahoe Regional Planning Agency Water Quality Mitigation Funds (\$200,000.00).

The unencumbered Water Quality Mitigation Fund account balance for El Dorado County, as of June 30, 2022 is \$292,458.52, which is sufficient to cover this request.

Conditions:

Staff recommends approving the release of these funds subject to the following conditions of approval:

1. The County shall only use the funds for the project cited above and as approved by TRPA.
2. TRPA reserves the right to withhold funds to ensure project priorities, goals, and objectives are consistent with those of the Environmental Improvement Program and TRPA's Regional Plan.
3. The County agrees to follow all laws, codes, and regulations adopted by federal, state, and local authorities/agencies.
4. The County agrees to maintain a report detailing the use and expenditures of all funds used on the project. These records shall be made available for review and audit by TRPA within thirty (30) calendar days upon written request.
5. All mitigation funds not used as described above shall be returned to TRPA. Upon written approval from TRPA, these funds may be re-allocated to another project.
6. The County agrees to request from TRPA a final inspection no later than 30 days after completion of the project.

7. TRPA approved signage shall be used on all projects during construction to identify TRPA as a funding source and shall include the EIP logo.
8. The County agrees to report the applicable EIP Performance Measures achieved by this project.

Regional Plan Compliance:

The proposed release complies with the TRPA Regional Plan and Code of Ordinances.

Contact Information:

If you have any questions regarding this item please contact Tracy Campbell at [tcampbell@trpa.gov](mailto:tcampbell@trpa.gov), or by phone at (775) 589-5267, or, Environmental Improvement Program Department Manager, Kimberly Chevallier at [kchevallier@trpa.gov](mailto:kchevallier@trpa.gov), or by phone at (775) 589-5263.

Attachment:

- A. EIP Project Fact Sheet

Attachment A

EIP Project Fact Sheet  
Oflyng Water Quality Project



## Oflyng Water Quality Project

<b>Project Number</b>	01.01.01.0099
<b>Action Priority</b>	Reduce Stormwater Pollution From: Roads and Highways, Forest Roads, Public and Private Parcels
<b>Implementers</b>	El Dorado County, CA
<b>Primary Contact</b>	Dan Kikkert (dan.kikkert@edcgov.us)
<b>Stage</b>	Implementation
<b>Duration</b>	2017 - 2025

**Stormwater Management Program > Reduce Stormwater Pollution From: Roads and Highways, Forest Roads, Public and Private Parcels**

Urban development in the Oflyng residential area has resulted in a concentrated flow of storm water from the County of El Dorado (County) right-of-way (ROW) directed to pervious forested land as well as the Upper Truckee River. The hydrologic connectivity between Lake Tahoe and the Oflyng area results in a high to moderate potential to deliver fine sediment to Lake Tahoe. Storm water runoff will be directed into infiltration improvements providing a direct reduction in the transport of fine sediment to Lake Tahoe. It is also anticipated that urban storm water infrastructure will be upgraded to current design standards w/ conveyance improved to allow for proper flow sizing/routing.

### Key Accomplishments

*Accomplishments to be provided upon completion of project*

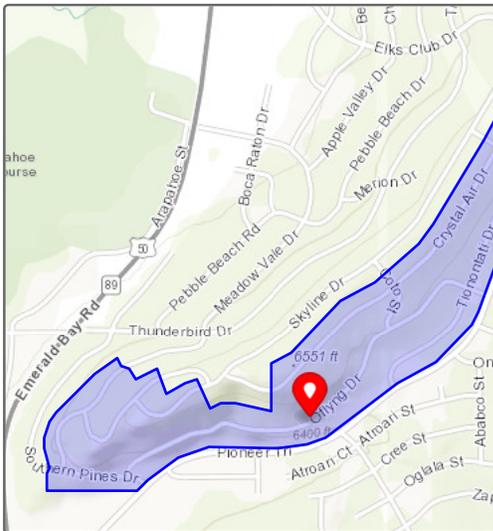
### Threshold Categories

- Soil Conservation
- Water Quality

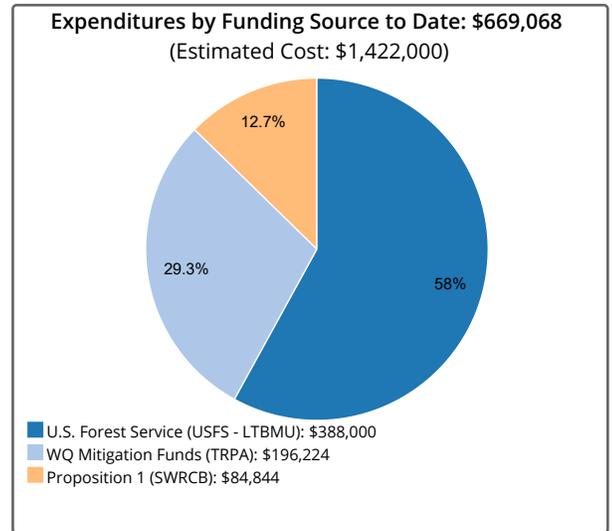


Comingled flows and traction abrasive wash-off that enter existing drainage inlet.

### Location



### Expenditures



Photos

Before



Oflyng - Failing Slope



Eroding slopes tributary to existing drainage ways



Outfall at Pioneer Trail - drains Crystal Air and Oflyng

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Project Fact Sheet Data as of 09/18/

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## STAFF REPORT

Date: September 21, 2022

To: TRPA Governing Board

From: TRPA Staff

Subject: Conversion of an Existing Private Boat Ramp to Construct a New Multiple-Parcel/Multiple-Use Pier, 865 & 869 Lakeshore Boulevard, Washoe County, Nevada, Assessor's Parcel Numbers (APNs) 122-181-26 & 122-181-27, TRPA File Number ERSP2021-0055

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### Summary and Staff Recommendation:

The conversion of an existing boat ramp to a new multiple-parcel, multiple-use pier consistent with TRPA Code of Ordinances subsection 84.5.3.F. The existing boat ramp located at 865 Lakeshore Boulevard will be demolished, the area restored, and a new multiple-parcel, multiple-use pier constructed to serve two littoral parcels located at 865 and 869 Lakeshore Boulevard in Incline Village, Washoe County, Nevada. The pier complies with all development and location standards for a multiple-parcel pier serving two parcels, and is consistent with TRPA Code of Ordinances chapters 80 through 85. Staff recommends that the Governing Board make the required findings and approve the proposed project.

### Required Motions:

In order to approve the proposed project, the Board must make the following motions, based on the staff report:

- 1) A motion to approve the required findings, including a finding of no significant effect; and
- 2) A motion to approve the proposed project subject to the conditions in the draft permit (see Attachment B).

In order for the motions to pass, an affirmative vote of at least five members from the State of Nevada and at least nine members of the Board is required.

### Shoreline Review Committee:

TRPA facilitates monthly Shoreline Review Committee (SRC) meetings for agencies with permitting jurisdiction along the shoreline and within Lake Tahoe to coordinate the permitting of projects. The subject project was reviewed and discussed at SRC on August 18, 2022. Nevada Division of Environmental Protection has issued a 401 certification for the proposed project. Nevada Division of State Lands may bring the project to the Commission for consideration in October of 2022. The United States Army Corps of Engineers is currently processing an application. There were no concerns raised regarding the proposed project other than what has been mentioned above.

Project Description/Background:

The project applicant (865 Lakeshore Boulevard) has an existing private boat ramp. Per TRPA Code of Ordinances subsection 84.5.3.F *Conversion* states:

“A legally existing private boat ramp may be converted to a pier, provided the converted boat ramp (pier) and littoral parcel receiving the pier shall comply with the applicable eligibility and development provisions for additional piers set forth in 84.4.2 and 84.4.3, respectively, of this Chapter.”

The existing boat ramp will be removed, the area restored, and a new multiple-parcel/multiple-use pier constructed in its place to serve the properties located at 865 & 869 Lakeshore Boulevard in Incline Village. The pier will extend 191.2 feet from the High Water Line elevation of 6,229.1, with two 3-foot by 30-foot catwalks and two 12,000-pound boatlifts located at the pierhead. The boatlifts will be placed as a result of the conversion of two legally-existing, TRPA-registered moorings associated with the properties. The pierhead will be 15 feet wide. The proposed pier will be constructed to multiple-use pier standards. There is a single family dwelling on each of the two parcels. Existing shorezone development for the project area includes a total of five moorings:

APN 122-181-26:        three mooring buoys (one used for swim platform)  
APN 122-181-27:        two mooring buoys

The proposed project is located within the Washoe County Tahoe Area Plan – Lakeview Regulatory Zone (Shorezone Tolerance District 7), where piers are an allowed accessory structure.

Recognition of a Multiple-Parcel/Multiple-Use Pier:

This pier will be serving the two properties located at 865 and 869 Lakeshore Boulevard and will sit on the shared property line between the two subject properties. As such, the pier will take advantage of and comply with the design and location standards for multiple-use piers and the project area is therefore subject to the deed restriction requirements in TRPA code section 84.4.E which state “An additional multiple-parcel pier shall extinguish future pier development potential through deed restriction on all parcels served by the pier, including adjacent and non-adjacent parcels, with the exception of the littoral parcel on which the additional pier is permitted.” As a result of the project, the project area consisting of two parcels will be deed restricted to one pier, and therefore future shorezone development potential will be limited in perpetuity. This pier is also a multiple-use pier is defined as “A pier on a littoral parcel that serves three or more residential units on the same parcel, or that serves two or more primary residential littoral parcels, subject to a deed restriction providing access.” This pier is considered multiple-parcel for the purposes of the retirement of future shorezone development potential, and is designed to multiple-use pier standards.

The Governing Board may find the pier will be a multiple-parcel/multiple-use pier as it results in both the reduction of shorezone development potential and serves two or more primary residential littoral parcels, subject to deed restriction provisions.

2018 Shoreline Plan:

The TRPA Governing Board adopted a new Shoreline Plan in October 2018, which went into effect in December 2018. The Shoreline Plan allows for the conversion of existing private boat ramps to piers. These piers may either be constructed on-site or transferred to other eligible properties. In this case, the ramp will be converted to a multiple-use pier.

The pier complies with TRPA Code of Ordinances 80-85, and is seeking multiple-parcel pier designation so that it may take advantage of specific multiple-use pier design and development standards, specifically length, pierhead width, and location of the pier on the shared property line between 865 and 869 Lakeshore Boulevard. Staff has analyzed the potential environmental impacts of the proposed pier and determined that it will not adversely affect the environment. Staff has analyzed the potential environmental impacts of the proposed pier and determined that it will not adversely affect the environment. An analysis of the impact areas is as follows:

- A. Scenic Quality: The proposed project is located within Scenic Shoreline Unit 23, Crystal Bay, which is not in attainment with the TRPA Scenic Threshold. Up to 400 square feet of visible mass is allowed for multiple-parcel/use piers serving two or more primary residential littoral parcels. The allowable visible mass is not inclusive of accessory structures such as boatlifts, handrails, and ladders. The proposed pier has a total visible mass of 200 square feet which counts towards the 400 square feet of allowable visible mass. The project area is located in a Visually Modified scenic character type, requiring mitigation of all additional mass, including accessory structures associated with a pier, at a 1:2 ratio. There is a total visible mass, including accessory structures, of 459 square feet. This means that 918 square feet of visible mass will be mitigated within the project area. The project area must also demonstrate that it can meet a Composite Scenic Score of 25 within 6 months of project completion. The project area has an existing Composite Contrast Rating Score is 22. After the proposed scenic mitigation measures have been applied, the project area will achieve a Composite Contrast Rating Score of 25, and therefore complies with this requirement. Additional visible mass associated with the pier will be mitigated by adding additional vegetative screening and painting the existing residence located at 869 Lakeshore Boulevard. Mitigation will also be achieved by utilizing remaining allowable visible mass associated with the project area composite contrast rating score of 25, and the two subject properties will be deed restricted for scenic purposes. TRPA staff has determined that the proposed pier is consistent with maintaining and improving the scenic threshold rating.
- B. Fish Habitat: This property is located in feed and cover fish habitat. The new pier will have twenty-eight 12-inch pilings for a total of 22.12 square feet of new lake bottom disturbance. Lake bottom disturbance located in feed and cover habitat will be mitigated at a 1 to 1 ratio, requiring 22.12 square feet of fish habitat mitigation. Fish habitat mitigation will occur in the form of rock pyramids placed underneath the proposed pier. The pier will be constructed using an open piling methodology, resulting in a pier that is 90 percent open.

As required by Article 10: *Miscellaneous* of the TRPA Rules of Procedure Section 10.8.E.4.a.i, which requires \$60.00 per foot be paid for additional pier length to mitigate the impacts of pier development on fish habitat, the Draft Permit includes a condition requiring the permittee pay a shorezone mitigation fee of \$11,472 for the construction of 191.2 additional feet of pier length (refer to Attachment B – Draft Permit).

As required by Article 10: *Miscellaneous* of the TRPA Rules of Procedure Section 10.8.E.4.a.iii, which requires a \$600.00 to additions to piers per application to mitigate the impacts of pier development on fish habitat, the Draft Permit includes a condition requiring the permittee pay a shorezone mitigation fee of \$1200.00 for the addition of two boatlift (refer to Attachment B – Draft Permit).

- C. Deed Restriction: The shorezone ordinances require that an additional multiple-parcel pier shall extinguish future pier development potential through deed restriction on all parcels served by the pier, including adjacent and non-adjacent parcels, with the exception of the littoral parcel on which the additional pier is permitted. The two parcels associated with the project area will be deed restricted against future shorezone development and limited to one pier.
- D. Setbacks: TRPA Code, Section 84.4.3.B, requires that new piers comply with a 40 foot setback from all other piers as measured from the pierhead and 20 feet from the outer-most parcel boundary projection lines associated with the project area. The proposed pier complies with these setback requirements.
- E. Pier Length: TRPA Code, Section 84.4.3.C states “Piers shall extend no farther lakeward than 30 feet lakeward of elevation 6,219 Lake Tahoe Datum or 60 feet lakeward of the pierhead line, whichever is more limiting. Up to an additional 15 feet in length may be permitted for piers serving three or more residential littoral parcels.” The new pier, extends 50 feet beyond the TRPA pierhead line , which is the limiting factor for determining pier length.
- F. Boat Ramp to Pier Conversion: TRPA Code of Ordinances subsection 84.5.3.F *Conversion* allows for a legally existing boat ramp to be converted to a pier provided the converted boat ramp (pier) and littoral parcel on which the pier will be located comply with the applicable eligibility and development provisions set forth in TRPA Code of Ordinances subsections 84.4.2 and 84.4.3. The property from which the boat ramp extends is 865 Lakeshore Drive, which was developed in 1966. The boat ramp can be seen on TRPA aerial photographs from 1970. The boat ramp has retained continual, active status with Nevada Division of State Lands since 1995. And the coverage associated with the ramp was verified by TRPA in 2006 (TRPA file number SA20050190). This evidence, considered as a whole, indicates that the boat ramp has been in existence and maintained since prior to 1972 and is therefore eligible for conversion into a pier.

Environmental Review:

The applicant completed an Initial Environmental Checklist (IEC) to assess the potential environmental impacts of the project. No significant long-term environmental impacts were identified because the proposed pier complies with the existing Code and incorporates required mitigation (fisheries and scenic). Additionally, the property would be deed restricted limiting the four subject properties to one shared pier. The IEC is provided as Attachment D.

Public Comment:

Property owners within 300 feet of the subject site were provided notice of the proposed project. As of the posting of this staff report, no comments were received.

Regional Plan Compliance:

The proposed project is consistent with the Goal and Policies of the Regional Plan, Shorezone Subelement, in that it complies with the design standards and includes mitigation to ensure no negative impacts to the environmental thresholds. The proposed project is for a multiple-parcel pier, which are encouraged by the Regional Plan to reduce overall development potential along the shoreline of Lake Tahoe.

Contact Information:

For questions regarding this agenda item, please contact Tiffany Good, Principal Planner, at (775) 589-5283 or [tgood@trpa.gov](mailto:tgood@trpa.gov).

Attachments:

- A. Required Findings/Rationale
- B. Draft Permit
- C. 2018 Shorezone Code Conformance Table
- D. Initial Environment Checklist
- E. Proposed Plans

Attachment A

Required Findings/Rationale

## Required Findings/Rationale

Kennelly/Huber boat ramp to pier conversion and multiple-parcel/multiple-use pier designation

Required Findings: The following is a list of the required findings as set forth in Chapter 4, 80, 82, and 84 of the TRPA Code of Ordinances. Following each finding, Agency staff has indicated if there is sufficient evidence contained in the record to make the applicable findings or has briefly summarized the evidence on which the finding can be made.

1. Chapter 4 – Required Findings:

- (a) The project is consistent with and will not adversely affect implementation of the Regional Plan, including all applicable Goals and Policies, Plan Area Statements and maps, the Code and other TRPA plans and programs.

Based on the information provided in this staff report, the project application, the Initial Environmental Checklist (IEC), and Article V(g) Findings Checklist, there is sufficient evidence demonstrating that the proposed project is consistent with and will not adversely affect implementation of the Regional Plan, including all applicable Goals and Policies, Washoe County Tahoe Area Plan – Lakeview Regulatory Zone, the Code and other TRPA plans and programs.

- (b) The project will not cause the environmental threshold carrying capacities to be exceeded.

TRPA staff has completed the “Article V(g) Findings” in accordance with Chapter 4, Subsection 4.3 of the TRPA Code of Ordinances. All responses contained on said checklist indicate compliance with the environmental threshold carrying capacities. Also, the applicant has completed an IEC. No significant environmental impacts were identified and staff has concluded that the project will not have a significant effect on the environment. A copy of the completed V(g) Findings are available online at <https://parcels.laketahoeinfo.org/Parcel/Detail/122-181-26>

- (c) Wherever federal, state or local air and water quality standards applicable for the Region, whichever are strictest, must be attained and maintained pursuant to Article V(g) of the TRPA Compact, the project meets or exceeds such standards.

TRPA is requiring that all potential environmental effects be mitigated through Best Management Practices, including the use of turbidity curtains during construction. The applicant is also required to obtain separate approval for the project from the U.S. Army Corps of Engineers, Nevada Department of Wildlife, Nevada Division of State Lands, and Washoe County to ensure the project will meet or exceed all federal, state, or local standards. As a result, upon completion of construction, the project should have no impact upon air or water quality standards.

2. Chapter 80 – Shorezone Findings:

- (a) Significant Harm: The project will not adversely impact littoral processes, fish spawning habitat, backshore stability, or on-shore wildlife habitat, including waterfowl nesting areas.

There is no evidence in the project file that indicates the proposed project will adversely impact littoral processes (the pier will be constructed on pilings to allow for the free flow of water), fish habitat (as conditioned), backshore stability, or on-shore wildlife habitat, including waterfowl nesting areas.

- (b) Accessory Facilities: There are sufficient accessory facilities to accommodate the project.

The proposed multiple-parcel pier will be accessory to the primary upland residential uses located at 865 and 869 Lakeshore Boulevard.

- (c) Compatibility: The project is compatible with existing shorezone and lakezone uses or structures on, or in the immediate vicinity of, the littoral parcel; or that modifications of such existing uses or structures will be undertaken to assure compatibility.

There are several private piers in the area of shoreline surrounding the project area. The existing piers vary in length and size and the accessory structures they each contain. Most of the piers in this area do not extend beyond the TRPA pierhead line, likely because they were developed prior to existing ordinances that allow a deviation from the limiting factor of the pierhead line. However, according to TRPA maps the lake bottom elevation in the vicinity of the TRPA pierhead line is approximately 6,223, which does not provide enough depth and draft in times of low water. The closest pier to the southeast of the subject project area extends to the pierhead line and approximate lake bottom elevation 6,223 and is 137 feet in length. The closest pier to the northwest of the subject project area extends just short of the pierhead line and approximate lake bottom elevation 6,222 and is 154 feet in length. There are also several private mooring buoys in the immediate vicinity. The proposed pier would be longer than the piers immediately neighboring the project area. Based on review of TRPA GIS maps, the proposed pier would extend approximately 50 feet past the TRPA pierhead line, while most of the other piers in the vicinity extend just up to the TRPA pierhead line. The proposed pier will not extend beyond the length limitations placed on multiple-parcel piers serving two or more residential littoral parcels. Therefore, the proposed pier will be compatible with the surrounding shorezone facilities.

- (d) Use: The use proposed in the foreshore or nearshore is water dependent.

The pier is located in the shorezone of Lake Tahoe and is therefore a water dependent structure.

- (e) Hazardous Materials: Measures will be taken to prevent spills or discharges of hazardous materials.

This approval prohibits the use of spray painting and the use of tributyltin (TBT). In addition, the special conditions of approval prohibit the discharge of petroleum products, construction waste and litter or earthen materials to the surface waters of Lake Tahoe. All surplus construction waste materials shall be removed from the project and deposited only at TRPA approved points of disposal. No containers of fuel, paint, or other hazardous materials may be stored on the pier or shoreline.

- (f) Construction: Construction and access techniques will be used to minimize disturbance to the ground and vegetation.

For pier construction, primary access will be via a barge or amphibious vehicle. Caissons will be installed around the new piling locations. The pilings will then be driven into the lakebed a minimum of 8 feet or until refusal. Decking will then be installed atop the structure allowing for construction of the lighting and adjustable catwalks. The Amphibious vehicle will have low pressure tires to minimize lake bottom disturbance. All construction materials will be stored on the amphibious vehicle and barge during construction until installed on the new pier. The steel will be pre-painted and fabricated off-site in order to eliminate sawdust on-site. Construction crew members will access the pier from the upland property through the private driveway at 865 Lakeshore Boulevard. The Draft Permit (Attachment B) includes conditions to ensure construction and access techniques will be used to minimize disturbance to the ground and vegetation, including Tahoe Yellow Cress.

- (g) Navigation and Safety: The project will not adversely impact navigation or create a threat to public safety as determined by those agencies with jurisdiction over a lake's navigable waters.

The pierhead line was established for the purpose of protecting navigation and safety. The proposed pier will extend approximately 50 feet past the TRPA pierhead line but still be landward of lake bottom elevation 6,219, the two factors that limit pier length. The proposed pier does comply with the length limitations in accordance with TRPA code, Section 84.4.3.C, which allows a multiple-use pier to extend up to 60 feet past the pierhead line if the pierhead line is the limiting factor. Further, the pier will not extend in front of any adjacent parcels. The parcels to the southeast and northwest of the project area have existing piers and the proposed pier will sit a minimum of forty-feet from neighboring piers, as measured at the pierhead. The project was taken to the Shoreline Review Committee on August 18, 2022, which includes agencies with jurisdiction over the lake's navigable waters and no concerns regarding navigation and safety were raised.

- (h) Other Agency Comments: TRPA has solicited comments from those public agencies having jurisdiction over the nearshore and foreshore and all such comments received were considered by TRPA, prior to action being taken on the project.

The project was taken to the Shoreline Review Committee on August 18, 2022 and no negative comments were received. The applicant is required to get approval for the project from the U.S. Army Corps of Engineers, Nevada Department of Wildlife, Nevada Division of State Lands, and Washoe County.

- (i) Additional Findings for Coverage or Disturbance in the Backshore: The amount of land coverage is the minimum necessary when all Thresholds are taken into consideration to provide access to an approved or an existing structure or use in the nearshore or foreshore.

The project will utilize existing access to the boat ramp/shoreline area to also access the pier. The pier will terminate at the high water line and will not extend landward of the high water line. Should the permittee determine that the pier terminus needs to extend landward of the high water line, the permittee will be required to obtain restoration credits at a ratio of 1 to 1.5 times the amount of coverage required for the upland portion of the pier.

3. Chapter 83 Shorezone Tolerance Districts and Development Standards:

- (a) Vehicular access to the shoreline shall not be permitted except where TRPA finds that such access will not cause environmental harm.

The proposed project is located in Shorezone Tolerance District 7, where vehicular access to the shoreline shall not be permitted except where TRPA finds that such access will not cause environmental harm. The pier will be constructed entirely from a barge/ amphibious vehicle on the lake. Access to the project area from the upland is prohibited except for necessary access paths for construction workers, and construction staging of equipment and material will only occur on a secondary barge and not on the shoreline. Existing permanent access is already facilitated with a large lawn/yard area due to existence of the boat ramp.

- (b) Permitted development or continued use may be conditioned upon installation and maintenance of vegetation to stabilized backshore areas and protect existing cliffs from accelerated erosion.

The backshore area of 865 Lakeshore Boulevard is landscaped, level, and has served as stabilized access to the boat ramp. The shoreline along this property is fairly well stabilized. Once the boat ramp is removed, the area will be restored and stabilized and the new pier placed. Further erosion in the vicinity of the pier is not anticipated due to this existing use and improvements already on-site.

- (c) Projects shall not be permitted in the backshore unless TRPA finds that such project is unlikely to require the cliff area to be mechanically stabilized or that the project will not accelerate cliff crumbling, beach loss, or erosion.

See finding 3(b), above.

- (d) Access to the shoreline shall be restricted to stabilized access ways which minimize the impact to the backshore.

See finding 3(b), above.

- (e) Access to buoys shall be designed to cause the least possible environmental harm to the foreshore and backshore.

See finding 3(b), above.

- (f) Access to piers, floating platforms and boat ramps shall be designed to cause the least possible alteration to the natural backshore.

See finding 3(b), above.

Attachment B

Draft Permit



**Mail**  
PO Box 5310  
Stateline, NV 89449-5310

**Location**  
128 Market Street  
Stateline, NV 89449

**Contact**  
Phone: 775-588-4547  
Fax: 775-588-4527  
www.trpa.org

**Attachment B  
Conditional Permit**

PROJECT DESCRIPTION: Boat Ramp to Pier Conversion and Multiple Parcel Pier Designation

APNs: 122-181-26 & -27

PERMITTEES: Kennelly Family Trust/NIKU LLC

FILE #: ERSP2021-0055

COUNTY/LOCATION: Washoe/ 865 & 869 Lakeshore Boulevard

Having made the findings required by Agency ordinances and rules, the TRPA Governing Board approved the project on **September 28th, 2022**, subject to the standard conditions of approval attached hereto (Attachments Q and S) and the special conditions found in this permit.

This permit shall expire on **September 28th, 2025**, without further notice unless the construction has commenced prior to this date and diligently pursued thereafter. Commencement of construction consists of pouring concrete for a foundation and does not include grading, installation of utilities or landscaping. Diligent pursuit is defined as completion of the project within the approved construction schedule. The expiration date shall not be extended unless the project is determined by TRPA to be the subject of legal action which delayed or rendered impossible the diligent pursuit of the permit.

**NO DEMOLITION, CONSTRUCTION OR GRADING SHALL COMMENCE UNTIL:**

- (1) TRPA RECEIVES A COPY OF THIS PERMIT UPON WHICH THE PERMITTEE(S) HAS ACKNOWLEDGED RECEIPT OF THE PERMIT AND ACCEPTANCE OF THE CONTENTS OF THE PERMIT;
- (2) ALL PRE-CONSTRUCTION CONDITIONS OF APPROVAL ARE SATISFIED AS EVIDENCED BY TRPA'S ACKNOWLEDGEMENT OF THIS PERMIT;
- (3) THE PERMITTEE OBTAINS APPROPRIATE COUNTY PERMIT. TRPA'S ACKNOWLEDGEMENT MAY BE NECESSARY TO OBTAIN A COUNTY PERMIT. THE COUNTY PERMIT AND THE TRPA PERMIT ARE INDEPENDENT OF EACH OTHER AND MAY HAVE DIFFERENT EXPIRATION DATES AND RULES REGARDING EXTENSIONS; AND
- (4) A TRPA PRE-GRADING INSPECTION HAS BEEN CONDUCTED WITH THE PROPERTY OWNER AND/OR THE CONTRACTOR.

TRPA Executive Director/Designee

9/28/2022

Date

PERMITTEES' ACCEPTANCE: I have read the permit and the conditions of approval and understand and

accept them. I also understand that I am responsible for compliance with all the conditions of the permit and am responsible for my agents' and employees' compliance with the permit conditions. I also understand that if the property is sold, I remain liable for the permit conditions until or unless the new owner acknowledges the transfer of the permit and notifies TRPA in writing of such acceptance. I also understand that certain mitigation fees associated with this permit are non-refundable once paid to TRPA. I understand that it is my sole responsibility to obtain any and all required approvals from any other state, local or federal agencies that may have jurisdiction over this project whether or not they are listed in this permit.

Signature of Permittee(s) \_\_\_\_\_ Date \_\_\_\_\_

Signature of Permittee(s) \_\_\_\_\_ Date \_\_\_\_\_

(PERMIT CONTINUED ON NEXT PAGE)



pound boatlifts located at the pierhead. The boatlifts will be placed as a result of the conversion of two legally-existing, TRPA-registered moorings associated with the properties. The pierhead will be 15 feet wide. The pier complies with all development and location standards for a multiple-parcel pier serving two parcels, and is consistent with TRPA Code of Ordinances chapters 80 through 85.

This property is located in feed and cover fish habitat. The new pier will have twenty-eight 12-inch pilings for a total of 22.12 square feet of new lake bottom disturbance. Lake bottom disturbance located in feed and cover habitat will be mitigated at a 1 to 1 ratio, requiring 22.12 square feet of fish habitat mitigation. Fish habitat mitigation will occur in the form of rock pyramids placed underneath the proposed pier.

The two parcels associated with the project area will be deed restricted to one shared pier. Once the permit has been acknowledged, the project area will include the following shorezone development:

APN 122-181-26: three mooring buoys (one used for swim platform)  
APN 122-181-27: two mooring buoys  
All APNs: one multiple-parcel/multiple-use pier

The two parcels associated with this project shall be considered a project area for scenic mitigation purposes. The proposed contrast rating scores for the parcels are as follows:

APN 122-181-26: Composite Contrast Rating Score of 26  
APN 122-181-27: Composite Contrast Rating Score of 25

The proposed project is located within Scenic Shoreline Unit 23, Crystal Bay, which is not in attainment with the TRPA Scenic Threshold. Up to 400 square feet of visible mass is allowed for multiple-parcel/use piers serving two or more primary residential littoral parcels. The allowable visible mass is not inclusive of accessory structures such as boatlifts, handrails, and ladders. The proposed pier has a total visible mass of 200 square feet which counts towards the 400 square feet of allowable visible mass. The project area is located in a Visually Modified scenic character type, requiring mitigation of all additional mass, including accessory structures associated with a pier, at a 1:2 ratio. There is a total visible mass, including accessory structures, of 459 square feet. This means that 918 square feet of visible mass will be mitigated within the project area. The project area must also demonstrate that it can meet a Composite Scenic Score of 25 within 6 months of project completion. The project area has an existing Composite Contrast Rating Score is 22. After the proposed scenic mitigation measures have been applied, the project area will achieve a Composite Contrast Rating Score of 25, and therefore complies with this requirement. Additional visible mass associated with the pier will be mitigated by adding additional vegetative screening and painting the existing residence located at 869 Lakeshore Boulevard. Mitigation will also be achieved by utilizing remaining allowable visible mass associated with the project area composite contrast rating score of 25, and the two subject properties will be deed restricted for scenic purposes. TRPA staff has determined that the proposed pier is consistent with maintaining and improving the scenic threshold rating.

2. The Standard Conditions of Approval listed in Attachment S shall apply to this permit.

3. Prior to permit acknowledgement, the following conditions of approval must be satisfied:

A. The applicant shall submit a demolition plan for the removal of the existing boat ramp at 865 Lakeshore Boulevard which includes:

- (1) Clear indication of coverage and structures to be removed.
- (2) Construction staging areas.
- (3) Temporary erosion control structures located downslope of the proposed upland demolition areas. (Please Note: Straw bales are no longer acceptable for temporary erosion control or mulch material in the Lake Tahoe Basin. The use of straw has contributed to the spread of noxious weeds throughout the basin. The use of alternatives to straw bales, such as pine needle bales, filter fabric, coir logs and pine needle or wood mulches for erosion control purposes is required.)
- (4) Include a notation indicating that no staging activity is authorized on the shoreline or within the shorezone.
- (5) The applicant shall submit a methodology to include detailed information regarding the delivery, removal, and staging of all equipment, (2) access, (3) deconstruction, disposal of material, (4) equipment to be used, (5) Spill Prevention Plan for the use of any hazardous materials or equipment (i.e., fuel, epoxy glue, other volatile substances, welding and torch equipment, etc.), and (6) location and type of temporary BMPs.
- (6) The applicant shall submit a demolition schedule to identify dates for the following activities: (1) installation of temporary BMPs, (2) demolition commencement, (3) removal of demolition debris, (4) demolition completion, and (5) and site restoration where applicable.
- (7) The applicant shall submit a re-vegetation/re-stabilization plan for the area where existing pier access will be removed, consistent with TRPA code section 61.4 *Revegetation*.

B. Sheet T1 for the project area shall be revised to include the following note:

“The property located at 865 Lakeshore Boulevard has a Composite Contrast Rating Score of 26, which allows for 1,365 square feet of visible mass. The property has 1, 040 square feet of existing visible mass, leaving 325 square feet of remaining allowable visible mass. Fifty-percent of the required scenic mitigation for the pier, 286 square feet, will be deducted from the remaining allowable visible mass resulting in 39 square feet of remaining allowable visible mass.”

C. Sheet T1 for the project area shall be revised to include the following note:

“The property located at 869 Lakeshore Boulevard will achieve a Composite Contrast Rating Score of 25, which allows for 1,190 square feet of visible mass. The property will have 873 square feet of visible mass after additional vegetative screening has been planted, leaving 317 square feet of remaining allowable visible mass. Fifty-percent of the required scenic mitigation for the pier, 286 square feet, will be deducted from the remaining allowable visible mass resulting in 31 square feet of remaining allowable visible mass.”

- D. On Sheet T1, identify the mooring numbers and the corresponding tag numbers for the buoys that will be converted to boatlifts.
- E. The final elevation drawings for each of the three properties shall have notes indicating conformance to the following design standards for color, roofs, and fences:
  - (1) Color: The color of this structure, including any fences on the property, shall be compatible with the surroundings. Subdued colors in the earthtone and woodtone ranges shall be used for the primary color of the structure. Hues shall be within the range of natural colors that blend, rather than contrast, with the existing vegetation and earth hues. Earthtone colors are considered to be shades of reddish brown, brown, tan, ochre, and umber.
  - (2) Roofs: Roofs shall be composed of non-glare earthtone or woodtone materials that minimize reflectivity.
  - (3) Fences: Wooden fences shall be used whenever possible. If cyclone fence must be used, it shall be coated with brown or black vinyl, including fence poles.
- F. The Permittee shall submit a projected construction completion schedule to TRPA prior to acknowledgment. Said schedule shall include completion dates for each item of construction.
- G. The permittees shall record a deed restriction to be prepared by TRPA that will create a project area of the subject APNs (122-181-26 & 122-181-27) for the purpose of limiting potential future shorezone development, to allow for only one pier between the subject parcels. The deed restriction shall also create a project area for the purposes of scenic review. The permittee shall record the deed restriction with the Washoe County Recorder's Office, and provide either the original recorded deed restriction or a certified copy of the recorded deed restriction to TRPA prior to permit acknowledgement.
- H. The permittee shall provide underwater photos of the project area indicating the conditions prior to the start of construction. For the purposes of this condition, the project area shall include the areas where the approved pier will be built as well as the area where the buoy blocks for the buoys that will be converted to boatlifts will be removed. **Prior to security return, the permittee shall provide post-construction underwater photos of the same locations of the project area. Note that prior to security return, the permittee must demonstrate proof that all components of the buoy block have been removed, the area of lake bottom restored, and the fish habitat disturbance mitigated.**

- I. The Permittee shall conduct a Tahoe Yellow Cress survey for the subject property. Surveys shall be conducted during the growing season of June 15th through September 30<sup>th</sup> prior to commencement of proposed work. If TYC or TYC habitat are present, the Permittee shall submit a TYC avoidance and protection plan to TRPA prior to acknowledgement of this permit.
- J. The Permittee shall provide a Spill Prevention Plan for the use of any hazardous materials or equipment (i.e., fuel, epoxy glue, other volatile substances, welding and torch equipment, etc.), for construction activities occurring from a barge and/or amphibious vehicle and within the lake. The Plan shall require absorbent sheets/pads to be retained on the barge at all times. A contact list of all emergency response agencies shall be available at the project site at all times during construction.
- K. The subject property, APN 122-181-26, has 124 square feet of unmitigated excess land coverage. The Permittee shall mitigate a portion or all of the excess land coverage on this property by removing coverage within the Hydrologic Transfer Area 1 (Incline Village), or by submitting an excess coverage mitigation fee.

To calculate the amount of excess coverage to be removed (in square feet), use the following formula:

Estimated project construction cost multiplied by 0.0006, divided by 8.

If you choose this option, please revise your final site plans and land coverage calculations to account for the permanent coverage removal.

An excess land coverage mitigation fee may be paid in lieu of permanently retiring land coverage. The excess coverage mitigation fee shall be calculated as follows:

Square footage of required coverage reduction (as determined by formula above) multiplied by the excess coverage mitigation fee of \$20.00 per square foot for projects located within the Hydrologic Transfer Area 1 (Incline Village).

Please provide a construction cost estimate by your licensed contractor, architect, or engineer. In no case shall the mitigation fee be less than \$200.00.

- L. The subject property, APN 122-181-27, has 726 square feet of unmitigated excess land coverage. The Permittee shall mitigate a portion or all of the excess land coverage on this property by removing coverage within the Hydrologic Transfer Area 1 (Incline), or by submitting an excess coverage mitigation fee.

To calculate the amount of excess coverage to be removed (in square feet), use the following formula:

Estimated project construction cost multiplied by 0.0025, divided by 8.

If you choose this option, please revise your final site plans and land coverage calculations to account for the permanent coverage removal.

An excess land coverage mitigation fee may be paid in lieu of permanently retiring land coverage. The excess coverage mitigation fee shall be calculated as follows:

Square footage of required coverage reduction (as determined by formula above) multiplied by the excess coverage mitigation fee of \$20.00 per square foot for projects located within the Hydrologic Transfer Area 1 (Incline).

Please provide a construction cost estimate by your licensed contractor, architect, or engineer. In no case shall the mitigation fee be less than \$200.00.

- M. The project security required under Standard Condition A.3 of Attachment S shall be \$10,000. Please see Attachment J, Security Procedures, for appropriate methods of posting the security and for calculation of the required security administration fee. **Prior to release of security, the permittee shall provide to the TRPA inspector the GPS locations of the buoys that remain in the water as well as the buoy tag(s) for the buoy(s) that is removed for the conversion.**
  - N. Pursuant to Section 10.8.5.E.4.a.i of the TRPA Rules of Procedure, the permittee shall submit a shorezone mitigation fee of \$11,472 for the construction of 191.2 feet of pier length for a new pier (assessed at \$60.00 per linear foot).
  - O. Pursuant to Section 10.8.5.E.4.a.ii of the TRPA Rules of Procedure, the permittee shall submit a shorezone mitigation fee of \$1,200.00 for the addition of two boatlifts to the proposed pier (assessed at \$600 per addition).
  - P. The Permittee shall provide an electronic set of final construction drawings and site plans for TRPA Acknowledgement.
4. To the maximum extent allowable by law, the Permittee agrees to indemnify, defend, and hold harmless TRPA, its Governing Board, its Planning Commission, its agents, and its employees (collectively, TRPA) from and against any and all suits, losses, damages, injuries, liabilities, and claims by any person (a) for any injury (including death) or damage to person or property or (b) to set aside, attack, void, modify, amend, or annul any actions of TRPA. The foregoing indemnity obligation applies, without limitation, to any and all suits, losses, damages, injuries, liabilities, and claims by any person from any cause whatsoever arising out of or in connection with either directly or indirectly, and in whole or in part (1) the processing, conditioning, issuance, or implementation of this permit; (2) any failure to comply with all applicable laws and regulations; or (3) the design, installation, or operation of any improvements, regardless of whether the actions or omissions are alleged to be caused by TRPA or Permittee.

Included within the Permittee's indemnity obligation set forth herein, the Permittee agrees to pay all fees of TRPA's attorneys and all other costs and expenses of defenses as they are incurred, including reimbursement of TRPA as necessary for any and all costs and/or fees incurred by TRPA

for actions arising directly or indirectly from issuance or implementation of this permit. TRPA will have the sole and exclusive control (including the right to be represented by attorneys of TRPA's choosing) over the defense of any claims against TRPA and over this settlement, compromise or other disposition. Permittee shall also pay all costs, including attorneys' fees, incurred by TRPA to enforce this indemnification agreement. If any judgment is rendered against TRPA in any action subject to this indemnification, the Permittee shall, at its expense, satisfy and discharge the same.

5. It is the Permittee's responsibility to receive authorization, and obtain any necessary permits from other responsible agencies for the proposed project.
6. No pier demolition or construction shall occur between May 1 and October 1 (spawning season) unless prior approval is obtained from the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, or the U.S. Fish and Wildlife Service.
7. Disturbance of lake bed materials shall be the minimum necessary. The removal of rock materials from Lake Tahoe is prohibited. Gravel, cobble, or small boulders shall not be disturbed or removed to leave exposed sandy areas before, during, or after construction.
8. Best practical control technology shall be employed to prevent earthen materials to be re-suspended as a result of construction activities and from being transported to adjacent lake waters.
9. The discharge of petroleum products, construction waste and litter (including sawdust), or earthen materials to the surface waters of the Lake Tahoe Basin is prohibited. All surplus construction waste materials shall be removed from the project and deposited only at approved points of disposal.
10. Any normal construction activity creating noise in excess of the TRPA noise standards shall be considered exempt from said standards provided all such work is conducted between the hours of 8:00 A.M. and 6:30 P.M.

**END OF PERMIT**

Attachment C

2018 Shorezone Code Conformance Table

**Attachment C**  
**Kennelly/Huber Multiple Use Designation Pier Conformance Review Table**

**Table 1: Pier Conformance Review Under 2018 Shorezone Code**

<b>Standard</b>	<b>2018 Shzne Code</b>	<b>Proposed Pier</b>	<b>Conformance</b>
Streams	Outside of Stream Mouth Protection Zone (SMPZ)	.4 mile away from the nearest SMPZ located at Incline Beach	<b>In conformance</b>
Fish Habitat	Mitigation at 1:1 for feed/cover fish habitat and mitigation at 1 to 1 for spawning feed/cover habitat	Restore fish habitat adjacent to project, mitigation of \$11,472 for additional 191.2 linear feet of pier length	<b>In conformance</b>
Length	Pierhead may extend 30 feet past 6219 or 60 feet past pierhead line, whichever is more limiting. An additional 15 feet may be permitted for piers serving three or more primary residential parcels	<b>191.2'</b> , extends 50 feet past the TRPA pierhead line.	<b>In conformance</b>
Setbacks	20' for new piers from outermost property boundary projection lines, & 40' from existing piers as measured from the pierhead	Conforms with external projection line setbacks	<b>In Conformance</b>
Width	Maximum 15' wide excluding catwalks	15' with one (2) 3-foot by 30-foot catwalks on either side of the pier.	<b>In conformance</b>
Catwalk	Maximum of 3' by 30' (multiple use piers are allowed up to two)	(2) 3' x 30'	<b>In conformance</b>
Boatlift	One boat lift per littoral parcel (max. 4)	Two (2) 12,000 pound boatlifts	<b>In conformance</b>
Pier Height	6,232' maximum	6,232'	<b>In conformance</b>
Free Flowing Water	Piers required to be floating or have an open piling foundation	Open piling foundation (90%)	<b>In conformance</b>
Superstructures (Boat House)	Prohibited	NA	<b>In conformance</b>

Colors & Materials	Dark colors that blend with background	Brown decking, flat black structural components	<b>In conformance</b>
Visual Mass Limitation	400 sf of visible mass allowed for piers serving 2 or more primary residential littoral parcels (does not include accessory structures such as boatlifts, boats, handrails, and ladders).	200 square feet	<b>In conformance</b>
Visual Mass Mitigation	In Visually Modified Character Types mitigation required at a 1:2 ratio	Additional visible mass, including accessory structures, will be mitigated at a 1:2 ratio through adding vegetative screening, painting existing structures, and retiring allowable visible mass for each of the two parcels.	<b>In conformance</b>
Retirement of Shorezone Development Potential	An additional multiple-parcel pier shall extinguish future pier development potential through deed restriction on all parcels served by the pier, including adjacent and non-adjacent parcels, with the exception of the littoral parcel on which the additional pier is permitted.	Deed restriction to be recorded prior to permit acknowledgement.	<b>In conformance</b>

Attachment D

Initial Environmental Checklist



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Stateline, NV  
Phone: (775) 588-4547  
Fax: (775) 588-4527

MAIL  
PO Box 5310  
Stateline, NV 89449-5310  
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trpa@trpa.org

HOURS  
Mon. Wed. Thurs. Fri  
9 am-12 pm/1 pm-4 pm  
Closed Tuesday  
New Applications Until 3:00 pm

Print Form

**INITIAL ENVIRONMENTAL CHECKLIST  
FOR DETERMINATION OF ENVIRONMENTAL IMPACT**

**I. Assessor's Parcel Number (APN)/Project Location**

APN# 122-181-26 865 Lakeshore Blvd.  
APN# 122-181-27 869 Lakeshore Blvd.

**Project Name**

Kennelly & NIKU - Conversion of Boat Ramp to New Multi-use Pier

**County/City**

Washoe County

**Brief Description of Project:**

The proposed project is to convert an existing boat ramp to a new multi-use pier per TRPA code section 84.5.3.F. The proposed pier will be 191.2-ft in length from high water level and 15-ft wide with a pier deck elevation at 6234' LTD. Each side of the pier will include one 15-ft ramp down to the 3-ft by 30-ft adjustable catwalk and one 12,000 lbs. boat lift. The proposed pier has been designed consistent with the current multi-use pier shorezone standards and two existing mooring buoys will be exchanged and converted to the boatlifts, per TRPA code section 84.3.1C.5.

The following questionnaire will be completed by the applicant based on evidence submitted with the application. All "Yes" and "No, With Mitigation" answers will require further written comments. Use the blank boxes to add any additional information. If more space is required for additional information, please attach separate sheets and reference the question number and letter.

**II. ENVIRONMENTAL IMPACTS:**

**1. Land**

Will the proposal result in:

a. Compaction or covering of the soil beyond the limits allowed in the land capability or Individual Parcel Evaluation System (IPES)?

- Yes                       No  
 No, With Mitigation       Data Insufficient

b. A change in the topography or ground surface relief features of site inconsistent with the natural surrounding conditions?

- Yes                       No  
 No, With Mitigation       Data Insufficient

c. Unstable soil conditions during or after completion of the proposal?

- Yes                       No  
 No, With Mitigation       Data Insufficient

d. Changes in the undisturbed soil or native geologic substructures or grading in excess of 5 feet?

- Yes                       No  
 No, With Mitigation       Data Insufficient

e. The continuation of or increase in wind or water erosion of soils, either on or off the site?

- Yes                       No  
 No, With Mitigation       Data Insufficient

- f. Changes in deposition or erosion of beach sand, or changes in siltation, deposition or erosion, including natural littoral processes, which may modify the channel of a river or stream or the bed of a lake?

The proposed pier will not cause erosion of beach sand or alter the natural littoral processes, as the pier will be built on an open piling system that allows at least 90% of free water circulation.

- Yes  No  
 No, With Mitigation  Data Insufficient

- g. Exposure of people or property to geologic hazards such as earthquakes, landslides, backshore erosion, avalanches, mud slides, ground failure, or similar hazards?

- Yes  No  
 No, With Mitigation  Data Insufficient

## 2. Air Quality

Will the proposal result in:

- a. Substantial air pollutant emissions?

- Yes  No  
 No, With Mitigation  Data Insufficient

- b. Deterioration of ambient (existing) air quality?

- Yes  No  
 No, With Mitigation  Data Insufficient

- c. The creation of objectionable odors?

- Yes  No  
 No, With Mitigation  Data Insufficient

- d. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?

- Yes  No  
 No, With Mitigation  Data Insufficient

e. Increased use of diesel fuel?

- Yes       No  
 No, With Mitigation       Data Insufficient

### 3. Water Quality

Will the proposal result in:

a. Changes in currents, or the course or direction of water movements?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff so that a 20 yr. 1 hr. storm runoff (approximately 1 inch per hour) cannot be contained on the site?

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Alterations to the course or flow of 100-yearflood waters?

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Change in the amount of surface water in any water body?

- Yes       No  
 No, With Mitigation       Data Insufficient

e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?

- Yes       No  
 No, With Mitigation       Data Insufficient

f. Alteration of the direction or rate of flow of ground water?

- Yes  No  
 No, With Mitigation  Data Insufficient

g. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

- Yes  No  
 No, With Mitigation  Data Insufficient

h. Substantial reduction in the amount of water otherwise available for public water supplies?

- Yes  No  
 No, With Mitigation  Data Insufficient

i. Exposure of people or property to water related hazards such as flooding and/or wave action from 100-year storm occurrence or seiches?

- Yes  No  
 No, With Mitigation  Data Insufficient

j. The potential discharge of contaminants to the groundwater or any alteration of groundwater quality?

- Yes  No  
 No, With Mitigation  Data Insufficient

k. Is the project located within 600 feet of a drinking water source?

- Yes  No  
 No, With Mitigation  Data Insufficient

#### 4. Vegetation

Will the proposal result in:

- a. Removal of native vegetation in excess of the area utilized for the actual development permitted by the land capability/IPES system?

- Yes  No  
 No, With Mitigation  Data Insufficient

- b. Removal of riparian vegetation or other vegetation associated with critical wildlife habitat, either through direct removal or indirect lowering of the groundwater table?

- Yes  No  
 No, With Mitigation  Data Insufficient

- c. Introduction of new vegetation that will require excessive fertilizer or water, or will provide a barrier to the normal replenishment of existing species?

- Yes  No  
 No, With Mitigation  Data Insufficient

- d. Change in the diversity or distribution of species, or number of any species of plants (including trees, shrubs, grass, crops, micro flora and aquatic plants)?

- Yes  No  
 No, With Mitigation  Data Insufficient

- e. Reduction of the numbers of any unique, rare or endangered species of plants?

- Yes  No  
 No, With Mitigation  Data Insufficient

f. Removal of stream bank and/or backshore vegetation, including woody vegetation such as willows?

- Yes       No  
 No, With Mitigation       Data Insufficient

g. Removal of any native live, dead or dying trees 30 inches or greater in diameter at breast height (dbh) within TRPA's Conservation or Recreation land use classifications?

- Yes       No  
 No, With Mitigation       Data Insufficient

h. A change in the natural functioning of an old growth ecosystem?

- Yes       No  
 No, With Mitigation       Data Insufficient

## 5. Wildlife

Will the proposal result in:

a. Change in the diversity or distribution of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, mammals, amphibians or microfauna)?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Reduction of the number of any unique, rare or endangered species of animals?

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Deterioration of existing fish or wildlife habitat quantity or quality?

The site is mapped as "Feed and Cover" fish habitat. As apart of the project proposal, four 9 sq. ft. rock pyramids will be constructed under the pier to provide additional fish habitat.

- Yes       No  
 No, With Mitigation       Data Insufficient

## 6. Noise

Will the proposal result in:

a. Increases in existing Community Noise Equivalency Levels (CNEL) beyond those permitted in the applicable Plan Area Statement, Community Plan or Master Plan?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Exposure of people to severe noise levels?

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Single event noise levels greater than those set forth in the TRPA Noise Environmental Threshold?

- Yes       No  
 No, With Mitigation       Data Insufficient

d. The placement of residential or tourist accommodation uses in areas where the existing CNEL exceeds 60 dBA or is otherwise incompatible?

- Yes
- No
- No, With Mitigation
- Data Insufficient

e. The placement of uses that would generate an incompatible noise level in close proximity to existing residential or tourist accommodation uses?

- Yes
- No
- No, With Mitigation
- Data Insufficient

f. Exposure of existing structures to levels of ground vibration that could result in structural damage?

- Yes
- No
- No, With Mitigation
- Data Insufficient

## 7. Light and Glare

Will the proposal:

a. Include new or modified sources of exterior lighting?

For safety purposes, low level LED pier lights are proposed. The lights are shielded and directed inward on the pier. The lights will not create a glare or illumination upon the lake nor the adjacent properties.

- Yes  No  
 No, With Mitigation  Data Insufficient

b. Create new illumination which is more substantial than other lighting, if any, within the surrounding area?

- Yes  No  
 No, With Mitigation  Data Insufficient

c. Cause light from exterior sources to be cast off -site or onto public lands?

- Yes  No  
 No, With Mitigation  Data Insufficient

d. Create new sources of glare through the siting of the improvements or through the use of reflective materials?

- Yes  No  
 No, With Mitigation  Data Insufficient

## 8. Land Use

Will the proposal:

a. Include uses which are not listed as permissible uses in the applicable Plan Area Statement, adopted Community Plan, or Master Plan?

- Yes  No  
 No, With Mitigation  Data Insufficient

b. Expand or intensify an existing non-conforming use?

- Yes       No  
 No, With Mitigation       Data Insufficient

**9. Natural Resources**

Will the proposal result in:

a. A substantial increase in the rate of use of any natural resources?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Substantial depletion of any non-renewable natural resource?

- Yes       No  
 No, With Mitigation       Data Insufficient

**10. Risk of Upset**

Will the proposal:

a. Involve a risk of an explosion or the release of hazardous substances including, but not limited to, oil, pesticides, chemicals, or radiation in the event of an accident or upset conditions?

The contractor will have a spill containment kit on the amphibian/barge at times, in the event of an accident.

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Involve possible interference with an emergency evacuation plan?

- Yes       No  
 No, With Mitigation       Data Insufficient

**11. Population**

Will the proposal:

a. Alter the location, distribution, density, or growth rate of the human population planned for the Region?

- Yes
- No
- No, With Mitigation
- Data Insufficient

b. Include or result in the temporary or permanent displacement of residents?

- Yes
- No
- No, With Mitigation
- Data Insufficient

**12. Housing**

Will the proposal:

a. Affect existing housing, or create a demand for additional housing?

To determine if the proposal will affect existing housing or create a demand for additional housing, please answer the following questions:

(1) Will the proposal decrease the amount of housing in the Tahoe Region?

- Yes
- No
- No, With Mitigation
- Data Insufficient

(2) Will the proposal decrease the amount of housing in the Tahoe Region historically or currently being rented at rates affordable by lower and very-low-income households?

- Yes
- No
- No, With Mitigation
- Data Insufficient

Number of Existing Dwelling Units: \_\_\_\_\_

Number of Proposed Dwelling Units: \_\_\_\_\_

b. Will the proposal result in the loss of housing for lower-income and very-low-income households?

- Yes  No  
 No, With Mitigation  Data Insufficient

### 13. Transportation/Circulation

Will the proposal result in:

a. Generation of 100 or more new Daily Vehicle Trip Ends (DVTE)?

- Yes  No  
 No, With Mitigation  Data Insufficient

b. Changes to existing parking facilities, or demand for new parking?

- Yes  No  
 No, With Mitigation  Data Insufficient

c. Substantial impact upon existing transportation systems, including highway, transit, bicycle or pedestrian facilities?

- Yes  No  
 No, With Mitigation  Data Insufficient

d. Alterations to present patterns of circulation or movement of people and/or goods?

- Yes  No  
 No, With Mitigation  Data Insufficient

e. Alterations to waterborne, rail or air traffic?

- Yes  No  
 No, With Mitigation  Data Insufficient

f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?

- Yes                       No  
 No, With Mitigation       Data Insufficient

**14. Public Services**

Will the proposal have an unplanned effect upon, or result in a need for new or altered governmental services in any of the following areas?

a. Fire protection?

- Yes                       No  
 No, With Mitigation       Data Insufficient

b. Police protection?

- Yes                       No  
 No, With Mitigation       Data Insufficient

c. Schools?

- Yes                       No  
 No, With Mitigation       Data Insufficient

d. Parks or other recreational facilities?

- Yes                       No  
 No, With Mitigation       Data Insufficient

e. Maintenance of public facilities, including roads?

- Yes                       No  
 No, With Mitigation       Data Insufficient

f. Other governmental services?

- Yes  No  
 No, With Mitigation  Data Insufficient

### 15. Energy

Will the proposal result in:

a. Use of substantial amounts of fuel or energy?

- Yes  No  
 No, With Mitigation  Data Insufficient

b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?

- Yes  No  
 No, With Mitigation  Data Insufficient

### 16. Utilities

Except for planned improvements, will the proposal result in a need for new systems, or substantial alterations to the following utilities:

a. Power or natural gas?

- Yes  No  
 No, With Mitigation  Data Insufficient

b. Communication systems?

- Yes  No  
 No, With Mitigation  Data Insufficient

c. Utilize additional water which amount will exceed the maximum permitted capacity of the service provider?

- Yes  No  
 No, With Mitigation  Data Insufficient

d. Utilize additional sewage treatment capacity which amount will exceed the maximum permitted capacity of the sewage treatment provider?

- Yes             No  
 No, With Mitigation     Data Insufficient

e. Storm water drainage?

- Yes             No  
 No, With Mitigation     Data Insufficient

f. Solid waste and disposal?

- Yes             No  
 No, With Mitigation     Data Insufficient

**17. Human Health**

Will the proposal result in:

a. Creation of any health hazard or potential health hazard (excluding mental health)?

- Yes             No  
 No, With Mitigation     Data Insufficient

b. Exposure of people to potential health hazards?

- Yes             No  
 No, With Mitigation     Data Insufficient

**18. Scenic Resources/Community Design**

Will the proposal:

- a. Be visible from any state or federal highway, Pioneer Trail or from Lake Tahoe?

The pier by nature is water dependent and therefore will be visible from Lake Tahoe. The upland structures will be screened to mitigate for the additional mass of the pier.

- Yes  No  
 No, With Mitigation  Data Insufficient

- b. Be visible from any public recreation area or TRPA designated bicycle trail?

- Yes  No  
 No, With Mitigation  Data Insufficient

- c. Block or modify an existing view of Lake Tahoe or other scenic vista seen from a public road or other public area?

- Yes  No  
 No, With Mitigation  Data Insufficient

- d. Be inconsistent with the height and design standards required by the applicable ordinance or Community Plan?

- Yes  No  
 No, With Mitigation  Data Insufficient

- e. Be inconsistent with the TRPA Scenic Quality Improvement Program (SQIP) or Design Review Guidelines?

- Yes  No  
 No, With Mitigation  Data Insufficient

**19. Recreation**

Does the proposal:

a. Create additional demand for recreation facilities?

One mooring buoy will be exchanged for the boatlift for each property owner.

- Yes
- No
- No, With Mitigation
- Data Insufficient

b. Create additional recreation capacity?

- Yes
- No
- No, With Mitigation
- Data Insufficient

c. Have the potential to create conflicts between recreation uses, either existing or proposed?

- Yes
- No
- No, With Mitigation
- Data Insufficient

d. Result in a decrease or loss of public access to any lake, waterway, or public lands?

- Yes
- No
- No, With Mitigation
- Data Insufficient

**20. Archaeological/Historical**

a. Will the proposal result in an alteration of or adverse physical or aesthetic effect to a significant archaeological or historical site, structure, object or building?

- Yes
- No
- No, With Mitigation
- Data Insufficient

b. Is the proposed project located on a property with any known cultural, historical, and/or archaeological resources, including resources on TRPA or other regulatory official maps or records?

- Yes                       No  
 No, With Mitigation       Data Insufficient

c. Is the property associated with any historically significant events and/or sites or persons?

- Yes                       No  
 No, With Mitigation       Data Insufficient

d. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?

- Yes                       No  
 No, With Mitigation       Data Insufficient

e. Will the proposal restrict historic or pre-historic religious or sacred uses within the potential impact area?

- Yes                       No  
 No, With Mitigation       Data Insufficient

**21. Findings of Significance.**

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California or Nevada history or prehistory?

- Yes                       No  
 No, With Mitigation       Data Insufficient

b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.)

- Yes                       No  
 No, With Mitigation       Data Insufficient

c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environmental is significant?)

- Yes                       No  
 No, With Mitigation       Data Insufficient

d. Does the project have environmental impacts which will cause substantial adverse effects on human being, either directly or indirectly?

- Yes                       No  
 No, With Mitigation       Data Insufficient

**DECLARATION:**

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signature: (Original signature required.)

*Melissa M. [Signature]*

Person Preparing Application

At

Douglas

County

Date:

11/19/2021

**Applicant Written Comments: (Attach additional sheets if necessary)**

[Empty box for Applicant Written Comments]

Print Form

**FOR OFFICE USE ONLY**

Date Received: 1/25/21 By: Tiffany Good

Determination:

On the basis of this evaluation:

- a. The proposed project could not have a significant effect on the environment and a finding of no significant effect shall be prepared in accordance with TRPA's Rules of Procedure.

Yes

No

- b. The proposed project could have a significant effect on the environment, but due to the listed mitigation measures which have been added to the project, could have no significant effect on the environment and a mitigated finding of no significant effect shall be prepared in accordance with TRPA's Rules and Procedures.

Yes

No

- c. The proposed project may have a significant effect on the environment and an environmental impact statement shall be prepared in accordance with Chapter 3 of the TRPA Code of Ordinances and the Rules of Procedure.

Yes

No

**Tiffany Good**

Digitally signed by Tiffany Good  
DN: cn=Tiffany Good, o=TRPA, ou,  
email=tgood@trpa.org, c=US  
Date: 2022.09.20 14:07:02 -07'00'

Signature of Evaluator

Date: 9/20/22

Tiffany Good - Principal Planner

Title of Evaluator

Attachment E  
Proposed Plans

# NIKU, LLC AND KENNELLY MULTI-USE PIER PROJECT

EXISTING COVERAGE			
865 LAKESHORE BLVD. APN# 122-181-26			
LAND CAPABILITY	CL 1b - 1%	CL 6 - 30%	TOTAL
LAND AREA	892	31,240	32,132
ALLOWABLE	9	9,372	9,381
VERIFIED LAND COVERAGE			
CL 1b - 1%	CL 6 - 30%	TOTAL	
RESIDENCE/CRAWL		5,225	
CONCRETE/DRIVEWAY		5,319	
DECKS/STAIRS/RAMP		1,141	
<b>TOTAL VERIFIED COVERAGE</b>		<b>11,685</b>	
TRPA FILE # 200501905A			

869 LAKESHORE BLVD. APN# 122-181-27				
LAND CAPABILITY	CL 1b - 1%	CL 4 - 20%	CL 6 - 30%	TOTAL
LAND AREA	882	2,330	30,127	33,339
ALLOWABLE	9	466	9,038	9,513
EXISTING LAND COVERAGE				
CL 1b - 1%	CL 4 - 20%	CL 6 - 30%	TOTAL	
RESIDENCE & GARAGE			5,808	5,808
FRONT PORCH			113	113
REAR TERRACE			396	396
DOOR STOOPS			30	30
BBQ & PATIO			59	59
CIRCULAR DRIVE			2,802	2,802
DRIVEWAY			1,290	1,290
<b>EXISTING COVERAGE</b>			<b>10,498</b>	<b>10,498</b>
BANKED COVERAGE			80	80
<b>TOTAL COVERAGE</b>			<b>10,578</b>	<b>10,578</b>
TRPA FILE # ERS#2015-1599 & 19960416STD				

PREVIOUSLY MITIGATED EXCESS COVERAGE			
19960416STD	9	250	259
<b>TOTAL EXCESS COVERAGE MITIGATED</b>			<b>259</b>

PROPOSED COVERAGE			
865 LAKESHORE BLVD. APN# 122-181-26			
PROPOSED LAND COVERAGE	CL 1b - 1%	CL 6 - 30%	TOTAL
RESIDENCE/CRAWL		5,225	5,225
CONCRETE/DRIVEWAY	53	5,266	5,319
DECKS W/3:1		970	970
STAIRS		37	37
PIER	56		56
<b>TOTAL</b>	<b>109</b>	<b>11,498</b>	<b>11,607</b>
BANK COVERAGE	204		204
<b>TOTAL PROPOSED COVERAGE</b>	<b>313</b>	<b>11,498</b>	<b>11,811</b>

869 LAKESHORE BLVD. APN# 122-181-27				
PROPOSED LAND COVERAGE	CL 1b - 1%	CL 4 - 20%	CL 6 - 30%	TOTAL
RESIDENCE & GARAGE			5,808	5,808
FRONT PORCH			113	113
REAR TERRACE			396	396
DOOR STOOPS			30	30
BBQ & PATIO			59	59
CIRCULAR DRIVE			2,802	2,802
DRIVEWAY			1,290	1,290
<b>TOTAL</b>			<b>10,498</b>	<b>10,498</b>
BANKED COVERAGE			80	80
<b>TOTAL PROPOSED COVERAGE</b>			<b>10,578</b>	<b>10,578</b>

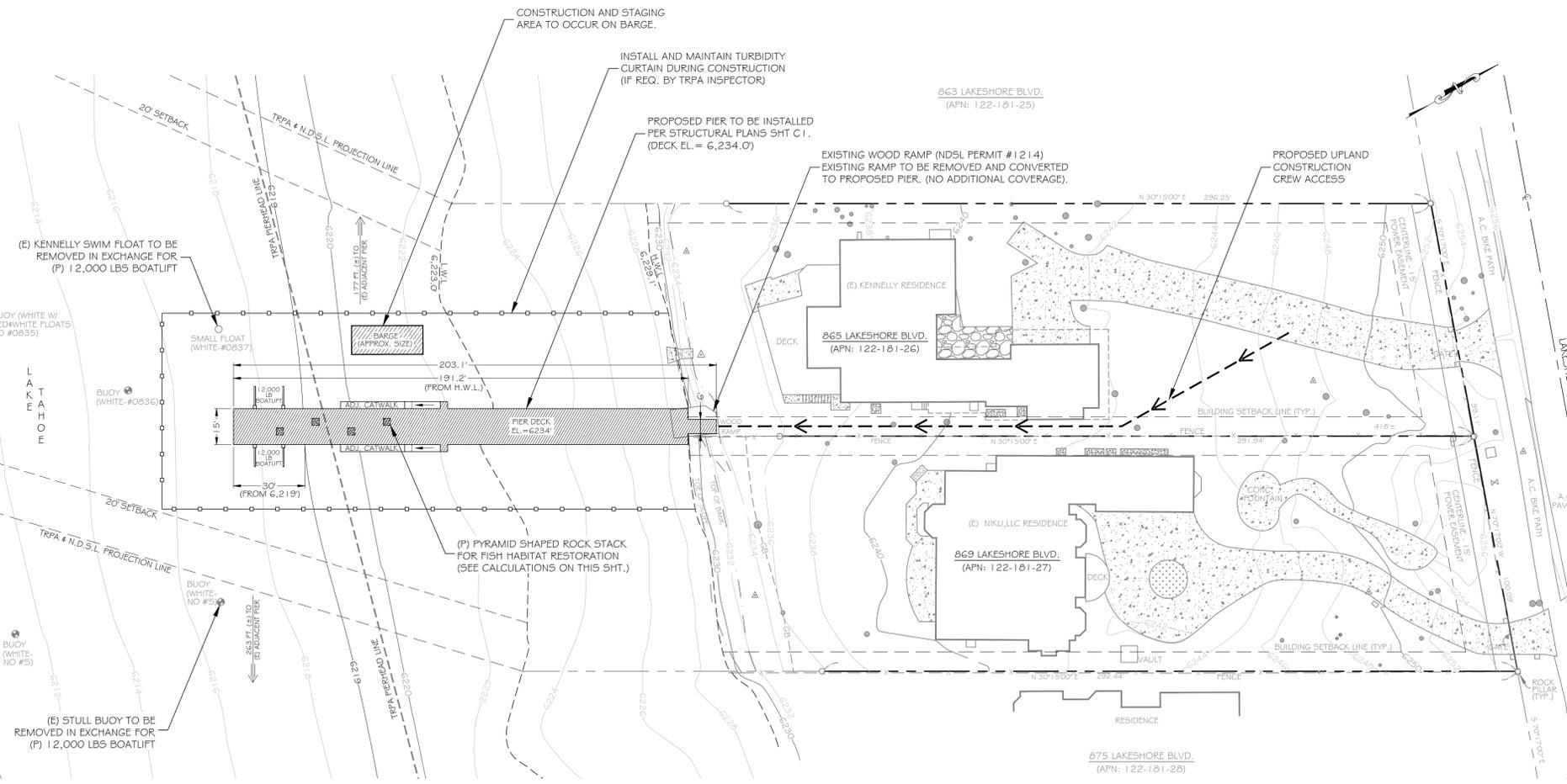
PIER MASSING CALCULATIONS		
ALLOWED PIER MASSING CALCULATIONS		
PROPOSED PIER DIMENSIONS	(feet/in.)	(feet)
Pier length (from H.W.L.)	191'-2"	191.20
Width of pier head and Catwalks	18'-0"	18.00
Decking height with joists	9"	0.75
Girders depth	8.25"	0.70
Pile height (visible at 6.228' lake level)	6'-7"	6.58
Pile width	12"	1.00

PROPOSED PIER VISUAL MASS		(sq. ft.)
Decking/framing: 191.2' x 0.75' (side) =		143.40
Decking/framing: 18' x 0.75' (front) =		13.50
Steel piles: 1' x 6.58' x 14 piles (side) =		92.12
Steel Piles: 1' x 6.58' x 2 piles (front) =		13.16
Steel Girders: 0.08 SF x 15 (side) =		1.20
Steel Girders: 0.7' x 18' (front) =		12.60
Catwalk: ((15' x 0.25') + (5.5' x 3')) =		20.25
<b>Total Proposed Visual Massing:</b>		<b>296.23</b>
<b>Total Allowed Visual Massing:</b>		<b>400.00</b>

VISIBLE PIER MASSING TO BE MITIGATED		(sq. ft.)
Decking/framing: 191.2' x 0.75' (side) =		143.40
Decking/framing: 18' x 0.75' (front) =		13.50
Steel piles: 1' x 6.58' x 14 piles (side) =		92.12
Steel Piles: 1' x 6.58' x 2 piles (front) =		13.16
Steel Girders: 0.08 SF x 15 (side) =		1.20
Steel Girders: 0.7' x 18' (front) =		12.60
Catwalk/Guardrail/Ramp: ((9.99') + (5.25' x 3' + 1.5')) =		27.24
New fender piles: ((0.29' x 6' x 5) + (0.29' x 6' x 2)) =		12.18
Swim ladders: (3.33' ladder strainers + 0.83' rungs) x 2		8.32
Two New 12,000 lbs Boat Lift (@ 174 SF) =		348.00
<b>Total Visual Massing to be Mitigated:</b>		<b>671.72</b>

SQUARE FEET OF MITIGATION REQUIRED	
Visually Modified Scenic Character Type (1:2 scenic mitigation req.)	(671.72 SF x 2) =
<b>Total scenic mitigation required (sq. ft.):</b>	<b>1343</b>

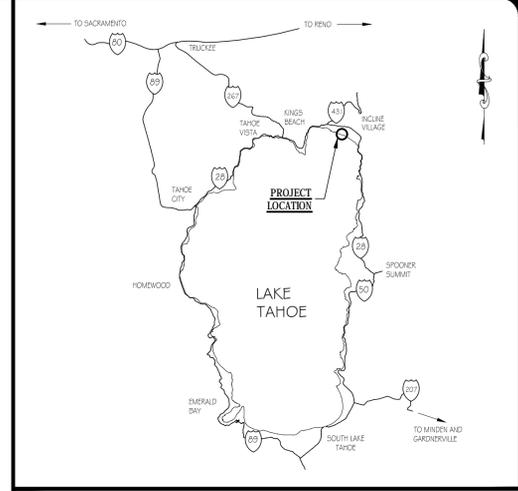
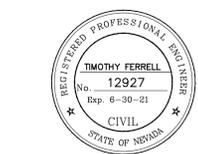
FISH HABITAT MITIGATION CALCULATIONS	
AREA OF DISTURBANCE RESULTING FROM INSTALLATION OF 28-(12" DIA.) NEW PILING (0.79 X 28)	22.12 SQ. FT.
TOTAL FISH HABITAT RESTORATION REQUIRED (1:1.5 MITIGATION)	33.18 SQ. FT.
TOTAL PROPOSED FISH HABITAT MITIGATION (FOUR ROCK PYRAMIDS AT 9 SQ.FT./EACH)	36.00 SQ. FT.



**SITE PLAN OVERVIEW**  
SCALE: 1"=30'-0"

**SHEET INDEX:**

- T1 - TITLE SHEET/SITE PLAN
- C1 - PROPOSED PIER PLANS
- D1 - STRUCTURAL DETAILS



**AREA MAP**

**SURVEY/GENERAL NOTES:**

- PIER DESIGN WAS BASED ON SURVEY PROVIDED BY 'KENNETH F. BARRY, PLS' DATED: 02/02/2009 (JOB #004-09C). FERRELL CIVIL ENGINEERING WILL NOT BE RESPONSIBLE FOR THE ACCURACY OF THIS SITE PLAN. IF CONFLICT ARISES IMMEDIATELY CONTACT F.C.E. FOR RE-DESIGN.
- BUILDING SETBACKS SHALL BE CONFIRMED WITH HOMEOWNERS ASSOCIATION, ARCHITECTURAL COMMITTEE, OR SIMILAR ADVISORY GROUP PRIOR TO BEGINNING OF WORK.
- SOME LANDSCAPE FEATURES MAY NOT BE SHOWN ON MAP; CONTOURS ARE AVERAGED IN THESE AREAS. ROCKS AND BOULDERS ON SHORE AND LAKE BOTTOM (IRREGULAR).
- UTILITIES WERE NOT LOCATED AS PART OF THIS SURVEY. CONTRACTOR TO BE RESPONSIBLE FOR CONTACTING UNDERGROUND SERVICE ALERT PRIOR TO BEGINNING OF WORK. EVEN ON PRIVATE PROPERTY.
- ALL FILES TO HAVE A MIN. EMBEDMENT OF 8' UNLESS OTHERWISE STATED. IF CONFLICT ARISES IMMEDIATELY CONTACT F.C.E. FOR RE-DESIGN.
- CONTRACTOR TO VERIFY ALL ASPECTS OF DESIGN PRIOR TO BEGINNING OF WORK. IF CONFLICT ARISES IMMEDIATELY CONTACT F.C.E. FOR RE-DESIGN.

**TRPA NOTES:**

- CONTRACTOR TO HAVE THE APPROVED TRPA PERMIT AND STAMPED PLANS ON SITE AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH THE TRPA SPECIAL AND STANDARD CONDITIONS OF APPROVAL SET FORTH IN THE PERMIT.
- PIER PILING, STRUCTURAL STEEL AND CATWALK SHALL ALL BE A MATTIE MEDIUM TO DARK GRAY OR OTHER DARK COLOR CONSISTENT WITH THE COLOR PHOTOGRAPHS SUBMITTED WITH THE APPLICATION MATERIALS.
- CAISSONS AND/OR A TURBIDITY CURTAIN WILL BE INSTALLED AT THE DISCRETION AND APPROVAL OF TRPA INSPECTOR AT PRE-GRADE FIELD INSPECTION.
- THERE WILL BE NO STORAGE OF CONSTRUCTION MATERIALS IN THE SHOREZONE (INCLUDING THE BACKSHORE), EXCEPT ON EXISTING HARD LAND COVERAGE.
- STAGING ACTIVITY IS PROHIBITED LAKE-WARD OF THE HIGH WATER LINE EXCEPT BY BARGE. DELIVERY, REMOVAL, AND STAGING OF CONSTRUCTION EQUIPMENT AND MATERIALS SHALL ONLY OCCUR ON THE BARGE UNLESS APPROVED BY TRPA IN THE CONSTRUCTION PLAN.
- DISTURBANCE (TEMPORARY OR PERMANENT) TO THE LAKE SUBSTRATE IS PROHIBITED FOR CONSTRUCTION ACTIVITIES AND MODIFICATIONS TO THIS PIER EXCEPT FOR BOLTS OR SIMILAR DEVICES NECESSARY TO ANCHOR THE APPROVED STRUCTURAL SUPPORT AND FENDER PILING. EXISTING BOULDERS IN LAKE TAHOE SHALL NOT BE REMOVED OR RELOCATED. CONSTRUCTION ACTIVITIES SHALL NOT INCREASE WATER TURBIDITY NOR CAUSE ANY SUSPENSION OF ANY LAKE SEDIMENTS IN THE WATERS OF LAKE TAHOE.

**PROJECT INFORMATION:**

**OWNERS:** NIKU, LLC  
427 W FLUMB LANE  
RENO, NV 89509  
(OWNERS OF: 869 LAKESHORE BLVD.)

JERRY & JANIS KENNELLY  
76 SEA VIEW AVENUE  
PIEDMONT, CA 94611  
(OWNERS OF: 865 LAKESHORE BLVD.)

**PLANNER:** MIDKIFF & ASSOCIATES INC.  
ATTN: GARY MIDKIFF  
P.O. BOX 12427  
ZEPHYR COVE, NV 89448  
(775) 588-1090

**ENGINEER:** FERRELL CIVIL ENGINEERING  
ATTN: TIM FERRELL  
P.O. BOX 361  
TAHOE VISTA, CA 96148  
(530) 546-2752

**PROJECT LOCATION:** 869 & 865 LAKESHORE BLVD.  
INCLINE VILLAGE, NV 89451

DRAWN BY: HBG	DESIGN BY: HBG
CHECKED BY: TKF	DWG: PAPIERS@STULL & KENNELLY.dwg

REVISION	DATE	DESCRIPTION	APPROVED	DATE

**Ferrell Civil Engineering**

CA #C 55546 NV #12927  
P.O. Box 361, Tahoe Vista, CA 96148

www.ferrellcivilengineering.com  
ferrell@fcivil.com

ph: 530.546.2752  
fax: 530.546.4469

865/869 LAKESHORE BLVD.

**TITLE SHEET/SITE PLAN**

WASHOE COUNTY

APN: 122-181-026  
122-181-027

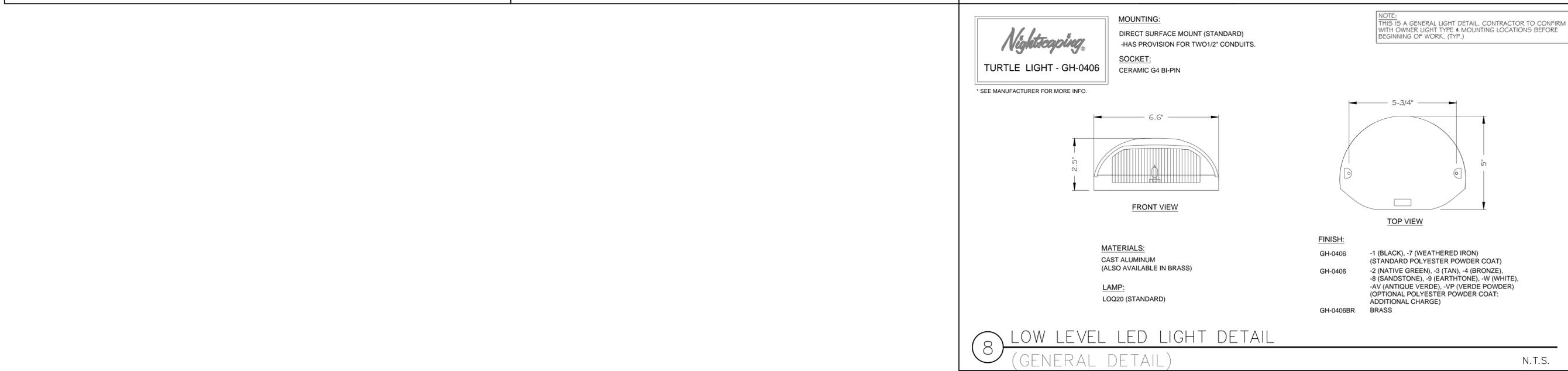
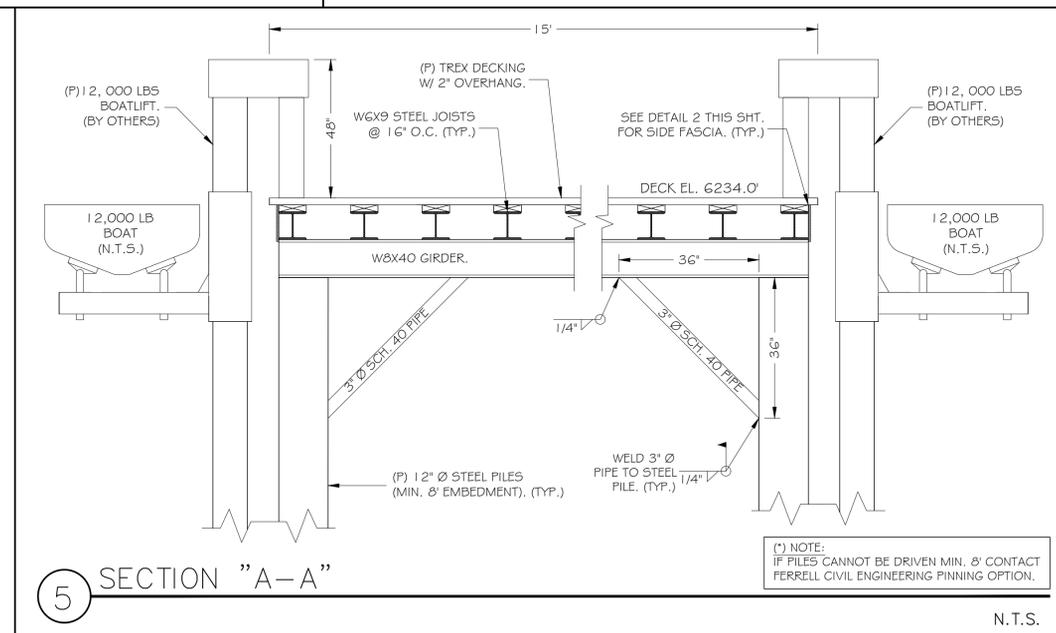
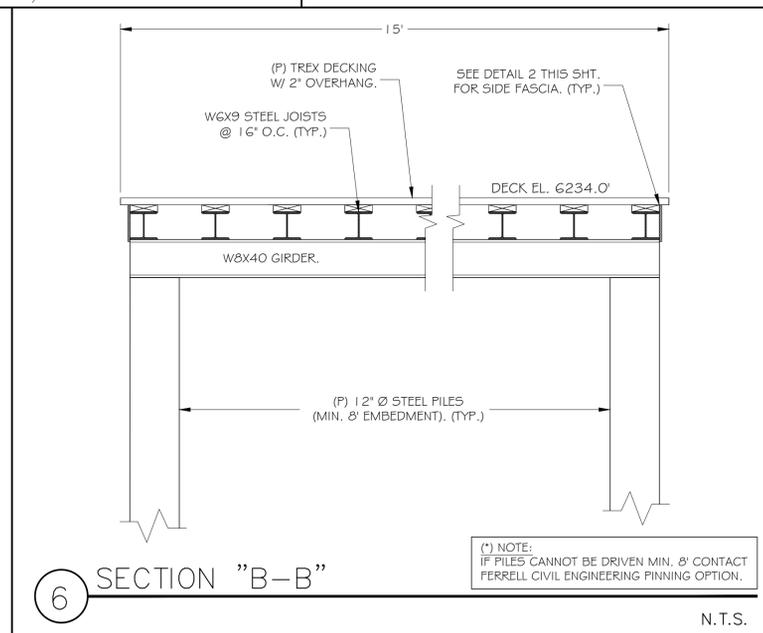
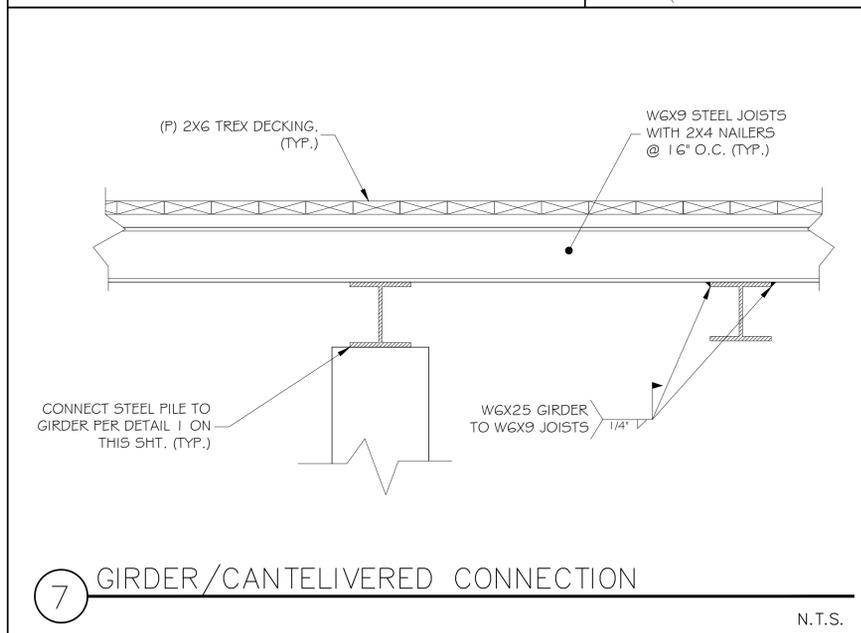
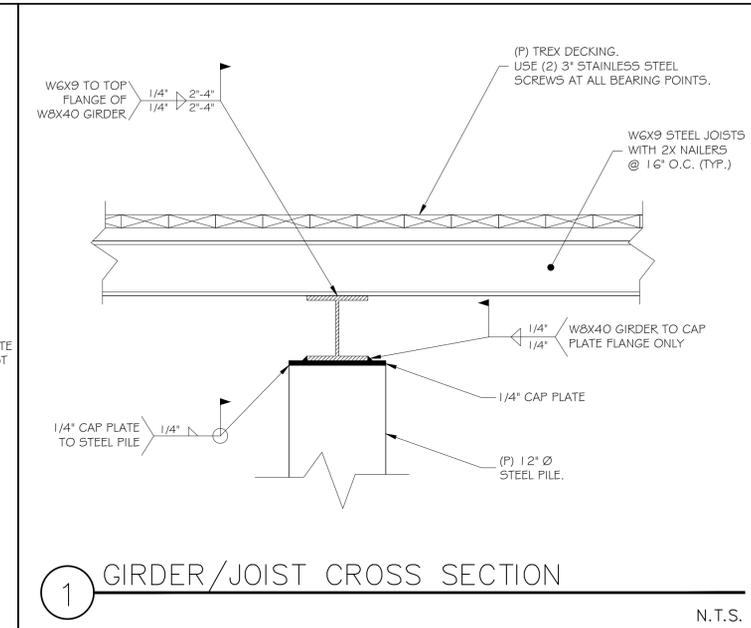
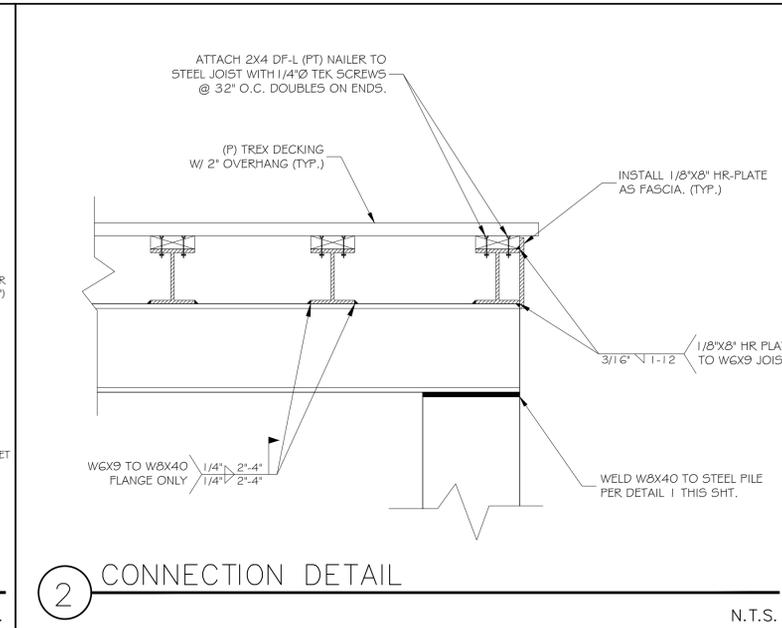
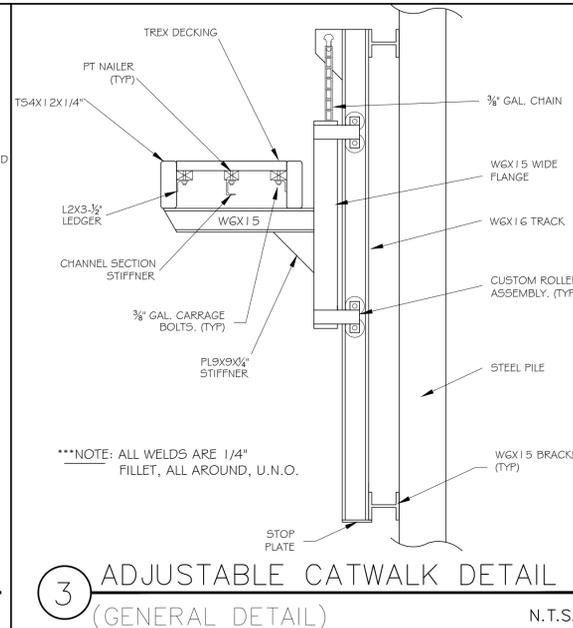
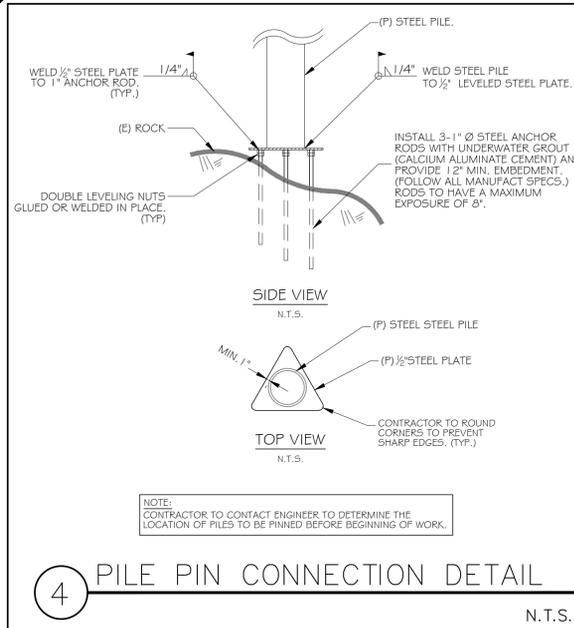
DATE: NOVEMBER 05, 2020

SCALE: 1"=30'-0"

NEVADA

PROJECT LOCATION: 869 & 865 LAKESHORE BLVD.  
INCLINE VILLAGE, NV 89451

SHEET **T1** OF **3**



COMP.:	FEE	DESIGN:	HGB	APPROVED:	DATE
DRWN:	HGB	PRJ. ENG.:	TKF		
WORK ORDER:					
SCALE:	N/A				
HORIZONTAL:					
VERTICAL:					
CAD:					
DATE: NOVEMBER 05, 2020					

**Ferrell Civil Engineering**  
 CA LIC 55646 NV #12927  
 P.O. Box 3611, Tiburon, CA 94920  
 ph: 503-546-2752  
 fax: 503-546-4469  
 ferrell@ferrellcivil.com

STRUCTURAL DETAILS  
 NIKU, LLC & KENNELLY - MULTIPLE USE PIER PROJECT  
 869/865 LAKESHORE BLVD. INCLINE VILLAGE, NV  
 A.P.N.: 122-181-27/26

REGISTERED PROFESSIONAL ENGINEER  
 TIMOTHY FERRELL  
 No. 12927  
 Exp. 6-30-21  
 CIVIL  
 1976 to 2021

D1





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**STAFF REPORT**

Date: September 21, 2022

To: TRPA Governing Board

From: TRPA Staff

Subject: New Multiple-Parcel/Multiple-Use Pier, 4950 & 4960 North Lake Boulevard, Placer County, California, Assessor's Parcel Numbers (APNs) 115-050-034 & 115-050-033, TRPA File Number ERSP2022-0001

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**Summary and Staff Recommendation:**

A new multiple-parcel/multiple-use pier is proposed to serve two littoral parcels located at 4950 and 4960 North Lake Boulevard in Carnelian Bay, Placer County, California. The proposed pier will extend 197.1 feet from the High Water Line elevation of 6,229.1, Lake Tahoe Datum, and includes one 3-foot by 30-foot catwalk and one 12,000-pound boatlift located at the pierhead. The boatlift will be the result of the conversion of a legally existing buoy. The pierhead will be 15 feet wide. The pier will extend from the shared property line between Placer County APNs 115-050-033 & -034. The proposed pier complies with development and location standards for multiple-parcel piers serving two littoral parcels. Staff recommends that the Governing Board make the required findings and approve the proposed project.

**Required Motions:**

In order to approve the proposed project, the Board must make the following motions, based on the staff report:

- 1) A motion to approve the required findings, including a finding of no significant effect; and
- 2) A motion to approve the proposed project subject to the conditions in the draft permit (see Attachment B).

In order for the motions to pass, an affirmative vote of at least five members from the State of California and at least nine members of the Board is required.

**Shoreline Review Committee:**

TRPA facilitates monthly Shoreline Review Committee (SRC) meetings for agencies with permitting jurisdiction along the shoreline and within Lake Tahoe to coordinate the permitting of projects. The subject project was reviewed and discussed at SRC on July 18, 2022. Lahontan Regional Water Quality Board has issued a 401 certification for the proposed project. California State Lands Commission may bring the project to the Commission for consideration in October of 2022. The United States Army Corps of Engineers is currently processing an application, and are in consultation with California State Historic Preservation Office regarding cultural resources. There were no concerns raised regarding the proposed project other than what has been mentioned above.

Project Description/Background:

The project applicants received an allocation for a new multiple-parcel pier as a result of the multiple-parcel prioritization criteria. The proposed pier will be constructed to multiple-use pier standards. The project received a multiple-parcel pier allocation during the 2021 new pier allocation distribution. The new multiple-parcel pier will serve two littoral parcels located at 4950 and 4960 North Lake Boulevard in Carnelian Bay, California. There is a single family dwelling on each of the two parcels. Existing shorezone development for the project area includes a total of four moorings:

APN 115-050-033: two mooring buoys

APN 115-050-034: two mooring buoys

The proposed project involves constructing a new pier to 197.1 feet from the High Water Line elevation of 6,229.1, with one 3-foot by 30-foot catwalk and one 12,000-pound boatlift at the pierhead. The pierhead will be 15 feet wide. The pier will extend from the shared property line between the two subject properties. The pier complies with all development and location standards for a multiple-parcel pier serving two parcels. The proposed project is located within the Placer County Tahoe Basin Area Plan –Carnelian Bay Subdivision Subdistrict, where piers are an allowed accessory structure.

Recognition of a Multiple-Parcel/Multiple-Use Pier:

New multiple-parcel piers are subject to the deed restriction requirements in TRPA code section 84.4.E which state “An additional multiple-parcel pier shall extinguish future pier development potential through deed restriction on all parcels served by the pier, including adjacent and non-adjacent parcels, with the exception of the littoral parcel on which the additional pier is permitted.” As a result of the project, the project area consisting of two parcels will be deed restricted to one pier. A multiple-use pier is defined as “A pier on a littoral parcel that serves three or more residential units on the same parcel, or that serves two or more primary residential littoral parcels, subject to a deed restriction providing access.” This pier is considered multiple-parcel for the purposes of obtaining a multiple-parcel pier allocation due to the retirement of future shorezone development potential, and is designed to multiple-use pier standards.

The Governing Board may find the pier will be a multiple-parcel/multiple-use pier as it results in both the reduction of shorezone development potential and serves two or more primary residential littoral parcels, subject to deed restriction provisions.

2018 Shoreline Plan:

The TRPA Governing Board adopted a new Shoreline Plan in October 2018, which went into effect in December 2018. New single-parcel and multiple-parcel/multiple-use piers are allowed as a part of that plan. A maximum of 128 piers will be distributed over the life of the plan, and every two years TRPA will distribute allocations for single-parcel and multiple-parcel piers. In 2021, TRPA awarded four allocations for new single-parcel piers and eight allocations for new multiple-parcel piers. The allocations for multiple-parcel piers were awarded based on codified prioritization criteria. The eight applications that ranked highest per the prioritization criteria were awarded allocations and given six months to then submit complete project applications. Staff has analyzed the potential environmental impacts of the proposed pier and determined that it will not adversely affect the environment. An analysis of the impact areas is as follows:

- A. Scenic Quality: The proposed project is located within Scenic Shoreline Unit 19, Carnelian Bay, which is in attainment with the TRPA Scenic Threshold. Up to 400 square feet of visible mass is allowed for multiple-parcel/use piers serving two or more primary residential littoral parcels. The allowable visible mass is not inclusive of accessory structures such as boatlifts, handrails, and ladders. The proposed pier has a total visible mass of 289 square feet which counts towards the 400 square feet of allowable visible mass. The project area is located in a Visually Modified scenic character type, requiring mitigation of all additional mass, including accessory structures associated with a pier, at a 1:2 ratio. There is a total visible mass, including accessory structures, of 487.55 square feet. This means that 975 square feet of visible mass will be mitigated within the project area. The project area must also demonstrate that it can meet a Composite Scenic Score of 25 within 6 months of project completion. The project area already achieves a Composite Scenic Score of 25, and therefore complies with this requirement. Additional visible mass associated with the pier will be mitigated by utilizing remaining allowable visible mass associated with the project area composite contrast rating score of 28, and the two subject properties will be deed restricted for scenic purposes.

The project area is also located in Scenic Roadway Unit 18, Carnelian Bay, which is in attainment with TRPA scenic thresholds. The proposed pier is visible from this section of the roadway, and subsection 17,18-3 from the Lake Tahoe Basin Scenic Resources Inventory describe the views from this section of roadway. Subsection 17,18-3 describes the view from this section of roadway as "Broken panorama primarily to northeast and southeast, obstructed by trees and residential development on lower side of road." The proposed pier would extend to approximate lake bottom elevation 6,218.5, approximately 30 feet beyond lake bottom elevation 6,219 which is the limiting factor for pier length at this location. The existing pier extending from the property immediately to the northeast of the project area extends roughly 115 feet from the highwater line. The existing pier extending from the property immediately to the southwest extends roughly 105 feet from the high water line. The pier that is most comparable in length in the immediate vicinity is located three parcels to the southwest from the project area and extends roughly 172 feet from the high water line. Most of the surrounding properties have residential development and piers, referred to in the description for viewpoint 17, 18-3. And while the subject pier is longer than the neighboring piers immediately adjacent to the project area, there are other piers in the vicinity that are comparable in length and size. Therefore, the proposed pier is consistent with maintaining the scenic threshold rating. The proposed pier also complies with the TRPA length limitations afforded to a pier serving three littoral residential parcels. TRPA staff has determined that the proposed pier is consistent with maintaining the scenic threshold rating.

- B. Fish Habitat: This property is located in spawning and feed and cover fish habitat. The new pier will have 30 new pilings, 4 in spawning and 26 in feed cover for a total of 20.4 square feet of new lake bottom disturbance. The portion of lake bottom disturbance located in spawning habitat will be mitigated at a 1 to 1.5 ratio ( $2.6 \text{ s.f.} \times 1.5 = 3.9$  square feet of mitigation). The portion of lake bottom disturbance located in feed and cover habitat will be mitigated at a 1 to 1 ratio ( $17.8 \text{ s.f.} \times 1 = 17.8$  square feet of mitigation). Fish habitat mitigation will occur in the form of rock pyramids placed underneath the proposed pier. The pier will be constructed using an open piling methodology, resulting in a pier that is 90 percent open.

As required by Article 10: *Miscellaneous* of the TRPA Rules of Procedure Section 10.8.E.4.a.i, which requires \$60.00 per foot be paid for additional pier length to mitigate the impacts of pier development on fish habitat, the Draft Permit includes a condition requiring the permittee pay a shorezone mitigation fee of \$11,826 for the construction of 197.1 additional feet of pier length (refer to Attachment B – Draft Permit).

As required by Article 10: *Miscellaneous* of the TRPA Rules of Procedure Section 10.8.E.4.a.iii, which requires a \$600.00 to additions to piers per application to mitigate the impacts of pier development on fish habitat, the Draft Permit includes a condition requiring the permittee pay a shorezone mitigation fee of \$600.00 for the addition of a boatlift (refer to Attachment B – Draft Permit).

- C. Deed Restriction: The shorezone ordinances require that an additional multiple-parcel pier shall extinguish future pier development potential through deed restriction on all parcels served by the pier, including adjacent and non-adjacent parcels, with the exception of the littoral parcel on which the additional pier is permitted. The two parcels associated with the project area will be deed restricted against future shorezone development and limited to one pier.
- D. Setbacks: TRPA Code, Section 84.4.3.B, requires that new piers comply with a 40 foot setback from all other piers as measured from the pierhead and 20 feet from the outer-most parcel boundary projection lines associated with the project area. The proposed pier complies with these setback requirements.
- E. Pier Length: TRPA Code, Section 84.4.3.C states “Piers shall extend no farther lakeward than 30 feet lakeward of elevation 6,219 Lake Tahoe Datum or 60 feet lakeward of the pierhead line, whichever is more limiting. Up to an additional 15 feet in length may be permitted for piers serving three or more residential littoral parcels.” The new pier, extends 30 feet beyond elevation 6,219 Lake Tahoe Datum, which is the limiting factor for determining pier length.

Environmental Review:

The applicant completed an Initial Environmental Checklist (IEC) to assess the potential environmental impacts of the project. No significant long-term environmental impacts were identified because the proposed pier complies with the existing Code and incorporates required mitigation (fisheries and scenic). Additionally, the property would be deed restricted limiting the four subject properties to one shared pier. The IEC is provided as Attachment D.

Public Comment:

Property owners within 300 feet of the subject site were provided notice of the proposed project. As of the posting of this staff report, no comments were received.

Regional Plan Compliance:

The proposed project is consistent with the Goal and Policies of the Regional Plan, Shorezone Subelement, in that it complies with the design standards and includes mitigation to ensure no negative impacts to the environmental thresholds. The proposed project is for a multiple-parcel pier, which are encouraged by the Regional Plan to reduce overall development potential along the shoreline of Lake Tahoe.

Contact Information:

For questions regarding this agenda item, please contact Tiffany Good, Principal Planner, at (775) 589-5283 or [tgood@trpa.gov](mailto:tgood@trpa.gov).

Attachments:

- A. Required Findings/Rationale
- B. Draft Permit
- C. 2018 Shorezone Code Conformance Table
- D. Initial Environment Checklist
- E. Proposed Plans

Attachment A

Required Findings/Rationale

Required Findings/Rationale  
Nessebar Holdings II, LLC New Multiple-Parcel Pier Construction

Required Findings: The following is a list of the required findings as set forth in Chapter 4, 80, 82, and 84 of the TRPA Code of Ordinances. Following each finding, Agency staff has indicated if there is sufficient evidence contained in the record to make the applicable findings or has briefly summarized the evidence on which the finding can be made.

1. Chapter 4 – Required Findings:

- (a) The project is consistent with and will not adversely affect implementation of the Regional Plan, including all applicable Goals and Policies, Plan Area Statements and maps, the Code and other TRPA plans and programs.

Based on the information provided in this staff report, the project application, the Initial Environmental Checklist (IEC), and Article V(g) Findings Checklist, there is sufficient evidence demonstrating that the proposed project is consistent with and will not adversely affect implementation of the Regional Plan, including all applicable Goals and Policies, Placer County Tahoe Basin Area Plan – Carnelian Bay Subdivision, the Code and other TRPA plans and programs.

- (b) The project will not cause the environmental threshold carrying capacities to be exceeded.

TRPA staff has completed the “Article V(g) Findings” in accordance with Chapter 4, Subsection 4.3 of the TRPA Code of Ordinances. All responses contained on said checklist indicate compliance with the environmental threshold carrying capacities. Also, the applicant has completed an IEC. No significant environmental impacts were identified and staff has concluded that the project will not have a significant effect on the environment. A copy of the completed V(g) Findings are available online at <https://parcels.laketahoeinfo.org/Parcel/Detail/115-050-034>

- (c) Wherever federal, state or local air and water quality standards applicable for the Region, whichever are strictest, must be attained and maintained pursuant to Article V(g) of the TPRA Compact, the project meets or exceeds such standards.

TRPA is requiring that all potential environmental effects be mitigated through Best Management Practices, including the use of turbidity curtains during construction. The applicant is also required to obtain separate approval for the project from the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, California State Lands Commission, Lahontan Regional Water Quality Control Board, and Placer County to ensure the project will meet or exceed all federal, state, or local standards. As a result, upon completion of construction, the project should have no impact upon air or water quality standards.

2. Chapter 80 – Shorezone Findings:

- (a) Significant Harm: The project will not adversely impact littoral processes, fish spawning habitat, backshore stability, or on-shore wildlife habitat, including waterfowl nesting areas.

There is no evidence in the project file that indicates the proposed project will adversely impact littoral processes (the pier will be constructed on pilings to allow for the free flow of water), fish habitat (as conditioned), backshore stability, or on-shore wildlife habitat, including waterfowl nesting areas.

- (b) Accessory Facilities: There are sufficient accessory facilities to accommodate the project.

The proposed multiple-parcel pier will be accessory to the primary upland residential uses located at 4950 and 4960 North Lake Boulevard.

- (c) Compatibility: The project is compatible with existing shorezone and lakezone uses or structures on, or in the immediate vicinity of, the littoral parcel; or that modifications of such existing uses or structures will be undertaken to assure compatibility.

There are several private piers in the area of shoreline surrounding the project area. The existing piers vary in length and size and the accessory structures they each contain. There is a commercial pier three parcels to the northeast (Garwoods), which is approximately 235 feet in length. There are also several private mooring buoys in the immediate vicinity. The proposed pier would be longer than the piers immediately neighboring the project area. The existing pier to the northeast is approximately 115 feet in length and the existing pier to the southwest is approximately 105 feet in length. The existing pier three parcels to the southwest is closest in length to the proposed pier at 172 feet in length. Based on review of TRPA GIS maps, the proposed pier would extend approximately 15 feet past the TRPA pierhead line, while most of the other piers in the vicinity extend just up to the TRPA pierhead line, including the 235-foot commercial pier located at the Garwood property. The proposed pier will not extend beyond the length limitations placed on multiple-parcel piers serving two or more residential littoral parcels. Therefore, the proposed pier will be compatible with the surrounding shorezone facilities.

- (d) Use: The use proposed in the foreshore or nearshore is water dependent.

The pier is located in the shorezone of Lake Tahoe and is therefore a water dependent structure.

- (e) Hazardous Materials: Measures will be taken to prevent spills or discharges of hazardous materials.

This approval prohibits the use of spray painting and the use of tributyltin (TBT). In addition, the special conditions of approval prohibit the discharge of petroleum products, construction waste and litter or earthen materials to the surface waters of Lake Tahoe.

All surplus construction waste materials shall be removed from the project and deposited only at TRPA approved points of disposal. No containers of fuel, paint, or other hazardous materials may be stored on the pier or shoreline.

- (f) Construction: Construction and access techniques will be used to minimize disturbance to the ground and vegetation.

For pier construction, primary access will be via a barge or amphibious vehicle. Caissons will be installed around the new piling locations. The pilings will then be driven into the lakebed until refusal. Decking will then be installed atop the structure allowing for construction of the lighting and adjustable catwalks. Storage and staging of pier construction materials will be stored on a secondary barge, and no construction equipment or materials will occur on the shoreline. The Draft Permit (Attachment B) includes conditions to ensure construction and access techniques will be used to minimize disturbance to the ground and vegetation, including Tahoe Yellow Cress.

- (g) Navigation and Safety: The project will not adversely impact navigation or create a threat to public safety as determined by those agencies with jurisdiction over a lake's navigable waters.

The pierhead line was established for the purpose of protecting navigation and safety. The proposed pier sits approximately 15 feet landward of TRPA pierhead line and 30 feet past lake bottom elevation 6,219 and in accordance with the length limitations provided in TRPA code, Section 84.4.3.C. Further, the pier will not extend in front of any adjacent parcels. The parcels on either side of the project area have existing piers and the proposed pier will sit a minimum of forty-feet from neighboring piers, as measured at the pierhead. The project was taken to the Shoreline Review Committee on July 18, 2022, which includes agencies with jurisdiction over the lake's navigable waters and no concerns regarding navigation and safety were raised.

- (h) Other Agency Comments: TRPA has solicited comments from those public agencies having jurisdiction over the nearshore and foreshore and all such comments received were considered by TRPA, prior to action being taken on the project.

The project was taken to the Shoreline Review Committee on July 18, 2022 and no negative comments were received. The applicant is required to get approval for the project from the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, California State Lands Commission, Lahontan Regional Water Quality Control Board, and Placer County.

- (i) Additional Findings for Coverage or Disturbance in the Backshore: The amount of land coverage is the minimum necessary when all Thresholds are taken into consideration to provide access to an approved or an existing structure or use in the nearshore or foreshore.

The project will utilize existing access to the beach/shoreline area to also access the pier. The pier will terminate at the high water line and will not extend landward of the high water line. Should the permittee determine that the pier terminus needs to extend landward of the high water line, the permittee will be required to obtain restoration credits at a ratio of 1 to 1.5 times the amount of coverage required for the upland portion of the pier.

3. Chapter 83 Shorezone Tolerance Districts and Development Standards:

- (a) Vehicular access to the shoreline shall not be permitted except where TRPA finds that such access will not cause environmental harm.

The proposed project is located in Shorezone Tolerance District 6, where vehicular access to the shoreline shall not be permitted except where TRPA finds that such access will not cause environmental harm. The pier will be constructed entirely from a barge/ amphibious vehicle on the lake. Access to the project area from the upland is prohibited except for necessary access paths for construction workers, and construction staging of equipment and material will only occur on a secondary barge and not on the shoreline.

Attachment B

Draft Permit



**Mail**  
 PO Box 5310  
 Stateline, NV 89449-5310

**Location**  
 128 Market Street  
 Stateline, NV 89449

**Contact**  
 Phone: 775-588-4547  
 Fax: 775-588-4527  
 www.trpa.org

**Attachment B  
 Conditional Permit**

PROJECT DESCRIPTION:      New multiple-parcel/multiple-use pier

APNs:                              115-050-033 & 115-050-034

PERMITTEES:                    Nessebar Holdings, LLC

FILE #:                              ERSP2022-0001

COUNTY/LOCATION:            Placer/4950 & 4960 N Lake Boulevard

Having made the findings required by Agency ordinances and rules, the TRPA Governing Board approved the project on **September 28, 2022**, subject to the standard conditions of approval attached hereto (Attachments Q and S) and the special conditions found in this permit.

This permit shall expire on **September 28, 2025**, without further notice unless the construction has commenced prior to this date and diligently pursued thereafter. Commencement of construction consists of pouring concrete for a foundation and does not include grading, installation of utilities or landscaping. Diligent pursuit is defined as completion of the project within the approved construction schedule. The expiration date shall not be extended unless the project is determined by TRPA to be the subject of legal action which delayed or rendered impossible the diligent pursuit of the permit.

**NO DEMOLITION, CONSTRUCTION OR GRADING SHALL COMMENCE UNTIL:**

- (1) TRPA RECEIVES A COPY OF THIS PERMIT UPON WHICH THE PERMITTEE(S) HAS ACKNOWLEDGED RECEIPT OF THE PERMIT AND ACCEPTANCE OF THE CONTENTS OF THE PERMIT;
- (2) ALL PRE-CONSTRUCTION CONDITIONS OF APPROVAL ARE SATISFIED AS EVIDENCED BY TRPA’S ACKNOWLEDGEMENT OF THIS PERMIT;
- (3) THE PERMITTEE OBTAINS APPROPRIATE COUNTY PERMIT. TRPA’S ACKNOWLEDGEMENT MAY BE NECESSARY TO OBTAIN A COUNTY PERMIT. THE COUNTY PERMIT AND THE TRPA PERMIT ARE INDEPENDENT OF EACH OTHER AND MAY HAVE DIFFERENT EXPIRATION DATES AND RULES REGARDING EXTENSIONS; AND
- (4) A TRPA PRE-GRADING INSPECTION HAS BEEN CONDUCTED WITH THE PROPERTY OWNER AND/OR THE CONTRACTOR.

\_\_\_\_\_  
 TRPA Executive Director/Designee

9/28/2022  
 \_\_\_\_\_  
 Date

PERMITTEES' ACCEPTANCE: I have read the permit and the conditions of approval and understand and accept them. I also understand that I am responsible for compliance with all the conditions of the permit and am responsible for my agents' and employees' compliance with the permit conditions. I also understand that if the property is sold, I remain liable for the permit conditions until or unless the new owner acknowledges the transfer of the permit and notifies TRPA in writing of such acceptance. I also understand that certain mitigation fees associated with this permit are non-refundable once paid to TRPA. I understand that it is my sole responsibility to obtain any and all required approvals from any other state, local or federal agencies that may have jurisdiction over this project whether or not they are listed in this permit.

Signature of Permittee(s) \_\_\_\_\_ Date \_\_\_\_\_

(PERMIT CONTINUED ON NEXT PAGE)

**APNs 115-050-033 & 115-050-034**

**FILE NO. ERSP2022-0001**

Additional Project Security Posted (1): Amount \$ 5,000 Type Paid \_\_\_\_\_ Receipt No. \_\_\_\_\_

Security Administrative Fee (2): Amount \$ \_\_\_\_\_ Paid \_\_\_\_\_ Receipt No. \_\_\_\_\_

Excess Coverage Mitigation Fee (3): Amount \$ \_\_\_\_\_ Type Paid \_\_\_\_\_ Receipt No. \_\_\_\_\_

Project Security Posted (4): Amount \$ 10,000 Type Paid \_\_\_\_\_ Receipt No. \_\_\_\_\_

Security Administrative Fee (5): Amount \$ \_\_\_\_\_ Paid \_\_\_\_\_ Receipt No. \_\_\_\_\_

Shorezone Mitigation Fee (6): Amount \$ 11,826 Type Paid \_\_\_\_\_ Receipt No. \_\_\_\_\_

Shorezone Mitigation Fee (7): Amount \$ 600 Type Paid \_\_\_\_\_ Receipt No. \_\_\_\_\_

**Notes:**

- (1) Amount to be determined. See Special Condition 3.G, below.
- (2) Consult the TRPA filing fee schedule for the current security administration fee.
- (3) Amount to be determined. See Special Condition 3.J, below.
- (4) See Special Condition 3.K, below.
- (5) Consult the TRPA filing fee schedule for the current security administration fee.
- (6) See Special Condition 3.L, below.
- (7) See Special Condition 3.M, below.

Required plans determined to be in conformance with approval: Date: \_\_\_\_\_

TRPA ACKNOWLEDGEMENT: The Permittee has complied with all pre-construction conditions of approval as of this date and is eligible for a county building permit:

\_\_\_\_\_  
TRPA Executive Director/Designee Date

***SPECIAL CONDITIONS***

- 1. This permit authorizes a new multiple-parcel/multiple-use pier to serve two littoral parcels located at 4950 and 4960 North Lake Boulevard in Carnelian Bay, Placer County, California. The proposed pier will extend 197.1 feet from the High Water Line elevation of 6,229.1, with one 3-foot by 30-

foot catwalk and one 12,000-pound boatlift located at the pierhead. The boatlift will be placed as a result of the conversion of one legally-existing, TRPA-registered mooring associated with Placer County 115-050-033. The pierhead will be 15 feet wide. The pier will extend from the shared property line of Placer County APNs 115-050-033 & -034. The pier complies with all development and location standards for a multiple-use pier serving two parcels, and is consistent with TRPA Code of Ordinances chapters 80 through 85.

This property is located in spawning and feed and cover fish habitat. The new pier will have 30 new pilings, 4 in spawning and 26 in feed cover for a total of 20.4 square feet of new lake bottom disturbance. The portion of lake bottom disturbance located in spawning habitat will be mitigated at a 1 to 1.5 ratio (2.6 s.f. x 1.5 = 3.9 square feet of mitigation). The portion of lake bottom disturbance located in feed and cover habitat will be mitigated at a 1 to 1 ratio (17.8 s.f. x 1 = 17.8 square feet of mitigation). Fish habitat mitigation will occur in the form of rock pyramids placed underneath the proposed pier.

The two parcels associated with the project area will be deed restricted to one shared pier. Once the permit has been acknowledged, the project area will include the following shorezone development:

APN 115-050-033 – one mooring buoy and one boatlift

APN 115-050-034 – two mooring buoys

All APNs: one multiple-parcel pier

The two parcels associated with this project shall be considered a project area for scenic mitigation purposes. The proposed contrast rating scores for the parcels are as follows:

APN 115-050-033: Composite Contrast Rating Score of 30

APN 115-050-034: Composite Contrast Rating Score of 27

Project Area: Composite Contrast Rating Score of 28

The proposed project is located within Scenic Shoreline Unit 19, Carnelian Bay, which is in attainment with the TRPA Scenic Threshold. Up to 400 square feet of visible mass is allowed for multiple-parcel piers serving two or more primary residential littoral parcels. The allowable visible mass is not inclusive of accessory structures such as boatlifts, handrails, and ladders. The proposed pier has a total visible mass of 289 square feet which counts towards the 400 square feet of allowable visible mass. The project area is located in a Visually Modified scenic character type, requiring mitigation of all additional mass, including accessory structures associated with a pier, at a 1:2 ratio. There is a total visible mass, including accessory structures, of 487.55 square feet. This means that 975 square feet of visible mass will be mitigated within the project area. The project area must also demonstrate that it can meet a Composite Scenic Score of 25 within 6 months of project completion. The project area already achieves a Composite Scenic Score of 25, and therefore complies with this requirement. Additional visible mass associated with the pier will be mitigated by utilizing remaining allowable visible mass associated with the project area composite contrast rating score of 28.

2. The Standard Conditions of Approval listed in Attachment S shall apply to this permit.

3. Prior to permit acknowledgement, the following conditions of approval must be satisfied:

A. The site plan (Sheet T1) the project area shall be revised to include the following:

1. Delineate the location of the turbidity curtain and include allowance for barge access.
2. Include a plan notation indicating that there will be no staging activity on the shoreline, and that all access associated with pier demolition and construction activities shall occur from the lake by barge; and that delivery, removal, and staging of all construction equipment and materials shall occur on the barge.
3. Add verified coverage tables for both properties associated with TRPA file numbers LCAP2021-0373 and LCAP2021-0372. Include coverage for access to the pier, if applicable, consistent with TRPA Code of Ordinances subsection 85.5.4.
4. Include a plan notation that indicates pile driving operations and other piling installation methods (i.e. pinning, etc.) shall require the installation of caissons for turbidity control **upon the discretion of the TRPA inspector upon a pre-grade inspection**. A floating fine mesh fabric screen or other material approved by TRPA shall be installed underneath the pier decking to capture any fallen materials during pier demolition and reconstruction. The floating screen and caissons may be removed upon project completion and after a satisfactory inspection by TRPA to ensure that all suspended materials have settled.
5. Identify the mooring number and the corresponding tag number for the buoy that will be converted to a boatlift.
6. Indicate how many low-level turtle lights will be placed on the pier.

B. Sheet T1 shall include a note that states “The property complies with Level 5, Option 2 of the visual magnitude system (section 63.3.3) of the TRPA Code or Ordinances. The property has a composite contrast rating score of 28 and the allowable visible area for this property based on code is 2,543 square feet, and the approved visible area for this project area is 582 square feet, leaving a remainder of 1,961 square feet of remaining allowable visible area. To mitigate the additional visible mass of 487.55 square feet associated with the new pier, an additional 975 square feet of allowable visible area will be retired. This will leave a remaining 986 square feet of allowable visible mass associated with the project area.”

C. The permittee shall provide underwater photos of the project area indicating the conditions prior to the start of construction. For the purposes of this condition, the project area shall include the areas where the approved pier will be built as well as the area where the buoy block for the buoy that will be converted to a boatlift will be removed. Prior to security return, the permittee shall provide post-construction underwater photos of the same locations of the project area. Note that prior to security return, the permittee must demonstrate proof that all components of the buoy block have been removed, the area of lake bottom restored, and the fish habitat disturbance mitigated.

- D. The final elevation drawings for each of the three properties shall have notes indicating conformance to the following design standards for color, roofs, and fences:
- (1) Color: The color of this structure, including any fences on the property, shall be compatible with the surroundings. Subdued colors in the earthtone and woodtone ranges shall be used for the primary color of the structure. Hues shall be within the range of natural colors that blend, rather than contrast, with the existing vegetation and earth hues. Earthtone colors are considered to be shades of reddish brown, brown, tan, ochre, and umber.
- (2) Roofs: Roofs shall be composed of non-glare earthtone or woodtone materials that minimize reflectivity.
- (3) Fences: Wooden fences shall be used whenever possible. If cyclone fence must be used, it shall be coated with brown or black vinyl, including fence poles.
- E. The Permittee shall submit a projected construction completion schedule to TRPA prior to acknowledgment. Said schedule shall include completion dates for each item of construction.
- F. The permittees shall record a deed restriction to be prepared by TRPA that will create a project area of the subject APNs (115-050-033 and 115-050-034) for the purpose of limiting potential future shorezone development, to allow for only one pier between the subject parcels. The deed restriction shall also create a project area for the purposes of scenic review. The permittee shall record the deed restriction with the Placer County Recorder's Office, and provide either the original recorded deed restriction or a certified copy of the recorded deed restriction to TRPA prior to permit acknowledgement.
- G. The permittees shall transfer coverage for minimum access to the pier in accordance with TRPA Code Sections, 85.5.4, 85.5.1.E, and 30.5.3 to APN 115-050-033. Note that all coverage transfers must be in compliance with Chapter 30 of the TRPA Code of Ordinances, and the TRPA Rules of Procedure. **The permittee shall submit a security in the amount of \$5,000 to be held until the restoration credits can be transferred to the site and the access to the pier completed and inspected by TRPA.**
- H. The Permittee shall conduct a Tahoe Yellow Cress survey for the subject property. Surveys shall be conducted during the growing season of June 15th through September 30<sup>th</sup> prior to commencement of proposed work. If TYC or TYC habitat are present, the Permittee shall submit a TYC avoidance and protection plan to TRPA prior to acknowledgement of this permit.
- I. The Permittee shall provide a Spill Prevention Plan for the use of any hazardous materials or equipment (i.e., fuel, epoxy glue, other volatile substances, welding and torch equipment, etc.), for construction activities occurring from a barge and/or amphibious vehicle and within the lake. The Plan shall require absorbent sheets/pads to be retained on

the barge at all times. A contact list of all emergency response agencies shall be available at the project site at all times during construction.

- J. The subject property, APN 115-050-034, has 412 square feet of unmitigated excess land coverage. The Permittee shall mitigate a portion or all of the excess land coverage on this property by removing coverage within the Hydrologic Transfer Area 9 (Agate Bay - California), or by submitting an excess coverage mitigation fee.

To calculate the amount of excess coverage to be removed (in square feet), use the following formula:

Estimated project construction cost multiplied by 0.0012, divided by 8.

If you choose this option, please revise your final site plans and land coverage calculations to account for the permanent coverage removal.

An excess land coverage mitigation fee may be paid in lieu of permanently retiring land coverage. The excess coverage mitigation fee shall be calculated as follows:

Square footage of required coverage reduction (as determined by formula above) multiplied by the excess coverage mitigation fee of \$8.50 per square foot for projects located within the Hydrologic Transfer Area 9 (Agate Bay – California).

Please provide a construction cost estimate by your licensed contractor, architect, or engineer. In no case shall the mitigation fee be less than \$200.00.

- K. The project security required under Standard Condition A.3 of Attachment S shall be \$10,000. Please see Attachment J, Security Procedures, for appropriate methods of posting the security and for calculation of the required security administration fee. **Prior to release of security, the permittee shall provide to the TRPA inspector the GPS locations of the buoys that remain in the water as well as the buoy tag for the buoy that is removed for the conversion.**
- L. Pursuant to Section 10.8.5.E.4.a.i of the TRPA Rules of Procedure, the permittee shall submit a shorezone mitigation fee of \$11,826 for the construction of 197.1 feet of pier length for a new pier (assessed at \$60.00 per linear foot).
- M. Pursuant to Section 10.8.5.E.4.a.ii of the TRPA Rules of Procedure, the permittee shall submit a shorezone mitigation fee of \$600.00 for the addition of a boatlift to the proposed pier (assessed at \$600 per addition).
- N. The Permittee shall provide an electronic set of final construction drawings and site plans for TRPA Acknowledgement.
4. To the maximum extent allowable by law, the Permittee agrees to indemnify, defend, and hold harmless TRPA, its Governing Board, its Planning Commission, its agents, and its employees (collectively, TRPA) from and against any and all suits, losses, damages, injuries, liabilities, and

claims by any person (a) for any injury (including death) or damage to person or property or (b) to set aside, attack, void, modify, amend, or annul any actions of TRPA. The foregoing indemnity obligation applies, without limitation, to any and all suits, losses, damages, injuries, liabilities, and claims by any person from any cause whatsoever arising out of or in connection with either directly or indirectly, and in whole or in part (1) the processing, conditioning, issuance, or implementation of this permit; (2) any failure to comply with all applicable laws and regulations; or (3) the design, installation, or operation of any improvements, regardless of whether the actions or omissions are alleged to be caused by TRPA or Permittee.

Included within the Permittee's indemnity obligation set forth herein, the Permittee agrees to pay all fees of TRPA's attorneys and all other costs and expenses of defenses as they are incurred, including reimbursement of TRPA as necessary for any and all costs and/or fees incurred by TRPA for actions arising directly or indirectly from issuance or implementation of this permit. TRPA will have the sole and exclusive control (including the right to be represented by attorneys of TRPA's choosing) over the defense of any claims against TRPA and over this settlement, compromise or other disposition. Permittee shall also pay all costs, including attorneys' fees, incurred by TRPA to enforce this indemnification agreement. If any judgment is rendered against TRPA in any action subject to this indemnification, the Permittee shall, at its expense, satisfy and discharge the same.

5. It is the Permittee's responsibility to receive authorization, and obtain any necessary permits from other responsible agencies for the proposed project.
6. No pier demolition or construction shall occur between May 1 and October 1 (spawning season) unless prior approval is obtained from the California Department of Fish and Wildlife, the U.S. Army Corps of Engineers, or the U.S. Fish and Wildlife Service.
7. Disturbance of lake bed materials shall be the minimum necessary. The removal of rock materials from Lake Tahoe is prohibited. Gravel, cobble, or small boulders shall not be disturbed or removed to leave exposed sandy areas before, during, or after construction.
8. Best practical control technology shall be employed to prevent earthen materials to be re-suspended as a result of construction activities and from being transported to adjacent lake waters.
9. The discharge of petroleum products, construction waste and litter (including sawdust), or earthen materials to the surface waters of the Lake Tahoe Basin is prohibited. All surplus construction waste materials shall be removed from the project and deposited only at approved points of disposal.
10. Any normal construction activity creating noise in excess of the TRPA noise standards shall be considered exempt from said standards provided all such work is conducted between the hours of 8:00 A.M. and 6:30 P.M.

**END OF PERMIT**

Attachment C

2018 Shorezone Code Conformance Table

**Attachment C**  
**Nessebar Multiple Use Pier Conformance Review Table**

**Table 1: Pier Conformance Review Under 2018 Shorezone Code**

<b>Standard</b>	<b>2018 Shzne Code</b>	<b>Proposed Pier</b>	<b>Conformance</b>
Streams	Outside of Stream Mouth Protection Zone (SMPZ)	.15 mile away from the nearest SMPZ located at Sierra Boat Company	<b>In conformance</b>
Fish Habitat	Mitigation at 1:1 for feed/cover fish habitat and mitigation at 1.5 to 1 for spawning fish habitat	Restore fish habitat adjacent to project, mitigation of \$11,826 for additional 197.1 linear feet of pier length	<b>In conformance</b>
Length	Pierhead may extend 30 feet past 6219 or 60 feet past pierhead line, whichever is more limiting. An additional 15 feet may be permitted for piers serving three or more primary residential parcels	<b>197.1'</b> , extends 30 feet past lake bottom elevation 6,219	<b>In conformance</b>
Setbacks	20' for new piers from outermost property boundary projection lines, & 40' from existing piers as measured from the pierhead	Conforms with external projection line setbacks	<b>In Conformance</b>
Width	Maximum 15' wide excluding catwalks	15' with one (1) 3-foot by 30-foot catwalks on either side of the pier.	<b>In conformance</b>
Catwalk	Maximum of 3' by 30'	(1) 3' x 30'	<b>In conformance</b>
Boatlift	One boat lift per littoral parcel (max. 4)	One (1) 12,000 pound boatlift	<b>In conformance</b>
Pier Height	6,232' maximum	6,232'	<b>In conformance</b>
Free Flowing Water	Piers required to be floating or have an open piling foundation	Open piling foundation (90%)	<b>In conformance</b>
Superstructures (Boat House)	Prohibited	NA	<b>In conformance</b>

Colors & Materials	Dark colors that blend with background	Brown decking, flat black structural components	<b>In conformance</b>
Visual Mass Limitation	400 sf of visible mass allowed for piers serving 2 or more primary residential littoral parcels (does not include accessory structures such as boatlifts, boats, handrails, and ladders).	289 square feet	<b>In conformance</b>
Visual Mass Mitigation	In Visually Modified Character Types mitigation required at a 1:2 ratio	Additional visible mass, including accessory structures, will be mitigated at a 1:2 ratio through retiring allowable visible mass for each of the two parcels.	<b>In conformance</b>
Retirement of Shorezone Development Potential	An additional multiple-parcel pier shall extinguish future pier development potential through deed restriction on all parcels served by the pier, including adjacent and non-adjacent parcels, with the exception of the littoral parcel on which the additional pier is permitted.	Deed restriction to be recorded prior to permit acknowledgement.	<b>In conformance</b>

Attachment D

Initial Environmental Checklist



Print Form

**INITIAL ENVIRONMENTAL CHECKLIST  
FOR DETERMINATION OF ENVIRONMENTAL IMPACT**

I. Assessor's Parcel Number (APN)/Project Location

115-050-034 & 115-050-033

Project Name

NESSEBAR HOLDINGS NEW MULTI-PARCEL PIER

County/City

Placer County

**Brief Description of Project:**

Project applicant proposes to construct a multi-parcel pier with a 12,000 lb. boat lift and adjustable catwalk. See project Findings for detailed description.

The following questionnaire will be completed by the applicant based on evidence submitted with the application. All "Yes" and "No, With Mitigation" answers will require further written comments. Use the blank boxes to add any additional information. If more space is required for additional information, please attach separate sheets and reference the question number and letter.

**II. ENVIRONMENTAL IMPACTS:**

**1. Land**

Will the proposal result in:

- a. Compaction or covering of the soil beyond the limits allowed in the land capability or Individual Parcel Evaluation System (IPES)?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

- b. A change in the topography or ground surface relief features of site inconsistent with the natural surrounding conditions?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

- c. Unstable soil conditions during or after completion of the proposal?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

- d. Changes in the undisturbed soil or native geologic substructures or grading in excess of 5 feet?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

- e. The continuation of or increase in wind or water erosion of soils, either on or off the site?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

f. Changes in deposition or erosion of beach sand, or changes in siltation, deposition or erosion, including natural littoral processes, which may modify the channel of a river or stream or the bed of a lake?

- Yes       No  
 No, With Mitigation       Data Insufficient

g. Exposure of people or property to geologic hazards such as earthquakes, landslides, backshore erosion, avalanches, mud slides, ground failure, or similar hazards?

- Yes       No  
 No, With Mitigation       Data Insufficient

**2. Air Quality**

Will the proposal result in:

a. Substantial air pollutant emissions?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Deterioration of ambient (existing) air quality?

- Yes       No  
 No, With Mitigation       Data Insufficient

c. The creation of objectionable odors?

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?

- Yes       No  
 No, With Mitigation       Data Insufficient

e. Increased use of diesel fuel?

- Yes       No  
 No, With Mitigation       Data Insufficient

**3. Water Quality**

Will the proposal result in:

a. Changes in currents, or the course or direction of water movements?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff so that a 20 yr. 1 hr. storm runoff (approximately 1 inch per hour) cannot be contained on the site?

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Alterations to the course or flow of 100-year flood waters?

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Change in the amount of surface water in any water body?

- Yes       No  
 No, With Mitigation       Data Insufficient

e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?

- Yes       No  
 No, With Mitigation       Data Insufficient

f. Alteration of the direction or rate of flow of ground water?

- Yes       No  
 No, With Mitigation       Data Insufficient

g. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

- Yes       No  
 No, With Mitigation       Data Insufficient

h. Substantial reduction in the amount of water otherwise available for public water supplies?

- Yes       No  
 No, With Mitigation       Data Insufficient

i. Exposure of people or property to water related hazards such as flooding and/or wave action from 100-year storm occurrence or seiches?

- Yes       No  
 No, With Mitigation       Data Insufficient

j. The potential discharge of contaminants to the groundwater or any alteration of groundwater quality?

- Yes       No  
 No, With Mitigation       Data Insufficient

k. Is the project located within 600 feet of a drinking water source?

- Yes       No  
 No, With Mitigation       Data Insufficient

**4. Vegetation**

Will the proposal result in:

a. Removal of native vegetation in excess of the area utilized for the actual development permitted by the land capability/IPES system?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

b. Removal of riparian vegetation or other vegetation associated with critical wildlife habitat, either through direct removal or indirect lowering of the groundwater table?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

c. Introduction of new vegetation that will require excessive fertilizer or water, or will provide a barrier to the normal replenishment of existing species?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

d. Change in the diversity or distribution of species, or number of any species of plants (including trees, shrubs, grass, crops, micro flora and aquatic plants)?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

e. Reduction of the numbers of any unique, rare or endangered species of plants?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

f. Removal of stream bank and/or backshore vegetation, including woody vegetation such as willows?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

g. Removal of any native live, dead or dying trees 30 inches or greater in diameter at breast height (dbh) within TRPA's Conservation or Recreation land use classifications?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

h. A change in the natural functioning of an old growth ecosystem?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

**5. Wildlife**

Will the proposal result in:

a. Change in the diversity or distribution of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, mammals, amphibians or microfauna)?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

b. Reduction of the number of any unique, rare or endangered species of animals?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Deterioration of existing fish or wildlife habitat quantity or quality?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

**6. Noise**

Will the proposal result in:

a. Increases in existing Community Noise Equivalency Levels (CNEL) beyond those permitted in the applicable Plan Area Statement, Community Plan or Master Plan?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Exposure of people to severe noise levels?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Single event noise levels greater than those set forth in the TRPA Noise Environmental Threshold?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

d. The placement of residential or tourist accommodation uses in areas where the existing CNEL exceeds 60 dBA or is otherwise incompatible?

- Yes
- No
- No, With Mitigation
- Data Insufficient

e. The placement of uses that would generate an incompatible noise level in close proximity to existing residential or tourist accommodation uses?

- Yes
- No
- No, With Mitigation
- Data Insufficient

f. Exposure of existing structures to levels of ground vibration that could result in structural damage?

- Yes
- No
- No, With Mitigation
- Data Insufficient

**7. Light and Glare**

Will the proposal:

a. Include new or modified sources of exterior lighting?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Create new illumination which is more substantial than other lighting, if any, within the surrounding area?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Cause light from exterior sources to be cast off -site or onto public lands?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Create new sources of glare through the siting of the improvements or through the use of reflective materials?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

**8. Land Use**

Will the proposal:

a. Include uses which are not listed as permissible uses in the applicable Plan Area Statement, adopted Community Plan, or Master Plan?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Expand or intensify an existing non-conforming use?

- Yes       No  
 No, With Mitigation       Data Insufficient

**9. Natural Resources**

Will the proposal result in:

a. A substantial increase in the rate of use of any natural resources?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Substantial depletion of any non-renewable natural resource?

- Yes       No  
 No, With Mitigation       Data Insufficient

**10. Risk of Upset**

Will the proposal:

a. Involve a risk of an explosion or the release of hazardous substances including, but not limited to, oil, pesticides, chemicals, or radiation in the event of an accident or upset conditions?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Involve possible interference with an emergency evacuation plan?

- Yes       No  
 No, With Mitigation       Data Insufficient

**11. Population**

Will the proposal:

- a. Alter the location, distribution, density, or growth rate of the human population planned for the Region?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

- b. Include or result in the temporary or permanent displacement of residents?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

**12. Housing**

Will the proposal:

- a. Affect existing housing, or create a demand for additional housing?

To determine if the proposal will affect existing housing or create a demand for additional housing, please answer the following questions:

- (1) Will the proposal decrease the amount of housing in the Tahoe Region?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

- (2) Will the proposal decrease the amount of housing in the Tahoe Region historically or currently being rented at rates affordable by lower and very-low-income households?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

Number of Existing Dwelling Units: 2

Number of Proposed Dwelling Units: 2

b. Will the proposal result in the loss of housing for lower-income and very-low-income households?

- Yes       No  
 No, With Mitigation       Data Insufficient

**13. Transportation/Circulation**

Will the proposal result in:

a. Generation of 100 or more new Daily Vehicle Trip Ends (DVTE)?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Changes to existing parking facilities, or demand for new parking?

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Substantial impact upon existing transportation systems, including highway, transit, bicycle or pedestrian facilities?

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Alterations to present patterns of circulation or movement of people and/or goods?

- Yes       No  
 No, With Mitigation       Data Insufficient

e. Alterations to waterborne, rail or air traffic?

- Yes       No  
 No, With Mitigation       Data Insufficient

f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?

- Yes       No  
 No, With Mitigation       Data Insufficient

**14. Public Services**

Will the proposal have an unplanned effect upon, or result in a need for new or altered governmental services in any of the following areas?

a. Fire protection?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Police protection?

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Schools?

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Parks or other recreational facilities?

- Yes       No  
 No, With Mitigation       Data Insufficient

e. Maintenance of public facilities, including roads?

- Yes       No  
 No, With Mitigation       Data Insufficient

f. Other governmental services?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

**15. Energy**

Will the proposal result in:

a. Use of substantial amounts of fuel or energy?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

**16. Utilities**

Except for planned improvements, will the proposal result in a need for new systems, or substantial alterations to the following utilities:

a. Power or natural gas?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Communication systems?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Utilize additional water which amount will exceed the maximum permitted capacity of the service provider?

\_\_\_\_\_

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Utilize additional sewage treatment capacity which amount will exceed the maximum permitted capacity of the sewage treatment provider?

- Yes       No  
 No, With Mitigation       Data Insufficient

e. Storm water drainage?

- Yes       No  
 No, With Mitigation       Data Insufficient

f. Solid waste and disposal?

- Yes       No  
 No, With Mitigation       Data Insufficient

**17. Human Health**

Will the proposal result in:

a. Creation of any health hazard or potential health hazard (excluding mental health)?

- Yes       No  
 No, With Mitigation       Data Insufficient

b. Exposure of people to potential health hazards?

- Yes       No  
 No, With Mitigation       Data Insufficient

**18. Scenic Resources/Community Design**

Will the proposal:

a. Be visible from any state or federal highway, Pioneer Trail or from Lake Tahoe?

<b>Lake Tahoe</b>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

b. Be visible from any public recreation area or TRPA designated bicycle trail?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

c. Block or modify an existing view of Lake Tahoe or other scenic vista seen from a public road or other public area?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

d. Be inconsistent with the height and design standards required by the applicable ordinance or Community Plan?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

e. Be inconsistent with the TRPA Scenic Quality Improvement Program (SQIP) or Design Review Guidelines?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

**19. Recreation**

Does the proposal:

a. Create additional demand for recreation facilities?

[Empty response box for question a]

- Yes
- No
- No, With Mitigation
- Data Insufficient

b. Create additional recreation capacity?

[Empty response box for question b]

- Yes
- No
- No, With Mitigation
- Data Insufficient

c. Have the potential to create conflicts between recreation uses, either existing or proposed?

[Empty response box for question c]

- Yes
- No
- No, With Mitigation
- Data Insufficient

d. Result in a decrease or loss of public access to any lake, waterway, or public lands?

[Empty response box for question d]

- Yes
- No
- No, With Mitigation
- Data Insufficient

**20. Archaeological/Historical**

a. Will the proposal result in an alteration of or adverse physical or aesthetic effect to a significant archaeological or historical site, structure, object or building?

[Empty response box for question a]

- Yes
- No
- No, With Mitigation
- Data Insufficient

b. Is the proposed project located on a property with any known cultural, historical, and/or archaeological resources, including resources on TRPA or other regulatory official maps or records?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

c. Is the property associated with any historically significant events and/or sites or persons?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

d. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

e. Will the proposal restrict historic or pre-historic religious or sacred uses within the potential impact area?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

**21. Findings of Significance.**

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California or Nevada history or prehistory?

	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	<input type="checkbox"/> No, With Mitigation	<input type="checkbox"/> Data Insufficient

b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.)

---

- Yes       No  
 No, With Mitigation       Data Insufficient

c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environmental is significant?)

---

- Yes       No  
 No, With Mitigation       Data Insufficient

d. Does the project have environmental impacts which will cause substantial adverse effects on human being, either directly or indirectly?

---

- Yes       No  
 No, With Mitigation       Data Insufficient

**DECLARATION:**

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signature: (Original signature required.)

Jan Brisco At Placer County Date: 8/16/2022  
Person Preparing Application County

**Applicant Written Comments: (Attach additional sheets if necessary)**

Print Form

---

## Determination:

### On the basis of this evaluation:

- a. The proposed project could not have a significant effect on the environment and a finding of no significant effect shall be prepared in accordance with TRPA's Rules of Procedure  YES  NO
- b. The proposed project could have a significant effect on the environment, but due to the listed mitigation measures which have been added to the project, could have no significant effect on the environment and a mitigated finding of no significant effect shall be prepared in accordance with TRPA's Rules and Procedures.  YES  NO
- c. The proposed project may have a significant effect on the environment and an environmental impact statement shall be prepared in accordance with this chapter and TRPA's Rules of Procedures.  YES  NO

**Tiffany Good**

Digitally signed by Tiffany Good  
DN: cn=Tiffany Good, o=TRPA, ou,  
email=tgood@trpa.org, c=US  
Date: 2022.08.17 10:25:18 -07'00'

Signature of Evaluator

Permitting Program Manager

Title of Evaluator

Date

8/17/22

Attachment E

Proposed Plans



L A K E  
T A H O E

L A K E  
T A H O E

08-30-22

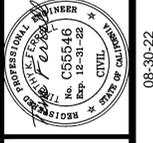
PROPOSED PIER PLANS  
4950 & 4960 N. LAKE BLVD - MULTIPLE USE PIER PROJECT  
CARNELIAN BAY, CA  
A.P.N.: 115-059-033/034  
4950/4960 N. LAKE BLVD.

REV.	DATE	DESCRIPTION	APPROVED DATE
1			
2			
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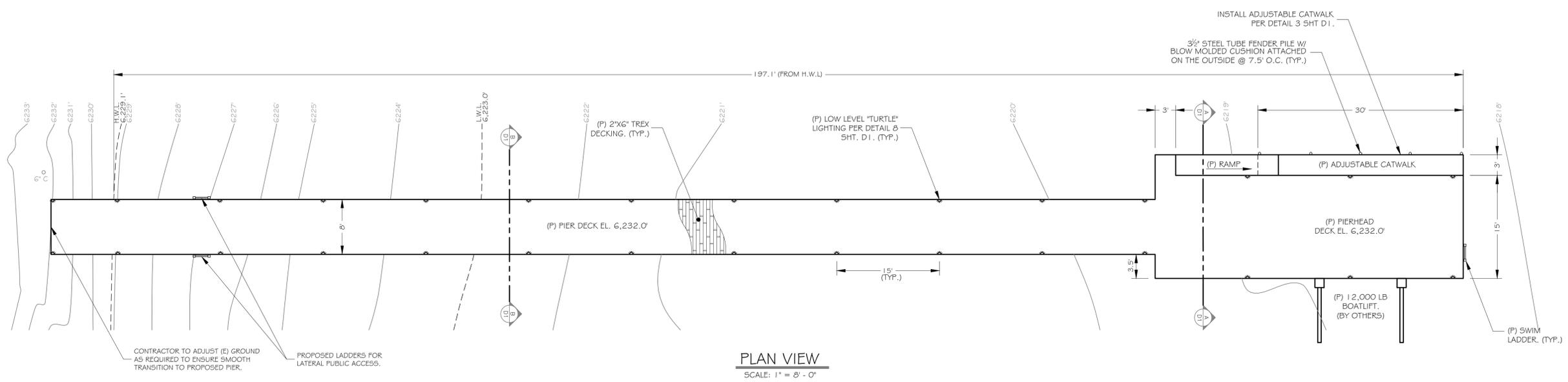
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 ferrell@fcivil.com

**Ferrell Civil Engineering**

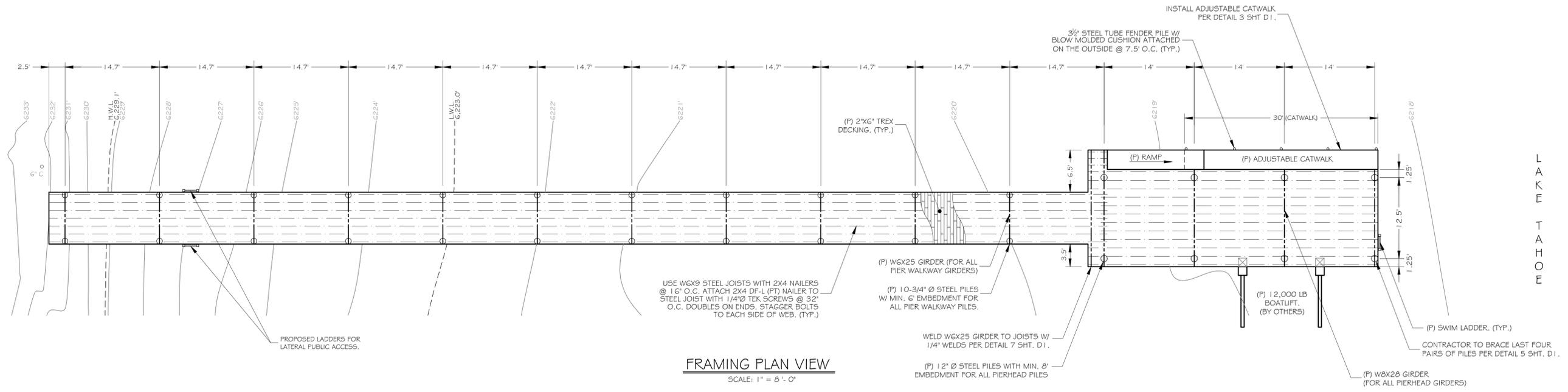


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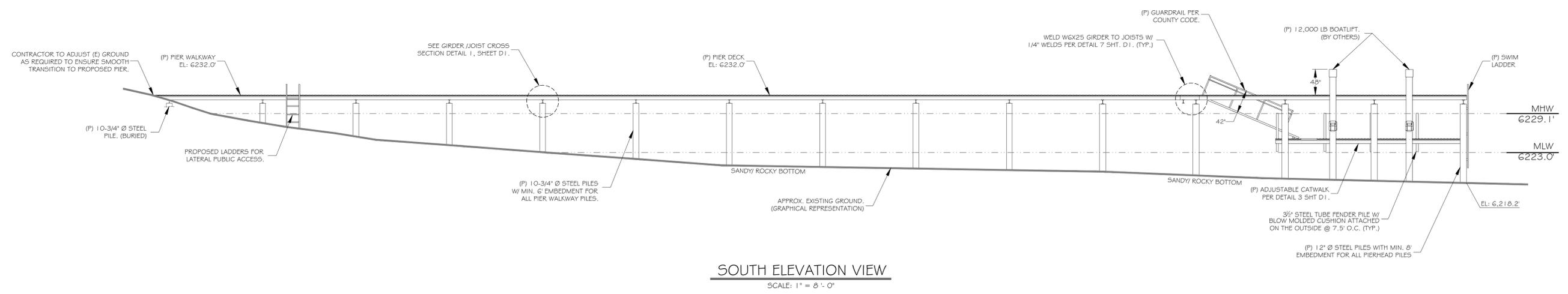
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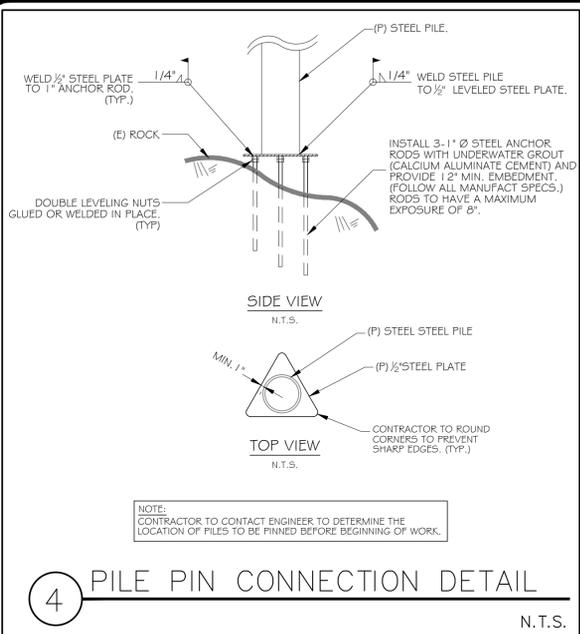
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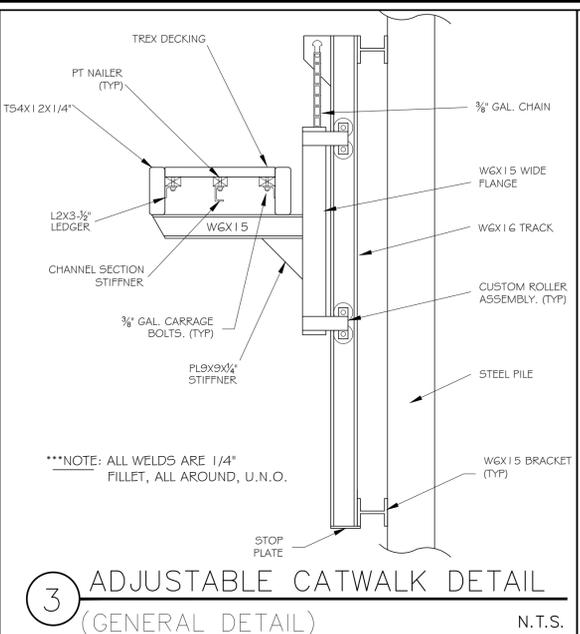
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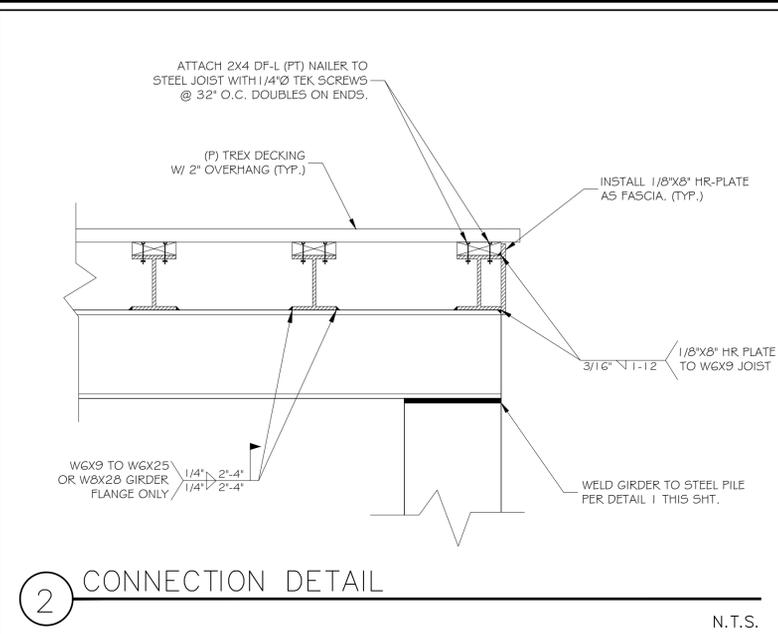
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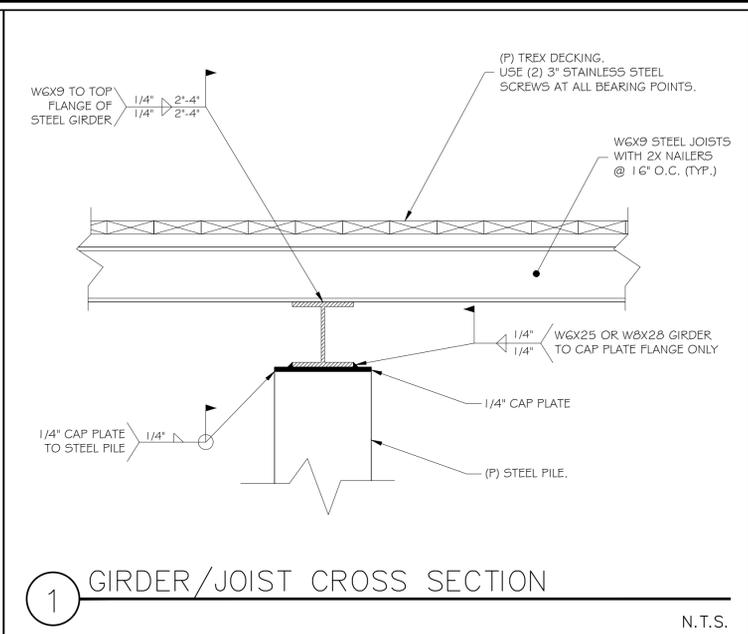
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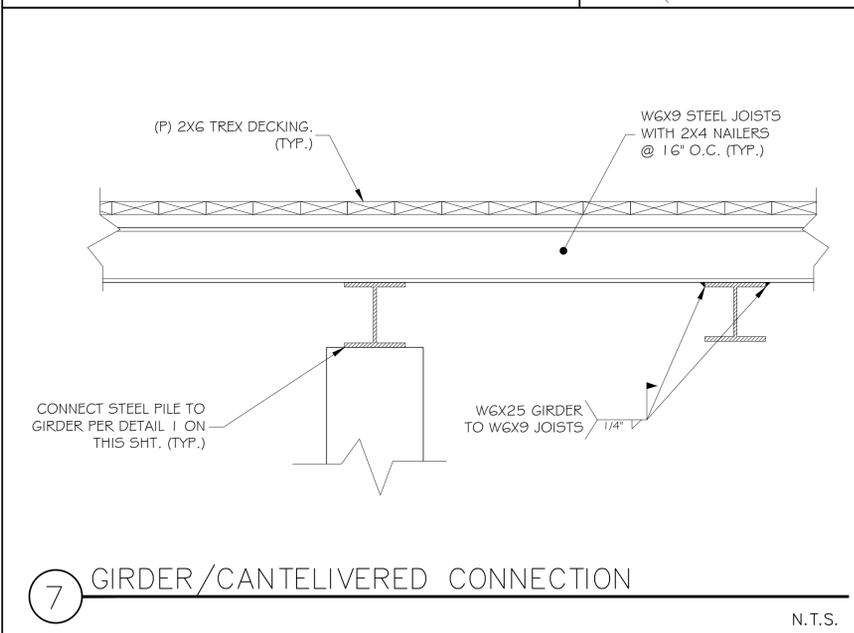
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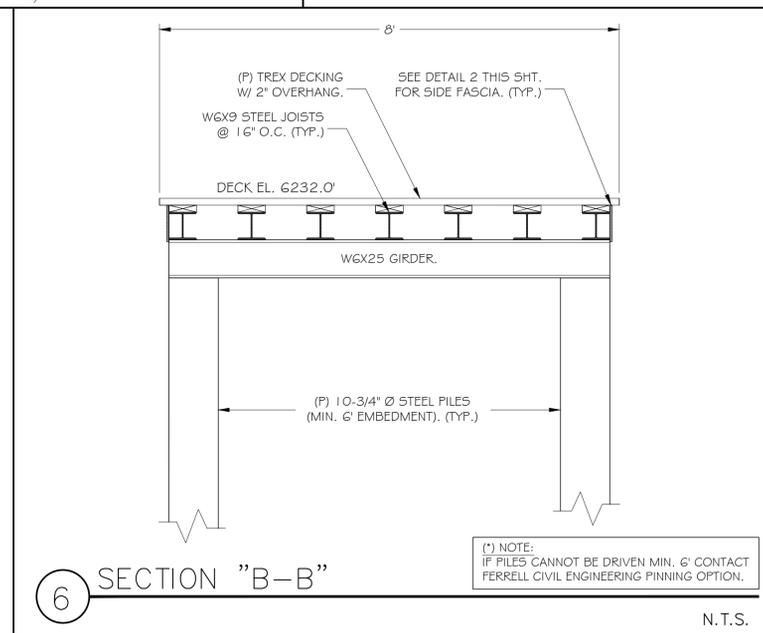
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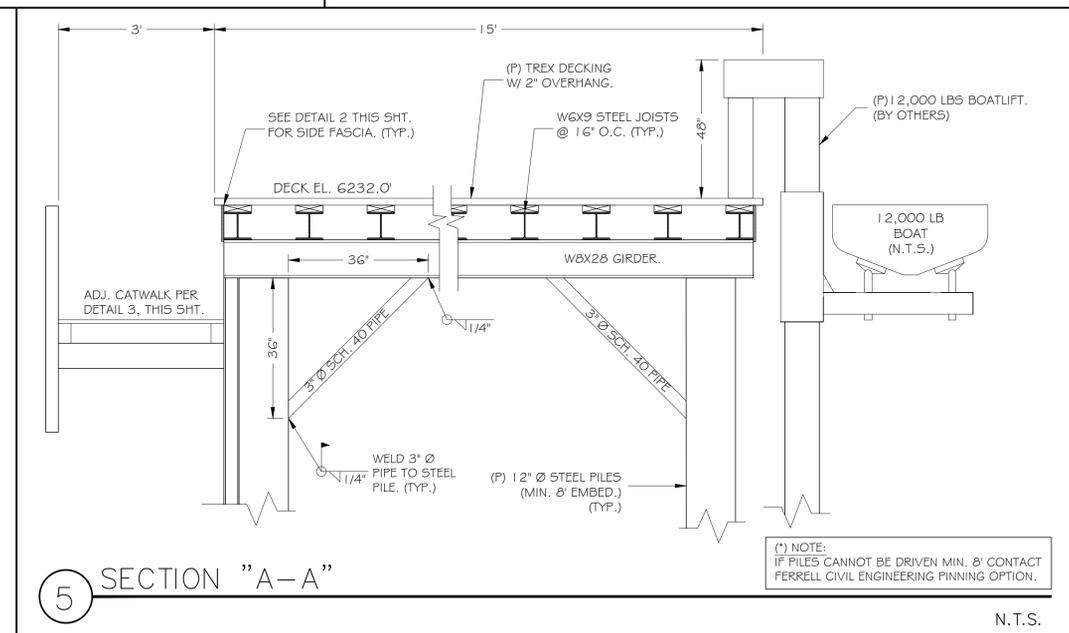
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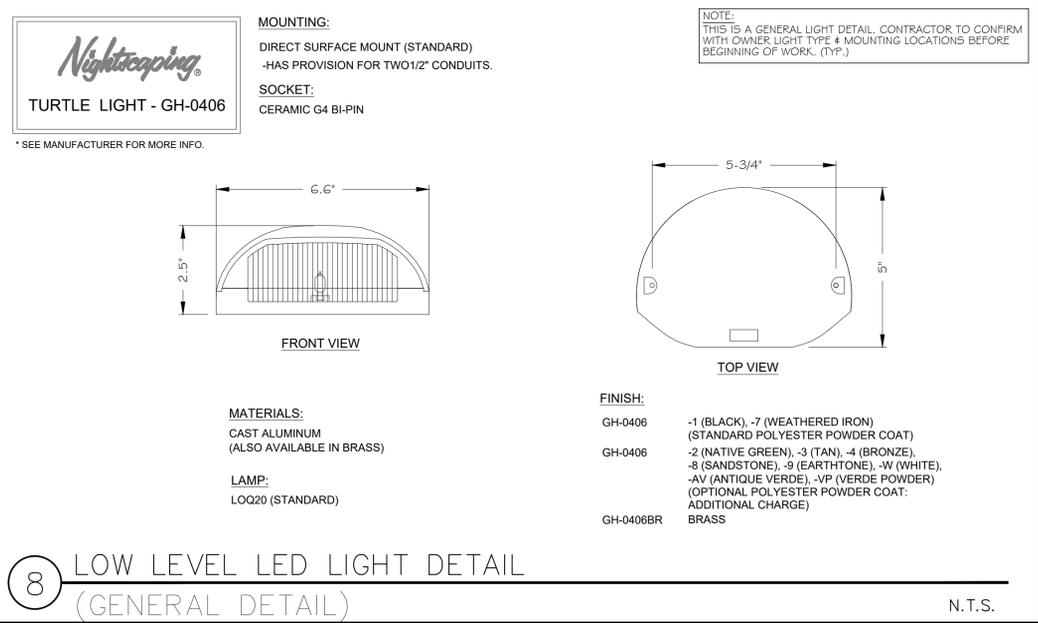
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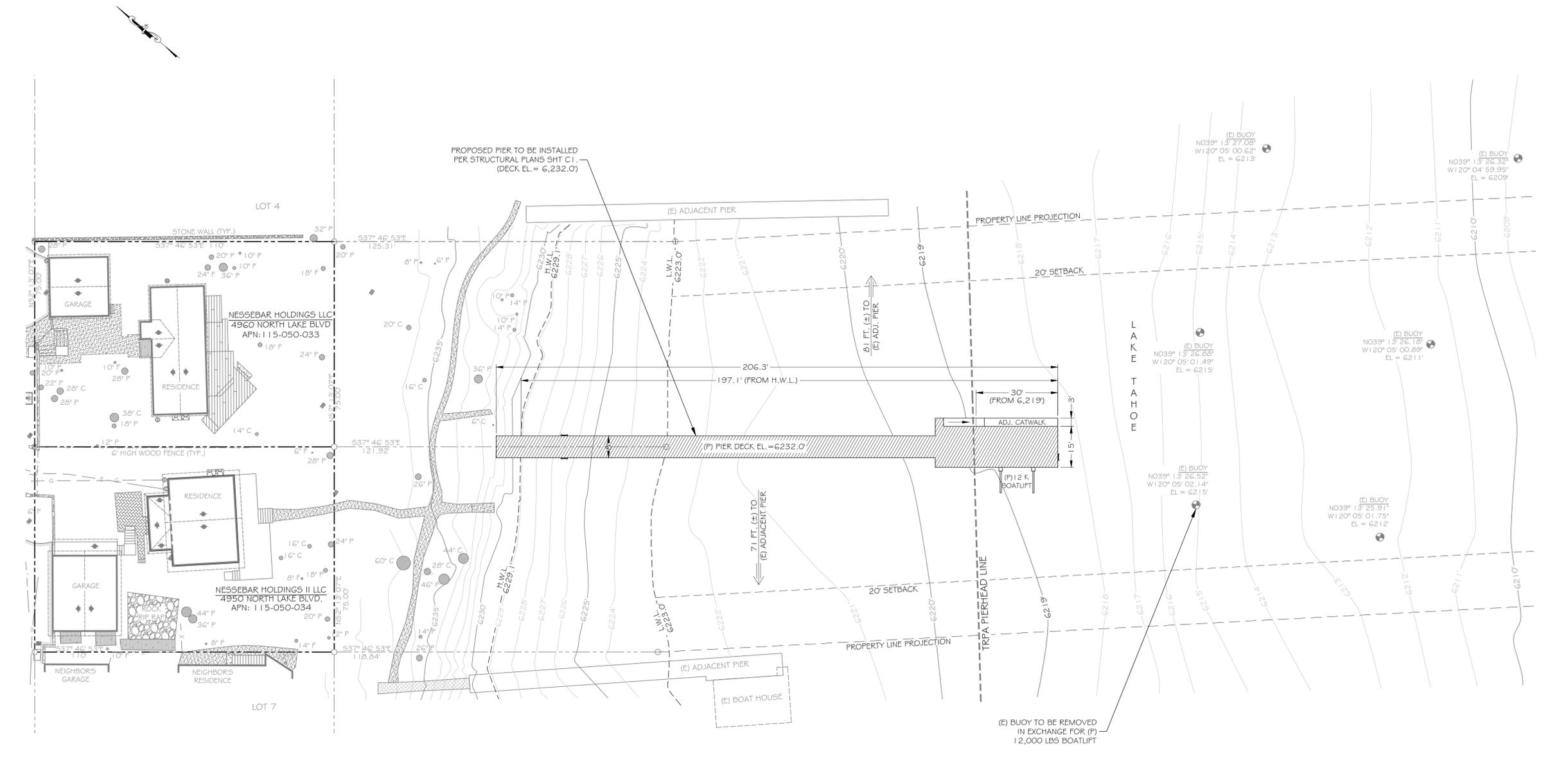
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STRUCTURAL DETAILS  
 4950 & 4960 N. LAKE BLVD - MULTIPLE USE PIER PROJECT  
 CARNELIAN BAY, CA  
 A.P.N.: 115-050-033/034  
 4950/4960 N. LAKE BLVD.

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NOTE:  
CONTRACTOR TO CONFIRM BUOY OWNERSHIP  
ON SITE PRIOR TO REMOVAL. (TYP.)



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BUOY EXHIBIT  
 4950 & 4960 N. LAKE BLVD - MULTIPLE USE PIER PROJECT  
 4950/4960 N. LAKE BLVD. A.P.N.: 115-050-033/034  
 CARNELIAN BAY, CA

08-30-22



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STAFF REPORT

Date: September 21, 2022  
To: TRPA Governing Board  
From: TRPA Staff  
Subject: APC Membership Reappointment

---

Summary and Staff Recommendation:

Staff recommends Governing Board approve a two-year reappointment for the El Dorado County lay Advisory Planning Commission (APC) member Jason Drew.

Required Motion:

In order to approve the proposed APC reappointment, the Board must make the following motion, based on the staff report:

- 1) A motion to reappoint to the Advisory Planning Commission lay member Jason Drew to a two-year term.

In order for motion to pass, an affirmative vote of any eight Board members is required.

Background:

The Tahoe Regional Planning Agency Compact provides for a two-year term for appointments to the APC, which term may be renewed. The El Dorado County Board of Supervisors endorsed Jason Drew as it's lay member and forwarded his candidacy to TRPA for action.

Contact Information:

For questions regarding this agenda item, please contact John Hester, at (775) 589-5219 or [jhester@trpa.gov](mailto:jhester@trpa.gov).



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## STAFF REPORT

Date: September 21, 2022

To: TRPA Governing Board

From: TRPA Staff

Subject: Keeping Tahoe Moving: Transportation and Destination Stewardship Strategic Initiative Update

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### Summary:

The Governing Board will receive an update on the *Keeping Tahoe Moving Strategic Initiative* beginning first with a presentation on the status of the Destination Stewardship Partnership, including a USDA Forest Service representative, followed by Transportation planning updates, including updates from a Tahoe Transportation District representative. The item will be informational only and no action is required.

### Background:

Transportation and destination stewardship are pillars of a resilient Lake Tahoe. This initiative implements the Regional Plan and Regional Transportation Plan by enhancing efficient movement of people and goods, managing the Region's recreation offerings, ensuring equitable access, and fostering better, collective user management strategies (i.e., behavioral changes). The initiative contributes to climate goals, creating a sustainable and resilient region, and encouraging all to take care of Tahoe.

The allure of accessible outdoor activities and climate change impacts (such as extreme weather and wildfire events) will continue to drive more and more people to the greater Lake Tahoe region. Tahoe is the backyard to an estimated 15 million people who live within a day's driving distance. To put this into perspective, the region is roughly one-third the size of Yosemite National Park yet receives three times the number of visitors.

Visitation is the main driver of the Lake Tahoe Region's \$5-6 billion annual economy, based largely on seasonal tourism and outdoor recreation. But this puts metropolitan-level travel demands on the region's limited and largely rural transportation system.

There is broad consensus that to meet the growing travel demand and to provide protection to Tahoe as a world-class destination the region needs a transformation. The *Keeping Tahoe Moving* strategic initiative provides a holistic approach, combining infrastructure improvements and innovative strategies to encourage behavioral change, to help people travel to, from, and around the region more efficiently. Additionally, through broad collaboration, it establishes an expectation of how to be a good steward for Tahoe for all those who come and recreate here. The concept of using behavioral change to manage demand is not new, but the emerging applications to tourism and recreation use are. For example, there are numerous areas where behavior change has been used to reduce peak demands like reducing electricity usage at times of peak system loads and changing water use during drought periods.

This same concept, combined with innovative approaches to meeting transportation needs, is what makes this initiative and its components uniquely suited for the Lake Tahoe Region.

This strategic initiative includes the following activities:

- **Sustainable Transportation Funding:** securing new transportation funding across multiple sectors
- **Corridor Plans:** planning along major transportation corridors to bridge between the plan's goals and policies, the implementation and long-term operation of multi-benefit projects to comprehensively address its largest challenges like visitation and parking (e.g., US50 East Shore, Washoe County Tahoe Transportation Plan, and SR89 Trail Feasibility Study)
- **Transportation Equity:** evaluating underserved community transportation needs and transportation planning activities such as project selection and public engagement
- **Tahoe Regional Trails Plan:** providing a blueprint for connections between dirt trails and the active transportation network
- **Accelerating RTP Implementation:** coordinating project implementation across multiple jurisdictions including financial programming and programmatic strategies like Commute Tahoe to encourage employees to bike, walk and carpool
- **Destination Stewardship Partnership and Planning:** providing a roadmap for near and long-term visitor and destination management solutions to encourage responsible travel decisions and stewardship practices

The August Governing Board agenda included US50 East Shore Corridor Management Plan and Transportation Equity Study briefings. Staff will provide a presentation on the status of Sustainable Transportation Funding, the Active Transportation Plan Update, and Accelerating RTP Implementation, including programmatic elements like Travel Demand Management. The Tahoe Transportation District representative will provide an update on initiative planning including Washoe County Tahoe Transportation Study and the Tahoe Short Range Transit Plan.

Staff will also provide an update on the Destination Stewardship Partnership. Initiated by the Environmental Improvement Program Sustainable Recreation Working Group, this partnership identifies and implements near-term visitor and destination management solutions (e.g. Take Care campaign) and has launched a planning process to establish a roadmap of innovative and effective long term strategies. Destination stewardship, a term being widely adopted in other resort and natural environment destinations around the globe, aims to establish a holistic approach to visitor and user management so that the needs of the environment, businesses, visitors, and local community can all be met in a harmonious way. Staff will provide an update on success stories from Coordinating Committees and process and expected outcomes of the Lake Tahoe Destination Stewardship Plan: Taking Care of Tahoe.

Look Ahead:

Later this calendar year, the board will receive presentations and the opportunity to provide input on the following: the Lake Tahoe Destination Stewardship Plan: Taking Care of Tahoe; an update to the Tahoe Safety Strategy to ensure we are meeting our regional safety goals and our partners are eligible for new federal funds; recommendations from the SR89 Trail Feasibility Study closing gaps in the Tahoe Trail; and future code changes to accelerate implementation of the RTP through the Travel Demand Management ordinance and Transportation Equity recommendations. On the horizon for *Keeping Tahoe Moving* is an Active Transportation Plan update that will consider micromobility (i.e. electric scooters) and the connections between dirt trails and the active transportation network.

Contact Information:

For questions regarding this agenda item, please contact Jen Self, [jself@trpa.gov](mailto:jself@trpa.gov), Long Range Program Manager and Michelle Glickert, [mglickert@trpa.gov](mailto:mglickert@trpa.gov), Transportation Planning Program Manager.





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## STAFF REPORT

Date: September 21, 2022  
To: TRPA Governing Board  
From: TRPA Staff  
Subject: Approval of Transportation Advisory Committee Charter

---

### Staff Recommendation:

Staff recommends that the TRPA Governing Board approve the transportation advisory committee charter, primary objectives, and work plan by approval of Attachment A, Transportation Performance Technical Advisory Committee Charter.

### Required Motion:

In order to adopt the proposed attachment, the Board must make the following motion, based on the staff report:

- 1) A motion to adopt Attachment A, Transportation Planning Technical Advisory Committee Charter.

In order for motion to pass, an affirmative vote of any eight Board members is required.

### Summary:

In April of 2021 the TRPA Governing Board adopted a new Sustainable Communities threshold category and associated VMT per-capita standard (TSC-1). Along with adoption of the new standard, the Governing Board also adopted a new goal in the Development and Implementation Priorities sub-element of the TRPA Goals and Policies (DP-5) that includes a suite of adaptive management actions to achieve and maintain the new TSC-1 standard.

#### **GOAL DP-5**

**TRPA SHALL USE A SERIES OF MILESTONES TO ADAPTIVELY MANAGE REGIONAL LAND USE AND THE TRANSPORTATION SYSTEM TO ACHIEVE AND MANITAIN TRANSPORTATION AND SUSTAINABLE COMMUNITIES THRESHOLD STANDARD 1.**

The adaptive management framework outlined by DP-5 includes:

- Establishment of a technical advisory body for transportation (approved March 2022)
- Preparation of a charter, primary objectives, and work plan to be approved by Governing Board
- Technical advisory body to prepare and transmit to the TRPA and TMPO governing boards a regular report including past performance, findings, and recommendations that the boards may act on

- Establishing a schedule of milestones to measure progress towards the per capita VMT reduction goal (completed April 2021)
- Implementing adaptive management responses if scheduled milestones are not met

The requested action of the TRPA Governing Board is the approval of the charter for the “technical advisory body”, now known as the Transportation Performance Technical Advisory Committee (Committee). The Committee met on September 1, 2022, to review and recommend the final charter including goal and objectives, work plan and committee structure. Attachment A contains the full charter, the primary objectives and work plan tasks are noted here.

Primary objectives:

1. Develop high-level transportation metrics to track implementation of Vehicle Miles Traveled reduction and the achievement of other Regional Transportation Plan/Sustainable Communities Strategy Goals.
2. Provide guidance on program, policy, and project modifications necessary to attain and maintain Transportation and Sustainable Community’s Threshold Standard 1.
3. Prepare and transmit a Performance and Recommendations Report to the Governing Board starting in 2022 and every four years thereafter.
4. Prepare and transmit a Regional Transportation Plan Sustainable Community Strategy Analysis and Recommendations Report to the Governing Board starting in the second quarter of 2024 and every four years thereafter.
5. Prepare and transmit adaptive management responses that can be implemented if the region is not reaching Vehicle Miles Traveled milestones and achieving Regional Transportation Plan/Sustainable Communities Strategy Goals.

Work Plan tasks for development of metrics and an adaptive management system:

Phase 1: Develop Key Transportation Metrics - September to October 2022

Phase 2: Create Adaptive Management Framework – October to November 2022

Phase 3: Evaluate and Adjust – Recommendations Reports to be prepared every two years, alternating between Vehicle Miles Traveled and Recommendations report, beginning in 2022 and Regional Transportation Plan/Sustainable Communities Strategy Recommendations Report, beginning in 2024

The final Adaptive Management Framework will be brought back before the Board in the winter.

Contact Information:

For questions regarding this agenda item, please contact Michelle Glickert, Transportation Planning Program Manager at [mglickert@trpa.gov](mailto:mglickert@trpa.gov).

Attachment:

- A. Transportation Performance Technical Advisory Committee Charter

Attachment A

Transportation Performance Technical Advisory Committee Charter



# TRANSPORTATION PERFORMANCE TECHNIAL ADVISORY COMMITTEE CHARTER



*A Voice for Lake Tahoe*

# Charter

## Tahoe Transportation Performance

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## 1. Purpose of this Charter

This charter outlines the goal and objectives, roles and responsibilities for the Tahoe Transportation Performance Technical Advisory Committee (the TPTAC).

## 2. Goal and Objectives

The Transportation Performance Technical Advisory Committee is charged with compiling and analyzing data related to transportation in the region and providing recommendations to the Governing Boards of the Tahoe Regional Planning Agency and the Tahoe Metropolitan Planning Organization (TMPO) for accelerating attainment of the goals of the Regional Transportation Plan/Sustainable Communities Strategy. Goal DP-5 within the Lake Tahoe Regional Plan Implementation Chapter directs TRPA to use a series of milestones to adaptively manage regional land use and the transportation system to achieve and maintain the Transportation and Sustainable Communities Threshold Standard (TSC 1) and Regional Transportation Plan/Sustainable Communities Strategy goals. (for reference: [Microsoft Word - Attach D. Regional Plan Amendments Chapter 2, 3, and 7 Final \(trpa.gov\)](#))

To that end, the TPTAC works to achieve seven primary objectives:

1. Develop **high-level transportation metrics** to track implementation of vehicle miles traveled reduction and achievement of Regional Transportation Plan/Sustainable Communities Strategy goals.
2. Provide **guidance on program, policy, and project modifications** necessary to attain and maintain Transportation and Sustainable Communities Threshold Standard 1
3. Prepare and transmit a **Performance and Recommendations Report** to the Governing Board starting in second quarter of 2022 and every four years thereafter.
4. Prepare and transmit a **Regional Transportation Plan Sustainable Community Strategy Analysis and Recommendations Report** to the Governing Board starting in the second quarter of 2024 and every four years thereafter.
5. Prepare and transmit **adaptive management responses** that can be implemented if the region is not reaching vehicle miles traveled milestones and achieving Regional Transportation Plan/Sustainable Communities Strategy goals.

To achieve these objectives, the advisory body will hold public meetings no less than once every two years to review programs, policies and progress towards attainment of Transportation and Sustainable Communities Threshold Standard 1. The Committee serves

as a forum for multidisciplinary and multijurisdictional professionals, and environmental agency stakeholders to build capacity, leverage partnerships, and harness collaboration to guide transportation performance that will achieve Tahoe's transportation goals.

### 3. Background

The 2020 Regional Transportation Plan/Sustainable Communities Strategy was broadly supported by local and state partners agencies along with the environmental community. The plan, developed with input from more than 8,500 people through an inclusive information gathering process with some elements provided in English and in Spanish, was approved by the TRPA Governing Board in April 2021. Concurrent approvals included updating, 1) air quality standards to measure vehicle miles traveled (VMT) per capita and 2) project level assessment to not just measure trips generated but also vehicle miles traveled. This comprehensive package of system improvements is more coherent and progressive to reduce reliance on the private automobile and accelerate the implementation of transportation alternatives.

Several policies were created to support the newly adopted Regional Plan Development and Implementation Priorities (DP) Goal 5. DP Policies 5.1 – 5.6 require the convening of the technical committee (TPTAC); TPTAC guidance on program modifications to maintain Transportation and Sustainable Communities Threshold Standard 1; transmittal of reports and recommended modifications to Regional Plan, Regional Transportation Plan/Sustainable Communities Strategy, and associated programs like the project selection process, Regional Grant Program, and fee structures. Specific milestones in DP 5.4 are outlined as well that include proposals for additional transportation funding and implementation of the funds. Additionally, specific vehicle miles traveled reduction milestones between 2024 and 2050 and supplemental compliance measures if these performance milestones are not met (DP 5.6).

TRPA has utilized performance measures to track and report on the implementation and outcomes of the projects and programs proposed in the Regional Transportation Plan/Sustainable Communities Strategy. Performance measures provide consistent reporting, show transparency of publicly funded investments, and assess and demonstrate progress towards achieving the goals of the Regional Transportation Plan/Sustainable Communities Strategy and the Regional Plan. The development of these reports will fold into future Regional Transportation Plan/Sustainable Communities Strategy continually guiding the development of each new plan.

#### 4. Work Plan

Development of metrics and an adaptive management system:

**Phase 1:** Develop Key Transportation Metrics - September & October 2022

**Phase 2:** Create Adaptive Management Framework – October & November 2022

**Phase 3:** Evaluate and Adjust – Recommendation reports to be prepared every two years, alternating between vehicle miles traveled report, beginning in 2022 and Regional Transportation Plan/Sustainable Communities Strategy, beginning in 2024

#### 5. Representation and Structure

The structure of the Committee is composed of public agency representatives, one environmental nonprofit, and one member of the public.

##### A. Committee

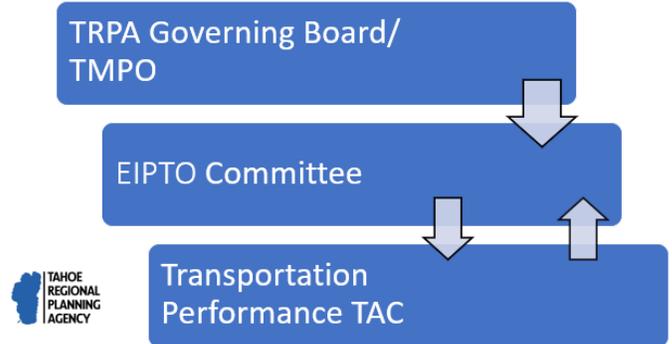
Local agencies, California and Nevada Department of Transportation, Transportation Management Associations, United States Forest Service, one environmental non-profit, and one general member of the public share responsibility for creating a report framework, reviewing metrics and data and agreeing upon adaptively managing the transportation system. Working group membership, listed below, may be expanded based on need.

- TRPA
- Caltrans
- Nevada Department of Transportation
- Tahoe Transportation District
- Carson City
- City of South Lake Tahoe
- Placer County
- South Shore Transportation Management Association
- Truckee North Tahoe Transportation Management Association
- El Dorado County
- Washoe County
- Douglas County
- League to Save Lake Tahoe
- General Public Representative
- US Forest Service

## B. Governance

The governance of the Committee consists of three elements:

1. TRPA Governing Board/Tahoe Metropolitan Planning Organization (TMPO)
2. Environmental Improvement Transportation and Public Outreach Committee (EITPO)
3. Transportation Performance Technical Advisory Committee



## C. Responsibilities

**TRPA Governing Board:** The Governing Board is responsible for approval of the TPTAC Charter and be the final approval entity for each Transportation Performance Report. Within 90 days of issuance of the report by the advisory body, the Governing Board shall review the report’s recommendations. If the Governing Board does not accept any of the report’s recommendations, it shall provide a written justification explaining the basis for its adoption of alternative measures.

**Environmental Improvement Transportation and Public Outreach Committee:** The EITPO is primarily responsible for *coordination* of the Transportation Planning Program. The required Transportation Performance Reports will be reviewed by the EITPO Committee. The EITPO will make a recommendation to the Governing Board to accept or reject the reports.

**Transportation Performance Technical Advisory Committee:** This committee is responsible for 1) developing the performance framework for Transportation and Sustainable Communities Threshold Standard 1 and Regional Transportation Plan/Sustainable Communities Strategy in 2022, 2) delivering performance and recommendations reports every two years.

## 6. Consensus-Seeking Process

As full and equal partners, members of the Committee, agree to use a consensus-seeking process. Actions requiring consensus are only taken on issues or items listed on the meeting agenda unless otherwise agreed to by all group members present.

For the working group, consensus means that everyone agrees that they can live with the final proposal after every effort has been made to meet any outstanding interests. This is not the same as unanimity, where all parties agree. The consensus gauge below will be used to indicate the degree of agreement of any member. If all members are in the range of 1 through 4, the group shall be considered in consensus and no further discussion is needed. If several individuals are at 4, then additional discussion may be needed. Further discussion is required if more than one member is at 5 or 6. If, after further discussion, there is not agreement, staff will document concerns and elevate those to the EITPO Committee.

### **Consensus Gauge**

1. Proposed decision is fully acceptable. Support the working group's decision or recommendation.
2. Proposed decision is acceptable with minor reservations. Support the working group's decision or recommendation.
3. Proposed decision is acceptable, even with major reservations, but it is the best decision at this time. Support the working group's decision or recommendation.
4. Stand aside/abstain; won't block but cannot offer support.
5. Need more information (must be able to identify the information needed).
6. Cannot live with the decision (must be able to offer an alternative).

Each Committee member or designated alternate representative present will be polled to determine if consensus has been achieved. Alternate representatives are empowered to act on behalf of the members they represent. Working group members must be fully informed of the issue to register their level of consensus. Participation via teleconferencing is permissible. Meeting agendas will include notification of any items requiring consensus. As this is a non-binding charter, any consensus achieved will not supersede any member agency's policies, regulations, or other guiding documents.

## **7. Public Meeting Participation**

Regional Plan Policy DP-5.1 notes that the advisory body will hold public meetings no less than once every two years to review programs, policies, and progress towards attainment of Transportation and Sustainable Communities Threshold Standard 1. The initial Committee convening, and development of the report framework does not require public participation. Within the following two years when a report is produced, meetings will be noticed to provide the public with the opportunity to participate.

## 8. Coordination with Related Initiatives

To the extent feasible and necessary, TRPA Staff and Committee representatives will work with their respective departments to coordinate information and data, align goals and objectives, and work collaboratively toward shared deliverables and outcomes.

## 9. Committee Meeting Documentation

Committee meeting notes will be taken by TRPA staff and a draft meeting summary circulated within three weeks of a meeting.

## 10. Meeting Ground Rules

1. Electronics courtesy – please turn all devices to silent or off
2. Be comfortable – take personal breaks if needed
3. Honor time – we need to spend some time with each topic on the agenda, please adhere to the guidance provided
4. Humor is welcome – it just should not be at someone else's expense
5. Common conversational courtesy – do not interrupt others, use profanity, or make it hard to hear by having third-party conversations at the table
6. All ideas and points of view have value – you do not have to agree with your neighbor; if you do not agree with something, propose an alternative that could meet everyone's interests
7. Treat each other with respect – everyone cares about the work, and brings unique backgrounds, expertise, and insight to the conversation
8. Avoid editorials – avoid judging other people's motives or the value of their actions; instead explain what you need for your interests to be met and our work to be a success

## 11. Meeting Frequency

The Committee will meet frequently to achieve Tasks 1 and 2 as noted in the Charter Work Plan. After these tasks are complete the Committee will meet as necessary or at a minimum every two years.

- 2022 meet to complete Performance Management Recommendation Report Framework for Transportation and Sustainable Communities Threshold Standard 1

and Regional Transportation Plan/Sustainable Communities Strategy. Thereafter, every 4 years to prepare and transmit a performance and recommendations report on the reduction of per capita vehicle miles traveled.

- 2024, every four years thereafter, to complete a Regional Transportation Plan and Sustainable Community Strategy analysis and recommendations report to provide recommendations for development of the following Regional Transportation Plan/Sustainable Communities Strategy.

## 12. Review and Report Delivery

Working group members commit to set aside time to attend meetings as designated in Meeting Frequency section. Members also commit to review reports in advance of meetings on progress made, discuss any process changes that may be beneficial to the group, and update the Charter as needed.

## 13. Disengaging from the Committee

Participation in the Committee is voluntary; however, each designated agency needs to be represented. A member agency or organization that wishes to permanently cease participation in the Committee will provide written notification to the TRPA.

## 14. References

1. Regional Plan - <https://www.trpa.gov/regional-plan/>
2. 2020 Regional Transportation Plan/Sustainable Communities Strategy - <https://www.trpa.gov/rtp/>



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## STAFF REPORT

Date: September 21, 2022

To: Tahoe Metropolitan Planning Organization Governing Board

From: TRPA Staff

Subject: Approval of Final 2023 Federal Transportation Improvement Program

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**Summary and Staff Recommendation:**

Staff recommends adoption of the attached resolution approving the 2023 Federal Transportation Improvement Program for the Tahoe Region.

**Required Motion:**

In order to adopt the proposed resolution, the Board must make the following motion, based on the staff report:

- 1) A motion to adopt the attached resolution (Attachment A) adopting the 2023 - 2026 Federal Transportation Improvement Program for the Tahoe Region

In order for motion to pass, an affirmative vote of any eight Board members is required.

**Tahoe Transportation Commission Recommendation:**

On September 16, 2022, the Tahoe Transportation Commission (TTC) recommended approval of the Final 2023 Federal Transportation Improvement Program (FTIP) to the Tahoe Metropolitan Planning Organization (TMPO) Governing Board.

**Background:**

Through adoption of the FTIP, the Tahoe Regional Planning Agency (TRPA), in its role as the TMPO programs projects and monies to implement the Regional Transportation Plan (RTP). The TMPO prepares and adopts the Federal Transportation Improvement Program every two years in accordance with the United States Department of Transportation's metropolitan transportation planning and programming regulations, Title 23 Code of Federal Regulations Part 450. The FTIP is to be updated at least every four years, cover a programming period of not less than four years, be financially constrained, and contain a list of projects grouped by year. Federal regulations require all transportation projects that receive federal funds, require a federal action, or are regionally significant be listed in the FTIP. The FTIP provides an overall snapshot to the federal government illustrating current and pending uses of federal and state transportation funds. It is required for the programming and use of federal and certain state transportation funds to help implement the RTP.

The 2023 FTIP four-year program (2023 through 2026) consists of transportation projects for highway, transit, and bicycle and pedestrian projects that have received federal funding and are consistent with the RTP and related local, state, and federal planning processes.

The FTIP must be fiscally constrained which means programming only projects and programs that have reasonably foreseeable or secured funding sources can be included.

Discussion:

Throughout the development of the document, staff collaborated with partnering agencies to update their projects in the LT Info Tracker to ensure the projects were current and accurate for programming in the FTIP. On July 11, 2022, TMPO released the Draft 2023 Federal Transportation Improvement Program for a 30-day public comment period as required by the TMPO public participation plan. A public hearing was held on August 3, 2022 at the TTC board meeting and comments were accepted through August 9, 2022. The document was noticed for federal, state and local transportation partners, posted on TRPA E-News, and available on the [TRPA website](#).

Staff received a total of seven comments that have been incorporated into the Final 2023 FTIP. Comments included project description updates, funding revisions, performance measure clarifications, and general comments on the document. A table of all the public comments received is included in Attachment B: Final 2023 FTIP Appendix H. The following points highlight the sections where the majority of edits were made in the final document.

- Narrative: updating board member lists, editing text
- Appendix A: Financial Summary, revising fund amounts and years
- Appendix B: CTIPS Project Reports and Grouped Projects Backup Listings, adding more detail to project descriptions, editing funding amounts and years, adding a Grouped Bicycle and Pedestrian project
- Appendix D: California Performance Measures and Targets Support Summary, providing clarification on projects and editing text, updating performance measure tables
- Appendix E: California FTIP Performance Measures Reporting Workbook, providing clarification on Performance Measure targets and updating figures for PM 1, PM 2, and PM 3 tables

The majority of projects programmed in the 2023 FTIP were carried forward from the 2021 FTIP for continuous implementation. These projects will work towards achieving our 2020 Regional Transportation Plan goals to improve safety, increase connectivity, and preserve the environment. The document contains 19 projects in the following categories:

- Corridor and Communities (7)
- Transit (5)
- Safety (5)
- Active Transportation Grouped Projects (1)
- Operation and Maintenance (1)

Nineteen projects are programmed in the FTIP. The project map (Attachment C) displays 26 projects because individual projects listed within the Grouped Projects are shown.

The programmed dollars over the four-year cycle is estimated at \$192,000,000 with approximately \$87,000,000 in Federal funding, \$87,000,000 State dollars (CA \$83,000,000 & NV \$4,000,000) and \$18,000,000 in Local funds. Projects are grouped by year and recommended for various stages of development during the program period. The project listings include phase of work, project cost, expected funding sources, and the scheduled year of work. As the projects progress, the FTIP document is amended to reflect project schedules and funding as they may change.

Upon adoption, the document will be submitted to California Department of Transportation and Nevada Department of Transportation for inclusion in the Statewide Transportation Improvement Programs. The final document for Federal approval is scheduled for December 16, 2022. At that time, the current 2021 FTIP will expire and the approved 2023 FTIP will become active.

Contact Information:

For questions regarding this agenda item, please contact Judy Weber at (775)589-5203 or [jweber@trpa.gov](mailto:jweber@trpa.gov).

Attachments:

- A. TMPO Resolution 2022-\_\_
- B. Final 2023 FTIP (link)
- C. Project Map

Attachment A

TMPO Resolution 2022-\_\_

TAHOE METROPOLITAN PLANNING ORGANIZATION  
TMPO RESOLUTION NO. 2022 - \_\_\_\_\_

ADOPTION OF THE 2023-2026 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM  
FOR THE TAHOE REGION

WHEREAS, the Tahoe Metropolitan Planning Organization (TMPO) is the designated metropolitan planning organization for the Tahoe Region as defined by the Transportation Equity Act for the 21st Century; and

WHEREAS, the 2023 Federal Transportation Improvement Program (FTIP) for the Tahoe Region has been developed in accordance with the Infrastructure Investment and Jobs Act (IIJA); and

WHEREAS, the Federal Clean Air Act amendments require that no department, agency, or instrumentality of the Federal Government shall engage in, support in any way, or provide financial assistance for, license or permit, or approve an activity which does not conform to an implementation plan approved or promulgated under Section 110; and

WHEREAS, no metropolitan planning organization designated under Title 23 of the U.S. Code shall give its approval to any project, program or plan which does not conform to an implementation plan approved or promulgated under Section 110; and

WHEREAS, the 2023 FTIP meets all applicable transportation planning requirements per Title 23 CFR Part 450; and

WHEREAS, the 2020 Linking Tahoe: Regional Transportation Plan (RTP) for the Tahoe Region describes a transportation system envisioned for the horizon years and was adopted as a financially constrained plan by the TMPO Board on April 28, 2021; and

WHEREAS, the 2023 FTIP is consistent with the transportation system and financial plan described in the RTP; and

WHEREAS, the 2023 FTIP is financially constrained by year and includes a financial plan that demonstrates which projects can be implemented using committed funds; and

WHEREAS, the 2023 FTIP includes all regionally significant transportation projects to be funded from local, state, or federal resources; and

WHEREAS, the 2023 FTIP has been developed under TMPO policies for community input and in accordance with the TMPO Public Participation Plan; and

WHEREAS, on September 16, 2022 the Tahoe Transportation Commission recommended the TMPO Governing Board adopt the 2023 Federal Transportation Improvement Program.

NOW, THEREFORE, BE IT RESOLVED, that the Governing Board of the Tahoe Metropolitan Planning Organization adopts this resolution approving the 2023 Federal Transportation Improvement Program for the Tahoe Region.

BE IT FURTHER RESOLVED, that TMPO staff is hereby directed and authorized to work with Caltrans, the Nevada Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration to make whatever technical changes or corrections are needed to the format and organization of the document to obtain its approval by these agencies.

BE IT FURTHER RESOLVED, that the TMPO Board authorizes staff to administratively amend the 2023 FTIP as outlined in the Public Participation Plan, Amending the Federal Transportation Improvement Program, and Project Selection Procedures in the 2023 FTIP.

PASSED AND ADOPTED by the Governing Board of the Tahoe Metropolitan Planning Organization this Wednesday, September 28, 2022 by the following vote:

Ayes:

Nays:

Abstain:

Absent:

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Cindy Gustafson, Chair  
Tahoe Metropolitan Planning Organization  
Governing Board

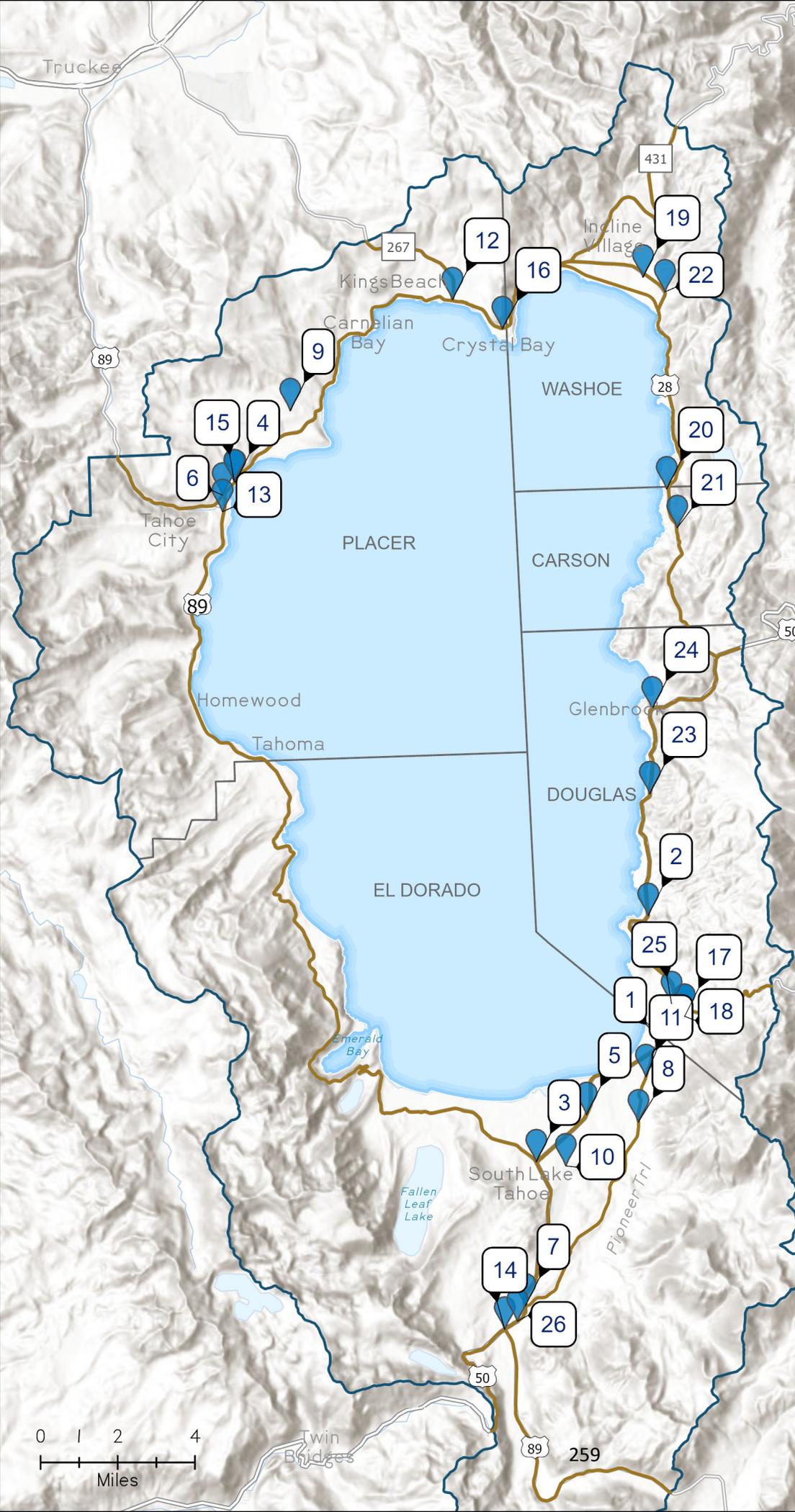
Attachment B

[Final 2023 FTIP](#)

Attachment C

Project Map

 2023 FTIP Projects



1. U.S. 50 South Shore Community Revitalization
2. TTD Fleet and Administration Facility
3. U.S. 50 Corridor Collision Reduction Improvements – SR89 “Y” Junction to Pioneer Trail (SHOPP)
4. SR 28 Corridor Collision Reduction Improvements - Mackinaw Rd to Grove St (SHOPP)
5. Pavement Resurfacing on U.S. 50 from Blue Lake Rd to CA/NV State Line (SHOPP)
6. Pavement Preservation - SR 28/SR 89 Junction to Nevada State Line (SHOPP)
7. Pioneer Trail/U.S. 50 Intersection Safety Improvement
8. Pioneer Trail Safety Improvement Project – Edna and Pioneer Trail Intersection
9. North Tahoe Regional Bike Trail - Phase 1
10. South Tahoe Greenway - Upper Truckee Bridge at Johnson Meadows
11. Pioneer Trail Pedestrian Improvement - Phase II
12. Kings Beach Western Approach
13. SR 89/Fanny Bridge Community Revitalization Project- Phase 1 Highway Improvements
14. El Dorado County Vacuum/Rodder Truck
15. Placer County Transit Operations
16. Placer County Transit Capital
17. TTD Transit Operations
18. TTD Transit Capital
19. Tahoe Mobility Hub – Washoe County
20. SR 28 Central Corridor – Chimney Beach to Secret Harbor – Parking, Transit, Trail, and Safety Improvements
21. SR 28 Central Corridor – Sand Harbor to Spooner – Parking, Transit, Trail, and Safety Improvements
22. SR 28 North Parking, Sidewalk, and Water Quality Improvements
23. U.S. 50 3R Preservation in the Tahoe Basin Package 1
24. U.S. 50 ADA improvements, Signage Replacement/Upgrade, and Lighting Improvements, Package 2
25. Kahle Drive Complete Street Project
26. Apache Avenue Pedestrian Project







STAFF REPORT

Date: September 21, 2022

To: TRPA Governing Board

From: TRPA Staff

Subject: Appeal of Plan Revision ERSP2019-0389-01, Verizon Cell Tower, 1360 Ski Run Blvd., South Lake Tahoe, California, Assessors’ Parcel Number 025-580-007; Appeal No. ADMIN2022-0036

Requested Action:

To consider and act upon an appeal filed by Allen Miller, David Benedict, and Benjamin Lebovitz (collectively “Miller”), et al. of the Executive Director’s issuance of a plan revision to increase the maximum depth of excavation for the Verizon Ski Run Cell Tower by six feet.

Staff Recommendation:

Staff recommends that the Governing Board uphold the Executive Director’s issuance of the plan revision because staff appropriately processed the plan revision request, the increased excavation depth will not intercept or interfere with groundwater, and even if it did, staff properly granted an exception.

Motion:

1. A motion to grant the appeal, which motion should fail to affirm the Executive Director’s decision.

To deny the appeal, the Governing Board should vote “no.” The motion to grant the appeal will fail unless it receives five affirmative votes from California and nine votes overall.

Background:

This appeal concerns a revision staff granted to the permit for the Verizon Ski Run Cell Tower (originally approved as TRPA File #ERSP2019-0389 and upheld when the Governing Board denied an appeal of that permit at its March 23, 2022 meeting). The approved permit and plans for the tower included excavation for a mat foundation down to a maximum depth of 7.5 feet below ground surface (“bgs”). Because the site is located on an incline, the uphill side of the excavation is substantially deeper than the downhill side. See Attachment A (Comparison of foundation plans). Miller describes the tower foundation as a “small spread or mat foundation” that is “a relatively benign foundation design with regard to potential ground water impacts . . . .” See Attachment B, Notice of Appeal at 2.

Staff found that excavation to a depth of 7.5 feet bgs would not intercept ground water. See Attachment C (2022 Revised Soil Hydrologic Approval). The Executive Director’s determination was based on a soils/hydrology report that concluded no groundwater existed on the tower site down to 19 feet bgs at

the test boring site. Furthermore, TRPA approved an exception even if groundwater was intercepted. See Attachment C. TRPA staff found the 7.5-foot depth of excavation was made necessary by the above ground structure (the tower) and for public safety (the service provided by the tower).

In the permit, TRPA foresaw the potential need to alter the depth of excavation when design and engineering plans were finalized. Special Condition 3.F states:

Please provide final engineering drawings, including a detailed foundation design. TRPA has approved an excavation depth of 7 feet 6 inches below ground surface (bgs). If the final design includes an excavation depth deeper than that, the applicant shall submit a new soils-hydro application to TRPA, seeking approval for the proposed excavation depth. TRPA shall approve the excavation prior to stamping the final plans.

(Despite a broad attack on the merits of the permit in the initial appeal and litigation, no one at that time, including Mr. Miller, challenged the approved excavation to 7.5 feet bgs or the exception or report upon which the permit rested.)

After obtaining final design and engineering plans and pursuant to Special Condition 3.F, on August 2, 2022, Verizon requested that TRPA approve a modification to its approved plans to allow further excavation of an additional six feet to 13.5 feet bgs at the deepest uphill point. See Attachment A. Verizon informed TRPA that the request for the additional depth was made necessary by an engineering requirement to have all the mat foundation at least 5 feet below ground level. See Verizon Notice of Appeal Response dated August 24, 2022 (Attachment E, Exhibit A at 4). To get the downhill side of the mat to 5 feet bgs, the uphill side of the foundation needed to rest at 13.5 bgs, six feet below the approved 7.5 feet. Because the unchallenged soils/hydrology report found no groundwater to at least 19 feet, the Executive Director approved the plan revision for the additional excavation depth to 13.5 feet bgs on August 17, 2022, again finding no interception of ground water and providing the exceptions for above ground structural demands and public safety. See Attachment B at Exhibit A (2022 Soil Hydrologic Approval). Staff noted that variations in conditions underground could exist, so that if Verizon found conditions “wetter than expected”, Verizon was to immediately contact TRPA staff. *Id.*

On August 22, 2022, Miller filed an appeal of the Executive Director’s approval of the plan revision application and requested a stay of tower construction. See Attachment B, Notice of Appeal and Stay Request. As part of the stay request, Miller insisted that additional soils and hydrology work be performed. In response, Verizon agreed to a stay of pouring of concrete until after the September 28, 2022 Governing Board meeting. See Verizon August 24 Response (Attachment E, Exhibit A at 1, 5). The TRPA Chair thereafter denied Miller’s stay request to the extent it sought additional relief and indicated TRPA staff would conduct further monitoring of Verizon’s excavation for any indication of groundwater interception. See Attachment D, Statement of Appeal, Exhibit 2 at 1. The TRPA Chair also set the appeal to be heard at the Governing Board’s September 28 meeting per TRPA Rules of Procedure 11.3.

As part of the monitoring effort, Miller suggested that a soil test pit be dug and the exposed soil profile be examined by a qualified soil expert. See Statement of Appeal (Attachment D, Exhibit 2 at 2). Given that Verizon had an existing permit to excavate to 7.5 feet and in response to Miller’s appeal and request for additional information, TRPA engaged its soil expert to conduct a soil profile examination once the excavation hit approximately that depth.

On September 1, 2022, TRPA staff and its soils consultant, Marchel Munnecke, inspected the cell tower site where Verizon had excavated to approximately 7.5 feet bgs on the uphill side and 5 feet on the downhill side. Verizon’s work crew had hit bedrock at that depth. Ms. Munnecke performed a soils analysis on the existing cut and determined that no indicia of seasonal high groundwater were present and that the presence of bedrock confirmed the results of Verizon’s submitted soils/hydrology report (i.e., no interception of groundwater would occur from excavation to 13.5 feet bgs, which would be through bedrock). See Attachment F. TRPA staff and Ms. Munnecke returned on September 14, 2022, to observe the results of final excavation to 13.5 feet bgs. As indicated in Ms. Munnecke’s Supplemental Report (Attachment G), no ground water was intercepted and no evidence of seasonal high ground water was encountered. (TRPA provided Miller the Munnecke reports on the day of receipt.)

### Applicable Ordinances

Miller’s appeal raises both substantive and procedural arguments under TRPA Code and Rules. See Attachment B, Notice of Appeal; Attachment D, Statement of Appeal. The applicable will be described here.

TRPA Code Chapter 33 governs grading in the Tahoe Region. Section 33.3.6 (Attachment H) limits excavations that intercept or interfere with groundwater. Section 33.3.6.A generally prohibits excavations that intercept or interfere with groundwater. Section 33.3.6.A.1 defines interception or interference with groundwater as altering its directional flow, altering its rate of flow, intercepting it, adding or withdrawing groundwater, or raising or lowering the water table. Section 33.3.6.A.2 provides exceptions to the general prohibition for several reasons, including if the exaction is necessary to satisfy building code requirements to support above ground structure or is necessary for public safety and health. Section 33.3.B addresses excavations exceeding five feet bgs to protect water tables. The Code prohibits excavations of greater than five feet where a reasonable possibility of interference or interception of a water table exists unless a soils/hydrologic report prepared by a qualified professional with a preapproved methodology “demonstrates that no interference or interception groundwater will occur . . . .” See Attachment H.

TRPA Code Section 2.2.2 assigns the level of approval for projects whether at the Governing Board, Hearings Officer, or staff level. Relevant to this appeal, Section 2.2.2.A.2.a provides that the Hearings Officer shall hear applications for special uses – such as cell towers in most, if not all, plan areas. The Verizon Ski Run Cell Tower was heard and originally approved by the Hearings Officer on October 14, 2021. The Code makes no assignment for excavation applications and are therefore assigned to the Executive Director under Code section 2.2.2.G. TRPA staff processes plan revisions at staff level unless the revision concerns the findings identified for Governing Board or Hearings officer. In other words, once special use findings are made by the Hearings Officer or Governing Board, TRPA staff will address at staff level plans revisions unless the revision touches the basis for the special use findings.

### Issues on Appeal

#### 1. Scope of Appeal Limits Issues Relevant to the Plan Revision

As a result of the prior appeal of the Verizon Cell Tower permit, the issues on this appeal are limited to those unique to the plan revision, i.e., those arising from the plan revision allowing an additional 6 feet of excavation. Therefore, issues such as the original approval of excavation to 7.5 feet, land coverage, radio frequency emissions, fire hazards, etc. should not be considered by the Governing Board.

## 2. Process of Plan Revision Met TRPA Requirements

Miller argues that TRPA staff improperly issued the plan revision without giving public notice and conducting a public hearing before the Hearings Officer or Governing Board. See Attachment B at 3, 15. As discussed above, Code Section 2.2.2 assigns consideration of excavations to the Executive Director. Code section 2.2.2.G. Since Verizon's proposed plan revision concerned only an increase in excavation depth and did not concern any of the special use findings made by the Hearings Officer and affirmed by the Governing Board, staff acted appropriately by issuing the permit at staff level. As for additional public notice, TRPA Rules of Procedure require notice to affected property owners for special use determinations under Section 11.14.1, but no requirement for public notice exists for excavations (notice was provided for the original approval of the cell tower). Rule Section 12.14.A (listing categories of projects or matters for which notice is required).

Miller ignores these rules and instead cites to TRPA's website describing the difference between what TRPA considers a minor and major plan revision and TRPA's fee setting schedule. See Statement of Appeal, Attachment D, at 8. TRPA's fee schedule distinguishes between a minor and major plan revision application to set the fee appropriate for the review to recoup costs. Miller argues that under TRPA's fee schedule, Verizon's application should be considered a "major" plan revision and therefore treated as a "new" project. Attachment D, Statement of Appeal, at 10. However, whether Verizon's plan revision application should be charged at a "minor" or "major" project rate does not, and cannot, alter the regulations governing whether the application is reviewed at the Executive Director level and the appropriateness of noticing. These rules, as set forth above, support the Executive Director's determinations to review the application at staff level without re-noticing.

Miller also argues that TRPA should have prepared a second Initial Environmental Checklist ("IEC") to review the added depth of excavation. Attachment D at 12-14. TRPA rules, however, only require supplemental environmental review for a project revision if that revision involves new significant environmental effects not otherwise considered. See e.g., Rules of Procedure 6.15.1 (Grounds for Supplemental EISs). As described below, TRPA staff found no interception or interference with ground water from the 6-foot increase in excavation depth and therefore no significant adverse environmental impacts from the plan revision are anticipated to occur and no supplemental IEC was required.<sup>1</sup>

## 3. Groundwater

### A. Reasonableness of finding no interception of groundwater

To intercept or interfere with ground water, ground water or evidence of it must be present at the depth requested. In the boring sample and the subsequent site monitoring, neither ground water nor evidence of it are present at this site to the depth of at least 13.5 to 19 feet bgs. See Attachments F, G.<sup>2</sup>

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<sup>1</sup> Miller claims that staff violated Compact Article VII because no "Finding of Significant Effect" or FONSE was made for the plan revision. See Attachment D, Statement of Appeal, at 13. No such violation occurred because no supplemental IEC was required. TRPA therefore did not need to make another FONSE and could rely upon the FONSE made for the original cell tower approval.

<sup>2</sup> Miller objects to the Governing Board considering soils reports prepared by TRPA's consulting soil scientist as it is prejudicial to their interests (i.e., the reports confirm the absence of ground water) and

Staff therefore reasonably concluded the additional excavation depth would not intercept or interfere with ground water.

In his appeal, Miller argues disclaimer language from Verizon's 2022 soils/hydrology report implies ground water could possibly be present under certain circumstances. See e.g., Attachment D, Exhibit 1 at 11. (quoting generic language regarding seasonal variability in ground water depths). Miller, however, does not contest the actual findings from the onsite boring and excavation reports that find no evidence of ground water presence at the time or in the past, only that they are not enough definitive enough for Miller.<sup>3</sup> Since staff had evidence before it from the bore hole sample which was then confirmed by the monitoring reports, the Governing Board may find that the staff's determination was appropriate.

Next, Miller asserts that surface and subsurface drainage will flow downhill above bedrock across the site to the stream environment zone ("SEZ") and the mat foundation will interfere with that flow. See Attachment D at 14. Miller confuses the presence of subsurface runoff with the presence of ground water. Consistently saturated soils are required for demarcation of the water table. See TRPA Code Section 90.2 (Definition of Seasonal High Ground Water Table as "[t]he highest level of soil saturated with water during a one-year period, usually but not always found in the spring months"). Repeatedly saturated soils usually bear the presence of redoxification (a chemical reaction within repeatedly saturated soils). The soils present at the excavation are characterized as well drained without evidence of redoxification. See Attachments F, at 1; G, at 1. More simply, water infiltration does not constitute ground water and the excavation prohibition does not apply.

Moreover, even if one were to assume the presence of ground water, Miller has not shown with evidence how the presence of the mat foundation will adversely interfere with groundwater flow. Because of the presence of solid bedrock at about 7.5 feet bgs on the uphill side and less on the downhill side, the mat will be placed from 10.5 feet to 13.5 feet bgs on the uphill side and 5 to 8 feet on the downhill side and be entirely in solid bedrock. Miller fails to explain how the mat in those circumstances will interfere with subsurface flow.<sup>4</sup>

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allegedly presents a conflict of interest under TRPA Rule 8.4 concerning employees accepting compensation for outside work. Miller was presented the report in sufficient time to respond, and no TRPA employee received compensation for the preparation of the report, which even if they did, does not in and of itself a conflict of interest.

<sup>3</sup> Miller also argues that staff erred by not pre-approving the methodology of the soils/hydrology report under Code section 33.3.6.B.1. See Attachment D, at 9-10. For the plan revision application, TRPA had already approved the 2021 soils/hydrology report by accepting its results for the original permit (a report Miller describes as a "soils/hydrologic report by a qualified professional as described in the Code." Attachment B, Notice of Appeal, at 10. Staff therefore did not act inconsistently with section 33.3.6.B.1 when accepting Verizon's 2022 revised soils/hydrology report for the plan revision. Miller also expresses concerns with tree protection and disposal of excavated material. Trees are protected via construction BMPs on site and standard condition E of approval Attachment Q (Grading) assured proper disposal of excavated material where not retained on site. Since no ground water was anticipated to be encountered, no finding regarding subsurface flows.

<sup>4</sup> In his Statement of Appeal, Miller questions whether the plans submitted by Verizon comply with coverage amounts approved by TRPA in 2021. See Attachment D, at 19-20 and Exhibit 6 thereto. TRPA examined Miller's contention regarding coverage and could find no inconsistency with the 2021 approved plans. See Attachment I.

B. Staff Reasonably Granted Exceptions.

In addition to finding that the added depth of excavation will not intercept ground water, TRPA staff also found that, even if interception occurred several exceptions applied to allow the excavation to occur as noted above. Staff found the added excavation was required by above ground structure, and the tower was needed for public safety. See Attachment C. Miller objects to staff's waiver. See Attachment B at 7-10. If the Governing Board concludes that the Executive Director correctly determined ground water will not be intercepted, it need not consider whether staff also had a sufficient basis to issue the exceptions as the waiver would not be necessary.

Code section 33.3.6.A.2.a provides an exception where the "[e]xcavation is required by the International Building Code (IBC) or local building code for minimum depth below natural ground for above ground structures." Miller argues that Verizon did not submit materials that the IBC or the local building code "required" the specific below ground foundation chosen. See Attachment B at 7-10. Staff does not apply this provision as strictly as desired by Miller. According to Verizon, there is no specific minimum depth for foundations for cell towers identified in the IBC or the City of South Lake Tahoe building code. Attachment E, Exhibit A at 4. In these circumstances, TRPA will accept the structural plans stamped by a licensed engineer if there is no indicia of excessive grading or ulterior motive. Here, Verizon submitted plans stamped appropriately and there is no indication that Verizon would choose to excavate deeper than necessary. Indeed, Miller speculates that the additional depth was required to support the loading of the above ground cell tower. See Attachment D, Exhibit A at 2. Nor does Miller provide evidence that there exists a structural engineering foundation that would result in less excavation. Under these circumstances, staff appropriately granted an exception under Code section 33.3.6.A.2.a.

Code section 33.3.6.A.2.d grants an exception when "necessary for the public safety and health." Additional cell facilities in the Tahoe Basin are supported by local fire and police officials as a necessary improvement for emergency operations. See Attachment J. Miller counters that cell towers can cause fires and emit radio frequencies at levels harmful to the public health. Attachment D at 16. Miller's argument, however, does not undermine the conclusion that operation of the tower could increase public safety as set forth by the fire and police officials' statements. Staff could therefore reasonably conclude that ground water interception could be excepted in this case under Code section 33.3.6.A.2.d.

In sum, the Governing Board should uphold the Executive Director's actions and deny Miller's appeal. Staff followed a legal process, evidence supports its factual determination regarding the absence of ground water, and in any event, appropriately provided exceptions.

Contact Information: For questions regarding this agenda item, please contact John Marshall, General Counsel, at (775) 303-4882 or [jmarshall@trpa.gov](mailto:jmarshall@trpa.gov), or Bridget Cornell, Associate Planner, at (775) 589-5234 or [bcornell@trpa.gov](mailto:bcornell@trpa.gov).

Attachments:

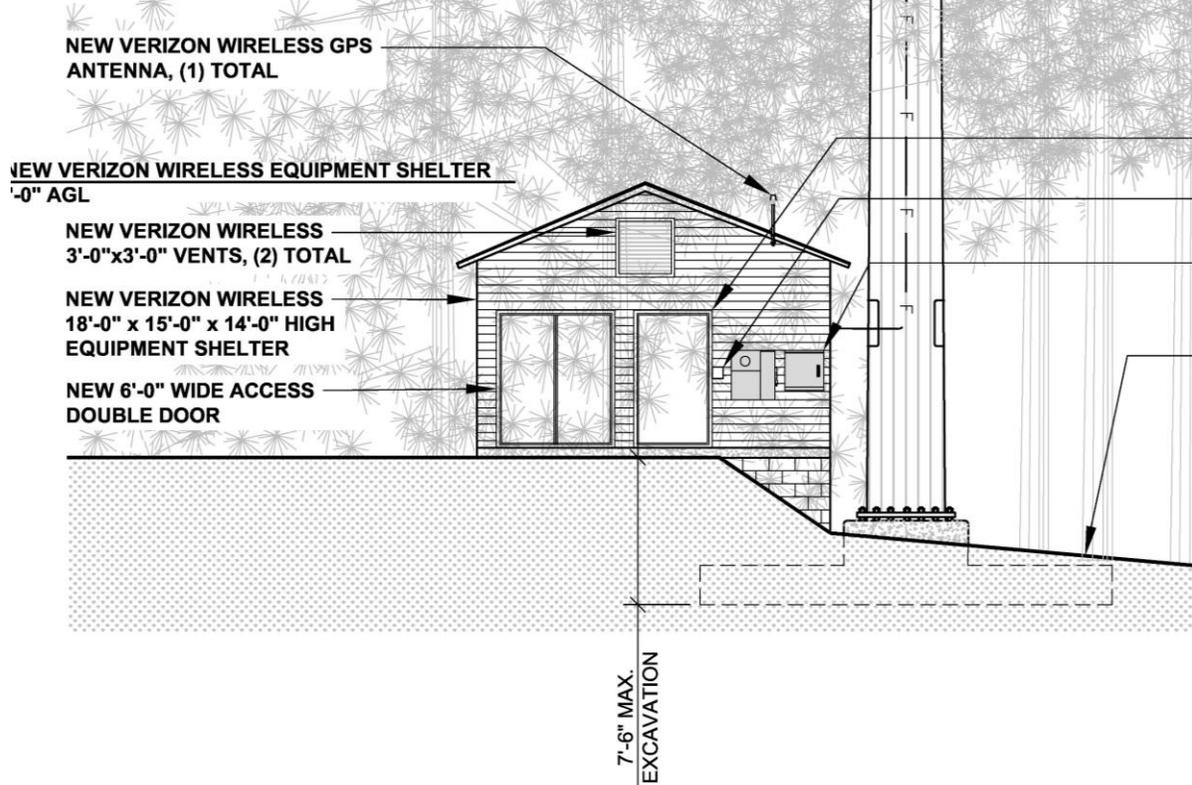
- A. Comparison of Foundation Plans
- B. Notice of Appeal and Stay Request dated August 22, 2022
- C. Revised Soil Hydrologic Approval LCAP2019-0189 dated August 5, 2022
- D. Statement of Appeal dated September 12, 2022
- E. Verizon Wireless Response Letter dated September 20, 2022 including exhibits
- F. Soil Hydrological Investigation dated September 1, 2022
- G. Soil Hydrological Investigation dated September 14, 2022

- H. TRPA Code of Ordinances Section 33.3.6.A
- I. Staff email and attachments re approved coverage dated September 14, 2022
- J. Exhibit G to Verizon's Response to Notice of Appeal (see Attachment E at Exhibit A) Letters of Support from Local Public Safety and Transportation Agencies

Attachment A

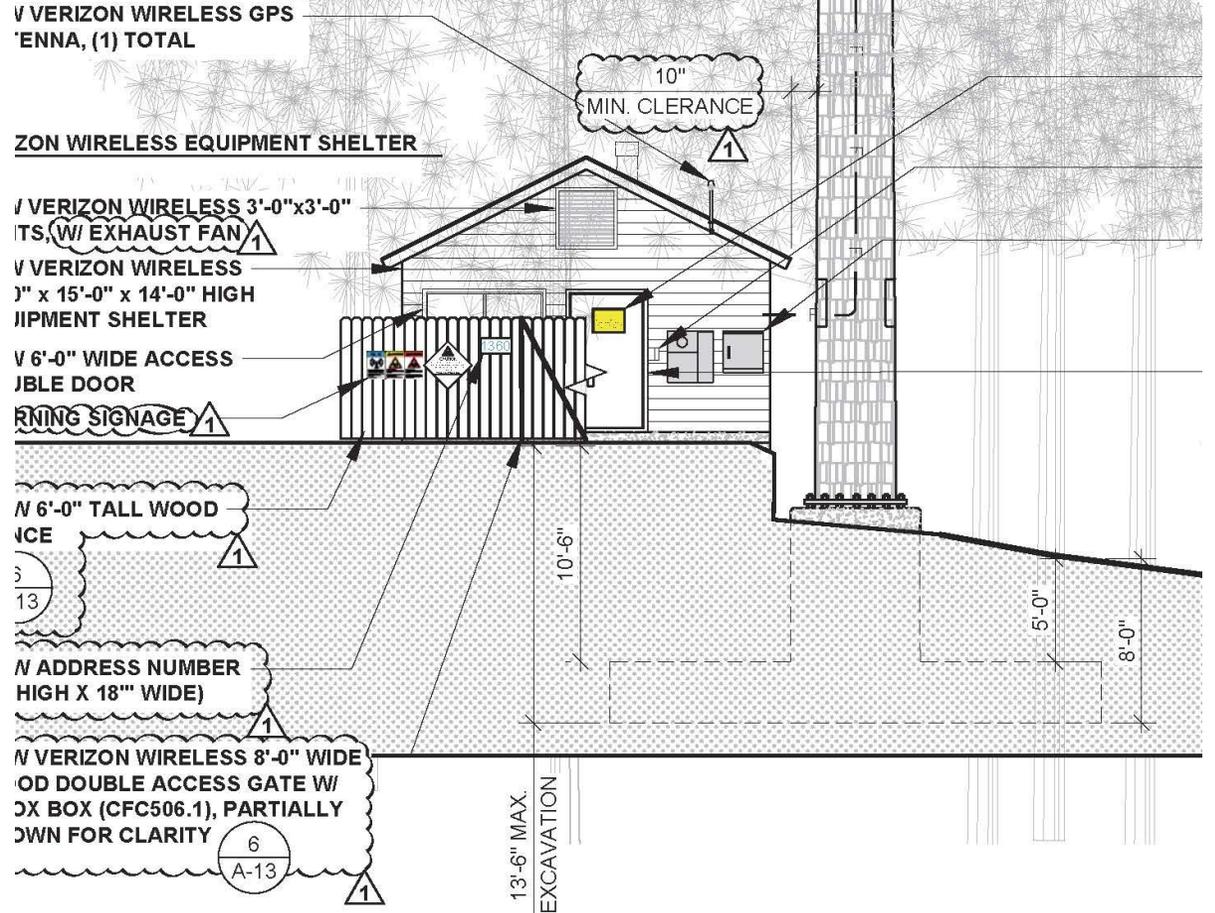
Comparison of Foundation Plans

**WEST ELEVATION**



**WEST ELEVATION**

**VERIZON WIRELESS MONOPINE BRANCHES**



**EAST ELEVATION**

Attachment B

Notice of Appeal and Stay Request dated August 22, 2022

ADDENDUM TO NOTICE OF APPEAL  
With Request for Stay

**Executive Summary:**

In spite of Verizon *doubling the depth of the massive foundation* for this tower TRPA has approved it as a “minor modification” in spite of the following:

- 1.) This is clearly a *major expansion*, not a minor modification.
- 2.) Any excavation greater than 5 feet requires mandatory investigations and reports that were not done.
- 3.) The project is immediately adjacent to an SEZ, and the foundation is virtually certain to intercept groundwater in violation of TRPA’s clear prohibitions, and its mandate to protect water quality.
- 4.) A new full application and checklist is required for this project, as a major expansion simply cannot be approved without a full review of the impacts as required.
- 5.) The project does not fit any exception to this requirement:
  - a. No building Code requires a particular depth for this structure.
  - b. On balance, the project is a threat to public health and safety. Verizon’s interest is in private profit, and not in the public interest. Even if it were a health and safety project, TRPA’s mandates would require that negative impacts on the environment be minimized.
- 6.) Once again, TRPA is willfully blind to its obligations when it comes to private telecom projects, and appears to collude with the telecoms to evade even a pretense of analyzing and addressing very real significant impacts on the environment that individually and cumulatively threaten TRPA’s ability to attain and maintain its Thresholds.

This Notice of Appeal is from the staff decision of August 5, 2022, attached to this Notice as Exhibit “A”, and is the final action by TRPA to approve a major expansion to the previously approved tower project. This appeal is jointly done by David Benedict (3585 Needle Peak Road, S Lake Tahoe CA 96150), Benjamin Lebovitz (3661 Regina Road, S Lake Tahoe CA 96150) and Alan Miller, and all have a vital interest in this project.

As will be detailed in the Appellant’s Statement of Appeal, this staff decision is in complete and total dereliction of TRPA’s duties under the Compact, its Code of Ordinances, and applicable State and Federal laws. The major expansion of the foundation authorized is a new “project” as defined, is not exempt or qualified exempt, and amounts to yet again another grant of a blank check to the for-profit telecom industry to ignore potentially serious effects on the environment and the adopted threshold carrying capacities for the Tahoe Region.

As of Friday, August 19, 2022, it appears that work has commenced. The Appellant accordingly requests a Stay as authorized by TRPA’s Rules of Procedure at Section 11.3. The sworn affidavit of Alan Miller is submitted in support of this request.

## **AFFIDAVIT UNDER PENALTY OF PERJURY**

I, Alan Miller, swear under penalty of perjury the following information to be true and accurate to the best of my current knowledge and recollection.

I am a long-time resident of the City of South Lake Tahoe, and I am a licensed California civil engineer with many years of experience in dealing with water quality issues here at Lake Tahoe. This affidavit is submitted in support of our request for a stay which accompanies our Notice of Appeal.

### **The Staff Letter Waiving Prohibitions**

During a review of TRPA documents online I discovered a staff letter from a TRPA Senior Planner dated August 5, 2022 (Exhibit “A”, attached) waiving prohibitions for excavation potentially affecting ground water for the approved Verizon 112’ monopine tower at 1360 Ski Run Blvd. As the staff letter states, requirements for prohibited excavation activities are waived “pursuant to TRPA Code of Ordinances Sections 33.3.6.A.2.a (accommodation of engineering requirements for above-ground structures) and 33.3.6.A.2.d (public health and safety).” The subject waiver was issued without making any findings of fact, just citing the categories above, with limited information provided in support of these assertions. TRPA has approved this waiver improperly, in violation of the law in a number of ways, as this Appeal will make clear.

### **The Appeal**

This Appeal is concerned with the August 5, 2022 staff letter misinterpreting and misapplying the laws and regulations governing the Tahoe Regional Planning Agency (TRPA) by the TRPA, as formalized in the Acknowledged Permit for the Project posted online on August 19, 2022 in reliance on the August 5, 2022 staff letter. On March 23, 2022 the TRPA Governing Board denied the Appeal by Eisenstecken, et al., of the TRPA Hearing Officer’s October 2021 decision to issue the TRPA Permit to Verizon for the above-cited Project. On May 6, 2022 TRPA issued its Final Permit (per the file name in online documents) to Verizon for the tower planned at 1360 Ski Run Boulevard, City of South Lake Tahoe, CA. During all the time prior to the Governing Board’s denial of the Appeal on March 23, 2022, the Project plan specifications always specified that “Grading will not exceed 5’ [5 feet] below ground” for the tower foundation, located on TRPA’s most-sensitive Class 1 lands. I became concerned with impacts to ground water when I saw the August 5, 2022 staff letter from TRPA approving revised Project plans for excavation to a depth of 13.5 feet, lacking any stated evidentiary support or fact finding for the record of approval other than citing Code sections.

As we know, the tower itself is on Class 1a land (due to steepness), with sensitive 1b Stream Environment Zone (SEZ) lands surrounding, both SEZ lands associated with Bijou Park Creek that are excessively over-covered with impervious surfaces on the Project site, and those that remain more or less natural and/or functional to the east and downslope of the Project site. The quote in the paragraph above is from the approved 2021 plans showing a small spread or mat foundation approx. three feet thick and terminating five feet below ground at the *shallowest* point, a slab on earth, approximately three feet thick, with a riser 3 feet above it. Thus, excavation beyond five feet (to 7.5 feet), which is prohibited if not in accordance with Code of Ordinances section 33.3.6., letters A. and B., was proposed, evaluated, and made a part of the Permit approval record, as documented in the Eisenstecken, et al., Appeal Statement, the denial and subsequent Final Permit.

Through the Appeal, TRPA asserted the Project was not in significant conflict with the cited Code sections, for the Project as described and approved by the Governing Board, and so concerns, comments, and findings concerning ground water impacts from the foundation by the public, including myself, were limited. In fact, an early letter in the Project record from 2019 has Verizon expressly citing that the design was such that excavation would go beyond five feet, to 7.5 feet deep due to slope, though mostly less than five feet, with the clear implication that Verizon was fully aware of the five-foot excavation limitation as a basis for design. In response to the Verizon letter, on August 27, 2019 TRPA issued an approval letter that differs from the August 5, 2022 letter (Exhibit "A") only by changing the allowed excavation depth from 7 feet 6 inches to 13.5 feet, and the date of issuance. This indicates excavation to 13.5 feet was of no more concern to TRPA than excavation to 7.5 feet, in the absence of findings other than provided in 2019.

The Initial Environmental Checklist (IEC) in the Project record states "No" concerning impacts related to: "Land. 1.d. Changes to the undisturbed soil or native geologic substructures or grading in excess of 5 feet?; Water Quality. 3.e. Discharge into surface waters, or any alteration in surface water quality, including but not limited to temperature, turbidity, or dissolved oxygen? 3.f. Alterations in the direction or flow of groundwater? 3.g. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer through cuts or excavations? and 3.j. The discharge of contaminants to the groundwater, or any alteration to groundwater quality? 3.k. Is the project located within 600 feet of a drinking water source?" (There are at least two domestic wells within 350 feet, at the residence of co-Appellant David Benedict.) Under the revised plans, all of these Checklist responses (and there may be others) would change to either "Yes" or "Data Insufficient" under the revised foundation proposal, as only improper evaluation has been done out of the public eye, and no mitigation has been proposed, improperly ignoring the certified finding of no significant effect (FONZE). Unless potential impacts are mitigated to insignificant levels an Environmental Impact Report is required.

The implication is that Verizon deliberately chose a relatively benign foundation design with regard to potential ground water impacts for the Environmental Review/Permitting/Appeal process, got to the end of that approval process, and then changed the Project description expecting TRPA would work behind the scenes to approve the significant design change before

anyone noticed and the 21-day statute of limitations for appealing the TRPA decision passed. That had worked before at 7.5 feet, so why not 13.5 feet?

This is not a minor structural change. It is a major change, and the basis for it is not explained. It is so substantial, for instance, in terms of foundation design and earthwork that it is not credible that the design change was not foreseen by the tower designers between 2019 and the March 23, 2022 Appeal Hearing/Denial, and subsequent Final Permit issuance, and the implication is that the change was planned and postponed to be approved after-the-fact by TRPA staff in the exact manner applied before, in 2019 when proposed excavation was to 7.5 five feet, knowing full well from TRPA that such a foundation to 13.5 feet potentially intruding on ground water could be challenged in a public environmental review process as required under the TRPA Compact. Leaving the 13.5 foot excavation out of the Project description thus eased the way to Permit approval.

### **The Proposed Permit Revision**

Having won the March 2022 Appeal, Verizon received its Final Permit from TRPA, based on plans dated September 29, 2021, on or about May 6, 2022. It appears that shortly after TRPA denied the Appeal in favor of Verizon, Verizon set wheels in motion for very significant changes to the tower foundation design, to support an amendment or revision or change (as it may be called) to the TRPA Permit. On or around August 2, 2022, Verizon submitted to TRPA a revised Plan sheet application to redesign the approved shallow footing to extend that same mat foundation footing 13.5 feet below grade, nearly two times deeper than the approved Final Permit. This was accepted as a “New Application” and subsequently approved as a minor modification or plan change under the prior approval with the August 5, 2022 staff letter and Acknowledged Permit posted on August 19, 2022. (See screen capture on page following.) I assert that is improper, voiding the prior project approval. A new or revised IEC was not prepared as required in the Code and TRPA Rules of Procedures, or was not available online if one was prepared, and that is where TRPA erred. Staff should have said, “This is very different with regard to reasonably potential adverse effects on ground water, as disclosed in the revised geotechnical report, and we will have to re-evaluate effects with a new or revised IEC.”

Doubling the excavation depth for the foundation makes it proportionally larger volumetrically by 2 times the original excavation of 80 cubic yards for the foundation, to be backfilled with 50 cubic yards of the disturbed excavated soil, with 30 cubic yards taken offsite for disposal. So we now have excavation estimated on the order of  $80 \times 2 = 160$  cubic yards, and  $50 \times 2 = 100$  cubic yards to be stockpiled onsite prior to backfilling, possibly using larger equipment for the deeper excavation, on the small shed foundation and small parking lot for the sled hill and adjacent area for the tower shed location, for this is where the previous plans cited in the Final Permit indicate all Project staging and construction activity must be done. How this excess decompacted, loose earth will be managed to prevent environmental impact hasn't been disclosed or demonstrated as far as I can tell, and impacts could be significant if mismanaged. The approval letter is silent on these matters involving potentially significant water quality and environmental impacts from the proposed Project changes, or any revised conditions or mitigation measures.

The foundation change was accompanied by a revised geotechnical report (RGR, dated April 19, 2022) and a revised structural engineering report (RSER, dated May 3, 2022, though the original SER from August 20, 2019 is not posted online). I don't know exactly when TRPA received these revised plans and reports but they were not a part of the Final Permit issued May 6, 2022.

**Record Status: Acknowledged**

Record Info ▾

Payments ▾

**Work Location**

1360 SKI RUN BLVD  
SOUTH LAKE TAHOE CA

**Record Details**

**Project Description:**

025-580-07  
FILE ATTACHED  
Increased excavation depth for tower design. Electronic Application 8/16/2022 TLS Original permit (#ERSP2019-0389) acknowledged. Plans stamped as Plan Revision #1.

▼ **More Details**

**Related Contacts**

**Application Information**

**GENERAL**

General Scope:	New Application
Project Type:	Public Service
Associated Fees:	027 - Linear Public Facilities Section IV.B., Section 18.3 Code
Project Description:	New Monopine telecommunication facility
Code Section 30.4.6:	No

**Parcel Information**

**The Ordinances**

The applicable ordinances with respect to excavation follow:

Ordinance 33.3.6. Excavation Limitations (emphasis added)

“The following limitations to excavation shall apply:

A. Groundwater Interception

Groundwater interception or interference is prohibited except as set forth below:

1. Excavation is prohibited that interferes with or intercepts the seasonal high water table by:
  - a. Altering the direction of groundwater flow; b. Altering the rate of flow of ground water;

c. Intercepting ground water; d. Adding or withdrawing ground water; or e. Raising or lowering the water table.

2. TRPA may approve exceptions to the prohibition of groundwater interception or interference if TRPA finds that: a. Excavation is required by the International Building Code (IBC) or local building code for minimum depth below natural ground for above ground structures; b. Retaining walls are necessary to stabilize an existing unstable cut or fill slope; c. Drainage structures are necessary to protect the structural integrity of an existing structure; d. It is necessary for the public safety and health; e. It is a necessary measure for the protection or improvement of water quality; f. It is for a water well;

#### B. Excavations

Excavations in excess of five feet in depth or where there exists a reasonable possibility of interference or interception of a water table shall be prohibited unless TRPA finds that:

1. A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of groundwater will occur as a result of the excavation;”

The first thing to note is that the staff letter cites Code section 33.3.6.A.2., is waived for “accommodation of engineering requirements for above-ground structures,” a colloquial shorthand, I suppose, for the *actual* requirement, as stated above. The staff did not provide a thoroughly reasoned analysis with a rational conclusion for the waiver, simply assertions without supporting facts or substantial evidence, so a deeper look is required.

#### **Excavation is Not a Legal Requirement**

The ICB is incorporated into the California Building Code (CBC), and will be referred to as IBC/CBC herein with regard to California Building Code 2019 (Vol 1 & 2). The claim that, “Excavation is required by the International Building Code (IBC) or local building code for minimum depth below natural ground for above ground structures” is not supported by findings in the staff letter or record, as follows. The IBC/CBC does not prescribe the manner of compliance with its requirements:

#### **“1.2.3 Alternative Materials, Design and Methods of Construction and Equipment”**

“The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.” (underlines are hyperlinks)

TRPA is not the “building official” and so would have to apply the requirements of the City of South Lake Tahoe, which has approved a Building Permit to build the tower. (At this time it is unknown to me if the City has approved the subject plan revision, or whether this is pending.) Because the code does not prevent or prohibit *any* design that complies with the code requirements to the satisfaction of the building official the proposed design is just one of many that could be applied. The RGR indicates that one or more foundation types (pilings, slab,

combo) are supported by the report findings (unchanged by 2022 revisions). Verizon originally designed a spread slab footing with excavation of generally five feet or less, to 7.5 feet maximum. Verizon then had a spread slab footing redesigned with 13.5 feet of excavation, and submitted the design change, which was accepted by TRPA after misapplying the CBC/IBC requirements and allowances cited above, assuming requirements where none exist. Any conceivable number of foundation designs no more than five feet below ground, or entirely above ground could support the tower, including a concrete monolith (perhaps with façade). Designs are only limited by imagination, materials, money and time, and this is simply Verizon's proposed illegal design, for it intrudes on ground water, or may, as disclosed in the Revised Geotechnical report (RGR) and August 5, 2022 staff letter.

The basis for the arbitrary selected design change is unknown, but it is not a requirement of the IBC/CBC unless TRPA can prove otherwise. Therefore, 33.3.6.2.A. is not a valid criterion based on the CBC/IBC. Nor does it appear that this additional deep excavation is a requirement of the local CSLT building official, per the latter part of the Code. No "local building code for minimum depth below natural ground for above ground structures" is cited in the record, and I doubt one exists that would be applicable in this case, given the frost line limits.

However, let us assume for the sake of argument that, unknown to me, there is a local building department requirement (not just allowance) for excavation to 13.5 feet that is supported because, unrelated to health and safety, TRPA finds that excavation is required by the . . . "local building code for minimum depth below natural ground for above ground structures." I assert that Code section 33.3.6.A.2. is merely permissive, providing only that the activity is not prohibited provided *all other applicable requirements of TRPA are met*. TRPA's action in this amendment approval is in effect asserting that a local building department requirement somehow supersedes all other laws and TRPA regulatory requirements. We are expected to believe that no other TRPA requirements apply. There is nothing in the law to support that interpretation.

The U.S Congress in its infinite wisdom, passed the Act establishing the Compact and the TRPA for the protection and responsible development of the Lake Tahoe region, under which the TRPA Governing Board of elected representatives and others, in their infinite wisdom, established the Code of Ordinances, and Rules of Procedure, including applicable Project application and environmental review procedures. However, the laws and regulations enacted are only as good as their application by the agency, which is flawed in this case. I will discuss the specifics of the Compact more below, but from a general viewpoint, if an activity that may affect the environment is not prohibited under the TRPA Code it may proceed under the applicable review procedures. In this case, unelected, appointed TRPA staff treats the amended Project application as if the exception to allow the Project changes under Code section 33.3.6.A.2. is a mandate of some sort for the unneeded commercial Project, and literally a "free pass" to ignore every other legal requirement imposed by the Congress on down because of a local building department

requirement. Shall the Congress be informed that their will has been thwarted due to a decision by the City of South Lake Tahoe Building Department staff, which appears to have simply approved the proposed design submitted by Verizon without question or mandate? The position that TRPA's mighty hands are tied in this case is legally untenable, for it makes a mockery of the Compact and everything that flows from it. The Project may proceed under the exception only in compliance with all laws and regulations TRPA is charged to implement and enforce, just as for any new Project.

### **The Exception to the Prohibition Against Ground Water Interception or Interference is Not Necessary for Public Safety**

TRPA's citation that the excavation affecting ground water ". . . is necessary for the public safety and health" is incorrect. Verizon is a private, for profit, corporation, a provider of convenience mobile phone and internet services, not a provider of necessary public health and safety services, or a utility such as sewer, water and electrical services, for which the Ordinances were ostensibly designed. One need do no more than look at the proposed Verizon tower design to see that it was designed as a non-essential facility with regard to public health and safety: it is designed as a Class II facility under the cited design standard. In addition to the IBC/CBC requirements, the RSR cites: "Structural design is based on the California Building Code, 2019 Edition (2018 IBC) and the TIA-222-H standard." (Note the latter is not a code, but an industry-derived design "standard" of practice with no force of law, developed by the tower industry and the American Society of Civil Engineers (of which I am a member)). The standard places towers into Classes according to public safety and reliability considerations.

Of relevance here are structure Classes II and III. Both Classes II and III qualify as a "significant hazard to human life and/or property" if a tower fails. Significant with respect to human life means a structure failure could result in injury or casualties, but very limited in Class II, i.e., due to exposure or remoteness, whereas in Class III a tower failure could also potentially impact other services, such as power, water, transportation, firefighting, ambulance, etc., that are considered essential to human life. Additionally, structure Class III can be justified solely on the basis that a high risk to life or safety or property damage is threatened in the event of a failure of the structure. I have included as Exhibit "B" (attached) the industry white paper "Classification of Tower Structures per ANSI/TIA-222-G, IBC and ASCE 7" (National Association of Tower Engineers, 2017) which explains further (emphasis added):

#### **Structure Class II:**

Structures that due to height, use or location, represent a significant hazard to human life and/or damage to property in the event of failure and/or used for services that may be provided by other means.

ANSI/TIA-222-G, Addendum 2 Annex A Section A.2.2 further defines Class II structures based on reliability criteria: Structures used for services that may be provided by other means such as: commercial wireless communications; television and radio broadcasting; cellular, PCS, CATV, and microwave communications.

*Commentary: Failure of a structure defined as Structure Class II presents significant hazard to human life and/or property if a tower fails. Significant with respect to human life means failure of the structure could result in injury or casualties, but it's very limited in practicality or exposure to more than a few individuals (e.g. Significant with respect to property means property surrounding the tower could be damaged or destroyed. With respect to reliability, the phrase "Used for services that may be provided by other means" signifies redundancy exists within the network to support temporary loss of service due to a specific site. This redundancy is present in almost all public wireless service, including E911 networks.*

**Structure Class III:** Structures that due to height, use or location represent a substantial hazard to human life and/or damage to property in the event of failure and/or used primarily for essential communications.

ANSI/TIA-222-G, Addendum 2 Annex A Section A.2.2 further defines Class III structures based on reliability criteria: Structures used primarily for essential communications such as civil or national defense, emergency, rescue, or disaster operations, military and navigation facilities.

*Commentary: With respect to reliability, Class III structures represent towers for which the owner/provider cannot tolerate any loss of the network/signal, due to either types of services provided or zero redundancy existing in the network. Beyond zero redundancy, failure could also potentially impact other services, such as power, water, transportation, etc. that are considered essential to human life. Finally, Structure Class III can be quantified when a high risk to life/safety exists in the event of a failure of the structure. The risk is exemplified when the public venue is not mobile (e.g. hospital, school, large public emergency gathering facility).*

Based on the Class II standard, the facility is not "necessary for public health and safety." It is redundant for essential safety services and it would be improper and specious for TRPA to assert otherwise and impose its own "necessity" standard with regard to public health and safety, for it is not a health and safety agency and has no particular expertise in that area. It is a planning agency that should rely on the determinations of others in matters of public safety and health, professionals such as the standards developers, professionals who are so charged to protect the public, and with particular engineering and other expertise. To the contrary, this exercise of independent judgment by TRPA concerning public health and safety is arbitrary and capricious, for the purpose of a blatantly illegal permit give-away to this particular private telecom Verizon, ignoring all Compact and TRPA Code requirements. The tower is not necessary for public health and safety.

Rather, the proposed tower is a new danger in the community. For the record, the tower is designed (and approved) as a Class II facility when it also meets criteria for a Class III tower, which carries a higher engineering safety standard. This is a disappointment in my view, for the tower itself represents a substantial danger to the public, relative to no tower. Class II is a lesser (cheaper) engineering design standard that seems more appropriate out in a forest somewhere, with no one around, though even a falling tower in that setting, as here, is an extreme fire danger.

At 1360 Ski Run Blvd., the falling tower may impact other structures, and/or injure or kill people, and/or affect transportation or vital services, as the tower is sited adjacent Needle Peak Road above Hansen's Resort, a commercial sled hill for children and their adults, a resort/residence there, and with the at-times heavily trafficked Ski Run Boulevard adjacent, right at the edge and downhill of the tower fall zone, which provides vital ingress and egress for the Heavenly Valley Ski Area California Base Lodge (used as a critical multi-agency fire incident command center/support center during the 2021 Caldor Fire, as well as a heavy tourist route). The threat of wildfire if the tower were to fall during high winds does not seem to be considered at all with regard to engineering safety factors, like it could never happen. The design Class II was not chosen and applied with the public safety uppermost in mind, only on the basis that it is redundant with regard to telecommunications.

Further, the manner in which the building official critically examined the RSER appears questionable. (And where is the SER original for comparison? Not found online.) I find that RSER to be rather frightening in certain regards. However wise or self-serving the TIA-222-H criteria may be, even that does not appear to be followed for this tower. The default Class II designation appears to me accepted by the building official without due concern for public health and safety.

Notably, in my view, the design does not account for any ice loading, stating on p 2: "Ice: None per the TIA-222-H standard." As ridiculous as that sounds to me as a professional civil engineer with understanding of structures and weather forces in our Lake Tahoe environment, where ice loading (combined with wind) can be quite substantial, that is apparently what is proposed by Verizon and approved by our local building official based on the following.

The Standard is not a Code and it's also necessary to check whether the structure is to be built in a county where "special conditions" apply to wind or ice loading, or if the building official requires a higher wind speed or ice thickness than provided for in the Standard. It appears in this case wind loads without ice required for El Dorado County were applied, and ice loading was not applied, though "special ice regions" are specified in the Standard (<https://wirelessestimator.com/content/standards>). Even so, no ice loading/thickness criteria are specified in the Standard, only winds to 30 miles per hour are specified (120 mph was used for the design). So the ice thickness/load is left to the designer, Vector Structural Engineering of Arizona, Limited Liability Partnership, and its registered California Structural Engineer of record, who chose zero (at its discretion), and the building official who approved that, despite standards calling for ground snow loads of 150 pounds per square foot (<https://www.cityofslt.us/123/Building-Design-Criteria>). Clearly, western El Dorado County generally has no ice, whereas eastern El Dorado County (Tahoe) has a lot of ice (and snow), and the basis for the specified design is unclear. I defer to the structural engineers and City of South Lake Tahoe building official if all these things were considered and documented, but it does not appear so. An iced-up monopine tower weighs much more than one without ice, with tremendous overturning forces at the base and unbalanced loads against wind forces. Is it any wonder the telecom industry is replete with tower collapses? Will this tower, if built, be just one icy windstorm away from collapse? At what cost to human life and property?

In summary here, the tower is not necessary for public health and safety. Public safety was not given due regard for this tower, per my above comments, and the approvals evince a lack of concern by public officials for our community at TRPA and the City of South Lake Tahoe, also complicit in this illegal change, nullifying their own California Environmental Quality Act (CEQA) documentation and finding of CEQA exemption, just as TRPA has under the Compact. This tower fits the Class II well so far as being unnecessary and redundant with other available telecommunications structures and area services, including emergency services, and that designation is allowable; the tower is clearly **not needed** for public health and safety. It is my ongoing contention this tower is a danger to the public in all respects, just one of many such towers approved by TRPA. **It will be a clear detriment to the public health and safety if it is built, including its 10,000 lbs of toxic PVC plastics, which degrade to microplastics and become toxic litter and water pollution on and off the leased area/project site due to wind and snowstorms; its electromagnetic microwave radiation poisoning of all biological organisms including people, animals and vegetation (pine trees, aspen trees, frogs); it's grave fire threat to the community and Lake Tahoe region; all impacts unrecognized and ignored by TRPA in service to its client Verizon, blind to the laws and science, and deaf to the public outcry.**

### **The Waiver and the Geotechnical Report**

Having asserted, to its satisfaction alone, that one or more criteria in section 33. 3.6.A.2. were met, and bypassing section A.1 entirely, which describes potential effects on ground water (part 1, letters a. – e), TRPA approved the waiver, stating “ground water is not expected to be encountered.” The basis is unclear, since this contrary to the RGR reportedly reviewed prior to approval, and is improper for the reasons discussed previously. The approval letter concludes by stating: “Please note that it is possible that variations in the soil or ground water conditions could exist that are different than what has been investigated or reported. If conditions are found to be wetter than expected, contact TRPA immediately to discuss options for dewatering.” This caveat should say, “If ground water is encountered during excavation please cease all excavation activity and contact this office, because interference with the ground water is prohibited.” That would be proper under the Code, at a minimum.

While part A. applies to any excavation affecting ground water, part B. applies to excavations deeper than five feet: “where there exists a reasonable possibility of interference or interception of a water table [excavation] shall be prohibited unless TRPA finds that: 1. A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of ground water will occur as a result of the excavation;” This provision applies to both temporary and permanent interference with the ground water, so even if ground water isn't encountered during construction, that is no basis to conclude, based on the RGR, that “no interference or interception of ground water will occur as a result of excavation.” TRPA is exercising its independent judgment here in ignoring ground water effects, either misinterpreting the RGR or not giving it due regard.

The RGR is a soils/hydrologic report by a qualified professional as described in the Code. In my over 25 years of work at Lake Tahoe as a water resource control engineer (in various capacities)

and long-time senior supervisor of the North Lahontan Basin Regulatory Unit of the California Regional Water Quality Control Board, Lahontan Region, I reviewed literally hundreds, if not thousands, of such geotechnical reports, drilling reports, ground water investigations, wetland and SEZ delineations, soil reports, etc., so I am well within my area of expertise. It is unlikely the proposed content and methodology were reviewed and approved in advance by TRPA, as required (for the proposal to excavate to 13.5 feet) as there was no proposal for excavation below 7.5 feet before 2022 triggering the above cited requirement, as discussed on page 1, above. To investigate soils for evidence of ground water for excavation to such depths (13.5 feet), usually a test pit is dug with a backhoe to evaluate soil layers in a more-or-less undisturbed state. Soil investigations for evidence of the presence or absence of ground water called for by TRPA in 2019 (when the proposal specified no more than 7.5 feet of excavation) were unchanged in 2022 when the plan change was proposed to excavate to 13.5 feet. However, the 2022 revisions to the 2019 GR, mainly related to seismic provisions, did not affect the RGR sections concerning potential ground water occurrence, the borehole investigation, soil types and related subjects covered in the RGR, so that information must inform the decision of whether to approve the excavation.

The methodology applied was a single borehole, eight inches in diameter, from which samples were extracted using a split-spoon sampler, two inches in diameter, at intervals, and two bulk samples from near the ground surface. It is unsurprising that ground water was not encountered in the boring to drill penetration refusal at 19 feet, due to encountering rocks or bedrock, in mid-summer, July 2019 (when the drilling work was done) in these thin, porous soils above bedrock. You can't really tell a lot from a single borehole about subsurface ground water hydrology and flow regimes, soil mottling by water, other hydric soil indicators, etc., and more information should have been required for the new proposal, but the RGR contains enough information to make an informed conclusion that there is a "reasonable possibility of interference or interception of a water table."

First, the RGR notes the soil layer, 10 feet thick, above refusal (bedrock) is "Bryan Meadow Grandiorite," a granitic meadow soil, and this is consistent with the soil map unit shown in Appendix A extending southward and outward to encompass the Heavenly ski area and more. "Meadow" soils by definition generally develop under, and exhibit characteristics from, contact with water. I have knowledge and experience with the areas surrounding the Heavenly Valley Ski Area California Base, and the Bijou Park Creek that literally "springs" forth below their parking lot and municipal street access (covered SEZs). That area and below the Heavenly CA Base, with these mapped Bryan Meadow Grandiorite soils, is prone to exhibit surfacing springs when underground fissures in the sloped bedrock beneath the shallow soil layer and soil interstices fill and discharge ground water to the land surface during and following wet periods and high water years.

On pages 1 and 2 of the RGR the advice is to plan on encountering granite bedrock 19 feet below ground surface (bgs) if foundation drilling will be employed, and stipulates: "Ground water was not encountered during the field investigation. However, Ground water levels will fluctuate with seasonal climatic variations and changes in the land use." Since the excavation will come within 5.5 feet of the bedrock, the above means any ground water above that level that may occur seasonally will encounter the foundation or excavation and will be intercepted and interfered

with. With regard to “seasonal climatic variations,” I believe this comment refers to changes in the wetter and dryer cycles and seasons, and changes in land use such as proposed with the tower. The foundation will displace the soil from the ground water table during periods of seasonal ground water flow. Any ground water flowing more than 5.5 above bedrock will have to flow through the excavation (when in progress) or around the foundation (when completed).

In section “4.0 Site Conditions” the report cites, “There are no water features present in the vicinity of the Project site.” That may be true for the *drilling* site, but indicates that the qualified professional(s) responsible for the RGR missed Bijou Park Creek entirely, which is an ephemeral SEZ easily visible on maps. It is also easily visible from the drilling site and Project site, to the east across Ski Run Blvd., where it crosses underground westerly to the Project site, resurfaces and passes directly below the Project site. Missing such an important drainage feature, which TRPA is or should be well-aware of, has major implications for the final “Limitations” section of the report for it indicates the investigators did not fully understand the site surface and subsurface hydrology and how the surrounding topography relates to nearby ground water flows. Therefore, they felt a need for all their disclaimers. For example, the Project site surface drainage is not dissipated by overland sheet flow, at least not very far, but actually by sheet flow directly to Bijou Park Creek, so that was misstated in the RGR, also.

Text on p. 8 discusses drainage for “walls” (e.g., a flat surface perpendicular to the ground such as a foundation face) indicating a variety of subsurface drainage elimination systems may be needed to reroute and and/or eliminate ground water “near the bottom of the wall” to prevent ground water surcharges and earth pressures on the foundation due to water accumulation in the subsurface from flow blockage. The RGR is warning that there will be ground water interception to consider, and that it must be planned for, including (preferably) replacing soil with gravel 12-24 inches thick around the “wall.” Such replacement would increase the amount of excavation and soil replacement from my above estimates, and further alter ground water flow patterns, which is the intent.

On page 9 of the RGR there is a discussion of temporary drainage measures, notably, “If standing water does accumulate, it should be removed by pumping as soon as possible.” This is a clear reference to standing ground water at the bottom of the excavation, which could become contaminated with concrete wastes, for example. On page 10, section 8.6 discusses “Ground Water,” noting again that, “Subsurface drains may be needed to intercept seasonal ground water seepage.” Code section 33.3.6.A.1. says “Excavation is prohibited that interferes with or intercepts the seasonal high water table by: a. Altering the direction of groundwater flow; b. Altering the rate of flow of ground water; c. Intercepting ground water; d. Adding or withdrawing ground water; or e. Raising or lowering the water table.” All of these changes are threatened by the enlarged foundation and the proposed drainage measures. What would become of this drainage, how it would be managed and disposed of, is not disclosed.

The RGR goes on (p. 9), “Ground water seepage may occur several years after construction of the project if the rainfall rate or drainage changes in the vicinity of the project site.” And again it calls out the potential need for French drains (subsurface drains for ground water). P. 10 cites and concludes with a number of “Limitations” based on the very limited scope of the investigation (a single bore hole), uncertainties in site conditions, and other things not

uncommon in such reports. Clearly, the RGR is concerned with seasonal and other subsurface ground water tables and flows, and the recommendations with regard to these remained unchanged from the original report, when excavation no greater than 7.5 feet was proposed..

TRPA did not refute the information provided in the RGR, instead supporting it with its dewatering contact requirement. Despite all of this information and more, all the changes to ground water threatened by intrusions and alterations, and with an RGR that adequately demonstrates that interference or interception of ground water will potentially or very likely occur as a result of the excavation, TRPA nonetheless approved the waiver with the staff letter. Clearly TRPA saw in the RGR the potential for ground water interference in requiring notification if ground water was encountered and/or dewatering was to be proposed or undertaken. The exception was granted even though the legal criterion was not met, presumably thinking, in error, that an exception under Code 33.3.6.A.2 somehow supersedes and nullifies all other requirements. It does not. I earlier opined that those findings do not withstand legal scrutiny; if I am proven wrong, I still insist that Code 33.3.6.B. and its requirements can't simply be ignored on that basis, as I discuss below.

### **Impacts Due to Excavation Are Unmitigated, and Can't Be Fully Mitigated**

I suspect the extra depth for the foundation may have been proposed because the RSER discloses, perhaps for the first time, that well over 10,000 pounds of PVC plastics will be deployed on the structure, 112 feet tall, with its significant weight and wind resistance, bringing the total weight to around 15,000 pounds, unloaded by ice. I noted the doubling of excavation amounts earlier, and add that extending the foundation to 13.5 feet provides a deeper "wall" section profile to interfere with ground water flows occurring through the meadow soils above the bedrock, and displaces soils closer to the bedrock surface that provide filtration for ground water. Thus, some soil filtering capacity for ground water will be sacrificed. It also places the foundation fully in the soil layer above bedrock (starting roughly nine feet below the ground surface at the borehole) cited as "Bryan Meadow Grandiorite", whereas before the foundation was above that soil layer. The deeper foundation will replace this soil volumetrically with impermeable concrete estimated at 48 cubic yards or more. It must be noted that the foundation is a buried impervious surface that appears to escape TRPA "coverage" analysis, though it will impede the downward flow of precipitation through soil pores above the foundation, which I estimate is around 432 square feet or more in plan-view area. Precipitation and snowmelt, including that captured by the tower above, will become interstitial flow through the soil pores above the foundation, but will have to flow over and/or around the foundation edges to enter ground water at or below the foundation, all impacting and interfering with ground water flows on the Project site.

Let me address the Project site conditions from my perspective. The Project site is a parcel containing only Class 1 lands, the most sensitive land class or capability TRPA has, including steep lands (1A) and SEZ (1B), and the parcel is substantially in excess of allowable coverage, mitigated (offsite) by a \$5000 payment to TRPA for excess coverage mitigation. That payment mitigates the historical coverage impacts. It does not mitigate or ameliorate the degraded site drainage conditions or mitigate any potentially significant impacts associated with the de facto Permit amendment granted by the TRPA for prohibited excavation activities. As noted in the

RGR, bedrock is 19 feet below ground near the tower location, which is on a 1A slope above the SEZ lands, and underlain by soils permeable to water flow over bedrock. The area to the south of the tower is Needle Peak Drive, a municipal street covering the steep adjacent lands and carrying drainage to Bijou Park Creek below the Project site. Given the shallow soil layer underlain by bedrock, there is literally nowhere for precipitation on the Project site to go but overland to Bijou Park Creek, or through the soil to Bijou Park Creek. Bijou Park Creek is literally the surface expression of its dominant hydromorphologic feature, the inflow of ground water from the upslope surroundings, its hydrology near the land surface, which is what sustains it.

Subsurface drainage generally follows the slope of the land. The land surface at the tower site is located about 75 feet directly upslope of the SEZ boundary shown on the plans with the Final Permit, at an elevation of 6374 feet relative to the SEZ boundary at 6362 feet, the difference in these elevations being 12 feet. Therefore, excavation to 13.5 feet will actually be to 1.5 feet *below* the elevation of the SEZ boundary, at 6360.5 feet. The occurrence of ground water at the SEZ boundary was not investigated or required to be investigated by TRPA, though ground water may flow just below the land surface at or below the SEZ boundary, that is to say above 6260.5 feet, especially during and following periods of heavy precipitation or snowmelt, when ground water levels can easily rise on the order of feet in such areas. Also, the slope of the underlying bedrock can't be known from a single borehole investigation. The elevation to Bijou Park Creek below the Project site is not disclosed in the Project Permit documentation, but is below 6262 feet. Therefore, the fate of all the precipitation that occurs on the Project site, averaging around 54 inches of water annually or thereabouts, is to flow overland to Bijou Park Creek (through the over-covered parcel) or by ground water flow through the soils on the Project site to Bijou Park Creek.

Because the onsite SEZ and steep lands have been degraded, interfered with, and altered by existing foundations, structures and other impervious surfaces for parking, land grading for sledding, etc., which impacts surface and subsurface drainage and has not been fully mitigated onsite, any additional impacts that would alter or interfere with ground water flows must be considered potentially very significant in light of the ongoing water quality challenges in Lake Tahoe. Remember, also, that the Bijou Park Creek SEZ receives excess runoff from the impervious surfaces on the Project site because of difficulties with infiltrating runoff in areas with high water tables (SEZ), and that saturated SEZ soils also provide limited or impaired runoff filtering using typical infiltration "Best Management Practices," again making any adverse changes to the Project site and ground water flow regime potentially significant.

### **Administrative Procedures Have Been Violated; Stay Request**

This Appeal includes a request for an immediate stay calling a halt to any ground disturbance in excess of five feet below the existing natural grade in light of the information and concerns in the prior sections, until this decision is formally reviewed. Nothing is more fundamental to TRPA's mission than water quality in my view, it is the reason for its formation: to protect and restore the heavily impacted and degraded environment drastically affecting Lake Tahoe water clarity and quality. Among the most heavily impacted resources are the SEZs, as recognized widely, due to historic impacts such as those at the Hansen's Resort tower site. That is why the TRPA put in place strong ordinances to protect these critical resources and the ground water that sustains them

and allows them to perform their functions, however impacted or degraded they may be. I have knowledge of TRPA rigorously applying the subject prohibition requirements against public and private persons in many settings, denying permits by the hundreds, if not thousands, for the least intrusion by excavation into ground water in furtherance of its mission. However, it seems to have abandoned doing so in this case for its telecom partner, Verizon, to which only the loosest legal interpretation applies, flawed as it is. TRPA is totally inconsistent here and giving Verizon favored treatment under the law, by essentially ignoring the law as it applies to them. This not just a little deck pier, or a minor intrusion into ground water by excavation, which TRPA has often denied exceptions for. This is a major intrusion into ground water with a foundation of 48 cubic yards or more, and it is outrageous that it has been approved such as it is.

I am asked, “if possible, to provide written evidence of the hardship caused by a stay.” With the foregoing considerations in mind, I would like to speak of the hardships to water quality imposed on the Bijou Pack Creek and on-site SEZ already, the difficulties in meeting environmental thresholds for SEZs basinwide, the irreversible impacts to water quality that will occur if construction is allowed to proceed as proposed. The additional harm to water quality from disturbing the soils and ground water flows and patterns above the SEZ from the revised deep foundation is significant and can’t be fully mitigated if allowed to proceed as authorized by the staff letter. The harm to water quality will be done, and the impacts will last. If allowed to proceed without a stay, it will not be possible to fully undo the damage, even if tower removal and site restoration is later required. The staff approval completely nullifies the TRPA environmental documentation and finding of no significant effect for the Project as approved by the Governing Board.

I am also personally distressed by the potential effects from this Project on Lake Tahoe, where I swim, it’s surrounding environment, where I live, and aggrieved by the lack of opportunity for public comment on this proposed activity and staff-level approval significantly affecting water quality on this Project of substantial known public controversy, whose approval by TRPA is currently being litigated in Federal District Court in Sacramento. I did not work for 25 years holding the line on water quality at Lake Tahoe as best I could to willingly or idly endure this malfeasance. No opportunity for public comment was announced, and the only opportunity to formally comment is by filing this Appeal. It was difficult to locate information online (which would sometimes disappear under various disclaimers) to evaluate, however scanty, or TRPA findings (as above), comment or raise objections concerning substantially increased excavation that may affect the ground water adversely, evaluate impacts from excavation dewatering and/or waste discharges, or assess potential adverse affects on the surrounding SEZ, prior to the action taken by TRPA. No public notice of availability of the Project plans or Permit changes was provided; I found the August 5, 2022 staff letter waiver approval by chance online among other historic Project documents.

In balancing public interest, equities and environmental protection, one of the things I’ve noticed to be guarded against by regulatory and planning agencies such as TRPA has been the tendency to treat “orthodoxy” as evidence. It seems to be popular mythology that cellular and digital services are presumed to be in the public interest, and therefore worth sacrificing ground water quality to some extent on this over-covered parcel with its overdeveloped SEZs, without regard to cumulative impacts or the laws. But in a courtroom, before the TRPA Board, or now with the

Chairman of the Board, I assert the need to actually “balance the equities” using real evidence, and not simply default to orthodox beliefs based upon faulty assumptions. The Compact demands that a process be followed. There is zero evidence that we have seen on “public health and safety,” only a presumption. Verizon’s hardship rests on profits, which are not my concerns, and should hardly be TRPA’s. Can one really think Verizon would be motivated to place this tower at great expense for health and safety, when the chosen design standard doesn’t support that claim? TRPA regularly puts applicants through regulatory hell for simple commercial projects but telecoms such as Verizon, in this case, get a pass.

We have the TRPA staff not only approving the excavation, allegedly in violation of law, but requiring notification to staff from the Project proponent if ground water is encountered or dewatering is needed. And all this was done outside the public forum, as will be discussed below. As a result I have been impelled to act under short timelines to interrupt the proposed illegal activity, in the absence of certain Project information, and pay exorbitant fees to appeal the illegal action carried out from the recesses of the agency, when I should have been provided full opportunity to comment at no cost in the public forum on a new or revised IEC, as required under the TRPA Rules of Procedure for a new application. That is unjust and improper under the law, an abuse of authority and discretion, and unequal treatment of applicants under the law. My due process rights under law were violated and I was charged for the privilege. I should be given a refund.

### **Review Standards: What the TRPA Compact and Code of Ordinances Require**

The changes to the approved Project threaten very significant water quality impacts due to excavation intruding on ground water, against Code Limitations, and without going through formal review procedures. Here are some relevant review standards from the compact:

#### **ARTICLE VII. – ENVIRONMENTAL IMPACT STATEMENTS**

(a) The Tahoe Regional Planning Agency when acting upon matters that have a significant effect on the environment shall:

(1) Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man’s environment;

(2) Prepare and consider a detailed environmental impact statement before deciding to approve or carry out any project. The detailed environmental impact statement shall include the following:

(A) The significant environmental impacts of the proposed project;

(B) Any significant adverse environmental effects which cannot be avoided should the project be implemented;

(C) Alternatives to the proposed project;

(D) Mitigation measures which must be implemented to assure meeting standards of the region;

(E) The relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity;

F) Any significant irreversible and irretrievable commitments of resources which would be involved in the proposed project should it be implemented; and

(G) The growth-inducing impact of the proposed project;

(3) Study, develop and describe appropriate alternatives to recommended courses of

action for any project which involves unresolved conflicts concerning alternative uses of available resources;

(4) Make available to States, counties, municipalities, institutions and individuals, advice and information useful in restoring, maintaining and enhancing the quality of the region's environment; and

(5) Initiate and utilize ecological information in the planning and development of resource-oriented projects.

In the case of the tower at 1360 Ski Run Boulevard, the Project Permit was approved under a Finding of No Significant Effect (FONSE), an exemption from preparation of an environmental impact statement (EIS). However, the revised foundation plan, with excavation intruding against prohibitions and limitations into ground water, was not included in the Project description. Changing the Project description, in this case, nullifies certain findings in the FONSE such that the FONSE no longer applies to the Project due to potentially significant impacts. I have no issue not already before the Court if Verizon wishes to construct the foundation as proposed in 2021 plans approved before August 2022. If, however, the Final Permit is to be amended it must be pursuant to applicable review procedures, not with a wink and a nod from staff in a letter after the ink is barely dry on the Final Permit.

ARTICLE VI(b) "No project other than those to be reviewed and approved under the special provisions (d), (e), (f), and (g) may be developed in the region without obtaining the review and approval of the agency and no project may be approved unless it is found to comply with the regional plan and with the ordinances, rules and regulations enacted pursuant to a subdivision (a) to effectuate that plan. The agency may approve a project in the region only after making the written findings required by this subdivision or subdivision (g) of Article V. Such findings shall be based on substantial evidence in the record."

The Project as revised does not comply with the TRPA ordinances, rules, and regulations, incorporating my comments above. It can't be considered a mere add-on to the approved Project, but constitutes a revision requiring an entirely new IEC or Environmental Assessment (EA), conducted in the public forum.

ARTICLE VI(j)(5) "In any legal action filed pursuant to this subdivision which challenges an adjudicatory act or decision of the agency to approve or disapprove a project, the scope of judicial inquiry shall extend only to whether there was prejudicial abuse of discretion. Prejudicial abuse of discretion is established if the agency has not proceeded in a manner required by law or if the act or decision of the agency was not supported by substantial evidence in light of the whole record. In making such a determination the court shall not exercise its independent judgment on evidence but shall only determine whether the act or decision was supported by substantial evidence in light of the whole record. In any legal action filed pursuant to the subdivision which challenges a legislative act or decision of the agency (such as the adoption of the regional plan and the enactment of implementing ordinances), the scope of the judicial inquiry shall extend only to the questions of whether the act or decision has been arbitrary, capricious or lacking substantial evidentiary support or whether the agency has failed to proceed in a manner required by law."

The waiver in the staff letter is not supported by substantial evidence in the record. The opposite is true; the RGR supports my contentions that ground water will be interfered with against the prohibition, and the staff letter provides no credible contrary evidence, in fact, anticipating interference with ground water. The TRPA has failed to proceed in the manner required by law,

arbitrarily and capriciously approving the amendment without following the Compact and Code of Ordinances requirements for environmental and public review.

ARTICLE VII(d)

In addition to the written findings specified by agency ordinance to implement the regional plan, the agency shall make either of the following written findings before approving a project for which an environmental impact statement was prepared:

- (1) Changes or alterations have been required in or incorporated into such project which avoid or reduce the significant adverse environmental effects to a less significant level; or
- (2) Specific considerations, such as economic, social or technical, make infeasible the mitigation measures or project alternatives discussed in the environmental impact statement on the project.

A separate written finding shall be made for each significant effect identified in the environmental impact statement on the project. All written findings must be supported by substantial evidence in the record."

Since the TRPA can't make the written findings cited above before approving the Project change, either the application by Verizon must be withdrawn (the Project may proceed as approved on or about May 6, 2022), or approval of the amendment for the foundation change must be revoked and an EIS must be prepared. An EIS is required for the proposed Project change, as it stands.

The Proposed Activity is Not Exempt from Environmental Review

ARTICLE VII(f) "The agency shall adopt by ordinance a list of classes of projects which the agency has determined will not have a significant effect on the environmental and therefore will be exempt from the requirement for the preparation of an environmental impact statement under this article. Prior to adopting the list, the agency shall make a written finding supported by substantial evidence in the record that each class of projects will not have a significant effect on the environment."

The exemptions pursuant to Article VII(f) are specified in Code section 2.3, and upon review do not include excavation such as proposed with the revised foundation plan. Therefore the Project Permit amendment is fully subject to the review procedures specified in Code section 2.2. for: "Activities that may have a substantial effect on the land, air, water, space, or any other natural resources in the Tahoe region." These requirements were completely overlooked by TRPA in issuing the approval in the staff letter, and must be followed. Since the Project is substantially modified by the proposed Plan change, an entirely new environmental review is required to be carried out, examining all the potentially significant effects from the proposed Project, and can't rest on the prior FONZE, though it may help inform a new IEC or EA document.

Subscribed to and sworn this 21<sup>st</sup> day of August, 2022, at South Lake Tahoe, California.



Alan Miller

Exhibit "A": August 5, 2022 TRPA Staff Letter, "Revised: Soil Hydrologic Approval Waiver"  
Exhibit "B": "Classification of Tower Structures per ANSI/TIA-222-G, IBC and ASCE 7"  
(National Association of Tower Engineers, 2017)



August 5, 2022

Michelle Duarte  
333 University Ave., Suite 200  
Sacramento, CA 95825  
[Michelle.Fernandes@sacw.com](mailto:Michelle.Fernandes@sacw.com)

**REVISED: SOIL HYDROLOGIC APPROVAL - WAIVER  
1360 SKI RUN BOULEVARD, CITY OF SOUTH LAKE TAHOE, CALIFORNIA  
APN 025-580-07, TRPA FILE NUMBER LCAP2019-0189**

Dear Ms. Duarte:

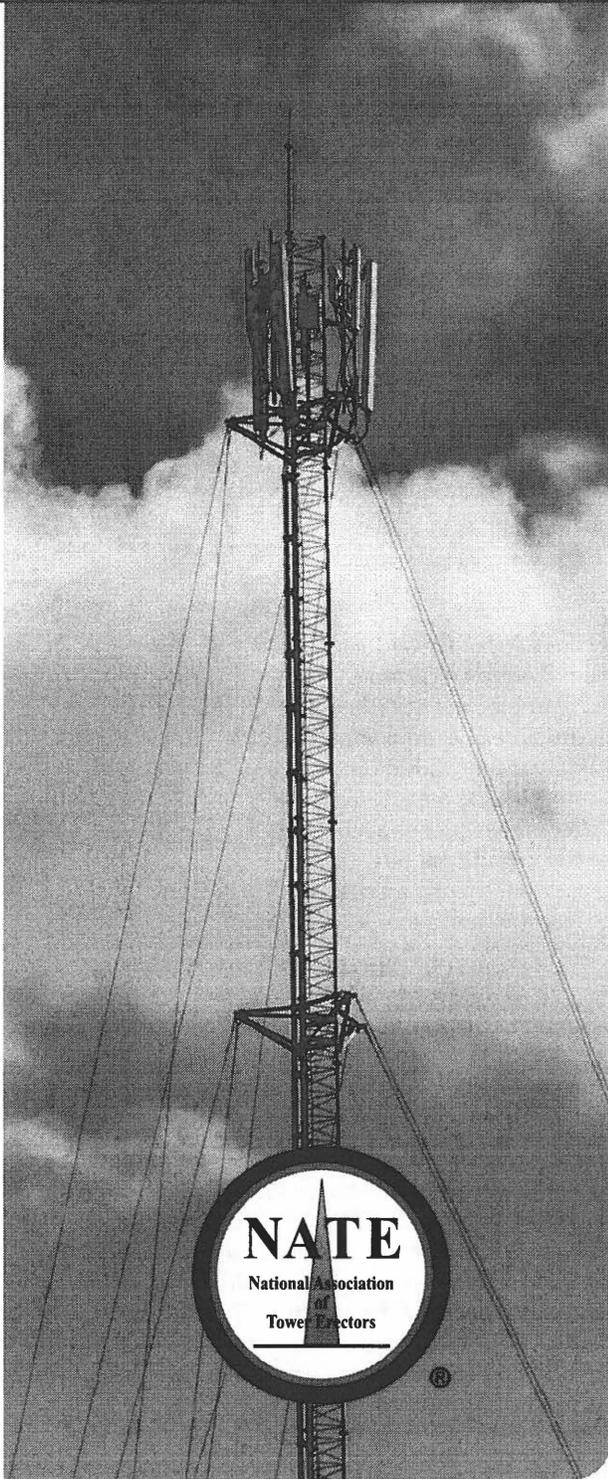
The Tahoe Regional Planning Agency (TRPA) staff has reviewed the Soils/Hydrologic Scoping Report Application submitted in association with a monopine cell tower and equipment shelter. The proposed excavation is **13.5 feet below ground surface**. It is not expected that groundwater will be encountered in this location and the excavation is allowed pursuant to TRPA Code of Ordinances Sections 33.3.6.A.2.a (accommodation of engineering requirements for above-ground structures) and 33.3.6.A.2.d (public health and safety).

Please note that it is possible that variations in the soil or groundwater conditions could exist that are different than what has been investigated or reported. If conditions are found to be wetter than expected, contact TRPA immediately to discuss options for dewatering.

If you have any questions, please contact me by phone at (775) 589-5247 or by email at [jroll@trpa.org](mailto:jroll@trpa.org).

Sincerely,

Julie Roll  
Senior Planner



# Classification of Tower Structures per ANSI/TIA-222-G, IBC and ASCE 7

## Preface

Application of ANSI/TIA-222-G structure classes to communication tower design and analysis is frequently misapprehended. Risk categorization established within ASCE 7 and IBC are historically related to building occupancy among other factors has inconsistent correlation to communication tower use and function. Furthermore, the comprehensive application of Class III categorization to communication towers with the intention of increasing the reliability of wireless networks during emergency situations frequently fails to achieve the desired result and does not match the intent of the ANSI/TIA-222 Standard, as accepted by the IBC.

This white paper explains structure classification relationships between ANSI/TIA-222-G, *Structural Standard for Antenna Supporting Structures and Antennas*, the *International Building Code*, and ASCE 7, *Minimum Design Loads for Buildings and Other Structures*. It identifies the variables involved in structure classification and further defines how those requirements are to be applied per requirements with ANSI/TIA-222-G.

## Definition of Structure Class – ANSI/TIA-222-G

The definition of Structure Class, per ANSI/TIA-222-G, with additional commentary by the authors, is provided below:

ANSI/TIA-222-G Definitions:

### Structure Class I:

Structures that due to height, use or location represent a low hazard to human life and damage to property in the event of a failure and/or used for services that are

CONTINUED ON PAGE 46

Authors: **Bryan Lanier, P.E., S.E., C.W.I.** (Senior Manager, Operations Engineering – American Tower Corporation), **William Garrett, PE, SECB**, (Chief Engineer – American Tower Corporation). The members of the PAN Advisory Group who are involved in the writing and researching each PAN topic include: **John Erichsen Principal EET PE**, Chairman TIA committee TR 14), **Scott Kisting** (Senior Vice President – MUTI-Sabre Industries Telecom Services), **Richard Cullum** (Program Manager – Crown Castle), **Jeremy Buckles** (Safety and Compliance Officer – International, SBA Communications Corporation), **Craig Snyder** (President, Sioux Falls Tower & Communications), and **Stephanie Brewer** (Compliance Coordinator – MUTI-Sabre Industries Telecom Services).

## PLANNING ADVISORY NOTICE *(CONTINUED)*

welfare associated with damage or failure by nature of occupancy or use. Once Risk Category is established, importance factors are to be applied based on ASCE 7-10, Table 1.5-2. These importance factors are included in the derivation of design loads for flood, wind, snow, earthquake, and ice applied to the structure during design and analysis. The different Risk Categories can be paraphrased/commented as follows:

**Risk Category I:** Failure results in low hazard to the public.

**Risk Category II:** Structures that do not fall within Risk Categories I, III and IV.

**Risk Category III:** Failure results in a substantial risk to the public. These structures can be thought of as being needed during times of emergency (e.g. hospitals, police stations, water treatment facilities) or supporting large population centers (e.g. malls, schools). Failure, while creating significant problems to the public, can be remediated. These structures can be considered as an essential facility.

**Risk Category IV:** Failure results in substantial hazard to the public. Failure of these structures typically means

harm to the public extends well beyond the site of the failure. Often remediation cannot be completed due to the nature of the failure (e.g. nuclear facility). Failure of these structures also typically ensures failure of additional multiple systems critical to the public (e.g. loss of power results in loss of water and transportation). These structures can be considered as an essential facility.

Previous versions of the ACSE-7 used a parameter called Occupancy Category to define the appropriate risk category of a building or other structure. Occupancy Category, as used within the building codes, relates primarily to issues associated with life, safety, and fire protection across a number of building systems, like electrical, mechanical, etc. This use has caused some confusion as Risk Category's purpose is to appropriately derive the expected reoccurrence of environmental loads (wind, earthquake, ice, etc.) and the risks associated with structural failure.

Chapter 16 of the International Building Code addresses Risk Category within section 1604.5. The section is brief and relies on interpretation of the nature of occupancy in order to assign the appropriate risk cate-

**CONTINUED ON NEXT PAGE**

defined difference between essential communications or Class III structures with limited or zero redundancy and Class II structures that deliver inherent redundancy.

### **Conclusion**

Structure Class definitions have been incorporated into the ANSI/TIA-222 Standard to provide accurate and reasonable classification of tower structures. The IBC specifically recognizes the ANSI/TIA-222 Standard as the guideline for communication tower design and analysis and fundamentally accepts the ANSI/TIA-222 structure classification as the basis required for telecommunication and broadcast towers. Use of the ANSI/TIA-222-G definitions allows for more appropriate application of assessing risk, when considering factors like public safety, service and network redundancy.

Inherent redundancy exists in the vast majority of wireless tower supported networks, including networks that support emergency services such as E911. Because of this redundancy, application of higher structure classes to individual towers typically has little effect on the resiliency of overall network performance. Although a significant total of the population may be potentially (or "be" here) impacted by the loss of service of a wireless provider, the loss of an individual wireless site does not consistently compromise the entire wireless network, nor eliminate the service provided in a specific location. Therefore, the potential impact to the public typically is actually very small, as opposed to what might initially be estimated.

Higher structure classes may be warranted when the failure of the tower implies significant physical consequences to the surrounding area, affects essential services, such as water, power, transportation, etc. or when loss of specific wireless service at a location significantly comprises the overall network or eliminates designated emergency service in a specific geographic location.

In effort to truly enhance the reliability of a wireless site in these scenarios, strengthening of all aspects of the wireless network, including individual antennas, mounts and connections, coax or fiber lines (backhaul for data), back-up power, water intrusion resiliency, and radio cabinet design is likely appropriate. Instituting a Structure Class III requirement only on the tower structure would likely result in a non to minimal improvement in reliability in comparison to the expectation of overall improved network performance and reliability. ■

Attachment C

Revised Soil Hydrologic Approval LCAP2019-0189 dated August 5, 2022

August 5, 2022

Michelle Duarte  
333 University Ave., Suite 200  
Sacramento, CA 95825  
Michelle.Fernandes@sacw.com

**REVISED: SOIL HYDROLOGIC APPROVAL - WAIVER  
1360 SKI RUN BOULEVARD, CITY OF SOUTH LAKE TAHOE, CALIFORNIA  
APN 025-580-07, TRPA FILE NUMBER LCAP2019-0189**

Dear Ms. Duarte:

The Tahoe Regional Planning Agency (TRPA) staff has reviewed the Soils/Hydrologic Scoping Report Application submitted in association with a monopine cell tower and equipment shelter. The proposed excavation is **13.5 feet below ground surface**. It is not expected that groundwater will be encountered in this location and the excavation is allowed pursuant to TRPA Code of Ordinances Sections 33.3.6.A.2.a (accommodation of engineering requirements for above-ground structures) and 33.3.6.A.2.d (public health and safety).

Please note that it is possible that variations in the soil or groundwater conditions could exist that are different than what has been investigated or reported. If conditions are found to be wetter than expected, contact TRPA immediately to discuss options for dewatering.

If you have any questions, please contact me by phone at (775) 589-5247 or by email at [jroll@trpa.org](mailto:jroll@trpa.org).

Sincerely,



Julie Roll  
Senior Planner

Attachment D

Statement of Appeal dated September 12, 2022

## **STATEMENT OF APPEAL - TRPA Approval of Verizon Wireless Revised Project Plans**

**1630 Ski Run Blvd. South Lake Tahoe, El Dorado County, CA**

### **Preface**

My co-appellant David Benedict is diagnosed with blood cancer and literally fighting for his life against a small-cell tower near his house and the compassionless Verizon employees behind it, as aided and abetted by TRPA and City of South Lake Tahoe (City) employees, who deny any reasonable accommodation. My soul-sister Monica Eisenstecken (not a party in this Appeal) sold her beautiful home in desperate fear from Verizon and its microwave facilities, fleeing for her safety and that of her family. I have my own personal reasons for opposing the dangerous microwave technologies in our communities and Earth environment. Nothing in this Statement of Appeal is intended to be hyperbolic or histrionic.

I have direct experience with some of you. Chair Gustafson worked through many Permits with me when she was on staff at the Tahoe City Public Utility District decades ago, Board member Friedrich worships at the same Unity spiritual center where I belong, I've sat across the table in meetings with Joanne Marchetta and John Marshall at various times in the past. I'm sure you, and the staff alike, all like to think of yourselves as good people, and we've generally had cordial relations. You may think of yourself however you like. Only your actions matter to us.

This Statement of Appeal hereby incorporates in its totality my Affidavit filed in this matter (Exhibit 1) and should be read together with that in its entirety.

### **Introduction**

I am grateful, for I now believe this Appeal was a predestined opportunity for a reckoning. Grateful to have this opportunity to again explore, explain, and wonder at the requirements and practices of the Tahoe Regional Planning Agency in the context of this Project and Appeal. Thank you for reaching out to me as you did. These are my thoughts and opinions, presented as protected free speech under the United States Constitution. You may recall me from the Eisenstecken Appeal hearing last March and wonder, "Who is this guy representing the co-Appellants and what is his problem? We know he worked for the California Regional Water Quality Control Board, Lahontan Region, with their office at Lake Tahoe." I'm happy to explain a little with a bio-sketch. I paid my money and so get my say throughout, though I aim to be relevant to this Appeal, in the context of larger concerns with wireless microwave technologies. I'm Alan Miller, professional civil and environmental engineer, registered in California since 1997. You can call me a self-described "good-government advocate" like Mr. Jinkens, former City Manager, and now candidate for City Council, who also spoke before you to no avail at the Eisenstecken Appeal in March 2022.

I was born near the end of the post-war Baby Boom and an inquisitive child. My father sold World Book Encyclopedias and Dictionaries at the time and I'd read most of these by around the age of six. During a short period in my elementary school days, I was repeatedly accosted by a neighbor-bully, a larger kid my age. I not very big, but my father, "Big Don," was an All-State Guard and Tackle for the Iowa State U football team and taught me how to defend myself, after which I found that bully wasn't so tough. Despite the terror I'd felt, I became something of a bully myself for a time, until my smarts kicked in and I realized I didn't like bullies and didn't want to be the bully I'd behaved as. Life lessons, you know. Dad went on to be a great healer.

I became captivated by the music and environmental and anti-war counter-cultural movements of the '70s. I know some Board members may recall the time when all the news was coming out about the CIA control of the media and the drug scene, the many heinous government psychological operations or "psy-ops," the Vietnam war, Watergate, ERA, the draft was on, the corporate-military-industrial complex was burgeoning, etc., etc., and the state of the environment was getting so bad that *something* had to be done. Eventually I found myself studying environmental pollution control engineering at Humboldt State with an emphasis in water quality and solid waste management; physics, chemistry, electronics, environmental systems, biology, water and wastewater treatment, environmental monitoring, water pollution control, etc., and a ton of higher math and computer programming.

Somewhat to my own surprise, I chose a career path as a regulator, working in government for "the man," as we said in my youth (since most of the controllers, visible and invisible, were men at the time). But all these things informed my view as a regulator, including a healthy skepticism of government, and federal government in particular. I worked in government, so I know there are a great many honest, upright "little" people. But the governments of the world have been caught spying on everyone through the tech giants and telecommunications systems and flagrantly lying literally millions of times over the most egregious matters of life and death. TRPA, in this matter, has been a microcosm of that, without the spy capability it is assisting to erect. I'm over believing that the fascists and traitors in our governments are an altruistic benefactor to be trusted at face value. You may think me impertinent or impolitic to call out treasonous government actors for their lies and misdeeds. Be that as it may, no one need take offense that is faithfully upholding their sworn duties. However, this is now my third appearance before the TRPA Governing Board on this Verizon Project and I've seen all I've seen.

Anyone with one eye half open has seen plenty of the above, and my eyes are wide open. I hold that a greater reckoning is coming, in which the guilty at all levels will be held to account for their actions, just like under the record here. To be clear what "fascism" means, I take the definition from the World Book Dictionary (1983): "*n* 1. Any system of government in which property is privately owned, but all industry and labor are regulated by a strong national government, while all opposition is rigorously suppressed: *A basic idea of fascism was[is]: Everyone shall work, but no one shall work against the state . . .*" (emphasis added) thus, a slave system by another name which those of my kind have no interest in. Fascism is another name for

the so-called “public-private partnerships” TRPA is so fond of, deigning to squash any opposition under bureaucratic weight and scientific “groupthink” orthodoxies. Choose up whether to aid in restoring the rule of law to our Constitutional republic or to continue the illegal abuses under color of law, being the worst sort of lawbreaker. I’m all about Restoration at Lake Tahoe, restoring the rule of law and reason, thinking globally, acting locally to help save our lake quality and quality of life.

The State agency I worked 25 years for functions similar to TRPA, with planning, regulatory, permitting and enforcement powers from the enabling statute. However, California’s Porter-Cologne Water Quality Control Act (1969) promulgated broad administrative enforcement powers to the State Water Resources Control Board, and nine Regional Boards (such as I served), that make TRPA enforcement powers puny by comparison. Huge potential liabilities (fines) can be levied administratively, investigation and clean up orders, cease and desist orders, abatement orders for nuisance, Attorney General actions, and more. In the case of the Regional Board actions, appeal goes up to State Board, then to the State Superior court. State Board has a division of attorneys, and many of the enforcement provisions in the California Water Code are backed by referral to the California Attorney General and its armada of attorneys if things get heavy. I’ve been involved in all that sort of thing.

I mention these administrative powers (which TRPA and its Compact has essentially none of, save cease and desist orders) because the agency I worked for could be a real tyrant and “discretion” abuser if those unelected appointees at the Boards in charge weren’t checked. Checked by the law itself, its own scientific, legal, engineering culture and administrative procedures, and oversight by the Governor’s CalEPA, the Attorney General, USEPA, the public, interest groups, watchdog groups, advocacy groups, and the like, against a regulatory system stacked heavily, though arguably, in favor of “waste dischargers” – the industrialists, the technologists, the military, the great cities, developers and others. It could be a bully if that was how it wanted to operate. While the CA Attorney General is empowered to prosecute corrupt public officials, again, restraint is mainly through law, policy and recourse to the courts by aggrieved parties.

In the course of my own work I considered myself a servant of the public, as well as serving justly and fairly the permit patrons, and I’m very familiar with interest balancing as practiced by boards. I never considered it my job to do or promote anything illegal. I can’t recall many actions I represented, other than civil liabilities, where permit matters were appealed or litigated. I was once called on to testify against the Los Angeles Dept. of Water and Power in Inyo County Superior Court concerning our regulation of the Lower Owens River Restoration Project, the nation’s largest; they lost really badly (faced permanent enjoinder of use of the Los Angeles Aqueduct).

I don’t think there really is a TRPA, or a Water Board, a court, or any other institution, there are only the people who comprise it at the time, and how they interpret and apply the law in any

given instance. For millennia, human beings had no real awareness that others had thoughts and feelings just as they did. Only outward actions could be evaluated. That remains true, for we don't really know what thoughts and feelings are motivating people, but with the invention called "writing" people can express and explain for the record the otherwise-hidden motivations, desires, thoughts and perceptions of facts behind their outward actions. The courts, in particular, like to see logical conclusions supported by substantial evidence and well-reasoned arguments from the agency people, as your Compact requires.

The agencies don't like this because it's time consuming and can be difficult. Therefore, unless perhaps there is some significant opposition most actions involve little analysis or fact finding, corners are cut in the rush to "get the permit out," as was often said. I understand all that, the desire to avoid extensive analyses, ignore rules and timelines where uncontested; minimize time spent writing findings and explaining evidentiary support; minimize public involvement and operate as "efficiently" as possible to serve the Permit clientele and itself. Over time, findings become rote and "boilerplate" – simply putting a new name on an old finding. Practice becomes orthodoxy and orthodoxy becomes practice, with it taken on faith that the complex laws are being followed, that impacts are being managed, that science and interdisciplinary analysis is being diligently and correctly applied, as it hasn't been with the ongoing, unmitigated, wireless rollout (at Tahoe and elsewhere). Government is not designed to be efficient, necessarily, but rather to be considerate of all concerned, methodical, balanced, predictable, representative.

Actions and conclusions nonetheless can be distinguished by those supported in writing or testimony and those which are merely based on unsubstantiated notions, faulty "facts," unsupported and illogical conclusions, or which are arbitrary or capricious, changing without reason, even when the courts may give a certain weight or deference when it comes to government agency actions (a practice becoming more and more questionable). Likewise, acts that do not proceed in the manner required by law need to be addressed or matters may end up in court (as in the Eisenstecken case), hardly an efficient use of the agency's time, public money, and energy – defending its arbitrary, illegal actions in court. While much of this should be well-known to all concerned, I wouldn't raise it if I didn't think there was an issue about it at the TRPA that lies at the very heart of the Appeal. Enough preamble; let's get started.

### **Experience with TRPA**

With history as my guide, I don't expect my writings here will hold much sway with the TRPA Board or result in upholding the Appeal, so this might be written for a different audience. In all likelihood not all Board members will read through it. They will simply read the Staff Report and agree with the staff position(s). That is standard operating procedure. The staff will make the assertion that the post-approval soils-hydro examination by TRPA staff justifies the approval, purporting that "ends justify means," cherry-pick a few items herein to respond to and fill out the Staff Report with, using illogical arguments under erroneous or phony legal advice, and let the rest stand unopposed, with a recommendation to deny the Appeal. Triple down, never admit an

error, especially with these detractors, especially on this Project. My view of unopposed comments with no explanation is that they stand as uncontested fact, just like when TRPA puts out a document with opportunity for public comment. If nobody comments, whatever is in the document stands as factual. I predict the comments herein, even those raising substantive legal issues, will mostly be bypassed silently, again with history as my guide.

Therefore I'm not going to waste my time providing copious literature, footnotes, references, weblinks, legal citations and the like to fully bolster all my legal and other assertions herein, especially under the pushed September hearing circumstances. Rather, I will in some instances do a "gloss" of the facts, much in the fashion TRPA prepares its permitting and approval documents. In other cases we'll drill deep down into the regulations. Either way, the difference is that I can back up my assertions here, in ways you may find astonishing, and therefore reserve the backing-up task for another day. It will be enough for now if staff read this and its Exhibits. I hope you get to the end. As I wrote to your counsel, I did what I could to get your staff the information herein in time to provide sufficient time for a reasoned response based on substantial information in the record of this proceeding. You only give the public 7 days to respond to your agenda; I've given 16 days as of September 12.

### **TRPA's Soil-Hydro Report is Barred from the Record of this Appeal**

What I have to say about the post-approval soils-hydro examination by TRPA is that it is barred from the record of the Project approval, and the Appeal, coming after the facts. Any use or mention of its contents during the proceedings for this Appeal is over our strenuous legal objection, for it played no role in the Project approval being appealed. TRPA must rely solely on the information in the record on and prior to August 5, 2022, and respond to the Appeal solely on the basis of the soils-hydro report it accepted, and other information in the pre-August 5, 2022, record of the Project. Had TRPA accepted the suggestions we provided after filing the Appeal, to require or facilitate production of an additional, independent, proper soils-hydro report by Verizon, perhaps we would have allowed inclusion of that in the record as non-prejudicial. As such, we disallow the contents and findings of the TRPA soils-hydro report for the site in its entirety: Its use would be improper and prejudicial to the Appeal and presents, at a minimum, the appearance of a conflict of interest for the participating staff pursuant to TRPA's Rules of Procedure (ROP) 8.4: "Employees shall not accept . . . present compensation or arrange for future compensation for services already performed or to be performed, that give rise to an actual conflict of interest or that create an appearance of a conflict of interest." Nonetheless, I expect your counsel will put forward faulty advice that no such appearance of a conflict exists, and present the TRPA soils-hydro report over our strenuous objection.

This expectation resides in part from a consistent pattern of practice by TRPA: to hold others to all its byzantine rules and requirements when it wishes, while excusing itself from compliance with same when it arbitrarily deems fit. We have just such an example of that with the email exchanges in Exhibit 2, which followed on the Appeal and stay request filing. In my email of

August 28, 2022 I made it very clear that any Appeal Hearing forced on us on September 28, 2022, is illegal and in violation of our civil due process rights as Appellants. Therefore, this Statement of Appeal is filed in vigorous continuing opposition to TRPA's repeated and baseless assertion that it has discretion under the ROP to advance the Appeal hearing from October 19, 2022 to September 28, 2022, illegally depriving us of time to prepare for the Appeal Hearing. TRPA does not have that authority, only bureaucratic weight. As I pointed out in my emails, TRPA and Verizon alone are responsible for the timing of this Appeal, based on illegally postponing the Eisenstecken Appeal hearing by some two months. It seems TRPA is incapable of learning from its mistakes, in so many ways, with your long-standing bureaucratic counselor at the helm acting at the Board's direction, providing false cover to back up the Board's desire for a September Appeal hearing based on groundless legal assertions.

### **My Project Review Background**

I have no need to repeat all the record information in my Affidavit, which I stand by. There will be references to the Affidavit and additional information to augment the preliminary statements. I will go through the Affidavit, mapping the regulatory territory I staked out, making additional findings and salient points in the manner I learned and practiced in my professional career. I was often working directly or indirectly with TRPA on the very same Projects as independent Project co-planner and co-regulator, spanning the full range of large development and restoration projects, and many of the smaller ones as well. As such, I sat in the "cat-bird's seat" with respect to TRPA, seeing most if not all of its planning, regulatory, and environmental documents come across my desk for review or information, as well as many local, state and federal environmental documents from the much larger Lahontan Region.

As a State agency, we were charged to comply with the California Environmental Quality Act (Public Resources Code 21000, et seq.) and, unless a document had to be jointly prepared with TRPA, or was going to cause a foreseeable issue for my work concerning water quality, I often left TRPA environmental documents I deemed sorely deficient to TRPA for TRPA purposes, as directed by my up-line management. It was a different approach that TRPA applied than I in the path to their various regulatory, environmental and permit certifications, what I would term a gloss-over of the facts, reasoning, and findings, with little substantial analysis, no different than I've seen on this Project, and that's the point. I know the system, and see through the deficiencies and lies like thinnest glass. Ancient history, yes. Yet it's still true as we see with the Appeals. Reform is needed and, if desired, a golden opportunity for reform presents itself with your pending appointment of a new Executive Director.

### **Regulatory Malfeasance**

I wrote on page 1 of the Affidavit that this Appeal is concerned with TRPA misinterpreting and misapplying the laws and regulations they are charged to carry out justly and equally for all. Especially as concerns its own compliance with the law. Your counsel replied to the Affidavit's

stay request that our Appeal was unlikely to prevail on the “merits,” which must imply that the law and regulations TRPA is charged to follow have no merit, for that is what our Appeal rests on entirely. We disagree. Following the law is paramount.

The judicial standard for review of TRPA actions is stated the Compact section VI.(j)(5):

(5) In any legal action filed pursuant to this subdivision which challenges an adjudicatory act or decision of the agency to approve or disapprove a project, the scope of judicial inquiry shall extend only to whether there was prejudicial abuse of discretion. Prejudicial abuse of discretion is established if the agency has not proceeded in a manner required by law or if the act or decision of the agency was not supported by substantial evidence in light of the whole record. In making such a determination the court shall not exercise its independent judgment on evidence but shall only determine whether the act or decision was supported by substantial evidence in light of the whole record. In any legal action filed pursuant to this subdivision which challenges a legislative act or decision of the agency (such as the adoption of the regional plan and the enactment of implementing ordinances), the scope of the judicial inquiry shall extend only to the questions of whether the act or decision has been arbitrary, capricious or lacking substantial evidentiary support or whether the agency has failed to proceed in a manner required by law.

This Appeal is solely about the last two lines above, “whether the act or decision has been arbitrary, capricious or lacking substantial evidentiary support or whether the agency has failed to proceed in a manner required by law.” In Compact Article X.(a) we read, “(a) It is intended that the provisions of this compact shall be reasonably and liberally construed to effectuate the purposes thereof.” TRPA can’t construe “reasonably and liberally construed” to mean “to break the law.” Quite the opposite is true. As a creature of law and empowered with quasi-adjudicatory functions, it must be predominantly and only concerned with carrying out its legal functions in a legal manner. The TRPA, as empowered under the Compact primarily, and secondarily enacting its own regulatory laws, ought to be more concerned with the equal application of those laws.

The Board has acted as though it has complete discretion to ignore the various provisions of law in its own misperceived balancing of interests, which discretion is nowhere granted in the Compact or any other place with regard to a very simple permitting matter such as this, as this Appeal will show. I argue there is no discretion to violate the laws, and if you do so, you’d best be prepared for litigation or reprisal. I know the staff thinks this Appeal is all about the Project; I assure you it is not. This is about TRPA’s insistent, repeated and flagrant violations of the Compact and Rules as applied to itself. This dangerous, ill-conceived Project is a concern, for sure, and merely serves as one example, a real shiner. Your vote on the Appeal is a free-will test in your soul’s evolution and I wish you tremendous advancement.

Of course, this Appeal resides in the context of the whole, egregious record of this Verizon Project on Ski Run Blvd., as being litigated by Eisenstecken, et. al, in federal District Court, and that informs the views and provides a record of behavior with regard to the law we’ll see repeated here. When I joined the Water Board I was required to swear an oath to faithfully uphold and defend the laws of the state, and the U.S Constitution also, if memory serves.

Nonetheless I swear it now. I was a civil servant. I expect TRPA Board members must also swear an oath to uphold the laws and the U.S. Constitution, and I would like confirmation by printing any such oath in the Staff Report for this Appeal. The way I see it, if you are upholding your sworn duty, you may consider yourself Honorable; to do otherwise is treasonous.

### **The Major Modification, and Permit Condition 3.F. (hydro-soils report)**

This revised Project Appeal is a whole separate matter than the approved Verizon Project and must rest on its own record predating August 6, 2022. Without ascribing any motives, let's look at what happened following the Board's Final Permit approval and appeal denial on March 23, 2022. Thereafter, in the process of finalizing plan details with TRPA (something I'll have more to say about later), Verizon determined to propose a deeper foundation design. No problem about that. TRPA rightly accepted the proposed change as a "New Project" (see Affidavit pp. 3 and 4) and approved the revised design on August 5, 2022, posting it to the TRPA website with the notice to appeal, apparently considering the approval a trivial matter within the scope of its authority and discretion.

I contend that approval of the "New Project" is where TRPA erred. This is what your website (<https://www.trpa.gov/permitting-process/>) says about plan changes: "Plan Revisions. You may revise your original approval by requesting a plan revision. An approved plan revision, however, will be tied to the original permit expiration date and the **conditions of the original approval**. A minor plan revision generally involves small changes that do not include modifications to land coverage or the exterior dimensions of a structure. A major plan revision generally includes changes to land coverage or height calculations. Check the TRPA Filing Fee Schedule for the appropriate fee amount." (**emphasis added**)

To the extent the above is "guidance" to your interested readers, fine, but it does not indicate why the "major" and "minor" distinctions matter, which is disclosed in the adopted Fee Schedule referenced. Checking that, we see the following the following under "Plan Revisions": "Minor – A non-substantive change to a permitted project. **A project that will not cause changes to any TRPA permit conditions**, does not require new field review by TRPA staff, does not require a public hearing, and **does not involve any modifications to building size, shape, land coverage, location, or scenic rating score**. Major – A substantial change that **does not significantly exceed the original scope of the project. Revisions that significantly exceed the original scope of a project, or which require a public hearing, shall be treated as new or modified projects, as the case may be.**" (**emphasis added**) The proposed Project plan changes definitely did "cause changes to any TRPA permit conditions," specifically, Permit Condition 3.F. The staff approval letter of August 5, 2022, in effect, changed the maximum excavation depth in Condition 3.F. from 7.5 feet to 13.5 feet, no question about it. Further, the "scope" of the project expanded with modifications to the building size (doubled) and location (deeper), as discussed on p. 3 of the Affidavit.

The change to the Project can only rightly and consistently be called a "Major" modification pursuant to the Fee Schedule regulation since the Condition 3.F. was changed and its new "scope" ran contrary to Code of Ordinances (Code) section limitations in section 33.3.6.B.,

concerning excavations 5 feet or more deep (noting that excavation had been approved to 7.5 feet by TRPA under the single borehole geotechnical methodology). Nonetheless, TRPA simply jettisoned the rules for “new or modified projects, as the case may be” despite the change to Permit Condition 3.F. (The 2.5 feet of exceedance was approved in 2019 in precisely the same manner and is just as improper as the 2022 approval, for the reasons set out for this Appeal below, occurring outside the rules TRPA is bound by under law.)

As I explained in my email reply to your counsel in Exhibit 2, the Final Permit contains a specific Condition 3.F. which requires a “new soils-hydro application” for proposed excavations deeper than 7.5 feet. Since the proposed revision didn’t meet the conditions of the original approval such a report was required. But what kind of report? A geotechnical report? With its design change Verizon provided an updated, not “new,” geotechnical report (the revised Geotechnical Report, RGR) to cover the condition of approval. And TRPA accepted it, in error.

As the Code says, excavation “where there exists a reasonable possibility of interference or interception of a water table shall be prohibited unless TRPA finds that: 1. A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of ground water will occur as a result of the excavation;” I discussed some of the limitations of the RGR report in my Affidavit, noting nothing had been changed concerning the subsurface hydrologic evaluation from the same report submitted in 2019, and questioning whether TRPA had reviewed and approved in 2022 the report’s “proposed content and methodology” in advance, as it did in 2019.

The original 2019 GR drill log indicated “slightly moist” soil in the entire 18-foot soil column below the topsoil in late July 2019. As I discussed, a single geotechnical borehole is insufficient to evaluate hydrologic indicators to preclude the “reasonable possibility of interference or interception of a water table” (which my Affidavit demonstrated), and which is further affirmed fully by the attached letter from professional hydrologist/hydrogeologist Lori Carpenter (Exhibit 3). As she wrote, conducting soil pit analyses (and much more) is consistent with professional practice. Soil pit evaluations are also consistent with TRPA’s own general practice, as TRPA staff knows, or should: So the position must be either TRPA doesn’t know what a professional soils-hydrology report is, or it does know and didn’t require one, changing requirements for similarly-situated applicants without a basis, changing requirements arbitrarily for Verizon. It looks like the latter to me. Capricious.

The RGR was a lame duck from the start with regard to ground water hydrology. I pointed out that it failed to note the presence of nearby Bijou Park Creek, which is borderline negligent in my view. I am sympathetic because the drill-rig examiner was a geotechnical “E.I.T.” –an Engineer-In-Training, likely a new graduate, an apprentice under the supervision of a licensed geotechnical engineer. Further, the engineer-signer of the 2022 RGR was different than the original 2019 engineer-signer-EIT overseer, and obviously concerned with changes to the seismic-geotechnical engineering aspects for the enlarged foundation, since no changes were made to the hydrology and drainage findings. They were presumably reviewed and *fine from a geotechnical standpoint*. The drainage recommendations therein were for the use of Verizon for its engineering design, not for TRPA use in evaluating subsurface hydrology. With its many

exclusions, limitations and references to drainage and ground water, there is no way this can reasonably and professionally be considered a suitable report to conclusively demonstrate the *absence* of the reasonable possibility for ground water interference or interception of ground water as a result of the excavation. I'm more sympathetic towards the RGR and the geotechnical engineers than the TRPA senior staff reviewing, who should have rejected it as inadequate to the task. Why the RGR was considered suitable is not articulated, so the decision was arbitrary.

We have further evidence that TRPA knew it had not required a proper soils-hydrologic investigation, coming after this Appeal was filed, on September 1, 2022. Rather than requiring a proper and independent "new" report from Verizon to fulfill Permit Condition 3.F., over our objections TRPA staff conducted its own after-the-approval soil-hydro examination by a soil scientist in the pit excavated for the tower, examining pit soil profiles much as I and Ms. Carpenter suggested. The decision not to require the report from Verizon was arbitrary, and apparently still well within the 30-day limit TRPA had to review the application for completeness (ROP 4.3), when it jumped the requirement and determined to approve the revised Plans without the necessary soil-hydro report. Again, we vigorously object to inclusion of the contents of the TRPA soils-hydro report in the record of this Appeal as improper and prejudicial.

**Summarizing:** Shortly after it received its Final Permit, Verizon violated condition 3.F. by submitting a geotechnical report that was not new, and that was deficient, instead of a proper soils-hydro report for the deeper excavation. TRPA nonetheless accepted the RGR in violation of Code 33.3.6.B and used it improperly for approval as a "soils-hydro" report, bypassing the rules concerning "Major" and "Minor" plan revisions in the process, despite the "shall" wording: Major plan revisions "shall be treated as new or modified projects." I could not determine if the 2022 content and methodology was approved in advance by TRPA, as required by the Code. If so, it seems staff erred by not approving the methodology in advance and, if not, failed to see that was done. As a result, a new report by a properly trained professional such as Ms. Carpenter was neither submitted by Verizon nor required by TRPA. That fact alone should have been enough to uphold the Appeal's stay request, given that no proper investigation was done, but instead TRPA promoted the bogus RGR to allow the impact to proceed based on the thin absence of evidence from the RGR, knowing any environmental damage could not be fully undone. The absence of evidence is not necessarily the evidence of absence, and that really fits here; the TRPA authorized and accepted report must demonstrate an absence of adverse effects on ground water resources (and did not) or TRPA "shall" prohibit excavation, and failed to do so. Because **TRPA has failed to proceed in a manner required by law, the Appeal must be upheld.**

I underlined "absence of evidence" above (my words) because I have noticed TRPA likes to play that idiot card to its advantage, and in various ways. Here, it lacks required evidence, and uses that as a basis to assume that is evidence of absence. No, that is a flaw in logic; the data was insufficient to draw a valid conclusion. Wikipedia informs that this is a sort of "arguing from ignorance" and

"is a fallacy in informal logic. It asserts that a proposition is true because it has not yet been proven false or a proposition is false because it has not yet been proven true. This represents a type of false dichotomy in that it excludes the possibility that there may have been an insufficient investigation to prove that the proposition is either true or false.<sup>[1]</sup> It

also does not allow for the possibility that the answer is unknowable, only knowable in the future, or neither completely true nor completely false.<sup>[21]</sup> In debates, appealing to ignorance is sometimes an attempt to shift the burden of proof.” (underlines are weblinks)

Yes, it’s an illogical attempt to shift the burden of proof, when it is TRPA’s job to fully evaluate impacts based on all available information.

We saw this fallacious logic, arguing from ignorance, used by TRPA in the Eisenstecken Appeal as well, concerning issues with radio-frequency radiation (RFR) and microplastics. You can now see that these findings are unscientific, specious and arbitrary. The Staff Report opines, “TRPA could choose to regulate RF [sic] in the region should cellular facilities be proven to have a particular adverse effect on the unique environment of the Tahoe Region. TRPA has not received any such proof of adverse impacts of RF [sic] particular to Tahoe and therefore will not reexamine the determinations of the FCC.” (p. 327, March 23, 2022 Board Agenda) I critiqued this position as unscientific in my letter of October 2021 (Exhibit 4). TRPA’s statement it “has not received any such proof” is arguing from ignorance, and shifting the burden of proof, like there is something so unique about the environment of the Tahoe region that it is immune from all the adverse effects shown in relevant science studies provided in the record. That is incorrect. Likewise, on p. 307 of the March 2022 Board agenda: “To the extent Eisenstecken is limited in this appeal to raise only issues presented to the Hearings Officer, Eisenstecken is barred here from raising new issues . . . Eisenstecken does not supply any evidence of fallen plastic needles in waters of the basin or evidence they degrade into microplastics or that degradants traced to faux needles have actually ended up in Tahoe Region waters.” In disagreement with the latter statement, for testimony and evidence the needles degrade to microplastics *was* presented, we see here a desire not only to exclude important evidence of water quality impacts completely overlooked by TRPA in its myopic review of the Project application, but another attempt to shift the burden of proving impact to anyone but the myopic TRPA, which won’t bother to analyze the evidence spoon-fed to it, and which never sees an impact it can’t arbitrarily dismiss as insignificant when desired, often using the fallacious “absence of evidence” argument.

However illogical, the Board eats such findings like candy as a basis to allow significant and cumulative impacts, as in the case of RFR emissions, but many other impacts as well. Thus, Lake Tahoe’s visual water conditions and water quality continues to decline rapidly. I will add that the Appellants have no evidence from TRPA that its actions have slowed or stopped the ongoing declines in Lake Tahoe water quality and clarity, or prevented pollution by microplastics. We do have evidence TRPA has permitted uncontrolled discharges of deadly, toxic microplastic wastes on an industrial scale from the monopine towers it approved before 2022. And it continues to approve these willfully in pursuit of its agenda to blanket Lake Tahoe in radiofrequency emissions, and pollute the waters of the Lake Tahoe region with toxic microplastics, not only with this tower, but also a new Verizon monopine tower approved this August at the old Ponderosa Ranch TV filming location right near Lake Tahoe.

TRPA called the Affidavit’s concerns with ground water on the Project site “speculative.” I am a speculator at times, somewhat like an experienced investor who manages funds in a portfolio, sometimes it pays off, sometimes not. Like any good speculator, my speculations are not baseless, however, as my site analysis shows (Affidavit, pp. 13-14). I’m going to speculate the

following: TRPA itself will eventually produce evidence of the plastics it has increasingly approved in its ignorance over the years, plastics which deteriorate under the action of sunlight, mechanical wear and weathering to microplastics: monopine towers, all the recycled and virgin polyvinyl chloride (PVC) docks approved over waters, decks, piers, and boardwalks in all the most sensitive areas such as shorezones and stream environment zones (SEZ), all the decking at marinas and the Tahoe Keys' private docks, etc. We shall see, in due time, what PVC is sited and contained in and around the waters of Lake Tahoe under TRPA's watch and approvals. As these materials deteriorate into microplastics, I speculate that the evidence will show TRPA is in large part responsible for contamination of the waters of Lake Tahoe with toxic microplastics from PVC by approving of the use of plastics in such settings without any analysis of the long-term impacts, where natural wood alternatives would have been far more preferable and appropriate.

### **Project Review Procedures; IEC Requirement**

I assert the approval was improper for the new Project application under the following regulations, which specify what *is* proper. Code section 2.2.1 specifies project review procedures: "Activities that may have a substantial effect on the land, air, water, space, or any other natural resources in the Tahoe region are projects subject to TRPA review and approval. Projects shall be reviewed by TRPA in accordance with TRPA's Rules of Procedure and pursuant to the applicable Code provisions. Projects approved by TRPA shall be issued permits in accordance with the Rules of Procedure." Project review procedures are further described in Chapter 5 of the ROP. For non-exempt projects such as excavation greater than 5 feet, the applicant is to fill out and certify an Environmental Impact Checklist (IEC) form for staff review. By Rule "5.2.6. Appropriate environmental documentation, in accordance with Article 6 of these Rules" is required as a part of a complete application, which begins:

The Executive Director shall devise and maintain an initial environmental checklist (IEC) that shall be used, in conjunction with other available information, to determine whether an environmental impact statement (EIS) shall be prepared for a project or other matter. Based on the IEC, and other information known to TRPA, TRPA shall make one of the findings, as appropriate, set forth in subsection 3.3.2 of the Code.

I reviewed Verizon's Form Application for the Plan change, noting the Checklist of items for a complete application left the IEC requirement unmet. That is, though required for a complete application, the checkbox was left blank, with no explanation. Staff missed or overlooked that. There was no IEC for the new project application, as required generally, in every other case according to the ROP. I opined in the Affidavit, p. 2, that the plan revisions invalidated a number of findings in the 2019 IEC provided with the application for the Project approved following the Eisenstecken Appeal. It is staff's charge to review the application for completeness, and there is no evidence to suggest the IEC requirement was followed by rejecting the application as incomplete. **Therefore, there was no basis for staff to approve the new project, based on the plan revisions, in the absence of a valid IEC, so the Appeal must be upheld.**

The potential impacts can't be assumed to be the same as they were for the prior Project, and that old IEC is of no use. If you say, "Well, the staff reviewed the plan changes/new application info

for consistency with the 2019 IEC,” I would challenge that and ask to produce the written record of analysis and findings to support it. There was nothing about an IEC in the records of approval TRPA provided, other than the empty IEC checkbox in the application. There isn’t any basis *for* consistency with the reasonable possibility for ground water interference I pointed out above and in the analysis in my Affidavit. No, staff just moved to approval without an IEC, with a finding based on nothing but a deficient RGR, stating “ground water is not expected to be encountered in this location” but, if it is, “contact TRPA immediately to discuss options for dewatering.” A contradiction, all improper, no substantial evidence provided or discussed as fact finding. Arbitrary.

Since no IEC was submitted there was no evaluation of the new Project impacts. In testimony heard during the Eisenstecken Appeal denial for the cutting of some 30 trees on the Project parcel for defensible space ahead of the Project approval, your counsel correctly stated in effect that, yes, the tree removal would affect the scenic baseline in the scenic analysis for the tower, because what has to be analyzed for any Project is the environment, including the regulatory environment, as it exists when the new project application is made. In this case, we have a whole new set of City of South Lake Tahoe ordinances that would need to be analyzed concerning wireless services facility siting, among other things. Faced with having to require a new IEC, TRPA turned away from the regulation, for it would essentially set the Project back to the starting point (which Verizon already did), for project review begins with the IEC analysis, or should. No basis for the arbitrary turn, in violation of law, was provided and I assert it was a special (illegal) favor for Verizon’s benefit.

Yes, a new IEC is required to be evaluated. Based on review of a valid IEC TRPA would determine whether to prepare an Environmental Assessment (EA) under ROP section 6.5. Then, section 6.6 provides, “If, based on the IEC or EA, and other available information, TRPA finds that a project or matter will not have a significant effect on the environment, a statement of such finding shall be placed in the project file maintained by TRPA and no further environmental documentation shall be required. See Section 3.5 of the Code.” This is the Finding of No Significant Effect (FONSE), as applied previously to the Project. A FONSE is appealable under rules subsequent to Project approval, as just one part of the Project documentation. **No FONSE applicable to the new/revised Project was prepared or certified, as required, in violation of ROP section 6.6., therefore the Appeal must be upheld.**

TRPA’s applicant Verizon could have used the information from the prior IEC, to the extent it is valid, to craft a new IEC, but staff did not require a new IEC in accordance with ROP 5.2.6. A fee was required under ROP 5.2.1, but a number of other necessities in the Checklist for a complete application were not checked (not provided), stating “NA,” including 9. Floor Plan, 11. Grading Plan (proposed cut and fill), and 12. Projects Requiring Hearing Officer or Board review. Maybe the lack of floor plans explains the discrepancies in coverage allowed versus coverage approved? There certainly was grading proposed, double the prior, so the “NA” is a mystery.

Based on my prior writings on the soils-hydro report, the applicant didn't provide, and staff did not evaluate the application against, ROP 5.2.8. "All reports or studies necessary to show compliance with applicable provisions of the Compact, Regional Plan, Code, other TRPA plans, maps, programs, and rules." This is another backstop to require a proper soils-hydro report, besides the Permit Condition 3.F., that TRPA ignored. The conclusion is that TRPA arbitrarily applied some of the ROP specifications concerning a complete application, and left others out, without reason given, in the time TRPA took to review and approve the new application submitted. There is an email in the record from TRPA staff questioning whether a new soils-hydro report would be required, the question answered only by the evidence: it was not required.

Had TRPA followed the requirement for the applicant to provide a new IEC, new information that was not available in 2019 would have to be considered, such as the new City of South Lake Tahoe ordinances, among all the other things on the IEC. Eschewing that, and all the Rules at issue in the Affidavit, TRPA staff moved instead on the improper approval following no regulation whatsoever, simply approving of the new application under the old Permit approval (now under litigation) for the benefit of Verizon. Again, I have no problem with Verizon amending its Project plans, and I don't have a problem with the Code or ROP, which TRPA is a real stickler for enforcing as it sees fit against others they don't agree with, such as Ms. Eisenstecken, or Mr. Benedict, the latter a co-Appellant here; I take issue with TRPA ignoring its own regulations for any reason, as here, violating public due process rights in the face of known controversy.

### **Exception Rules**

My Affidavit, in large part, showed how confused staff was in applying its own exception rules for the deeper excavation. In the first place, letters A and B of Code section 33.3.6.2. are independent requirements. Each must be met to approve an exception to section 33.3.6.2, irrespective of order. Those Code sections, in relevant part, are:

#### **A. Groundwater Interception**

Groundwater interception or interference is prohibited except as set forth below:

**1.** Excavation is prohibited that interferes with or intercepts the seasonal high water table by:

- a. Altering the direction of groundwater flow;
- b. Altering the rate of flow of ground water;
- c. Intercepting ground water;
- d. Adding or withdrawing ground water; or
- e. Raising or lowering the water table.

**2.** TRPA may approve exceptions to the prohibition of groundwater interception or interference if TRPA finds that:

- a. Excavation is required by the International Building Code (IBC) or local building code for minimum depth below natural ground for above ground structures;

- b. Retaining walls are necessary to stabilize an existing unstable cut or fill slope;
- c. Drainage structures are necessary to protect the structural integrity of an existing structure;
- d. It is necessary for the public safety and health;
- e. It is a necessary measure for the protection or improvement of water quality;
- f. It is for a water well;
- g. There are no feasible alternatives for locating mechanical equipment, and measures are included in the project to prevent groundwater from leaving the project area as surface flow, and any groundwater that is interfered with is rerouted in the ground water flow to avoid adverse impacts to riparian vegetation;
- ....

**B. Excavations**

Excavations in excess of five feet in depth or where there exists a reasonable possibility of interference or interception of a water table shall be prohibited unless TRPA finds that:

1. A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of groundwater will occur as a result of the excavation;
2. The excavation is designed such that no damage occurs to mature trees, except where tree removal is allowed pursuant to subsection 33.6.5: *Tree Removal*, including root systems and hydrologic conditions of the soil. To ensure the protection of vegetation necessary for screening, a special vegetation protection report shall be prepared by a qualified professional identifying measures necessary to ensure damage will not occur as a result of the excavation; and
3. **Excavated material is disposed of pursuant to subsection 33.3.4: *Disposal of Materials***, and the project area's natural topography is maintained pursuant to subparagraph 36.5.1.A. If groundwater interception or interference will occur as demonstrated by a soils/hydrologic report prepared by a qualified professional, then the excavation can be made as an exception pursuant to subparagraph 33.3.6.A.2, provided measures are included in the project to maintain groundwater flows to avoid adverse impacts to SEZ vegetation and to prevent any groundwater or subsurface water flow from leaving the project area as surface flow.

While 2 and 3, above were omitted entirely from the consideration (I'm not aware of a report pursuant to 2, above), note the last sentence above: If the soils-hydro report prepared by a qualified professional demonstrates ground water interception or interference will occur, the exception can only be allowed "provided measures are included in the project to maintain groundwater flows to avoid adverse impacts to SEZ vegetation and to prevent any groundwater or subsurface water flow from leaving the project area as surface flow." **No such measures were included in the exception granted, thus violating the condition, even if the RGR is capriciously deemed adequate by TRPA to assess ground water conditions.** It appears no

substantial analysis was done for potential adverse impacts on ground water flows or SEZ vegetation, with the SEZ boundary downhill and some 60-80 feet from the excavation. Rather, staff writes in the approval letter to contact TRPA if dewatering is needed, leaving the reader to wonder whether and how “measures” will be deployed, as none are included. Notification to TRPA of encountering ground water is not a “measure” included in the Project approval to meet the requirements. **Because no such measures were included, there is no legal basis to move to consideration of an exception under Code section 33.3.6.A.; the Appeal must be upheld or the agency will fail to proceed in a manner required by law.** (This is typical of the kind of deficient TRPA analysis I witnessed throughout my career at the Water Board.)

Nonetheless, staff then next improperly moved to consideration of the exceptions allowed under subparagraph 33.3.6.A.2., which consideration now stands as irrelevant. That said, I stand on my critique and analysis of that exception in the Affidavit. Additional comments on the selected tower-industry design standard follow.

### **Safety Issues**

I pointed out that the tower’s TIA-222-H design standard and approved design through the City Building Department did not include any ice loading on the tower, which I believe could create a dangerously unsafe, deadly condition that could cause or contribute to collapse of the tower. I think TRPA owes it to the public to disclose in the Staff Report whether that is correct, and that they are not approving a dangerously *underdesigned* tower because the design engineers and City officials fully considered and dismissed the need to include ice loading, and why that is not negligent with regard to the safety of the tower which you so deem a benefit for public safety—despite the design Class II undermining that presumed need. What it looks like to me is that people with no experience with Tahoe weather designed this tower for some other, non-snowy setting, and it all got overlooked. Please provide evidence I’m wrong!

As in the Affidavit, I lean on the design criteria chosen by the structural engineer to determine what constitutes a telecommunication tower to be “necessary” for public health and safety, and this tower, being designed to Class II standards, doesn’t meet the criteria, as explained at length in the Affidavit. No, the Class II design puts that TRPA safety finding to the test, and it fails. I will go even further concerning the chosen design Class for the tower and state, in my opinion, the Ski Run Tower could easily qualify as, and be built as, a Class IV facility. From the tower industry design article in the Affidavit:

**“Risk Category IV:** Failure results in substantial hazard to the public. Failure of these structures typically means harm to the public extends well beyond the site of the failure. Often remediation cannot be completed due to the nature of the failure (e.g. nuclear facility). Failure of these structures also typically ensures failure of additional multiple systems critical to the public (e.g. loss of power results in loss of water and transportation). These structures can be considered as an essential facility.”

The tower would qualify for Class IV not because necessary for the purposes of emergency communications, but rather to prevent injury and property damage from collapse and/or associated fire. These Classes are designated to provide greater engineering safety factors, in consideration of all the values at stake. In choosing the Class II design, which is the default Class for facilities not needed for emergency services/public safety, Verizon simply cheated out with regard to safety and chose a lesser design: less costly, less sturdy, less reliable, less safe. More prone than Classes III or IV to fall and cause a potentially disastrous fire. I discussed in my October 2021 letter (Exhibit 4) for the Permit Hearing engineering safety factors and related risk considerations, and received no reply nor concession in the record. These important matters simply went unaddressed.

Besides orthodoxy, if memory serves, my recollection is TRPA's Board leaned hard on a letter in the record from an El Dorado County Sheriff's personnel which indicated some gap in coverage in the Bijou area. My understanding is that such safety/police agencies have their own frequencies and emergency communications systems, 911 calls are routed through any necessary carrier, and emergency communications are tied to facilities in Class III or Class IV. This officer's anecdotal testimony seems to override all the other unaddressed testimony and information concerning fire dangers, tower collapses, disruptions in cell service during fire emergencies, engineering safety factors, insurance concerns, evacuation concerns, and other concerns I and others expressed. I honestly think when TRPA is presented with real analysis and facts they disagree with, or outside their areas of expertise, they get flustered and invariably fall back on their seemingly unassailable, infinite discretion to interpret (and break) the laws, and then just apply bureaucratic weight to just push on and hope for the best. See my letters in advance of the Permit Hearing (Exhibit 4) where I testified, and in advance of the Appeal Hearing (Exhibit 5), where I testified. None of these comments are satisfactorily addressed in the records of the approval and denial, respectively. I give the officer his due, but wonder if the Sheriff's representative knows anything of the industry's history of tower fires? There have been many, monopine towers and many others, as the record in this matter shows.

The cell tower industry is relatively new, especially the monopines, which have been built for only about 20 years, so they don't necessarily know from long experience how these engineered structures will respond to environmental forces such as here at Lake Tahoe, with our extreme ice, snow and wind loads. This is not an industry that is forthcoming about their many tower fires and collapses, their engineering safety record, or that frankly cares much about fire danger. Being among the world's most profitable industries, if a telecom burns down our City or Basin due to a tower collapse or fire, they will be okay, maybe lose a few towers. If the Basin burns, we lose EVERYTHING, and for the sake of a cell phone – when other safer communications alternatives exist. I assert now as I did last October and March, TRPA is setting the stage for a firestorm by approving, piecemeal, untold numbers of macrotowers and small-cell wireless facilities that could destroy our communities, by promoting these towers everywhere with no environmental impact analysis whatsoever, and no evaluation of fire-safe alternatives or mitigations. (Yawn.)

TRPA's Staff Report for the March 23, 2022 Appeal Hearing, p. 308, responded to the fire safety and collapse issues: "For fire risk from alleged terpene production, TRPA defers to the FCC's environmental documentation and record as the issue is not unique to Tahoe." Deference to the FCC environmental documentation? What documentation would that be, with any relevance? I assure you there isn't any record concerning terpenes. The FCC is arguably the most corrupt federal agency in Washington, and that's saying a lot; they've got more and more competition these days. I will say it again as I said it before, any person or agency willing to hide behind the notoriously corrupt FCC and its regulations has no integrity or credibility as far as I'm concerned. None. I'm entitled to my opinions.

The Staff Report continues: "For forest fire risk, TRPA is unaware of cell towers being any more risk prone than existing structures built to fire code in the Tahoe Basin or any **forest** fires ignited by cell towers." (emphasis added) The illogical approach again, "arguing from ignorance" in purported or real unawareness. The increased fire risk is dismissed with a sentence, despite the record evidence provided of a massive wildfire in Southern California started from a utility pole-mounted cell tower collapse. I guess that wasn't "forest" enough for counsel, weasel words. Nor did TRPA do any analysis or make any findings concerning its own investigations into tower fires. I see it as TRPA expecting to be spoon-fed all the impact evaluations and risks, staff unable or incompetent to do its own research or fact-finding, only able to speciously and illogically dismiss comments and impacts it doesn't want to hear, understand, or address. Begging off evaluating any fire risk associated with towers, designs, alternatives, as not in TRPA's "ambit" or sphere is another bald assertion with no basis, for if TRPA were to follow Compact Article VII and prepare an environmental impact report for the Tahoe Basin's ongoing, piecemeal wireless roll-out, the fire risks could be evaluated and mitigated, right in your "ambit" as the Tahoe Region's planning agency. This sort of legalistic mumbo-jumbo has no merit, and earns TRPA the colloquial monikers it continues to unsuccessfully live down regionally, take your pick of which.

The Staff Report for the Oct 14, 2021 Permit Hearing Appeal provided only this finding concerning the public safety need, a level of analysis that boggles the mind on this hugely important life and death issue of fire safety:

#### Chapter 50 – Additional Public Service Facility Findings:

(a) There is a need for the project.

Cellular coverage maps show service gaps in the area and existing facilities are not meeting service needs associated with increased wireless **data** needs. This project will provide additional facilities to meet service needs in the area. **The additional facilities will provide improved wireless communication service in emergencies to help protect public health, safety, and welfare. (emphasis added)**

"Data" is not cellular phone service, and we know the issues with capacity in South Lake Tahoe center around increasing data for internet usage, which is not needed for public safety, persons downloading movies and the like. The latter statement is nothing more than orthodoxy, things assumed as fact and practice without basis in the face of challenges, such as the recent court ruling citing that expansion of data services, for profit or anything else, is not a protected action

under the Telecommunications Act, which is for phone service. The orthodoxy is, everyone just knows cell phones are needed for public safety, and cell phones depend on the towers, and that's what TRPA is practicing with the finding. Cellular services are often the first thing to fail in emergencies, that is why facilities with Class II designs are not relied upon for public safety telecommunications; those in Classes III and IV are for that purpose. Citing the design standard guidance, p. 3, it is frequently misunderstood for safety purposes, just as TRPA asserts:

“ . . . Essential communications” are defined within ANSI/TIA-222-G Annex A, A.2.2 as structures used primarily in support of civil or national defense, emergency, rescue or disaster operations, military and navigation facilities. On occasion, interpretations have been made based on the terms “emergency” and “rescue” in the above definition as validation of Class III requirements for wireless telecommunication towers, as the expectation is typical personal communication use of a mobile wireless device may be used during an emergency or rescue event, thus mandating the need for the higher classification. This is not the intent of the Standard. . . .”

### **Land Coverage Exceeds Allowable Coverage**

Please refer to the land coverage analysis in Exhibit 6. The Exhibit's analysis shows the various plan sheets with the revised Approved Plans are inconsistent with regard to the foundation dimensions, and moreover, inconsistent with allowed coverage – **in every case I measured it is way over the allowed 736 square feet of approved coverage available to the Project, in one case 29% over allowable. Because the approved Project plans do not meet coverage limits for the Project as designed and approved, the coverage findings in the Permit record of approval are invalidated and the Appeal must be upheld.** By the estimates in Exhibit 6, if built according to “Acknowledged” final revised plans, **the Project will exceed allowed coverage for the Project on this sensitive parcel by either 49 square feet, 165 square feet, or 98 square feet, depending on which Verizon drawing you measure.** I tend to side with the latter two estimates, as the drawings do not involve the roof overhang, which obscures the first. In any case, the excess coverage is not zero, which is what is available for excess coverage.

It appears the Verizon designers were not paying attention to coverage allowances, and TRPA was insufficiently diligent in verifying dimensions for coverage purposes and consistency. Given the emphasis TRPA seemingly places on its strict coverage rules, one would think Verizon would be more Permit compliance concerning coverage. By all appearances, in the rush to “get the Permit out” the plan dimensions were not verified by TRPA. To do other than uphold the Appeal is a miscarriage of justice for all those thousands of Permittees and prospective permittees who have suffered to comply with TRPA coverage rules, and makes a mockery of the coverage/Permitting system. I mentioned in the Affidavit that the parcel was overcovered. I will emphasize it is not just a little overcovered, the SEZ on the site is majorly overcovered, as are the sensitive 1A lands. There is no legal basis to give Verizon a pass for their plan errors, caught on Appeal, or process another remedial post-approval coverage transfer of some sort on this

beleaguered and overcovered Project site – after failing to grant a full and proper stay and rushing us to Hearing. I believe such action would be unprecedented, highly improper and without legal basis. **You must uphold the Appeal because this approval allowing overcoverage is inappropriate and must be set aside in order to proceed in the manner required by law.**

I have noted TRPA's extreme concern over the years with getting the coverage numbers right, applying the Rules to others, and so forth. But of what use is all that effort when the final analysis fails, as here; it is what gets built that affects the environment, not the coverage write-up and all the other lead-up. It seems to me one of staff's primary jobs in "plan checking" should be to verify that final plan dimensions reflect the approved coverage allowances. That is far from my experience. This is more typical of my experience: On the Projects I independently issued requirements for in my work, I would often have to reject inconsistent and incorrect TRPA-approved plans upon my own verification of coverage and project plans, and send the applicant back to TRPA until the plans were consistent, final, and correct for Water Board purposes. Contrary to TRPA, we required a complete "report of waste discharge," before any approval action was taken. No partial plans or incomplete plans were considered for formal action as TRPA has enacted in the ROP. If something needed to be changed, outside the scope of the approval, we began again, as should be done here if Verizon wants this chosen, arbitrary design change. It's really that simple. All else is to obscure the facts.

### **The Global Wireless Expansion, and TRPAs Role**

My father-in-law was a Captain on the Los Angeles Fire Department for many years, a high-rise fire safety regulator, who used to say people fell in one of three groups: those who comply willingly and fully with the law; those who do the minimum necessary to comply; and those who have to be forced to comply at every turn, the scofflaws. For the latter, things could go the easy way, or the hard way, their choice. I suppose people can be divided much the same way on the issues associated with the dangerous and deleterious biological effects of electromagnetic fields and microwaves in the environment: those who understand the science (engineers, researchers, doctors, biologists, etc.) and have sounded the global alarm concerning the planned 5G systems and existing systems; those who don't understand the science, the laws and FCC regulatory schemes, the telecom legal bully, the greater mass of the public who know little and accept the orthodoxy that cell phone and wireless technology is safe and a universal good, to be blindly embraced as a consumer; and, those who may or may not understand the dangers and pitfalls but are promoting the technology anyway because it serves their own purposes and agendas, witness TRPA staff. These are just observations (not judgments) of human nature on a free-will planet, with consequences. I will leave the judging to judges, as in the Eisenstecken case.

I have an associate, a rocket scientist and aerospace-electrical engineer, now retired from a career in the U.S. Air Force and contracting to put satellites in space. He told me he learned through a well-placed contact, a high-level satellite-telecommunication engineer at Buckley Space Force Base near Denver, that the military can control all wireless communications, presumably by

arrangement with the telecoms. The following was reported by the contact from two independent sources working at testing new 5G microwave antennas: when the 5G antennas were tested in Low Power Mode, all the birds and animals within 1000 feet were injured and killed, with birds dropping out of the sky. Whether small-cell or macrotower, the antennas are similar. A recent report from Scandinavia definitively associated bird deaths with 5G systems in use; again birds dropping from the skies, to be considered along with mass bird deaths reported elsewhere, but mainly outside of cities, where 5G testing can't be done. Whether you believe my associate's hearsay or not, what we have coming from the telecoms, the 5G systems, was developed for military weapon systems that can see through walls to target individuals and locations by cell phone with their pulsed microwave beams, which can maim and kill. That is not secret information, perhaps just not widely known.

If fully implemented, every citizen in the nation and world will be, for the first time in history, surrounded and dosed with radiation by this invisible 5G telecom weapons system whether they want it or not, as will all the biologicals. The CIA, FBI and DHS, the militaries (all the mass surveillance agencies) and telecoms and mass media tech giants want it for profit, control and other undemocratic reasons, and are forcing it on the rest of us who don't, enabled by our Congress, using the tactics from Big Tobacco's well-worn playbook and other subterfuges. But there is a difference: people had a choice about whether they wanted to smoke tobacco and incur the health risks. Humanity, all the kingdoms, are not being given a choice about whether to be bathed in the microwaves, despite zero human or other biological testing on the health and environmental effects of 5G by the FCC, the FDA, or any other U.S. public health agency. Madness, or a diabolical plan? They must have their 5G weapon on every street, ostensibly to avoid a "gap" in service coverage. Uh-huh.

There is a current saying since the so-called *Citizen's United* Supreme Court decision took the lid off of lobbying money, campaign contributions and the like: Congress can't be bought; it already has been, and no one's selling. The telecoms are major owners, and also of the FCC appointed by Congress. Since we already know the telecom wireless industry is a purveyor of dangerous products that deliver a dose of poison with every use, as well as a massive global plastic and e-waste generator through their designed-obsolescence sales model, I take no comfort in having such a 5G weapons system in the hands of a fascist government promoting this technology. SMART = Secret Military Applications in Residential Technology.

Some of you are old enough to recall the 1960s-era TV series *The Twilight Zone*, or caught it on replay. One of the most popular episodes in the very-popular series was titled, "*To Serve Man*," a story centered around "contact" with extraterrestrial humanoids from the cosmos, nice beings with highly advanced technology to serve mankind, beings who communicated telepathically (no cell phone). Their gift was a book of knowledge; humans had to decode it from their language. There seemed to be a great resonance with the story among the viewers, and one day a parallel occurred to me with the 5G systems. So I sat down for a couple of hours and wrote a story in rhyme, as I am a musician and songwriter in addition to all else I am. I have a certain knack, at

times, for saying a lot with a few words in my creative writings, versus saying a lot with a lot, as here. It will entertain you with some of the big-picture reasons why I am opposing this heinous 5G-wireless rollout. See my version of *To Serve Man* in Exhibit 7 to enter *The Twilight Zone*.

### **Appeal Number Three**

When I came to TRPA 2020 as a citizen-ally for the environment on these matters, I felt treated as a public enemy and ignored because I opposed this Project on various legitimate grounds. I requested to be notified of upcoming actions concerning wireless facility applications and planning activities, and was repeatedly ignored. No mailing list of interested parties was maintained, despite ROP 2.14: “TRPA shall maintain a list of all persons who have requested notice of TRPA meetings. Requests shall be valid for one year unless renewed. Media organizations and public agencies, on request, shall receive notices free of charge. Reasonable fees for notices shall be set by the Executive Director.” TRPA can’t produce such a list with my name and contact info on it because the only “notifications” I ever received from TRPA were in direct e-mail replies from staff in response to my inquiries. It appears TRPA has abandoned this rule it set for itself in a deliberate attempt to illegally exclude the public and has failed to proceed in a manner required by law, generally in this regard. I am not aware of a superseding regulation that would nullify the ROP requirements. I eventually gave up on the requests as a waste of time. I also thought it was interesting, as I learned after I filed the Appeal, that TRPA’s link to initiate a Freedom of Information Act request was broken. Just one more way to stymie public involvement. Taken alone, I wouldn’t say that, but look at the weight of evidence.

I thought it was deplorable that pdf attachments to emails I and others provided for the Verizon hearings, containing substantive comments, were not included in the record of public comments posted online with the transmittal email. Nonetheless I was assured by staff my e-mailed comments were in the records of the prior Appeal hearings. With written comments and oral comments during hearings I offered the best, honest advice and comment I could muster at the time concerning effects on environmental health, public safety and fire threats, and later on issues with plastic wastes and water quality.

The latter was my attempt to dissuade TRPA (you) from your folly, knowing far better than TRPA the water quality laws of the state of California, and regulations of the Lahontan Water Board. I told you TRPA had no discretion or authority to allow prohibited toxic waste discharges as Verizon proposed, and that your action would not withstand scrutiny by the Water Board. That was my failed attempt to save you from embarrassment by approving yet another giant monopine turd in the space you occupy with the Water Board. Arguably, as I previously glossed, the Water Board is the most powerful water quality ally you could have, if you don’t destroy their trust. My words did not matter to TRPA.

Now, Water Board orders have been sent to the Lake Tahoe Basin telecoms in California to begin to abate and regulate the deadly, toxic microplastics and lead TRPA has both ignorantly

and willfully allowed to pollute our sacred Lake Tahoe and region. I wasn't listened to or understood by TRPA when I said that I spent much of my professional career cleaning up the messes left by ignorant and willful polluters and desecrators, which is exactly what these monophines you have approved are, toxic messes. We don't want any more, and TRPA should be taking action to correct your blunders, not approving new facilities like this planned nuisance on Ski Run Blvd., against all law and reason.

TRPA has buried its head in the sand and dug in its heels on the issues of wireless radiation in service of its agenda with the telecoms, refusing input from interested parties. The remaining public seems large unaware of what is occurring, hypnotized by telecom gadgetry, hype and mass media, otherwise engaged and challenged by life. I urge you to now embrace your planning mandate to prepare an EIR encompassing all wireless facilities in joint participation with the Water Board to develop its required environmental document(s) under the California Environmental Quality Act, as it may, following the Compact and engaging the public to seek balanced, safer connectivity alternatives available for people and the special environment at Lake Tahoe. The other choice is to break the applicable laws to serve your telecom buddies to the detriment of Lake Tahoe, its surroundings, and its people. I believe people are born knowing right from wrong, and it is never too late to atone and correct past errors going forward. Thus we learn. **Please proceed in the manner required by law: Uphold our Appeal.**

**List of Exhibits:**

Exhibit 1. Affidavit and Stay Request, August 22, 2022

Exhibit 2. Marshall/Miller email exchanges, late August 2022

Exhibit 3. Lori Carpenter, MS, Letter Report on RGR and Soils-Hydrology Assessments

Exhibit 4. Miller Comment Letter to TRPA re Permit Adoption, October 2021, w/Attachments

Exhibit 5. Miller Comment Letter to TRPA re Appeal Hearing, March 2022

Exhibit 6. Coverage Analysis from the Approved Plans

Exhibit 7. *To Serve Man*, a rhyme by Alan Miller

## **AFFIDAVIT UNDER PENALTY OF PERJURY**

I, Alan Miller, swear under penalty of perjury the following information to be true and accurate to the best of my current knowledge and recollection.

I am a long-time resident of the City of South Lake Tahoe, and I am a licensed California civil engineer with many years of experience in dealing with water quality issues here at Lake Tahoe. This affidavit is submitted in support of our request for a stay which accompanies our Notice of Appeal.

### **The Staff Letter Waiving Prohibitions**

During a review of TRPA documents online I discovered a staff letter from a TRPA Senior Planner dated August 5, 2022 (Exhibit “A”, attached) waiving prohibitions for excavation potentially affecting ground water for the approved Verizon 112’ monopine tower at 1360 Ski Run Blvd. As the staff letter states, requirements for prohibited excavation activities are waived “pursuant to TRPA Code of Ordinances Sections 33.3.6.A.2.a (accommodation of engineering requirements for above-ground structures) and 33.3.6.A.2.d (public health and safety).” The subject waiver was issued without making any findings of fact, just citing the categories above, with limited information provided in support of these assertions. TRPA has approved this waiver improperly, in violation of the law in a number of ways, as this Appeal will make clear.

### **The Appeal**

This Appeal is concerned with the August 5, 2022 staff letter misinterpreting and misapplying the laws and regulations governing the Tahoe Regional Planning Agency (TRPA) by the TRPA, as formalized in the Acknowledged Permit for the Project posted online on August 19, 2022 in reliance on the August 5, 2022 staff letter. On March 23, 2022 the TRPA Governing Board denied the Appeal by Eisenstecken, et al., of the TRPA Hearing Officer’s October 2021 decision to issue the TRPA Permit to Verizon for the above-cited Project. On May 6, 2022 TRPA issued its Final Permit (per the file name in online documents) to Verizon for the tower planned at 1360 Ski Run Boulevard, City of South Lake Tahoe, CA. During all the time prior to the Governing Board’s denial of the Appeal on March 23, 2022, the Project plan specifications always specified that “Grading will not exceed 5’ [5 feet] below ground” for the tower foundation, located on TRPA’s most-sensitive Class 1 lands. I became concerned with impacts to ground water when I saw the August 5, 2022 staff letter from TRPA approving revised Project plans for excavation to a depth of 13.5 feet, lacking any stated evidentiary support or fact finding for the record of approval other than citing Code sections.

As we know, the tower itself is on Class 1a land (due to steepness), with sensitive 1b Stream Environment Zone (SEZ) lands surrounding, both SEZ lands associated with Bijou Park Creek that are excessively over-covered with impervious surfaces on the Project site, and those that remain more or less natural and/or functional to the east and downslope of the Project site. The quote in the paragraph above is from the approved 2021 plans showing a small spread or mat foundation approx. three feet thick and terminating five feet below ground at the *shallowest* point, a slab on earth, approximately three feet thick, with a riser 3 feet above it. Thus, excavation beyond five feet (to 7.5 feet), which is prohibited if not in accordance with Code of Ordinances section 33.3.6., letters A. and B., was proposed, evaluated, and made a part of the Permit approval record, as documented in the Eisenstecken, et al., Appeal Statement, the denial and subsequent Final Permit.

Through the Appeal, TRPA asserted the Project was not in significant conflict with the cited Code sections, for the Project as described and approved by the Governing Board, and so concerns, comments, and findings concerning ground water impacts from the foundation by the public, including myself, were limited. In fact, an early letter in the Project record from 2019 has Verizon expressly citing that the design was such that excavation would go beyond five feet, to 7.5 feet deep due to slope, though mostly less than five feet, with the clear implication that Verizon was fully aware of the five-foot excavation limitation as a basis for design. In response to the Verizon letter, on August 27, **2019** TRPA issued an approval letter that differs from the August 5, **2022** letter (Exhibit “A”) only by changing the allowed excavation depth from 7 feet 6 inches to 13.5 feet, and the date of issuance. This indicates excavation to 13.5 feet was of no more concern to TRPA than excavation to 7.5 feet, in the absence of findings other than provided in 2019.

The Initial Environmental Checklist (IEC) in the Project record states “No” concerning impacts related to: “Land. 1.d. Changes to the undisturbed soil or native geologic substructures or grading in excess of 5 feet?; Water Quality. 3.e. Discharge into surface waters, or any alteration in surface water quality, including but not limited to temperature, turbidity, or dissolved oxygen? 3.f. Alterations in the direction or flow of groundwater? 3.g. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer through cuts or excavations? and 3.j. The discharge of contaminants to the groundwater, or any alteration to groundwater quality? 3.k. Is the project located within 600 feet of a drinking water source?” (There are at least two domestic wells within 350 feet, at the residence of co-Appellant David Benedict.) Under the revised plans, all of these Checklist responses (and there may be others) would change to either “Yes” or “Data Insufficient” under the revised foundation proposal, as only improper evaluation has been done out of the public eye, and no mitigation has been proposed, improperly ignoring the certified finding of no significant effect (FONZE). Unless potential impacts are mitigated to insignificant levels an Environmental Impact Report is required.

The implication is that Verizon deliberately chose a relatively benign foundation design with regard to potential ground water impacts for the Environmental Review/Permitting/Appeal process, got to the end of that approval process, and then changed the Project description expecting TRPA would work behind the scenes to approve the significant design change before

anyone noticed and the 21-day statute of limitations for appealing the TRPA decision passed. That had worked before at 7.5 feet, so why not 13.5 feet?

This is not a minor structural change. It is a major change, and the basis for it is not explained. It is so substantial, for instance, in terms of foundation design and earthwork that it is not credible that the design change was not foreseen by the tower designers between 2019 and the March 23, 2022 Appeal Hearing/Denial, and subsequent Final Permit issuance, and the implication is that the change was planned and postponed to be approved after-the-fact by TRPA staff in the exact manner applied before, in 2019 when proposed excavation was to 7.5 five feet, knowing full well from TRPA that such a foundation to 13.5 feet potentially intruding on ground water could be challenged in a public environmental review process as required under the TRPA Compact. Leaving the 13.5 foot excavation out of the Project description thus eased the way to Permit approval.

### **The Proposed Permit Revision**

Having won the March 2022 Appeal, Verizon received its Final Permit from TRPA, based on plans dated September 29, 2021, on or about May 6, 2022. It appears that shortly after TRPA denied the Appeal in favor of Verizon, Verizon set wheels in motion for very significant changes to the tower foundation design, to support an amendment or revision or change (as it may be called) to the TRPA Permit. On or around August 2, 2022, Verizon submitted to TRPA a revised Plan sheet application to redesign the approved shallow footing to extend that same mat foundation footing 13.5 feet below grade, nearly two times deeper than the approved Final Permit. This was accepted as a “New Application” and subsequently approved as a minor modification or plan change under the prior approval with the August 5, 2022 staff letter and Acknowledged Permit posted on August 19, 2022. (See screen capture on page following.) I assert that is improper, voiding the prior project approval. A new or revised IEC was not prepared as required in the Code and TRPA Rules of Procedures, or was not available online if one was prepared, and that is where TRPA erred. Staff should have said, “This is very different with regard to reasonably potential adverse effects on ground water, as disclosed in the revised geotechnical report, and we will have to re-evaluate effects with a new or revised IEC.”

Doubling the excavation depth for the foundation makes it proportionally larger volumetrically by 2 times the original excavation of 80 cubic yards for the foundation, to be backfilled with 50 cubic yards of the disturbed excavated soil, with 30 cubic yards taken offsite for disposal. So we now have excavation estimated on the order of  $80 \times 2 = 160$  cubic yards, and  $50 \times 2 = 100$  cubic yards to be stockpiled onsite prior to backfilling, possibly using larger equipment for the deeper excavation, on the small shed foundation and small parking lot for the sled hill and adjacent area for the tower shed location, for this is where the previous plans cited in the Final Permit indicate all Project staging and construction activity must be done. How this excess decompacted, loose earth will be managed to prevent environmental impact hasn't been disclosed or demonstrated as far as I can tell, and impacts could be significant if mismanaged. The approval letter is silent on these matters involving potentially significant water quality and environmental impacts from the proposed Project changes, or any revised conditions or mitigation measures.

The foundation change was accompanied by a revised geotechnical report (RGR, dated April 19, 2022) and a revised structural engineering report (RSER, dated May 3, 2022, though the original SER from August 20, 2019 is not posted online). I don't know exactly when TRPA received these revised plans and reports but they were not a part of the Final Permit issued May 6, 2022.

**Record Status: Acknowledged**

Record Info ▾      Payments ▾

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**Work Location**

1360 SKI RUN BLVD  
SOUTH LAKE TAHOE CA

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**Record Details**

**Project Description:**  
025-580-07  
FILE ATTACHED  
Increased excavation depth for tower design. Electronic Application 8/16/2022 TLS Original permit (#ERSP2019-0389) acknowledged. Plans stamped as Plan Revision #1.

▼ **More Details**

- ▣ **Related Contacts**
- ▣ **Application Information**

**GENERAL**

General Scope:	New Application
Project Type:	Public Service
Associated Fees:	027 - Linear Public Facilities Section IV.B., Section 18.3 Code
Project Description:	New Monopine telecommunication facility
Code Section 30.4.6:	No
- ▣ **Parcel Information**

## The Ordinances

The applicable ordinances with respect to excavation follow:

Ordinance 33.3.6. Excavation Limitations (emphasis added)

“The following limitations to excavation shall apply:

A. Groundwater Interception

Groundwater interception or interference is prohibited except as set forth below:

1. Excavation is prohibited that interferes with or intercepts the seasonal high water table by:

a. Altering the direction of groundwater flow; b. Altering the rate of flow of ground water;

c. Intercepting ground water; d. Adding or withdrawing ground water; or e. Raising or lowering the water table.

2. TRPA may approve exceptions to the prohibition of groundwater interception or interference if TRPA finds that: a. Excavation is required by the International Building Code (IBC) or local building code for minimum depth below natural ground for above ground structures; b. Retaining walls are necessary to stabilize an existing unstable cut or fill slope; c. Drainage structures are necessary to protect the structural integrity of an existing structure; d. It is necessary for the public safety and health; e. It is a necessary measure for the protection or improvement of water quality; f. It is for a water well;

#### B. Excavations

Excavations in excess of five feet in depth or where there exists a reasonable possibility of interference or interception of a water table shall be prohibited unless TRPA finds that:

1. A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of groundwater will occur as a result of the excavation;”

The first thing to note is that the staff letter cites Code section 33.3.6.A.2., is waived for “accommodation of engineering requirements for above-ground structures,” a colloquial shorthand, I suppose, for the *actual* requirement, as stated above. The staff did not provide a thoroughly reasoned analysis with a rational conclusion for the waiver, simply assertions without supporting facts or substantial evidence, so a deeper look is required.

### **Excavation is Not a Legal Requirement**

The ICB is incorporated into the California Building Code (CBC), and will be referred to as IBC/CBC herein with regard to California Building Code 2019 (Vol 1 & 2). The claim that, “Excavation is required by the International Building Code (IBC) or local building code for minimum depth below natural ground for above ground structures” is not supported by findings in the staff letter or record, as follows. The IBC/CBC does not prescribe the manner of compliance with its requirements:

#### **“1.2.3 Alternative Materials, Design and Methods of Construction and Equipment”**

“The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.” (underlines are hyperlinks)

TRPA is not the “building official” and so would have to apply the requirements of the City of South Lake Tahoe, which has approved a Building Permit to build the tower. (At this time it is unknown to me if the City has approved the subject plan revision, or whether this is pending.) Because the code does not prevent or prohibit *any* design that complies with the code requirements to the satisfaction of the building official the proposed design is just one of many that could be applied. The RGR indicates that one or more foundation types (pilings, slab,

combo) are supported by the report findings (unchanged by 2022 revisions). Verizon originally designed a spread slab footing with excavation of generally five feet or less, to 7.5 feet maximum. Verizon then had a spread slab footing redesigned with 13.5 feet of excavation, and submitted the design change, which was accepted by TRPA after misapplying the CBC/IBC requirements and allowances cited above, assuming requirements where none exist. Any conceivable number of foundation designs no more than five feet below ground, or entirely above ground could support the tower, including a concrete monolith (perhaps with façade). Designs are only limited by imagination, materials, money and time, and this is simply Verizon's proposed illegal design, for it intrudes on ground water, or may, as disclosed in the Revised Geotechnical report (RGR) and August 5, 2022 staff letter.

The basis for the arbitrary selected design change is unknown, but it is not a requirement of the IBC/CBC unless TRPA can prove otherwise. Therefore, 33.3.6.2.A. is not a valid criterion based on the CBC/IBC. Nor does it appear that this additional deep excavation is a requirement of the local CSLT building official, per the latter part of the Code. No "local building code for minimum depth below natural ground for above ground structures" is cited in the record, and I doubt one exists that would be applicable in this case, given the frost line limits.

However, let us assume for the sake of argument that, unknown to me, there is a local building department requirement (not just allowance) for excavation to 13.5 feet that is supported because, unrelated to health and safety, TRPA finds that excavation is required by the . . . "local building code for minimum depth below natural ground for above ground structures." I assert that Code section 33.3.6.A.2. is merely permissive, providing only that the activity is not prohibited provided *all other applicable requirements of TRPA are met*. TRPA's action in this amendment approval is in effect asserting that a local building department requirement somehow supersedes all other laws and TRPA regulatory requirements. We are expected to believe that no other TRPA requirements apply. There is nothing in the law to support that interpretation.

The U.S Congress in its infinite wisdom, passed the Act establishing the Compact and the TRPA for the protection and responsible development of the Lake Tahoe region, under which the TRPA Governing Board of elected representatives and others, in their infinite wisdom, established the Code of Ordinances, and Rules of Procedure, including applicable Project application and environmental review procedures. However, the laws and regulations enacted are only as good as their application by the agency, which is flawed in this case. I will discuss the specifics of the Compact more below, but from a general viewpoint, if an activity that may affect the environment is not prohibited under the TRPA Code it may proceed under the applicable review procedures. In this case, unelected, appointed TRPA staff treats the amended Project application as if the exception to allow the Project changes under Code section 33.3.6.A.2. is a mandate of some sort for the unneeded commercial Project, and literally a "free pass" to ignore every other legal requirement imposed by the Congress on down because of a local building department

requirement. Shall the Congress be informed that their will has been thwarted due to a decision by the City of South Lake Tahoe Building Department staff, which appears to have simply approved the proposed design submitted by Verizon without question or mandate? The position that TRPA's mighty hands are tied in this case is legally untenable, for it makes a mockery of the Compact and everything that flows from it. The Project may proceed under the exception only in compliance with all laws and regulations TRPA is charged to implement and enforce, just as for any new Project.

### **The Exception to the Prohibition Against Ground Water Interception or Interference is Not Necessary for Public Safety**

TRPA's citation that the excavation affecting ground water "... is necessary for the public safety and health" is incorrect. Verizon is a private, for profit, corporation, a provider of convenience mobile phone and internet services, not a provider of necessary public health and safety services, or a utility such as sewer, water and electrical services, for which the Ordinances were ostensibly designed. One need do no more than look at the proposed Verizon tower design to see that it was designed as a non-essential facility with regard to public health and safety: it is designed as a Class II facility under the cited design standard. In addition to the IBC/CBC requirements, the RSR cites: "Structural design is based on the California Building Code, 2019 Edition (2018 IBC) and the TIA-222-H standard." (Note the latter is not a code, but an industry-derived design "standard" of practice with no force of law, developed by the tower industry and the American Society of Civil Engineers (of which I am a member)). The standard places towers into Classes according to public safety and reliability considerations.

Of relevance here are structure Classes II and III. Both Classes II and III qualify as a "significant hazard to human life and/or property" if a tower fails. Significant with respect to human life means a structure failure could result in injury or casualties, but very limited in Class II, i.e., due to exposure or remoteness, whereas in Class III a tower failure could also potentially impact other services, such as power, water, transportation, firefighting, ambulance, etc., that are considered essential to human life. Additionally, structure Class III can be justified solely on the basis that a high risk to life or safety or property damage is threatened in the event of a failure of the structure. I have included as Exhibit "B" (attached) the industry white paper "Classification of Tower Structures per ANSI/TIA-222-G, IBC and ASCE 7" (National Association of Tower Engineers, 2017) which explains further (emphasis added):

#### **Structure Class II:**

Structures that due to height, use or location, represent a significant hazard to human life and/or damage to property in the event of failure and/or used for services that may be provided by other means.

ANSI/TIA-222-G, Addendum 2 Annex A Section A.2.2 further defines Class II structures based on reliability criteria: Structures used for services that may be provided by other means such as: commercial wireless communications; television and radio broadcasting; cellular, PCS, CATV, and microwave communications.

*Commentary: Failure of a structure defined as Structure Class II presents significant hazard to human life and/or property if a tower fails. Significant with respect to human life means failure of the structure could result in injury or casualties, but it's very limited in practicality or exposure to more than a few individuals (e.g. Significant with respect to property means property surrounding the tower could be damaged or destroyed. With respect to reliability, the phrase "Used for services that may be provided by other means" signifies redundancy exists within the network to support temporary loss of service due to a specific site. This redundancy is present in almost all public wireless service, including E911 networks.*

**Structure Class III:** Structures that due to height, use or location represent a substantial hazard to human life and/or damage to property in the event of failure and/or used primarily for essential communications.

ANSI/TIA-222-G, Addendum 2 Annex A Section A.2.2 further defines Class III structures based on reliability criteria: Structures used primarily for essential communications such as civil or national defense, emergency, rescue, or disaster operations, military and navigation facilities.

*Commentary: With respect to reliability, Class III structures represent towers for which the owner/provider cannot tolerate any loss of the network/signal, due to either types of services provided or zero redundancy existing in the network. Beyond zero redundancy, failure could also potentially impact other services, such as power, water, transportation, etc. that are considered essential to human life. Finally, Structure Class III can be quantified when a high risk to life/safety exists in the event of a failure of the structure. The risk is exemplified when the public venue is not mobile (e.g. hospital, school, large public emergency gathering facility).*

Based on the Class II standard, the facility is not "necessary for public health and safety." It is redundant for essential safety services and it would be improper and specious for TRPA to assert otherwise and impose its own "necessity" standard with regard to public health and safety, for it is not a health and safety agency and has no particular expertise in that area. It is a planning agency that should rely on the determinations of others in matters of public safety and health, professionals such as the standards developers, professionals who are so charged to protect the public, and with particular engineering and other expertise. To the contrary, this exercise of independent judgment by TRPA concerning public health and safety is arbitrary and capricious, for the purpose of a blatantly illegal permit give-away to this particular private telecom Verizon, ignoring all Compact and TRPA Code requirements. The tower is not necessary for public health and safety.

Rather, the proposed tower is a new danger in the community. For the record, the tower is designed (and approved) as a Class II facility when it also meets criteria for a Class III tower, which carries a higher engineering safety standard. This is a disappointment in my view, for the tower itself represents a substantial danger to the public, relative to no tower. Class II is a lesser (cheaper) engineering design standard that seems more appropriate out in a forest somewhere, with no one around, though even a falling tower in that setting, as here, is an extreme fire danger.

At 1360 Ski Run Blvd., the falling tower may impact other structures, and/or injure or kill people, and/or affect transportation or vital services, as the tower is sited adjacent Needle Peak Road above Hansen's Resort, a commercial sled hill for children and their adults, a resort/residence there, and with the at-times heavily trafficked Ski Run Boulevard adjacent, right at the edge and downhill of the tower fall zone, which provides vital ingress and egress for the Heavenly Valley Ski Area California Base Lodge (used as a critical multi-agency fire incident command center/support center during the 2021 Caldor Fire, as well as a heavy tourist route). The threat of wildfire if the tower were to fall during high winds does not seem to be considered at all with regard to engineering safety factors, like it could never happen. The design Class II was not chosen and applied with the public safety uppermost in mind, only on the basis that it is redundant with regard to telecommunications.

Further, the manner in which the building official critically examined the RSER appears questionable. (And where is the SER original for comparison? Not found online.) I find that RSER to be rather frightening in certain regards. However wise or self-serving the TIA-222-H criteria may be, even that does not appear to be followed for this tower. The default Class II designation appears to me accepted by the building official without due concern for public health and safety.

Notably, in my view, the design does not account for any ice loading, stating on p 2: "*Ice*: None per the TIA-222-H standard." As ridiculous as that sounds to me as a professional civil engineer with understanding of structures and weather forces in our Lake Tahoe environment, where ice loading (combined with wind) can be quite substantial, that is apparently what is proposed by Verizon and approved by our local building official based on the following.

The Standard is not a Code and it's also necessary to check whether the structure is to be built in a county where "special conditions" apply to wind or ice loading, or if the building official requires a higher wind speed or ice thickness than provided for in the Standard. It appears in this case wind loads without ice required for El Dorado County were applied, and ice loading was not applied, though "special ice regions" are specified in the Standard (<https://wirelessestimator.com/content/standards>). Even so, no ice loading/thickness criteria are specified in the Standard, only winds to 30 miles per hour are specified (120 mph was used for the design). So the ice thickness/load is left to the designer, Vector Structural Engineering of Arizona, Limited Liability Partnership, and its registered California Structural Engineer of record, who chose zero (at its discretion), and the building official who approved that, despite standards calling for ground snow loads of 150 pounds per square foot (<https://www.cityofslt.us/123/Building-Design-Criteria>). Clearly, western El Dorado County generally has no ice, whereas eastern El Dorado County (Tahoe) has a lot of ice (and snow), and the basis for the specified design is unclear. I defer to the structural engineers and City of South Lake Tahoe building official if all these things were considered and documented, but it does not appear so. An iced-up monopine tower weighs much more than one without ice, with tremendous overturning forces at the base and unbalanced loads against wind forces. Is it any wonder the telecom industry is replete with tower collapses? Will this tower, if built, be just one icy windstorm away from collapse? At what cost to human life and property?

In summary here, the tower is not necessary for public health and safety. Public safety was not given due regard for this tower, per my above comments, and the approvals evince a lack of concern by public officials for our community at TRPA and the City of South Lake Tahoe, also complicit in this illegal change, nullifying their own California Environmental Quality Act (CEQA) documentation and finding of CEQA exemption, just as TRPA has under the Compact. This tower fits the Class II well so far as being unnecessary and redundant with other available telecommunications structures and area services, including emergency services, and that designation is allowable; the tower is clearly **not needed** for public health and safety. It is my ongoing contention this tower is a danger to the public in all respects, just one of many such towers approved by TRPA. **It will be a clear detriment to the public health and safety if it is built, including its 10,000 lbs of toxic PVC plastics, which degrade to microplastics and become toxic litter and water pollution on and off the leased area/project site due to wind and snowstorms; its electromagnetic microwave radiation poisoning of all biological organisms including people, animals and vegetation (pine trees, aspen trees, frogs); it's grave fire threat to the community and Lake Tahoe region; all impacts unrecognized and ignored by TRPA in service to its client Verizon, blind to the laws and science, and deaf to the public outcry.**

### **The Waiver and the Geotechnical Report**

Having asserted, to its satisfaction alone, that one or more criteria in section 33. 3.6.A.2. were met, and bypassing section A.1 entirely, which describes potential effects on ground water (part 1, letters a. – e), TRPA approved the waiver, stating “ground water is not expected to be encountered.” The basis is unclear, since this contrary to the RGR reportedly reviewed prior to approval, and is improper for the reasons discussed previously. The approval letter concludes by stating: “Please note that it is possible that variations in the soil or ground water conditions could exist that are different than what has been investigated or reported. If conditions are found to be wetter than expected, contact TRPA immediately to discuss options for dewatering.” This caveat should say, “If ground water is encountered during excavation please cease all excavation activity and contact this office, because interference with the ground water is prohibited.” That would be proper under the Code, at a minimum.

While part A. applies to any excavation affecting ground water, part B. applies to excavations deeper than five feet: “where there exists a reasonable possibility of interference or interception of a water table [excavation] shall be prohibited unless TRPA finds that: 1. A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of ground water will occur as a result of the excavation;” This provision applies to both temporary and permanent interference with the ground water, so even if ground water isn’t encountered during construction, that is no basis to conclude, based on the RGR, that “no interference or interception of ground water will occur as a result of excavation.” TRPA is exercising its independent judgment here in ignoring ground water effects, either misinterpreting the RGR or not giving it due regard.

The RGR is a soils/hydrologic report by a qualified professional as described in the Code. In my over 25 years of work at Lake Tahoe as a water resource control engineer (in various capacities)

and long-time senior supervisor of the North Lahontan Basin Regulatory Unit of the California Regional Water Quality Control Board, Lahontan Region, I reviewed literally hundreds, if not thousands, of such geotechnical reports, drilling reports, ground water investigations, wetland and SEZ delineations, soil reports, etc., so I am well within my area of expertise. It is unlikely the proposed content and methodology were reviewed and approved in advance by TRPA, as required (for the proposal to excavate to 13.5 feet) as there was no proposal for excavation below 7.5 feet before 2022 triggering the above cited requirement, as discussed on page 1, above. To investigate soils for evidence of ground water for excavation to such depths (13.5 feet), usually a test pit is dug with a backhoe to evaluate soil layers in a more-or-less undisturbed state. Soil investigations for evidence of the presence or absence of ground water called for by TRPA in 2019 (when the proposal specified no more than 7.5 feet of excavation) were unchanged in 2022 when the plan change was proposed to excavate to 13.5 feet. However, the 2022 revisions to the 2019 GR, mainly related to seismic provisions, did not affect the RGR sections concerning potential ground water occurrence, the borehole investigation, soil types and related subjects covered in the RGR, so that information must inform the decision of whether to approve the excavation.

The methodology applied was a single borehole, eight inches in diameter, from which samples were extracted using a split-spoon sampler, two inches in diameter, at intervals, and two bulk samples from near the ground surface. It is unsurprising that ground water was not encountered in the boring to drill penetration refusal at 19 feet, due to encountering rocks or bedrock, in mid-summer, July 2019 (when the drilling work was done) in these thin, porous soils above bedrock. You can't really tell a lot from a single borehole about subsurface ground water hydrology and flow regimes, soil mottling by water, other hydric soil indicators, etc., and more information should have been required for the new proposal, but the RGR contains enough information to make an informed conclusion that there is a "reasonable possibility of interference or interception of a water table."

First, the RGR notes the soil layer, 10 feet thick, above refusal (bedrock) is "Bryan Meadow Grandiorite," a granitic meadow soil, and this is consistent with the soil map unit shown in Appendix A extending southward and outward to encompass the Heavenly ski area and more. "Meadow" soils by definition generally develop under, and exhibit characteristics from, contact with water. I have knowledge and experience with the areas surrounding the Heavenly Valley Ski Area California Base, and the Bijou Park Creek that literally "springs" forth below their parking lot and municipal street access (covered SEZs). That area and below the Heavenly CA Base, with these mapped Bryan Meadow Grandiorite soils, is prone to exhibit surfacing springs when underground fissures in the sloped bedrock beneath the shallow soil layer and soil interstices fill and discharge ground water to the land surface during and following wet periods and high water years.

On pages 1 and 2 of the RGR the advice is to plan on encountering granite bedrock 19 feet below ground surface (bgs) if foundation drilling will be employed, and stipulates: "Ground water was not encountered during the field investigation. However, Ground water levels will fluctuate with seasonal climatic variations and changes in the land use." Since the excavation will come within 5.5 feet of the bedrock, the above means any ground water above that level that may occur seasonally will encounter the foundation or excavation and will be intercepted and interfered

with. With regard to “seasonal climatic variations,” I believe this comment refers to changes in the wetter and dryer cycles and seasons, and changes in land use such as proposed with the tower. The foundation will displace the soil from the ground water table during periods of seasonal ground water flow. Any ground water flowing more than 5.5 above bedrock will have to flow through the excavation (when in progress) or around the foundation (when completed).

In section “4.0 Site Conditions” the report cites, “There are no water features present in the vicinity of the Project site.” That may be true for the *drilling* site, but indicates that the qualified professional(s) responsible for the RGR missed Bijou Park Creek entirely, which is an ephemeral SEZ easily visible on maps. It is also easily visible from the drilling site and Project site, to the east across Ski Run Blvd., where it crosses underground westerly to the Project site, resurfaces and passes directly below the Project site. Missing such an important drainage feature, which TRPA is or should be well-aware of, has major implications for the final “Limitations” section of the report for it indicates the investigators did not fully understand the site surface and subsurface hydrology and how the surrounding topography relates to nearby ground water flows. Therefore, they felt a need for all their disclaimers. For example, the Project site surface drainage is not dissipated by overland sheet flow, at least not very far, but actually by sheet flow directly to Bijou Park Creek, so that was misstated in the RGR, also.

Text on p. 8 discusses drainage for “walls” (e.g., a flat surface perpendicular to the ground such as a foundation face) indicating a variety of subsurface drainage elimination systems may be needed to reroute and and/or eliminate ground water “near the bottom of the wall” to prevent ground water surcharges and earth pressures on the foundation due to water accumulation in the subsurface from flow blockage. The RGR is warning that there will be ground water interception to consider, and that it must be planned for, including (preferably) replacing soil with gravel 12-24 inches thick around the “wall.” Such replacement would increase the amount of excavation and soil replacement from my above estimates, and further alter ground water flow patterns, which is the intent.

On page 9 of the RGR there is a discussion of temporary drainage measures, notably, “If standing water does accumulate, it should be removed by pumping as soon as possible.” This is a clear reference to standing ground water at the bottom of the excavation, which could become contaminated with concrete wastes, for example. On page 10, section 8.6 discusses “Ground Water,” noting again that, “Subsurface drains may be needed to intercept seasonal ground water seepage.” Code section 33.3.6.A.1. says “Excavation is prohibited that interferes with or intercepts the seasonal high water table by: a. Altering the direction of groundwater flow; b. Altering the rate of flow of ground water; c. Intercepting ground water; d. Adding or withdrawing ground water; or e. Raising or lowering the water table.” All of these changes are threatened by the enlarged foundation and the proposed drainage measures. What would become of this drainage, how it would be managed and disposed of, is not disclosed.

The RGR goes on (p. 9), “Ground water seepage may occur several years after construction of the project if the rainfall rate or drainage changes in the vicinity of the project site.” And again it calls out the potential need for French drains (subsurface drains for ground water). P. 10 cites and concludes with a number of “Limitations” based on the very limited scope of the investigation (a single bore hole), uncertainties in site conditions, and other things not

uncommon in such reports. Clearly, the RGR is concerned with seasonal and other subsurface ground water tables and flows, and the recommendations with regard to these remained unchanged from the original report, when excavation no greater than 7.5 feet was proposed..

TRPA did not refute the information provided in the RGR, instead supporting it with its dewatering contact requirement. Despite all of this information and more, all the changes to ground water threatened by intrusions and alterations, and with an RGR that adequately demonstrates that interference or interception of ground water will potentially or very likely occur as a result of the excavation, TRPA nonetheless approved the waiver with the staff letter. Clearly TRPA saw in the RGR the potential for ground water interference in requiring notification if ground water was encountered and/or dewatering was to be proposed or undertaken. The exception was granted even though the legal criterion was not met, presumably thinking, in error, that an exception under Code 33.3.6.A.2 somehow supersedes and nullifies all other requirements. It does not. I earlier opined that those findings do not withstand legal scrutiny; if I am proven wrong, I still insist that Code 33.3.6.B. and its requirements can't simply be ignored on that basis, as I discuss below.

### **Impacts Due to Excavation Are Unmitigated, and Can't Be Fully Mitigated**

I suspect the extra depth for the foundation may have been proposed because the RSER discloses, perhaps for the first time, that well over 10,000 pounds of PVC plastics will be deployed on the structure, 112 feet tall, with its significant weight and wind resistance, bringing the total weight to around 15,000 pounds, unloaded by ice. I noted the doubling of excavation amounts earlier, and add that extending the foundation to 13.5 feet provides a deeper "wall" section profile to interfere with ground water flows occurring through the meadow soils above the bedrock, and displaces soils closer to the bedrock surface that provide filtration for ground water. Thus, some soil filtering capacity for ground water will be sacrificed. It also places the foundation fully in the soil layer above bedrock (starting roughly nine feet below the ground surface at the borehole) cited as "Bryan Meadow Grandiorite", whereas before the foundation was above that soil layer. The deeper foundation will replace this soil volumetrically with impermeable concrete estimated at 48 cubic yards or more. It must be noted that the foundation is a buried impervious surface that appears to escape TRPA "coverage" analysis, though it will impede the downward flow of precipitation through soil pores above the foundation, which I estimate is around 432 square feet or more in plan-view area. Precipitation and snowmelt, including that captured by the tower above, will become interstitial flow through the soil pores above the foundation, but will have to flow over and/or around the foundation edges to enter ground water at or below the foundation, all impacting and interfering with ground water flows on the Project site.

Let me address the Project site conditions from my perspective. The Project site is a parcel containing only Class 1 lands, the most sensitive land class or capability TRPA has, including steep lands (1A) and SEZ (1B), and the parcel is substantially in excess of allowable coverage, mitigated (offsite) by a \$5000 payment to TRPA for excess coverage mitigation. That payment mitigates the historical coverage impacts. It does not mitigate or ameliorate the degraded site drainage conditions or mitigate any potentially significant impacts associated with the de facto Permit amendment granted by the TRPA for prohibited excavation activities. As noted in the

RGR, bedrock is 19 feet below ground near the tower location, which is on a 1A slope above the SEZ lands, and underlain by soils permeable to water flow over bedrock. The area to the south of the tower is Needle Peak Drive, a municipal street covering the steep adjacent lands and carrying drainage to Bijou Park Creek below the Project site. Given the shallow soil layer underlain by bedrock, there is literally nowhere for precipitation on the Project site to go but overland to Bijou Park Creek, or through the soil to Bijou Park Creek. Bijou Park Creek is literally the surface expression of its dominant hydromorphologic feature, the inflow of ground water from the upslope surroundings, its hydrology near the land surface, which is what sustains it.

Subsurface drainage generally follows the slope of the land. The land surface at the tower site is located about 75 feet directly upslope of the SEZ boundary shown on the plans with the Final Permit, at an elevation of 6374 feet relative to the SEZ boundary at 6362 feet, the difference in these elevations being 12 feet. Therefore, excavation to 13.5 feet will actually be to 1.5 feet *below* the elevation of the SEZ boundary, at 6360.5 feet. The occurrence of ground water at the SEZ boundary was not investigated or required to be investigated by TRPA, though ground water may flow just below the land surface at or below the SEZ boundary, that is to say above 6260.5 feet, especially during and following periods of heavy precipitation or snowmelt, when ground water levels can easily rise on the order of feet in such areas. Also, the slope of the underlying bedrock can't be known from a single borehole investigation. The elevation to Bijou Park Creek below the Project site is not disclosed in the Project Permit documentation, but is below 6262 feet. Therefore, the fate of all the precipitation that occurs on the Project site, averaging around 54 inches of water annually or thereabouts, is to flow overland to Bijou Park Creek (through the over-covered parcel) or by ground water flow through the soils on the Project site to Bijou Park Creek.

Because the onsite SEZ and steep lands have been degraded, interfered with, and altered by existing foundations, structures and other impervious surfaces for parking, land grading for sledding, etc., which impacts surface and subsurface drainage and has not been fully mitigated onsite, any additional impacts that would alter or interfere with ground water flows must be considered potentially very significant in light of the ongoing water quality challenges in Lake Tahoe. Remember, also, that the Bijou Park Creek SEZ receives excess runoff from the impervious surfaces on the Project site because of difficulties with infiltrating runoff in areas with high water tables (SEZ), and that saturated SEZ soils also provide limited or impaired runoff filtering using typical infiltration "Best Management Practices," again making any adverse changes to the Project site and ground water flow regime potentially significant.

### **Administrative Procedures Have Been Violated; Stay Request**

This Appeal includes a request for an immediate stay calling a halt to any ground disturbance in excess of five feet below the existing natural grade in light of the information and concerns in the prior sections, until this decision is formally reviewed. Nothing is more fundamental to TRPA's mission than water quality in my view, it is the reason for its formation: to protect and restore the heavily impacted and degraded environment drastically affecting Lake Tahoe water clarity and quality. Among the most heavily impacted resources are the SEZs, as recognized widely, due to historic impacts such as those at the Hansen's Resort tower site. That is why the TRPA put in place strong ordinances to protect these critical resources and the ground water that sustains them

and allows them to perform their functions, however impacted or degraded they may be. I have knowledge of TRPA rigorously applying the subject prohibition requirements against public and private persons in many settings, denying permits by the hundreds, if not thousands, for the least intrusion by excavation into ground water in furtherance of its mission. However, it seems to have abandoned doing so in this case for its telecom partner, Verizon, to which only the loosest legal interpretation applies, flawed as it is. TRPA is totally inconsistent here and giving Verizon favored treatment under the law, by essentially ignoring the law as it applies to them. This not just a little deck pier, or a minor intrusion into ground water by excavation, which TRPA has often denied exceptions for. This is a major intrusion into ground water with a foundation of 48 cubic yards or more, and it is outrageous that it has been approved such as it is.

I am asked, “if possible, to provide written evidence of the hardship caused by a stay.” With the foregoing considerations in mind, I would like to speak of the hardships to water quality imposed on the Bijou Pack Creek and on-site SEZ already, the difficulties in meeting environmental thresholds for SEZs basinwide, the irreversible impacts to water quality that will occur if construction is allowed to proceed as proposed. The additional harm to water quality from disturbing the soils and ground water flows and patterns above the SEZ from the revised deep foundation is significant and can’t be fully mitigated if allowed to proceed as authorized by the staff letter. The harm to water quality will be done, and the impacts will last. If allowed to proceed without a stay, it will not be possible to fully undo the damage, even if tower removal and site restoration is later required. The staff approval completely nullifies the TRPA environmental documentation and finding of no significant effect for the Project as approved by the Governing Board.

I am also personally distressed by the potential effects from this Project on Lake Tahoe, where I swim, it’s surrounding environment, where I live, and aggrieved by the lack of opportunity for public comment on this proposed activity and staff-level approval significantly affecting water quality on this Project of substantial known public controversy, whose approval by TRPA is currently being litigated in Federal District Court in Sacramento. I did not work for 25 years holding the line on water quality at Lake Tahoe as best I could to willingly or idly endure this malfeasance. No opportunity for public comment was announced, and the only opportunity to formally comment is by filing this Appeal. It was difficult to locate information online (which would sometimes disappear under various disclaimers) to evaluate, however scanty, or TRPA findings (as above), comment or raise objections concerning substantially increased excavation that may affect the ground water adversely, evaluate impacts from excavation dewatering and/or waste discharges, or assess potential adverse affects on the surrounding SEZ, prior to the action taken by TRPA. No public notice of availability of the Project plans or Permit changes was provided; I found the August 5, 2022 staff letter waiver approval by chance online among other historic Project documents.

In balancing public interest, equities and environmental protection, one of the things I’ve noticed to be guarded against by regulatory and planning agencies such as TRPA has been the tendency to treat “orthodoxy” as evidence. It seems to be popular mythology that cellular and digital services are presumed to be in the public interest, and therefore worth sacrificing ground water quality to some extent on this over-covered parcel with its overdeveloped SEZs, without regard to cumulative impacts or the laws. But in a courtroom, before the TRPA Board, or now with the

Chairman of the Board, I assert the need to actually “balance the equities” using real evidence, and not simply default to orthodox beliefs based upon faulty assumptions. The Compact demands that a process be followed. There is zero evidence that we have seen on “public health and safety,” only a presumption. Verizon’s hardship rests on profits, which are not my concerns, and should hardly be TRPA’s. Can one really think Verizon would be motivated to place this tower at great expense for health and safety, when the chosen design standard doesn’t support that claim? TRPA regularly puts applicants through regulatory hell for simple commercial projects but telecoms such as Verizon, in this case, get a pass.

We have the TRPA staff not only approving the excavation, allegedly in violation of law, but requiring notification to staff from the Project proponent if ground water is encountered or dewatering is needed. And all this was done outside the public forum, as will be discussed below. As a result I have been impelled to act under short timelines to interrupt the proposed illegal activity, in the absence of certain Project information, and pay exorbitant fees to appeal the illegal action carried out from the recesses of the agency, when I should have been provided full opportunity to comment at no cost in the public forum on a new or revised IEC, as required under the TRPA Rules of Procedure for a new application. That is unjust and improper under the law, an abuse of authority and discretion, and unequal treatment of applicants under the law. My due process rights under law were violated and I was charged for the privilege. I should be given a refund.

### **Review Standards: What the TRPA Compact and Code of Ordinances Require**

The changes to the approved Project threaten very significant water quality impacts due to excavation intruding on ground water, against Code Limitations, and without going through formal review procedures. Here are some relevant review standards from the compact:

#### **ARTICLE VII. – ENVIRONMENTAL IMPACT STATEMENTS**

(a) The Tahoe Regional Planning Agency when acting upon matters that have a significant effect on the environment shall:

- (1) Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man’s environment;
- (2) Prepare and consider a detailed environmental impact statement before deciding to approve or carry out any project. The detailed environmental impact statement shall include the following:
  - (A) The significant environmental impacts of the proposed project;
  - (B) Any significant adverse environmental effects which cannot be avoided should the project be implemented;
  - (C) Alternatives to the proposed project;
  - (D) Mitigation measures which must be implemented to assure meeting standards of the region;
  - (E) The relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity;
  - (F) Any significant irreversible and irretrievable commitments of resources which would be involved in the proposed project should it be implemented; and
  - (G) The growth-inducing impact of the proposed project;
- (3) Study, develop and describe appropriate alternatives to recommended courses of

action for any project which involves unresolved conflicts concerning alternative uses of available resources;

(4) Make available to States, counties, municipalities, institutions and individuals, advice and information useful in restoring, maintaining and enhancing the quality of the region's environment; and

(5) Initiate and utilize ecological information in the planning and development of resource-oriented projects.

In the case of the tower at 1360 Ski Run Boulevard, the Project Permit was approved under a Finding of No Significant Effect (FONSE), an exemption from preparation of an environmental impact statement (EIS). However, the revised foundation plan, with excavation intruding against prohibitions and limitations into ground water, was not included in the Project description. Changing the Project description, in this case, nullifies certain findings in the FONSE such that the FONSE no longer applies to the Project due to potentially significant impacts. I have no issue not already before the Court if Verizon wishes to construct the foundation as proposed in 2021 plans approved before August 2022. If, however, the Final Permit is to be amended it must be pursuant to applicable review procedures, not with a wink and a nod from staff in a letter after the ink is barely dry on the Final Permit.

ARTICLE VI(b) "No project other than those to be reviewed and approved under the special provisions (d), (e), (f), and (g) may be developed in the region without obtaining the review and approval of the agency and no project may be approved unless it is found to comply with the regional plan and with the ordinances, rules and regulations enacted pursuant to a subdivision (a) to effectuate that plan. The agency may approve a project in the region only after making the written findings required by this subdivision or subdivision (g) of Article V. Such findings shall be based on substantial evidence in the record."

The Project as revised does not comply with the TRPA ordinances, rules, and regulations, incorporating my comments above. It can't be considered a mere add-on to the approved Project, but constitutes a revision requiring an entirely new IEC or Environmental Assessment (EA), conducted in the public forum.

ARTICLE VI(j)(5) "In any legal action filed pursuant to this subdivision which challenges an adjudicatory act or decision of the agency to approve or disapprove a project, the scope of judicial inquiry shall extend only to whether there was prejudicial abuse of discretion. Prejudicial abuse of discretion is established if the agency has not proceeded in a manner required by law or if the act or decision of the agency was not supported by substantial evidence in light of the whole record. In making such a determination the court shall not exercise its independent judgment on evidence but shall only determine whether the act or decision was supported by substantial evidence in light of the whole record. In any legal action filed pursuant to the subdivision which challenges a legislative act or decision of the agency (such as the adoption of the regional plan and the enactment of implementing ordinances), the scope of the judicial inquiry shall extend only to the questions of whether the act or decision has been **arbitrary, capricious or lacking substantial evidentiary support** or whether the agency has failed to proceed in a manner required by law."

The waiver in the staff letter is not supported by substantial evidence in the record. The opposite is true; the RGR supports my contentions that ground water will be interfered with against the prohibition, and the staff letter provides no credible contrary evidence, in fact, anticipating interference with ground water. The TRPA has failed to proceed in the manner required by law,

arbitrarily and capriciously approving the amendment without following the Compact and Code of Ordinances requirements for environmental and public review.

ARTICLE VII(d)

In addition to the written findings specified by agency ordinance to implement the regional plan, the agency shall make either of the following written findings before approving a project for which an environmental impact statement was prepared:

- (1) Changes or alterations have been required in or incorporated into such project which avoid or reduce the significant adverse environmental effects to a less significant level; or
- (2) Specific considerations, such as economic, social or technical, make infeasible the mitigation measures or project alternatives discussed in the environmental impact statement on the project.

A separate written finding shall be made for each significant effect identified in the environmental impact statement on the project. All written findings must be supported by **substantial evidence** in the record."

Since the TRPA can't make the written findings cited above before approving the Project change, either the application by Verizon must be withdrawn (the Project may proceed as approved on or about May 6, 2022), or approval of the amendment for the foundation change must be revoked and an EIS must be prepared. An EIS is required for the proposed Project change, as it stands.

The Proposed Activity is Not Exempt from Environmental Review

ARTICLE VII(f) "The agency shall adopt by ordinance a list of classes of projects which the agency has determined will not have a significant effect on the environment and therefore will be exempt from the requirement for the preparation of an environmental impact statement under this article. Prior to adopting the list, the agency shall make a written finding supported by **substantial evidence** in the record that each class of projects will not have a significant effect on the environment."

The exemptions pursuant to Article VII(f) are specified in Code section 2.3, and upon review do not include excavation such as proposed with the revised foundation plan. Therefore the Project Permit amendment is fully subject to the review procedures specified in Code section 2.2. for: "Activities that may have a substantial effect on the land, air, water, space, or any other natural resources in the Tahoe region." These requirements were completely overlooked by TRPA in issuing the approval in the staff letter, and must be followed. Since the Project is substantially modified by the proposed Plan change, an entirely new environmental review is required to be carried out, examining all the potentially significant effects from the proposed Project, and can't rest on the prior FONZE, though it may help inform a new IEC or EA document.

Subscribed to and sworn this 21<sup>st</sup> day of August, 2022, at South Lake Tahoe, California.

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Alan Miller

Exhibit "A": August 5, 2022 TRPA Staff Letter, "Revised: Soil Hydrologic Approval Waiver"  
Exhibit "B": "Classification of Tower Structures per ANSI/TIA-222-G, IBC and ASCE 7"  
(National Association of Tower Engineers, 2017)

I've reproduced the e-mails below using screen shots so they are in chronological order.

Request for Stay, TRPA. No. ERSP2019-0389-01/Appeal No. ADMIN2022-0036 



**John Marshall**

to me, Paul, Cindy, Gustafson, Katherine, Julie

Thu, Aug 25, 3:01 PM



Dear Mr. Miller/Mr. Albritton:

On August 22, 2022, Mr. Miller filed with TRPA an appeal and request for stay of TRPA staff's decision to approve up to an additional six feet of excavation for the foundational mat for the Verizon cell tower at 1360 Ski Run Blvd, South Lake Tahoe, Calif., TRPA File Number ERSP2019-0389-01. The existing plans for the cell tower authorized excavation of up to 7.5 feet below ground surface and provided that further excavation could be sought if final technical plans required additional depth. The plan revision sought approval of excavation up to 13.5 feet in order to maintain a minimum of 5 feet of soil depth above the mat.

Pursuant to TRPA Rule of Procedure 11.3, the Chair of the Governing Board has reviewed the material submitted by Mr. Miller, a response from Verizon, consulted with TRPA staff, and decided as follows. Verizon has agreed to stay the pouring of concrete for the tower foundation until the TRPA Governing Board can hear the appeal at its September 28, 2022 hearing. TRPA will monitor the excavation of up to 13.5 feet below ground surface with a qualified soils consultant. Although not anticipated, should groundwater be intercepted during the excavation, Verizon will cease excavation immediately and consult with TRPA.

To the extent Mr. Miller seeks a stay beyond that set forth above, his request is denied. Mr. Miller has not demonstrated a substantial likelihood of success on the merits of his arguments that TRPA staff erred in its approval of up to 6 additional feet of excavation. Staff appropriately relied upon a professional soils/hydrology report indicating no presence of ground water down to 19 feet where boring stopped. Staff also appropriately relied on two exceptions to interception of groundwater should it occur. Finally, Mr. Miller has not demonstrated actual (as opposed to speculative) harm resulting from that 6-foot increase in excavation depth in this location.

Because of the request for stay and Verizon's agreement, TRPA staff will agendaize this appeal to be heard at the Governing Board's September 28, 2022 meeting. Mr. Miller, if you desire to submit additional material relevant to the merits of your appeal, please do so by September 2, 2022. Mr. Albritton, if Verizon desires to supply additional material, please submit them by September 9, 2022.

If you have any questions, please contact me.

John L. Marshall  
TRPA General Counsel  
775.303.4882  
[jmarshall@trpa.org](mailto:jmarshall@trpa.org)

**Al Miller** <[syngineer1@gmail.com](mailto:syngineer1@gmail.com)>

to John, Paul, Cindy, Gustafson, Katherine, Julie

Aug 26, 2022, 4:00 PM



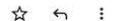
Hi Mr. Marshall, I wish to point out a scheduling conflict in that Rule 11.4 clearly provides Appellants with 30 days to file our statement in support of the appeal which means September 21, 2022, not September 2, 2022, as stated in your email. I need the time provided to me by the TRPA rules to finalize our statement and we intend to do so. I ask you to explain how it's then possible for the appeal to be on the agenda for the September 28, 2022 meeting under Rule 11.2. Thank you for your consideration, Alan Miller, PE

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**John Marshall**

to me, Paul

Aug 26, 2022, 4:23 PM



Mr. Miller;

Under normal circumstances you are correct regarding the timelines set forth in the Rules of Procedure. However, as you have applied for a stay and Verizon has conceded to a stay of cement work on the tower mat, Rule 11.3 controls and sets the hearing on the appeal at the next scheduled Governing Board meeting, which is September 28, 2022. TRPA staff is then obligated to produce an appeal summary and recommendation, which is due by September 20 in order to be posted by September 21. To provide staff with sufficient time to prepare the hearing materials, I set Verizon's response to be due September 9 and your submission by September 2 given that you have already provided extensive materials in support of your appeal and request for stay. In order to accommodate your desire to present more information, please suggest an alternative and fair schedule. Please call if you would like to discuss.

John

John L. Marshall  
TRPA General Counsel

Al Miller <syngineer1@gmail.com>  
to John. Paul. Cindy.Gustafson, Katherine. Julie ▾

Aug 28, 2022, 11:44 PM ☆ ↶ ⋮

Dear Mr. Marshall, All:

I am responding on behalf of the several Appellants to your emails of August 25 and 26, 2022, in consideration of Mr. Albritton's email of August 24, 2022, proposing a limited stay for the Ski Run tower project, which precludes only pouring concrete prior to a proposed September 28, 2022 hearing on the Appeal before the Governing Board. First let me say that we concede nothing at this time as asserted in the cited emails, in particular that the limited stay controls the date of the Board hearing. We filed the Appeal in good faith based on the Rules, an understanding of the timelines, the need to prepare a Statement of Appeal, and paid an exorbitant fee for the right to Appeal. Based on when the Appeal was filed, we believe we have a legal right, under applicable Rules, to a hearing in October 2022, and a right to be accorded the full 30 days to file a statement of Appeal should we choose to assert it. The stay has no legal effect on these timelines so far as I am aware.

The plan with the Appeal filing was to move ahead with a hearing in late October 2022 in awareness of Verizon's activities, plans and entitlements, letting the Appeal process unfold as it may under the Rules. If TRPA and Verizon wished to proceed with the Project with the Appeal pending, in light of the evidence of potential impacts presented, there was opportunity for that, and still is. If TRPA had issued its excavation approval letter by July 26, 2022, perhaps the Appeal would have been filed in time for the September meeting calendar.

When we heard nothing from TRPA on the stay by the statutory deadline, we assumed the stay was denied, despite the letter-proposal received from Verizon. Truly, it is denied, other than staying the pouring of concrete. Nonetheless, in the interest of preventing potential unmitigated damage to the soil and ground water on the Project site and wrapping this matter up before October 15, and under protest that our due process rights are being violated if an October hearing is not calendared, we are willing to consider going to hearing in September in exchange for certain considerations.

In the first place, we do not consider the limited stay, as communicated, to be protective of the soil beneath the proposed tower. Disturbing the soil will cause changes and irreversible impacts to the soil qualities and in-situ functions over the entire area of the excavation should ground water occur, seasonally or otherwise. It is my long experience that most people treat precious soil resources like dirt, useful only for supporting foundations, misunderstanding soils. In light of these comments, we suggest that the TRPA should require an independent investigation specific to soils and hydrology, beyond the Geotechnical Report, which was really not suitable for the purposes for which it is being used by TRPA.

Permit Condition 3.F, which Mr. Albritton pointed out, requires a "new soils-hydro application" for proposed excavations deeper than 7.5 feet. The revised Geotechnical Report offered nothing "new" in 2022 concerning soils and hydrology. TRPA should have required a new soils-hydro application and investigation report and did not even follow its own Permit condition, so it is reasonable for TRPA to now require (or Verizon propose) a proper soil and ground water investigation as discussed in the attached letter from my professional hydrologist associate Lori Carpenter, MS (Exhibit 1). Contrary to Verizon's report writers, her background includes extensive, impeccable work in the Lake Tahoe region (Exhibit 2) since the early 1990s or before, including for TRPA, in developing the hydrology criteria and soils information that informed the TRPA regulatory and evaluation programs for SEZs, among other things. She is among the most qualified, experienced and respected persons in her scientific field I've encountered in my long career. Consistent with her suggestions, we suggest at a minimum, a preliminary soil pit excavation to 13.5 feet with a small back hoe (e.g., 3-foot wide blade) to conduct the investigation, according to professional specifications which are usual and customary for ground water investigations. This is more reasonable than having TRPA staff monitoring the excavation for Verizon, which soils will then be covered with forms or concrete block for the later pour. That is unkind to staff, putting them under duress to support the Project approval, and financial ties to the Agency provide a potential conflict of interest, or appearance of same.

Simply having a TRPA staff monitor the excavation to see if ground water is intercepted during the excavation as proposed is both improper and unacceptable to us, as contrary to usual and proper requirements, and requiring a degree of trust not earned by TRPA. It is reasonable to require a proper independent, fully documented soil and hydrology investigation as discussed by Ms. Carpenter, and commit to share the report and/or preliminary information from the report within 24 hours of completion. We won't even argue who should do the study, with a focus on protocols, provided they have a suitable background and expertise in soil and ground water investigations (not geotechnical engineering alone). Once the results are published, which should take no more than a day or two, all can evaluate the independent report. If a report from proper investigation demonstrates ground water, including seasonal occurrence, is absent, then perhaps excavation could proceed ahead of the September hearing.

I say "perhaps" proceed because there is some question I've yet to investigate fully as to whether the revised plans are inconsistent with regard to allowed (verified) coverage for the foundation and the foundation dimensions depicted in final Permit plans, which appears to exceed the 304 square feet allocated and available for the Project. This is simply a placeholder here to say that even excavation, as authorized (to 7.5 feet), may exceed allowed coverage based on final plans, thus caution is advised, and no enlargement for drains (per the Geotechnical Report), concrete forms or molds should be allowed. I am open to clarification on this coverage matter.

The September 2, 2022 date to provide a Statement of Appeal is unreasonable and unacceptable. In the first place, we received TRPA's response a day late, and required further clarification of the proposed schedule under Appeal (not Stay) Rules, which in my view are not being followed, so rather the schedule must be negotiated under the circumstances to see if agreement can be reached, fairly and balanced. In seeking a path forward, I suggest that the Statement of Appeal be filed by 3 pm, Thursday, September 8, 2022, or within two business days of providing us a new, proper soils/hydrologic report, whichever comes later, as I will need this time to prepare additional information for the Statement of Appeal in light of other commitments and for Ms. Carpenter to examine the reports. As you wrote, you already have the gist of my arguments to consider; we have the right to supplement our initial filing with the Statement of Appeal, generally within 30 days rather than the 7 days offered. The work of responding to this limited stay and schedule proposal has consumed valuable time, taking time away from other review. I won't hear back from you now until Monday, August 29, at the earliest. I don't mind the extra work in seeking a suitable outcome that protects the interest of all, but it must be considered in the mix. I would also like to know whether we can comment on the Staff Report or Verizon materials, once issued, ahead of the Board meeting. Please advise concerning that.

In order to move ahead on the September Board meeting proposal I will need to have access to review and/or copy/photograph certain TRPA public records and file materials, which I expect will require at least one office visit for several hours early in the week of August 28, as I have been unable to locate or relocate certain public information online, which is potentially incomplete by disclaimers anyway. Your cumbersome, incomplete website info contributes to the need for time to September 8 to review and finalize a Statement of Appeal. I will schedule a review appointment if agreeable.

In summary, we think these requests are reasonable in light of the law and circumstances. I reiterate that we'll agree to the September hearing under protest since the TRPA's approval letter on August 5 set the timeline for the Appeal and that was under TRPA's control. Now we are being rushed and prejudiced in both our analysis and response time due to reasons caused by TRPA staff and/or Verizon. We will await your response to determine if we have an agreeable way forward to September in good faith. Lacking that, we will plan to file a Statement of Appeal by September 21, 2022, in expectation that an October hearing will be calendared. If these reasonable requests are agreeable, we consent to a September 28 hearing. I can be reached by phone if you wish for a discussion. Thank you for your consideration of our requests.

Alan Miller, PE

Exhibit 1: Letter to Al Miller, PE, from Lori Carpenter, dated August 27, 2022

Exhibit 2: List of Lori Carpenter's Tahoe-Region Projects

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2 Attachments • Scanned by Gmail



**John Marshall**  
to Paul, Katherine, me

Aug 31, 2022, 11:14 AM (12 days ago) ☆ ↶ ⋮

Dear Mr. Miller,  
Thank you for the input provided below. Pursuant to TRP Rule of Procedure 11.3, TRPA Governing Board will hear your appeal at its September 28, 2022 meeting. As I stated, TRPA will monitor the excavation, which, as you know, is already underway. TRPA staff and qualified consultant will conduct appropriate site visit(s) and we will provide you with any documentation created by or provided to us from those visit(s). I appreciate your effort to get any further Statement of Appeal to TRPA by September 8, 2022. As to your question regarding commenting on the TRPA staff report/appeal summary; you may submit comments (either to staff (then distributed to the Governing Board) or directly to the Governing Board. Regarding your request to review documents, please refer to Katherine Huston's recent email addressing your public records request. If you have any questions, please do hesitate to call or reach out. Thank you.  
John

**John L. Marshall**  
General Counsel  
(775) 303-4882 - [jmarshall@trpa.gov](mailto:jmarshall@trpa.gov)

**Al Miller** <[syngineer1@gmail.com](mailto:syngineer1@gmail.com)>  
to John, Paul, Katherine

Fri, Sep 2, 12:41 AM (10 days ago) ☆ ↶ ⋮

M: Marshall, Please see my reply on behalf of the Appellants in the matter of the Verizon Tower at Ski Run Blvd, attached by pdf. Regards, Alan Miller, PE

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To: TRPA via email, various staff ([jmarshall@trpa.org](mailto:jmarshall@trpa.org))

September 2, 2022

Dear Mr. Marshall,

Thank you for your email the morning of August 31, 2022, discussing the Board Hearing for our Appeal of the Ski Run tower plan revisions. I can appreciate that the Governing Board wants to proceed to hear the Appeal at its September 28, 2022 meeting, however misguided that may be. You continue to cite Rule of Procedure (ROP) section 11.3 as the basis for the Governing Board to do whatever it wants in an arbitrary and capricious abuse of discretion it does not possess, so let's go over it briefly. Applicable sections from the TRPA Rules of Procedure are below:

#### 11.1. PURPOSE

This article sets forth procedures for appeals of Executive Director actions on projects or other matters.

#### 11.2. FILING OF APPEAL

Final action by the Executive Director may be appealed to the Board by filing a notice of appeal with TRPA, including the required appeal fee as set by resolution of the Board, no later than 21 days after final action. A written statement of appeal shall be filed by the appellant with the Agency. In order to have the appeal put on the next Governing Board agenda, the written statement of appeal must be filed on or before the fifteenth day of the previous month. If no written statement of appeal is received by the Agency within 30 days after the filing of the notice of appeal, the appeal shall be dismissed. Ordinary administrative matters, such as purchasing, and contracts, may not be appealed to the Board.

### **11.3. STAY OF PERMIT**

An appeal shall not automatically stay the project or matter appealed. The appellant may request, as part of the written statement of appeal, a stay of the project or matter, and any such request shall be by affidavit or under penalty of perjury and shall include credible evidence of the need for a stay pending a hearing on the appeal before the Board at its next regular meeting. The appellee shall be given an opportunity, if possible, to provide written evidence of the hardship caused by a stay. The Chairman of the Board shall review any request for a stay of a project or matter and the evidence submitted therewith, and any evidence of the hardship on the appellee, shall balance the equities and shall determine, within two working days of the request, whether or not a stay shall be issued.

### **11.4. STATEMENT OF APPEAL**

The written statement of appeal shall include the name and address of the appellant and a detailed and specific explanation of the ground for the appeal. (See Sections 11.5 and 11.6 of these Rules.) The statement of appeal may be on a form devised by the Executive Director. Arguments and bases for appeals that are not included in the statement of appeal or staff's position paper shall neither be raised nor considered by the Board. Statements of appeal must be submitted in writing, in final, no later than 30 calendar days after filing of the notice of appeal. Statements of appeal must be submitted in writing, in final, on or before the 15th day of the previous month in order for the appeal to be calendared for the next month's Board meeting.

The first thing I'll point out is that the hearing schedule is spelled out twice, in both sections 1.2 and 1.4, based on when the appeal is filed. We filed on August 22, 2022, within 21 days of the August 5, 2022 action we are appealing. As this was after August 15, 2022, we realized this was too late to be heard on September 28, per the ROP. The second thing I'll point out is that section 1.4 does not marry any stay given to a Board hearing schedule, other than as cited in sections 1.2 and 1.4, and makes no reference to a hearing schedule. The only stay schedule noted is for TRPA to respond to a stay request within two business days, a schedule TRPA violated by responding a day late. If the Board wished it otherwise when adopting the ROP, the hearing schedule would have been included in the section concerning stays; that would be superfluous given sections 1.2 and 1.4, however. Such as it is, the Board has no authority or discretion to do whatever it wants in violation of the ROP based on a common-sense reading of the regulation. The hearing is required in October, and we have a right to that and an expectation under the law. We have no scheduling issue if the hearing is held during the regular meeting in late October 2022.

I will point out that the responsibility for this scheduling issue of TRPA is TRPA's alone. Let me remind you the Eisenstecken Appeal for this Project was filed such that the hearing on the Appeal should have been held during the regular Board meeting in January 2022. However, surprised by the unexamined issues associated with toxic litter and microplastics tower wastes disclosed in the Appeal, TRPA pulled the shutters and worked behind the scenes with its client, Verizon, to produce a lame consultant's report on plastics, and an even more lame-brained Condition 11 to add to the Permit prior to a hearing, your "trump" card. This joint TRPA-Verizon effort to deprive the Appellants of their civil due process rights extended some 60 days or so, when the hearing was arbitrarily and with caprice held in March 2022, and the appeal was denied, in large part, on the basis of the foregoing.

Had TRPA not illegally delayed the Eisenstecken Appeal hearing to stack the cards in Verizon's favor, in callous and brazen collusion, perhaps the tower would already be built. I say this delay by TRPA was fully with caprice, because we now have TRPA asserting a bogus claim that it can rush us to a hearing ahead of the ROP schedule – and on the very same Project. Clearly, TRPA acts as if it can do whatever it wants concerning Appeal hearing scheduling simply by throwing bureaucratic weight around, twice now in the case of this Project, in abject violation of the ROP. It seems TRPA's attitude is embodied as "we do what we want; if you don't like it, sue us," with you leading the legal charge. Such is TRPA's lawless representation of serving the public interest with you at the helm. Our legal recourse is to file for an injunction on the September hearing in federal court, something we frankly have no instance in pursuing here.

You stated TRPA will monitor the excavation. Yes, I have seen how TRPA is monitoring the excavation, which is why I filed a citizen complaint for soil disturbance on and off the Project site I observed last Monday, clearly in violation the Permit; I have yet to receive a response to my questions in the complaint, beyond a thank you from staff for my information, or any follow-up to inform me of any actions taken. I have opined in earlier email and in my appeal Affidavit what is proper in terms of a soils-hydrologic study, as bolstered by Ms. Carpenter's comments and recommendations, and I stand by those comments. TRPA should require a

proper and independent soils-hydro investigation appropriate for the Permit revision, as previously discussed, and in accordance with the ROP, rather than just doing what it wants in yet another abuse of discretion for its telecom client. When the deepest part of the excavation is completed, it would be an almost trivial matter to excavate one or more trenches in the sidewalls of the pit to carefully expose undisturbed soil layers and complete a proper independent investigation.

If history were to be our guide here, we might expect TRPA to pull back and give Verizon additional time to produce such an independent consultant's report, as required under the ROP, and stack the cards for the hearing in favor of Verizon, in the same manner as when TRPA delayed the Eisenstecken hearing. Except in this case it would not be illegal to delay the Appeal Hearing to October in order to resolve the uncertainties and controversies surrounding ground water. But, no, it's different this time; the cards may not stack that way for Verizon if an independent report were to verify impacts to ground water. Risky, so Verizon gets a skate on the report. TRPA will lean on staff investigation to speed things along towards a hearing in September. Capricious. I've seen TRPA staff work up close for 25 years. I was especially unimpressed with the work on this controversial Project.

In summary then, we continue to assert our right to a hearing on our appeal in October, in strong protest of the assertions otherwise by TRPA. Nevertheless, TRPA has a final choice to make: to continue to a September hearing illegally in light of these comments, or to follow the law. I urge the latter, with seemingly only the October 15 grading deadline mucking up the works for Verizon, again due to delaying the Eisenstecken Appeal. By law, our Statement of Appeal is due September 21, 2022. My earlier proposed date (September 8) to file a Statement of Appeal was contingent on resolving this scheduling issue by negotiated mutual agreements in lieu of following the ROP. Your counter-proposal fails, so we fall back to the ROP.

In summary then, we continue to assert our right to a hearing on our appeal in October, in strong protest of the assertions otherwise by TRPA. Nevertheless, TRPA has a final choice to make: to continue to a September hearing illegally in light of these comments, or to follow the law. I urge the latter, with seemingly only the October 15 grading deadline mucking up the works for Verizon, again due to delaying the Eisenstecken Appeal. By law, our Statement of Appeal is due September 21, 2022. My earlier proposed date (September 8) to file a Statement of Appeal was contingent on resolving this scheduling issue by negotiated mutual agreements in lieu of following the ROP. Your counter-proposal fails, so we fall back to the ROP.

The fact that TRPA will conduct the soil-hydro study is a partial deal-breaker, and I will comment no further here on that. With regard to your public records, I have been able to find certain needed information online at your websites/links and copy needed sections using screenshots, though I have no idea if the website information is complete. Based on your website disclaimers I must conclude it is not. While you expressed, and I agree, time is of the essence in the matter of my requests to review public TRPA file records in this matter, that timeline was frustrated and delayed by a broken weblink to your online Freedom Of Information Act request form, such that additional time was lost. (One must wonder how long it has been broken and why, how many other seekers of public information may have been frustrated and denied access to the form?) Ms. Huston wrote she is working on compiling correspondence for the records I requested, with no estimated completion date reported. Other file review matters are pending and this week is shot for me to visit the TRPA office, as hoped would be agreeable.

While reserving our right to file our Statement of Appeal up to September 21, and understanding TRPA may well do whatever it wants in violation of, or accord with, the law concerning calendaring the hearing, we expect we can't prevent TRPA from holding a

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September 28 hearing short of filing an injunction if that is what it decides. In vigorous protest then, under continuing objection, we will work toward filing our Statement of Appeal by September 12, 2022, a generous 16 days prior to the hearing date. It is my desire to give TRPA adequate time to respond to our Appeal, and not delay our filing needlessly. However, things often take longer than expected due to missing info, broken weblinks, violation complaints, and who knows what will come next. So September 12 is what you may anticipate if all goes well, and I can keep you apprised.

Please confirm at your earliest opportunity which date TRPA will calendar the hearing on. If TRPA decides on an October hearing we request to be informed before September 10, as we may utilize our time to September 21 to file the Statement of Appeal. If you have any questions, please write or call me. Thank you.

Sincerely, Alan Miller, PE

**John Marshall**

to me, Paul, Katherine ▾

Sep 7, 2022, 11:42 AM (5 days ago) ☆ ↶ ⋮

Mr. Miller:

Given the stay in place and per Rule of Procedure 11.3, your appeal will be heard at the September 28, 2022 Governing Board meeting (first at the Legal Committee for a recommendation, then later that day by the full board for final decision). Staff will prepare an Appeal Summary/Staff Report for the item. If you have any questions, please let me know.

John

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**geosUAS, Inc.**

***Unmanned Autonomous System Solutions for Natural Resource Assessments and Management***

10188 Cascade Falls Court, Reno, Nevada, 89521 \* (775) 287-9038

[loric@nevada.unr.edu](mailto:loric@nevada.unr.edu)

Mr. Al Miller, PE.

[syngineer1@gmail.com](mailto:syngineer1@gmail.com)

**SUBJECT: REVIEW OF TECHNICAL DOCUMENTS RELATED TO VERIZON WIRELESS PROPOSED FACILITY ON SKI RUN BLVD., SOUTH LAKE TAHOE, CA.**

Dear Mr. Miller,

Pursuant to your request, I reviewed the following documents:

1. Terradyne Engineering Incorporated, July 26, 2019, *Geotechnical Investigation Proposed 112.0-foot High Monopine Verizon SKI RUN BLVD. (PSL #444780)1360 Ski Run Blvd., South Lake Tahoe, CA 96150*, 47 pages with 4 appendices.

2. Terradyne Engineering Incorporated, April 19, 2022, *Updated Geotechnical Investigation Report Proposed 112.0-foot High Monopine Verizon SKI RUN BLVD. (PSL #444780)1360 Ski Run Blvd. South Lake Tahoe, CA 96150*, 6 pages.

I also conducted research with respect to existing NRCS soils mapping at the proposed drill hole site<sup>1</sup> and conducted precipitation models. The models were run for the dates of August July 26, 2019 and April 19, 2022 to determine climate conditions for above normal, normal or below normal climate conditions<sup>2</sup>. The purpose of this review is to assess groundwater conditions at the site, as described within reports 1 and 2 above. My background in soils is extensive and I have worked with the TRPA within the Lake Tahoe Basin. My resume is attached and my degrees are in hydrology/hydrogeology. I have over 27-years of direct experience with shallow groundwater systems.

I am giving you the conclusions - not an professional opinion - the difference being many pages of references, definitions, soil science explanations and numerous attachments. Where appropriate, I've included a link or reference. The brief discussion below will allow you to work with TRPA and their soil scientists to resolve outstanding issues.

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<sup>1</sup> <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx> at latitude 38.93744830537104, longitude -119.95011076567611.

<sup>2</sup> <https://www.epa.gov/wotus/antecedent-precipitation-tool-apt>

The main geotechnical report states that:

*The Scope of Services does not include an environmental assessment of the presence or absence of wetlands and/or hazardous or toxic materials in the soil, surface water, **groundwater**, or air, in the proximity of this site. Any statements in this report or on the boring log regarding odors, colors or unusual or suspicious items or conditions are strictly for the information of the client.*

The report also states that the purpose of our geotechnical investigation was to evaluate the subsurface and groundwater conditions of the site and *provide geotechnical engineering recommendations for the design and construction of the proposed project* by the observation of the groundwater conditions during drilling operations. No shallow piezometers were installed, which would be more indicative of a hydrologic study. Finally, it is not the industry standard for a groundwater assessment to drill one geotechnical borehole, nor are their conclusions or data representative of groundwater conditions at the site. A hydrologic study would typically drill several holes to determine depth to groundwater across the site.

With respect to observing shallow seasonal groundwater within the soil profile, direct observation is generally the best and the most direct method. An excavated soil trench would allow for direct observation of water movement through the profile. Care should be taken to observe water movement down through the soil profile and water movement upwards through the soil profile. The key is to look for indicators of hydric soil conditions or the presence or absence of anaerobic conditions. At Lake Tahoe, these indicators can be masked due to drought, extreme cold, or soils that were formed under wetter conditions. A qualified individual would know the difference.

The July 2019 Terradyne report provides a geotechnical driller's log which indicates that the soils within the top 0.5 feet to 7.5 feet were slightly moist. This suggests that redox features may be present. The absence of water within the borehole on July 17, 2019, is not an indication that groundwater is not present during other seasons. The fact that the scope of services does not include an environmental assessment of the presence or absence of surface water or groundwater would reasonably conclude that this geotechnical report is not a groundwater report of the site but conducted for engineering purposes. These are typically confused and the purposes of an geotechnical study is not the same as a groundwater study. While it may be fine to assess groundwater conditions on that one particular day, it would of been better to have excavated a soil trench and conducted a soils report including the information listed herein.

Soils record "wetness" whether relict or recent. Soils with fluctuating groundwater will typically exhibit indicators for redox features. A qualified individual could collect a detailed soil profile description which would describe the presence of, or absence of redox features. A detailed soils profile would record the depth (needed to document the indicator or confirm the absence of indicators). Record the matrix color and record redox features, the type (concentration, depletion,

reduced matrix, covered or coated sand grains), location (pore lining or matrix) and soil texture and any restrictive layer (if present). Look for redoximorphic indicators such as oxidized rhizospheres on living roots and plant rooting depth. Record the vegetation dominance and plant community and record the presence or absence of phreatophytes. Often simple salts will indicate groundwater fluctuation. The qualified individual would assess whether water is infiltrating downward or conversely, rising with the seasonal groundwater table. These are just a few indicators whereby the presence of, or absence of would better assess whether there is seasonal groundwater at that site under most years/climatic conditions.

This type of soil study is typical of soil assessments conducted by TRPA for SEZs, wetlands and mitigation/restoration areas. These techniques can and should be applied to resolve the outstanding issues because this would remove the uncertainty surrounding the speculation and interpretation of the data that was collected by Terradyne Engineering Incorporated.

The NRCS soils report indicates that site soil is a Cassenai gravelly loamy coarse sand with a hydrologic unit of "A"<sup>3</sup>. The sieve analysis, reported as Figure G in the Terradyne Engineering Inc. 2019, report indicates that at a depth of 10-feet below ground surface the soil texture would be a sandy loam. What this means is that the Cassenai soils should drain quickly and you may not expect to find the presence of indicators for hydric soils or indicators for anaerobic conditions. I want to stress that this is just as valid as saying that the one bore hole represents the site. You just don't know. You need to excavate a trench and look. In this case, the absence of evidence is not evidence of groundwater absence.

In summary, it is my recommendation that you excavate a back hoe trench, three feet wide, eight feet long and to a depth of five feet and record data (as described above) by a qualified individual who understands soils under drought conditions. That would allow for a better understanding of the shallow groundwater conditions at the site and whether more detailed studies are necessary (such as the installation of shallow groundwater piezometers). It may not change the current conclusion found within the Terradyne Engineering Incorporated reports and would be more scientifically and legally defensible and may remove some of the controversy surrounding the lack of data and the interpretation of the existing data. Finally, in 2022, the area is under a moderate drought and

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<sup>3</sup>Group A—Soils in this group have low runoff potential when thoroughly wet. Water is transmitted freely through the soil. Group A soils typically have less than 10 percent clay and more than 90 percent sand or gravel and have gravel or sand textures. Some soils having loamy sand, sandy loam, loam or silt loam textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments. The limits on the diagnostic physical characteristics of group A are as follows. The saturated hydraulic conductivity of all soil layers exceeds 40.0 micrometers per second (5.67 inches per hour). The depth to any water impermeable layer is greater than 50 centimeters [20 inches]. The depth to the water table is greater than 60 centimeters [24 inches]. Soils that are deeper than 100 centimeters [40 inches] to a water impermeable layer are in group A if the saturated hydraulic conductivity of all soil layers within 100 centimeters [40 inches] of the surface exceeds 10 micrometers per second (1.42 inches per hour).

*Mr. Al Miller*  
*August 27, 2022*

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therefore, an experience soil scientist/restoration specialist with experience should be consulted. I have included the precipitation model outputs (attached herein).

Please call me with any questions or if you want to have a Zoom meeting to discuss the contents of this letter.

Best Regards,

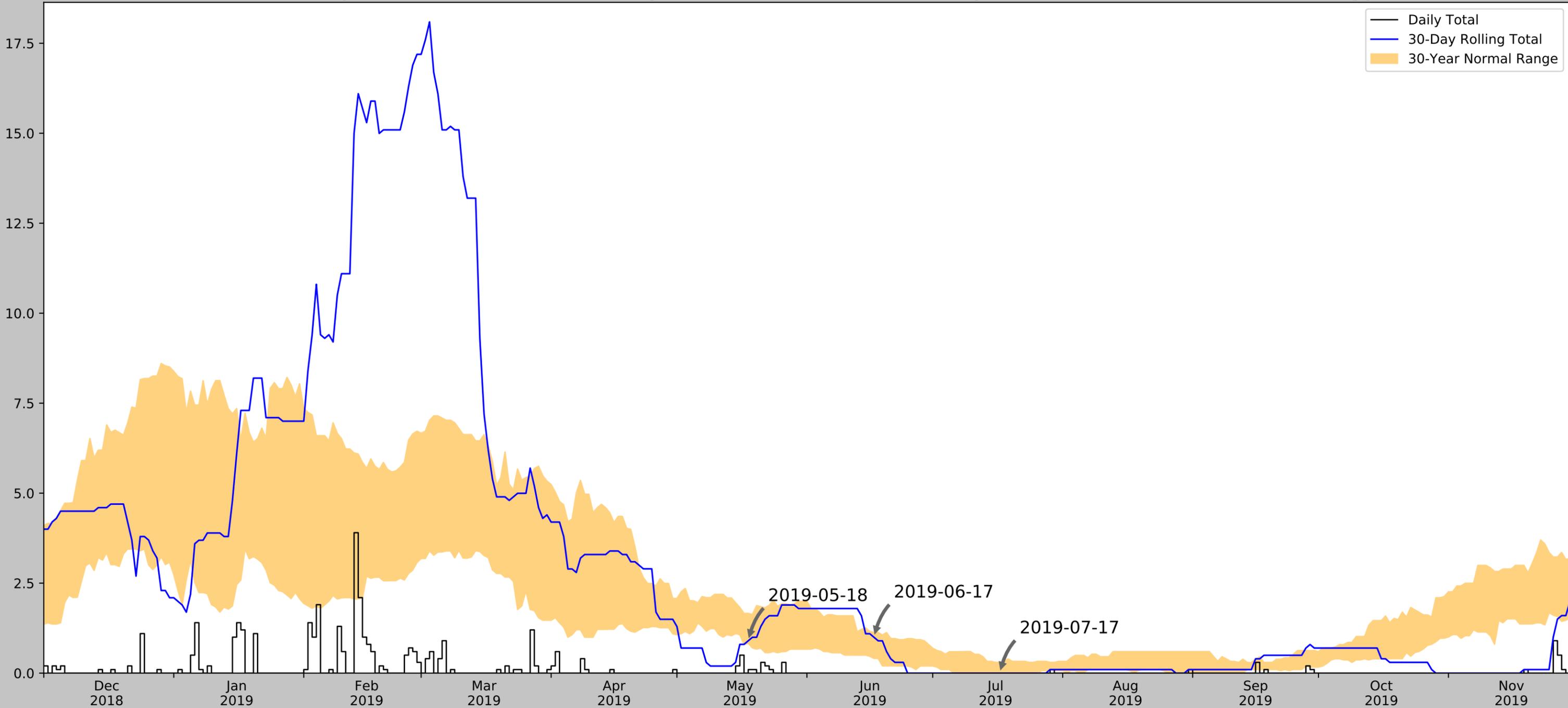
/s  
Lori Carpenter, SPWS, CPESC  
Hydrologist/Hydrogeologist

Attachments:

Precipitation Model Run Output for 2019 and 2022  
Resume

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	43.0537104, -119.95011076567611
Observation Date	2019-07-17
Elevation (ft)	6369.94
Drought Index (PDSI)	Mild wetness
WebWIMP H <sub>2</sub> O Balance	Dry Season

30 Days Ending	30 <sup>th</sup> %ile (in)	70 <sup>th</sup> %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2019-07-17	0.0	0.296457	0.0	Normal	2	3	6
2019-06-17	0.40748	1.130709	0.996063	Normal	2	2	4
2019-05-18	0.83189	1.660236	0.897638	Normal	2	1	2
Result							Normal Conditions - 12



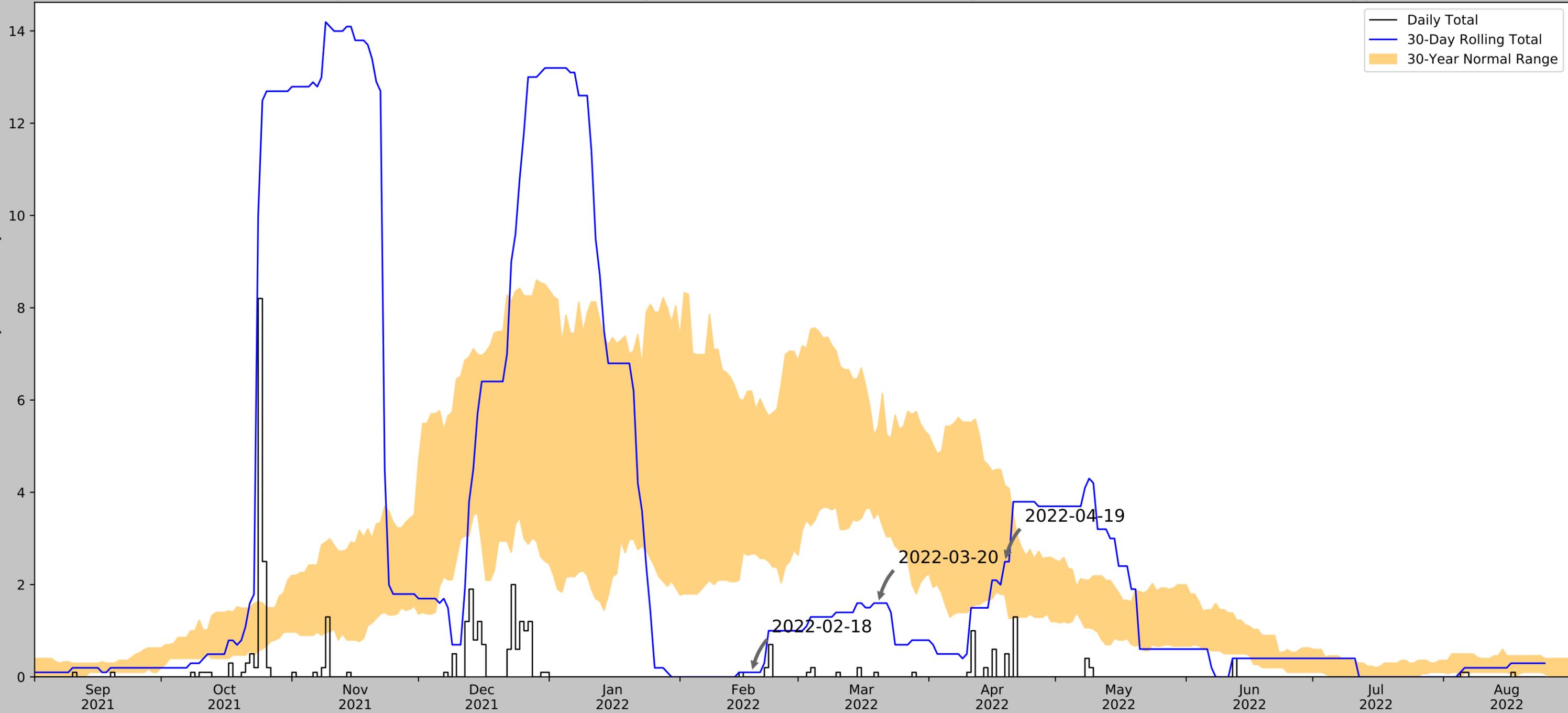
Figure and tables made by the  
**Antecedent Precipitation Tool**  
Version 1.0

Written by Jason Deters  
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
Fallen Leaf	38.93, -120.05	6235.893	5.393	134.047	3.15	11353	90

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	43.0537104, -119.95011076567611
Observation Date	2022-04-19
Elevation (ft)	6369.94
Drought Index (PDSI)	Moderate drought
WebWIMP H <sub>2</sub> O Balance	Dry Season

30 Days Ending	30 <sup>th</sup> %ile (in)	70 <sup>th</sup> %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-04-19	1.77441	4.154725	2.496063	Normal	2	3	6
2022-03-20	3.559843	5.433858	1.598425	Dry	1	2	2
2022-02-18	2.663386	6.192126	0.098425	Dry	1	1	1
Result							Drier than Normal - 9



Figure and tables made by the  
**Antecedent Precipitation Tool**  
Version 1.0

Written by Jason Deters  
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
Fallen Leaf	38.93, -120.05	6235.893	5.393	134.047	3.15	11353	90



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## **SUMMARY**

Ms. Carpenter started her career as a professional wetland and regulatory scientist in 1991 and her education is in Hydrology/Hydrogeology. At 7Q10, Inc., she supervised 23 scientists and numerous sub-consultants. She oversaw scientific studies and field work with respect to hydrologic resources, environmental permitting/compliance, mitigation and management on over 300 projects for CEQA and NEPA compliance. She also oversaw all stages of a project from initial due-diligence, procuring necessary permits, plans for project development, field implementation, analytical and numerical models, project quality assurance and construction monitoring and closure requirements with respect to local, state and federal requirements. Ms. Carpenter is a proficient field scientist and a recognized authority in state, tribal and federal regulations which allows her to bring solutions to complex projects while maintaining development schedules and overall profitability. Since 2015, Ms. Carpenter has been utilizing unmanned autonomous systems (UAS/UAV) or drone technology to conduct remote sensing for environmental monitoring, inspections and assessments as an independent consulting scientist at geosUAS, Inc.

It's unusual to find a senior scientist with expertise in regulatory policies; this background provides Ms. Carpenter with a fundamental understanding in the design and implementation of field studies to collect and analyze data necessary to obtain complex regulatory permits, including cost effective mitigation and negotiate monitoring requirements. She has worked with numerous states, tribal and federal agencies to provide solutions that are both scientifically and legally defensible.

## **CERTIFICATIONS**

SWS-Senior Professional Wetlands Scientist #1147

IECA- Certified Professional in Erosion and Sediment Control #2562

California QSP/QSD 21959 [Construction General Permit Qualified SWPPP Practitioner (QSP) and Qualified SWPPP Developer (QSD)]

State of Nevada Certified Sage Grouse Credit System Verifier for GIS Modeling and Vegetation

UAS Remote (Drone) Pilot

Climate Reality Leadership Corps

## **EXPERIENCE**

### **geosUAS, Inc. - 2015 present**

Ms. Carpenter started geosUAS, Inc., in April of 2015. Ms. Carpenter's focus is on natural resource assessments and management, utilizing science, engineering, GIS, remote sensing, and small unmanned aerial systems to evaluate, identify and develop mitigation strategies within the land development, energy, mining and conservation industries. Ms. Carpenter provides solutions to complex environmental problems through a thorough understanding of the scientific, legal, regulatory and public issues and concerns by developing permitting strategies that result in legally and scientifically defensible solutions that engage the public through compliance monitoring and reporting for local, state and federal projects.



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Ms. Carpenter completed courses in unmanned systems engineering, remote sensing and UAS law (drone) and policy to complete training in new cutting edge technology for applications in the geosciences. She utilizes unmanned aircraft in the geosciences to produce cost effective solutions that are both scientifically and legally defensible. Ms. Carpenter is utilizing unmanned aircraft to obtain current aerial photography that is a higher resolution in various formats to aid in the solution of real world problems. Ms. Carpenter is combining the new technology of unmanned aircraft with her expertise in water rights, sediment and erosion control, water quality, wetland delineations, vegetation and habitat mapping, environmental restoration and monitoring, and exploration of geologic features and mineral surveys.

Current projects include(d) City of Aurora, Colorado watershed/wetlands studies utilizing drone technology and remote sensing for wetland delineations/jurisdictional determinations, fen and other wetland mitigation in high mountain valleys for reservoir projects including permitting strategies. The Truckee Donner Land Trust for decommissioning of the Van Norden Lake Reservoir Dam including all CEQA filings and scientific studies. The New Port Pacific Land LLC, for a reassessment of jurisdictional areas subject to 404 permitting, including the design, planning, and implementation of compensatory wetland and upland refugia program with over 355 acres of open space with 54 acres of restored, enhanced and created habitats. The Walker River Paiute Tribe, to oversee the Tribal surface water quality program and submit compliance documentation to EPA. DMBGH Highlands, 3<sup>rd</sup> party review of the near continuous in-situ water quality monitoring program for the Martis Camp Golf Course. Various senior review for projects under changing sets of rules/policies for Clean Water Act 404/401 regulations/policies under both NEPA and CEQA. Current work also includes the May 2020 regulations within the State of California, State Water Resources Control Board, Statewide Procedures for Discharges of Dredged or Fill Material into waters of the state.

### **7Q10, Inc. - 1991 - 2014**

#### **Senior Hydrologist/Hydrogeologist - Regulatory Scientist - 2000 - 2014**

Ms. Carpenter was owner and CEO of 7Q10, Inc. 7Q10 closed in 2014 and she pursued academic training in the emerging technology of robotics and unmanned aerial systems for environmental purposes. As a senior wetland and regulatory scientist, her many duties throughout her career are documented below. She is an expert witness with the State of Nevada Engineers Office related to evapotranspiration. She is a Federal expert witness with respect to fens wetlands and wetland mitigation. Ms. Carpenter is an authority with respect to the hydrologic processes that drive wetlands and has extensive wetland mapping experience within the arid and intermountain west, to include water rights. Ms. Carpenter's graduate work focused on the developed of a climate model utilized to assess wetland hydrology in delineations which evaluates sites under normal, below normal and above normal rainfall conditions.



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Ms. Carpenter has extensive experience in utilizing remote sensing for environmental assessments to understand wetland boundaries, vegetation species, forestry health, erosion and sediment control impacts on water quality. She also utilizes in-situ water quality monitoring, environmental and construction monitoring, surface and groundwater quality programs to track habitat changes over time. With respect to surface water she has designed and implemented near-continuous water quality monitoring stations, water quality programs including the field collection, data analysis and reporting to achieve compliance objectives. She has expertise in NPDES permits, Storm Water Pollution Prevention Plans and water quality analysis including the design of best management practices for metals, and nutrient removal. She installs stream gauges to gather site specific data to assess efficacy of erosion control practices.

Ms. Carpenter has worked with various native Tribes in Nevada that wish to qualify as States for the water quality standards program under Section 518 of the Clean Water Act. Ms. Carpenter has assisted with and conducted the design, field implementation and regulatory permitting to establish water quality standards, Tribal participation in the program, and EPA approval of the Treatment as a State Program.

For projects with federal undertakings, federal permitting requirements, or when a federal agency is the lead agency Ms. Carpenter conducts agency coordination on Environmental Assessments or Environmental Impacts Statements under the Federal Land Policy and Management Act (FLPMA).in compliance with the National Environmental Policy Act (NEPA) procedures and various agency Memorandum of Understandings.

Ms. Carpenter is considered an expert with respect to both temporary and permanent best management practices (BMPs), to include monitoring for efficacy of BMPs. She designs streamlined systems for BMP Inspection, Maintenance, and Rain Event Action Plans, Construction Site Monitoring and Reporting Plan (CSMRP), Visual Storm Related Inspection & Monitoring Requirements for Qualifying Rain Events, Water Quality Sampling and Analysis, Storm Water Discharge Water Quality Sampling, Quality Assurance and Quality Control, Field Logs, Sampling Techniques, Chain of Custody, Data Verification, Non-Storm Water Discharge Monitoring Requirements, Non-Visible Pollutant Monitoring Requirements, Records, NAL Exceedance Reports, Spill Contingency Plan, Annual Reporting, and Final Reporting.

#### CorpsJD Project Leader 2008 - 2009

Ms. Carpenter translated section 404 of CWA wetland regulations and developed flow diagrams which were then developed by others into computer code for a cloud computing software-as-a-service. The SAAS includes the 1987 Wetland Delineation Manual and all ten regional supplements (covering the United States and the Caribbean) under the US Army Corps of Engineers' jurisdiction and is a GIS GPS-capable wetland and natural resources mapping reporting platform.



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#### Senior Hydrologist/Hydrogeologist - 1998 - 2000

In addition to her other duties, Ms. Carpenter finalized her MS degree at the University of Nevada-Reno in hydrology and hydrogeology. Ms. Carpenter utilized remote sensing, groundwater models and vegetation surveys for evapotranspiration studies to assess the perennial yield for groundwater withdrawal and exportation in Nevada versus actual water rights. Ms. Carpenter was also involved in clean water projects in Mexico, Haiti and Iraq to promote clean water, water supply development and human health risk assessments. Ms. Carpenter provided on-site construction management for erosion control and best management practices, installation, monitoring, inspections, and permit compliance reporting as the Environmental Construction Manager for the Martis Camp Project, Truckee, CA. Her work in Haiti continued until 2010, work in Mexico continued until 2008 and work in Iraq was completed in 2004.

#### Hydrologist - 1994 - 1998

In addition to her other duties as described below Ms. Carpenter has prepared and advised clients with respect to federal land exchanges related to surface and groundwater importation projects. Ms. Carpenter provided on-site construction management for erosion control and best management practices, installation, monitoring, inspections, and permit compliance reporting as the Environmental Construction Manager for the Martis Camp project, Truckee, CA. Additionally, she has designed cost effective monitoring plans to ensure federal, tribal and state compliance requirements.

Applicable statutes, regulations, and guidelines, include: Federal Land Policy and Management Act (FLPMA), Title 43, Chapter 35: Exchanges of lands of public interest within the National Forest System; General Exchange Act - 16 USC 485; Weeks Law - 16 USC 480 et seq.; USFS Land Exchange regulations - 36 CFR 254; and Forest Service Handbook, land exchange guidelines - FSH 5409.13 Chapter 30 et seq. Ms. Carpenter routinely works under CEQA and NEPA compliance objectives for all projects.

#### Wetland Hydrologist - 1991 - 1994

Ms. Carpenter's responsibilities include all aspects of the design and implementation of wetland regulatory permitting, Water rights both surface and groundwater, water quality control plans, wetlands delineations, plant evapotranspiration studies, revegetation plans, constructed wetlands for water quality improvement and wildlife habitats, wetland mitigation and monitoring plans, best management plans and erosion control, including Storm Water Pollution Prevention Plans, river/stream restoration plans, watershed water quality programs, and natural resource evaluations. She has worked extensively with ecosystem and wetland mitigation banking, land trust agreements, including land exchanges with respect to ecosystem protection. Ms. Carpenter has worked extensively with the classification of wetland ecosystems, vegetation and wildlife environmental studies and habitat plans including biological assessments (BA), and plant evapotranspiration. Ms. Carpenter worked extensively with aerial mapping and color infrared photography for environmental



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assessments and monitoring. Ms. Carpenter provided on-site construction management for erosion control and best management practices, installation, monitoring, inspections, and permit compliance reporting as the Environmental Construction Manager for the Lahontan project, Truckee, CA.

Ms. Carpenter's work in revegetation involves sustainable agriculture techniques that involve creating healthy soils by managing microbial populations in that soil. In place of "feeding" the plant with fertilizers, amendments are added to the soil that balances the soils to encourage growth of a healthy root structure. In essence, soils that are properly balanced (in terms of nutrients) will support root growth and deter growth of pest species. She has worked from high altitude areas with short growing seasons to the arid west.

Ms. Carpenter has also been responsible for the design of various wetland mitigation projects, including both seasonal and perennial wetland habitats that includes hydrologic design of both surface water- and groundwater-driven wetland systems. For surface water-driven systems, she utilized various surface water models and snow fences to capture snow fall that would have otherwise evaporated to sustain wetland complexes. For groundwater driven systems, she has employed a series of groundwater flow models to predict groundwater elevations and water balances to determine purchases of water rights due to losses from evapotranspiration.

Additionally, she has conducted several stream restoration projects and bank stabilization projects utilizing a combined Stumm, Rosgen, HECRAS approach where she models the stream sections or reaches with HECRAS and measured Mannings "n" along with other fluvial geomorphological restoration principles. Ms. Carpenter also has experience with many surface water rainfall, water quality and stochastic models, such as Hydrus 2-D, SWMS-2D, HECRAS, and HEC-1 and groundwater models - USGS MODFLOW.

### **CH2M HILL 1989 - 1991 - Surface-Water Hydrologist**

Ms. Carpenter's experience prior to joining 7Q10, Inc. includes design work on the Reno/Sparks Wastewater Treatment Expansion Project (Constructed Wetland Treatment Option). In addition, Ms. Carpenter conducted an algal growth potential study to assess effects of wastewater effluent to augment water supplies for natural Nevada wetlands. She was responsible for work plans, field data collection, data interpretation and statistical analysis, and the final study results technical memoranda.

### **EDUCATION**

MS, Hydrology & Hydrogeology, University of Nevada, Reno.

BS, Surface Water Hydrology Major with Chemistry Minor, University of Nevada

### **EXPERT WITNESS**

Expert Witness Nevada State Engineers Office



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Federal Expert Witness with Respect to Colorado Fen Wetlands, Erosion and Sediment Control, Wetland Mitigation and Restoration

## **HONORS**

US Senator Harry Reid, Certificate of Commendation as Northern Nevada International Center World Citizen Award, April 2, 2010

USACE Lake Tahoe Program Award to Exceptional Small Business 2010 US Senator John Ensign, World Citizen Award, April 2, 2010

## **CONTINUING PROFESSIONAL EDUCATION**

Lori Carpenter has an MS degree in Hydrology and Hydrogeology with over thirty hours of additional advanced university level (600 level or higher) or private class instruction (see bold below).

Beginning and Intermediate Bee Keeping for Mitigation Sites (2020)

Various 2 to 4-hour short courses for DroneDeploy, Pix4D Drone software (2020)

Al Gore Climate Reality Leadership Conference & Training (2019)

Advanced CEQA Permitting for 2019 changes and CEQA Workshops (two in 2018)

FACWET (2-day Field Course) for Instruction on the Functional Assessment of Colorado Wetlands (FACWet) Method

Advanced Hydric Soils Training for Arid West and Mtns Valley Coast USACE Supplement

State of Nevada Sage Grouse Credit System Qualified Verifier for GIS Modeling and Vegetation

**George Mason University 0.7 Continuing Education Units for ASPRS, sUAS Data Processing and Practical overview, September, 2015.**

**George Mason University 0.7 Continuing Education Units for ASPRS, sUAS Data Processing and Practical overview, 2014.**

**UAV 605 UAV Laws, Regulations & Intellectual Property**

**UAV 601 Unmanned Aircraft System Fundamentals Technologies**

**Small UAV Pilot Training, Certification & Ground School**

**Geog 411/611 - Remote Sensing**

**GE 604 - Aerospace Remote Sensing**

**GE 787 - Remote Sensing for Environmental Problems**

Resolving Conflict Across Cultures

Property Analysis Record - PAR Modeling Course

Applied Fluvial Geomorphology (Rosgen Stream Classification System)

Introduction to Federal Projects and Historic Preservation Law Advanced Seminar on Preparing Agreement Documents under Section 106 of the National Historic Preservation Act

## **CONTINUING EDUCATION AND PROFESSIONAL COURSES TAUGHT**

University of California - Berkeley Extension 1998



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Assistant Instructor. Wetlands delineation techniques using the Corps 1987 Wetland Delineation Manual. The 1987 Manual focus on wetland delineation utilizes the multiple parameter approach for technical delineations of aquatic and wetland boundaries under Federal regulatory jurisdiction. 40-hours

University of Nevada, Reno 1991-1995

Guest Instructor for the Hydrologic Science Graduate Program, whereby Ms. Carpenter teaches on Surface Water Hydrologic Modeling and Wetlands Delineation Techniques. 12-hours each semester.

Sierra Nevada College Truckee California 1995

Instructor: Ms. Carpenter instructs a pro-bono one- to two-day wetland regulatory and delineation short course for small California County professional Planning staff This allows County Planning staff with limited training budgets to understand the various California state (CEQA) and federal policies and programs (NEPA) governing waters of the United States/wetlands. County staff are often the first to see a proposed planning project. Early sound planning efforts serve to protect wetlands and water quality.

**Agencies and regulations that Ms. Carpenter has prepared compliance and permit documentation for include:**

Environmental Protection Agency: (Office of Water - Wetlands Division)

Environmental Protection Agency: (40 CFR)

NDPES Permits and Stormwater Pollution Prevention Plans

US Army Corps Of Engineers: (33CFR Part 320 to 338, Section 10 of the Rivers and Harbors Act of 1899 and Sections 401, 402 and 404 of the Clean Water Act)

Federal Emergency Management Agency

US Department of Agriculture: National Resource Conservation Service

Department Of Interior:

Bureau of Land Management

General Land Office

Bureau of Reclamation

NOAA – National Marine Fisheries Service

US Fish and Wildlife Service

(Sections 7 and 10 of the Endangered Species Act)

National Park Service for National Landmarks

National Park Service for Wild and Scenic Rivers

State Historic Preservation Office, including cultural resources (Section 106 of the National Historic Preservation Act)

Bureau of Indian Affairs

Office of Surface Mining

US Geological Survey

California:

CEQA and State Water Quality Control Boards in California, including the Department of Fish and Wildlife and their state counterparts, for example in Nevada:

EPA Region IX

US Fish and Wildlife Service, Region 1



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Nevada State Historic Preservation Office  
Nevada Division of Wildlife  
Nevada Division of Environmental Protection  
NDEP, Bureau of Water Quality Planning  
Tahoe Regional Planning Agency  
Each State is different, including statutes and local county governance.

## **CONFERENCE PRESENTATIONS - PUBLICATIONS**

Carpenter, LA, *Leveraging Drones for Environmental Science*, IECA, Environmental Connection, July/August 2019, Volume 14, Issue 3, 2019.

Carpenter, LA, *Proposed Draft Sage Brush Habitat Mitigation Banking Strategy: One Potential Solution to Increase Sage Brush Ecosystems for Lands within Nevada*, Presented to the State of Nevada Greater Sage-Grouse Advisory Committee, July 2012.

Carpenter, L.A., *Scientific Rigor within Wetland Delineation Protocols under Regional Supplements*, presented at the Society of Wetland Scientists Conference, June 2010.

Carpenter, L.A., *An Approach for Delineating Hydrologic Boundaries of Wetlands by Simulating Long-Term Climate Conditions*, presented at the Society of Wetland Scientists Conference, June 2007.

Carpenter, L.A., Coston, L.C., Dodd, Ph.D., A.D., Lemke, D.L., Whitaker, P., *Comparison of Avian Monitoring Surveys at a Compensatory Wetland Mitigation Site Against Avian, Monitoring Surveys in the Great Basin*, presented at the Society of Wetland Scientists Conference, June 2007.

Carpenter, L.A., Coston, L.C., Dodd, A.D., Lemke, D.L., *A Case Study: Gauging Various Construction Techniques and Methods Against Overall Success Criteria and Habitat Functions in Mitigation Wetlands*, presented at the Society of Wetland Scientists Conference, June 2007.

Carpenter, L.A., Coston, L.C., Dodd, Ph.D., AD., Lemke, D.L., Whitaker, P., *A Case Study: Evaluating Results from Avian Monitoring as a Long-Term Measurement of Success Criteria in Mitigated Wetlands*, presented at the Society of Wetland Scientists Conference, June 2007.

Carpenter, L.A., *Design of a Water Quality Treatment System and Meadow Restoration for a Redevelopment Project at Stateline, Lake Tahoe, Nevada*, presented at the Nevada Water Resources Association, 2nd Biennial Conference on Tahoe Environmental Concerns, May, 2004.

Carpenter, L.A., *An Approach for Delineating Hydrologic Boundaries of Wetlands by Simulating Long-Term Climate Conditions*, August 2000, Master's Thesis, University of Nevada, Reno, Master of Science Hydrology/Hydrogeology.



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Carpenter, L.A., *Performance Standards/Final Success Criteria - Wetland Mitigation Experiences from the Great Basin and East Slope of the Sierra Nevada*, presented at the Society of Wetland Scientist, Reno Riparian Conference - October of 1998.

Carpenter, L.A., *Erosion Control Techniques and Best Management Practices for Construction Activities in Environmentally Sensitive Areas in the Lake Tahoe and Truckee River Watersheds*, presented for the California Regional Water Quality Control Board, San Francisco District, at the Storm Water Pollution Prevention Plan Training Workshop - August 1997.

Carpenter, L.A., McKay, Alan, Fordham, John W., Myers, Thomas, *Non-Profit Instream Flow Bank to achieve water quality criteria, Truckee River Watershed, Nevada*, presented at the Nevada Water Resources Association Nevada Water Conference - February 15, 1996.

Carpenter, L.A., Rhea, R.A., Huffman PhD., R.T., *Use of the Disc Permeameter in Wetland Delineations*, presented at the Nevada Water Resources Association - Nevada Water Conference - March 14, 1995.

Carpenter, L.A., Rhea, R.A., Broadway, J.R., Huffman PhD., R.T., *Comparison of the Wetland Delineation Methodology and the Technical Criteria that Would Induce Wetland Conditions*, presented at the Fall 1994 American Geophysical Union conference, December 1994 and the Nevada Water Conference - March 14, 1995.

Carpenter, L.A., Warwick PhD., John, Spinogatti, Daniel, *Efficacy of Low Cost Wetland Treatment in improving lower Truckee River Water Quality for Pyramid Lake Paiute Tribe*, presented at the Fall 1994 American Society of Civil Engineers conference in Atlanta, Georgia.

Carpenter, L.A. *A Case Study of Wetland Mitigation and Functional Assessment Methodology on Steamboat Creek, Reno, Nevada, Truckee River Watershed*, presented at the Nevada Water Conference in Las Vegas, Nevada in March of 1994.

Carpenter, L.A., Dunaway, D., Development, *Wetlands, and Watersheds: A case study to integrate multiple objectives utilizing wetland and watershed analysis*. Case Study presented at the Nevada Water Conference February 1993.

Carpenter, L.A., *Wetlands Regulated on Irrigated Agricultural Lands*. Paper presented at the Nevada Water Conference February 1993.

Carpenter, L.A., *Preserving Nevada's Wetlands*. A Poster Session. February 1991., Huffman and Associates, Inc., Reno, Nevada.

Carpenter, L.A., *Isotopic Composition of High Altitude Recharge Waters in Southern and Eastern Nevada, August 1988*.



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U.S. Geological Survey-WRI, Carson City, Nevada., Carpenter, L.A., Thomas, J.M., and Lyles, B.F., *Chemical and Isotopic Data from Wells, Springs, and Streams in Carbonate-Rock Terrain of Southern and Eastern Nevada and Southeastern California, 1985-88.* U.S. Geological Survey, Open-file Report 89-0422, Carson City, Nevada.

Carpenter, L.A., Briscoe, K., *Abstract for the Orr Ditch Final Decree for the USA, Plaintiff. vs. Orr Water Ditch Company, et al., Defendants.*

Tahoe Regional Planning Agency

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Stateline, Nevada 89449

**By email to:** [meetings@trpa.org](mailto:meetings@trpa.org)

to Executive Director Marchetta at: [jmarchetta@trpa.org](mailto:jmarchetta@trpa.org)

to TRPA Council at: [jmarshall@trpa.org](mailto:jmarshall@trpa.org)

to TRPA Council at: [bcornell@trpa.org](mailto:bcornell@trpa.org)

**TO:** TRPA BOARD MEMBERS ( [mbrucetrpa@gmail.com](mailto:mbrucetrpa@gmail.com);  
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[bosfive@edcgov.us](mailto:bosfive@edcgov.us); [cindygustafson@placer.ca.gov](mailto:cindygustafson@placer.ca.gov); [ahill@washoeconty.us](mailto:ahill@washoeconty.us);  
[jfriedrich@cityofslt.us](mailto:jfriedrich@cityofslt.us); [lawrence@dcnr.nv.gov](mailto:lawrence@dcnr.nv.gov); [ajhicks@mcdonaldcarano.com](mailto:ajhicks@mcdonaldcarano.com);  
[shellyaldean@gmail.com](mailto:shellyaldean@gmail.com); )

**FROM:** ALAN MILLER, PE

**DATE:** October 12, 2021

**SUBJECT:** Comments Opposing Project Approval; Verizon/Guilliam New Cellular Monopine Cellular Tower; 1360 Ski Run Boulevard, City of South Lake Tahoe, El Dorado County, CA; Assessor's Parcel Number 025-580-07, TRPA File Number ERSP2019-0389

Honorable Chairman Bruce and Board Members,

These are just my opinions as a scientist, with over 18 years as a former senior engineer with the Lahontan Water Board as a regulator and permit preparer, based on readily available information. I wrote a letter concerning this matter to you and TRPA in April 2020 (see Exhibit 1) I submit to include in the record here. That letter failed to elicit a response which I consider unacceptable for a public agency. I guess that is standard protocol these days, because I understand from my associates in the community that TRPA has essentially stone-walled on any issues related to community concerns with the proliferation of wireless technology in the Lake Tahoe Region. Meanwhile, TRPA has taken a head-in-the sand approach to the issue of regulating impacts on the environment from wireless facilities and installations. I know that everyone is in love with their wireless devices, which are damaging their health, their immune systems, and their environment, whether they are aware of it or not. However, the

scientific record on the significant adverse environmental and health effects of radio frequency (RF) radiation is clear, beyond dispute, and becoming clearer as the large body of scientific evidence grows ever larger. Substantial scientific and social evidence of harms was attached to my letter, and additional information in the form of Exhibits will be attached to this letter for the Hearing record.

**A. TRPA IS UNSCIENTIFIC WITH REGARD TO WIRELESS RADIATION**

The TRPA Bi-State Compact (citation omitted) Article VII concerns Environmental Impact Statements, in relevant part:

**ARTICLE VII. – ENVIRONMENTAL IMPACT STATEMENTS**

(a) The Tahoe Regional Planning Agency when acting upon matters that have a significant effect on the environment shall:

- (1) Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man’s environment;
- (2) Prepare and consider a detailed environmental impact statement before deciding to approve or carry out any project. The detailed environmental impact statement shall include the following:
  - (A) The significant environmental impacts of the proposed project;
  - (B) Any significant adverse environmental effects which cannot be avoided should the project be implemented;
  - (C) Alternatives to the proposed project;
  - (D) Mitigation measures which must be implemented to assure meeting standards of the region;
  - (E) The relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity;
  - (F) Any significant irreversible and irretrievable commitments or resources which would be involved in the proposed project should it be implemented; and
  - (G) The growth-inducing impact of the proposed project;
- (3) Study, develop and describe appropriate alternatives to recommended courses of action for any project which involves unresolved conflicts concerning alternative uses of available resources;
- (4) Make available to States, counties, municipalities, institutions and individuals, advice and information useful in restoring, maintaining and enhancing the quality of the region’s environment; and
- (5) Initiate and utilize ecological information in the planning and development of resource-oriented projects.

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. .  
. . .

(f) The agency shall adopt by ordinance a list of classes of projects which the agency has determined will not have a significant effect on the environment and therefore will be exempt from the requirement for

the preparation of an environmental impact statement under this article. Prior to adopting the list, the agency shall make a written finding supported by substantial evidence in the record that each class of projects will not have a significant effect on the environment.

1. I understand this project is classified as part of a Class that has been considered exempt, citing section (f), above, because FIVE DECADES ago, when the Compact and subsequent ordinance was adopted, TRPA was unconcerned with the harmful biological effects of RF radiation, not much was known about the harmful biological effects with the notable exception of within the various U.S. military services (Navy, Air Force, etc.), wireless had not proliferated regionally as in the past decade, and TRPA had other concerns. I don't know when the current exemption for wireless facilities was first adopted (the Staff Analysis doesn't provide that information), but I'd be willing to bet it was a long time ago.
2. The time is now to put a halt to the unfettered proliferation of wireless facilities in the Lake Tahoe Basin and I again call for a moratorium on new and expanded wireless communications facilities until TRPA has developed and approved an appropriate Environmental Impact Statement (EIS). I write TRPA IS UNSCIENTIFIC here because science is about forming and testing hypotheses, refining understandings, setting in order the facts of experience, and exploring ever-greater levels of truth—not once-and-done, ignoring any subsequent new credible information. It is also not about cherry-picking scientific studies and data to prop up a pseudo-scientific policy, in this case claiming no significant effects to support a pre-defined *agenda to avoid the significant issues*. I understand the difficulties of EIS preparation, but to turn a blind eye to substantial credible scientific information concerning the impacts of RF radiation on the environment TRPA is uniquely charged by Congress to protect just lays out nakedly that TRPA IS UNSCIENTIFIC.
3. Quoting the Staff Analysis at letter G, in relevant part:

G. Radio Frequency Emissions: Congress gave the Federal Communications Commission (“FCC”) “comprehensive powers” over radio communications, and the FCC has exercised “federal primacy” over the technical aspects of such communications. *See Cohen v. Apple, Inc.*, 2020 WL 6342922, at \*3, \*10 (N.D. Cal. 2020). Congress determined that “it is in the national interest that uniform, consistent requirements, with adequate safeguards of the public health and safety” be established, and it tasked the FCC with adopting regulations for radio frequency (“RF”) emissions. *Id.* at \*10; 47 C.F.R. §§ 1.1307(b), 1.1310, 2.1091, 2.1093. . . .

Thus, the proposed Verizon Wireless tower is required to comply with the FCC limits on RF Emissions. . . .

TRPA, having been created by an interstate compact, is a creature of federal law, and the

application of the TCA to its permitting process is not a matter of preemption. Rather, one must reconcile the intent of Congress in passing both the TCA [Telecommunications Act] and the Compact and give meaning to both statutes should there be any conflict in implementation. In furtherance of that standard, the agency position to date is this: TRPA will defer to the FCC regulations over general issues of human health and environmental impacts. However, TRPA could choose to regulate RF in the region should cellular facilities be proven to have a particular adverse effect on the unique environment of the Tahoe Region. TRPA has not received any such proof of adverse impacts of RF particular to Tahoe and therefore will not reexamine the determinations of the FCC. (underline added)

4. Again, we see here not a scientific spirit of inquiry as shall be undertaken per the Compact, Article VII(A)(1): “Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man’s environment;” No. What we have is a “position” that TRPA takes which is UNSCIENTIFIC. We agree that TRPA could regulate the environmental effects of RF radiation, and is not pre-empted by the FCC from doing so. So let’s be very clear that this is a legal position, and not a scientific finding of any sort; it does not rest on valid science. And while the powers of the FCC may be “comprehensive” they are not above the rights of the people guaranteed by the U.S. Constitution.
5. Let me further expose this for what it is: This is the TRPA hiding behind the corrupt FCC and its UNSCIENTIFIC regulations, siding with its own associates and work-mates here locally in the wireless industry, and those in the community pushing a wireless expansion agenda, namely the Tahoe Prosperity Center, working hand in hand across conflict-of-interest lines with Verizon and other wireless interests while ignoring the interests of any project detractors. This is not just my opinion, as legal documents for the Eisenstecken case and my own experience show. Concerning the FCC, Harvard University’s Edmond J. Safra Center for Ethics published an ebook, an extensive expose’ which laid bare the facts: how the FCC is a regulatory agency “captured by” one of the most powerful lobbying and corporate industries in the nation, the telecommunications and wireless industry, which has extended its influence and corruption to certain members of Congress (see Exhibit 2, titled Captured Agency). Despite that, nothing has changed. That’s the influence of money. The FCC is further pushing for the unfettered and reckless rollout of the “5G” infrastructure that will further significantly degrade the environment with poisonous RF radiation nationwide, despite the outcry from the public in the millions, and scientific experts around the nation and world in the thousands. So TRPA hiding behind the FCC and its outdated RF radiation emissions guidelines is just more of the same. If you stand behind a NOTORIOUSLY corrupt agency like the FCC when you have the opportunity, if not the sworn duty, to do otherwise, then what does that make you?

6. I can remember when TRPA instituted a ban on two-stroke marine engines upon Lake Tahoe waters back in the late 1990s, requiring less-polluting four-stroke marine engines. It was controversial. Of course, that was based on science and reports of harm from Lake Tahoe and waters elsewhere from those exhaust and oil-spewing engines. TRPA could have “deferred” to federal USEPA regulations, but TRPA was a leader and paved the way for bans in other States on two-stroke engines where sensitive waters were concerned, reforming the industry. TRPA could be a leader here as well in how to safely manage wireless technology, and phase in the safer wired and wireless alternatives, at least in the region. The wired alternatives are nearly or completely safe from a FIRE standpoint, as discussed below, and can aid to preserve and restore our degraded environment while providing greater bandwidth.
  
7. TRPA could change its position: Among other things, the FCC was recently blocked by a Federal U.S. Court of Appeals in D.C. from essentially recertifying that its guidelines promulgated for RF radiation exposure in 1996 are safe. The FCC and the wireless industry can no longer claim the current RF radiation emission guidelines and products designed to meet them are safe. They aren’t. Wireless damages, disables, maims and kills. And the guidelines originate from questionable science that well pre-dated 1996. The judge rejected the FCC’s case because it provided no new findings to support their action, ruling the FCC acted “arbitrarily and capriciously” in certifying the guidelines as safe for humans—especially children, who are most vulnerable due to a number of factors. The FCC’s failure was in ignoring the harms presented to them in the record. Mr. Marshall’s a capable attorney and I assume he knows all this, but the word is always slow in getting out to the public (by design); the wireless industry has powerful friends and allies in the media, of course. The TRPA received a letter from Mr. Gresser, Esq., citing numerous conflict-of-interest concerns with appointing Mr. Andrew Strain to be the TRPA Hearing Officer in this matter and requesting his replacement. I support that letter and don’t know if Mr. Strain will be replaced. That would be a good start, and I hope he is replaced.
  
8. Will you, Board member, support the staff “position,” and thereby be standing up for corruption, and unsafe environmental conditions, or will you stand up for the Region and its people you are charged to protect using the best available science? We will at least know where you stand and what you stand for as individuals and collectively at the end of this. The thing I don’t get is why TRPA is willing to turn its back on its mission, science, the Compact, to ally with a corrupt and unsafe wireless industry. Why act as the shill for a reckless and unsafe industry now that you know, especially when there are many ways to mitigate wireless harms and completely safe alternatives with wired connections?
  
9. Do you really think people come to visit Lake Tahoe so they can be surrounded by towers and blanketed in electro-smog? I certainly hope not! If we saw smoke we would ask, “Where’s the fire? Let’s put it out.” But because we can’t see, taste, or smell RF radiation it’s easy to assume it’s not there, and do nothing to mitigate the potential and significant harms. But those towers aren’t out of sight, aren’t out of mind. Some people really suffer acutely from them. They cause

and contribute to chronic disease. The public is catching on and I expect that more will in time. The industry is hoping it will be too late for the public to stop their agenda to bathe the whole planet in microwaves, with no choice in the matter, but that doesn't matter. Towers can be torn down later after better alternatives are developed, and we'll all just throw away our cell phones and other wireless devices unless they are *independently* proven safe, because the dangers will be much clearer. Want cancer?

10. TRPA is UNSCIENTIFIC in another way, also. Referring to the Staff Analysis again, “. . . TRPA could choose to regulate RF in the region should cellular facilities be proven to have a particular adverse effect on the unique environment of the Tahoe Region. TRPA has not received any such proof of adverse impacts . . .” Science proceeds on general principles, repeatable experiments and effects from one place to another, seeking out the principles that hold true in every case. It doesn't matter if centuries of wrong equations and theories and hypotheses come before: all it takes is one right, true equation or theory to make all others wrong and obsolete. That's how science is supposed to work. This TRPA statement of “position” goes beyond being merely unscientific, but is actually quite cynical in my view, by ignoring ALL the evidence of harm previously submitted. By their statement, TRPA has not received any “proof of any such impacts” so it is unclear just what kind of scientific proof would meet their position. Clearly, substantial evidence has been provided of biological effects and harms well below FCC exposure limits, but TRPA refuses to see it. I'm no lawyer; I am a scientist and again, TRPA is UNSCIENTIFIC here because that isn't how science works.
11. The position is like saying, “you know that general principle we call gravity. The scientists say it works the same on either side of the ridge between Carson Valley and Lake Tahoe. But they only have studies to show it affects the Carson City side, so we can ignore gravity and pretend we have no proof of it in our unique Lake Tahoe environment.” Nope. The affects are the same either side, it's been shown in enough places to establish a general principle we call gravity. It even works on the moon. Similarly, other researchers have tested scientific hypotheses for answers to questions such as: what are the levels at which biological effects from RF radiation can be detected? What are the mechanisms by which tissues are affected? And they've outlined and proven a number of generalized principles that are applicable under similar conditions and repeatable, and therefore do not exclude the Lake Tahoe region in that regard because of its uniqueness. There are no findings of fact to support this position of TRPA's either, which I can only characterize as arbitrary and capricious with regard to what scientific or other information the TRPA will consider. No science here, honorable Board members.
12. And you know what else? Pretty soon Tahoe's environment won't be so “unique.” It will be just like everywhere else where the bees and other insects, birds and amphibians, and the plant community have been significantly affected, reduced and eliminated by RF radiation, and the residents and visitors will be surrounded by towers and bathed in electro-smog as poisonous as in any big city. No thanks. No thanks to you TRPA for failing to uphold those “unique” values

with regard to wireless emissions so far, but there is still time to change your position, reconsider a return to science and give up your position advocating to do nothing about the effects of wireless poison.

**B. THREATS DUE TO FIRE ASSOCIATED WITH THE TOWER MUST BE MITIGATED**

1. After what our community just went through with the Caldor Fire coming to the Basin, it is almost unbelievable to me that TRPA has no apparent sensitivity to the issues surrounding the multiple fire hazards associated with towers. Within the Staff Report and its attachments I could find no discussion of any potentially significant effects or mitigation requirements relative to a tower fire, tower collapse and/or fire, increased effects on the flammability of the surrounding trees, and fuel transportation, handling and storage for the emergency back-up generator. Such a discussion could have been provided at 2.b., for instance, which only discusses generator noise and visual impacts, opining without support that: “The project to which the use pertains, will not be injurious or disturbing to the health, safety, enjoyment of property, or general welfare of persons or property in the neighborhood, or general welfare of the region, and the applicant has taken reasonable steps to protect against any such injury and to protect the land, water, and air resources of both the applicant’s property and that of surrounding property owners.”
2. That the applicant has “taken reasonable steps” is a subjective statement. It’s unqualified and certainly falls short of “all reasonable steps” to mitigate reasonably anticipated multiple harms in my view. What I would like to focus your attention on here is the industry’s track record with regard to tower fires, which may occur due to a variety of causes. With every tower that goes up, the potential risks of a tower fire increase. See Exhibit 3, titled Tower Fires and Collapses, which contains dated photographs and other information from around the nation on the literally dozens and dozens of tower fires and collapses that have occurred, most often from mechanical defects like improper welding and faulty design or construction. Towers are shown that collapsed due to high winds, which are experienced frequently in our environment. Cell towers have increasingly become the target of arsonists, and while I can think of few things more misguided than exposing the region to the threat of fire by burning down a tower, I think to ignore this potential risk is naive, wishful thinking. I will add that wired cable and phone connections do not present any of these risks.
3. Some of you may recall a time when the Basin was completely without wireless. Look at those photos of towers on fire and contrast the fire risks then compared to now, with all these sparkplugs scattered throughout the community. All it would take is one tower fire to start a crown-fire in the trees under adverse fire conditions to destroy the whole region by fire and cause potentially disastrous adverse affects on water quality and Lake Tahoe’s troubled clarity. That would certainly make the above statement of “no significant effect” ludicrous on its face. A tower fire of some sort is reasonably foreseeable: TRPA is setting the entire Lake Tahoe Basin up for a disastrous wireless-caused fire event with the current regulatory approach, approving project after project piece-meal, with no evaluation of the immediate and cumulative potential

adverse effects on the forests and fire dangers, and therefore no mitigation requirements. The record shows the TRPA has a blindness to wireless FIRE dangers.

4. This blindness is evident in the Alternatives Analysis provided. Fire risk was not analyzed as part of the siting criteria. Verizon's preferred site sits at the bottom of very steep slopes leading up to Heavenly Ski Resort and the multi-million dollar homes and condos on Kingsbury Grade (TRPA's office) and the Ridge, and near the Stateline casino corridor, with U.S. Highway 50 and Pioneer Trail as essentially the only escape routes from the tower neighborhoods. Add to this the potential for high winds with an uninterrupted wind fetch from the north, across the Lake and funneled up the broad Ski Run Blvd. If such winds were to cause a tower collapse and fire in the basin there could be very great loss of life and property, as in the 2007 Angora Fire. That fire seems very small compared to what we were faced with during the 2021 Caldor Fire. Only with the aid of a tremendous assembled fire-fighting force, did we miraculously escape extensive destruction in 2021. I sat in traffic for nearly three hours, not moving, after the evacuation order was issued for South Lake Tahoe in 2021.
5. The Staff Analysis mentions that 125 gallons of fuel will be maintained on the project site for a back-up emergency generator. Many fires have been associated with use of emergency generators and fuel transportation, handling and storage. 125 gallons of liquid fuel seems like quite a lot of fire-power to be stored in a shed beneath the tower, but contrary to the Staff Analysis, the included Verizon plans actually specify a generator with a 132-gallon diesel tank. The simulations make the shed appear wooden, which is flammable, but no actual information on the materials to be employed is provided. So is it 125 or 132 gallons, and how will the 7-gallon discrepancy be accounted for? What storage, fire prevention, spill and leak countermeasures will be employed? The Staff Analysis doesn't say there are any, so I can't assume there are.
6. TRPA likes to trumpet its achievements in permit streamlining to assist others in their local, State and Federal efforts at fire management, and I applaud that effort, but I stress that the risks from cell towers and associated fires must be recognized and mitigated or TRPA is working at cross purposes with our fire-fighting heroes and other government agencies who have provided millions and millions of dollars to abate and fight fire threats in the Lake Tahoe Basin. The Staff Analysis claims the tower will aid in emergency response, the very type of fire emergency the TRPA is setting the stage for with the approval of this tower and those before it. (I'll add that wired alternatives (fiber optic cable and telephone lines) are nearly or completely safe from a FIRE standpoint, as discussed below, and can aid to preserve and restore our degraded environment while providing greater bandwidth and connectivity—and safety from RF radiation exposures.)

**C. COMMENTS ON INSURANCE NEEDS**

1. Lest anyone think the wireless provider Verizon is going to step up and insure against these substantial fire and collapse risks, my understanding is the only insurance required was by the City (per the permit it issued approving the tower) stating the following, in relevant part:

17. Insurance. At all times relevant to this permit, the permittee shall obtain and maintain insurance policies as follows:

a. Commercial General Liability. Insurance Services Office Form CG 00 01 covering Commercial General Liability (“CGL”) on an “occurrence” basis, with limits not less than \$1,000,000 per occurrence or \$2,000,000 in the aggregate. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. CGL insurance must include coverage for the following: Bodily Injury and Property Damage; Personal Injury/Advertising Injury; Premises/Operations Liability; Products/Completed Operations Liability; Aggregate Limits that Apply per Project; Explosion, Collapse and Underground (“UCX”) exclusion deleted; Contractual Liability with respect to the permit; Broad Form Property Damage; and Independent Consultants Coverage. The policy shall contain no endorsements or provisions limiting coverage for (i) contractual liability; (ii) cross liability exclusion for claims or suits by one insured against another; (iii) products/completed operations liability; or (iv) contain any other exclusion contrary to the conditions in this permit.

2. Some of you Board members have extensive experience with insurance. Maybe you understand the meaning of the above clause, “Explosion, Collapse, and Underground . . . exclusion deleted;” it appears the insurer attempted to exclude these but was blocked from doing so? The Commercial General Liability (GCL) Insurance “in the aggregate” seems far too small at \$2M, especially if the facilities cause or contribute to a major fire. That amount will probably offset losses to the wireless provider and little more. The \$2M will barely pay for a few houses, let alone a neighborhood of housing and business losses, a ski resort or a significant part of the community. The aggregate insurance amount should be raised and the risks being insured against should be made specific rather than general. TRPA should require appropriate insurance and not leave it to the various localities and their limited various interests and patchwork of regulations that could affect the entire basin. My feeling is if the insurers had a greater payout due to fire events, the industry would be encouraged to improve its fire safety record. Currently there is no such pressure. This is critical to our communities!
3. Any meaningful discussion of insurance has to include the discussion of risk. What are you insuring for? What are you insuring against? What liability are you protecting the public from by requiring insurance, including issues of community health and risks to the environment. These

potential requirements for insurance are clearly NOT against FCC rules, which do not limit the ability of a government agency to protect itself and its public with insurance.

4. The TRPA must recognize potential liability exposure not only from electromagnetic frequencies (EMF), but it's also from falling objects, including falling snow and ice, and trees falling on the facilities. Trees do fall, and such falling should not be considered an "act of god" but rather a virtual certainty in time. Trees falling do not generally cause fires, but hitting an energized tower is another matter, and a great risk of fire. As stated above, I believe the insurance amount required for the permittee is FAR TOO LOW. If TRPA can require a bond or insurance for wireless permittees I strongly recommend it. Also, the insured permittee should never be allowed to list a "shell" company, other than the telecom itself as a licensee for insurance purposes. For example no "doing business as" some other entity with another name than, say, AT&T or Verizon Wireless to avoid exposure, and certainly NOT by promising indemnity instead of insurance.
5. Concerning limitations at the end of the quoted section, General Liability Insurance must be issued without a pollution or pollutant exclusion, because EMF is a pollutant (recognized under law) and should not be excluded or the approving agency could bear the liability for any harm that is done, which could be very substantial. Such harm may arise, for examples, in the event that EMF radiation occurs above allowable levels (e.g., per FCC guidelines) and/or is not detected timely and someone is harmed, or if the permittee or permit issuer fails to require the indicated testing or follow up in a timely manner due to any number of reasons. Such scenarios are not far-fetched and have occurred as I understand the issue. The Policy above does not clearly specify that pollutants and pollution must not be excluded and this should be added to all such policies.

#### **D. RF RADIATION STRESSES TREES AND OTHER VEGETATION AND INCREASE FIRE RISKS**

1. There are numerous reports in the scientific literature documenting the adverse effects of RF radiation on vegetation. See Exhibit 4 titled Environmental Health Trust Literature Summary, Plant Stress. Briefly summarizing the things I would like to point out to you, I provide here this excerpt:

“Electromagnetic (EMF) frequencies have been found to alter the growth and development of plants. Studies on wireless EMF frequencies have found [physiological and morphological changes](#), [increased micronuclei formation](#), [altered growth](#) as well as [adverse cell characteristics](#) such as thinner cell walls and smaller mitochondria. Electromagnetic exposure results in biochemical changes. Research shows that plants [perceive](#) and respond to electromagnetic fields and are a good model to study the biological effects of exposure. . . .”

2. Think about your home microwave oven. It works by energizing water molecules in the food, causing heating. RF radiation is microwave radiation. We are told that the FCC guidelines for human exposure prevent thermal effects in humans. I don't believe that, because of the way the testing was done and industry influence at the time, but setting that aside, the fact remains that microwaves agitate water molecules in the environment, causing heating of water vapor in the atmosphere and on the ground, and in the tissues of living organisms, subtle or pronounced as it may be. The vegetation around cell towers and other sources of RF radiation has been studied and shows stresses with slower growth rates, damage to tissues, excessive dryness, and increased formation of flammable terpenes and terpenoids, in the case of Pine trees.

### **Terpenes**

3. Pine trees emit a class of chemical hydrocarbons which are highly flammable called terpenes—providing the sticky resin and pine scent. Terpenes are used to produce turpentine and furniture varnishes, which you may know are highly flammable.
4. Dr. Martin Pall, PhD, has studied RF radiation and literature extensively and has put forth information that shows mechanisms for increased fire risks in vegetation exposed to RF radiation which I will briefly summarize (see Exhibit 5 titled Wildfires, EMF, Terpenes and More). Excerpting:

#### **Terpenes**

The first mechanism, expounded by Dr. Martin Pall, relies on research showing that electromagnetic fields (EMFs) from microwave radiation causes plants to produce excessive amounts [of] intracellular calcium, which in turn causes the plants to produce high levels of of substances called terpenes/terpenoids. Terpenes/terpenoids are usually produced by plants to repel insect predators and can also be emitted to warn other plants that insect predators are present—but in normal circumstances, this response is limited to one species at a time. When high levels of EMFs are present, as happens near cell towers or under power lines, all the plants will start producing high levels of terpenes/terpenoids, which are both highly combustible and highly volatile, and which can pool at ground level. **If a fire starts, it will burn more fiercely and be much harder to put out.**

Many people think that Dr. Pall's mechanism applies exclusively to 5G, but this is not so. The EMFs of 4G and 3G infrastructure, of Wi-Fi and of power lines, produce the same effects in plants. . . .

5. That same article discusses the work of Dr. Alsonfo Balmori:

#### **EMFs Cause Soil Acidification**

A second mechanism which explains how microwaves may make forest fires much worse is explained very clearly by Dr. Alfonso Balmori in his short paper, [“The Effects of Microwaves on the Trees and Other Plants”](#). In it, Dr. Balmori explains how EMFs cause soil acidification and create conditions in which trees are unable to absorb ground water, thus drying up.

Dr. Balmori cites the work of German scientist Wolfgang Vokrodt, whose pioneering work on dying trees near radar installations showed that microwaves interrupt the ability of trees to absorb water, thus drying them out, and create soil acidification, which further dries them out. Balmori also cites Swiss scientist Ulrich Hertel, who says that “a causal chain of electrical smog/stunted growth/damage to soil/dying trees is established.” Hertel explains that EMFs cause trees to lose the hair roots which absorb water from the soil, while capillaries shrink and become unable to pull water upward into the tops of the trees. “The delicate absorbent hair roots are missing, the trees are standing in water and yet die of thirst.”

Dry trees will burn easily. And sadly, most cell towers are placed on hills and mountains because this increases the range of each “cell.” Between the increased production of terpenes/terpenoids and the lack of moisture in the trees themselves due to the action of microwaves in the atmosphere, it is not surprising if forests are burning as never before.

6. So if we combine the heating of the atmosphere (water vapor) and vegetation with trees stressed due to lack of water, with dead needle-leaves/branches, and producing excessive, highly flammable terpenes from the remainder, we’ve got a recipe for fire, and increased chances that a stressed tree could fall on the tower and create a fire. None of these potential risks are evaluated or mitigated by the proposed permit.
  
7. In addition, species of aspen trees have been studied and show stress and susceptibility to damage and impairment by RF radiation. Aspen groves have been declining in the Lake Tahoe Basin, and State and federal agencies have spent substantial sums on projects to slow the decline. The tower is situated near a prized, scenic aspen grove along the westerly side of Ski Run Boulevard north of the tower, and diagonally across Ski Run Blvd to the SW of the tower. This area is most-likely classed as Stream Environment Zone (SEZ), which is one of the most severely impacted aquatic and habitat resource types in the Lake Tahoe Basin, and is afforded special protections under the TRPA regulations. I do not believe the TRPA thresholds concerning

SEZ are met, stemming largely from historic impacts. Nonetheless, every new significant or potentially significant impact or effect should be managed and mitigated to prevent the further loss and degradation of critical SEZ resources. The TRPA staff should examine the scientific evidence concerning impacts on aspen trees and associated species in the subject aspen grove and make a scientific determination on whether they could be reasonably expected to be adversely affected by emissions from the proposed tower, together with other known RF-radiation sources in the area. The current Staff Analysis does not consider any potential impacts to these offsite aquatic resources and SEZs due to RF radiation emissions within a short distance (with the SEZ margins perhaps only 200 feet or so from the tower) and within line-of-sight of the emitters, and is thus deficient in this regard. See Exhibit 6 titled Effects on Aspen and other Trees near Wireless Towers, in particular the two articles within titled, “Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations” and “Radiofrequency Radiation Injures Trees Around Mobile Phone Base Stations,” as scientific evidence of these effects at levels below current FCC emission guidelines.

#### **E. TRPA EMPLOYS A DEFICIENT PUBLIC PARTICIPATION PROCESS**

1. The *Initial Environmental Checklist for Determination of Environmental Impact* (Checklist) is a form completed by the Applicant, Verizon wireless. As I understand it, subject to review by TRPA staff, the permit must address any shortcomings, requiring revisions to the application as necessary. The Checklist reportedly serves to document and support the evaluation of a variety of potential impacts and informs a Finding of No Significant Effect (FONSI, exemption from preparing an EIS), according to the Staff Analysis. The Checklist was not provided with the Hearing agenda materials for public comment posted on October 7, which seemed improper to me. Since it is part of the documentation for the FONSI, why was it not published in the Hearing Record for public review and comment? The Staff Analysis, letter A., says, “. . . A copy of the completed checklists will be made available at the Hearings Officer hearing and at TRPA.” How can the public meaningfully be expected to comment on the assertions in the document without it being provided prior to the meeting/hearing, which the TRPA does not allow the public to attend in person? I thought, why isn’t it standard procedure to post the document with the Staff Report, when that presumably forms the basis for the findings summarized in the Staff Analysis? So I went back to the TRPA website to see if I’d missed it. No, it wasn’t there when I first looked on or after October 7 or 8. I happened to return to the webpage for the Hearing Officer on Monday, October 11, and found it had been added as a new link sometime after October 7. I know this because I keep the old webpage up from the prior week, and the link wasn’t there — and then on Oct. 11 (3 days before the hearing) there it appeared, though the Oct 7, 2021 post date was not revised. (The posted document shows TRPA had it in their possession since June 2019.)
2. In addition I could find no provisions for, or description of, public participation in the lead-up to this matter, other than to testify at the hearing online. Were nearby property owners and interested parties like me notified? I certainly wasn’t, though I’d provided in 2020 the written

comments in Exhibit 1. No call for written comments or due date was mentioned in any of the written material associated with the Hearing. TRPA didn't post its Hearing agenda materials more than about a week or less in advance of its proposed action. The only opportunity for public participation noted at the website for TRPA related to this item was to sign up to attend the meeting online, and opportunity to testify for 3 minutes online. How is the public supposed to know whether written comments will even be considered?

3. To contrast, I worked as a State of California regulator for over 25 years and we always endeavored, wherever possible, to give the public at least three weeks to provide comments and input, and submit their comments and information 10 days in advance of a meeting or hearing, and often more if the matter was controversial, so that the Board members would have time to read and consider the information. TRPA's process just seems like going through the motions to minimize and avoid meaningful public involvement, while meeting the minimal administrative review requirements, if those are even being met. Was TRPA rushing this matter to meet FCC permit processing timeline concerns? This contrasts markedly with my experience in this very Basin, including many years work with TRPA staff and management; when they were more interested in public input, schedules could be adjusted and things could take a very long time, so I see this process as a very deliberate attempt to discourage meaningful public involvement due to a host of conflicting interests.

#### F. COMMENTS ON THE CHECKLIST

1. The Checklist document from Verizon is so deficient in my view that I don't want to spend a lot of time critiquing it in detail. I think doing so here would trivialize the unaddressed matters of life and death I have commented on above. I will summarize that it provides no substantive information to identify address the concerns I've stated above, and provides no substantive information beyond the Staff Report on which to base a FONSI. I've provided additional comments in a **separate attachment, Exhibit 7**.
2. However, I must point out here that I consider the entire Checklist to be invalid. The Declaration at the end says in bold letters "**original signature required**," beside what appears to be an obvious paste-up or form-fill of a typed man's name, "Joseph Sharp, SAC Wireless obo Verizon Wireless"; there is no signature on the page other than a digital signature (also not original) from the preparer for Mr. Sharp. This seems improper for a certification that I've reproduced below from the Checklist:

**DECLARATION:**

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signature: (Original signature required.) Joseph Sharp, SAC Wireless obo Verizon Wireless

3. I would say, in fact, there is no certification; the document has no original signature as clearly and properly required, and Mr. Sharp, assuming he exists, could easily claim that the paste-up, or whatever it is, is not his signature. Convenient, when to the best of my knowledge and belief I have pointed out many incomplete, untrue and dangerously incorrect claims in the Checklist (see Exhibit 7). I further presume that the controversies and science concerning the effects of RF radiation on living things are broadly and widely known to those in the wireless industry, particularly those in positions of authority such as Mr. Sharp. To claim otherwise lacks plausibility in my view. I therefore would expect that these effects are known at some level to Mr. Sharp, and that's why the certification was not printed and signed in Mr. Sharp's hand before being provided to TRPA, to avoid any possibility of perjuring himself. The Staff Report provides no comment on this matter, or when the application was provided, accepted and deemed complete. If TRPA accepts this paste-up as legally valid, I would sure like to know the basis; otherwise the Checklist should have been rejected by TRPA back in 2019 as constituting an invalid, incomplete application, and it should be rejected now, in 2021, as a basis for Project/Permit approval.

**CONCLUSION**

In view of the above, I strongly urge you to deny this approval and Special Use Permit on the basis of unaddressed significant and potentially significant effects, until such time that the effects are fully addressed. I further pray for reform of your regulatory program for wireless installations through conducting a thorough programmatic analysis and EIS development, informed by science, with full public participation, meeting the requirements of law. Despite my comments and strong feelings, I welcome a dialogue on this matter in the spirit of science and good public policy.

I understand some of the Board members support philanthropic organizations for children, and bless you for that. You should understand that what we are dealing with here is a telecom industry whose product is always delivered with a dose of poison, telecom and computer industries that don't care who is injured in any way in their pursuit of profit, an industry that has a business model that frequently targets siting their wireless facilities on schools and playgrounds (and ski slopes) for children, those most vulnerable to the adverse health effects of RF radiation. The microwaves are invisible but the money isn't so the schools and others are attracted, to fill their accounts. Same goes for hospitals, another

siting target. Disgraceful. If the proposed Verizon tower is approved and built at Mr. Guillian's sledding hill for children, I suspect only uniformed parents will bring their children there in time. Woe be unto him and his business.

The California firefighters, God bless them, fought the telecoms off like the fighters they are after their health and cognition was impaired by RF radiation—no towers on our fire stations! No more towers in the Lake Tahoe Basin absent an approved EIS! This is about respecting freedom, the right to be free to enjoy our homes and communities free of poisonous assaults on our bodies, injecting RF radiation into our very cells and our environment from big-money industry sources we have no control over. It's a time for choosing: which side are you on?

Sincerely,

Alan Miller, Professional Engineer  
South Lake Tahoe

List of Exhibits (pdf format):

1. E-mailed Letter from Alan Miller, PE to TRPA, dated April 16, 2020, and its Attachment 2
2. Captured Agency
3. Tower Fires and Collapses
4. Environmental Health Trust Literature Summary, Plant Stress
5. Wildfires, EMF, Terpenes, and More
6. Effects on Aspen Trees and other Trees near Wireless Towers
7. Comments on the Checklist

Tahoe Regional Planning Agency

128 Market Street

Stateline, Nevada 89449

**By email to:** [trpa@trpa.org](mailto:trpa@trpa.org)

CC to Executive Director Marchetta at: [jmarchetta@trpa.org](mailto:jmarchetta@trpa.org)

CC to City of South Lake Tahoe at: [PublicComment@cityofslt.us](mailto:PublicComment@cityofslt.us)

**TO:** TRPA BOARD MEMBERS

**FROM:** ALAN MILLER, PE

**DATE:** APRIL 16, 2020

**SUBJECT:** SEEKING A TRPA MORATORIUM ON NEW WIRELESS FACILITIES AND UPGRADES TO EXISTING WIRELESS FACILITIES IN THE LAKE TAHOE REGION

Honorable Chairman Yeates and Board Members,

I am writing to respectfully ask for TRPA's assistance in regulating the unfettered proliferation of cell phone towers and antennas, and other wireless facilities for the internet and other applications of radio-frequency radiation emissions, which has occurred and is occurring within my City of South Lake Tahoe community and elsewhere in the Tahoe region. I am specifically seeking a moratorium on such new facilities, and changes to existing facilities until a basin-wide evaluation and TRPA regulatory program can be developed, including appropriate environmental assessments. I am appealing to the TRPA as the next-level administrative remedy, short of a lawsuit, after petitioning my grievances to the City of South Lake Tahoe, which has resolutely ignored my concerns and the concerns of many other members of my community. The plain facts in this matter are that the wireless facilities are a threat to human health and the integrity of environmental ecology in the Tahoe basin. In May 2011 the International Agency for Research on Cancer (IARC) classified Radio Frequency-Electromagnetic Fields (RF-EMF, including non-ionizing extremely low frequencies of EMF) as a group 2B agent, i.e., a "possible" human carcinogen, right up there with lead, chlordane, DDT, ethylbenzene, and many other poisonous agents ([https://www.iarc.fr/wp-content/uploads/2018/07/pr208\\_E.pdf](https://www.iarc.fr/wp-content/uploads/2018/07/pr208_E.pdf)).

The City, under direction of the City Attorney, has repeatedly claimed federal pre-emption by the Federal Communications Commission (FCC) with regard to human health and environmental effects, despite the documented claims that the FCC has no particular expertise

or authority in these areas or concerning such wireless facilities. The City has not taken meaningful regulatory action to protect the people, fauna and flora in the City from the increasing “electrosmog” we are all being subjected to at various levels never before experienced in the history of humanity. Such radiation is scientifically proven to be harmful to people, animals and plants. While citing the outdated (1990’s-era) FCC regulations and guidelines the City has claimed a Categorical Exemption from the California Environmental Quality Act for locating wireless facilities on private property, with specious findings or none at all.

In many cases the antennas themselves and related facilities also blight our beautiful landscapes and viewsheds, such as at the Ski Run Marina area with multiple wireless facilities. You may not be aware, in just the latest instances, the City upheld on appeal the planned installation of a 112-foot-high cell tower in a residential neighborhood (within 200 feet of residences) near Ski Run Blvd, and on April 14, 2020, approved new draft ordinances (1<sup>st</sup> reading) that would make “preferred locations” for wireless facilities include land uses dedicated for Conservation and Recreation. In my view this will be potentially highly detrimental to Stream Environment Zones and forest environments and the people and animals and plants that rely on them. Radiation is no respecter of such conservation lands and SEZs.

In my pre-retirement job as a Chief of the North Lahontan Basin Regulatory Unit at the Lahontan Regional Water Quality Control Board I oversaw permitting for literally dozens of Environmental Improvement Projects and conservation-restoration projects over a decade and a half (prior to 2018), involving literally tens if not hundreds of millions of dollars (public funds) to restore and improve the degraded environments of Lake Tahoe. I am elated to hear the long-planned restoration of the Upper Truckee River/Trout Creek Marsh delta is finally receiving the funding to begin this most-important restoration action for Lake Tahoe water quality. At the same time, we have the proliferation of cell phone towers in the City (some 22 facilities), including in this very area (at the Tahoe Keys Marina/Cove East conservation area), amid bald eagle and other important wildlife habitats (photos attached).

I can understand the TRPA was formed before such wireless facilities, other than for AM/FM radio, were a significant factor, but all that has changed, and is planned to change more and very rapidly with the plans by wireless big-business interests in the region to implement the much-more-powerful next generation of wireless technology, 5G, for the so-called Internet of Things. Now is the time to act, before more facilities are imposed. The City and other local governments apparently have no desire or ability to understand or thwart the FCC rules and big- business interests behind the proliferating wireless technologies. I have grave concerns with human health effects and significant environmental effects given the current FCC radiation emissions guidelines. It is incumbent upon the TRPA to step up and protect the values of the

region in the absence of meaningful local protections. The Precautionary Principle to “first do no harm” must be invoked.

I have laid out my above concerns and other concerns in a February 18, 2020 letter to the City Planning Commission, and a subsequent April 10, 2020 letter to the City Council, which I will provide for your records and therefore not further reiterate here. I urge you and/or your staff to read these letters and their attachments. In particular I will call your attention to “the Lawsuit” in federal court against the City of Sante Fe, the State of New Mexico, and the United States, cited and provided here as a pdf attachment, as this lays out the human and environmental issues in great detail. (Here is the link to the Lawsuit with its many embedded links to further information <https://www.cellphonetaskforce.org/wp-content/uploads/2019/01/Doc-19-First-Amended-Complaint.pdf>.) I will provide my other letters and their attachments under separate cover.

In closing, I urge the TRPA Board and staff to act without further delay to fulfill its mandates under the bi-State Compact and TRPA Plans and ordinances. I request to be informed when you have received this communication, and of any future plans and/or actions TRPA will take with regard to the issues with wireless facilities I have outlined. I look forward to your response and I thank you for your service.

Alan Miller, PE

P.O. Box 7526, South Lake Tahoe CA 96158

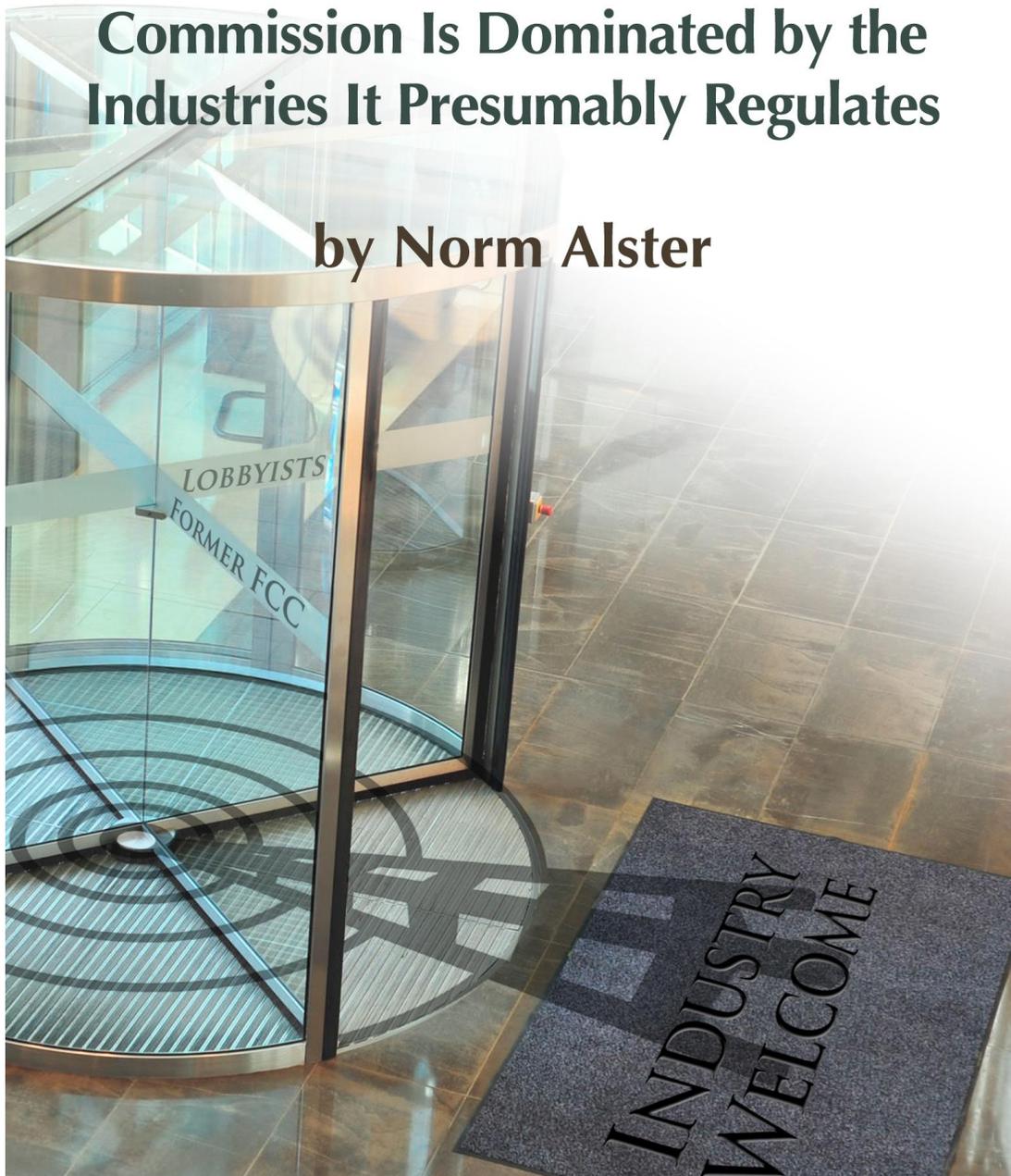
Attachments:

1. Photo of Tower adjacent to Upper Truckee River marsh at Tahoe Keys Marina and Venice Drive, City of South Lake Tahoe
2. LAWSUIT: Citation; IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW MEXICO, No. 1:18-cv-01209-LF-JHR; SANTA FE ALLIANCE FOR PUBLIC HEALTH AND SAFETY, ARTHUR FIRSTENBERG, and MONIKA STEINHOFF, Plaintiffs, vs CITY OF SANTA FE, NEW MEXICO; HECTOR BALDERAS, Attorney General of New Mexico; and the UNITED STATES OF AMERICA, Defendants. (Sante Fe Alliance et al., First-Amended-Complaint.pdf)

# Captured Agency:

How the Federal Communications  
Commission Is Dominated by the  
Industries It Presumably Regulates

by Norm Alster



[www.ethics.harvard.edu](http://www.ethics.harvard.edu)

# Captured Agency

How the Federal Communications Commission Is Dominated  
by the Industries It Presumably Regulates

**By Norm Alster**

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## Chapter One: The Corrupted Network

Renee Sharp seemed proud to discuss her spring 2014 meeting with the Federal Communications Commission.

As research director for the non-profit Environmental Working Group, Sharp doesn't get many chances to visit with the FCC. But on this occasion she was able to express her concerns that lax FCC standards on radiation from wireless technologies were especially hazardous for children.

The FCC, however, should have little trouble dismissing those concerns.

Arguing that current standards are more than sufficient and that children are at no elevated risk from microwave radiation, wireless industry lobbyists don't generally have to set up appointments months in advance. They are at the FCC's door night and day.

Indeed, a former executive with the Cellular Telecommunications Industry Association (CTIA), the industry's main lobbying group, has boasted that the CTIA meets with FCC officials "500 times a year."<sup>1</sup>

Sharp does not seem surprised. "There's no question that the government has been under the influence of industry. The FCC is a captured agency," she said.<sup>2</sup>

Captured agency.

That's a term that comes up time and time again with the FCC. Captured agencies are essentially controlled by the industries they are supposed to regulate. A detailed look at FCC actions—and non-actions—shows that over the years the FCC has granted the wireless industry pretty much what it has wanted. Until very recently it has also granted cable what it wants. More broadly, the FCC has again and again echoed the lobbying points of major technology interests.

Money—and lots of it—has played a part. The National Cable and Telecommunications Association (NCTA) and CTIA have annually been among Washington's top lobbying spenders. CTIA alone lobbied on at least 35 different Congressional bills through the first half of 2014. Wireless market leaders AT&T and Verizon work through CTIA. But they also do their own lobbying, spending nearly \$15 million through June of 2014, according to data from the Center for Responsive Politics (CRP). In all, CTIA, Verizon, AT&T, T-Mobile USA, and Sprint spent roughly \$45 million lobbying in 2013. Overall, the Communications/Electronics sector is one of Washington's super heavyweight lobbyists, spending nearly \$800 million in 2013-2014, according to CRP data.

But direct lobbying by industry is just one of many worms in a rotting apple. The FCC sits at the core of a network that has allowed powerful moneyed interests with limitless access a variety of ways to shape its policies, often at the expense of fundamental public interests.

As a result, consumer safety, health, and privacy, along with consumer wallets, have all been overlooked, sacrificed, or raided due to unchecked industry influence. The cable industry has consolidated into giant local monopolies that control pricing while leaving consumers little choice over content selection. Though the FCC has only partial responsibility, federal regulators have allowed the Internet to grow into a vast hunting grounds for criminals and commercial interests: the go-to destination for the surrender of personal information, privacy and identity. Most insidious of all, the wireless industry has been allowed to grow unchecked and virtually unregulated, with fundamental questions on public health impact routinely ignored.

Industry controls the FCC through a soup-to-nuts stranglehold that extends from its well-placed campaign spending in Congress through its control of the FCC's Congressional oversight committees to its persistent agency lobbying. "If you're on a committee that regulates industry you'll be a major target for industry," said Twaun Samuel, chief of staff for Congresswoman Maxine Waters.<sup>3</sup> Samuel several years ago helped write a bill aimed at slowing the revolving door. But with Congress getting its marching orders from industry, the bill never gained any traction.

Industry control, in the case of wireless health issues, extends beyond Congress and regulators to basic scientific research. And in an obvious echo of the hardball tactics of the tobacco industry, the wireless industry has backed up its economic and political power by stonewalling on public relations and bullying potential threats into submission with its huge standing army of lawyers. In this way, a coddled wireless industry intimidated and silenced the City of San Francisco, while running roughshod over local opponents of its expansionary infrastructure.

On a personal level, the entire system is greased by the free flow of executive leadership between the FCC and the industries it presumably oversees. Currently presiding over the FCC is Tom Wheeler, a man who has led the two most powerful industry lobbying groups: CTIA and NCTA. It is Wheeler who once supervised a \$25 million industry-funded research effort on wireless health effects. But when handpicked research leader George Carlo concluded that wireless radiation did raise the risk of brain tumors, Wheeler's CTIA allegedly rushed to muffle the message. "You do the science. I'll take care of the politics," Carlo recalls Wheeler saying.<sup>4</sup>

Wheeler over time has proved a masterful politician. President Obama overlooked Wheeler's lobbyist past to nominate him as FCC chairman in 2013. He had, after all, raised more than \$700,000 for Obama's presidential campaigns. Wheeler had little trouble earning confirmation from a Senate whose Democrats toed the Presidential line and whose Republicans understood Wheeler was as industry-friendly a nominee as they could get. And while Wheeler, at the behest of his Presidential sponsor, has taken on cable giants with his plans for net neutrality and shown some openness on other issues, he has dug in his heels on wireless.

Newly ensconced as chairman of the agency he once blitzed with partisan pitches, Wheeler sees familiar faces heading the industry lobbying groups that ceaselessly petition the FCC. At CTIA, which now calls itself CTIA - The Wireless Association, former FCC commissioner Meredith Atwell Baker is in charge.

## Wireless and Cable Industries Have the FCC Covered



And while cell phone manufacturers like Apple and Samsung, along with wireless service behemoths like Verizon and AT&T, are prominent CTIA members, the infrastructure of 300,000 or more cellular base stations and antenna sites has its own lobbying group: PCIA, the Wireless Infrastructure Association. The President and CEO of PCIA is Jonathan Adelstein, another former FCC commissioner. Meanwhile, the cable industry's NCTA employs former FCC chairman Michael Powell as its president and CEO. Cozy, isn't it?

FCC commissioners in 2014 received invitations to the Wireless Foundation's May 19<sup>th</sup> Achievement Awards Dinner. Sounds harmless, but for the fact that the chief honoree at the dinner was none other than former wireless lobbyist but current FCC Chairman Tom Wheeler. Is this the man who will act to look impartially at the growing body of evidence pointing to health and safety issues?

The revolving door also reinforces the clout at another node on the industry-controlled influence network. Members of congressional oversight committees are prime targets of

industry. The cable industry, for example, knows that key legislation must move through the Communications and Technology Subcommittee of the House Energy and Commerce Committee. Little wonder then that subcommittee chairman Greg Walden was the second leading recipient (after Speaker John Boehner) of cable industry contributions in the last six years (through June 30, 2014). In all, Walden, an Oregon Republican, has taken over \$108,000 from cable and satellite production and distribution companies.<sup>5</sup> But he is not alone. Six of the top ten recipients of cable and satellite contributions sit on the industry’s House oversight committee. The same is true of senators on the cable oversight committee. Committee members were six of the ten top recipients of campaign cash from the industry.<sup>6</sup>

## Cable & Satellite Campaign Contributions

### Top House Recipients Funded

Recipient	Amount
John A. Boehner	\$135,425
<b>Greg Walden</b>	<b>\$108,750</b>
Bob Goodlatte	\$93,200
John Conyers Jr.	\$84,000
Mike Coffman	\$82,137
<b>Fred Upton</b>	<b>\$73,500</b>
<b>Lee Terry</b>	<b>\$65,916</b>
<b>Henry A. Waxman</b>	<b>\$65,000</b>
<b>Cory Gardner</b>	<b>\$64,500</b>
<b>Anna G. Eshoo</b>	<b>\$60,500</b>

## Cellular Industry Campaign Contributions

### Top House Recipients Funded

Recipient	Amount
<b>Henry A. Waxman</b>	<b>\$41,500</b>
Scott H. Peters	\$40,300
<b>Greg Walden</b>	<b>\$35,750</b>
<b>Fred Upton</b>	<b>\$32,250</b>
Bob Goodlatte	\$31,250
<b>Lee Terry</b>	<b>\$29,600</b>
<b>Anna G. Eshoo</b>	<b>\$27,000</b>
<b>Doris O. Matsui</b>	<b>\$25,500</b>
<b>John Shimkus</b>	<b>\$24,000</b>
Peter J. Roskam	\$21,100

## Cable & Satellite Campaign Contributions

### Top Senate Recipients Funded

Recipient	Amount
<b>Edward J. Markey</b>	<b>\$320,500</b>
Kirsten E. Gillibrand	\$194,125
Mitch McConnell	\$177,125
Harry Reid	\$175,600
Charles E. Schumer	\$175,450
<b>Mark L. Pryor</b>	<b>\$172,950</b>
Michael F. Bennet	\$159,000
<b>Richard Blumenthal</b>	<b>\$148,800</b>
<b>Claire McCaskill</b>	<b>\$138,185</b>
Mark Udall	\$136,625

# Cellular Industry Campaign Contributions

## Top Senate Recipients Funded

Recipient	Amount
<b>Edward J. Markey</b>	<b>\$155,150</b>
Mark R. Warner	\$74,800
Harry Reid	\$73,600
<b>Mark L. Pryor</b>	<b>\$71,900</b>
<b>Roy Blunt</b>	<b>\$57,400</b>
John McCain	\$56,261
Charles E. Schumer	\$53,300
Roger F. Wicker	\$51,300
Barbara Boxer	\$49,578
Kelly Ayotte	\$43,333

The compromised FCC network goes well beyond the revolving door and congressional oversight committees. The Washington social scene is one where money sets the tone and throws the parties. A look at the recent calendar of one current FCC commissioner shows it would take very disciplined and almost saintly behavior on the part of government officials to resist the lure of lavishly catered dinners and cocktail events. To paraphrase iconic investigative journalist I.F. Stone, if you're going to work in Washington, bring your chastity belt.

All that free liquor, food and conviviality translates into the lobbyist's ultimate goal: access. "They have disproportionate access," notes former FCC commissioner Michael Capps. "When you are in a town where most people you see socially are in industry, you don't have to ascribe malevolent behavior to it," he added.<sup>7</sup>

Not malevolent in motive. But the results can be toxic. And blame does not lie solely at the feet of current commissioners. The FCC's problems predate Tom Wheeler and go back a long way.

Indeed, former Chairman Newton Minow, enduringly famous for his 1961 description of television as a "vast wasteland," recalls that industry manipulation of regulators was an issue even back then. "When I arrived, the FCC and the communications industry were both regarded as cesspools. Part of my job was to try to clean it up."<sup>8</sup>

More than 50 years later, the mess continues to pile up.

## Chapter Two: Just Don't Bring Up Health

Perhaps the best example of how the FCC is tangled in a chain of corruption is the cell tower and antenna infrastructure that lies at the heart of the phenomenally successful wireless industry.

It all begins with passage of the Telecommunications Act of 1996, legislation once described by South Dakota Republican senator Larry Pressler as “the most lobbied bill in history.” Late lobbying won the wireless industry enormous concessions from lawmakers, many of them major recipients of industry hard and soft dollar contributions. Congressional staffers who helped lobbyists write the new law did not go unrewarded. Thirteen of fifteen staffers later became lobbyists themselves.<sup>9</sup>

Section 332(c)(7)(B)(iv) of the Act remarkably—and that adverb seems inescapably best here—wrests zoning authority from local governments. Specifically, they cannot cite health concerns about the effects of tower radiation to deny tower licenses so long as the towers comply with FCC regulations.

### Congress Silences Public

Section 332(c)(7)(B)(iv) of the Communications Act provides:

**No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.**

In preempting local zoning authority—along with the public’s right to guard its own safety and health— Congress unleashed an orgy of infrastructure build-out. Emboldened by the government green light and the vast consumer appetite for wireless technology, industry has had a free hand in installing more than 300,000 sites. Church steeples, schoolyards, school rooftops, even trees can house these facilities.

Is there any reason to believe that the relatively low level radiofrequency emissions of these facilities constitute a public health threat? Certainly, cell phones themselves, held close to the head, have been the focus of most concern on RF emissions. Since the impact of RF diminishes with distance, industry advocates and many scientists dismiss the possibility that such structures pose health risks.

But it's not really that simple. A troubling body of evidence suggests exposure to even low emission levels at typical cellular frequencies between 300 MHz and 3 GHz can have a wide range of negative effects.

In a 2010 review of research on the biological effects of exposure to radiation from cell tower base stations, B. Blake Levitt and Henry Lai found that “some research does exist to warrant caution in infrastructure siting.”<sup>10</sup> They summarized the results on one 2002 study that compared the health of 530 people living at various distances within 300 meters of cell towers with a control group living more than 300 meters away. “Results indicated increased symptoms and complaints the closer a person lived to a tower. At <10 m, symptoms included nausea, loss of appetite, visual disruptions, and difficulties in moving. Significant differences were observed up through 100 m for irritability, depressive tendencies, concentration difficulties, memory loss, dizziness, and lower libido.”<sup>11</sup>

A 2007 study conducted in Egypt found similar results. Levitt and Lai report, “Headaches, memory changes, dizziness, tremors, depressive symptoms, and sleep disturbance were significantly higher among exposed inhabitants than controls.”<sup>12</sup>

Beyond epidemiological studies, research on a wide range of living things raises further red flags. A 2013 study by the Indian scientists S. Sivani and D. Sudarsanam reports: “Based on current available literature, it is justified to conclude that RF-EMF [electro magnetic fields] radiation exposure can change neurotransmitter functions, blood-brain barrier, morphology, electrophysiology, cellular metabolism, calcium efflux, and gene and protein expression in certain types of cells even at lower intensities.”<sup>13</sup>

The article goes on to detail the effects of mobile tower emissions on a wide range of living organisms: “Tops of trees tend to dry up when they directly face the cell tower antennas. . . . A study by the Centre for Environment and Vocational Studies of Punjab University noted that embryos of 50 eggs of house sparrows were damaged after being exposed to mobile tower radiation for 5-30 minutes. . . . In a study on cows and calves on the effects of exposure from mobile phone base stations, it was noted that 32% of calves developed nuclear cataracts, 3.6% severely.”<sup>14</sup>

Does any of this constitute the conclusive evidence that would mandate much tighter control of the wireless infrastructure? Not in the estimation of industry and its captured agency. Citing other studies—often industry-funded—that fail to establish health effects, the wireless industry has dismissed such concerns. The FCC has typically echoed that position.

Keep in mind that light regulation has been one factor in the extraordinary growth of wireless—CTIA says exactly that in a Web post that credits the Clinton Administrations light regulatory touch.

# July 25, 2013



CTIA is an international nonprofit trade association that has represented the wireless communications industry since 1984.

But our position as the world's leader was no accident. It started with the Clinton Administration that had the foresight to place a "light regulatory touch" on the wireless industry, which was in its infancy at the time. That light touch has continued through multiple Administrations.

Obviously, cellular technology is wildly popular because it offers many benefits to consumers. But even allowing for that popularity and for the incomplete state of science, don't some of these findings raise enough concern to warrant some backtracking on the ham-fisted federal preemption of local zoning rights?

In reality, since the passage of the 1996 law, the very opposite has occurred. Again and again both Congress and the FCC have opted to stiffen—rather than loosen—federal preemption over local zoning authority. In 2009, for example, the wireless industry convinced the FCC to impose a "shot clock" that requires action within 90 days on many zoning applications. "My sense is that it was an industry request," said Robert Weller, who headed up the FCC's Office of Engineering and Technology when the shot clock was considered and imposed.<sup>15</sup>

And just last November, the FCC voted to further curb the rights of local zoning officials to control the expansion of antenna sites. Again and again, Congress and the FCC have extended the wireless industry carte blanche to build out infrastructure no matter the consequences to local communities.

The question that hangs over all this: would consumers' embrace of cell phones and Wi-Fi be quite so ardent if the wireless industry, enabled by its Washington errand boys, hadn't so consistently stonewalled on evidence and substituted legal intimidation for honest inquiry? (See Appendix for online study of consumer attitudes on wireless health and safety.)

Document searches under the Freedom of Information Act reveal the central role of Tom Wheeler and the FCC in the tower siting issue. As both lobbyist and FCC chairman, Wheeler has proved himself a good friend of the wireless industry.

In January of 1997, CTIA chieftain Wheeler wrote FCC Wireless Telecommunications Bureau Chief Michele C. Farquhar citing several municipal efforts to assert control over siting. Wheeler, for example, asserted that one New England state had enacted a law requiring its Public Service Commissioner to issue a report on health risks posed by wireless facilities.<sup>16</sup> He

questions whether such a study—and regulations based on its results—would infringe on FCC preemption authority.

FCC bureau chief Farquhar hastily reassured Wheeler that no such study could be consulted in zoning decisions. “Therefore, based on the facts as you have presented them, that portion of the statute that directs the State Commissioner to recommend regulations based upon the study’s findings would appear to be preempted,”<sup>17</sup> the FCC official wrote to Wheeler. She emphasized that the state had the right to do the study. It just couldn’t deny a siting application based on anything it might learn.

The FCC in 1997 sent the message it has implicitly endorsed and conveyed ever since: study health effects all you want. It doesn’t matter what you find. The build-out of wireless cannot be blocked or slowed by health issues.

Now let’s fast forward to see Wheeler on the other side of the revolving door, interacting as FCC chairman with a former FCC commissioner who is now an industry lobbyist.

A March 14, 2014 letter<sup>18</sup> reveals the chummy relationship between Wheeler and former commissioner Jonathan Adelstein, now head of PCIA, the cellular infrastructure lobbying group. It also references FCC Chairman Wheeler seeking policy counsel from lobbyist Adelstein:

## Wheeler Still Willing to Help

---

**From:** Jonathan Adelstein [mailto:adelstein@pcia.com]  
**Sent:** Friday, March 14, 2014 12:24 PM  
**To:** [REDACTED]  
**Cc:** Renee Gregory; Jonathan Campbell  
**Subject:** How to Spur Wireless Broadband Deployment

Tom – It was great to see you the other night at the FCBA event, and wonderful to see how much fun you’re having (if that’s the right word). I know I enjoyed my time there (thanks to your help with Daschle in getting me that role in the first place!).

Thanks for asking how we think the FCC can help spur wireless broadband deployment. The infrastructure proceeding perfectly tees up many of the top issues the FCC needs to address. As you requested, I’ve summarized briefly in the attached letter some of the key steps you can take now.

*“Tom – It was great to see you the other night at the FCBA event, and wonderful to see how much fun you’re having (if that’s the right word). I know I enjoyed my time there (thanks to your help with Daschle in getting me that role in the first place!).”*

*“Thanks for asking how we think the FCC can help spur wireless broadband deployment,”* the wireless lobbyist writes to the ex-wireless lobbyist, now running the FCC.

Adelstein's first recommendation for FCC action: "*Amend its rules to categorically exclude DAS and small deployments* [Ed. note: these are compact tower add-ons currently being widely deployed] *from environmental and historic review.*" Adelstein outlined other suggestions for further limiting local antenna zoning authority and the FCC soon did its part. Late last year, the agency proposed new rules that largely (though not entirely) complied with the antenna industry's wish list.

James R. Hobson is an attorney who has represented municipalities in zoning issues involving the FCC. He is also a former FCC official, who is now of counsel at Best, Best and Krieger, a Washington-based municipal law practice. "The FCC has been the ally of industry," says Hobson. Lobbyist pressure at the FCC was intense even back in the 70s, when he was a bureau chief there. "When I was at the FCC, a lot of my day was taken up with appointments with industry lobbyists." He says of the CTIA that Wheeler once headed: "Their reason for being is promoting the wireless industry. And they've been successful at it."<sup>19</sup>

The FCC's deferential compliance has allowed industry to regularly bypass and if necessary steamroll local authorities. Violation of the FCC-imposed "shot clock," for example, allows the wireless license applicant to sue.

The FCC's service to the industry it is supposed to regulate is evidently appreciated. The CTIA web site, typically overflowing with self-congratulation, spreads the praise around in acknowledging the enabling contributions of a cooperative FCC. In one brief summation of its own glorious accomplishments, CTIA twice uses the word "thankfully" in describing favorable FCC actions.

In advancing the industry agenda, the FCC can claim that it is merely reflecting the will of Congress. But the agency may not be doing even that.

Remember the key clause in the 96 Telecom Act that disallowed denial of zoning permits based on health concerns? Well, federal preemption is granted to pretty much any wireless outfit on just one simple condition: its installations must comply with FCC radiation emission standards. In view of this generous carte blanche to move radiation equipment into neighborhoods, schoolyards and home rooftops, one would think the FCC would at the very least diligently enforce its own emission standards. But that does not appear to be the case.

Indeed, one RF engineer who has worked on more than 3,000 rooftop sites found vast evidence of non-compliance. Marvin Wessel estimates that "10 to 20% exceed allowed radiation standards."<sup>20</sup> With 30,000 rooftop antenna sites across the U.S. that would mean that as many as 6,000 are emitting radiation in violation of FCC standards. Often, these emissions can be 600% or more of allowed exposure levels, according to Wessel.

Antenna standards allow for higher exposure to workers. In the case of rooftop sites, such workers could be roofers, painters, testers and installers of heating and air conditioning

equipment, to cite just a few examples. But many sites, according to Wessel, emit radiation at much higher levels than those permitted in occupational standards. This is especially true of sites where service providers keep adding new antenna units to expand their coverage. “Some of these new sites will exceed ten times the allowable occupational radiation level,” said Wessel.<sup>21</sup> Essentially, he adds, this means that nobody should be stepping on the roof.

“The FCC is not enforcing its own standard,” noted Janet Newton, who runs the EMF Policy Institute, a Vermont-based non-profit. That group several years ago filed 101 complaints on specific rooftop sites where radiation emissions exceeded allowable levels. “We did this as an exercise to hold the FCC’s feet to the fire,” she said. But the 101 complaints resulted in few responsive actions, according to Newton.<sup>22</sup>

Former FCC official Bob Weller confirms the lax—perhaps negligible is the more appropriate word—FCC activity in enforcing antenna standards. “To my knowledge, the enforcement bureau has never done a targeted inspection effort around RF exposure,” he said.<sup>23</sup> Budget cuts at the agency have hurt, limiting the FCC’s ability to perform field inspections, he added. But enforcement, he adds, would do wonders to insure industry compliance with its limited regulatory compliance requirements. “If there were targeted enforcement and fines issued the industry would pay greater attention to ensuring compliance and self-regulation,” he allowed.

Insurance is where the rubber hits the road on risk. So it is interesting to note that the rating agency A.M. Best, which advises insurers on risk, in 2013 topped its list of “emerging technology-based risks” with RF Radiation:

*“The risks associated with long-term use of cell phones, although much studied over the past 10 years, remain unclear. Dangers to the estimated 250,000 workers per year who come in close contact with cell phone antennas, however, are now more clearly established. Thermal effects of the cellular antennas, which act at close range essentially as open microwave ovens can include eye damage, sterility and cognitive impairments. While workers of cellular companies are well trained on the potential dangers, other workers exposed to the antennas are often unaware of the health risks. The continued exponential growth of cellular towers will significantly increase exposure of these workers and others coming into close contact with high-energy cell phone antenna radiation,”* A.M. Best wrote.<sup>24</sup>

So what has the FCC done to tighten enforcement? Apparently, not very much. Though it does follow up on many of the complaints filed against sites alleged to be in violation of standards it takes punitive actions very rarely. (The FCC did not provide answers to written questions on details of its tower enforcement policies.)

The best ally of industry and the FCC on this (and other) issues may be public ignorance.

An online poll conducted for this project asked 202 respondents to rate the likelihood of a series of statements.<sup>25</sup> Most of the statements were subject to dispute. Cell phones raise the risk of certain health effects and brain cancer, two said. There is no proof that cell phones are harmful, another declared. But among the six statements there was one statement of indisputable fact: “The U.S. Congress forbids local communities from considering health effects when deciding whether to issue zoning permits for wireless antennae,” the statement said.

Though this is a stone cold fact that the wireless industry, the FCC and the courts have all turned into hard and inescapable reality for local authorities, just 1.5% of all poll respondents replied that it was “definitely true.”

Public ignorance didn’t take much cultivation by the wireless industry on the issue of local zoning. And maybe it doesn’t matter much, considering the enormous popularity of wireless devices. But let’s see how public ignorance has been cultivated and secured—with the FCC’s passive support—on the potentially more disruptive issue of mobile phone health effects.

## Chapter Three: Wireless Bullies and the Tobacco Analogy

Issues of cable and net neutrality have recently attracted wide public attention (more on that in Chapter Six). Still, the bet here remains that future judgment of the FCC will hinge on its handling of wireless health and safety issues.

And while the tower siting issue is an egregious example of an industry-dominated political process run amuck, the stronger health risks appear to reside in the phones themselves. This is an issue that has flared up several times in recent years. Each time, industry has managed to beat back such concerns. But it's worth noting that the scientific roots of concern have not disappeared. If anything, they've thickened as new research substantiates older concerns.

The story of an FCC passively echoing an industry determined to play hardball with its critics is worth a further look. The CTIA's own website acknowledges the helpful hand of government's "light regulatory touch" in allowing the industry to grow.<sup>26</sup>

Former congressman Dennis Kucinich ventures one explanation for the wireless industry's success in dodging regulation: "The industry has grown so fast its growth has overtaken any health concerns that may have gained attention in a slow growth environment. The proliferation of technology has overwhelmed all institutions that would have attempted safety testing and standards," Kucinich said.<sup>27</sup>

But the core questions remain: Is there really credible evidence that cell phones emit harmful radiation that can cause human health problems and disease? Has the FCC done an adequate job in protecting consumers from health risks? Or has it simply aped industry stonewalling on health and safety issues?

Before wading into these questions, some perspective is in order.

First, there's simply no denying the usefulness and immense popularity of wireless technology. People depend on it for safety, information, entertainment and communication. It doesn't take a keen social observer to know that wireless has thoroughly insinuated itself into daily life and culture.

The unanswered question, though, is whether consumers would embrace the technology quite so fervently if health and safety information was not spun, filtered and clouded by a variety of industry tactics.

To gain some insight into this question, we conducted an online survey of 202 respondents, nearly all of whom own cell phones, on Amazon's Mechanical Turk Web platform (see [Appendix](#)). One striking set of findings: many respondents claim they would change behavior—reduce wireless use, restore landline service, protect their children—if claims on health dangers of wireless are true.

It is not the purpose of this reporter to establish that heavy cell phone usage is dangerous. This remains an extremely controversial scientific issue with new findings and revised scientific conclusions repeatedly popping up. Just months ago, a German scientist who had been outspoken in denouncing the view that cell phones pose health risks reversed course. In an April 2015 publication, Alexander Lerchl reported results confirming previous research on the tumor-promoting effects of electromagnetic fields well below human exposure limits for mobile phones. “Our findings may help to understand the repeatedly reported increased incidences of brain tumors in heavy users of mobile phones,” the Lerchl team concluded.<sup>28</sup> And in May 2015, more than 200 scientists boasting over 2,000 publications on wireless effects called on global institutions to address the health risks posed by this technology.

But the National Cancer Institute still contends that no cell phone dangers have been established. A representative of NCI was the sole known dissenter among the 30 members of the World Health Organization’s International Agency for Research on Cancer (IARC) when it voted to declare wireless RF “possibly carcinogenic.”<sup>29</sup> If leading scientists still can’t agree, I will not presume to reach a scientific conclusion on my own.

## IARC RF working group: Official press release



International Agency for Research on Cancer



**PRESS RELEASE**  
**N° 208**

**31 May 2011**

**IARC CLASSIFIES RADIOFREQUENCY ELECTROMAGNETIC FIELDS AS  
POSSIBLY CARCINOGENIC TO HUMANS**

Lyon, France, May 31, 2011 -- The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as **possibly carcinogenic to humans (Group 2B)**, based on an increased risk for **glioma**, a malignant type of brain cancer, associated with wireless phone use.

But let's at least look at some of the incriminating clues that health and biology research has revealed to date. And let's look at the responses of both industry and the FCC.

The most widely cited evidence implicating wireless phones concerns gliomas, a very serious type of brain tumor. The evidence of elevated risk for such tumors among heavy cell phone users comes from several sources.

Gliomas account for roughly half of all malignant brain tumors, which are relatively rare. The annual incidence of primary malignant brain tumors in the U.S. is only 8.2 per 100,000 people, according to the International Radio Surgery Association.

Still, when projected over the entire U.S. population, the public health impact is potentially very significant.

Assuming roughly four new glioma cases annually in the U.S. per 100,000 people, yields over 13,000 new cases per year over a total U.S. population of 330 million. Even a doubling of that rate would mean 13,000 new gliomas, often deadly, per year. A tripling, as some studies have found, could mean as many as 26,000 more new cases annually. Indeed, the respected online site Medscape in January 2015 reported results of Swedish research under the headline: *Risk for Glioma Triples With Long-Term Cell Phone Use.*<sup>30</sup>

And here's some eye-opening quantitative perspective: the wars in Iraq and Afghanistan, waged now for more than a decade each, have together resulted in roughly 7,000 U.S. deaths.

Preliminary—though still inconclusive—research has suggested other potential negative health effects. Swedish, Danish and Israeli scientists have all found elevated risk of salivary gland tumors. One Israeli study suggested elevated thyroid cancer risk. Some research has found that men who carry their phones in their pockets may suffer sperm count damage. One small study even suggests that young women who carry wireless devices in their bras are unusually vulnerable to breast cancer.

And while industry and government have never accepted that some portion of the population is unusually sensitive to electromagnetic fields, many people continue to complain of a broad range of symptoms that include general weakness, headaches, nausea and dizziness from exposure to wireless.

Some have suggested that the health situation with wireless is analogous to that of tobacco before court decisions finally forced Big Tobacco to admit guilt and pay up. In some ways, the analogy is unfair. Wireless research is not as conclusively incriminating as tobacco research was. And the identified health risks with wireless, significant as they are, still pale compared with those of tobacco.

But let's not dismiss the analogy outright. There is actually a very significant sense in which the tobacco-wireless analogy is uncannily valid.

People tend to forget that the tobacco industry—like the wireless industry—also adopted a policy of tone-deaf denial. As recently as 1998, even as evidence of tobacco toxicity grew overwhelming, cigarette maker Phillip Morris was writing newspaper advertorials insisting there was no proof smoking caused cancer.

It seems significant that the responses of wireless and its captured agency—the FCC—feature the same obtuse refusal to examine the evidence. The wireless industry reaction features stonewalling public relations and hyper aggressive legal action. It can also involve undermining the credibility and cutting off the funding for researchers who do not endorse cellular safety. It is these hardball tactics that look a lot like 20<sup>th</sup> century Big Tobacco tactics. It is these hardball tactics—along with consistently supportive FCC policies—that heighten suspicion the wireless industry does indeed have something to hide.

Begin with some simple facts issuing from meta-analysis of cellular research. Dr. Henry Lai, emeritus professor of bioengineering at the University of Washington, has reviewed hundreds of published scientific papers on the subject. He wanted to see how many studies demonstrated that non-ionizing radiation produces biological effects beyond the heating of tissue. This is critical since the FCC emission standards protect only against heating. The assumption behind these standards is that there are no biological effects beyond heating.

But Dr. Lai found that just over half—actually 56%—of 326 studies identified biological effects. And the results were far more striking when Dr. Lai divided the studies between those that were industry-funded and those that were independently funded. Industry-funded research identified biological effects in just 28% of studies. But fully 67% of non-industry funded studies found biological effects (Insert Slide—Cell Phone Biological Studies).

A study conducted by Swiss and British scientists also looked at how funding sources affected scientific conclusions on the possible health effects of cell phone usage. They found that of studies privately funded, publicly funded and funded with mixed sponsorship, industry-funded studies were “least likely to report a statistically significant result.”<sup>31</sup> “The interpretation of results from studies of health effects of radiofrequency radiation should take sponsorship into account,” the scientists concluded.<sup>32</sup>

So how does the FCC handle a scientific split that seems to suggest bias in industry-sponsored research?

In a posting on its Web site that reads like it was written by wireless lobbyists, the FCC chooses strikingly patronizing language to slight and trivialize the many scientists and health and safety experts who’ve found cause for concern. In a two page Web post titled “Wireless Devices and Health Concerns,” the FCC four times refers to either “some health and safety interest groups,” “some parties,” or “some consumers” before in each case rebutting their presumably groundless concerns about wireless risk.<sup>33</sup> Additionally, the FCC site references the World Health Organization as among those organizations who’ve found that “the weight of scientific

evidence” has not linked exposure to radiofrequency from mobile devices with “any known health problems.”

Yes, it’s true that the World Health organization remains bitterly divided on the subject. But it’s also true that a 30 member unit of the WHO called the International Agency for Research on Cancer (IARC) was near unanimous in pronouncing cell phones “possibly carcinogenic” in 2011. How can the FCC omit any reference to such a pronouncement? Even if it finds reason to side with pro-industry scientists, shouldn’t this government agency also mention that cell phones are currently in the same potential carcinogen class as lead paint?

Now let’s look a bit more closely at the troublesome but presumably clueless crowd of “some parties” that the FCC so cavalierly hastens to dismiss? Let’s begin with **Lennart Hardell**, professor of Oncology and Cancer Epidemiology at the University Hospital in Oreboro, Sweden.

Until recently it was impossible to gain any real sense of brain tumor risk from wireless since brain tumors often take 20 or more years to develop. But the cohort of long-term users has been growing. In a study published in the *International Journal of Oncology* in 2013, Dr. Hardell and Dr. Michael Carlberg found that the risk of glioma—the most deadly type of brain cancer—rose with cell phone usage. The risk was highest among heavy cell phone users and those who began to use cell phones before the age of 20.<sup>34</sup>

Indeed, those who used their phones at least 1640 hours (which would be roughly 30 minutes a day for nine years) had nearly three times the glioma incidence. Drs. Hardell and Carlberg also found that gliomas tend to be more deadly among heavy wireless callers.<sup>35</sup>

Perhaps of greatest long-term relevance, glioma risk was found to be four times higher among those who began to use mobile phones as teenagers or earlier. These findings, along with the established fact that it generally takes decades for tumors induced by environmental agents to appear, suggest that the worst consequences of omnipresent wireless devices have yet to be seen.

In a 2013 paper published in *Reviews on Environmental Health*, Drs. Hardell and Carlberg argued that the 2011 finding of the IARC that identified cell phones as a “possibly carcinogenic” needs to be revised. The conclusion on radiofrequency electromagnetic fields from cell phones should now be “cell phones are not just a possible carcinogen.” They can now be “regarded as carcinogenic to humans” and the direct cause of gliomas (as well as acoustic neuromas, a less serious type of tumor).<sup>36</sup> Of course, these views are not universally accepted.

The usual spin among industry supporters when presented with research that produces troubling results is along the lines of: “We might pay attention if the results are duplicated.” In fact, the Hardell results were echoed in the French CERENAT study, reported in May of 2014. The CERENAT study also found higher risk among heavy users, defined as those using their phones at least 896 hours (just 30 minutes a day for five years). “These additional data support

previous findings concerning a possible association between heavy mobile phone use and brain tumors,” the study concluded.<sup>37</sup>

Cell phones are not the only wireless suspects. Asked what he would do if he had policy-making authority, Dr. Hardell swiftly replied that he would “ban wireless use in schools and pre-schools. You don’t need Wi-Fi,” he noted.<sup>38</sup> This is especially interesting in view of the FCC’s sharply hiked spending to promote and extend Wi-Fi usage, as well as its consistent refusal to set more stringent standards for children (more on all this later). But for now let’s further fill out the roster of the FCC’s unnamed “some parties.”

**Martin Blank** is a Special Lecturer in Physiology and Cellular Biophysics at Columbia University. Unlike Dr. Hardell, who looks at broad epidemiological effects over time, Dr. Blank sees cause for concern in research showing there is biological response at the cellular level to the type of radiation emitted by wireless devices. “The biology tells you unequivocally that the cell treats radiation as a potentially damaging influence,” Dr. Blank said in a late 2014 interview.<sup>39</sup>

“The biology tells you it’s dangerous at a low level,” he added. Though some results have been difficult to replicate, researchers have identified a wide range of cellular responses including genetic damage and penetration of the blood brain barrier. Dr. Blank specifically cited the “cellular stress response” in which cells exposed to radiation start to make proteins.

It is still not clear whether biological responses at the cellular level translate into human health effects. But the research seems to invalidate the basic premise of FCC standards that the only biological effect of the type of radiation produced by wireless devices is tissue heating at very high power levels. But the standards-setting agencies “ignore the biology,” according to Dr. Blank. He describes the FCC as being “in industry’s pocket.”<sup>40</sup>

Sweden’s Lund University is annually ranked among the top 100 universities in the world. **Leif Salford** has been chairman of the Department of Neurosurgery at Lund since 1996. He is also a former president of the European Association for Neuro-Oncology. In the spring of 2000, Professor Salford told me that wireless usage constituted “the world’s largest biological experiment ever.”<sup>41</sup>

He has conducted numerous experiments exposing rats to cellular-type radiation. Individual experiments have shown the radiation to penetrate the blood-brain barrier, essential to protecting the brain from bloodstream toxins. Professor Salford also found that rats exposed to radiation suffered loss of brain cells. “A rat’s brain is very much the same as a human’s. They have the same blood-brain barrier and neurons. We have good reason to believe that what happens in rat’s brains also happens in humans,” he told the BBC in 2003. Dr. Salford has also speculated that mobile radiation could trigger Alzheimer’s disease in some cases but emphasized that much more research would be needed to establish any such causal relationship. Does this man deserve to be dismissed as one of a nameless and discredited group of “some parties?”

And what about the **American Academy of Pediatrics (AAP)**, which represents 60,000 American doctors who care for children? In a December 12, 2012 letter to former Ohio Congressman Dennis Kucinich, AAP President Dr. Thomas McInerny writes: “Children are disproportionately affected by environmental exposures, including cell phone radiation. The differences in bone density and the amount of fluid in a child’s brain compared to an adult’s brain could allow children to absorb greater quantities of RF energy deeper into their brains than adults.”<sup>42</sup>

In a subsequent letter to FCC officials dated August 29, 2013, Dr. McInerny points out that “children, however, are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation.” Current FCC exposure standards, set back in 1996, “do not account for the unique vulnerability and use patterns specific to pregnant women and children,” he wrote. (Insert slide: A Plea from Pediatricians). Does an organization representing 60,000 practitioners who care for children deserve to be brushed off along with “some health and safety interest groups?”

So what is the FCC doing in response to what at the very least is a troubling chain of clues to cellular danger? As it has done with wireless infrastructure, the FCC has to this point largely relied on industry “self-regulation.” Though it set standards for device radiation emissions back in 1996, the agency doesn’t generally test devices itself. Despite its responsibility for the safety of cell phones, the FCC relies on manufacturers’ good-faith efforts to test them. Critics contend that this has allowed manufacturers undue latitude in testing their devices.

Critics further contend that current standards, in place since cell phones were barely in use, are far too lax and do not reflect the heavy usage patterns that have evolved. Worse still, industry is allowed to test its own devices using an imprecise system that makes no special provision for protecting children and pregnant women. One 2012 study noted that the procedure widely used by manufacturers to test their phones “substantially underestimates” the amount of RF energy absorbed by 97% of the population, “especially children.” A child’s head can absorb over two times as much RF energy. Other persons with smaller heads, including women, are also more vulnerable. The authors recommend an alternative computer simulation technique that would provide greater insight into the impact of cellular radiation on children and on to the specific RF absorption rates of different tissues, which vary greatly.<sup>43</sup>

Acting on recommendations of the General Accounting Office, the FCC is now reconsidering its standards for wireless testing and allowed emissions. On the surface, this may seem to represent an effort to tighten standards to promote consumer health and safety. But many believe the FCC’s eventual new standard will actually be weaker, intensifying any health risk from industry’s self-reported emission levels. “They’re under great pressure from industry to loosen the criteria,” notes Joel Moskowitz, director of the Center for Family and Community Health at UC Berkeley’s School of Public Health.<sup>44</sup> One fear is that the FCC could measure the allowed radiation absorption level (SAR) over a wider sample of tissue, effectively loosening the

standard allowable energy absorption. One FCC official, who asked that his name not be used, contended that a decision had not yet been made to loosen the standard.

But to this point, there is little evidence the FCC is listening to anyone beyond its familiar friends in the wireless industry. Carl Blackman, a scientist at the Environmental Protection agency until retiring in 2014, notes that the FCC does rely to some degree on an inter-agency governmental group for advice on health matters. The group includes, for example, representatives from the EPA and the FDA.

Blackman served on that advisory group and he says that it has been divided. Though some government advisers to the FCC find evidence of wireless health risks convincing, others remain skeptical, said Blackman. Root of the skepticism: even though numerous researchers have found biological and health effects, the mechanism for action by non-ionizing radiation on the human body has still not been identified. “I don’t think there’s enough of a consensus within the Radio Frequency Inter-agency Working Group for them to come out with stricter standards,” he says.<sup>45</sup>

But political pressures also figure mightily in all this. The EPA, notably, was once a hub of research on RF effects, employing as many as 35 scientists. However, the research program was cut off in the late 80s during the Regan presidency. Blackman says he was personally “forbidden” to study health effects by his “supervisory structure.”<sup>46</sup> He termed it “a political decision” but recognized that if he wanted to continue to work at the EPA he would have to do research in another area.

Blackman is cautious in imputing motives to the high government officials who wanted his work at EPA stopped. But he does say that political pressure has been a factor at both the EPA and FCC: “The FCC people were quite responsive to the biological point of view. But there are also pressures on the FCC from industry.” The FCC, he suggests, may not just be looking at the scientific evidence “The FCC’s position—like the EPA’s—is influenced by political considerations as well.”<sup>47</sup>

Still, the FCC has ultimate regulatory responsibility and cannot indefinitely pass the buck on an issue of fundamental public health. Remarkably, it has not changed course despite the IARC classification of cell phones as possibly carcinogenic, despite the recent studies showing triple the glioma risk for heavy users, despite the floodtide of research showing biological effects, and despite even the recent defection of core industry booster Alex Lerchl. It is the refusal of both industry and the FCC to even acknowledge this cascade of warning signs that seems most incriminating.

Of course, industry behavior goes well beyond pushing for the FCC’s willful ignorance and inaction. Industry behavior also includes self-serving public relations and hyper aggressive legal action. It can also involve undermining the credibility of and cutting off the funding for researchers who do not endorse cellular safety. It is these hardball tactics that recall 20<sup>th</sup> century Big Tobacco tactics. It is these tactics that heighten suspicion that the wireless industry does

indeed have a dirty secret. And it is those tactics that intensify the spotlight on an FCC that so timidly follows the script of the fabulously wealthy, bullying, billion-dollar beneficiaries of wireless.

## Chapter Four: You Don't Need Wires To Tie People Up

So let's look a little more deeply at some of the actions of an industry group that boasts of 500 meetings a year with the FCC. Lobbying is one thing. Intimidation is another. CTIA has shown its skill at—and willingness to use—both.

Outright legal bullying is a favored tactic. The City of San Francisco passed an ordinance in 2010 that required cell phone manufacturers to display more prominently information on the emissions from their devices. This information was already disclosed—but often buried—in operator manuals and on manufacturer websites. The idea was to ensure that consumers saw information already mandated and provided.

Seeing this as a threat to its floodtide of business, the industry sued the City of San Francisco. The City, fearing a prolonged legal fight with an industry that generates hundreds of billions of dollars in annual revenue, backed down.

On May 12, 2015, Berkeley, California's City Council unanimously passed a similar ordinance. Joel Moskowitz, director of the Center for Family and Community Health at the University of California-Berkeley's School of Public Health, has been involved in the effort. Berkeley, he says, didn't want to run into the same legal threats that paralyzed San Francisco. So it tried to draft the most inoffensive and mild language possible. The proposed Cell Phone Right to Know ordinance: "To assure safety, the Federal Government requires that cell phones meet radio frequency (RF) exposure guidelines. If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a wireless network, you may exceed the federal guidelines for exposure to RF radiation. This potential risk is greater for children. Refer to the instructions in your phone or user manual for information about how to use your phone safely."<sup>48</sup>

Sounds pretty inoffensive, no? Not to the CTIA, which indicated that it was prepared to sue, according to Berkeley City Attorney Zach Cowan.<sup>49</sup> (On June 8<sup>th</sup>, CTIA did indeed sue the City of Berkeley.)

Well, from the industry point of view, why not throw around your weight? Smash mouth legal tactics have been highly successful thus far as industry has managed to throttle several efforts to implicate manufacturers in cases where heavy users suffered brain tumors.

But one current case has advanced in district court in Washington to the point where the judge allowed plaintiffs to present expert witness testimony. The industry response: file a legal action seeking to invalidate long-held court methods for qualifying expert witnesses.

This is a very rich industry that does not hesitate to outspend and bully challengers into submission. Meanwhile, amidst the legal smoke and medical confusion, the industry has

managed to make the entire world dependent on its products. Even tobacco never had so many hooked users.

Such sustained success in the face of medical doubt has required industry to keep a lid on critics and detractors. Many scientists who've found real or potential risk from the sort of microwave radiation emanating from wireless devices have learned there is a price to be paid for standing up to the industry juggernaut. A few prominent examples:

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In 1994, University of Washington researchers Henry Lai and N.P. Singh found that rats exposed to microwave radiation suffered DNA damage to their brain cells. This was a scary finding since DNA damage can lead to mutations and possibly cancer.

The reaction from industry was swift. Motorola was at that time the U.S. market leader in cell phones. In a memorandum obtained by the journal *Microwave News*, Motorola PR honcho Norm Sandler outlined how the company could "downplay the significance of the Lai study." One step: "We have developed a list of independent experts in this field and are in the process of recruiting individuals willing and able to reassure the public on these matters," Sandler wrote. After outlining such measures, he concluded that Motorola had "sufficiently war-gamed" the issue. The practices of lining up industry-friendly testimony and "war-gaming" researchers who come up with unfavorable results have been persistent themes with this industry.

## Motorola "War-Games" Bad News

### ***Motorola, Microwaves and DNA Breaks: "War-Gaming" the Lai-Singh Experiments***

"We have developed a list of independent experts in this field and are in the process of recruiting individuals willing and able to reassure the public on these matters."

"I think we have sufficiently war-gamed the Lai-Singh issue..."

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After Lai's results were published, Motorola decided to sponsor further research on microwaves and DNA damage. Oftentimes, lab results cannot be reproduced by other

researchers, particularly if experiments are tweaked and performed a bit differently. Non-confirming studies raise doubt, of course, on the original work.

Motorola lined up Jerry Phillips, a scientist at the Veteran’s Administration Medical Center in Loma Linda, California, and Phillips tested the effect of radiation at different frequencies from those tested by Lai and Singh. Nevertheless, Phillips found that at some levels of exposure, DNA damage increased, while at other levels it decreased. Such findings were “consistent” with the sorts of effects produced by chemical agents, Phillips said in an interview.<sup>50</sup> In some cases, the radiation may have activated DNA repair mechanisms, reducing the overall microwave effect. But what was important, Phillips explained, is that there were *any* biological effects at all. The wireless industry has long contended—and the FCC has agreed—that there is no evidence that non-ionizing radiation at the frequencies and power levels used by cell phones is biologically active.

Understanding the potential impact of “biological effect” findings, Motorola again turned to damage control, said Phillips. He recalls receiving a phone call from a Motorola R&D executive. “I don’t think you’ve done enough research,” Phillips recalls being told. The study wasn’t ready for publication, according to the Motorola executive. Phillips was offered more money to do further research without publishing the results of what he’d done.

But Phillips felt he’d done enough. Despite warnings for his own boss to “give Motorola what it wants,” Phillips went ahead and published his findings in 1998. Since then, Phillips’ industry funding has dried up. Meanwhile, as many other researchers report, government funding to do independent research on microwave radiation has dried up, leaving the field at least in the U.S. to industry-funded scientists. “There is no money to do the research,” Said Phillips. “It’s not going to come from government because government is controlled by industry.”<sup>51</sup>

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Om P. Gandhi is Professor of Electrical and Computer Engineering at the University of Utah and a leading expert in dosimetry—measurement of non-ionizing radiation absorbed by the human body. Even before cell phones were in wide use, Professor Gandhi had concluded that children absorb more emitted microwave radiation. “The concentration of absorbed energy is 50 to 80% greater,” he explained.<sup>52</sup>

These conclusions were not acceptable to Professor Gandhi’s industrial sponsors. In 1998, he recalls, an executive from a cell phone manufacturer—which he did not want to identify—told him directly that if he did not discontinue his research on children his funding would be cut off. Professor Gandhi recalled replying: “I will not stop. I am a tenured professor at the University of Utah and I will not reject my academic freedom.” Professor Gandhi also recalled some of his thought process: “I wasn’t going to order my students to alter their results so that I can get funding.” His industry sponsors cancelled his contract and asked for a return of funds.

Professor Gandhi believes that some cell phone users require extra protection because their heads are smaller and more absorptive. “Children, as well as women and other individuals with smaller heads absorb more concentrated energy because of the proximity of the radiating antenna to the brain tissue,” he said. And yet the FCC has not acted to provide special protection for these groups. Asked why not, Professor Gandhi conceded that he doesn’t know. He does note, however, that recent standards-setting has been dominated by industry representatives.<sup>53</sup>

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While the mobile industry refuses to admit to even the possibility that there is danger in RF radiation, giant insurance companies see things differently. Several insurers have in recent years issued reports highlighting product liability risk with cell phones. This is important because it is evidence that where money is on the line professionals outside the industry see the risk of legal liability.

Legal exposure could be one reason—perhaps the central one—the industry continues to stonewall. Should legal liability be established, one key question will be how much wireless executives knew—and at what point in time. Meanwhile, the combination of public relations denials, legal intimidation and the selective application of pressure on research follows a familiar pattern. “The industry is basically using the tobacco industry playbook,” UC Berkeley’s Moskowitz said in a recent radio interview.<sup>54</sup>

That playbook has thus far been highly successful in warding off attention, regulation and legal incrimination.

## **Chapter Five: \$270 Billion . . . and Looking for Handouts**

The FCC's network of corruption doesn't just shield industry from needed scrutiny and regulation on matters of public health and safety. Sometimes it just puts its hand directly into the public pocket and redistributes that cash to industry supplicants.

Such is arguably the case with the Universal Service Fund. Originally established to extend telephone service to rural and urban areas that industry would find difficult or uneconomical to wire, the USF is now shifting from subsidizing landline phone service to subsidizing the extension of broadband Internet. USF monies also support the Lifeline program, which subsidizes cell phone service to low-income consumers, and the E-Rate program, which subsidizes Internet infrastructure and service to schools and libraries.

Since 1998, more than \$110 billion has been allocated to Universal Service programs, notes Charles Davidson, director of the Advanced Communications Law & Policy Institute at New York Law School. The FCC has allocated over \$40 billion to the E-Rate program alone.

Who pays the freight for these high-cost programs? You do.

Technically, landline and wireless phone companies are assessed for the Universal Service fund's expenditures. But the FCC also allows those companies to pass on such charges to their subscribers, which they do. Both landline and wireless subscribers pay a monthly Universal Service charge that is tacked on to their phone bills. That charge has been rising and recently amounted to a 16% surcharge on interstate calls.

Consumers who pay for these programs might be interested to learn that both the E-Rate and Lifeline programs have been riddled with fraud. Government watchdogs have repeatedly found the programs to be inefficient and prone to inflated and fraudulent claims. But the programs have been a windfall for tech and telecom industry beneficiaries. Wherever the FCC presides, it seems, these industries reap a windfall.

The General Accounting Office (GAO) has issued several reports citing fraud, waste and mismanagement, along with inadequate FCC oversight of the subsidy program. Bribery, kickbacks and false documentation can perhaps be expected in a handout program mandated by Congress and only indirectly supervised by the FCC.

But the scope of fraud has been impressive. The most striking corruption has marred the E-Rate program, which subsidizes Internet hardware, software and service for schools and libraries, and the Lifeline cell phone subsidies.

In recent years, several school districts have paid fines to settle fraud cases involving bribery, kickbacks, non-competitive bidding of contracts and false documentation in the E-Rate

program. More eye opening perhaps are the settlements of fraud claims by tech giants like IBM, Hewlett Packard and AT&T. The HP case, for example, involved some colorful bribery allegations, including gifts of yachts and Super Bowl tickets. HP settled for \$16 million. An HP official and a Dallas Independent School District official both received jail sentences.

The Lifeline program has also been riddled with fraud. A Wall Street Journal investigation of the five top corporate beneficiaries of Lifeline showed that 41% of more than 6 million subsidy claimants “couldn’t demonstrate their eligibility or didn’t respond to requests for certification.”<sup>55</sup> AT&T, Verizon, and Sprint Nextel were three of the major Lifeline beneficiaries.

The FCC has initiated several efforts to clean up USF programs and seems honestly determined to bring greater accountability and efficiency to its subsidy efforts. Nevertheless, problems with fraud persist, as reported recently by the FCC’s own top investigator.

Congress established the FCC’s Office of Inspector General in 1989 to “provide objective and independent investigations, audits and reviews of the FCC’s programs and operations.” Here’s what the FCC’s internal investigative unit said in a September 30, 2014 report to Congress about its Office of Investigation (OI): “*The bulk of the work of OI involves investigating and supporting civil and criminal investigations/prosecutions of fraud in the FCC’s federal universal service program.*”<sup>56</sup>



## OFFICE OF INVESTIGATION

**The bulk of the work of OI involves investigating and supporting civil and criminal investigations/prosecutions of fraud in the FCC’s federal universal service program.**

Fraud—as pervasive and troubling as it has been—is just one of the problems with the programs of universal service. It may not even be the fundamental problem. More fundamental issues concern the very aim, logic and efficiency of programs to extend broadband and wireless technology at public expense. Though the aims of extending service to distant impoverished areas seem worthy on the surface, there are many reasons to think the major beneficiaries of these programs are the technology companies that win the contracts.

Lobbyists have long swarmed over the FCC looking to get an ever-growing piece of the USF honeypot. An FCC report on meetings with registered lobbyists details a 2010 meeting with representatives of the International Society for Technology in Education and other education lobbyists. Topics discussed, according to the FCC report, included “the need to raise the E-Rate’s annual cap.”<sup>57</sup>

The CTIA, leaving no stone unturned in its efforts to pump up member revenues, last year responded to a House hearing on the USF by grouching that “current USF-supported programs skew heavily toward support of wireline services. . . . The concentration of USF monies to support wireline services is inconsistent with technological neutrality principles and demonstrated consumer preferences,” CTIA wrote.<sup>58</sup> An industry that generates hundreds of billions of dollars in equipment and service revenues annually bellies up for a bigger slice of the \$8 billion a year USF.

The grouching has paid off. The FCC recently announced that it will raise spending on E-Rate from what had been a cap of \$2.4 billion a year to \$3.9 billion. A significant portion of new outlays will go to Wi-Fi—yet another wireless industry victory at the FCC. But the CTIA is by no means the only industry group pressing the FCC.

Leading the roster of active lobbyists on E-Rate issues is the Software and Information Industry Association. Beginning in 2006, SIAA led all lobbyists with 54 mentions of E-Rate in its filings, according to the Center for Responsive Politics. SIAA board members include executives from tech heavyweights Google, Oracle and Adobe Systems.

Tech business leaders—many of them direct beneficiaries of FCC programs—made a direct pitch to FCC Chairman Wheeler last year to hike E-Rate funding. “The FCC must act boldly to modernize the E-Rate program to provide the capital needed to upgrade our K-12 broadband connectivity and Wi-Fi infrastructure within the next five years,” the executives wrote.<sup>59</sup>

There were dozens of corporate executive signees to this letter, including the CEOs of many Fortune 500 giants. But let’s just consider the participation of three: top executives of Microsoft, Google and HP all joined the call to expand E-Rate subsidies. Consider the simple fact that these three tech giants alone had revenues of \$270 billion—more than a quarter of a trillion dollars—in a recent four-quarter period. Together, they produced nearly \$40 billion in net income. And yet their top executives still thought it necessary to dun the FCC—and really, they were surreptitiously hitting up the public—for ramped-up spending on what was then a \$2.4 billion a year program.

Is that greed? Arrogance? Or is it simply behavior conditioned by success in repeatedly getting what they want at the public trough? Almost never mentioned in these pleas for higher subsidies is the fact that ordinary American phone subscribers are the ones footing the bill for the E-Rate program—not the FCC or the telecom industry.

Much of the added spending, as noted, will go towards the installation of wireless networks. And yet Wi-Fi does not have a clean bill of health. When Lennart Hardell, professor of Oncology and Cancer Epidemiology at the University Hospital in Orebro, Sweden, was asked what he would do if given policy authority over wireless health issues, he replied swiftly that he would “ban wireless use in schools and pre-school.” Noting that there are wired alternatives, Professor Hardell flatly stated: “You don’t need Wi-Fi.”<sup>60</sup> And yet the FCC, prodded by an industry ever on the lookout for incremental growth opportunities, is ignoring the health of youngsters to promote expanded Wi-Fi subsidies in schools across the U.S.

And what about the merit of the program itself? Overlooking the fraud and lobbying and Wi-Fi safety issues for a moment, shouldn’t schools and libraries across the country be equipped with the best electronic gear, accessing the Internet at the fastest speeds? Doesn’t the government owe that to its younger citizens, especially those disadvantaged by the long-referenced digital divide?

Well, maybe. But answers to these questions hinge on even more fundamental question: Do students actually learn more or better with access to the latest high-speed electronic gadgetry?

It would be foolish to argue that nobody benefits from access to high-speed Internet. But the benefits are nowhere near as broad or rich as corporate beneficiaries claim. Some researchers, for example, have concluded that computers don’t seem to have positive educational impact—they may even have negative impact—when introduced into the home or freely distributed to kids from low income backgrounds.

Duke University researchers Jacob Vigdor and Helen Ladd studied the introduction of computers into North Carolina homes. They found that the academic performance of youngsters given computers actually declined. “*The introduction of home computer technology is associated with modest but statistically significant and persistent negative impacts on student math and reading test scores,*” the authors wrote in a National Bureau of Economic Research Working Paper.<sup>61</sup> The impact was actually most negative on the poorer students.

A study in the *Journal of International Affairs* examined the impact of the global One Laptop Per Child Program (OLPC), which has distributed millions of computers to children around the world. Researchers Mark Warschauer and Morgan Ames conclude: “*The analysis reveals that provision of individual laptops is a utopian vision for the children in the poorest countries, whose educational and social futures could be more effectively improved if the same investments were instead made on more proven and sustainable interventions. Middle- and high-income countries may have a stronger rationale for providing individual laptops to children, but will still want to eschew OLPC’s technocratic vision. In summary, OLPC represents the latest in a long line of technologically utopian schemes that have unsuccessfully attempted to solve complex social problems with overly simplistic solutions.*”<sup>62</sup>

## Can One Laptop Per Child Save the World's Poor?

"...In summary, One Laptop Per Child represents the latest in a long line of technologically utopian development schemes that have unsuccessfully attempted to solve complex social problems with overly simplistic solutions."

Access to computers in the home may not work educational magic. But what about computers in the classroom? Don't they have educational value there?

The anecdotal evidence is mixed at best. Consider how students in Los Angeles, newly equipped with flashy iPads at a mind-boggling taxpayer cost of more than \$1 billion, went about using the new tools to improve their educational performance. "Instead of solving math problems or doing English homework, as administrators envisioned, more than 300 Los Angeles Unified School District students promptly cracked the security setting and started tweeting, posting to Facebook and playing video games."<sup>63</sup>

But let's cut through the self-serving corporate claims and the troubling anecdotes to hear from someone who actually has had extensive and unique field experience. Kentaro Toyama was co-founder of Microsoft's research lab in India. Over more than five years he oversaw at least a dozen projects that sought to address educational problems with the introduction of computer technology. His conclusion: "The value of technology has been over-hyped and over-sold."

The most important factor in improving schools, says Toyama, now the W.K Kellogg Associate Professor of Community Information at the University of Michigan, is good teachers. Without good, well-trained teachers, adequate budgets and solid school administration, technology does little good. "Technology by itself never has any kind of positive impact," he said.<sup>64</sup>

The only schools in his experience that benefited from increased technology investment were those where "the teachers were very good, the budgets adequate." The richer schools, in essence. But as both Vigdor and Warschauer found, the introduction of technology has by itself little if any positive effect. For a public conditioned to believe in the virtues of new technology, such testimony is a bracing dose of cold reality.

But what about cost? Doesn't technology in the schools more efficiently replace alternative investments? Cost reductions are often the most persuasive argument for technology, Toyama agrees. But even these have been overstated. The costs of introducing new technology run far beyond initial hardware and software investments, said Toyama. In reality, the total costs of ownership—including maintenance, training, and repair—typically run to five or ten times the initial cost, according to Toyama. He said of the investment in technology for cost benefits: "I would say that in the long run—and even in the medium run and the short-run—that's probably the worst and most misguided conclusion to come to."<sup>65</sup>

He adds: "The inescapable conclusion is that significant investments in computers, mobile phones and other electronic gadgets in education are neither necessary nor warranted for most school systems. In particular, the attempt to use technology to fix underperforming class rooms . . . is futile. And for all but wealthy, well-run schools, one-to-one computer programs cannot be recommended in good conscience."<sup>66</sup>

But that doesn't keep industry lobbyists from recommending them. And it hasn't kept the FCC for spending scores of billions subsidizing technology to the very groups least likely to benefit from it.

Unmoved by the arguments of researchers and educators like Vigdor, Warschauer, and Toyama, the FCC keeps moving to increase technology subsidies. Ignoring research that disputes the value of technology in closing the so-called "digital divide," the FCC has even pioneered a new slogan: "the Wi-Fi gap."

In announcing that it was lifting E-Rate's annual budget from \$2.4 billion to \$3.9 billion and stepping up investment in wireless networking, FCC chairman Wheeler exulted that "10 million students are going to experience new and better opportunities."<sup>67</sup> The impact on consumer pocketbooks (and potentially on youngsters' health from daily Wi-Fi exposure) were not mentioned.

The two Republican members of the FCC did at least recognize the pocketbook impact. "It always seems easier for some people to take more money from the American people via higher taxes and fees rather than do the hard work," said Commissioner Michael O'Reilly.<sup>68</sup>

The subsidized provision of high-speed Internet service is yet another pet project of the FCC. Julius Genachowski, chairman from 2009 to 2013, championed the transition of the USF from landline phone service to broadband. Universal broadband Internet connections would begin to absorb the monies collected from consumers to extend basic phone service.

As with government subsidies for cell phone service, classroom technology, and Wi-Fi, there are basic questions about the wisdom of subsidizing broadband. Charles Davidson and Michael Santorelli of the New York Law School found that spending billions to extend broadband is a flawed approach since there are many largely ignored reasons people choose not to adopt

broadband. “Everybody is pushing broadband non-stop,” noted Davidson, director of the Law School’s Advanced Communications Law and Policy Institute. “I think the FCC is focused on the wrong set of issues,” he said.<sup>69</sup>

Already, he explained, over 98% of Americans have access to wired or wireless broadband. The issue is not one of supply. It’s one of demand. Many people—for a variety of reasons—don’t really care about broadband, he contends. Price is one issue. Also powerful factors—but given almost no attention—are privacy and security concerns. “In our view, they should be focused on barriers to meaningful broadband utilization: privacy and security,” said Davidson.<sup>70</sup>

But consumer privacy (more on this subject in Chapter Seven) has no well-funded lobby with limitless access to the FCC.

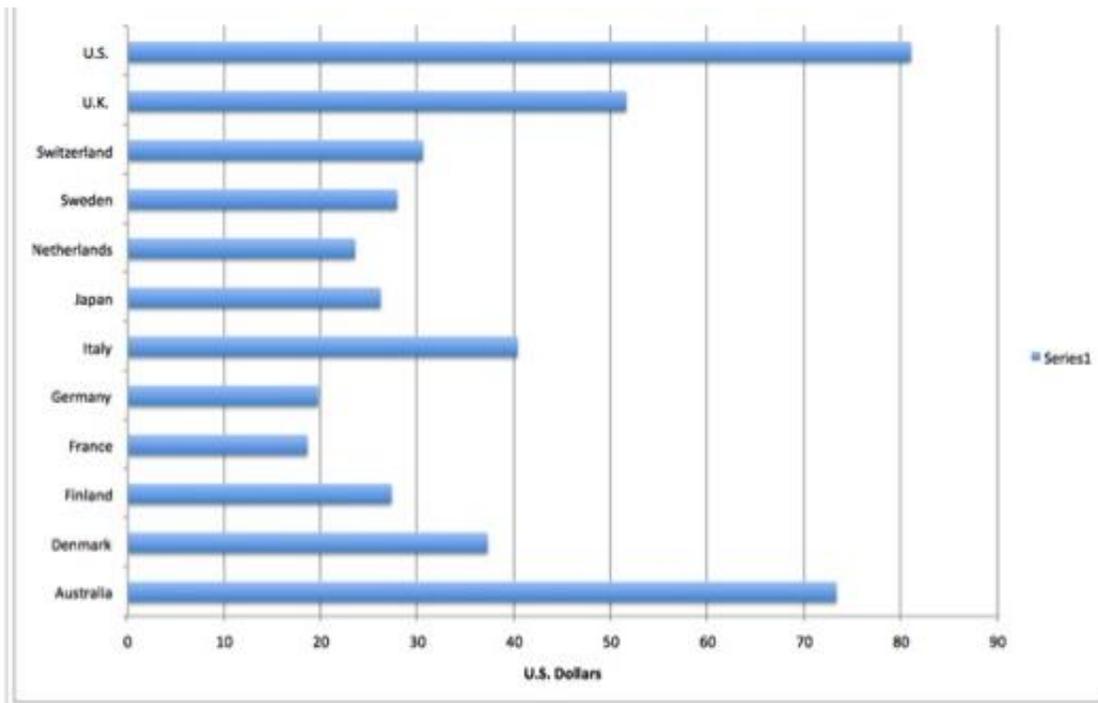
## Chapter Six: The Cable Connection

The network has also been active in diluting FCC control of the cable television industry. Over the years, cable has devolved into major de facto local monopolies. Comcast and Time Warner Cable, whose merger proposal was dropped in April, are dominant forces in both cable television and broadband Internet subscriptions. Somehow, though, they have managed to steer clear of one another in specific markets, giving each pricing power where it faces little local competition.

It's interesting that cable companies annually rank in consumer polls among the “most hated” or “most disliked” American corporations. Indeed, Comcast and Time Warner Cable often top the “most hated” list.<sup>71</sup> Why would these companies—providers of the TV programming that has so expanded consumer options in recent decades—be so widely scorned? After all, the U.S. has been a leader in developing both cable technology and diverse television programming.

The problem is that it hasn't been anything close to a leader in bringing down subscriber prices. Industry consultants typically measure pricing by the metric of average revenue per subscriber. Industry trackers at IHS compared the price of U.S. pay television (which includes satellite services) to those in more than 60 other countries. U.S. prices were the highest, with only Australia even coming close. The average revenue per subscriber in the U.S. in 2013 was \$81. But in France it was just \$18.55. In Germany it was \$19.68. In Japan it was just over \$26.

### Pay TV Monthly Revenue Per Person:



And U.S. cable prices have risen in recent years at rates three or more times the rate of inflation. This has been going on for some time. From 1995 to 2013 cable rates increased at a 6.1% annual clip. The Consumer Price Index, by contrast, rose by just 2.4% annually. Former FCC commissioner Michael Copps says the FCC shares a major part of the blame. “The FCC is as culpable for allowing that as much as the companies for imposing it,” he said.<sup>72</sup>

One area where the FCC has contributed to the problem is in its traditional rubber-stamping of merger agreements. The proposed Comcast/Time Warner Cable deal has been shelved, largely because of Justice Department reservations. But a long run of earlier FCC-sanctioned deals allowed Comcast and Time Warner Cable to grow to the market dominance—and attendant pricing power—they currently command.

Lofty monthly cable bills pinch consumers. But it’s more than that. Subscribers paying \$80 a month are often paying for a lot of channels they don’t watch and don’t want. The FCC has never required cable operators to charge for what consumers actually want to watch. Kevin Martin, who chaired the FCC from 2005 to 2009, pushed to “debundle” programming in hopes of lowering bills. But the issue was never resolved. Only recently have viable competitive alternatives to cable’s “bundled” packages become available. The satellite service Dish, for example, months ago introduced its Sling offering that enables consumers to opt for smaller and cheaper packages.

In fairness to cable operators, it should be pointed that programmers often require operators to take unwanted or fledgling channels along with their stars. New York cable operator Cablevision Systems filed suit against Viacom in 2013, charging that in order to get popular channels like MTV and Nickelodeon it was also forced to take low-rated channels like Nicktoons and VH1 Soul. But the simple truth is that no matter who is to blame, the cable consumer pays high prices, typically for some programming he doesn’t want. As it often does when powerful interests pursue dubious practices, the FCC has for the most part idly stood by.

Still, the FCC isn’t entirely to blame. Some factors in the growth of the cable giants cannot be laid at its doorstep. Local municipalities often granted monopoly or duopoly status in granting franchises to cable network builders. With the huge capital investments required to cable metropolitan areas, this once seemed to make sense.

And over the years, the cable giants have used a variety of tactics to weaken what little local competition they may have had. Active lobbyists on the local level, the cable giants have managed to convince a growing number of states to outlaw municipal systems that could threaten private corporate incumbents. The FCC for many years declined to tangle with the states in this matter, partly due to the opposition of Republican commissioners. But the Wheeler-led Commission did vote recently to override state laws that limit the build-out of municipal cable systems.

Still, many years of industry subservience will be difficult to swiftly undo. One linchpin merger shows how FCC decision-making has been thoroughly undermined by the revolving door, lobbying, and carefully targeted campaign contributions. All conspired in Comcast's pivotal 2011 buyout of NBC Universal, a deal which reinforced Comcast's domination of both cable and broadband access. This deal also set the stage for the recent headline-grabbing acrimony over the issue of net neutrality.

In 2011, mighty Comcast proposed to acquire NBC Universal. A series of mergers including the 1986 acquisition of Group W assets and the 2002 acquisition of AT&T's cable assets had already vaulted Comcast into cable market leadership. In bidding for NBC Universal, a huge step towards vertical integration, Comcast was once again raising the stakes. NBC Universal would give Comcast a treasure trove of programming, including valued sports content like NFL football and the Olympics.

Suddenly, the issue was not just cable subscriber base size—where Comcast had already bought its way to dominance. NBC Universal would also allow Comcast to consolidate its growing power as a broadband Internet provider. And with NBC Universal's programming assets, Comcast would gain new leverage when negotiating prices to carry the competing programming content of rivals. This would prompt a new round of debate over net neutrality. Couldn't a programming-rich Comcast slow down rival services—or charge them more to carry their programming?

To short-circuit any potential opposition to the merger, Comcast assembled a superstar cast of lobbyists. As Susan Crawford reports in her 2013 book, “Comcast hired almost eighty former government employees to help lobby for approval of the merger, including several former chiefs of staff for key legislators on congressional antitrust committees, former FCC staffers and Antitrust Division lawyers, and at least four former members of Congress.<sup>73</sup> Such “profligate hiring,” Crawford observes, pretty much silenced the opposition to the deal. If Comcast had already retained one member of a lobbying firm, the firm could not under conflict of interest rules object to the deal. And Comcast had locked up key lobbying shops. Money was both weapon and silencer.

Of course, Comcast had always been a big spender on lobbying, with outlays exceeding \$12 million every year since 2008. Lobbying costs peaked in 2011 at \$19.6 million, according to the Center for Responsive Politics.

For its part, the FCC had a long history of approving most media mergers. So it was hardly a great surprise when the agency, after exacting some relatively minor concessions from Comcast, rubber-stamped the deal. Comcast would thus broaden its footprint as local monopoly distributor of cable. And with its new programming assets, it would enhance its leverage in negotiating deals to carry its rivals' programming. It would also fortify its position of growing strength as broadband Internet gatekeeper.

The most telling footnote to the deal would come just four months later. FCC Commissioner Meredith Atwell Baker, who voted to approve the merger in January 2011, left the FCC to become a top-tier Comcast lobbyist in May. It was the ultimate—and perhaps most telling—glide of the revolving door.

Baker's was a high-profile defection. But it was neither the first nor the last. Comcast had successfully convinced other FCC officials to take their expertise and government contacts to the cable giant. Comcast has long been a master at spinning the revolving door to its own advantage. "Comcast has been very good at hiring everyone who is very smart," said Crawford.<sup>74</sup>

Approval of the NBC Universal deal was another in the long string of FCC merger approvals that made Comcast a nationwide monopolist that could dictate both pricing and viewer programming choice.

But the deal may have had another unintended consequence. It set the stage for Comcast's subsequent battles on net neutrality. "Those mergers gave additional oomph to the issue of net neutrality," noted former commissioner Copps. Speaking specifically of Comcast's buyout of NBC Universal, IHS senior analyst Eric Brannon agreed. "That merger laid the grounds for net neutrality."

In allowing Comcast to acquire major programming assets, the deal would sharpen questions about the power of gatekeepers like Comcast to control the flow of traffic from rival Web services. So in bowing to lobbyist pressure, the FCC would bring on itself a whole new set of pressures by focusing public attention on the issue of net neutrality.

With activists rounding up comments from the public and hip TV personalities like HBO's John Oliver also beating the drums, net neutrality quickly grew into a popular issue that won the support of President Obama, and by proxy, his hand-picked appointee Tom Wheeler. When the FCC ruled in February of 2015 that it would seek Title II authority to regulate the Internet and presumably block any favoritism by broadband gatekeepers, it seemed to finally cast its lot with the public against steamrolling corporate interests

The issue had simmered for years but reached full boil when movie purveyor Netflix, which had argued that its service was slowed down by Comcast, signed a side deal ensuring better download speeds for its wares. This triggered an outburst of public concern that Comcast was now in position to operate "fast" and "slow" lanes, depending on whether a rival programmer could afford to ensure that Comcast provide adequate download speed.

With nearly 4 million comments—many supplied or encouraged by public interest groups—filed to the FCC, net neutrality was a bankable political issue. And there's no question, net neutrality attracted public interest because it gave cable viewers—long furious at the treatment by the monopolists who send them monthly bills—issues of both viewing pleasure and economics.

But it also fed into the longstanding sentimental but increasingly unrealistic view of the Internet as the last bastion of intellectual freedom. Internet romanticists have long seen the Web as a place that somehow deserves special rules for breaking the stranglehold of traditional media and offering exciting new communications, information retrieval and shopping efficiencies.

Yes, the Internet is a modern marvel. This is beyond dispute. But some of the favors it has won from government over the years have had unfortunate unintended consequences.

In the 1990s, for example, net access providers were repeatedly exempted as an “infant industry” from paying access charges to the Baby Bells even though they had to connect users through local phone networks. The long distance companies were then paying as much as \$30 billion a year for the privilege. But the Internet was exempted.

As the late 90s approached, the Internet was no longer an infant industry. Still, the exemption from access charges was extended. That exemption essentially allowed AOL in the late 90s to offer unlimited unmetered online time, a key factor in boosting usage and siphoning advertisers from print media. Why buy an ad in print that might get viewed with the transitory flip of a page when you can get round-the-clock attention online?<sup>75</sup> FCC decisions to grant the Internet access-charge exemptions arguably accelerated the decline of print media and much of the quality journalism print advertising could once support.

Meanwhile, retailers on the Internet were making inroads into brick and mortar retail business with the help of a Supreme Court-sanctioned exemption from collecting sales tax.<sup>76</sup> This judicial coddling of the Internet was the death knell for many smaller mom and pop local businesses, already challenged to match online pricing. And that’s not all. The special favors continue virtually every year, as Congress proposes and/or passes legislation to extend special tax exemptions to Internet services.

Well, maybe tax breaks aren’t such a bad idea for such an innovative and transformational emerging technology. For all its faults, the Internet—gateway to all goods, repository of all things, wizardly guide to all knowledge, enabler of universal self-expression—is undeniably cool.

But let’s not deny that the combination of tax advantages and deregulation was toxic. Allow an industry to emerge with advantages over useful existing industries that largely play by the rules—well, maybe that can be rationalized. But then fail to hold the upstart industry to the same rules, allowing it more leeway to trample fundamental rights because it has the technical capacity to do so. Well, then you have a cruel Faustian bargain.

With the see-no-evil deregulatory gospel loosing all constraints, the Web would devolve into a playground for corporate snoops and criminals. For all its wonders, the Internet comes at a cost: the loss of control over personal data, the surrender of personal privacy, sometimes even the confiscation of identity.

Perhaps the most favorable consequence of net neutrality—and one that has gotten surprisingly little attention—is that it could set the stage for privacy reform. (More on this in Chapter Seven). The FCC can now choose to exercise its Title II powers to enforce privacy standards over broadband Internet. Privacy is one area where the FCC has done a pretty good job in the past.

Worth remembering, though, is that the hard-fought public victory over Net Neutrality may be transitory. AT&T and others have threatened to go to court to upend the FCC rules. And there's a fair chance a Republican Congress will legislate against Title II.

Meanwhile, though, one supreme irony has begun to unfold in the marketplace.

Modern-day laissez fair ideologues love to invoke the wisdom of markets as represented by the “mysterious hand” of Adam Smith. Unfortunately, in the absence of effective regulation, the putatively wise “mysterious hand” generally seems to work its magic for those with huge financial resources and the political access it buys.

In the current cable situation, however, the mysterious hand may actually be working in consumer-friendly ways. Years of regulation that favored the cable companies have now backfired as the market reacts to monopolistic pricing and content control.

Whereas cable giants have commanded premium monthly subscriber prices to deliver packages of largely unwatched channels, the market is now beginning to burst with new “debundled” options that are whittling away at cable’s vast subscriber base.

Satellite service Direct TV, as noted, now offers its streaming video Sling TV package of popular networks that includes live sports and news. Amazon, Apple, CBS, HBO, Netflix, Sony, and others offer a variety of streaming video options that allow viewers to cut the cable cord. Suddenly, consumers have the cherry-picking capability that bundled—and expensive—cable packages have never allowed.

In this case, at least, the unintended consequences of the FCC’s pro-industry policies may be producing an unexpected pro-consumer twist.

## Chapter Seven: What about Privacy?

Has any issue gotten as much lip service—and as little meaningful action?

For all the various congressional bills, corporate self-regulatory schemes and presidential Privacy Bill of Rights proposals, the simple truth remains that no personal information is safe on the Internet. Data brokers have built a multi-billion dollar business exchanging information used to build profiles of Net users. Your shopping and surfing habits, your health history, your banking data, your network of social ties, perhaps even your tax filings are all potentially exposed online. Both legal and criminal enterprises amass this information. And it doesn't go away.

At any given moment people you don't know somehow know where you are. They may very well know when you made your last bank deposit, when you had your last asthma attack or menstrual period. Corporations encourage and pay for every bit of information they can use or sell. Creepy? Perhaps, but as Jeff Chester, president of the Center for Digital Democracy points out: "The basic business model that drives online is advertising."<sup>77</sup>

The FCC largely escapes blame on this one. It is the Federal Trade Commission that has had primary responsibility for protecting Internet privacy. The FCC does have some limited authority, which, some critics say, could have been exercised more vigorously. But for the most part the FCC is not to blame for the rampant online abuse of personal privacy and identity.

The FCC does however have privacy authority over the phone, cable and satellite industries. Until recently, at least, the FCC has kept privacy issues at bay among the companies in these industries. "The FCC has generally taken privacy very seriously," noted Harold Feld, a senior vice president at the non-profit Public Knowledge.<sup>78</sup>

But dynamics now in place suggest that privacy may be the next great testing ground for the FCC. A new chance, perhaps, to champion public interest. Even before the opportunity for privacy enforcement under Title II regulatory powers, the FCC faces new challenges from phone companies, now itching to monetize their vast consumer data stashes the way Net companies have. The commonly used term is "Google envy."

"Until now, ISPs (Internet Service Providers) have mostly not gotten into hot water on privacy—but that's changing," observed Jonathan Mayer, a fellow at the Center for Internet and Society.<sup>79</sup> Verizon and AT&T, major providers of mobile Internet access, have each introduced "super cookies" that track consumer behavior even if they try to delete older, less powerful, forms of cookies. AT&T is actually charging its customers an extra \$30 a month *not* to be tracked.

Showdowns loom.

In adopting Title II to enforce net neutrality, the FCC has made broadband Internet access a telecom service subject to regulation as a “common carrier.” This reclassification means that the FCC could choose to invoke privacy authority under Title II’s Section 222. That section, previously applied to phone and cable companies, mandates the protection of consumer information. Such information—called CPNI for Customer Proprietary Network Information—has kept phone companies from selling data on whom you call, from where you call and how long you spend on the phone. Consumers may have taken such protection for granted on their phone calls. But they have no such protection on their Internet activity—which, as noted, has been a multi-billion dollar safe house hideaway for corporate and criminal abusers of personal privacy.

Now, though, the FCC could put broadband Internet communications under Section 222 protection. To Scott Cleland, a telecom industry consultant who has often been ahead of the analytic pack, this would be a momentous decision.

When the smoke clears—and it hasn’t yet—the FCC could make consumer identifiers like IP addresses the equivalent of phone numbers. Suddenly, the Internet companies that have trafficked in all that personal data would be subject to the same controls as the phone and cable companies.

Cleland argues that the risk for privacy abuses extends beyond broadband access providers like Comcast and Verizon to Internet giants like Google and Facebook that have until now flourished with all that personal data. “They are at risk and they are going to live under the uncertainty their business model could be ruled illegal by the FCC,” Cleland said.<sup>80</sup>

Much has been written about the legal challenges broadband access providers intend to mount against the FCC’s new rules. But Cleland argues that a very different type of legal action could engulf companies that have benefited from the use and sale of private data. Trial lawyers, he argues, will see opportunity in rounding up massive class action suits of Internet users whose privacy has been violated. What sorts of privacy abusers face legal action? Anyone who has “collected CPNI via some type of cookie,” according to Cleland.

“Right now, edge providers like Google, Facebook and Twitter are at risk of being sued by trial lawyers,” he said.<sup>81</sup>

Sounds great for consumers who care about privacy on the Internet and how it has been abused. But the FCC, Cleland was reminded, has never been a consumer advocate. “Bingo,” replied Cleland. That’s what makes the FCC’s potential move into privacy protection so important and so surprising, he suggests.

There are other signs that the FCC under Tom Wheeler might actually become more consumer-friendly on the issue of data privacy. While Wheeler has brought some former associates from lobbying groups to the FCC, he has also peppered his staff with respected

privacy advocates. Indeed, he named Gigi Sohn, longtime president of the non-profit Public Knowledge, as Counsellor to the Chairman in April.

Another appointee with a privacy background is Travis LeBlanc, head of the FCC's Enforcement Bureau. In previous employment in California's Office of the Attorney General, LeBlanc was active in enforcing online privacy. LeBlanc has stated an interest in privacy and has already taken action against two firms that exposed personal information—including social security numbers—on unprotected Internet servers.

But many aspects of LeBlanc's approach to regulating Internet privacy under Title II remain unclear. Unfortunately, the FCC declined repeated requests to make LeBlanc available for an interview. (It also declined to answer written questions on its enforcement intentions in both privacy and cell tower infrastructure emissions.)

It remains to be seen if LeBlanc and his superiors at the FCC are really willing to take on privacy enforcement. Such a stance would require great courage as the entire Internet infrastructure is built around privacy abuse. It is also questionable whether the FCC would have the courage to challenge Google—a rare corporate ally in the battles over Net Neutrality.

## Chapter Eight: Dependencies Power the Network of Corruption

As a captured agency, the FCC is a prime example of institutional corruption. Officials in such institutions do not need to receive envelopes bulging with cash. But even their most well-intentioned efforts are often overwhelmed by a system that favors powerful private influences, typically at the expense of public interest.

Where there is institutional corruption, there are often underlying dependencies that undermine the autonomy and integrity of that institution. Such is the case with the FCC and its broader network of institutional corruption.

As noted earlier, the FCC is a single node on a corrupt network that embraces Congress, congressional oversight committees and Washington social life. The network ties the public sector to the private through a frictionless revolving door—really no door at all.

Temptation is everywhere in Washington, where moneyed lobbyists and industry representatives throw the best parties and dinners. Money also allows industry to control other important factors, like the research agenda. All of this works together to industry's advantage because—as with other instances of institutional corruption—there are compromising dependencies. Policy makers, political candidates and legislators, as well as scientific researchers are all compromised by their dependence on industry money.

**Dependency #1** – So much of the trouble here comes back to the core issue of campaign finance. Cable, cellular and educational tech interests know where to target their funds for maximum policy impact. And the contributions work, seemingly buying the silence of key committee congressmen—even those with past records as progressives. Key recipients of industry dollars include Massachusetts Senator Ed Markey and, until he retired, California Democrat Henry Waxman. Though they have intermittently raised their voices on such issues as data privacy and cellular health and safety, neither has shown any great inclination to follow through and take up what would have to be a long and tough fight on these issues.

**Dependency #2** – Democrats might be expected to challenge industry now and then. They traditionally have done so, after all. But this is the post-*Citizens United* era where the Supreme Court has turned government into a giant auction house.

Bid the highest price and you walk home with the prize—your personal congressman, legislative loophole, even an entire political party.

Such is the case with technology industries and the Democrats. The communications/electronics industry is the third largest industry group in both lobbying and campaign contributions, according to the Center for Responsive Politics. In just 2013 and 2014, this industry sector spent well over \$750 million on lobbying.<sup>82</sup>

Only the finance/insurance/real estate and health industries outspend the tech sector on lobbying. But those industry groups lean Republican. Over 62% of the finance/insurance/real estate campaign contributions go to the GOP. Health contributions lean Republican 57% to 43%. But the technology group leans sharply to Democrats, who got 60% of contributions in the 2013-2014 election cycle.<sup>83</sup> The two next largest industry groups—energy/natural resources and agribusiness—also lean heavily Republican. So of the top five industry groups whose money fuels and often tilts elections four are strongly Republican. The Democrats need the tech industry—and they show that dependence with consistent support, rarely raising such public interest issues as wireless health and safety and Internet privacy.

**Dependency #3** – Spectrum auctions give the wireless industry a money-making aura. In recent Congressional testimony, an FCC official reminded legislators that the FCC has over the years been a budget-balancing revenue-making force.<sup>84</sup> Indeed, the auctions of electromagnetic spectrum, used by all wireless communications companies to send their signals, have yielded nearly \$100 billion in recent years. The most recent auction to wireless providers produced the unexpectedly high total of \$43 billion. No matter that the sale of spectrum is contributing to a pea soup of electromagnetic “smog” whose health consequences are largely unknown. The government needs money and Congress shows its appreciation with consistently pro-wireless policies.

**Dependency #4** – Science is often the catalyst for meaningful regulation. But what happens when scientists are dependent on industry for research funding? Under pressure from budget cutters and deregulators, government funding for research on RF health effects has dried up. The EPA, which once had 35 investigators in the area, has long since abandoned its efforts.<sup>85</sup> Numerous scientists have told me there’s simply no independent research funding in the U.S. They are left with a simple choice: work on industry-sponsored research or abandon the field.

## Chapter Nine: A Modest Agenda for the FCC

Nobody is proposing that cell phones be banned. Nor does anyone propose the elimination of the Universal Service program or other radical reforms. But there are some steps—and most are modest—that the FCC can take now to right some of the wrongs that result from long years of inordinate industry access and influence:

1. Acknowledge that there may be health risks in wireless communications. Take down the dismissive language. Maturely and independently discuss the research and ongoing debate on the safety of this technology.

2. In recognition of this scientific uncertainty, adopt a precautionary view on use of wireless technology. Require prominent point-of-sale notices suggesting that users who want to reduce health risks can adopt a variety of measures, including headphones, more limited usage and storage away from at-risk body parts.

3. Back off the promotion of Wi-Fi. As Professor Lennart Hardell has noted, there are wired alternatives that do not expose children to wireless risk.

4. Petition Congress for the budgetary additions needed to expand testing of emissions on antenna sites. It was Congress after all that gave industry carte blanche for tower expansion so long as they comply with FCC standards. But there is evidence of vast non-compliance and Congress needs to ensure that tower infrastructure is operating within the law.

5. Acknowledge that children and pregnant women may be more vulnerable to the effects of RF emissions and require special protection.

6. Promote cable debundling as a way to lighten consumer cable bills, especially for those customers who don't care about high-cost sports programming.

7. Apply more rigorous analysis to properly assess the value of technology in education. Evidence continues to pile up that technology in education is not as valuable as tech companies claim. Pay less attention to tech CEOs—pay more attention to the researchers who've actually studied the impact of trendy technology fixes on learning

8. Take over enforcement of personal privacy rights on the Internet. Of all the basic suggestions here, this would require the most courage as it would involve challenging many of the entrenched powers of the Internet.

## Chapter Ten: Stray Thoughts

Some concluding thoughts:

Why do so many of the most dubious FCC policies involve technology?

In large part, of course, because the FCC has authority over communications and that is a sector that has been radically transformed—along with so many others—by technology.

Let's be clear, though. The problem is not technology, which unarguably brings countless benefits to modern life. The problem is with the over-extension of claims for technology's usefulness and the worshipful adulation of technology even where it has fearful consequences. Most fundamentally, the problem is the willingness in Washington—for reasons of both venality and naïveté—to give technology a free pass.

Personally, I don't believe that just because something can be done it should heedlessly be allowed. Murder, rape and Ponzi schemes are all doable—but subject to prohibition and regulation. Government regulators have the responsibility to examine the consequences of new technologies and act to at least contain some of the worst. Beyond legislators and regulators, public outrage and the courts can also play a role—but these can be muffled indefinitely by misinformation and bullying.

There are precedents for industries (belatedly perhaps) acting to offset the most onerous consequences of their products. In responding to a mix of litigation, public demand and regulatory requirement, the auto industry, for example, has in the last 50 years substantially improved the safety and environmental footprint of its products.

Padded instrument panels, seat belts, air bags, and crumple zones have all addressed safety issues. Environmental concerns have been addressed with tightened emissions and fuel consumption standards. The response to new safety challenges is ongoing. Before side air bags were widely deployed, sedan drivers side-swiped by much larger SUVs were at vastly disproportionate risk of death and dismemberment.<sup>86</sup> But the deployment of side air bags has “substantially” reduced the risk of collision deaths.<sup>87</sup> Overall, auto fatality rates per 100,000 persons have dropped by nearly 60% in the U.S. since 1966.<sup>88</sup> Today, automakers continue to work on advanced safety features like collision avoidance.

It can be argued that most of these safety improvements came decades after autos were in wide usage and only in response to outrage at Ralph Nader's 1965 revelations on the auto industry.<sup>89</sup> No matter the catalysts. The simple truth remains that the auto industry—and its regulators—have for the last half-century been addressing safety and environmental issues.

But with the overwhelming application of money and influence, information and communications technologies have almost totally escaped political scrutiny, regulatory control, and legal discipline.

Should the Internet have been allowed to develop into an ultra-efficient tool for lifting personal information that includes financial records, health histories and social security numbers? Should wireless communications be blindly promoted even as new clues keep suggesting there may be toxic effects? Should local zoning authorities and American citizens be stripped of the right to protect their own health? Should education be digitized and imposed just because technology companies want to develop a new market and lock in a younger customer base?

All these questions can perhaps be rolled up in one: do we all just play dead for the corporate lobbyists and spinners who promote the unexamined and unregulated application of their products?

Finally, a word about the structure of the FCC. With five commissioners—no more than three from the same party—the structure seems to make some kind of sense.

But in practice, it works out poorly. The identification of commissioners by party tends to bring out the worst in both Republicans and Democrats. Instead of examining issues with clear-sighted independence, the commissioners seem to retreat into the worst caricatures of their parties. The Republicans spout free market and deregulatory ideology that is most often a transparent cover for support of business interests. The Democrats seems satisfied if they can implement their pet spending programs—extension of broadband wireless to depressed urban and rural schools, cell phone subsidies for low income clients. The result is a Commission that fulminates about ideology and spends heavily to subsidize powerful interests.

Perhaps one solution would be to expand the Commission to seven by adding two public interest Commissioners. The public interest only rarely prevails at the FCC. So it would represent vast improvement if both Republican and Democrat commissioners had to vie for support of public interest representatives in order to forge a majority. The public interest, in other words, would sometimes carry the swing votes.

It's very hard to believe, though, that Congress would ever approve such a plan. It simply represents too much of a threat to the entrenched political power of the two parties. Why would they ever agree to a plan that dilutes that power?

It's also worth noting that the public interest is not always easy to define. Sometimes there are arguably conflicting definitions. Still, an FCC with public interest commissioners is an idea worth consideration. It would at least require party apologists to defend how they so consistently champion the moneyed interests that have purchased disproportionate access and power in Washington.

## **Appendix—Survey of Consumer Attitudes**

What does the public believe about the science and politics of wireless health research? Under what conditions would people change wireless usage patterns? Is the FCC currently trusted to protect public health? How would confirmation of health risks affect trust in the FCC?

These are some of the questions Ann-Christin Posten<sup>90</sup> and Norm Alster<sup>91</sup> hoped to answer with an April 2015 online survey of 202 respondents. Participants were recruited through Amazon's Mechanical Turk online platform. All were U.S. residents and had achieved qualifying approval rates in prior Mechanical Turk surveys.

Participants were asked how likely they believed the following statements to be true:

Statement 1. Prolonged and heavy cell phone use can have a variety of damaging effects on health.

Statement 2. Prolonged and heavy cell phone use triples the risk of brain tumors.

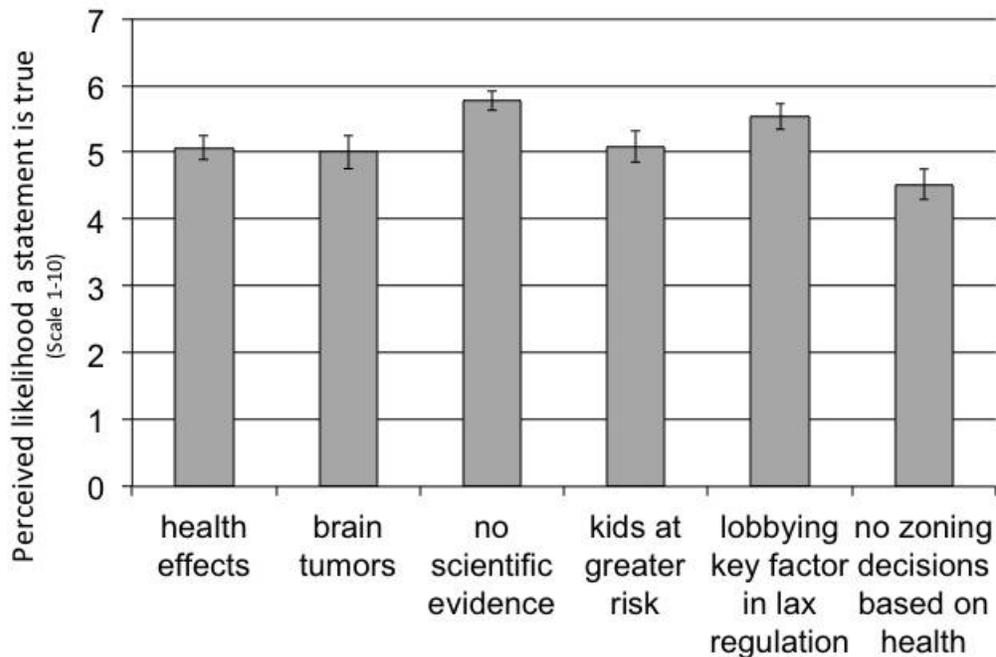
Statement 3. There is no scientific evidence that proves that wireless phone usage can lead to cancer or a variety of other problems.

Statement 4. Children and pregnant women are especially vulnerable to radiation from wireless phones, cell towers and Wi-Fi

Statement 5. Lobbying and campaign contributions have been key factors in keeping the government from acknowledging wireless hazards and adopting more stringent regulation.

Statement 6. The U.S. Congress forbids local communities from considering health concerns when deciding whether to issue zoning permits for wireless antennae.

### How likely is it that each of the statements is true?

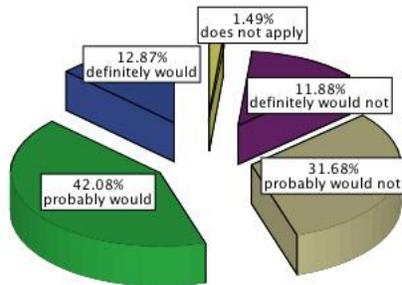


Two findings seem especially interesting:

1. Statement 3 received a higher credibility rating than Statements 1 and 2. The different credibility levels are statistically significant. Respondents are more likely to trust in wireless safety than to believe there are general or specific health risks.

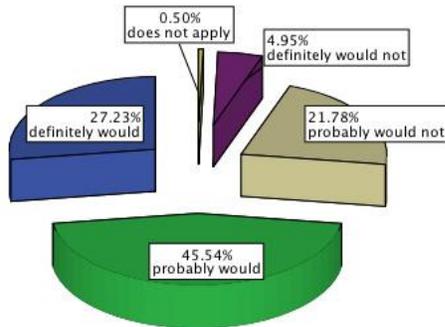
2. The only statement that is a matter of uncontested fact is Statement 6 on the outlawing of opposition to antenna sites on health grounds. (All other statements have been both proclaimed and denied.) And yet Statement 6 was least likely to be believed. Just 1.5% of respondents recognized this as an “absolutely true” statement. Over 14% thought this statement was “not true at all.” Answers to this question would seem to reflect public ignorance on the political background to wireless health issues.

Participants were also asked how they would change behavior if claims of wireless health risks were established as true:



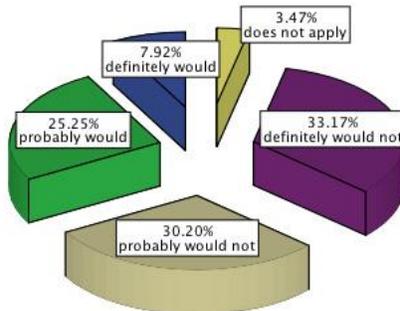
**If statement 1 was true,  
I would start using headphones.**

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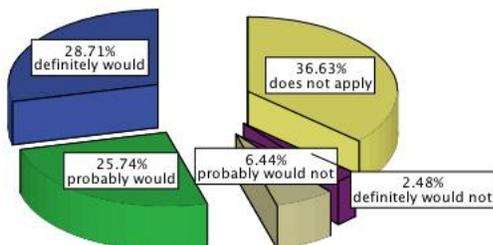
**If statement 1 was true,  
I would restrict the amount of time  
I spend on the phone.**

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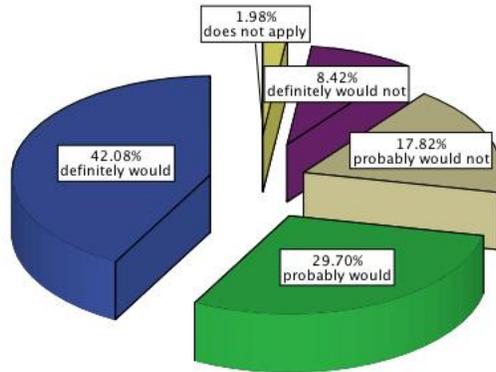


**If statement 1 was true,  
I would start up a new land line  
account for home use.**

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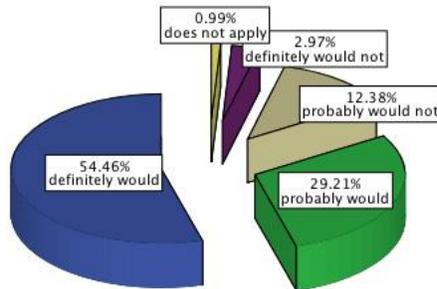


**If statement 1 was true,  
I would restrict my children's cell phone use.**



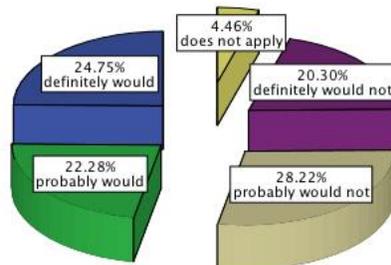
**If statement 2 was true,  
I would start using headphones.**

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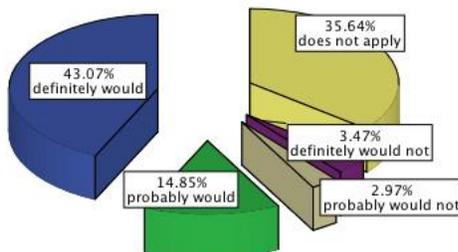
**If statement 2 was true,  
I would restrict the amount of time  
I spend on the phone.**

---



**If statement 2 was true,  
I would start up a new land line  
account for home use.**

---



**If statement 2 was true,  
I would restrict my children's cell phone use.**

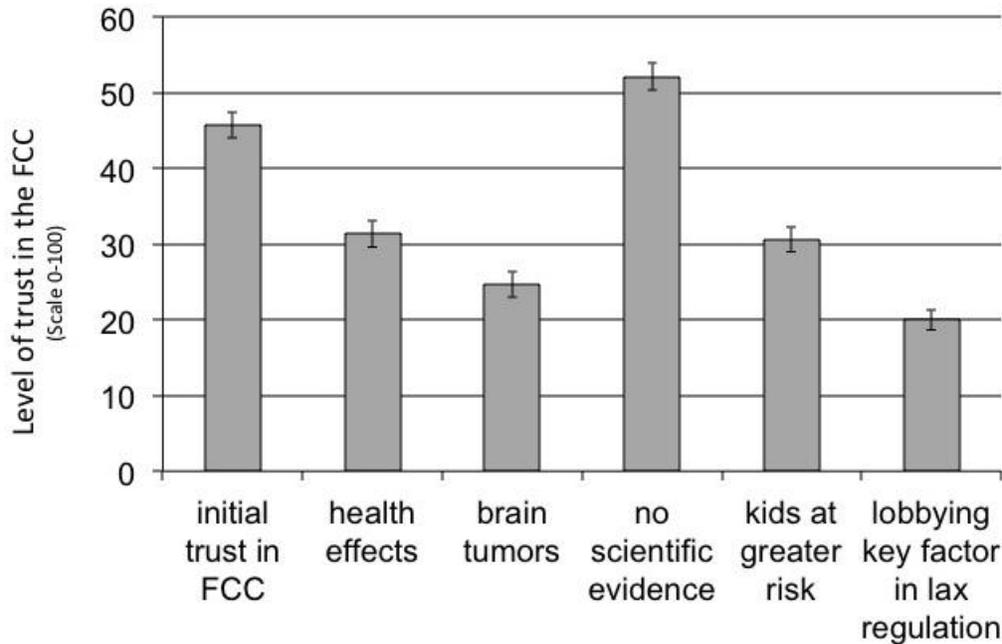
The greatest impact on behavior came when respondents were asked to assume it is true that prolonged and heavy cell phone use triples the risk of brain tumors. More than half said they would “definitely” restrict the amount of time spent on the phone. Just over 43% would “definitely” restrict their children’s phone use. Perhaps most surprisingly, close to 25% would “definitely” start up a new landline phone account. (This last response suggests it may be foolishly premature for the phone giants to exit the landline business just yet.)

The inclination of consumers to change behavior should negative health effects be confirmed suggests the stakes are enormous for all companies that derive revenue from wireless usage.

This survey points to—but cannot answer—some critical questions: Do wireless companies better protect themselves legally by continuing to deny the validity of all troublesome research? Or should they instead be positioning themselves to maintain consumer trust? Perhaps there is greater financial wisdom in listening to the lawyers right now and denying all chance of harm. If so, however, why would anyone seriously concerned about health listen to the industry—or to its captured agency? That’s a question the FCC will eventually need to answer.

Trust could eventually become a central issue. Respondents were initially asked to describe their level of trust in the wireless industry and in the FCC as its regulator. Not surprisingly, establishment of any of the presumed health risks—or confirmation of inordinate industry pressure—resulted in statistically significant diminution of trust in both the industry and the FCC.

### How trust in FCC would be affected by establishment of various facts



On a scale of 1 to 100, the FCC had a mean baseline trust level of 45.66. But if the tripling of brain tumor risk is established as definitely true, that number falls all the way to 24.68. If “lobbying and campaign contributions” have been “key factors” in keeping the government from acknowledging wireless hazards, the trust level in the FCC plummets to 20.02. All results were statistically significant.

It’s clear that at this point confirmation of health dangers—or even of behind-the-scenes political pressures—from wireless will substantially diminish public trust in the FCC. Skeptics might argue that this gives the FCC motive to continue to downplay and dismiss further evidence of biological and human health effects. Those of a more optimistic bent might see in these findings reason to encourage an FCC concerned about public trust to shake itself loose from special interests.

## Endnotes

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- <sup>1</sup> Former CTIA vice president John Walls in Kevin Kunze’s documentary film *Mobilize*, introduced in 2014 at the California Independent Film Festival.
- <sup>2</sup> November 2014 interview with Renee Sharp.
- <sup>3</sup> December 2014 interview with Twaun Samuel.
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- <sup>6</sup> Id.
- <sup>7</sup> November 2014 interview with Michael Copps.
- <sup>8</sup> January 2015 interview with Newton Minow.
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- <sup>19</sup> December 2014 interview with James R. Hobson.
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- <sup>24</sup> Best’s Briefing, “Emerging Technologies Pose Significant Risks with Possible Long-Tail Losses,” February 11, 2013, <http://www.ambest.com/directories/bestconnect/EmergingRisks.pdf>.
- <sup>25</sup> Online survey conducted in April 2015 on Amazon’s Mechanical Turk platform.
- <sup>26</sup> CTIA, “Policy & Initiatives: Innovation,” <http://www.ctia.org/policy-initiatives/policy-topics/innovation>.
- <sup>27</sup> February 2015 interview with Dennis Kucinich.
- <sup>28</sup> Alexander Lerchl, Melanie Klose, and Karen Grote et al., “Tumor Promotion by Exposure to Radiofrequency Electromagnetic Fields below Exposure Limits for Humans,” *Biochemical and Biophysical Research Communications* 459.4 (2015): 585-590.
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- <sup>30</sup> Medscape, “Brain Cancer CME Learning Center,” <http://www.medscape.org/resource/brain-cancer/cme>.
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- <sup>39</sup> December 2014 interview with Martin Blank.
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- <sup>47</sup> Id.
- <sup>48</sup> Lawrence Lessig, Roy L. Furman Professor of Law and Leadership at Harvard Law School, helped to draft the Right to Know ordinance and has offered pro bono legal representation to the city of Berkeley. Professor Lessig was director of the Lab at Harvard’s Safra Center for Ethics, from which the Project on Public Narrative was spun off in November of 2014.
- <sup>49</sup> May 2015 interview with Berkeley City Attorney Zach Cowan
- <sup>50</sup> December 2014 interview with Jerry Phillips.
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- <sup>52</sup> February 2015 interview with Om P. Gandhi.
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- <sup>61</sup> Jacob L. Vigdor and Helen F. Ladd, “Scaling the Digital Divide: Home Computer Technology and Student Achievement,” Calder Urban Institute Working Paper, No. 48, June 2010.

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- <sup>64</sup> April 2015 interview with Kentaro Toyama.
- <sup>65</sup> *Id.*
- <sup>66</sup> *Id.*
- <sup>67</sup> FCC Chairman Tom Wheeler, quoted in Grant Gross, “FCC Approves Plan to Spend \$1B a Year on School Wi-Fi,” IDG News Service, July 11, 2014.
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- <sup>70</sup> *Id.*
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- <sup>76</sup> 1992 Supreme Court decision in *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).
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- <sup>79</sup> March 2015 interview with Jonathan Mayer.
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- <sup>82</sup> Center for Responsive Politics.
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- <sup>84</sup> “Testimony of Jon Wilkins, Managing Director, Federal Communications Commission,” Before the Committee on Energy and Commerce, Subcommittee on Communications and Technology, U.S. House of Representatives, March 4, 2015.
- <sup>85</sup> Alster, “Cell Phones: We Need More Testing,” 39.
- <sup>86</sup> Danny Hakim and Norm Alster, “Lawsuits: This Year’s Model,” *New York Times*, May 30, 2004, <http://www.nytimes.com/2004/05/30/business/lawsuits-this-year-s-model.html>.
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- <sup>91</sup> Investigative Journalism Fellow, Project on Public Narrative at Harvard Law School.

Cell tower fires. <https://www.ourwebofinconvenienttruths.com/fires-and-collapses/>

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# **Cell Tower Fires    Collapses & Falling** **Debris** **Worker Deaths & Accidents** **Cell Site Safety Protocol**

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## **TWO QUESTIONS**

- 1) Did a professional engineer (PE) evaluate and certify any of these projects' safety before they went live?
- 2) Who carries liability for damages—the landowner, the telecom corporation and/or the municipality?

**THIS GALLERY SHOWS IMAGES of CELL TOWER FIRES & COLLAPSES**  
**for longer lists, click the links above... or go below the photo gallery**



Cell phone tower fire  
caused by electrical/mechanical issues.

Hanover, VA, June 26, 2020

<https://www.nbc12.com/2020/06/26/cell-phone-tower-hanover-catches-fire/>

Source: Hanover Fire and EMS



Electrical malfunction causes fire  
with rooftop cellular antennas  
Brooklyn, NY, April 18, 2021

<https://ehtrust.org/firecell-tower-brooklyn-new-york/>

<https://anash.org/fire-extinguished-on-roof-of-crown-heights-apartment-building/>

Photo credit: Berel Meyers/Anash.org



Tornado damages tower array

Moore, OK, March 25, 2015

<http://qrznow.com/tornado-damage-to-legendary-koma-tower-array/>

Source: qrznow.com



Cell tower fire  
caused by improper welding  
near Heritage High School.  
Newport News, VA, Jun 16, 2015  
<http://wtkr.com/2015/06/16/cell-phone-tower-near-heritage-high-school-catches-fire/>  
Source: WTKR3



Cell tower fire  
caused by improper welding.  
Greeneville, TN, Nov 4, 2014  
[https://www.greenevillesun.com/xml/nitf/flames-damage-verizon-wireless-tower/article\\_1619f00e-5383-530a-a69e-0dbd2acc3c6a.html](https://www.greenevillesun.com/xml/nitf/flames-damage-verizon-wireless-tower/article_1619f00e-5383-530a-a69e-0dbd2acc3c6a.html)  
Photo credit: Kristen Buckles



Cell tower fire  
caused by improper welding.  
Bensalem, PA, June 21, 2013

<https://www.csmonitor.com/USA/Latest-News-Wires/2013/0624/Bensalem-tower-fire-Crews-dismantle-cell-tower-that-caught-fire-in-Pa>

Photo credit: Jo Ciavaglia/Bucks County Courier Times/AP



Cell tower fire  
during routine maintenance.  
Tinton Falls, NJ, Jan 24, 2011

<https://patch.com/new-jersey/longbranch/parkway-cell-tower-fire-saturday-set-off-by-routine->

[maintenance](#)

Source: The Patch



Cell tower collapse in high winds.

Broken Arrow, OK, Dec 9, 2009

[http://wirelessestimator.com/content/articles/?pagename=Cell\\_Tower\\_News\\_12.09](http://wirelessestimator.com/content/articles/?pagename=Cell_Tower_News_12.09)

Source: <http://wirelessestimator.com>



High winds topple cell tower,  
crushing Chief's vehicle  
Oswego, NY, Nov 14th, 2003

<https://www.firehouse.com/home/news/10530195/oswego-new-york-cellular-tower-crushes-chiefs-vehicle>

Photo credit: Steve Yablonski/Oswego Bureau Chief



**NEW TONIGHT**

**STADIUM LIGHT CATCHES F**  
**OTAY RANCH HIGH SCHOOL**

**UNCE 473 NEW CORONAVIRUS CASES. T**

A light pole holding cellular antennas  
at Otay Ranch High School caught fire,  
damaging the stadium

Chula Vista, CA, March 9, 2021

<https://fox5sandiego.com/news/local-news/stadium-light-catches-fire-at-south-bay-high-school/>

Source: fox5sandiego.com



Cell tower felled by tornado  
across U.S. Route 280.

Smiths Station, Lee County, AL, March 3, 2019

<https://www.nytimes.com/2019/03/03/us/tornado-alabama-georgia-deaths.html>

Photo credit: Mike Haskey/Ledger-Enquirer, via Associated Press



Paper lanterns caught in cell tower  
at Lantern Fest cause fire  
in Gaston County, NC, May 2, 2015

<https://www.gastongazette.com/article/20150602/News/306029947>

Source: Gaston Gazette



Welding causes cell tower fire.

Sanford, FL, August 24, 2013

<https://insidetowers.com/sanford-florida-cell-tower-no-longer-a-risk/>

Source: insidetowers.com



Welding causes cell tower fire.  
Bensalem, Pa, June 21, 2013

<http://levittownnow.com/2013/06/21/nearby-cell-tower-on-fire-may-collapse/>

Photo credit: Twitter.com/Mz\_Erica7801



Welding causes cell tower fire  
near daycare center.

Lilburn, GA, Dec 1, 2011

[https://www.gwinnettdaily.com/archive/cell-tower-fire-closes-rockbridge-road-evacuates-day-care/article\\_c799bdd9-1162-52a6-8cd7-7784653883ae.html](https://www.gwinnettdaily.com/archive/cell-tower-fire-closes-rockbridge-road-evacuates-day-care/article_c799bdd9-1162-52a6-8cd7-7784653883ae.html)

Source: Gwinnett Daily Post



Cell tower collapses in high winds.  
Ruidoso, NM, Dec 18, 2009  
[http://wirelessestimator.com/content/articles/  
/?pagename=Cell\\_Tower\\_News\\_12.09](http://wirelessestimator.com/content/articles/?pagename=Cell_Tower_News_12.09)  
Photo credit: Steve Kitchens



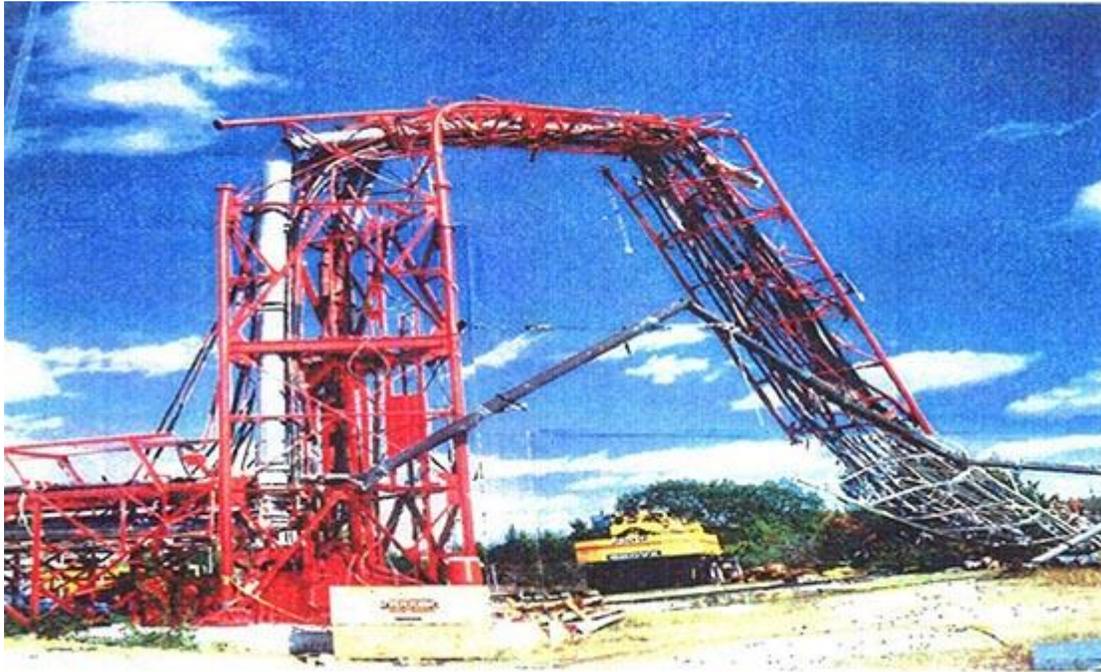
Cell tower collapses during construction.  
La Mirada, March 18, 2008  
<https://www.ocregister.com/2008/03/18/kfi-tower-topples/>  
Source: Orange County Register



Malibu Canyon fire, 2007  
Overburdened with weighty telecom gear,  
the pole collapsed. 14 houses burned.

[http://www.malibutimes.com/news/article\\_7ace05ac-c1eb-11e2-8303-0019bb2963f4.html](http://www.malibutimes.com/news/article_7ace05ac-c1eb-11e2-8303-0019bb2963f4.html)

Photo by Teresa Gelbman



Cell tower collapses during maintenance,  
killing three workers.

Cedar Hill, TX, October 12, 1996

[https://www.osha.gov/doc/engineering/1997\\_r\\_05.html](https://www.osha.gov/doc/engineering/1997_r_05.html)

Source: U.S. Department of Labor, Occupational Safety and Health Administration

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## Cell Tower Fires: The Longer List

4/18/21 Electrical malfunction causes fire with rooftop cellular antennas in Brooklyn

<https://ehtrust.org/firecell-tower-brooklyn-new-york/>

<https://anash.org/fire-extinguished-on-roof-of-crown-heights-apartment-building/>



Hanover, VA, June 26, 2020

<https://www.nbc12.com/2020/06/26/cell-phone-tower-hanover-catches-fire/>

Source: Hanover Fire and EMS

3/9/2021 A light pole holding cellular antennas at Otay Ranch High School caught fire, damaging the stadium in Chula Vista, CA

<https://fox5sandiego.com/news/local-news/stadium-light-catches-fire-at-south-bay-high-school/>

11/25/2020 Cell Tower Fire Causes Structural Damage in Lapeer County, MI

<https://www.aglmediagroup.com/cell-tower-fire-causes-structural-damage/>

6/26/2020 Cell Tower in Hanover County, Va.

<https://www.nbc12.com/2020/06/26/cell-phone-tower-hanover-catches-fire/>

5/1/2018 Cell Tower Fire in Philadelphia, PA

<https://6abc.com/cell-phone-tower-fire-philadelphia-schuylkill-expressway/3412963/>

6/16/2015 Cell phone tower near Virginia Heritage High School catches fire. Now it is leaning over.

<http://wtkr.com/2015/06/16/cell-phone-tower-near-heritage-high-school-catches-fire/>

5/2/2015 Several paper lanterns caused fire in a cell tower at Lantern Fest in Gaston County, NC

<https://www.gastongazette.com/article/20150602/News/306029947>

11/4/2014 Cell Tower Fire in Greeneville, TN

[https://www.greenevillesun.com/xml/nitf/flames-damage-verizon-wireless-tower/article\\_1619f00e-5383-530a-a69e-0dbd2acc3c6a.html](https://www.greenevillesun.com/xml/nitf/flames-damage-verizon-wireless-tower/article_1619f00e-5383-530a-a69e-0dbd2acc3c6a.html)

9/13/2014 Cell tower fire at Thurston High sends up smoky plume.

<https://kval.com/news/local/cell-tower-fire-near-thurston-high-sends-up-smoky-plume>

7/15/2014 School Football Field Cell phone tower catches fire in Grandview, Ohio.

<https://www.dispatch.com/article/20140715/NEWS/307159836>

2/4/2014 Cell tower fire closes U.S. 95 exit ramp in Las Vegas, NV

<https://lasvegassun.com/news/2013/feb/04/cell-tower-fire-closes-us-95-exit-ramp-jones-boulev>

8/21/2013 Cell Tower Fire in Sanford, FL

<https://www.wftv.com/news/local/cell-phone-tower-catches-fire-seminole-co/271605586/>

6/21/2013 Pennsylvania Fire results in Collapse Fears: Collapse Zone created at base and they vacated the buildings.

<http://levittownnow.com/2013/06/21/nearby-cell-tower-on-fire-may-collapse/>

<https://www.csmonitor.com/USA/Latest-News-Wires/2013/0624/Bensalem-tower-fire-Crews-dismantle-cell-tower-that-caught-fire-in-Pa>

<https://www.nbcphiladelphia.com/news/local/cell-phone-tower-on-fire-in-bucks-county/1984967/>

5/16/2013 Cell Tower Fire in Middletown, NJ Video:

<https://www.youtube.com/watch?v=baUNlzbJt5I>

<https://www.nbcnewyork.com/news/local/cell-tower-lean-new-jersey-police-monmouth-county/2079578/>

5/16/2013 New Jersey Cell Tower Fire.

[https://www.nj.com/monmouth/2013/05/cell\\_tower\\_fire\\_knocks\\_out\\_main\\_middletown\\_police\\_communications.html](https://www.nj.com/monmouth/2013/05/cell_tower_fire_knocks_out_main_middletown_police_communications.html)

2/4/2013 Cell phone tower catches fire near U.S. 95 Las Vegas

<https://www.reviewjournal.com/news/cell-tower-catches-fire-closes-u-s-95-ramps/>

8/10/2012 Cell tower at Risk of Falling after Fire Atlanta Georgia.

<https://www.ajc.com/news/local/cell-phone-tower-taken-down-following-fire/eRLICZmYOeUNeoCzskHGRJ/>

8/10/2012 Cell phone tower to be taken down following fire, Georgia.

<https://www.ajc.com/news/local/cell-phone-tower-taken-down-following-fire/eRLICZmYOeUNeoCzskHGRJ/>

6/11/2012 Explosion near cell tower likely caused by propane leak, Iowa

<https://www.lemarssentinel.com/story/1641878.html>

12/1/2011 Cell tower fire closes Rockbridge Road, evacuates day care.

[https://www.gwinnettdailynews.com/archive/cell-tower-fire-closes-rockbridge-road-evacuates-day-care/article\\_c799bdd9-1162-52a6-8cd7-7784653883ae.html](https://www.gwinnettdailynews.com/archive/cell-tower-fire-closes-rockbridge-road-evacuates-day-care/article_c799bdd9-1162-52a6-8cd7-7784653883ae.html)

6/21/2011 Osprey nest, electrical problem sparked Poulsbo cell tower fire Washington State

<https://www.kitsapdailynews.com/news/osprey-nest-electrical-problem-sparked-poulsbo-cell-tower-fire/>

5/26/2011 Kansas City Cell Tower Fire closes Interstate 435

<https://www.youtube.com/watch?v=PiiXBnbBl8o>

1/22/2011 Cell Tower Fire in New Jersey

<https://patch.com/new-jersey/longbranch/parkway-cell-tower-fire-saturday-set-off-by-routine-maintenance>

1/13/2011 Cell Tower Fire at Rancho Cucamonga, CA fire station

<https://www.redlandsdailyfacts.com/2011/01/13/cell-tower-reportedly-burning-at-rancho-cucamonga-fire-station/>

5/10/2010 Water Tower Fire Wipes Out WiMAX and Cell Phone Service on Madison, Wisconsin's West Side

<https://stopthecap.com/2010/05/20/water-tower-fire-wipes-out-wimax-and-cell-phone-service-on-madison-wisconsins-west-side/>

10/1/2007 Sprint, Verizon, AT&T sign \$12 million settlement over 2007 Malibu Canyon wild fire

<https://www.scpr.org/blogs/environment/2012/09/13/9969/sprint-verizon-t-sign-12-million-settlement-over-2/>

7/4/2007 Cell Tower Fire in Howell, MI

[https://www.mlive.com/annarbornews/2007/07/updated\\_cell\\_phone\\_tower\\_fire.html](https://www.mlive.com/annarbornews/2007/07/updated_cell_phone_tower_fire.html)

4/14/2006 Cell Tower Fire in Prince George County, MD

<https://www.washingtonpost.com/wp-dyn/content/article/2006/04/14/AR2006041400981.html>

8/24/2001 Burning Cell Tower at Risk of Falling in Seminole County, Oregon

<https://insidetowers.com/sanford-florida-cell-tower-no-longer-a-risk/>

# Cell Tower Collapses & Falling Debris: The Longer List

2/28/2020 Cell tower crashes into a building at St.Johns (Canada).

<https://www.cbc.ca/news/canada/newfoundland-labrador/cell-phone-tower-st-pats-bowling-lane-1.5480854>



A fallen cell tower lies across U.S. Route 280  
after tornadoes touched down in Alabama, Georgia and Florida.  
Smiths Station, Lee County, AL, March 3, 2019

<https://www.nytimes.com/2019/03/03/us/tornado-alabama-georgia-deaths.html>

Photo credit: Mike Haskey/Ledger-Enquirer, via Associated Press

10/17/2019 A famous antenna tower has collapsed near Tucson. It was probably 1,000 feet tall. It  
was a local landmark.

<https://kvoa.com/news/local-news/2019/10/18/480-feet-tower-collapses-near-three-points/>

<https://www.kold.com/2019/10/18/toppled-tower-triggers-trouble/>

3/3/2019 A cell tower falls across U.S. Route 280 highway in Lee County, Ala., after a tornado

<https://www.nytimes.com/2019/03/03/us/tornado-alabama-georgia-deaths.html>

3/25/15 Tornado damage to legendary KOMA tower array in Moore, OK

<http://qrznow.com/tornado-damage-to-legendary-koma-tower-array/>

5/1/14 Arkansas Tornadoes Take Down Two Towers in Mayflower and Vilonia, AR  
<https://www.aglmediagroup.com/restoration-efforts-ensue-after-arkansas-tornado-takes-down-2-towers/>

3/26/2014 Tower Collapse in Blaine, KS  
<https://fox2now.com/news/two-men-who-died-in-kansas-tower-collapse-from-st-charles/>

3/14/2014 Tower Collapse in North Adams, MA  
[https://www.masslive.com/news/2014/03/heavy\\_wind\\_and\\_rain\\_causes\\_col.html](https://www.masslive.com/news/2014/03/heavy_wind_and_rain_causes_col.html)

2/20/2014 Crescenta CAAT&T Withdraws Cell Tower Application: Debris fall off cell tower onto residence.  
<https://www.crescentvalleyweekly.com/news/02/20/2014/att-withdraws-cell-tower-application/>

2/2/2014 “Firefighter and two contractors dead after two cell phone towers collapse during maintenance in Clarksburg, WV  
<https://www.dailymail.co.uk/news/article-2550553/Firefighter-two-contractors-dead-two-cell-phone-towers-collapse-maintenance.html>  
OSHA Investigation: [https://www.osha.gov/doc/engineering/pdf/2014\\_r\\_06.pdf](https://www.osha.gov/doc/engineering/pdf/2014_r_06.pdf)

2/2/2014 Cell phone towers collapse in West Virginia, killing 3  
<https://www.foxnews.com/us/cell-phone-towers-collapse-in-west-virginia-killing-3>

1/13/2014 Tower Collapse in Chewelah, WA  
<https://www.spokesman.com/stories/2014/jan/13/in-brief-cell-tower-near-ski-resort-collapses-in/>

10/1/2013 Tower Collapse in Willow, AK  
<https://www.adn.com/alaska-news/article/willow-cell-tower-collapses-mat-su-drafts-new-rules/2013/11/15/>

7/20/2013 Tower Collapse in San Ramon, CA  
<https://patch.com/california/sanramon/update-police-suspect-vandals-in-radio-tower-collapse>

5/28/2013 Two killed in cell tower collapse in Copiah County, MS.  
<https://www.wlbt.com/story/22439997/2-killed-in-cell-phone-tower-fall/>

3/30/2013 Tower collapse: Heavy wind and rain blamed for downing ‘major communications’ equipment in Berkshires, knocking out police, fire radio service, Massachusetts  
[https://www.masslive.com/news/2014/03/heavy\\_wind\\_and\\_rain\\_causes\\_col.html](https://www.masslive.com/news/2014/03/heavy_wind_and_rain_causes_col.html)

3/6/2013 Tower Collapse in St. Louis, MO  
<https://fox2now.com/news/cell-tower-collapse-could-have-been-prevented/>

1/16/2013 Tower Ice Falling Video  
<https://www.youtube.com/watch?v=aqy32tzTRkA>

10/31/2012 Associated Press – Hurricane Sandy takes out 25% of cell towers in U.S.  
<https://gadgets.ndtv.com/telecom/news/hurricane-sandy-takes-out-25-percent-of-cell-towers-in-us-286624>

2/13/2012 El Paso Texas, Decorative Frond Falls From Palm Tree Cell Phone Tower, slices through man's car.  
<https://www.pinterest.at/pin/388224430380184160/>

6/20/2011 A cell tower, damaged by fire, has been taken down after it hung precariously over Highway 305. Washington State.  
<http://archive.kitsapsun.com/news/code-911/highway-305-reopened-following-cell-tower-fire-ep-418436358-357191651.html>

4/4/2011 Cell Tower Collapse in Ballard County, KY  
<https://www.kfvs12.com/story/14380276/afternoon-update-cell-tower-2-homes-collapse-in-ballard-county/>

2/18/2011 High winds likely cause in cell tower collapse in Clinton, PA  
[https://www.lehighvalleylive.com/hunterdon-county/express-times/2011/02/high\\_winds\\_likely\\_cause\\_in\\_cel.html](https://www.lehighvalleylive.com/hunterdon-county/express-times/2011/02/high_winds_likely_cause_in_cel.html)

1/12/2011 Giant Icicles Fall From Sky, Smash Cars  
<https://www.theblaze.com/news/2011/01/12/giant-icicles-fall-from-sky-smash-cars>

12/18/2009 Cell Tower Collapse in Ruidoso, NM  
[http://wirelessestimator.com/content/articles/?pagename=Cell\\_Tower\\_News\\_12.09](http://wirelessestimator.com/content/articles/?pagename=Cell_Tower_News_12.09)

12/15/2009 One dead following New York tower collapse  
[http://wirelessestimator.com/content/articles/?pagename=Cell\\_Tower\\_News\\_12.09](http://wirelessestimator.com/content/articles/?pagename=Cell_Tower_News_12.09)

12/14/2009 Worker Dies in Cell Tower Collapse in Tulsa, OK  
<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjmk720907tAhU7GFkFHZBkCxoQFjADegQIBRAC&url=https%3A%2F%2Fdownloads.regulations.gov%2FOSHA-2014-0018-0002%2Fcontent.pdf&usg=AOvVaw1kmCWXvB9oOHUX3TQfGEOv>

12/12/2009 Tower ice buildup seen as culprit for collapse in Dawson County, TX.  
[http://wirelessestimator.com/content/articles/?pagename=Cell\\_Tower\\_News\\_12.09](http://wirelessestimator.com/content/articles/?pagename=Cell_Tower_News_12.09)

12/9/2009 High winds collapse tower in Oklahoma  
[http://wirelessestimator.com/content/articles/?pagename=Cell\\_Tower\\_News\\_12.09](http://wirelessestimator.com/content/articles/?pagename=Cell_Tower_News_12.09)

1/24/2009 Cell Tower Collapse in Wellesley, MA  
<https://www.metrowestdailynews.com/article/20090124/News/301249964>

5/29/2008 Cell Tower Collapse in Browns Summit, NC

<https://www.wfmynews2.com/article/news/local/cell-phone-tower-falls-over-in-guilford-county/83-402796410>

5/7/2008 Internet tower falls on tanker truck in Shawnee, OK

<https://www.news-star.com/article/20080507/NEWS/305079925>

3/18/2008 Cell Tower Collapse in La Merida, CA

<https://www.oregister.com/2008/03/18/kfi-tower-topples/>

10/2007 Overburdened with weighty telecom gear, the pole collapsed. 14 houses burned in Malibu Canyon, CA

[http://www.malibutimes.com/news/article\\_7ace05ac-c1eb-11e2-8303-0019bb2963f4.html](http://www.malibutimes.com/news/article_7ace05ac-c1eb-11e2-8303-0019bb2963f4.html)

11/14/2003 Oswego, New York Cellular Tower Crushes Chief's Vehicle

<https://www.firehouse.com/home/news/10530195/oswego-new-york-cellular-tower-crushes-chiefs-vehicle>

10/12/1996 Tower Collapse in Cedar Hill, TX Kills Three

[https://www.osha.gov/doc/engineering/1997\\_r\\_05.html](https://www.osha.gov/doc/engineering/1997_r_05.html)

List of catastrophic collapses of broadcast masts and towers from Wikipedia

[https://en.wikipedia.org/wiki/List\\_of\\_catastrophic\\_collapses\\_of\\_broadcast\\_masts\\_and\\_towers](https://en.wikipedia.org/wiki/List_of_catastrophic_collapses_of_broadcast_masts_and_towers)

This video does not have a date, but I think it is important to include

Tower ice falling

<http://www.youtube.com/watch?v=aqy32tzTRkA>

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## Telecom Worker Deaths & Accidents: The Longer List

List of Incident Investigations from the Occupational Safety and Health Administration (OSHA)

<https://www.osha.gov/communication-towers/incident-investigations>



Tulsa, OK, August 30th 2013

A man latched to a cell phone tower, 10-stories off the ground, is knocked out by a falling antenna.

<https://www.newson6.com/story/5e363a9c2f69d76f62057bfe/tulsa-fire-department-rescues-worker-from-top-of-cell-phone-tower>

Source: newson6.com

4/11/2014 Worker rescued after hanging from Charlotte cell phone tower, Charlotte, NC.

<https://www.wbtv.com/story/25218063/man-trapped-at-top-of-cell-tower-in-east-charlotte/>

4/1/2014 A Deadly Surge in Tower Climber Accidents

<https://projects.propublica.org/graphics/cell-tower-accidents>

8/30/2013 Tulsa Fire Department Rescues Worker From Top Of Cell Phone Tower

<https://www.newson6.com/story/5e363a9c2f69d76f62057bfe/tulsa-fire-department-rescues-worker-from-top-of-cell-phone-tower>

1/23/2013 Gaithersburg Maryland: Trapped Worker is rescued after freezing.

<https://www.nbcwashington.com/news/local/crews-work-to-rescue-man-from-cell-phone-tower/1950256/>

12/24/2012 Spokane fire department rescues dangling cell tower worker, Spokane Washington.

<https://komonews.com/news/local/spokane-fire-department-rescues-dangling-cell-tower-worker-11-20-2015>

6/27/2012 Cell Tower Climber Falls 153 Feet, Dies on Impact, Minnesota

<https://www.grandforksherald.com/news/man-who-died-after-falling-cell-tower-identified-1>

12/23/2011 Worker hurt in 80-ft. fall from cell tower in Marcy New York.

[https://www.syracuse.com/news/2011/12/worker\\_hurt\\_in\\_80-ft\\_fall\\_from.html](https://www.syracuse.com/news/2011/12/worker_hurt_in_80-ft_fall_from.html)

8/5/2011 Texas: Six Hour Rescue for Tower Worker

<https://www.statter911.com/2011/08/05/more-than-six-hour-rescue-to-get-man-from-760-foot-level-of-tower-firefighters-in-burleson-texas-tell-their-story/>

8/4/2011 Burleson fire dept. rescues man from cell tower, Texas

<https://www.wfaa.com/article/news/local/burleson-fire-dept-rescues-man-from-cell-tower/287-337687816>

11/21/2008 Worker who fell 65 feet from cell tower dies: Arizona

[https://tucson.com/news/local/crime/worker-who-fell-feet-from-cell-tower-dies/article\\_c0932089-a4e0-5c14-9ce4-bb2cd8be86c1.html](https://tucson.com/news/local/crime/worker-who-fell-feet-from-cell-tower-dies/article_c0932089-a4e0-5c14-9ce4-bb2cd8be86c1.html)

5/28/2008 Fatal bandwidth: 6 cell tower deaths in 5 weeks: Indiana, Nebraska, Georgia.

<https://fortune.com/2008/05/28/fatal-bandwidth-6-cell-tower-deaths-in-5-weeks/>

<https://scienceblogs.com/thepumphandle/2008/05/30/april-may-2008-deadly-for-antenna-tower-workers>

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## **Other Concerning Situations: The Longer List**

6/28/2014 Teen Talked Down From Cell Tower

<http://www.nbchicago.com/news/local/Suburban-Teen-Rescued-From-Cell-Tower-265033731.html>

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## **CELL SITE SAFETY PROTOCOL**

by Katie Singer

Around 1750 B.C., Babylon's King Hammurabi wrote a code to protect people from new technologies' hazards, and to hold builders liable for any harms caused by their projects.

Hammurabi's principles still stand. Before any condo building, bridge, water treatment facility, electrical system, highway or cell site goes live, the corporation that builds it has a duty to ensure that the technology will not imperil life, health or property. Within their discipline, independent, state-licensed professional engineers (PEs) evaluate and mitigate hazards of new technologies or building projects. With his or her seal, a professional engineer assumes full responsibility for a project's design. If a building' collapses because of its design, the PE is liable. If a builder doesn't follow correct design, the builder holds liability.

All cellular sites are electrical equipment. The National Fire Protection Association recognizes five hazards associated with using electricity: electrical contact, thermal effects, overcurrent, fault current and overvoltage. During a cell site's design, to ensure that the new project will not imperil life, health or property, a state-licensed professional electrical engineer must evaluate each hazard and certify that it has been mitigated. A state-licensed professional structural engineer must certify the structural integrity of each pole that holds telecom equipment. To honor their professional obligations, city councilors and county commissioners should not issue a building permit until they have PE-certified documents that prove that each proposed cellular site is safe.

Before permitting installation of any new cell sites in NAME YOUR CITY OR COUNTY, to protect health, life and property from cellular sites' potential fire hazards, collapses and other hazards, we therefore require comprehensive documentation prepared under the responsible charge of and certified by an independent, state-licensed professional engineer demonstrating that hazards at each cell site have been evaluated and mitigated.

To address their liability, every property owner (a municipality, corporation or homeowner whose property holds the cell site) has a duty to require that telecom corporations provide sealed engineering documents demonstrating that the hazards have been mitigated. Sealed engineering documents prove that the property owner has not been negligent.

To view cell towers that have collapsed and/or caught fire, visit [www.OurWeb.tech/fires-and-collapses](http://www.OurWeb.tech/fires-and-collapses).

Addendum: In the past, people concerned about telecommunications' harms have focused on proving that the electromagnetic radiation emitted by devices and infrastructure harms living creatures. Despite thousands of studies demonstrating such harm ([www.saferemr.com](http://www.saferemr.com); [www.bioinitiative.org](http://www.bioinitiative.org)), these efforts have largely failed. They've failed because telecom proponents are merchants of doubt. Repeatedly, the corporations promote the idea that research is inconclusive or unavailable. (See Mark Hertsgaard and Mark Dowie's 2018 article in *the Nation*, "How Big Wireless Made Us Think That Cell Phones are Safe." <https://www.thenation.com/article/archive/how-big-wireless-made-us-think-that-cell-phones-are-safe-a-special-investigation/>)

The Cell Site Protocol shifts the paradigm: it requires telecom corporations to prove that their proposed installation meets the safety standards of the National Fire Protection Association before it goes live. It requires city officials to require a professional engineer's sealed documents

that prove that the proposed equipment is safe...before they issue a permit to install the equipment. Most states have statutes that require these protocols.

Every concerned citizen should assume (as engineers do) that electricity—and the electronic devices and infrastructure that depend on electricity)—are not safe until they're proven safe.

To begin raising questions of safety about proposed telecom equipment, ask whether or not your city authorities are properly trained to evaluate documents proving that electrical hazards of telecom infrastructure have been evaluated and mitigated. Ask for documentation that verifies such training.

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## Electromagnetic Fields Impact Tree and Plant Growth

Feb 17, 2018

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### Electromagnetic Fields, Tree & Plant Growth

Electromagnetic (EMF) frequencies have been found to alter the growth and development of plants. Studies on wireless EMF frequencies have found [physiological and morphological changes](#), [increased micronuclei formation](#), [altered growth](#) as well as [adverse cell characteristics](#) such as thinner cell walls and smaller mitochondria. Electromagnetic exposure results in biochemical changes Research shows that plants [perceive](#) and respond to electromagnetic fields and are a good model to study the biological effects of exposure.

Documentation of tree damage from base stations is made visible in the Report “Tree Damage Caused by Mobile phone base stations” in which he states, “RF radiation effects on plants have not been considered. In the Explosive Proliferation of the diverse wireless communication technologies across the entire environment and almost all areas of life, this represents an uncovered risk” ([Breunig, 2017](#)).

Note: EMFs also have been shown to alter the behavior of bees and [birds](#).

## Austrian Telecom Giant Telstra is Aware

“Telstra is also funding research into whether uniquely Australian obstacles – including flora – will disrupt 5G signals, which occupy a higher frequency and don’t travel as far as other mobile signals. “Something that seems to be unique to Australia, and we found with earlier standards, is how gumtrees impact those radio signals and the way they get from the radio tower to the end user,” – ‘Telstra pushes for 5G that Works in Australia,’ [The Sydney Morning Herald, January 9, 2017](#).

### Research Studies:

Breunig, Helmut. [“Tree Damage Caused By Mobile Phone Base Stations An Observation Guide.”](#) (2017).

You can also download the Observation Guide at: [Competence Initiative for the Protection of Humanity, the Environment and Democracy](#)

Waldmann-Selsam, C., et al. [“Radiofrequency radiation injures trees around mobile phone base stations.”](#) *Science of the Total Environment* 572 (2016): 554-69.

- “In the last two decades, the deployment of phone masts around the world has taken place and, for many years, there has been a discussion in the scientific community about the possible environmental impact from mobile phone base stations. Trees have several advantages over animals as experimental subjects and the aim of this study was to verify whether there is a connection between unusual (generally unilateral) tree damage and radiofrequency exposure.
- To achieve this, a detailed long-term (2006-2015) field monitoring study was performed in the cities of Bamberg and Hallstadt (Germany).
- The measurements of all trees revealed significant differences between the damaged side facing a phone mast and the opposite side, as well as differences between the exposed side of damaged trees and all other groups of trees in both sides. Thus, we found that side differences in measured values of power flux density corresponded to side differences in damage. The 30 selected trees in low radiation areas (no visual contact to any phone mast and power flux density under  $50\mu\text{W}/\text{m}^2$ ) showed no damage. Statistical analysis demonstrated that electromagnetic radiation from mobile phone masts is harmful for trees. These results are consistent with the fact that damage afflicted on trees by mobile phone towers usually start on one side, extending to the whole tree over time.”

Martin Pall. [“Electromagnetic Fields Act Similarly in Plants as in Animals: Probable Activation of Calcium Channels via Their Voltage Sensor”](#) *Current Chemical Biology*, Volume 10 , Issue 1 , 2016

- It has been shown that low intensity microwave/lower frequency electromagnetic fields (EMFs) act in animals via activation of voltage-gated calcium channels (VGCCs) in the plasma membrane, producing excessive intracellular calcium  $[Ca^{2+}]_i$ , with excessive  $[Ca^{2+}]_i$  leading to both pathophysiological and also in some cases therapeutic effects. The pathophysiological effects are produced largely through excessive  $[Ca^{2+}]_i$  signaling including excessive nitric oxide (NO), superoxide, peroxynitrite, free radical formation and consequent oxidative stress. The activation of the VGCCs is thought to be produced via EMF impact on the VGCC voltage sensor, with the physical properties of that voltage sensor predicting that it is extraordinarily sensitive to these EMFs.
- It is shown here that the action of EMFs in terrestrial, multicellular (embryophyte) plants is probably similar to the action in animals in most but not all respects, with calcium channel activation in the plasma membrane leading to excessive  $[Ca^{2+}]_i$ , leading in turn to most if not all of the biological effects. A number of studies in plants are briefly reviewed which are consistent with and supportive of such a mechanism. Plant channels most plausibly to be involved, are the so-called two pore channels (TPCs), which have a voltage sensor similar to those found in the animal VGCCs.

Halgamuge, M.N. [“Weak radiofrequency radiation exposure from mobile phone radiation on plants.”](#) *Electromagnetic Biology and Medicine* 36.2 (2017): 213-235.

- “Our analysis demonstrates that the data from a substantial amount of the studies on RF-EMFs from mobile phones show physiological and/or morphological effects (89.9%,  $p < 0.001$ ). Additionally, our analysis of the results from these reported studies demonstrates that the maize, roselle, pea, fenugreek, duckweeds, tomato, onions and mungbean plants seem to be very sensitive to RF-EMFs. Our findings also suggest that plants seem to be more responsive to certain frequencies...”

Shikha Chandel, et al. [“Exposure to 2100 MHz electromagnetic field radiations induces reactive oxygen species generation in \*Allium cepa\* roots.”](#) *Journal of Microscopy and Ultrastructure* 5.4 (2017): 225-229.

- “The present study investigated the role of cell phone EMF-r in inciting oxidative damage in onion (*Allium cepa*) roots at a frequency of 2100 MHz. Onion roots were exposed to continuous wave homogenous EMF-r for 1, 2 and 4 h for single day. The results showed that EMF-r exposure enhanced the content of MDA,  $H_2O_2$  and  $O_2^-$ . Also, there was an upregulation in the activity of antioxidant enzymes– SOD and CAT– in onion roots. The study concluded that 2100 MHz cell phone EMF-r incite oxidative damage in onion roots by altering the oxidative metabolism.”

Gustavino, B., et al. [“Exposure to 915 MHz radiation induces micronuclei in \*Vicia faba\* root tips.”](#) *Mutagenesis* 31.2 (2016): 187-92.

- The increasing use of mobile phones and wireless networks raised a great debate about the real carcinogenic potential of radiofrequency-electromagnetic field (RF-EMF) exposure associated with these devices. Conflicting results are reported by the great majority of in vivo and in vitro studies on the capability of RF-EMF exposure to induce DNA damage and mutations in mammalian systems. Aimed at understanding whether less ambiguous responses to RF-EMF exposure might be evidenced in plant systems with respect to mammalian ones, in the present work the mutagenic effect of RF-EMF has been studied through the micronucleus (MN) test in secondary roots of *Vicia faba* seedlings exposed to mobile phone transmission in controlled conditions, inside a transverse electro magnetic (TEM) cell.
- Results of three independent experiments show the induction of a significant increase of MN frequency after exposure, ranging from a 2.3-fold increase above the sham value, at the lowest SAR level, up to a 7-fold increase at the highest SAR. These findings are in agreement with the limited number of data on cytogenetic effects detected in other plant systems exposed to mobile phone RF-EMF frequencies and clearly show the capability of radiofrequency exposure to induce DNA damage in this eukaryotic cell system.
- It is worth noticing that this range of SAR values is well below the international limits for localised exposure (head, trunk), according to the ICNIRP guidelines (35) and IEEE std C95.1 (38), which are 10 (8.0) W/kg for occupational exposure and 2.0 (1.6) W/kg for general public exposure respectively.

Halgamuge, Malka N., See Kye Yak and Jacob L. Eberhardt. [“Reduced growth of soybean seedlings after exposure to weak microwave radiation from GSM 900 mobile phone and base station.”](#) *Bioelectromagnetics* 36.2 (2015): 87-95.

- The aim of this work was to study possible effects of environmental radiation pollution on plants. The association between cellular telephone (short duration, higher amplitude) and base station (long duration, very low amplitude) radiation exposure and the growth rate of soybean (*Glycine max*) seedlings was investigated.
- The exposure to higher amplitude (41 V m<sup>-1</sup>) GSM radiation resulted in diminished outgrowth of the epicotyl. The exposure to lower amplitude (5.7 V m<sup>-1</sup>) GSM radiation did not influence outgrowth of epicotyl, hypocotyls, or roots. The exposure to higher amplitude CW radiation resulted in reduced outgrowth of the roots whereas lower CW exposure resulted in a reduced outgrowth of the hypocotyl. Soybean seedlings were also exposed for 5 days to an extremely low level of radiation (GSM 900 MHz, 0.56 V m<sup>-1</sup>) and outgrowth was studied 2 days later. Growth of epicotyl and hypocotyl was found to be reduced, whereas the outgrowth of roots was stimulated.
- Our findings indicate that the observed effects were significantly dependent on field strength as well as amplitude modulation of the applied field.

Senavirathna, M.D., et al. [“Nanometer-scale elongation rate fluctuations in the \*Myriophyllum aquaticum\* \(Parrot feather\) stem were altered by radio-frequency electromagnetic radiation.”](#) *Plant Signal Behav* 9.3 (2014).

- Statistically significant changes to this plant from a non thermal effect.

Soran, M.L., et al. [“Influence of microwave frequency electromagnetic radiation on terpene emission and content in aromatic plants.”](#) *Journal of Plant Physiology* 171.15 (2014): 1436-43.

- Microwave irradiation resulted in thinner cell walls, smaller chloroplasts and mitochondria, and enhanced emissions of volatile compounds, in particular, monoterpenes and green leaf volatiles (GLV). These data collectively demonstrate that human-generated microwave pollution can potentially constitute a stress to the plants.
- The above is only a small sampling of the research showing biological effects at non thermal levels on living organisms.

Waldmann-Selsam, C., et al. [“Radiofrequency radiation injures trees around mobile phone base stations.”](#) *Science of the Total Environment*, vol. 572, 2016, pp. 554-69.

- In the last two decades, the deployment of phone masts around the world has taken place and, for many years, there has been a discussion in the scientific community about the possible environmental impact from mobile phone base stations. Trees have several advantages over animals as experimental subjects and the aim of this study was to verify whether there is a connection between unusual (generally unilateral) tree damage and radiofrequency exposure. To achieve this, a detailed long-term (2006-2015) field monitoring study was performed in the cities of Bamberg and Hallstadt (Germany). During monitoring, observations and photographic recordings of unusual or unexplainable tree damage were taken, alongside the measurement of electromagnetic radiation. In 2015 measurements of RF-EMF (Radiofrequency Electromagnetic Fields) were carried out. A polygon spanning both cities was chosen as the study site, where 144 measurements of the radiofrequency of electromagnetic fields were taken at a height of 1.5m in streets and parks at different locations. By interpolation of the 144 measurement points, we were able to compile an electromagnetic map of the power flux density in Bamberg and Hallstadt. We selected 60 damaged trees, in addition to 30 randomly selected trees and 30 trees in low radiation areas (n=120) in this polygon. The measurements of all trees revealed significant differences between the damaged side facing a phone mast and the opposite side, as well as differences between the exposed side of damaged trees and all other groups of trees in both sides. Thus, we found that side differences in measured values of power flux density corresponded to side differences in damage. The 30 selected trees in low radiation areas (no visual contact to any phone mast and power flux density under  $50\mu\text{W}/\text{m}^2$ ) showed no damage. Statistical analysis demonstrated that electromagnetic radiation from mobile phone masts is harmful for trees. These results are consistent with the fact that damage afflicted on trees by mobile phone towers usually start on one side, extending to the whole tree over time.

Haggerty, Katie. [“Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings.”](#) *International Journal of Forestry Research* 2010.836278 (2010).

- “This study suggests that the RF background may have strong adverse effects on growth rate and fall anthocyanin production in aspen, and may be an underlying factor in aspen decline.”

Kouzmanova, M., et al. [“Alterations in enzyme activities in leaves after exposure of \*Plectranthus sp.\* plants to 900 MHz electromagnetic field.”](#) *Biotechnology & Biotechnological Equipment* 23.sup1 (2009): 611-615.

- “The purpose of our study was to investigate the alterations in enzyme activities in leaves after exposure of plants *Plectranthus sp.* to 900 MHz EMF and their dependence on the time elapsed after exposure.
- Alterations in activity of isocitrate dehydrogenase, malate dehydrogenase and glucose-6-phosphate dehydrogenase in leaves were registered immediately after the end of the exposure and 1, 2 and 24 hours later. Irradiation of plants induced different alterations in enzyme activities depending on the time elapsed after irradiation. Immediately after exposure the activity of the three investigated enzymes decreased, but increased at 24th hour.
- In conclusion, the data provide evidence that plants perceive and respond to electromagnetic fields and are a good model to study the effects of mobile phone radiation.”

Trebbi, Grazia, et al. [“Extremely low frequency weak magnetic fields enhance resistance of NN tobacco plants to tobacco mosaic virus and elicit stress-related biochemical activities.”](#) *Bioelectromagnetics* 28.3 (2007): 214-223.

- “Increasing evidence has accumulated concerning the biological effects of extremely low frequency magnetic fields (ELF-MFs) in different plant models.
- Following ELF-MFs exposure, an increased resistance was detected, particularly after an 8-h treatment, as shown by the decrease in lesion area and number. Moreover, two enzyme activities involved in resistance mechanisms were analyzed: ornithine decarboxylase (ODC) and phenylalanine ammonia-lyase (PAL). Uninoculated leaves previously exposed to ELF-MFs in general showed a significant increase relative to controls in ODC and PAL activities, in particular for 13 microT static MF plus 28.9 microT, 10 Hz sinusoidal MF (24 h) treatment.
- In conclusion, ELF-MFs seem to influence the HR of tobacco to TMV, as shown by the increased resistance and changes in ODC and PAL activities, indicating the reliability of the present plant model in the study of bioelectromagnetic interactions.”

## **International Conference on EMF Impacts to Trees**

### **“The effect of electromagnetic radiation on trees” The Groene Paviljoen, Baarn, 2**

**2/18/2011**

Website of Conference <http://www.boomaantastingen.nl/>

[Download Program of Conference](#)

### **Tree Damage from Chronic High Frequency Exposure**

Volker Schorpp; physicist [Lecture](#) (about 31 MB)

Unknown Tree Diseases in Urban Surroundings and the Possible Effects of WiFi Access Points on Ash Trees (in the lab) – Dr. André van Lammeren

Unexpected Effects on Changing Environmental Factors – Dr. Ing. Rein Roos

Innovative Assessments of Tree Health – Ir. Lies Steel

Visible Damage on Free-standing Trees – Dr. ing. Dipl. Phys. Volker Schorpp

Click here to see a PDF of one of the presentations “[Tree Damage from Chronic High Frequency Exposure Mobile Telecommunications, Wi-Fi, Radar, Radio Relay Systems, Terrestrial Radio, TV etc.](#)” by Dr. Volker Schorpp

Effects of Electromagnetic Stress on Trees – BSc PhD. Andrew Goldsworthy

Call for Support for Further Study – Hans Groen in 't Wout

[“Trees Under High Frequency” PDF German](#)

[On vimeo treedamage by electromagnetic radiation](#) from [Boomaantastingen](#) on [Vimeo](#).

[“Trees are Affected by Electromagnetic Radiation” 2010 Laboratory testing Negative Impact on Plant Health](#)

- “An initial lab tests of the effects of electromagnetic radiation on the growth of plants, indicates that the radiation might negatively affect the health of plants. The research was carried out by Wageningen University, part of Wageningen UR. Ash trees in the urban environment are increasingly suffering from growth disturbances were found in a growing cell with so-called WiFi access points discoloration and dieback of leaves changing. Although the effects of multiple radiation sources and several trees were found, the researchers found it desirable to repeat the test and preferably for a longer period and on a larger scale. In other reports erroneously reported that TU Delft and TNO in this research involved. Trees in urban areas in recent years show an increasing number of damage such as cracks, bumps, discoloration and various forms of tissue necrosis. In the past, whether these phenomena are caused by biological factors such as pests and diseases. To date, that investigation no clear cause identified. Wageningen University was commissioned by the municipality of Alphen aan den Rijn how the increasing number of sources of electromagnetic radiation, such as masts, could play a role in the deteriorating health

of the trees. It was a growing cell the effect of radiation of known WiFi access points on small Esboompjes investigated.”

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# 5G/EMF/RF: What's Causing All the Terrible Forest Fires?

September 30, 2021



The image is a screenshot of a news article from Salon. At the top, the Salon logo is prominently displayed in red. Navigation links for 'NEWS & POLITICS', 'CULTURE', 'FOOD', 'SCIENCE & HEALTH', 'LIFE STORIES', and 'VIDEO' are visible. A search bar is located on the right side of the header. The main headline reads: 'California's massive wildfires are doing something no wildfire has ever done before'. Below the headline is a sub-headline: 'Raging California wildfires jumped across the oft-snowy Sierra for the first time in recorded history'. The author is listed as 'By NICOLE KARLIS' and the publication date is 'PUBLISHED SEPTEMBER 2, 2021 5:52PM (EDT)'. The main image shows a firefighter in silhouette lighting a backfire in a forest at night, with large trees and intense flames. A caption below the image reads: 'Cal firefighter Travis Moore lights a backfire along Highway 50 as the Caldor Fire burns near Lake Tahoe, CA on Tuesday August 31, 2021. (Wally Skatj/Los Angeles Times via Getty Images)'. There are small social media icons in the top right corner of the article frame.

by [naturalistactivist](#) (Greece)

Have you ever been to the scene of a recent forest fire? It is a vision from hell—all those charred tree trunks pointing black, accusing fingers at the sky, the piles of drifting grey ash. But the worst thing is the smell. It is not the pleasant smell of burned wood but of rotten flesh, as all the things which have died in the fire decompose.

A forest fire does not just burn trees. It burns all the creatures who live in it and cannot escape, the ones who cannot run or fly fast enough or far enough, the ones trapped between two fronts or encircled by flames. It burns boar and deer, foxes and jackals, hedgehogs and mice, polecats and weasels. And it burns birds, whose flaming feathers blaze more brightly as they flap their wings.

That tiny lump of rotting flesh was a robin. That was a nightingale. That was an owl. That was a tree rat. That thing over there was a fox cub. That little mound was a tortoise. The insects? Well, they're just ash.

In your mind you can still hear them scream. They all screamed as the fire caught them. Even the birds screamed. I have seen too many forest fires in recent years and they fill me with horror because I know it is not just trees that are burning, but whole ecosystems. They will not come back as before because the lack of trees to hold rainwater diminishes the water table. Places that were once thriving forests are changed forever.

I don't need to tell you that our planet is suffering many more, bigger, hotter and more terrible fires in recent years than ever before. All summer long, the news has been full of fires in Greece, Turkey, and California. Last winter fires burned across Australia and the Amazon. Why are there so many fires, such big fires, even in unlikely places such as the Pantanal wetlands in Brazil?

The usual explanation is global warming/climate change—call it what you like. According to this theory, it's all because we are burning too any fossil fuels and releasing too much carbon into the atmosphere, which in turn is making our planet warmer and more combustible.

I have never been persuaded by the global warming/climate change argument, though the mainstream media (and many people) refer to it as accepted fact. For one thing, I could never understand how a planet on which every life form is carbon-based should be, as it were, "allergic" to carbon. But a great many scientists have jumped on this particular bandwagon (that's where all the research grants are) and voices of dissent are mocked or stifled by lack of funding. It is worth remembering that we have no accurate climate data from any but the recent past.

Michael Crichton, in his excellent but much criticized novel, *State of Fear*, points out that atmospheric carbon is nothing new: peat bogs and wetlands traditionally emitted huge amounts of carbon dioxide without warming the planet. We have now drained around 70% of these bogs and wetlands, so all that carbon that is no longer going into the atmosphere. Maybe carbon isn't the problem?

Where the climate change theory really falls down, though, is in its inability to explain the mechanism by which burning fossil fuels/atmospheric carbon causes forest fires. How does it do this? Vague phrases such as "complex interactions we don't fully understand" simply beg the question. Either there is a mechanism or there isn't. The climate change theory cannot explain the number and intensity of recent forest fires because it cannot identify how and why carbon causes them.

On the other hand, there is a strong correlation between increasing numbers, and severity, of forest fires with the proliferation of wireless infrastructure. Thirty years ago there were very few cell towers, and correspondingly fewer forest fires. Now cell towers are everywhere, along with other types of wireless infrastructure such as smart meters, and serious fires that resist being put out are increasing, engulfing ever-larger areas. Several mechanisms exist to explain why microwave radiation causes and prolongs fires. Taken together, they make a coherent argument which the climate change theory does not.

## **Terpenes**

The first mechanism, expounded by Dr. Martin Pall, relies on research showing that electromagnetic fields (EMFs) from microwave radiation causes plants to produce excessive amounts intracellular calcium, which in turn causes the plants to produce high levels of substances called terpenes/terpenoids. Terpenes/terpenoids are usually produced by plants to repel insect predators and can also be emitted to warn other plants that insect predators are present—but in normal circumstances, this response is limited to one species at a time. When high levels of EMFs are present, as happens near cell towers or under power lines, all the plants will start producing high levels of terpenes/terpenoids, which are both highly combustible and highly volatile, and which can pool at ground level. **If a fire starts, it will burn more fiercely and be much harder to put out.\***

Many people think that Dr. Pall's mechanism applies exclusively to 5G, but this is not so. The EMFs of 4G and 3G infrastructure, of Wi-Fi and of power lines, produce the same effects in plants. Greece did not have 5G in 2018, yet the fires at the seaside town of Mati that year were so hot they melted the glass and metal of cars. However, Dr. Pall thinks that 5G will make fires much worse.

### [E-Course: Herbal Energetics \(Ad\)](#)

Dr. Pall also thinks that when terpene/terpenoid vapours accumulate, trees may spontaneously combust. It is possible that my husband and I actually witnessed spontaneous combustion in a fire this summer. The fire started halfway up a mountain, near a cell tower, at the base of a V-shaped gorge, with high cliffs and no exit by road. One moment it wasn't there; then suddenly trees were engulfed in flames. It is hard to see how anyone could have caused such a fire in such a place without getting burned alive. However, we were miles away across a bay and cannot prove it. Accusations that someone deliberately set the fire have not been proved either.

## **EMFs Cause Soil Acidification**

A second mechanism which explains how microwaves may make forest fires much worse is explained very clearly by Dr. Alfonso Balmori in his short paper, [“The Effects of Microwaves on the Trees and Other Plants”](#). In it, Dr. Balmori explains how EMFs cause soil acidification and create conditions in which trees are unable to absorb ground water, thus drying up.

## THE EFFECTS OF MICROWAVES ON THE TREES AND OTHER PLANTS

© Alfonso Balmori Martínez. Biologist.  
Valladolid. Spain.  
December, 2003

### Plants and electromagnetic fields

In several germination rehearsals realized in laboratory subjecting the seeds to a static magnetic field, it has been proven a increase in the speed and in the number of germinations. In experiments of growth, it has been proven that the exposed plants develops bigger longitude and weight (Martínez *et al.*, 2003). In a study realized under a high tension line between Austria and the Czech Republic, its effect on wheat and corn cultivations was evaluated. The results indicated a reduction in the production of wheat of 7% in the next fields to the electric line during the 5 years that the investigation lasted (Soya *et al.*, 2003). It is usually corroborated a stimulating effect on the growth and development of plants subjected to static magnetic fields, but inhibitory action in the case of variable magnetic fields (Martínez *et al.*, 2003).

Effects in the balance of calcium in meristem cells of the pea roots subjected to magnetic fields were observed (Belyavskaya, 2001). Another study realized with microwaves also checked a long term descent in the levels of calcium and sulfur in the leaves of beech tree directly related with the power of the broadcast radiation (Schmutz *et al.*, 1996). In animal cells has been proven the same thing, the microwaves can affect the intercellular communication and that can affect the functioning to the calcium channels (Dutta *et al.*, 1989).

30 years ago two Canadian Investigators observed a deterioration that was unpredictable on the plants subjected to microwaves (Tanner & Romero-Sierra, 1974). More recently other authors have notified cytogenetical changes (micronuclei, interchromosomal bridges and chromosomal fragments) induced in wheat exposed to a source of microwaves. They conclude that those effects are not thermal (Pavel *et al.*, 1998). An Ukrainian investigator has also observed alterations in condensed chromatin distribution of meristem cells exposed to low magnetic fields (Belyavskaya, 2001).

Dr. Balmori was, at the time of writing, more concerned with tree and forest death than forest fires, but recent events make this a very pertinent paper indeed because the same mechanism that causes trees to die also makes them very combustible.

In California this past summer, two major fires burned their way right across the Sierra Nevadas, something which has never happened before. There has always been enough moisture in the trees and soil of these mountains to stop or slow fires down, but [not this year](#): “the California Bay Area’s live fuel-moisture content (FMC), a metric which measures the ratio of moisture to natural combustible material, was historically low...the fuel-moisture content at higher elevations is extremely low, too.” So what caused this?

Dr. Balmori cites the work of German scientist Wolfgang Vokrodt, whose pioneering work on dying trees near radar installations showed that microwaves interrupt the ability of trees to absorb water, thus drying them out, and create soil acidification, which further dries them out. Balmori also cites Swiss scientist Ulrich Hertel, who says that “a causal chain of electrical smog/stunted growth/damage to soil/dying trees is established”. Hertel explains that EMFs cause trees to lose the hair roots which absorb water from the soil, while capillaries shrink and become

unable to pull water upward into the tops of the trees. “The delicate absorbent hair roots are missing, the trees are standing in water and yet die of thirst.”

Dry trees will burn easily. And sadly, most cell towers are placed on hills and mountains because this increases the range of each “cell”. Between the increased production of terpenes/terpenoids and the lack of moisture in the trees themselves due to the action of microwaves in the atmosphere, it is not surprising if forests are burning as never before.

## Heating

There is a third mechanism which will also make fires worse: heating from EMFs. A recent paper by Arno Thielens, “[Environmental Impacts of 5G](#)”, states that microwaves are causing an increase in temperature in all wildlife including plants. (This happens to us too). This heating is continuous because we are always surrounded by microwaves, which heat anything containing water molecules. In nature the sun sets, or there is shade, but man-made microwaves continue to irradiate everything and everyone 24/7. Even a tiny increase in temperature will have effects if it goes on long enough. If trees and plants are warmer than they should be, this too will contribute to forest fires.



Trees producing flammable terpenes and terpenoids, trees that are drying out because they cannot absorb water, trees that are warmer than they should be: these three mechanisms, all caused by EMFs from wireless technology, explain why forest fires are becoming both more common and much worse. The climate change theory cannot explain the number and intensity of recent forest fires. Microwave theory can, and does. The price of wireless technology will be a global desert.

\* Dr. Pall's work is based on many studies that show how EMFs cause plants to produce excessive intracellular calcium and terpenes/terpenoids. The database <https://emf-portal.org/en> contains many of them.

*Top image [Link](#)*

*[Originally Published on Natural Health News](#)*

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Aspen Adverse Effects of EMF\_RF-radiation

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# Adverse Influence of Radio Frequency Background on Trembling Aspen Seedlings: Preliminary Observations

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## Abstract

Numerous incidents of aspen decline have been recorded in North America over the past half century, and incidents of very rapid mortality of aspen clones have been observed in Colorado since 2004. The radio frequency (RF) environment of the earth has undergone major changes in the past two centuries due to the development and use of electricity in power and communications applications, and the anthropogenic RF background continues to increase in intensity and complexity. This study suggests that the RF background may have strong adverse effects on growth rate and fall anthocyanin production in aspen, and may be an underlying factor in aspen decline.

## 1. Introduction

Incidents of aspen decline in North America have been observed since the mid-20th Century [1–3]. Stands at the limits of aspen's lower elevation range, on sites with poor drainage, with limited water [4] or nutrient supply [5], are more susceptible to decline. Stand age and clonal differences are also factors in susceptibility to decline [6]. Factors initiating decline include: defoliation by insects, damage caused by wildlife, severe drought, and extreme weather incidents [7]. Damage caused by these factors can diminish the vigor of affected clones and make them vulnerable to opportunistic fungal pathogens and insects [8]. The concept of forest decline has been used to

describe the interaction of these various factors; however, the underlying causes of aspen decline are not well understood [9]. Since 2004, incidents of very rapid aspen clone mortality have been seen in Colorado [10]. Because the electromagnetic (EM) environment of the earth has changed radically in the past two centuries, this study investigates the possibility that anthropogenic changes in this environment, particularly in the radio frequency (RF) spectrum, are adversely affecting growth and health of aspen populations, making them vulnerable to decline.

Electromagnetic energy from the sun is essential for life on earth. Plants rely on inputs of EM energy for photosynthesis and for regulation of periodic functions (flowering, shoot and root growth, respiration, and dormancy). A plant's response to EM energy is dependant on frequency, timing, and intensity of the signal. The source of the EM input, however, makes no difference. Timing of plant processes is an important mechanism for plant protection and efficient functioning in changing day/night and seasonal environmental conditions [11]. Although photosynthesis requires fairly strong energy input in the blue and red visual frequencies (full sun/shade) [12], photoperiodic responses in plants are typically triggered by energy inputs in the red and far-red frequencies that are in the range of  $10^{-4}$  times the energy required for photosynthesis, and even a brief flash of light during a plant's subjective night can be enough to trigger a short night response, strongly affecting plant behavior and morphology [13]. The radio frequencies, lower than 300 gigahertz, are below visual and infrared frequencies in the electromagnetic spectrum. The earth's natural RF environment has a complex periodicity that has been more or less the same within the lifespan of modern tree taxa. Before 1800, the major components of this environment were broadband radio noise from space (galactic noise), from lightning (atmospheric noise), and a smaller RF component from the sun [14]. Because of the periodic nature of the naturally occurring RF background, plants may have evolved to use those environmental signals, as well as visible light, to regulate periodic functions, and therefore they may be sensitive to anthropogenic RF input. The intensity of the human-generated RF environment has increased gradually since about 1800. This background of RF pollution is now many times stronger than the naturally occurring RF environment. From the perspective of evolutionary time, the change can be considered sudden and dramatic [14, 15].

Many experiments have been conducted investigating possible effects of RF exposure on plants and animals. Generally, exposures to particular single frequencies at particular, usually fairly high intensities, have been used in these previous experiments [16]. However, the assumption seems to have been made that the low-level background of RF pollution has no effect on biological systems. Therefore, not only has this particular phenomenon not been studied, but it has been generally disregarded in earlier experiments designed to look for effects of RF exposure. Results of those previous experiments are often difficult to duplicate, and it may be that the anthropogenic RF background has been a confounding factor. However, for some RF effects on biological systems, consistent results have been documented in previous experiments: growth rates of plants [17] and fungi [18] can be increased or decreased by RF exposure. Exposure to RF signals can induce plants to produce more meristems [19], affect root cell structure [20, 21], and induce stress response in plant species, causing biochemical changes [22]. Effects on circadian rhythms in several animal species have been documented [23]. Some possible mechanisms of effect have been identified [24]. This experiment investigates the effects of the radio frequency background on aspen seedlings. The objective of this preliminary study

was to determine if aspens respond to the current RF background in ways that result in reduced growth, or in increased susceptibility to pathogens.

### 1.1. Study Area

The experiment was conducted in a rural area near Lyons, Colorado: at 40.29

Latitude and  $-105.28$  Longitude, at an altitude of 1,700 meters, and on a north-facing slope. The ecological system in the area of the experiment is Rocky Mountain Lower Montane. The site was about 400 meters below the lower elevation of aspen's natural range in Colorado. The north-facing slope was chosen as a somewhat cooler microclimate than other aspects. Vegetation included various grasses, which were mowed on the  $8 \times 10$  m experimental plot. Vegetation in the east, south, and west directions from the experiment included: wild grasses and various low shrubs, rabbit brush (*Chrysothamnus nauseosus*), sage (*Artemisia tridentata*), wild currant (*Ribes cereum*), chokecherry (*Prunus virginiana*), yucca (*Yucca angustifolia*), and skunkbush (*Rhus trilobata*). North of the experiment, there were large cottonwood trees along the river, with grass and chokecherry undergrowth.

### 1.2. Materials and Methods

In order to create an environment free of RF signals, a Faraday cage was built, using two layers of aluminum window screen supported by a bamboo frame. Cage dimensions were 75 cm by 75 cm by 120 cm. The aluminum screen material in the configuration used for this experiment was tested at a laboratory of the National Institute of Standards and Technology (NIST) in Boulder, CO. From 1.0 MHz to 3.0 GHz, its effectiveness in attenuating RF signals was found to vary from 40 dB to 73 dB across the entire range of frequencies (Figure 1). Theoretically, an enclosure made of this material would reduce signal intensity by a factor of  $10^{-4}$  to  $10^{-7.3}$ , blocking essentially all ambient RF energy, including the naturally occurring RF background. In practice, the shielding effectiveness of a Faraday cage made of this material could be somewhat less than that of the material itself due to gaps or imperfect electrical contact at seams and closures, and to the internal RF acoustical properties of the cage. A similar cage was constructed as a control, with fiberglass screen, which is not conductive and which does not block RF signals, instead of aluminum. A transistor radio was used to test the effectiveness of the cages to block the RF background. No radio stations could be picked up inside the Faraday cage. In both the mock-Faraday cage and the uncaged area, numerous stations were received in the AM and FM bands. A sweep of RF background at the site, June 6, 2009, using an *Anritsu* spectrum analyzer, showed that field intensity ranged from  $-117$  dBm to  $-87$  dBm at frequencies from 1 to 1,000 MHz. Mean field intensity was  $-109$  dBm.

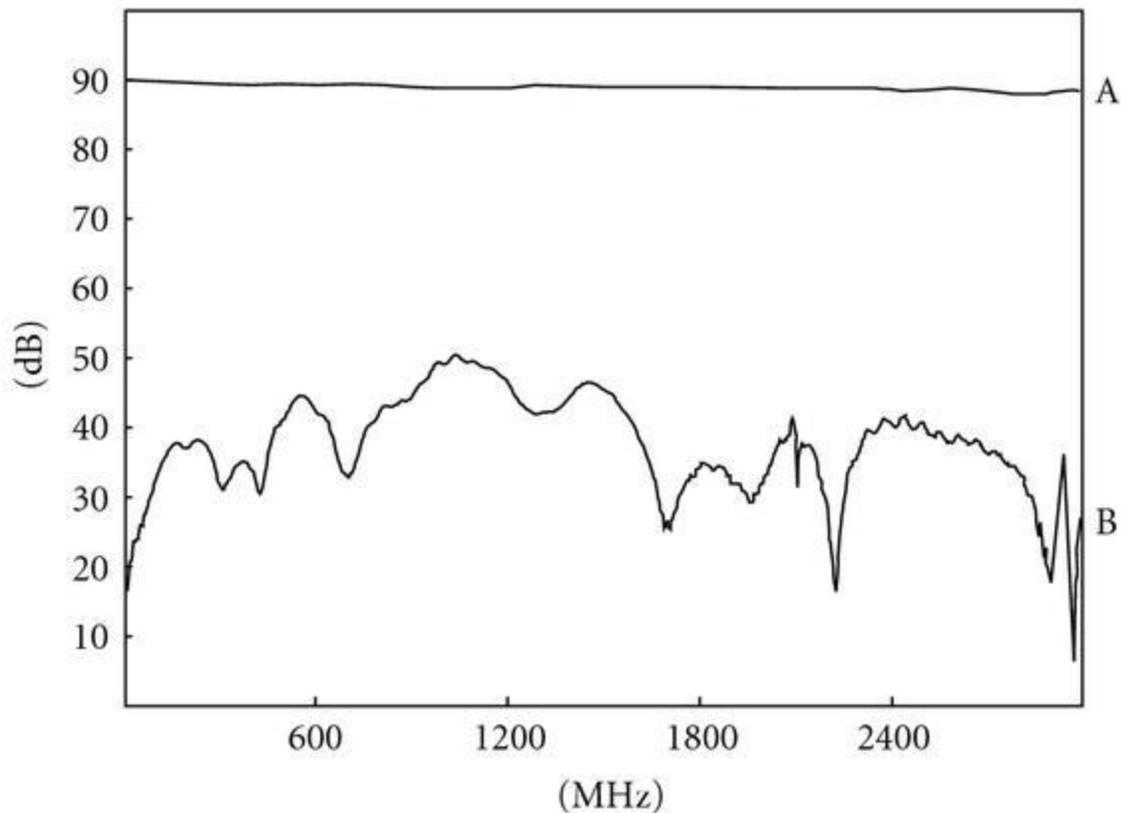


Figure 1.

The aluminum screen material in the configuration used for this experiment was tested at NIST in Boulder, CO. From 1.0 MHz to 3.0 GHz, its effectiveness in blocking RF signals was found to vary from 40 dB to 73 dB across the entire range of frequencies.

axis = Radio frequency from 1.000 MHz to 3000.000 MHz in increments of 300.000 MHz left to right.

axis = Decibel scale. Reference signal level was 90 dB. A = Reference signal. B = Attenuated signal.

On May 28, 2007, 30 aspen seedling plugs were obtained from the Colorado State Forest Service (CSFS) nursery in Fort Collins, Colorado. Seed for these seedlings came from Caffey County near Salida Colorado, approximately 195 km SSW of the experiment site, at an elevation of about 2,100 meters. The seeds were germinated in June 2006 at the CSFS Nursery, and the resulting seedlings were grown in a shade house in a Styrofoam planter-block of 30 seedling plugs. The seedlings had leafed out in early spring and, when purchased on May 28, 2007, were not producing new leaves. Seedlings were transplanted into no. 1 black gallon plastic pots on June 5, 2007 using a commercial potting medium, Black Gold, composed of: 45–55% Canadian sphagnum peat moss, compost, pumice, perlite, and composted worm castings (N .05%: water soluble .006%, water insoluble .044%). Since only 27 seedlings were needed for the experiment,

due to space restrictions, the three smallest seedlings were discarded. The remaining seedlings were relatively uniform in height, stem diameter, and leaf development, and the leaves appeared healthy and green. The 27 seedlings were assigned to 3 groups of 9 seedlings each, with variation in size distribution distributed equally among the 3 groups. After potting, the three groups were photographed and randomly assigned to the mock-shielded cage, the shielded cage, or to the unshielded area. The experiment began June 6, 2007. All treatments in the experiment were exposed to full sun from sunrise to late afternoon. There was a distance of three meters between treatment enclosures. All seedlings in the experiment were watered at the same time 1-2× per week, depending on the weather, using Lyons water. Seedlings were watered with a weak solution of fertilizer (5-10-5) on July 29, 2007, and otherwise were not fertilized.

Two sets of a calibrated thermometer and humidity gauge were used to compare temperature and humidity readings between cages under various weather conditions and times of day and night. The monitoring devices were placed in the middle of the monitored treatment enclosure, just above the top of the pots. A board was placed south of the devices to provide shade. A lux meter was used to measure light intensity in the treatment areas. Shielding reduced light intensity by 35% for the mock-shielded enclosure and 40% for the RF-shielded enclosure. Naturally occurring sunlight intensity was not reduced for the group that was not shielded. Except for the difference in RF background intensity, conditions in the shielded and mock-shielded enclosures were very similar. The unshielded seedlings were exposed to higher light levels (full sun), higher airflow, and generally lower humidity than the shielded and mock-shielded treatments since they were not in a screened enclosure.

### 1.3. Measurements

After seedlings were transplanted and placed in the three treatment enclosures in early June, they began to grow again. Because of that, there was a shoot node dividing spring growth from the summer growth phase that was easy to identify. Measurement of active leader (shoot) length was taken from the tip of the shoot down to that first shoot node, so leader length measured was only that produced after the experiment began on June 6, 2007. For leaves emerging directly from a main stem, leader length was recorded as 0.00 cm.

On July 28-29, 2007, measurements of active leader length and width of each leaf on each active leader were made on all seedlings in the experiment. Leaves had not begun to drop at that time, and the great majority of them in all treatment groups appeared healthy and green. Leaf width was converted into estimated leaf area using an algorithm (Leaf Area (cm

) = 0.637 \* Leaf Diameter (cm)

) developed by W.D. Shepperd of the USDA forest Service's Rocky Mountain Research Station [25]. After measurements were taken, all seedlings were returned to their cages. October 5-6 photos were taken showing differences in leaf coloration, and relative leaf area affected by necrotic lesions.

## 2. Results

Seven seedlings in each RF-exposed group and eight seedlings in the shielded group produced active leaders and new leaves during the experiment. The RF shielded group evidenced more vigorous growth, producing 74% more total leader length and 60% more leaf area than the mock-shielded group, though the number of leaves produced by both groups was nearly the same (Table 1). The two RF-exposed groups' morphology and behavior were very similar and within the current norm for aspen, including absence of fall anthocyanin production, and extensive leaf area affected by necrotic lesions in fall senescing leaves. On active leaders, the shielded group showed fall production of anthocyanins far outside the norm, absence of fall leaf tissue necrotic lesions, and a wide range of fall colors: bright orange, yellow, green, dark red, and black (a combination of dark green leaf tissue with red veins). Shielded leaves produced in the spring flush (before treatment), however, were similar in appearance to leaves in the two exposed groups in color, size, and incidence of lesions. All of the shielded leaves on active leaders had dark to bright red veins and petioles indicating strong anthocyanin production (Figure 2). On October 5, 2007, unshielded and mock-shielded seedlings had leaf tissue ranging in color from yellow to green, and a high percentage of leaf tissue in both exposed groups displayed necrotic lesions (Figures 3 and 4). Shielded seedlings had larger leaves, petioles and leaf veins were red, and tissue colors varied from yellow to dark green (Figure 5). Some shielded leaves looked black because of the combination of red veins and dark green tissue (Figure 6). Leaves on active leaders in the shielded group were substantially free of leaf tissue lesions (Figure 7), but unshielded and mock-shielded leaves were all affected to some extent by leaf tissue necrosis (Figure 8).

Table 1\_

Various characteristics of aspen seedlings following one of three RF treatments.



Figure 2\_

October 6, 2007. Mock-shielded seedlings on the left and shielded seedlings on the right, the latter showing more total leaf area, stronger fall leaf coloration, and minimal leaf necrosis symptoms.



Figure 3\_

Unshielded seedling, showing green to yellow leaf coloration and gray to brown necrotic leaf tissue, Oct. 6, 2007.



Figure 4\_

Mock-shielded seedling, exhibiting yellow leaf coloration and brown lesions, Oct. 6, 2007.



Figure 5\_

Shielded seedling, showing red petioles and veins on light green leaf tissue, and very little leaf tissue affected by necrosis. Oct. 6, 2007.



Figure 6\_

Shielded seedling. Combination of red veins and green leaf tissue makes leaves look black (left side of photo), Oct. 6, 2007.



Figure 7\_

Shielded seedling, with leaves on active leaders mainly free of necrotic lesions, and leaf veins and petioles red, Oct. 6, 2007.



Figure 8.

Mock-shielded seedling, showing all leaves affected by necrotic lesions to some extent, leaf veins yellow or green, and petioles light red to pink, Oct. 6, 2007.

### 3. Discussion

Because only one treatment enclosure was established for each treatment, differences among groups could not be analyzed statistically. Results of this experiment do, however, suggest several possible effects of RF exposure on aspen. Those effects include reduction of shoot length and leaf area, suppression of fall anthocyanin production, and increased incidence of necrotic leaf tissue in fall senescing leaves. Reduced vigor in the two RF-exposed groups is demonstrated

by lower total leader length and diminished production of leaf area relative to the shielded group. A study [26] comparing mutant nonanthocyanin-producing strains of fall anthocyanin-producing species, *Cornus sericea*, *Vaccinium elliotii*, and *Viburnum sargentii*, showed very similar results to this experiment with regard to fall color in that extensive necrotic leaf tissue was seen in nonanthocyanin-producing mutants during fall leaf senescence and leaves dropped while still green. Wild-type strains of those species, which produced anthocyanins, did not exhibit necrotic lesions. In that study, leaf tissue damage in mutant strains was shown to be caused by photooxidative stress. During fall leaf senescence photosynthetic mechanisms become vulnerable to damage by visible light. Anthocyanins shield the photosynthetic apparatus from high light levels, preventing photoinhibition and damage to leaf tissue due to light stress. Transport of foliar nutrients requires energy provided by photosynthesis [27], and since the majority of nutrients in overwintering deciduous trees are derived from foliar nutrient transport during autumn leaf senescence, differences in anthocyanin production could have major effects on plant fitness [28].

Since all leaves on active leaders in the shielded aspen group showed striking fall coloration, and since each of the seedlings was genetically distinct, it appears that the Faraday cage environment favored strong production of anthocyanins during fall leaf senescence. Five bright sunny days, Sept. 30–Oct. 4, accompanied by cool nights (~5 C) preceding the appearance of red leaf coloration, provided optimal conditions for anthocyanin production. Although shielding materials substantially reduced light levels in the two caged groups (mock-shielded and shielded), the behavior and appearance of the two RF-exposed groups (mock-shielded and unshielded) were most similar, both showing no apparent anthocyanin production, leaf tissue remaining light green or yellow, and a high percentage of leaf tissue affected by necrotic lesions.

### **3.1. Radio Frequency Environment**

Beginning around 1800, EM experimentation, establishment of electrical telegraph systems, generation and distribution of electricity, and the use of broadcast signals gradually began to fill the region of the electromagnetic spectrum below 300 GHz. Currently, the RF spectrum is quite crowded, and new technologies are constantly being developed to allow more information to be transmitted on the available frequencies [29]. Unintended broadband RF noise is created as a by-product of electrical power generation, transmission, and use. These human-made RF sources create a background noise (as differentiated from signal) level generally 10 to 100 times stronger than the naturally occurring background of galactic noise and atmospheric noise at frequencies below 30 MHz [14]. Human-generated signal intensities in large regions of the RF spectrum are in the range of  $10^3$ – $10^6$  times stronger than the naturally occurring RF background in urban areas [15]. Because terrestrial and satellite RF sources are numerous and widely dispersed globally, and since below 30 MHz radio signals can travel great distances around the earth by bouncing between the ionosphere and the earth's surface [14], currently a strong human-generated RF background exists at every point on the earth's surface, although radio field strength is relatively greater in the most populous and urbanized areas. Globally, the highest field strengths occur in central Europe, the eastern United States, and in China (Figure 9). Forest decline was first recognized and defined based on observed events in central Europe and the eastern US, and China, at this time, is experiencing rapid desertification.

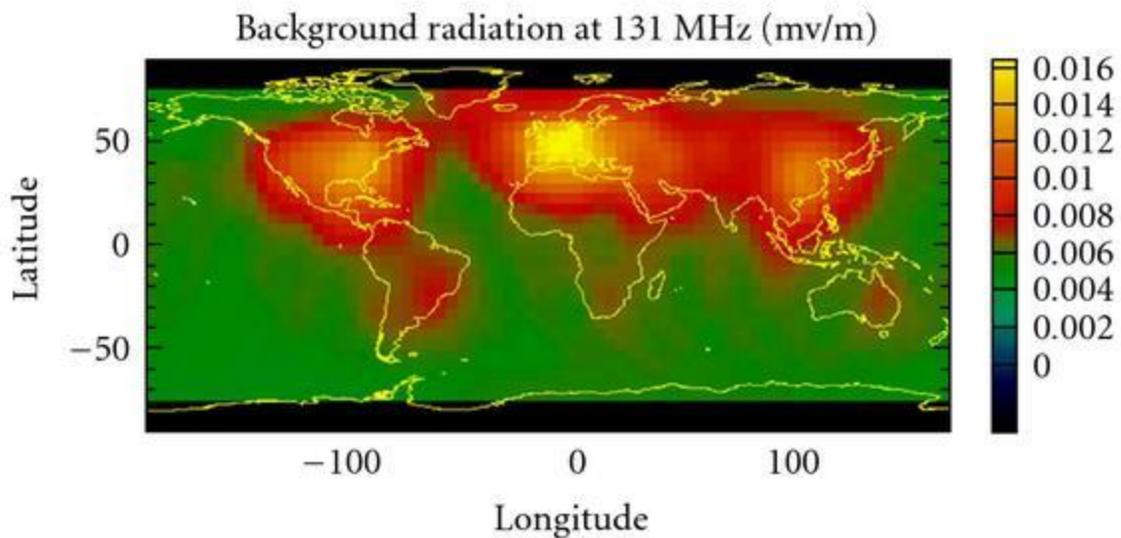


Figure 9.

Forte Satellite: 131 MHz RF background 2000. Areas of highest radio background intensity occur in the eastern United States, central Europe, and China. Acquired by the Los Alamos National Laboratory FORTE spacecraft. Principal investigator A.R. Jacobson.

### 3.2. Forest Decline

The first widely recognized incidents of forest decline [30] began in the late 1970s. In a European study [31], stress factors related to forest defoliation were found to be age, altitude, drought, and various types of air pollution, in descending order of importance. Although the statistical correlation was high for some of these effects, because the number of samples was large, the effects documented were quite small and altogether could account for only 15–55% of the observed decline, depending on species. No temperature variables were found to have significant effects. In several studies, climate change was found not to be a causal agent in forest decline [32, 33]. There is evidence, however, that trees involved in forest decline are less tolerant of extreme weather conditions. Freeze damage, possibly indicating disrupted dormancy, for instance, has been noted as one symptom of forest decline where temperature and/or precipitation pattern changes were not evident [32, 34]. More recently, it has been shown that mortality rates of all dominant tree species in the western United States have been doubling every 17–29 years in old growth forests, and that recruitment of new trees is now occurring at a lower rate than mortality [35]. Since aspen decline and other tree decline incidents worldwide have similar symptoms, and since no definitive explanation has been found for those events, it seems plausible that their decline may be related to RF exposure.

Changes in health and growth rates of aspen and other plants, due to increasing RF exposure, would have been difficult to detect for two reasons: first, because the RF background is widely dispersed globally, comparisons between plant populations, even over great distances, would

always have been between RF-exposed groups, even though exposure levels would vary with relative proximity to RF sources. Second, it is difficult to compare the health and appearance of plants living today to those living 200 years ago, though some comparisons can be made from previous research data, tree ring data, and pollen samples, for instance. Changes would have occurred very slowly over time, from the human perspective, and would have been widely dispersed geographically so that, at any particular time, RF-altered plant morphology and behavior would have been normal, the norm, by definition. Plants and animals have in previous experiments been shown to respond in various ways to RF exposure. Growth of organisms may be inhibited or accelerated by RF exposure, thus possibly affecting interactions at the level of communities and ecosystems from microscopic to global scales. In the case of aspen, reduced plant vigor and adverse effects on fall storage of nutrients due to RF exposure could leave seedlings vulnerable to pathogens and less able to accommodate other environmental stress.

#### 4. Conclusions

The results of this preliminary experiment indicate that the RF background may be adversely affecting leaf and shoot growth and inhibiting fall production of anthocyanins associated with leaf senescence in trembling aspen seedlings. These effects suggest that exposure to the RF background may be an underlying factor in the recent rapid decline of aspen populations. Further studies are underway to test this hypothesis in a more rigorous way.

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## Outline

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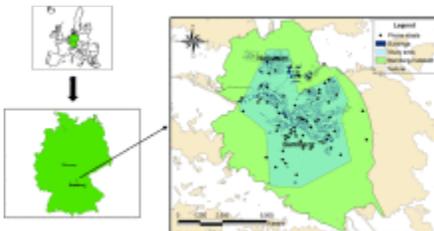
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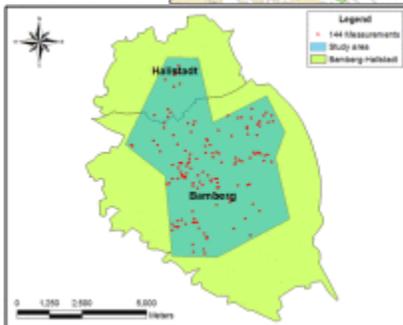
Bernartzky (1986), revisited:



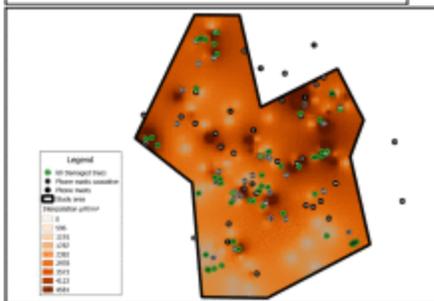
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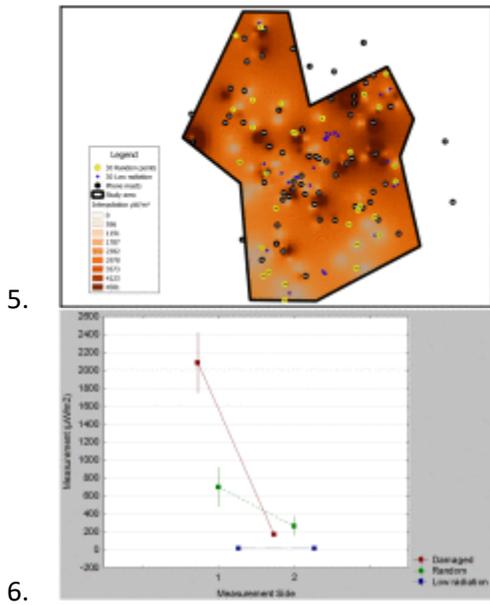


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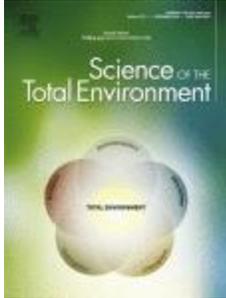
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## Science of The Total Environment

Volume 572, 1 December 2016, Pages 554-569



# Radiofrequency radiation injures trees around mobile phone base stations

Author links open overlay panel [Cornelia Waldmann-Selsam<sup>a</sup>](#) [Alfonso Balmori-de la Puente<sup>b</sup>](#) [Helmut Breunig<sup>c</sup>](#) [Alfonso Balmori<sup>d</sup>](#)

<https://doi.org/10.1016/j.scitotenv.2016.08.045> [Get rights and content](#)

## Highlights

- High frequency nonionizing radiation is becoming increasingly common.
- This study found a high level of damage to trees in the vicinity of phone masts.
- Deployment has been continued without consideration of environmental impact.

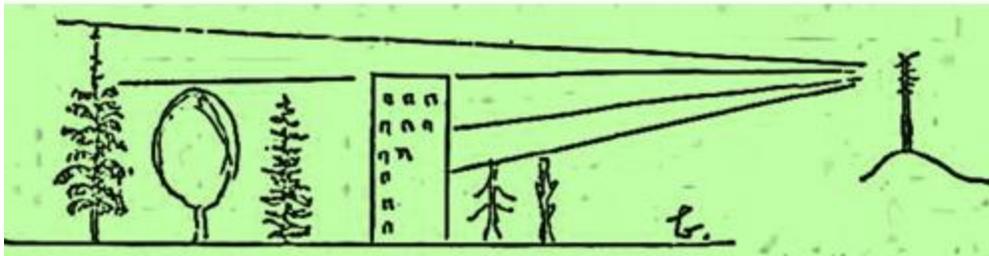
## Abstract

In the last two decades, the deployment of phone masts around the world has taken place and, for many years, there has been a discussion in the scientific community about the possible environmental impact from mobile phone base stations. Trees have several advantages over animals as experimental subjects and the aim of this study was to verify whether there is a connection between unusual (generally unilateral) tree damage and radiofrequency exposure. To achieve this, a detailed long-term (2006–2015) field monitoring study was performed in the cities of Bamberg and Hallstadt (Germany). During monitoring, observations and [photographic recordings](#) of unusual or unexplainable tree damage were taken, alongside the measurement of [electromagnetic radiation](#). In 2015 measurements of RF-EMF (Radiofrequency Electromagnetic Fields) were carried out. A polygon spanning both cities was chosen as the study site, where 144

measurements of the radiofrequency of electromagnetic fields were taken at a height of 1.5 m in streets and parks at different locations. By interpolation of the 144 measurement points, we were able to compile an electromagnetic map of the power [flux density](#) in Bamberg and Hallstadt. We selected 60 damaged trees, in addition to 30 randomly selected trees and 30 trees in low radiation areas ( $n = 120$ ) in this polygon. The measurements of all trees revealed significant differences between the damaged side facing a phone mast and the opposite side, as well as differences between the exposed side of damaged trees and all other groups of trees in both sides. Thus, we found that side differences in measured values of power flux density corresponded to side differences in damage. The 30 selected trees in low radiation areas (no visual contact to any phone mast and power flux density under  $50 \mu\text{W}/\text{m}^2$ ) showed no damage. Statistical analysis demonstrated that electromagnetic radiation from mobile phone masts is harmful for trees. These results are consistent with the fact that damage afflicted on trees by mobile phone towers usually start on one side, extending to the whole tree over time.

## Graphical abstract

### Bernartzky (1986), revisited:



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## Keywords

Electromagnetic radiation

Effects on trees

Phone masts

Radiofrequencies

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**[A systematic quality assessment of Environmental Impact Statements in the oil and gas industry](#)**

Science of The Total Environment, Volume 572, 2016, pp. 570-585

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**[Radiotelemetry and wildlife: Highlighting a gap in the knowledge on radiofrequency radiation effects](#)**

Science of The Total Environment, Volume 543, Part A, 2016, pp. 662-669

- •

**[Low-amplitude, high-frequency electromagnetic field exposure causes delayed and reduced growth in \*Rosa hybrida\*](#)**

Journal of Plant Physiology, Volume 190, 2016, pp. 44-53

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## Comments on the Checklist

The *Initial Environmental Checklist for Determination of Environmental Impact* (Checklist) is a form completed by the Applicant, Verizon wireless. Subject to review by TRPA staff, the permit must address any shortcomings, requiring revisions to the application as necessary. Thus, more than two years after submittal we come to the Special Use Permit and its provisions. Are adverse effects addressed? (Note, bold headers and numbering below corresponds to Checklist Sections.)

**Project Description:** The first thing to note is that the proposal is to use the existing shed, with minor expansion. The plans provided for the SUP approval indicate the shed is to be removed. Its replacement is not specified, other than in drawings for visual simulations. (See my emailed letter for comments on fuel storage in a flammable shed.)

### 4. Vegetation letters a.-h.:

Focusing on letters a.-e., the Applicant indicates, in essence, no effects on vegetation other than the direct removal of five trees less than 12 inches in diameter at breast height. I refer you to my letter's comments on the potentially significant adverse effects on pine and aspen trees. The tower will be in close proximity to a number of existing pine trees, and will emit radiation directly into the pine tree canopy, stressing the trees and increasing likelihood of tree mortality over time. The appearance of sickly or dying/dead trees in the vicinity of the tower, and the loss and potential losses of mature pine trees, will further degrade the scenic quality and resources of the viewshed.

The scenic aspen grove on Ski Run Blvd. is in potentially subject to RF radiation effects, as discussed in my letter, as it is in close proximity to, and within line of sight of the tower, and the potential direct-but-non-removal impacts on this sensitive resource should be evaluated and avoided or mitigated. The Staff Analysis and Permit do not address these potentially significant effects on vegetation. With regard to letter h., is this aspen grove considered a "natural old-growth ecosystem" and, if not, why not? I assume it has been there a long, long time, though individual trees may not survive more than 60-80 years, which is "old-growth" for that plant community. Any change to this sensitive ecosystem should be considered potentially significant, at a minimum.

The TRPA Staff Analysis, section F., informs us, "The proposed project is visible from Pioneer Trail, along Scenic Roadway Unit #45, currently in non-attainment, and from portions of the Heavenly Valley Ski Resort recreation area. . ." indicating the project area is not meeting current scenic thresholds. This should raise the potential significance of ANY new, proposed scenic impact, such as loss of existing trees by direct removal (to erect an additional highest-height-allowable and highly-visible tower) but that seems not to matter here based on the documentation provided.

**5. Wildlife:** This section indicates there will be no changes to wildlife habitats and species diversity, or adverse effects on, or reductions of, the animals that inhabit them, or impede their movements. This is telecom industry corruption, simply ignoring impacts disclosed in the science, hiding behind the FCC guidelines. However, the assumptions are unchallenged by TRA, and that is TRPA being UNSCIENTIFIC,

seeing no impacts where the scientific record is replete with evidence of very significant impacts: on bees, in particular, but also other insects, migrating birds, amphibians, and threatened species such as our majestic bald eagles, to name only a few.

**7. Light and Glare:** Letter a. indicates there will be exterior lighting: “4 service lights with 6-hour timers” and then goes on to answer “No” to questions of whether these lights will be brighter than the surroundings, or cast light off the project site, or onto public lands. No further explanation is provided. As I pointed out previously, the Staff Analysis in section F. indicates, “The proposed project is visible from Pioneer Trail, along Scenic Roadway Unit #45, currently in non-attainment, and from portions of the Heavenly Valley Ski Resort recreation area. . .” So how are these lights not visible? Consulting the Staff Analysis at letter H. 2.b., the tower will not contain lights. . .” so there is an inconsistency with the project Application. It is possible the Application was changed or lighting was removed as a condition of the Special Use Permit, but the truth about lighting remains in the dark. My opinion is no lights should be allowed other than for the utility shed, downcast and appropriate to the setting. Tower lights set high above the ground would be a glaring eyesore and detract from enjoyment of the night skies.

**10: Risk of Upset:** This is where the Applicant drags a red-herring across the form to divert attention from the facts concerning explosions and “the release of hazardous substances, including . . . radiation . . .” preferring to focus attention only on fuel storage for a diesel generator. I’ve already written of my concerns with the generator, and of the substantial risks due to explosions and fire, and resulting evacuation concerns, in my letter. None of the matters of explosions, tower collapses, or radiation releases due to accident or upset, are addressed as they should be in the Staff Report or Permit. I would add concerns with ice-fall from the tower, also, on children and others in the sledding/access areas. Any warning signs for ice fall?

**15. Energy:** The question is whether the proposed project will use “substantial” amounts of power or energy. “Substantial” is not defined, so no point arguing. What I will note is that that project will require power, and the power used for non-mobile wireless uses (i.e., connecting to internet) is substantially more than required for connection through fiber optic cable or phone line, with generally lesser bandwidth. Power needs for all the existing towers and the proposed tower are not disclosed, evaluated or compared, probably because there is no baseline for comparison.

**17. Human Health:** No impacts or potential impacts are identified by the Applicant or TRPA. Refer to my letter where significant adverse impacts, including death, are addressed.

**18. Scenic Resources/Community Design:**

The Applicant indicates the tower can be seen from Pioneer Trail, and answers “No” to whether it can be seen from a scenic vista seen from a public area. The TRPA Staff Analysis, section F., informs us, “The proposed project is visible from Pioneer Trail, along Scenic Roadway Unit #45, currently in non-attainment, and from portions of the Heavenly Valley Ski Resort recreation area. . .” indicating the project area is not meeting current scenic thresholds. Heavenly Ski Resort is located primarily on public lands of the U.S Dept. of Agriculture, U.S. Forest Service, and therefore is a “public area.” The Checklist

indicates “No” inconsistencies with TRPA’s Scenic Quality Improvement Program. The Staff Analysis (in Project Description, in Letter F., in letter H.1.(a), and in letter H.2.(a) and (b)) opines little more than because the tower is a monopine design to simulate a pine tree in an existing pine forest it won’t detract from scenic quality. I disagree. The monopine tower will stand out from the surrounding vegetation because it is the largest tree-like thing on the parcel both in terms of trunk diameter and height. The simulations show the branching patterns do not match the surrounding Jeffrey pines, being more compact. I see all these efforts in the writings to attempt to overcome these issues and make it blend in. I guarantee, no matter what, I and others will be able to spot this tower without any problem.

This is how TRPA nicks away our scenic resources with their FONSI and ignoring cumulative effects. There is no explanation about what the non-attainment of the scenic thresholds is all about, no discussion of why this should be approved given that this is an avoidable impact to scenic resources in an area currently in non-attainment, no findings to support allowing the impact, just a dismissal of any significant impacts because it looks like a fake tree. The mind boggles.

**21. Findings of Significance:**

Letter a. is checked “No” and should be checked “Yes” or “Data Insufficient” in light of my comments. Letter b. should be checked “No” because the short-term goal of Verizon to erect an unsightly and dangerous tower to close a purported gap in their area of coverage conflicts with the long unmet, and therefore long-term, TRPA goal to improve the environment to abate the VERY significant threats from FIRE facing our Lake and regional community, and to meet scenic thresholds in non-attainment. TRPA gets farther from these goals with this tower, and the others towers they’ve allowed in the Ski Run scenic area under their FONSI.

Attachment E

Verizon Wireless Response Letter to Statement of Appeal dated September 20, 2022

**MACKENZIE & ALBRITTON LLP**

155 SANSOME STREET, SUITE 800  
SAN FRANCISCO, CALIFORNIA 94104

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TELEPHONE 415 / 288-4000  
FACSIMILE 415 / 288-4010

September 20, 2022

**VIA EMAIL**

Governing Board  
Tahoe Regional Planning Agency  
128 Market Street  
Stateline, Nevada 89449

Re: Verizon Wireless Response to Appeal of Staff Letter Regarding  
Revised Soil Hydrologic Approval, File No. LCAP2019-0189  
Telecommunications Facility, 1360 Ski Run Boulevard, South Lake Tahoe  
Governing Board Agenda, September 28, 2022

Dear Board Members:

We write on behalf of Verizon Wireless regarding the appeal filed by Alan Miller (“Appellant”) of staff’s August 5, 2022, letter approving deeper excavation for the proposed monopine facility at 1360 Ski Run Boulevard. In our prior letter of September 24, 2022, to TRPA’s Board Chair Cindy Gustafson, attached as Exhibit A, we explained why Appellant’s initial Notice of Appeal has no merit. In response to Appellant’s request to stay all construction, we proposed a compromise to stay pouring of concrete until the Board hears this appeal on September 28, 2022. The Board Chair accepted our compromise stay. Verizon Wireless’s voluntary stay allowed TRPA’s field investigator to confirm the accuracy of prior soils/hydrological reports, validating TRPA’s approval of deeper excavation.

Appellant has now filed a Statement of Appeal, but it provides no evidence to warrant denial of the deeper excavation, and it raises irrelevant topics, as we explain below. We urge the Board to deny the appeal, and uphold staff’s approval.

**I. Verizon Wireless Properly Submitted Soils/Hydro Application Materials for Deeper Excavation.**

Appellant claims that Verizon Wireless’s latest geotechnical analysis does not constitute a “new” report, arguing that this is a requirement of Condition of Approval 3.F of TRPA’s permit for the monopine facility (File No. ERSP2019-0389). However, Appellant misconstrues that condition, which requires a “new soils-hydro *application*” for excavation deeper than the originally-approved 7.5 feet.

To secure approval of additional excavation to 13.5 feet, Verizon Wireless submitted the application materials identified by staff in their interpretation of Condition 3.F. These included a revised geotechnical report by Terradyne Engineering Inc. dated April 19, 2022, attached as Exhibit B, which confirmed that deeper excavation is feasible from a geotechnical perspective. The revised report referenced Terradyne's original 2019 report, Attached as Exhibit C, which found no groundwater during a test boring to 19 feet.

Assuming without conceding that additional excavation is appealable, Verizon Wireless provided the necessary application materials requested by staff for its evaluation, which staff approved in the August 5, 2022, letter. Because Verizon Wireless complied with Condition 3.F's requirement that "applicant shall submit a new soils-hydro application to TRPA, seeking approval for the proposed excavation depth," and TRPA confirmed this by its action to "approve the excavation prior to stamping final plans," the condition was satisfied. Appellant misreads Condition 3.F, and this ground for appeal must be rejected.

**II. On-Site Investigation Confirms the Conclusion of Verizon Wireless's Geotechnical Analysis That There Will Be No Interference or Interception of Groundwater.**

In our September 24, 2022, letter, we refuted Appellant's claim that Terradyne's geotechnical analysis of soils and hydrology is inadequate to justify excavation to 13.5 feet. While the Code generally prohibits excavations more than five feet deep, or which pose a reasonable possibility of interference with a groundwater table, either is permitted if a soils/hydrological report prepared by a qualified professional "demonstrates that no interference or interception of groundwater will occur as a result of the excavation." Code § 33.3.6(B)(1). Terradyne's analysis satisfied this requirement, finding no evidence of groundwater to a depth of 19 feet.

Appellant continues to challenge Terradyne's analysis, and he introduces a critique by Lori Carpenter dated August 27, 2022, after he filed the Notice of Appeal. Ms. Carpenter conceded that her letter "is not an professional opinion" [*sic*], and her critique was not based on an on-site observation. Instead, she recommended digging a trench five feet deep to allow for direct observation of any evidence of groundwater.

Following a predetermined construction schedule, Verizon Wireless commenced excavation to a depth of eight feet on August 26, 2022, halting when the excavator reached bedrock. TRPA sent a certified professional soil scientist, Marchel Munnecke, to the site on September 1, 2022, to conduct a field investigation of the soils excavated so far to 8.5 feet. Mrs. Munnecke prepared a soil hydrological investigation report, attached as Exhibit D, which found "no signs of water perching above this boundary" of the bedrock. The report notes that "Seasonal groundwater tables are typically perched above the bedrock layer not within the bedrock, thus a water table is not anticipated in the

requested excavation depth of 13.5 feet.” Mrs. Munnecke also found “no signs of redoximorphic features” that could indicate the presence of groundwater.

After excavation reached 13.5 feet, Mrs. Munnecke visited the site again on September 14, 2022. She prepared a second soil hydrological investigation report, attached as Exhibit E, which found “Hard granitic bedrock was present for the remainder of the soil profile from 8 to 13.5 feet, and there was no evidence of water seepage, or redoximorphic features that would indicate a seasonal water table.” The second report concluded that “There were no indicators of groundwater or a seasonal high water table, across the entirety of the pit.”

In sum, TRPA’s on-site observation of soils confirms the conclusions of Terradyne’s reports, which were the basis of staff’s approval. Appellant claims that Marchel Munnecke’s analysis should be barred from the record in this proceeding because it is dated after staff’s approval and his appeal. TRPA Rules of Procedure Article 11 regarding appeals does not bar TRPA or any other party from introducing new evidence before the Board hears an appeal. Both of Mrs. Munnecke’s reports are included in TRPA’s records for File No. LCAP2019-0189. Appellant alleges a conflict of interest, citing Rules of Procedure Section 8.4, but that is inapplicable because Mrs. Munnecke has no economic or other interest in Verizon Wireless’s monopine facility.

### **III. The Deeper Excavation Is Not a Major Modification.**

Appellant charges that approval of deeper excavation is a “major modification.” To the contrary, it is simply a minor adjustment to one element of an approved project. Appellant cites TRPA’s description of minor and major plan revisions, but he appealed staff’s soils/hydrology approval letter of August 5, 2022, not the plan revision subsequently approved on August 17, 2022 (for which the appeal period has expired).

The deeper excavation approved by staff does not involve any change to the monopine facility footprint or its land coverage, nor any modification to above-ground facility components, height or appearance. There is no expansion of the scope of the project, and Condition 3.F of the permit specifically provided the process for approval of deeper excavation, as discussed above.

In contrast, a major plan revision is a “substantial change” that “generally includes changes to land coverage or height calculations.” *Tahoe Regional Planning Agency Application Filing Fee Schedule*, p. 2; Permitting Process, [www.trpa.gov/permitting-process](http://www.trpa.gov/permitting-process). Verizon Wireless’s request for deeper excavation did not cross any threshold for elevated review, as confirmed by staff’s approval through a soils/hydro application. Appellant misconstrues TRPA regulations, and this ground for appeal must be rejected.

**IV. A Soils/Hydrology Application Does Not Require a New Initial Environmental Checklist.**

Appellant claims that Verizon Wireless should have submitted a new Initial Environmental Checklist with its application for deeper excavation. However, staff did not request this when describing required application materials. As noted above, increasing excavation by six feet is a minor change confined below ground, with no impacts on groundwater or any other environmental resource. Verizon Wireless provided an Initial Environmental Checklist with its 2019 application for the monopine facility permit, and the deeper excavation was approved pursuant to Condition 3.F of that permit. There is no merit to Appellant's claims of environmental impacts, and this ground for appeal must be rejected.

**V. Staff's Approval of Excavation in Excess of Five Feet Satisfies All Required Findings.**

Appellant questions why staff's August 5, 2022, letter did not address Findings 2 and 3 for approval of excavations in excess of five feet. The letter addressed Finding 1, that "A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of groundwater will occur as a result of the excavation." Code § 33.3.6(B)(1). Though not mentioned in staff's letter, the deeper excavation is also consistent with Finding 2, because excavation will not damage mature trees except as allowed by the Code's tree removal provisions, and Verizon Wireless's plans include best management practices for preserving existing vegetation. Code § 33.3.6(B)(2). It also satisfies Finding 3, because the plans include best management practices for waste disposal, and the geotechnical report found that there would be no interception or interference with groundwater. Code § 33.3.6(B)(3). Verizon Wireless contractors will operate in full compliance with TRPA requirements regarding vegetation management and soils removal.

Because the proposal for deeper excavation satisfies Findings 2 and 3, this ground for the appeal must be rejected. The Board can, if it so chooses, address these findings in its final decision.

**VI. Appellant Raises Issues Unrelated to Staff's Approval of Deeper Excavation.**

Appellant seeks to raise numerous issues irrelevant to staff's August 5, 2022, letter. For example, he questions why Verizon Wireless's tower was not designed to different risk specifications, but such structural factors would be considered by the City of South Lake Tahoe Building Division, which already approved a building permit. The plans confirm that the structural design is based on the California Building Code and the TIA-222-H standard. Plans, Sheet MP-2.

Appellant also claims that there are discrepancies in land coverage calculations shown on the plans, but land coverage was not a topic addressed in staff's August 5, 2022, letter. It is therefore irrelevant to this appeal proceeding. The change in land coverage was a component of permit ERSP2019-0389 approved by the Hearings Officer in October 2021 and by the Board on appeal in March 2022, so the opportunity to challenge the land coverage calculations has long passed. The Board should ignore these irrelevant claims.

### **Conclusion**

Verizon Wireless closely followed the requirements of the TRPA Code of Ordinances and Condition 3.F of its permit by submitting application materials, including an updated soils/hydro report, to obtain staff's approval of deeper excavation. Verizon Wireless's voluntary stay of pouring concrete allowed TRPA's field investigator to confirm the accuracy of prior soils/hydrology reports, validating staff's approval of deeper excavation. Appellant fails to show any noncompliance with TRPA regulations in staff's August 5, 2022, letter. We urge the Board to deny the appeal, and uphold staff's approval.

Very truly yours,



Paul B. Albritton

cc: John Marshall, Esq.  
Bridget Cornell

### **Schedule of Exhibits**

- Exhibit A: Letter from Paul Albritton to TRPA Board Chair Cindy Gustafson Responding to Appeal and Request for Stay, September 24, 2022 (Exhibits omitted)
- Exhibit B: Report by Terradyne Engineering, Inc., April 19, 2022
- Exhibit C: Report by Terradyne Engineering, Inc., July 26, 2019
- Exhibit D: Soil Hydrological Investigation by Marchel Munnecke, September 1, 2022
- Exhibit E: Soil Hydrological Investigation by Marchel Munnecke, September 14, 2022

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August 24, 2022

**Via email (cindygustafson@placer.ca.gov)**

Cindy Gustafson  
Chair of the Governing Board  
Tahoe Regional Planning Agency  
128 Market Street  
Stateline, Nevada 89449

Re: Verizon Wireless Response to Appeal Filed by Alan Miller  
Telecommunications Facility, 1360 Ski Run Boulevard, South Lake Tahoe

Dear Chair Gustafson:

On behalf of our clients Verizon Wireless and Guillian Nel, we write to oppose the appeal filed and request for stay filed by Alan Miller (“Appellant”).<sup>1</sup> The appeal seeks to halt construction of Verizon Wireless’s long-delayed project to bring reliable wireless communications to South Lake Tahoe and surrounding areas by installing a 112-foot cell tower disguised as a pine tree (the “Project”), which TRPA approved in a permit that became final on March 23, 2022 (the “Permit”). As we will explain, the appeal is without merit, and there are no grounds for a stay of construction. Nonetheless, Verizon Wireless will voluntarily postpone pouring any concrete for the tower foundation until the Board of Governors can hear the appeal in late September, to give TRPA an opportunity to inspect for groundwater intrusion after excavation is completed. Any broader stay is unjustified and would harm both Verizon Wireless and those who depend on its services by delaying completion of this much-needed project for another year.

### **FACTUAL BACKGROUND ON THE APPEAL**

As is typical with cell towers, detailed structural engineering was deferred until after the Project received initial approval by the TRPA Hearing Officer, as Verizon Wireless prepared to apply for a building permit from the City of South Lake Tahoe. The structural analysis revealed that Verizon Wireless would need to excavate an additional 6 feet for the tower foundation to ensure its structural stability. Contrary to the appellant’s allegations, this was not a “major

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<sup>1</sup> Mr. Miller purports to represent the interests of two other individuals (appeal, p. 1). This is improper. Mr. Miller is not an attorney, and we are not aware of any authority under which he could lawfully represent another person.

modification” to the Permit, but a minor change expressly provided for in the conditions of approval. Specifically, Condition 3.F provides that:

Please provide final engineering drawings, including a detailed foundation design. TRPA has approved an excavation depth of 7 feet 6 inches below ground surface (bgs). If the final design includes an excavation depth deeper than that, the applicant shall submit a new soils-hydro application to TRPA, seeking approval for the proposed excavation depth. TRPA shall approve the excavation prior to stamping final plans.

That is exactly the process that Verizon Wireless followed. Its consultant, SAC Wireless, requested the increased depth in an email to TRPA staff dated August 2, 2022, supported by revised plans, an updated structural analysis, and a geotechnical report addressing the soils and hydrology of the Project site, a copy of which is attached as Exhibit A (the “Soils/Hydro Report”).

As is standard in the industry, the Soils/Hydro Report relied on a soil sample from an 8-inch borehole drilled to a depth of 19 feet (where bedrock blocked the drill). *No evidence of groundwater was encountered for the entire 19-foot depth of the sample.* (Exhibit A, pp. 2-3 and Figure 1.) Based on this information, TRPA’s Senior Planner Julie Roll approved the additional excavation in a letter dated August 5, 2022 (copy attached as Exhibit B), noting that “it is not expected that groundwater will be encountered in this location and the excavation is allowed pursuant to TRPA Code of Ordinances Sections 33.3.6.A.2.a (accommodation of engineering requirements for above-ground structures) and 33.3.6.A.2.d (public health and safety).” On August 17, 2022, TRPA Planner Bridget Cornell, acting as the Executive Director’s Designee, approved revised plans that reflected the additional depth of excavation for the foundation to 13.5 feet.

## ISSUES

While the appellant discusses a wide range of issues, most of his contentions are irrelevant and need not be addressed. Under the TRPA Code of Regulations (“Code”) and Rules of Procedure (“ROP”), the issues properly raised by this appeal are fairly narrow. These include:

- I. Is there substantial evidence to support staff’s finding that an additional 6 feet of excavation is necessary for structural integrity and/or public safety; and
- II. Has the appellant met his burden to justify a stay, by demonstrating that the additional 6 feet of excavation<sup>2</sup> will violate the Code or other applicable law, will cause substantial harm to him or the environment, and that the balance of equities justifies a stay.

---

<sup>2</sup> To the extent the appeal is based on issues that could have been raised in connection with the originally approved excavation depth of 7.5 feet, it is barred by the failure to exhaust administrative remedies, and by the statute of limitations, which requires any legal challenge to TRPA’s final action on a permit to be brought within 60 days. See TRPA Compact, Art. VI(j)(4). The appellant appears to admit that project opponents failed to raise any issue of groundwater impacts with respect to the original approval, stating that “concerns, comments and findings regarding ground water impacts from the foundation by the public, including myself, were limited.” (Appeal, p. 2.)

As we explain below, the answer to both questions is “no.”

### **THE APPEAL HAS NO MERIT**

Simply put, there is no merit to the appeal because staff’s approval of the additional 6 feet of excavation was consistent with the conditions of approval and the Code, and based on substantial evidence. As discussed above, Condition 3.F. recognized the possibility that the foundation depth would need to be increased, and provided a procedure to do that.

That procedure, and the approval ultimately granted, were consistent with the Code. While the Code generally prohibits excavations more than 5 feet deep, or which pose a reasonable possibility of interference with a groundwater table, either one is permitted if a soils/hydrological report prepared by a qualified professional “demonstrates that no interference or interception of groundwater will occur as a result of the excavation.” Code Section 33.3.6.B.1. The Soils/Hydro report satisfied this requirement, finding no evidence of groundwater to a depth of 19 feet.

Appellant admits that this report constitutes a “soils/hydrologic report by a qualified professional as described in the Code” (appeal, p. 10), but misreads its normal professional caveats (acknowledging that “Ground water levels will fluctuate with seasonal climatic variations”) as evidence that the Project *will* have groundwater impacts. (Appeal, pp. 11-12.)

He also states incorrectly that Bijou Park Creek “passes directly below the Project site” (appeal, p. 12). In fact, a report by environmental scientists at Integral Consulting, Inc., confirmed that:

- The Project “is approximately 330 linear feet from the uppermost section of Bijou Park Creek drainage area, which is off the property in the north-northwest direction”;
- “The location of the proposed tower is not in the Bijou Park Creek Stream Environmental Zone”;
- “The location of the proposed tower is not within the documented 100-year flood inundation area of the creek”; and
- “The location of the proposed tower is not within areas documented to be prone to flooding.”

Evaluation of Monopine Needles, Verizon Wireless Monopine, 1360 Ski Run Boulevard, Special Use Permit File # 19-026, B. DeShields and S. Culkin, (Integral Consulting, Inc., March 3, 2022), p. 6 (excerpts attached as Exhibit C). Elsewhere, Appellant admits that he is speculating about alleged groundwater impacts, stating that the Project “intrudes on groundwater, *or may*.” (Appeal, p. 6 [emphasis added].)

Moreover, even if there *were* evidence that the additional excavation will interfere with or intercept groundwater (there is not), Section 33.3.6.B.3 provides that “the excavation can be made as an exception pursuant to subparagraph 33.3.6.A.2.” The latter section sets forth several

exceptions, including those recited in TRPA’s letter approving the additional 6 feet of excavation in this case, i.e., where required by applicable building codes or “necessary for the public safety and health.” These findings were based on substantial evidence, including:

- An updated structural analysis;
- The Soils/Hydro report (Exhibit A), which stated that a mat foundation (the type used for the Project) “should be embedded a minimum of 5-ft below the existing grade elevation”; and
- Correspondence from Verizon Wireless’s consultant explaining that “This site sits on a slope and this 13.5ft excavation depth is needed for the highest point of the slope. The tower would not have a stable foundation if we didn’t excavate at this minimum depth.” (See Exhibit D.)
- Excerpts from the original and revised plans showing that given the slope of the Project site, placing the mat at the required minimum of “5 feet below the existing grade” on the downhill side requires a maximum depth of 13.5 feet on the uphill side (see enclosed Exhibits E1 and E2).

This evidence is more than sufficient to demonstrate that the additional depth is necessary to meet building code requirements and/or protect public safety. Appellant’s argument to the contrary is based on nothing more than speculation. He asserts – without evidence – that the approved design is not required by applicable building codes because “designs are only limited by imagination, materials, money, and time.” (Appeal, p. 6.) In short, approval of the additional excavation was consistent with the Code and the conditions of approval, and based on substantial evidence, and should be upheld.

### **THERE ARE NO GROUNDS FOR A STAY**

In order to obtain a stay, Appellant must present “credible evidence of the need for a stay pending a hearing on the appeal before the Board at its next regular meeting.” ROP 11.3. Assuming this burden is met, the Board must also consider evidence of the hardship on Verizon Wireless and Mr. Nel, and the balance of equities before deciding whether to grant a stay. *Ibid.* Here, Appellant has not met his burden, but Verizon Wireless is willing to accept a limited stay that would prevent it from pouring any concrete for the tower foundation until the Board hears the appeal on September 28. Staying any other aspects of the Project would impose harm on Verizon Wireless and the public interest that would far outweigh any impact on Appellant or the environment.

#### **1. Appellant has failed to provide any credible evidence to justify a stay.**

Even assuming that the appeal has any merit (it does not, as discussed above), Appellant has not met his burden to provide “credible evidence” of the need for a stay. Indeed, his purported justification for a stay consists entirely in the claim that the extra 6 feet in foundation depth will cause unspecified “additional harm to water quality” and that he is “personally distressed” by unspecified “potential effects” of the Project. (Appeal, p. 15.) Such vague allegations do not constitute substantial, much less “credible” evidence.

**2. Verizon Wireless will accept a limited stay pending the Board's September 28 hearing on the appeal.**

While Appellant has not provided any valid basis for a stay, Verizon Wireless is willing to accept a limited stay on the following terms:

- It may continue with excavation to a depth of 13.5 feet consistent with TRPA's approval;
- It will not pour any concrete for the tower foundation until after the Board hears the appeal on September 28, 2022; and
- The stay will not affect any other work on the Project, including pouring the concrete pad for the equipment shelter.

This would allow Verizon Wireless to continue with other work on the Project, while allowing inspections by TRPA's staff and/or geotechnical consultants after the excavation is complete to confirm whether there is any significant risk of prohibited groundwater impacts. The Board could then decide this issue based on a more complete record, and before Verizon Wireless pours any concrete for the disputed foundation.

**3. Any broader stay is unjustified and would impose severe, irreparable harm on Verizon Wireless and the public interest in reliable wireless communications.**

The limited stay described above would protect all parties by allowing Verizon Wireless to work on other aspects of the Project while preserving the Board's ability to review the alleged impact of the deeper foundation on groundwater (if any). The appeal does not even assert any grounds for a broader stay on the whole Project, and such a stay would impose irreparable harm on Verizon Wireless and those who depend on its services. Given TRPA's October 15 – May 15 ban on ground disturbance, Verizon Wireless is already on a tight schedule in order to complete all ground-disturbing work before October 15. A complete stay of construction until September 28 would make it difficult, if not impossible, to complete the "ground" work before the October 15 deadline. In addition to very significant additional costs to shut down and then resume construction (estimated to exceed \$70,000), this would mean delaying completion of the Project until well into 2023.

Delaying the Project for another year would cause irreparable harm to Verizon Wireless by preventing it from providing adequate service in the area, and thus damaging its goodwill and reputation for reliable service. More importantly, it will result in irreparable harm to the South Lake Tahoe community by compromising public safety. There is a significant gap in Verizon Wireless service in the Heavenly Valley and Bijou Park areas of the City, described in the Statement of Verizon Wireless Radio Frequency Design Engineer Charlie Schwartz, attached as Exhibit F. As Mr. Schwartz explains, the lack of adequate service in these areas results in unreliable Verizon Wireless service for emergency service personnel, residents, and visitors. This is exacerbated during winter ski season and summer holidays, when high demand exhausts

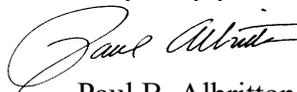
the existing network serving the area, leaving users unable to make reliable connections. The long-delayed Project is needed to provide new, reliable service coverage to the area and relieve the demand on the existing network.

Reliable wireless service is critical for communication with emergency service personnel. According to the National Emergency Number Association, there are an estimated 240 million 911 calls each year nationwide, with 80 percent or more from wireless devices in many areas. NENA 9-1-1 Statistics, <https://www.nena.org/page/911Statistics>. Visitors to South Lake Tahoe depend on their wireless devices for communications as they travel. Similarly, South Lake Tahoe residents need reliable wireless service to receive notifications and critical information from the El Dorado County Emergency Alerts system operated by the Sheriff's Office of Emergency Services (formerly called the CodeRED system).

Local public safety and transportation agencies support improved wireless service in the area in order to enhance public safety, as demonstrated by letters from the El Dorado County and Placer County Sherriff's offices, local fire protection districts, and the Tahoe Transportation District, attached as Exhibit G. As Sheriff John d'Agostini wrote, "As cellular providers continue to expand and improve their coverage throughout El Dorado County, it enhances our officer safety through better communication with our patrol vehicles and allows citizens better access to public safety resources through their personal cell phones."

For all of these reasons, we urge you to deny the Appellant's request for a stay, in lieu of the more limited stay that Verizon Wireless has proposed. While we have addressed the merits of the appeal as they bear on your consideration of the stay, we reserve the right to submit additional evidence and argument for the Board's consideration of the appeal.

Very truly yours,



Paul B. Albritton

cc (via email): John Marshall, Esq.

### **Schedule of Exhibits**

- Exhibit A: Soils and Hydrology Report
- Exhibit B: Letter from TRPA Senior Planner Julie Roll, August 5, 2022
- Exhibit C: Excerpts from Integral Consulting, Inc. Report, Evaluation of Monopine Needles, Verizon Wireless Monopine, March 3, 2022
- Exhibit D: Correspondence from Verizon Wireless's Consultant
- Exhibit E1: Excerpts from Original Plans
- Exhibit E2: Excerpts from Revised Plans
- Exhibit F: Statement of Verizon Wireless Radio Frequency Design Engineer Charlie Schwartz
- Exhibit G: Letters of Support from Local Public Safety and Transportation Agencies



Exhibit A

**Geotechnical Investigation  
Proposed 112.0-foot High Monopine  
Verizon SKI RUN BLVD (PSL #444780)  
1360 Ski Run Blvd.  
South Lake Tahoe, CA 96150**

**SAC Wireless  
5015 Shoreham Place, Suite 150  
San Diego, CA 92122**

**Attn: Mr. Ryan Lima  
Project Manager**

**Terradyne Project No: L191044**

**July 26, 2019**



Terradyne Engineering, Inc.  
2691 Dow Avenue, Suite F  
Tustin, CA 92780  
Office: 657-212-5800  
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July 26, 2019

**SAC Wireless, LLC**  
5015 Shoreham Place Suite 150  
San Diego, CA 92122  
Phone: (619) 471-6359  
Fax: (760) 931-0908  
Email: [ryan.lima@sacw.com](mailto:ryan.lima@sacw.com)  
[www.sacw.com](http://www.sacw.com)

Attn: **Mr. Ryan Lima**  
Project Manager

Re: **Geotechnical Investigation Report**  
Verizon SKI RUN BLVD (PSL #444780)  
1360 Ski Run Blvd (38.937388, -119.950135)  
South Lake Tahoe, El Dorado County, CA 96150  
Terradyne Project No.: L191044

Dear Mr. Lima:

In accordance with your request, Terradyne Engineering, Inc. has performed a geotechnical investigation at the subject site. The purpose of our investigation was to evaluate the geotechnical conditions at the site in the areas of proposed construction and to provide geotechnical parameters for design and construction.

We appreciate and wish to thank you for the opportunity to serve you on this project. Please do not hesitate to contact us if we can be of additional assistance during the Construction Materials Testing and Quality Control phases of construction.

Respectfully Submitted,  
**Terradyne Engineering, Inc.**

Haicheng Mao, MSCE, E.I.T.  
Staff Engineer

A. Wahab Noori, P. E.  
Senior Engineer / RCE C-081696  
Registration Exp. Date: 03/31/2020



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## **APPENDIX A**

Figure A - Vicinity Map  
Figure B - Approximate Boring Location Plan  
Figure C - Regional Geological Map and Legend  
Figure D - USGS Topographic Map  
Figure E - CGS Seismic Hazard Information

## **APPENDIX B**

Boring Log: B-1  
Key to Classification Terms and Symbols

## **APPENDIX C**

Laboratory Tests

## **APPENDIX D**

ATC-127 - Applied Technology Councils/USGS Site Specific Seismic Hazard information

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## EXECUTIVE SUMMARY

The soil conditions at the site of the 112.0-ft High Monopine and associated cellular equipment at 1360 Ski Run Blvd, South Lake Tahoe, El Dorado County, California was explored by drilling one boring to a refusal depth of 19.0-ft. However, it should be noted, we were not able to drill at exact location of monopole due to the mature trees & constraints. Laboratory tests were performed on selected specimens to evaluate the engineering characteristics of various soil strata encountered in our test boring.

This report presents a description of subsurface conditions encountered at the site, recommended foundation systems, and design and construction criteria influenced by the subsurface conditions. It is based on data obtained from field investigations, laboratory test results and our previous experience with similar projects.

- During our operation, drilling difficulties and refusal experienced at depth 19 ft below existing grade. As such, a heavy duty drilling rig capable of drilling through GRANODIORITE (Bedrock) is highly recommended.
- Based on our California Geological Survey (CGS) research, the seismic hazard information (Figure E, Appendix A) pertaining to the subject site as follows:
  - 1) This parcel (02558077) is not within an Earthquake Fault Zone;
  - 2) This parcel (02558077) has not been evaluated by CGS for seismic landslide hazards;
  - 3) This parcel (02558077) has not been evaluated by CGS for liquefaction hazards;
- Based on a review of the existing geologic information, no major surface fault crosses through or extends toward the site. The potential for surface rupture resulting from the movement of nearby major faults is not known with certainty but is considered low.
- Based on the results of the field investigation, the proposed 112.0-ft High Monopine may be supported on a straight shaft (minimum Ø60”) drilled pier. However, drilling difficulties and challenges associated with refusal on rocks should be expected.
- The proposed 112.0-ft High Monopine may also be supported on a mat foundation system. For the design of the structure, modulus of subgrade reaction (k1) of 100 kcf is recommended. An ultimate bearing capacity of 6000 psf and an allowable bearing capacity of 2000 psf may be used for foundation bearing on in-situ soil/bedrock.
- We believe a pad & pier foundation is also another option to be considered. For the design of a pad & pier foundation system, the geotechnical parameters recommended for the straight shaft pier and mat foundation system may be utilized as needed.

- The equipment cabinets/pads may be supported on mat slab foundation system. For the design of the structure, modulus of subgrade reaction ( $k_1$ ) of 50 kcf is recommended. An ultimate bearing capacity of 4500 psf and an allowable bearing capacity of 1500 psf may be used for foundation bearing on in-situ soil.
- Ground water was not encountered during the field exploration. However, Ground water levels will fluctuate with seasonal climatic variations and changes in the land use.

Detailed descriptions of subsurface conditions, engineering analysis, and design recommendations are included in this report.

## **1.0 INTRODUCTION**

This report presents the results of our subsurface exploration and geotechnical analysis for the proposed 112.0-ft High Monopine and associated appurtenances at 1360 Ski Run Blvd, South Lake Tahoe, El Dorado County, California. This project was authorized by Mr. Ryan Lima from SAC Wireless, LLC.

## **2.0 PROPOSED CONSTRUCTION**

This project is a Verizon Unmanned Telecommunication Wireless Facility. It will consist of construction of the following construction within 624 SF lease area:

- New Verizon Wireless 24'-0" X 26'-0" Lease Area
- New Verizon Wireless 18'- 10" X 15'-0" Equipment Shelter on New Concrete Pad
- New Verizon Wireless 30kw Generac Standby Generator w/132 Gallon Diesel Tank (UI142)
- New Verizon Wireless GPS Antenna
- New Verizon Wireless Electrical Meter Mounted on New Equipment Shelter
- New Verizon Wireless Fiber Box Mounted on New Equipment Shelter
- New Verizon Wireless 112'-0" High Monopine
- (12) New Verizon Wireless 8' Tall Panel Antennas
- (12) New Verizon Wireless RRUS
- (4) New Verizon Wireless 6627 RAYCAPS
- New Verizon Wireless Hybrid Cables

## **3.0 PURPOSE AND SCOPE OF SERVICES**

The purpose of our geotechnical investigation was to evaluate the subsurface and groundwater conditions of the site and provide geotechnical engineering recommendations for the design and construction of the proposed project. Our scope of services includes the following:

- 1) Drilling and sampling of one boring to a refusal depth of 19.0-ft in the project area;
- 2) Observation of the groundwater conditions during drilling operations;
- 3) Performing laboratory tests;
- 4) Review and evaluation of field and laboratory tests;
- 5) Compilation, generalization and analysis of the field and laboratory data according to the project requirements;
- 6) Preparation of recommendations for the design and construction of the structure;
- 7) Consultations with Primary Professionals and members of the design team on findings and recommendations and the preparation of a written geotechnical engineering report for their use in the preparation of design and construction documents.

The Scope of Services does not include an environmental assessment of the presence or absence of wetlands and/or hazardous or toxic materials in the soil, surface water, groundwater, or air, in the proximity of this site. Any statements in this report or on the boring log regarding odors, colors or unusual or suspicious items or conditions are strictly for the information of the client.

#### **4.0 SITE CONDITIONS**

The proposed 24-ft by 26-ft cellular site is within a commercial property with numerous trees, located in South Lake Tahoe, El Dorado County, California. There are no water features observed in the vicinity of the proposed site. The site drainage system is by sheet flow to multiple directions and generally toward north.

#### **5.0 GEOTECHNICAL INVESTIGATION**

The field exploration to determine the engineering characteristics of the subsurface materials included a reconnaissance of the project site, drilling the boring, and obtaining bulk and split-barrel samples. One soil test boring was drilled at the project site. The boring was drilled to a refusal depth of 19.0-ft below the existing ground surface.

The soil boring was performed with a drilling rig (CME-75) equipped with a rotary head. Conventional hollow stem augers were used to advance the hole and samples of the subsurface materials were obtained using a standard 2.0-inch O.D., 1-3/8-inch I.D, split-barrel sampler. The samples were identified according to depth, encased in polyethylene plastic wrapping to protect against moisture loss, and transported to the laboratory in special containers. The following samples, presented in Table No. 1, were collected as a part of our field exploration procedure:

**Table No. 1**

<u>Type of Sample</u>	<u>Number Collected</u>
Bulk Sample	1
Spilt Spoon Samples	5

#### **5.1 Groundwater Information**

Groundwater seepage was not encountered during the drilling operation. However, it should be noted, groundwater levels will fluctuate with seasonal climatic variations and changes in the land use. The low permeability of the soils may require several days for groundwater to enter and stabilize in the boreholes. It is not unusual to encounter shallow groundwater during or after periods

of rainfall. Surface water tends to percolate through the surface until it encounters a relatively imperious layer.

## 5.2 Field Log

A field log was prepared for the test boring. This log includes information concerning the boring method, samples attempted and recovered, and the presence of various materials (such as silt, clay, gravel or sand) and groundwater observations. It also includes an interpretation of the subsurface conditions between samples. Therefore, this log includes both factual and interpretive information.

## 5.3 Presentation of the Data

The final log represents our interpretation of the contents of the field log for the purpose delineated by our client. The final log and key to classification terms and symbols are included in Appendix B.

## 5.4 General Subsurface Conditions

The soils underlying the site may be grouped into two generalized strata with similar physical and engineering properties. The lines on the log designating the interface between soil strata represent approximate boundaries. The transition between materials may be gradual. The soil stratigraphy at the boring location is presented in the Boring Log. The engineering characteristics of the underlying soils, based on our field and laboratory test results, are summarized and presented in Table No. 2.

**Table No. 2**

<u>Stratum</u>	<u>Depth Range Feet</u>	<u>Blows Per Foot</u>	<u>Remark</u>
<b><u>Colluvium/Residual Soil (Qc)</u></b>	0.5' – 7.5'	4-12	No Groundwater encountered
<b><u>Bryan Meadow Granodiorite (Kbm)</u></b>	7.5' – 19'	50+	

The above description generally highlights the major soil stratification features and soil characteristics. The test boring log should be consulted for specific information at the boring location.

## 5.5 Laboratory Testing Program

In addition to field exploration, a supplemental laboratory testing program was conducted to determine additional pertinent engineering characteristics of the subsurface materials that are necessary to evaluate the soil parameters. These tests include:

- 1) Moisture & Density (ASTM D2216 & ASTM D2937)
- 2) Grain Size Distribution (ASTM D422)
- 3) Expansion Index Test (ASTM D4829)
- 4) Corrosion Potential (CT 417, CT 422, CT 532 (643))

### 5.5.1 Corrosion Potential Screening

A representative soil sample was tested to measure electrical resistivity, pH, soluble sulfate and chloride concentration. The results are presented on Table No. 3.

**Table No.3**

Sample Location/ Depth (ft)	pH	Soluble Sulfate (ppm)	Soluble chlorides (ppm)	Resistivity ( $\Omega$ .cm)
B-1/0-3.0	6.64	115	76	6,000.0

### Soluble Sulfate Content

A near-surface soil sample was tested during our investigation for soluble sulfate content. The result of this test indicates a soluble sulfate content of (0.0115) percent by weight or negligible sulfate exposure. As such, the soils exposed are not expected to pose a critical potential for sulfate reaction with concrete. Per ACI 318-14 Table 19.3.1.1, the requirement of Exposure Category (S) and Class (S0) may be appropriate for design where there is no cement type restriction.

### Resistivity, Chloride and pH

Soil corrosivity to ferrous metals can be estimated by the soil's pH level, electrical resistivity, and chloride content. In general, soil having a minimum resistivity less than 2,000 ohm-cm is considered corrosive. Soil with a chloride content of 500 ppm or more is considered corrosive to ferrous metals.

As a screening for potentially corrosive soil, a representative soil sample was tested during our investigation to determine soil resistivity, chloride content, and pH level. The soil resistivity measurement of the sample was approximately (6,000.0) ohm-cm, chloride content was approximately (76) ppm, and the pH level was approximately (6.64). The results indicate that the

soil is mildly corrosive to ferrous metals. However, a standard corrosion protection measure is advisable to be considered in the design. It should be noted that Terradyne does not practice corrosion engineering. Our initial screening here should be construed as an assessment aid to the owner or owner's representative. A corrosion specialist should be consulted for any specific design requirement.

## Concrete

Laboratory test indicated that the subject site contains soil sulfate content in the negligible range (i.e., less than 1000 part per million). However it is recommended that concrete for all construction at the site utilize a wide and commercially available Type-II Portland cement with a maximum 0.50 water/cement ratio and should comply with all the requirements of current Code. The minimum compressive strength of concrete for caisson supporting the monopole shall be 4000 psi at 28 days and maximum slump during placement shall be five inches. For all other miscellaneous appurtenances, the minimum compressive strength of concrete shall be 2500 psi at 28 days and maximum slump during placement shall be five inches. The minimum concrete cover should be 3-inches for the deep foundation and 1.5 inch for all other miscellaneous concrete elements. Final selection of the appropriate concrete design should be made by the project structural engineer based on the local laws and ordinances, and desired level of conservatism.

## 6.0 SEISMIC DESIGN PARAMETERS

The principal seismic hazard that could affect the site is ground shaking resulting from an earthquake occurring along several major active or potentially active faults in California. Design of the proposed improvements in accordance with current CBC requirements is intended to reduce the impact of seismic shaking on the proposed improvements. Recommended seismic design acceleration parameters in accordance with the 2016 CBC are presented in Table 4 below.

**Table 4**

<b>Seismic Parameters</b>	
Site Class	D
Seismic Design Category	D
Spectral Response ( $S_s$ )	1.571 g
Spectral Response ( $S_1$ )	0.540 g
Spectral Response ( $S_{MS}$ )	1.571 g
Spectral Response ( $S_{M1}$ )	0.809 g
Spectral Response ( $S_{DS}$ )	1.047 g
Spectral Response ( $S_{D1}$ )	0.540 g

$F_a$	1.000
$F_v$	1.500

**Note:** ATC-127 - Applied Technology Councils/USGS Site Specific Seismic Hazard information is attached in Appendix D. Final selection of the appropriate seismic design coefficients should be made by the structural consultant based on the local laws and ordinances, expected building response, and desired level of conservatism.

## 7.0 FOUNDATION RECOMMENDATIONS

### 7.1 Drilled Pier

Straight shaft drilled pier may be considered to support the proposed 112.0-ft High Monopine Tower. The drilled depth should be determined by the project structural engineer per geotechnical design parameters tabulated below.

### 7.2 Lateral Load Analysis

Since the pier will be subjected to lateral load and moment, a lateral load analysis should be conducted. Elastic pier behavior should be assumed in the process. A pier diameter of 60 inches or greater diameter may be considered for the cell tower.

**Table. 5A**

Depth (ft)	N-Value Range	Effective Soil Unit Wt (PCF)	Est. Cohesion (PSF)	Est. Angle of Internal Friction	Active Rankine Coeff ( $K_a$ )	Passive Rankine Coeff ( $K_p$ )
0.5-7.5	4-12	120	-	30	0.333	3.000
7.5-19	50+	135	1000	45	0.172	5.828

**Table. 5B**

Depth ft	Ultimate Uplift Skin Friction (PSF)	Allowable Uplift Skin Friction (PSF)	Ultimate Compression Skin Friction (PSF)	Allowable Compression Skin Friction (PSF)	Mod. Of Subgrade Reaction (KCF)
0.5-7.5	250	125	500	250	50
7.5-19	500	250	1000	500	150

### **7.3 Mat Foundation**

A mat foundation system may also be used to support the proposed Monopole. The following equation may be used for the design of mat foundation.

$$k = k_1 [(B+1)/2B]^2$$

Where:

k = desired Modulus of Subgrade Reaction for full-sized footing (kcf)

k<sub>1</sub> = Modulus of Subgrade reaction for 1' X 1' plate

B = width of foundation (ft)

For the proposed site, k<sub>1</sub> of 100 kcf is recommended. An ultimate bearing capacity of 6000 psf and an allowable bearing capacity of 2000 psf may be used for foundation bearing on in-situ soil. Mat foundation should be embedded a minimum of 5-ft below the existing grade elevation. Greater embedment may be necessary to resist lateral loads due to wind and seismic forces. Mat slab thickness, reinforcement etc, should be selected by the structural engineer based on the analysis performed considering the loads anticipated and the modulus of subgrade reaction of the soil.

#### **7.3.1 Equipment Cabinets/Pads**

The equipment cabinets/pads may be supported on mat slab foundation system. For the design of the structure, modulus of subgrade reaction (k<sub>1</sub>) of 50 kcf is recommended. An ultimate bearing capacity of 4500 psf and an allowable bearing capacity of 1500 psf may be used for foundation bearing on compacted soil. The slab embedment should be per minimum current code requirement. The upper 12" of all subgrades should be moisture conditioned to near optimum moisture content and compacted to minimum 90% of maximum dry density before construction of any proposed improvements. All shallow foundation system should be designed to withstand frost effect as required by the local jurisdiction and 2016 CBC, Chapter 18.

### **7.4 LATERAL EARTH PRESSURES**

#### **7.4.1 Passive Earth Pressure**

Lateral loads may be resisted by friction provided by the soil on the base of the foundation and also by passive earth pressure. A coefficient of friction of 0.40 of dead load may be used. An allowable passive earth pressure of 350 psf per foot of depth may be used for footings poured on compacted in-situ soil/bedrock. A factor of safety of 1.5 was used in calculating passive earth pressure. Frictional resistance and passive pressure resistance may be used in combination if friction coefficient is reduced by one-third. A one-third increase in passive pressure may be used for resistance against seismic and wind loading.

## 7.4.2 Active Earth Pressure

Active earth pressures behind walls depend on wall movement, back fill slope, surcharge loads and back fill material.

**Table No. 6**

<b>Equivalent Fluid Density</b>	
<b>(PCF)</b>	<b>Level Backfill</b>
Active Condition	40
At-rest Condition	65

These equivalent fluid densities do not include the effect of seepage pressures, surcharge loads such as construction equipment, vehicular loads or future storage near the walls. If the basement wall or cantilever retaining wall can tilt forward to generate “active earth pressure” condition, the values under active condition should be used. For rigid non-yielding walls which are part of the building, the values” at rest condition” should be used. The compactive effort should be controlled during backfill operations. Over compaction can produce lateral earth pressures in excess of at rest magnitudes. Compaction levels adjacent to below-grade walls should be maintained between 90 and 95 percent of current standard Proctor (ASTM D1557) maximum dry density.

The backfill behind the wall should be drained properly. The simplest drainage system consists of a drain located near the bottom of the wall. The drain collects the water that enters the backfill and this may be disposed of through outlets along the base of the wall. To insure that the drains are not clogged by fine particles, they should be surrounded by a granular filter. In spite of a well-constructed toe drain, substantial water pressure may develop behind the wall if the backfill consists of clays or silts. A more satisfactory drainage system, consisting of a back drain of 12 inches to 24 inches width gravel may be provided behind the wall to facilitate to drainage.

## 8.0 CONSTRUCTION GUIDELINES

### 8.1 Construction Monitoring

As Geotechnical Engineer of Record for this project, Terradyne, should be involved in monitoring the foundation installation and earthwork activities. The performance of any foundation system is not only dependent on the foundation design but is strongly influenced by the quality of construction. Prior to construction, please contact our office so that a Foundation and Earthwork Monitoring Plan can be incorporated into the Project Quality Control Program.

## **8.2 Site Preparation**

Site preparation consists of the removal of any organic material including tree roots, subgrade preparation and the placement of structural fill and compaction of the subgrade. The upper 12” of all miscellaneous appurtenances subgrades should be moisture conditioned to near optimum moisture content and compacted to minimum 90% of maximum dry density before construction of any proposed improvements. The project geotechnical engineer should approve the subgrade preparation, the fill materials, and the method of fill placement and compaction.

In areas where there is pavement, vegetation and all loose or excessively organic materials, cobbles, boulders and debris should be stripped to a minimum depth of six inches and removed from the site. Roots of trees to be removed within the construction areas should be grubbed to full depths. After stripping operations, the subgrade should be scarified to a depth of 6 inches prior to fill placement and recompacted to 90 percent of the maximum dry density as determined by ASTM D1557, with moisture content up to 2 percent higher than the optimum moisture. The exposed subgrade should not be allowed to dry out prior to placing structural fill. Voids caused by site preparation, such as tree and boulder removal, should be replaced with select structural fill and compacted in accordance with the select fill compaction recommendations. Proper site drainage should be maintained during construction so that ponding of surface run-off does not occur and cause construction delays and/or inhibit site access.

## **8.3 Drainage**

Ground water seepage was not encountered during the drilling operation. Minor groundwater seepage may be encountered within the proposed foundation zone and grading excavations at the time of construction, especially after periods of heavy precipitation. Small quantities of seepage may be removed by conventional sump and pump methods of dewatering.

## **8.4 Temporary Drainage Measures**

Temporary drainage provisions should be established to minimize water runoff into construction areas. If standing water does accumulate, it should be removed by pumping as soon as possible. Adequate protection against sloughing of soils should be provided for workers and inspectors entering the excavations. This protection should meet OSHA and other applicable building codes.

## **8.5 Select Structural Fill**

Any select structural fill used at the site should have a Liquid Limit less than 35 and a Plasticity Index between 5 and 15. The fill should contain no particles greater than one (1) inch in diameter. The percent passing U.S. Standard Sieve No. 4 should be between 40 and 80 percent and

passing Sieve No. 40 between 10 and 50 percent. The percent passing Sieve No. 200 should be less than 20 percent.

Pit-run gravels (with some clay binders) and crushed limestone (with sufficient fines to bind the aggregate together) are examples of suitable select structural fill materials. The fill materials should be placed in loose lifts not to exceed 8 inches thick and compacted to 90 percent of the maximum dry density as determined by ASTM D1557, with moisture content within 2 percent over the optimum moisture content.

## **8.6 Groundwater**

In areas where significant cuts (2-ft or more) are made to establish final grades for pads, attention should be given to possible seasonal water seepage that could occur through natural cracks and fissures in the newly exposed stratigraphy. Subsurface drains may be required to intercept seasonal groundwater seepage. The need for these, or other dewatering devices, on pads should be carefully addressed during construction. Our office could be contacted to visually inspect final pads to evaluate the need for such drains.

Groundwater seepage may occur several years after construction if the rainfall rate or drainage changes in the vicinity of the project site. If seepage runoff occurs towards the site, an engineer should be called on to evaluate its' effect and determine whether French drains are required at the location.

## **8.7 Control Testing and Field Observation**

Subgrade preparation and structural fill placement should be monitored by the project geotechnical engineer or his representative. Field-tests for moisture content and relative compaction of the fill soils shall be performed by Terradyne, Inc. Location and frequency of tests shall be at our field representative(s) discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction. Any areas not meeting the required compaction should be re-compacted and retested until compliance is met.

## **9.0 DRAINAGE AND MAINTENANCE**

Final drainage is important for the performance of the proposed construction. Landscaping, plumbing, and downspout drainage (if any) is also important. It is vital that all drainage be transported away from the site so that water does not pond, which can result in a soil volume change underneath the structures. Irrigation or plumbing leaks (if any) should be repaired as soon as possible in order to minimize the magnitude of a moisture change under the slab. Large trees and

shrubs should not be planted in the immediate vicinity of the structures, since root systems can cause a substantial reduction in soil volume in the vicinity of the trees during dry periods.

## **9.1 AGENCY REVIEW**

All soil, geologic, and structural aspects of the proposed Project are subject to the review and approval of the governing agency(s). It should be recognized that the governing agency(s) can dictate the manner in which the project proceeds. They could approve or deny any aspect of the proposed improvements and/or could dictate which foundation and grading options are acceptable.

## **9.2 PLAN REVIEW**

Upon completion, we should review the project plans and specifications to check that they conform to the intent of our recommendations.

## **9.3 ADDITIONAL GEOTECHNICAL SERVICES**

Additional geotechnical services will be required subsequent to the investigation report. Additional fees will accrue for the additional services. The additional fees will depend on the scope of the additional work. A separate proposal and agreement will be prepared for the additional services. The following services are considered additional services.

- Response to questions from the reviewing agencies.
- Once plans for the proposed development are completed, the geotechnical consultant will need to review and approve the drawings.
- During construction, the geotechnical consultant will need to observe and test earthwork and observe foundation excavations for the proposed development.

## **10.0 LIMITATIONS**

Only a shallow portion of subsurface conditions have been reviewed and evaluated during this investigation. No warranties in any respect are made as to the future performance of the subject project. More rigorous criteria could be adopted if a lower risk of future problems is desired. Conclusions, recommendations, and other information contained in this report are based upon the assumption that the subsurface conditions do not vary appreciably between and adjacent to the observation points. Although no significant variation is anticipated, it must be recognized that variations can occur. This report has been prepared for the sole use and benefit of our client. The intent of the report is to advise our client on geotechnical matters involving the proposed improvements. It should be understood that the geotechnical consulting provided, and the contents of this report are not perfect. Any errors or omissions noted by any party reviewing this report and/or any other geotechnical aspect of the project should be reported to this office in a timely

fashion. The client is the only party intended by this office to directly receive the advice. Subsequent use of this report can only be authorized by the client. Any transferring of information or other-directed use by the client should be considered "advice by the client."

Geotechnical engineering is characterized by uncertainty. Geotechnical engineering is often described as an inexact science or art. Conclusions and recommendations presented herein are partly based upon the evaluations of technical information gathered, partly on experience, and partly on professional judgment. The conclusions and recommendations presented should be considered "advice." Other consultants could arrive at different conclusions and recommendations.

Typically, "minimum" recommendations have been presented. Although some risk will always remain, lower risk of future problems would usually result if more restrictive criteria were adopted. Final decisions on matters presented are the responsibility of the client and/or the governing agencies. No warranties in any respect are made as to the performance of the project.

## REFERENCES

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- California Building Code, 2016, California Code of Regulations Title 24, Part 2, Volume 2 of 2.
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- Hsai-Yang Fang, Foundation Engineering Handbook, Second Edition.
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- The Applied Technology Council (ATC) Hazards by Location, Retrieved from <https://hazards.atcouncil.org/>
- Armin, R.A., and John, D.A., 1983, [Geologic map of the Freel Peak 15' quadrangle, California and Nevada, with Quaternary geology by J.C. Dohrenwend](#): U.S. Geological Survey, Miscellaneous Investigations Series Map I-1424, scale 1:62,500
- California Geological Survey (CGS) Seismic Hazard Information  
<https://maps.conservation.ca.gov/cgs/EQZApp/app/#>

# **APPENDIX A**



Not to Scale

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

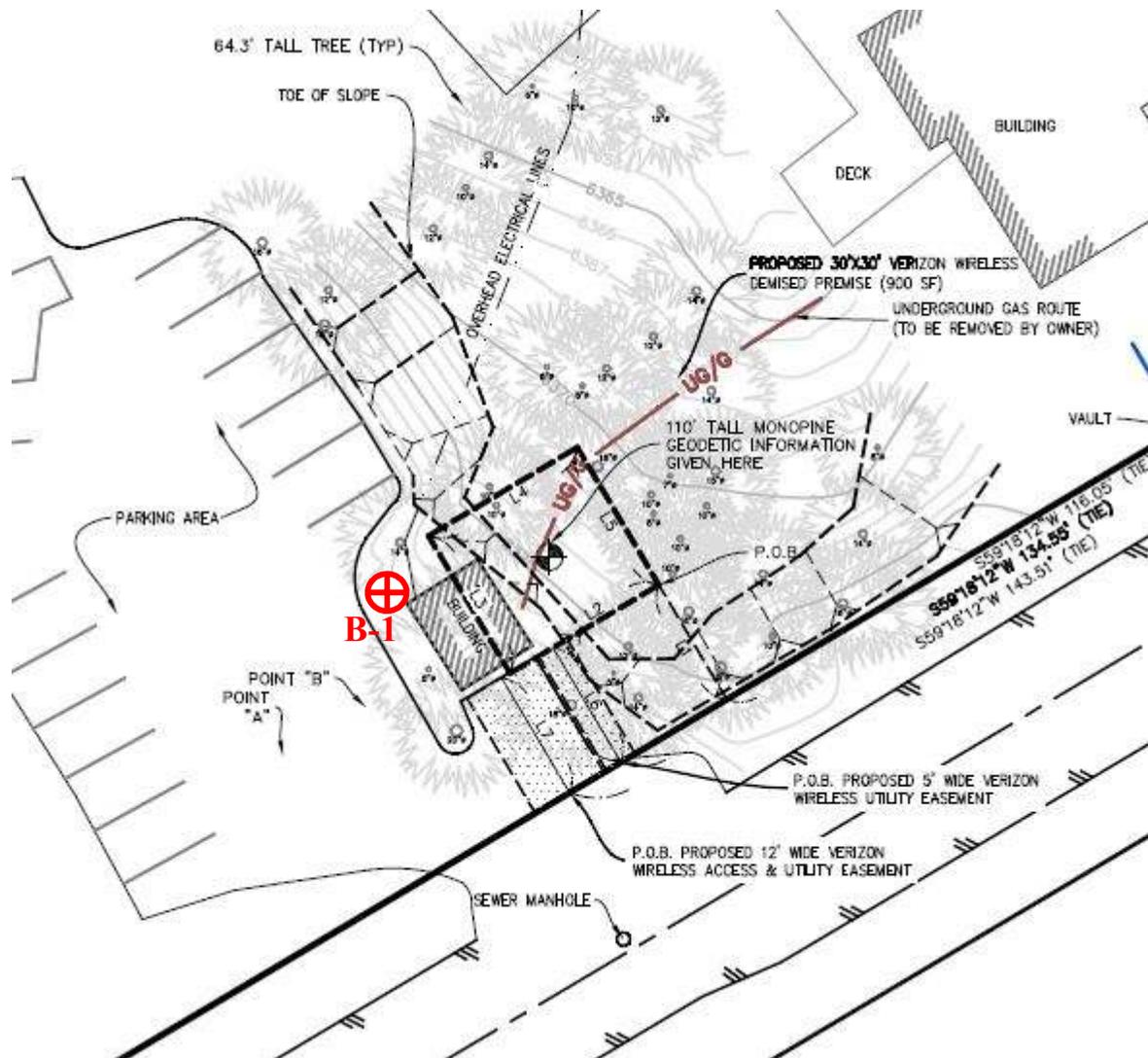
**Terradyne Engineering, Inc.**

Vicinity Map

Terradyne Project No: L191044  
 546

Figure: A  
 LEGAL COMMITTEE ITEM NO. 3 &

AGENDA ITEM NO. VIII. A.



Legend:

 Approximate Boring Location



Not to Scale

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

Approximate Boring Location Plan

Terradyne Project No: L191044

Figure: B

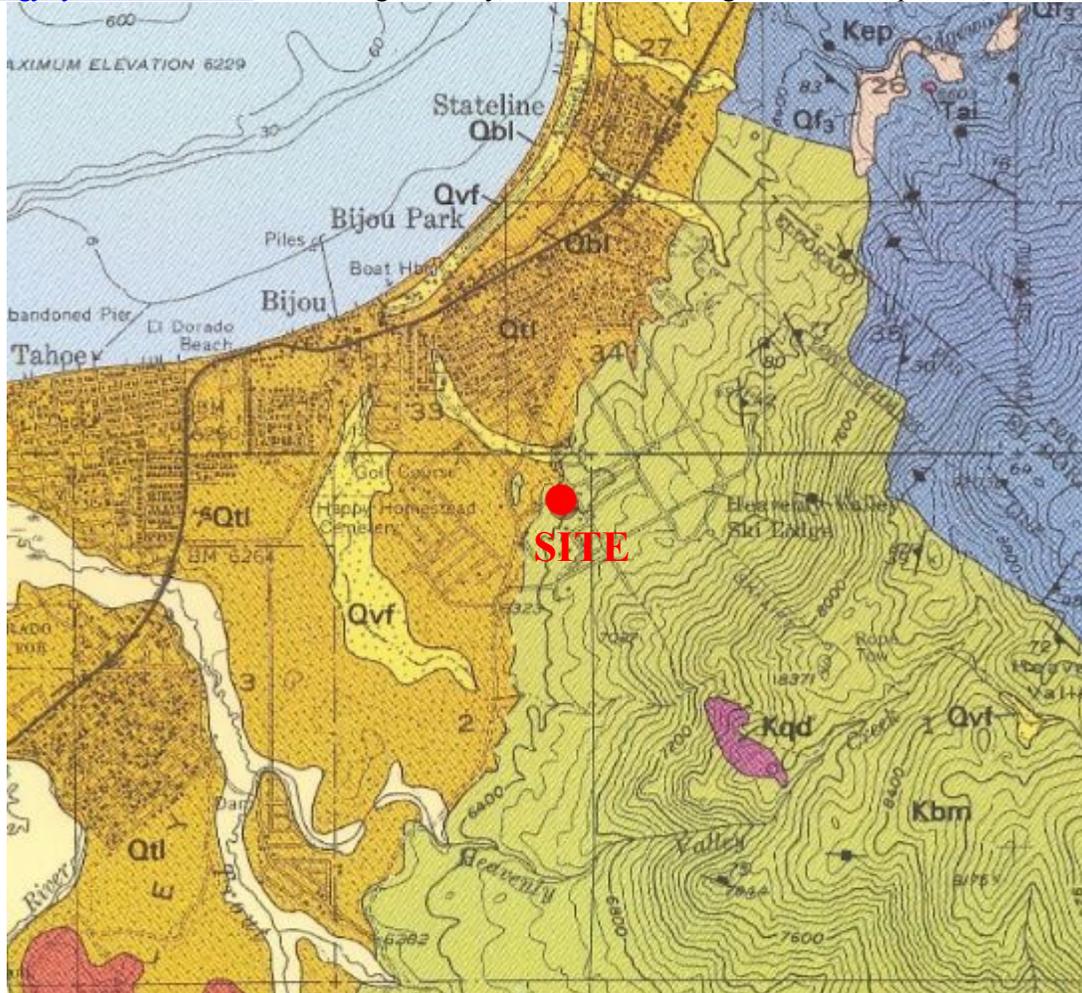
147

LEGAL COMMITTEE ITEM NO. 3 &

AGENDA ITEM NO. VIII. A.

# National Geologic Map Database

Armin, R.A., and John, D.A., 1983, [Geologic map of the Freel Peak 15' quadrangle, California and Nevada, with Quaternary geology by J.C. Dohrenwend](#): U.S. Geological Survey, Miscellaneous Investigations Series Map I-1424, scale 1:62,500

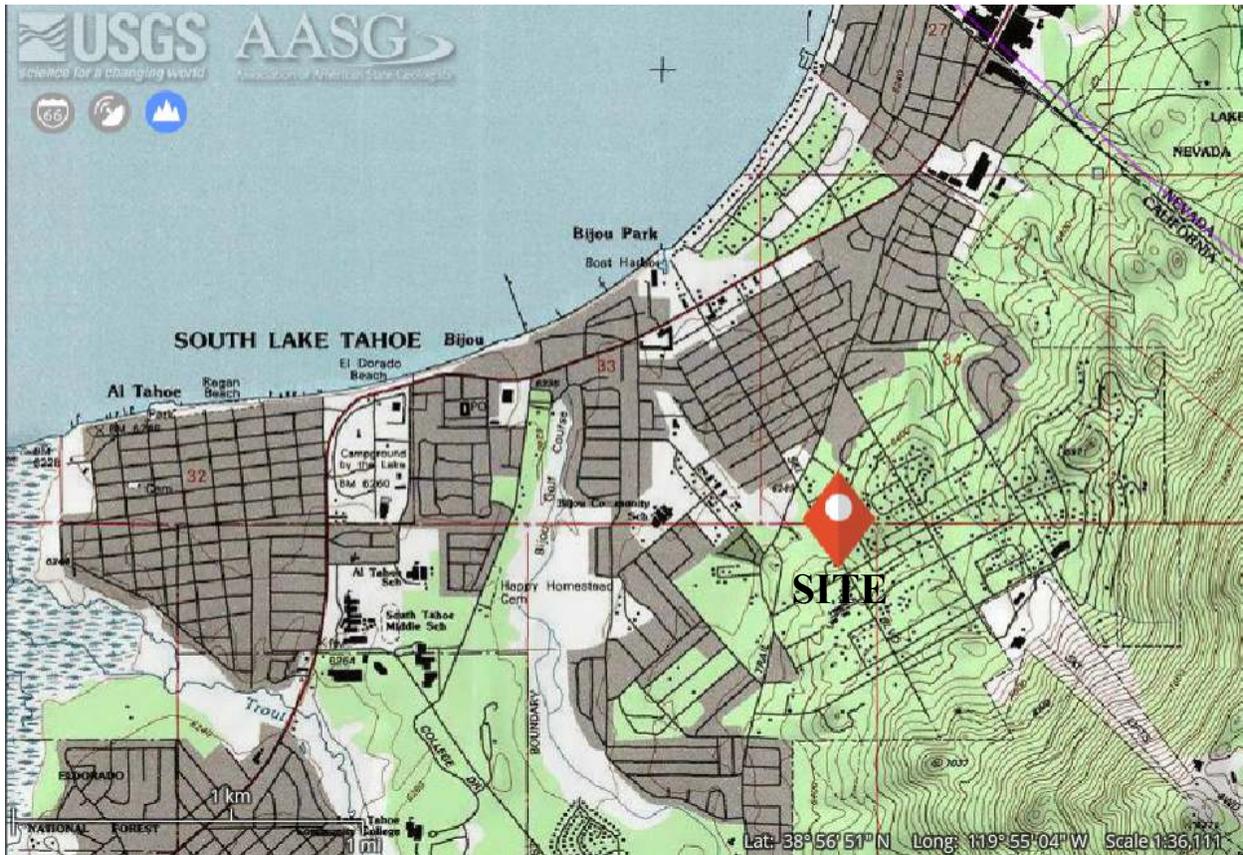


**Kbm** BRYAN MEADOW GRANODIORITE (Upper Cretaceous) — Light-gray medium-grained hypidiomorphic-granular granodiorite typically containing about 5 percent subhedral and euhedral hornblende crystals as long as 1 cm, and similar amounts of pseudo-hexagonal books of biotite in a groundmass of feldspar and quartz. Subhedral plagioclase crystals are commonly rimmed with myrmekite, and poikilitic phenocrysts of weakly micropertthitic microcline occur locally. Euhedral sphene crystals as long as 2 mm are ubiquitous. Discoid mafic inclusions are locally common. A more leucocratic, silicic phase of this pluton (stippled) is mapped in the vicinity of Horsethief Canyon and Horse Meadow. Other relatively small areas of leucocratic rock are common, particularly near margins of this pluton. K-Ar biotite ages of  $87.1 \pm 2$  and  $87.4 \pm 2$  m.y. ( $89.3 \pm 2$  and  $89.6 \pm 2$  m.y., respectively, using decay constants of Steiger and Jager, 1977) are reported by Evernden and Kistler (1970) for a sample of Bryan Meadow Granodiorite collected in Horsethief Canyon

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**Terradyne Engineering, Inc.**

USGS Geologic Map and Legend



Armin, R.A., and John, D.A., 1983, [Geologic map of the Freel Peak 15' quadrangle, California and Nevada, with Quaternary geology by J.C. Dohrenwend](#): U.S. Geological Survey, Miscellaneous Investigations Series Map I-1424, scale 1:62,500

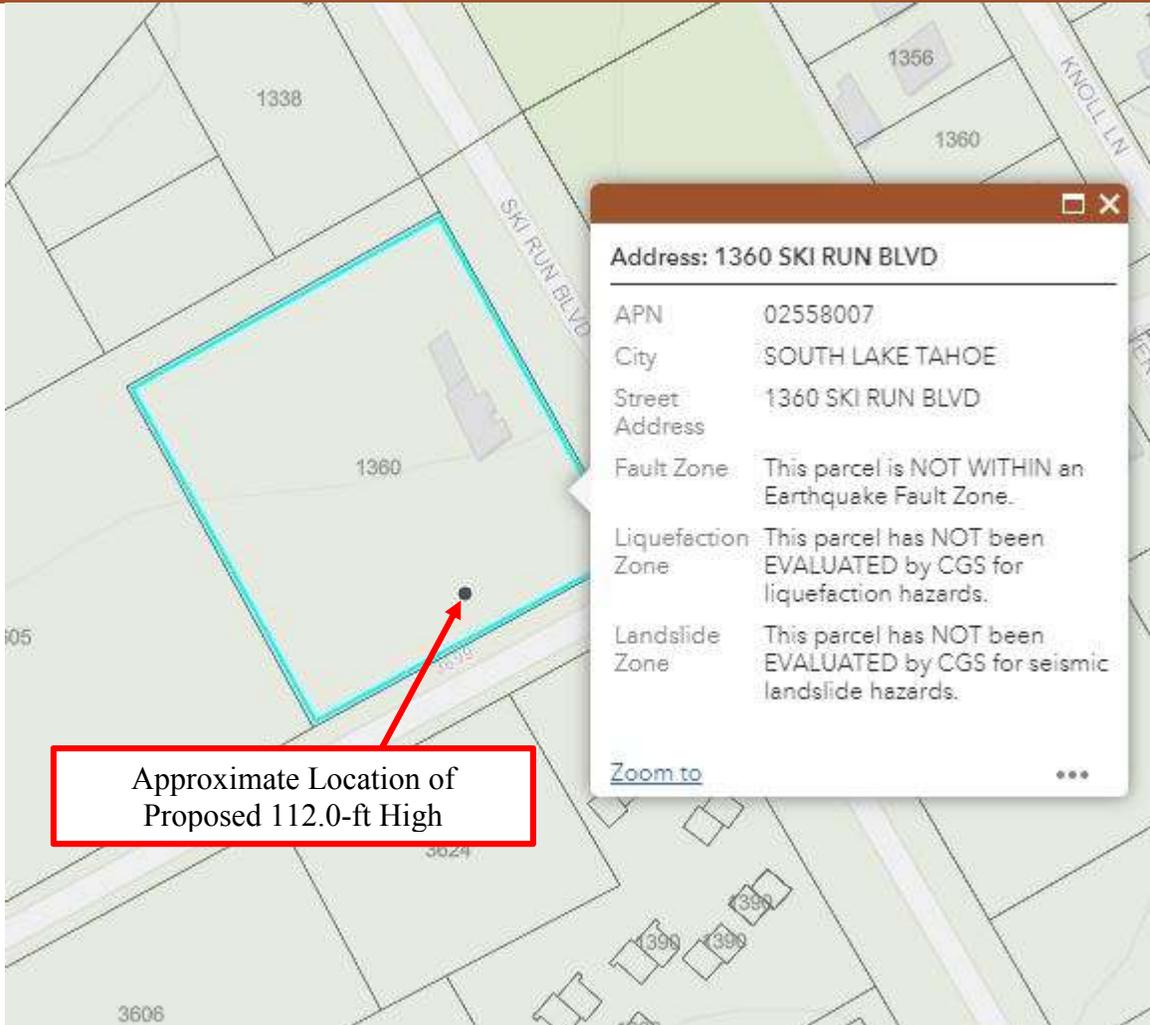
**Geotechnical Investigation Report**  
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 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

USGS Topographic Map

Terradyne Project No: L191044 Figure: D  
 549 LEGAL COMMITTEE ITEM NO. 3 &

AGENDA ITEM NO. VIII. A.



Source: California Geological Survey (CGS)

Ref: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
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**Terradyne Engineering, Inc.**

CGS Seismic Hazard Information

Terradyne Project No: L191044

Figure: E

## **APPENDIX B**

Project: **Verizon SKI RUN BLVD (PSL #444780)**  
 Project Location: **1360 Ski Run Blvd, South Lake Tahoe, CA 96150**  
 Project Number: **L191044**

**Log of Boring 1**  
**Sheet 1 of 1**

Date(s) Drilled: <b>07/17/2019</b>	Logged By: <b>AM</b>	Checked By: <b>AN</b>
Drilling Method: <b>Standard Penetration Test using Hollow-Stem Auger</b>	Drill Bit Size/Type: <b>8 in</b>	Total Depth of Borehole: <b>19 feet bgs</b>
Drill Rig Type: <b>CME-75</b>	Drilling Contractor: <b>Moore Twining Associates, Inc.</b>	Approximate Surface Elevation: <b>6373 ft</b>
Groundwater Level and Date Measured: <b>Not encountered</b>	Sampling Method(s): <b>Bulk, SPT</b>	Hammer Data: <b>140 lbs, 30" drop</b>
Borehole Backfill: <b>Native soil</b>	Location: <b>See boring location plan</b>	

C:\Users\LAJX\_2\Downloads\Company\_File\All\_projects\Geotechnical\_projects\L191044-1360 Ski Run Blvd, South Lake Tahoe, CA 96150\Boring log\L191044-Boring log\_bgd(master 2 lab).ipf

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	REMARKS AND OTHER TESTS
6373	0						TOPSOIL,			
			B-1 @ 1'	9/75	SP		0.5'-7.5' COLLUVIUM/RESIDUAL SOIL (Qc)	4.52	106.4	
			B-1 @ 0.5'-3'		SP		Poorly graded SAND with gravel, slightly silty, trace clay, dark brown, slightly moist, medium dense,	4.52		
6368	5		B-1 @ 5'	2/22	SP		Same as 1',	4.33	87.6	
6363	10		B-1 @ 10'	12/50 for 5"			7.5'-19.0' BRYAN MEADOW GRANODIORITE (Kbm)			
							GRANODIORITE, light brownish gray, slightly moist, very hard,	4.96	131.7	
6358	15		B-1 @ 15'	37/50 for 3"			Same as 10',	5.32	132.4	
			B-1 @ 19'	50 for 2"			Same as 15', became pale gray, Refusal on rocks,	1.19	138.4	
6353	20						End of Boring @ refusal depth of 19.0 ft No caving or groundwater encountered Borehole backfilled with native soil 07/17/2019			
6348	25									
6343	30									

**Figure 1**

Project: **Verizon SKI RUN BLVD (PSL #444780)**  
 Project Location: **1360 Ski Run Blvd, South Lake Tahoe, CA 96150**  
 Project Number: **L191044**

**Key to Log of Boring**  
**Sheet 1 of 1**

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8	9	10	11

**COLUMN DESCRIPTIONS**

- |   |  |
|---|--|
| <p><b>1</b> Elevation (feet): Elevation (MSL, feet).</p> <p><b>2</b> Depth (feet): Depth in feet below the ground surface.</p> <p><b>3</b> Sample Type: Type of soil sample collected at the depth interval shown.</p> <p><b>4</b> Sample Number: Sample identification number.</p> <p><b>5</b> Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.</p> <p><b>6</b> Material Type: Type of material encountered.</p> | <p><b>7</b> Graphic Log: Graphic depiction of the subsurface material encountered.</p> <p><b>8</b> MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.</p> <p><b>9</b> Water Content, %: Water content of the soil sample, expressed as percentage of dry weight of sample.</p> <p><b>10</b> Dry Unit Weight, pcf: Dry weight per unit volume of soil sample measured in laboratory, in pounds per cubic foot.</p> <p><b>11</b> REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.</p> |
|---|--|

**FIELD AND LABORATORY TEST ABBREVIATIONS**

- |   |  |
|---|--|
| <p>CHEM: Chemical tests to assess corrosivity</p> <p>COMP: Compaction test</p> <p>CONS: One-dimensional consolidation test</p> <p>LL: Liquid Limit, percent</p> | <p>PI: Plasticity Index, percent</p> <p>SA: Sieve analysis (percent passing No. 200 Sieve)</p> <p>UC: Unconfined compressive strength test, Qu, in ksf</p> <p>WA: Wash sieve (percent passing No. 200 Sieve)</p> |
|---|--|

**MATERIAL GRAPHIC SYMBOLS**

- |  |   |
|--|---|
|  Granodiorite |  Poorly graded SAND (SP) |
|--|---|

**TYPICAL SAMPLER GRAPHIC SYMBOLS**

- |   |   |
|---|---|
|  Auger sampler                       |  CME Sampler                                     |
|  Bulk Sample                         |  Grab Sample                                     |
|  3-inch-OD California w/ brass rings |  2.5-inch-OD Modified California w/ brass liners |

**OTHER GRAPHIC SYMBOLS**

- |   |  |
|---|--|
|  | Water level (at time of drilling, ATD)               |
|  | Water level (after waiting)                          |
|  | Minor change in material properties within a stratum |
|  | Inferred/gradational contact between strata          |
|  | Queried contact between strata                       |

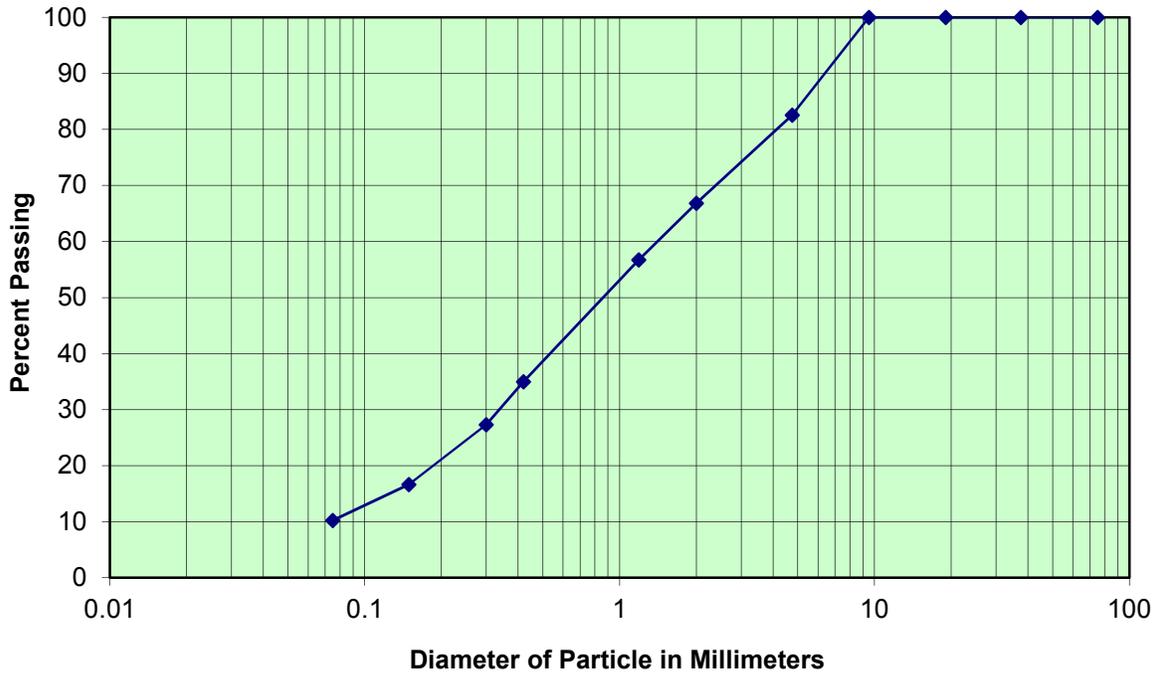
**GENERAL NOTES**

- Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
- Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

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## **APPENDIX C**

**Gradation Test Results**



**B-1 @ 0-3.0'**

Gravel	Sand	Fines
17.6%	72.8%	9.6%

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
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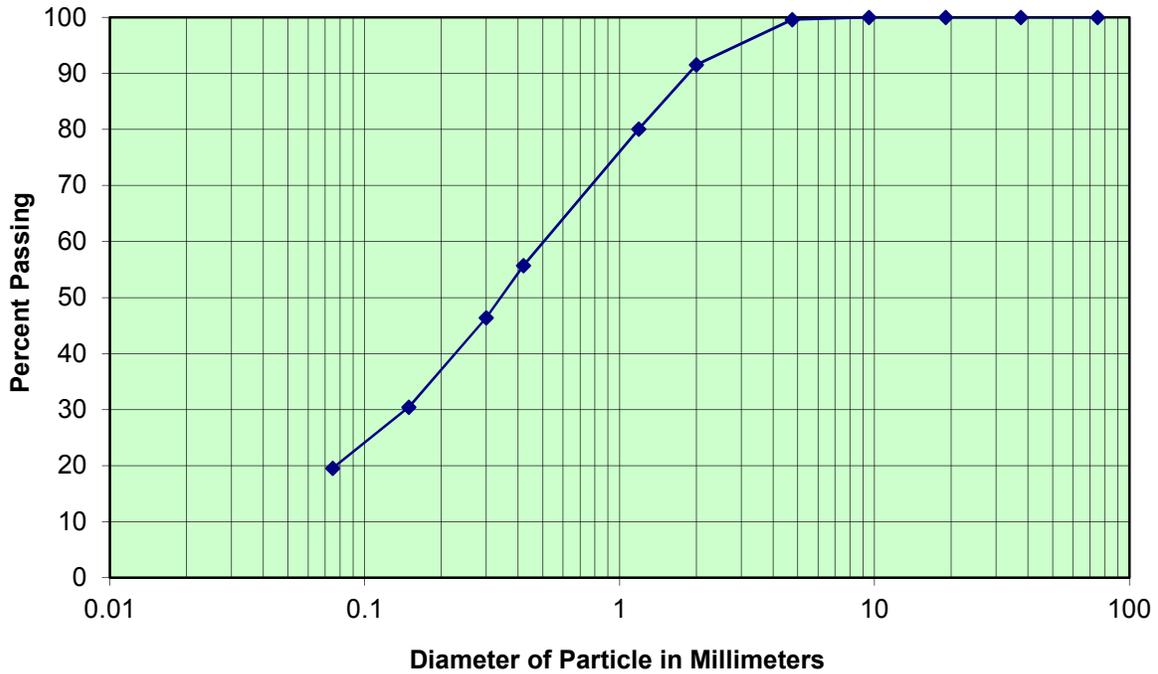
**Terradyne Engineering, Inc.**

Grain Size Distribution Chart

Terradyne Project No: L191044  
 555 LEGAL COMMITTEE ITEM NO. 3 & Figure: F

AGENDA ITEM NO. VIII. A.

**Gradation Test Results**



**B-1 @ 10.0'**

Gravel	Sand	Fines
0.3%	80.1%	19.6%

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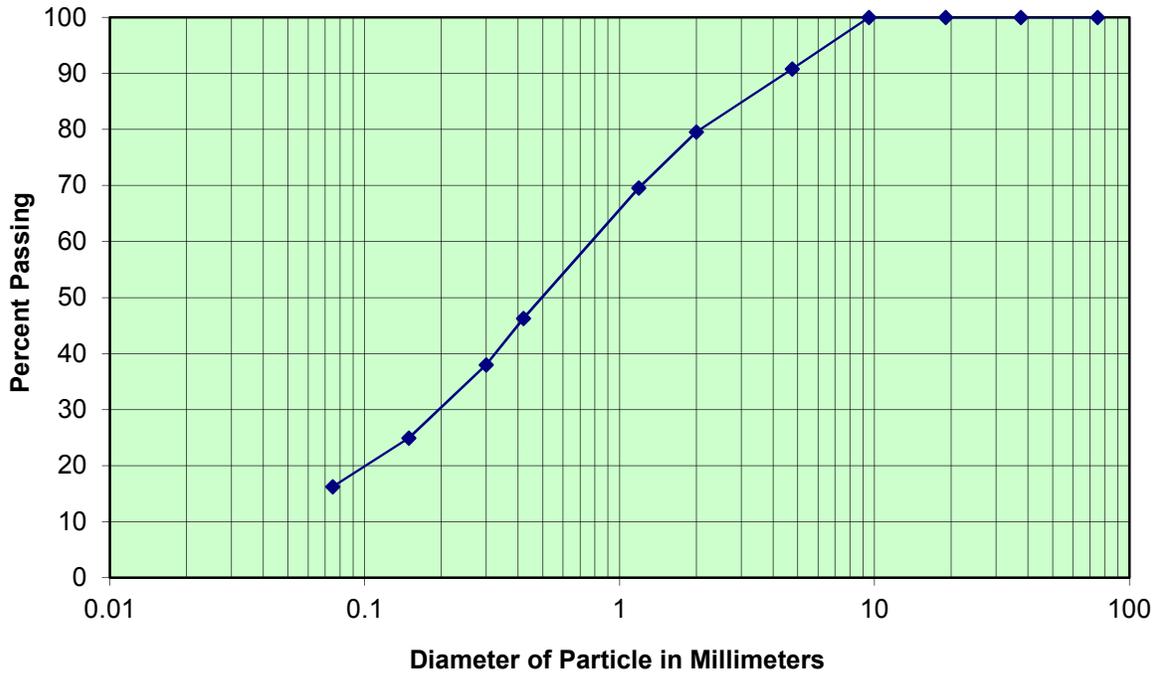
**Terradyne Engineering, Inc.**

Grain Size Distribution Chart

Terradyne Project No: L191044

Figure: G

**Gradation Test Results**



**B-1 @ 15.0'**

Gravel	Sand	Fines
9.2%	74.6%	16.2%

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**Terradyne Engineering, Inc.**

**Grain Size Distribution Chart**

Terradyne Project No: L191044  
 Figure: H  
 557 LEGAL COMMITTEE ITEM NO. 3 &

## Expansion Index Test (ASTM D 4829)

Project Name: Verizon SKI RUN BLVD (PSL #444780)	Sample By: Moore Twinning	Date: 07/20/19
Project No. : L191044	Tested By: WS	Date: 07/24/19
Boring No.: B-1	Depth (ft): 0-3.0'	
Sample No. : Bulk Sample		
Soil Identification: Poorly graded SAND, slightly silty, trace clay, dark brown		

Dry Wt. of Soil + Cont. (g)	442.4
Wt. of Container No. (g)	0.0
Dry Wt. of Soil (g)	442.4
Weight Soil Retained on #4	77.2
Sieve Percent Passing # 4	82.5%

MOLDED SPECIMEN	Before Test	After Test
Specimen Diameter (in.)	4	4
Specimen Height (in.)	1.00	1.00
Wt. Comp. Soil + Mold (g)	757.7	770.5
Wt. of Mold (g)	367.0	367.0
Specific Gravity (Assumed)	2.65	2.65
Ring Factor	0.301	0.301
Wet Wt. of Soil + Cont. (g)	176.9	189.8
Dry Wt. of Soil + Cont. (g)	169.5	178.5
Wt. of Container (g)	100.8	105.6
Moisture Content (%)	10.8	15.5
Wet Density (pcf)	117.6	121.5
Dry Density (pcf)	106.2	105.2
Degree of Saturation (%) [ S meas]	51.2	71.7

**SPECIMEN INUNDATION** in distilled water for the period of 24h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Reading (in.)
7/23/2019	12:20 PM			0.032
7/24/2019	4:40 PM		1700	0.036

<b>Expansion Index (EI)=(Final rdg-InitialRdg)/Initial Thick)x1000</b>	4	<b>Plate: I</b>
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## **APPENDIX D**

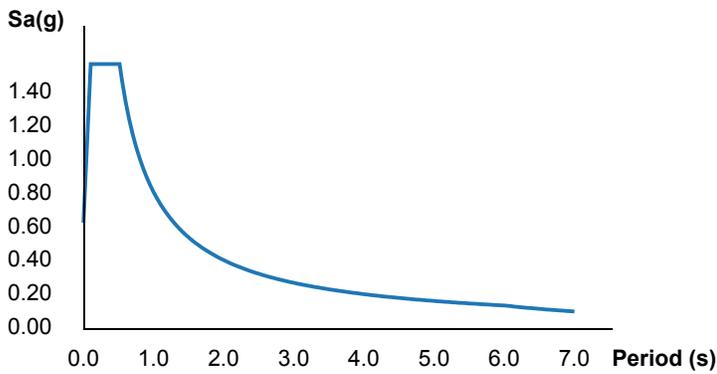
# ATC Hazards by Location

## Search Information

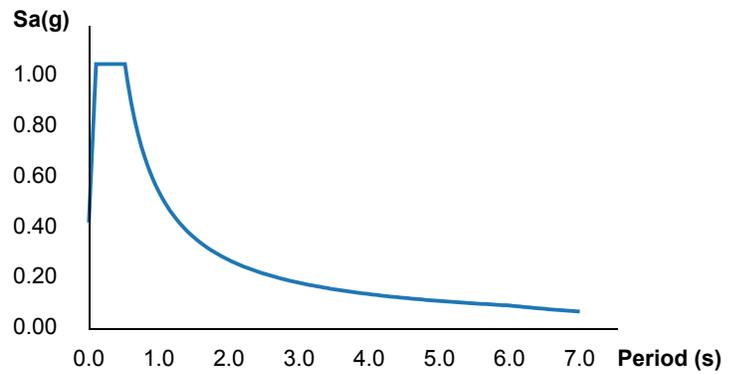
**Coordinates:** 38.937388, -119.950135  
**Elevation:** 6366 ft  
**Timestamp:** 2019-06-18T00:26:50.279Z  
**Hazard Type:** Seismic  
**Reference Document:** ASCE7-10  
**Risk Category:** II  
**Site Class:** D



### MCE<sub>R</sub> Horizontal Response Spectrum



### Design Horizontal Response Spectrum



## Basic Parameters

Name	Value	Description
S <sub>S</sub>	1.571	MCE <sub>R</sub> ground motion (period=0.2s)
S <sub>1</sub>	0.54	MCE <sub>R</sub> ground motion (period=1.0s)
S <sub>MS</sub>	1.571	Site-modified spectral acceleration value
S <sub>M1</sub>	0.809	Site-modified spectral acceleration value
S <sub>DS</sub>	1.047	Numeric seismic design value at 0.2s SA
S <sub>D1</sub>	0.54	Numeric seismic design value at 1.0s SA

## Additional Information

Name	Value	Description
SDC	D	Seismic design category
F <sub>a</sub>	1	Site amplification factor at 0.2s
F <sub>v</sub>	1.5	Site amplification factor at 1.0s
CR <sub>S</sub>	0.928	Coefficient of risk (0.2s)

CR <sub>1</sub>	0.91	Coefficient of risk (1.0s)
PGA	0.588	MCE <sub>G</sub> peak ground acceleration
F <sub>PGA</sub>	1	Site amplification factor at PGA
PGA <sub>M</sub>	0.588	Site modified peak ground acceleration
T <sub>L</sub>	6	Long-period transition period (s)
SsRT	1.571	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.693	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	2.429	Factored deterministic acceleration value (0.2s)
S1RT	0.54	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.593	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.775	Factored deterministic acceleration value (1.0s)
PGAd	0.833	Factored deterministic acceleration value (PGA)

*The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.*

## Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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August 5, 2022

Michelle Duarte  
333 University Ave., Suite 200  
Sacramento, CA 95825  
Michelle.Fernandes@sacw.com

**REVISED: SOIL HYDROLOGIC APPROVAL - WAIVER  
1360 SKI RUN BOULEVARD, CITY OF SOUTH LAKE TAHOE, CALIFORNIA  
APN 025-580-07, TRPA FILE NUMBER LCAP2019-0189**

Dear Ms. Duarte:

The Tahoe Regional Planning Agency (TRPA) staff has reviewed the Soils/Hydrologic Scoping Report Application submitted in association with a monopine cell tower and equipment shelter. The proposed excavation is **13.5 feet below ground surface**. It is not expected that groundwater will be encountered in this location and the excavation is allowed pursuant to TRPA Code of Ordinances Sections 33.3.6.A.2.a (accommodation of engineering requirements for above-ground structures) and 33.3.6.A.2.d (public health and safety).

Please note that it is possible that variations in the soil or groundwater conditions could exist that are different than what has been investigated or reported. If conditions are found to be wetter than expected, contact TRPA immediately to discuss options for dewatering.

If you have any questions, please contact me by phone at (775) 589-5247 or by email at [jroll@trpa.org](mailto:jroll@trpa.org).

Sincerely,

Julie Roll  
Senior Planner

**Evaluation of Monopine Needles**  
**Verizon Wireless Monopine, 1360 Ski Run Boulevard**  
**Special Use Permit File # 19-026**

*Prepared for*  
**Verizon Wireless**



Bridgette Deshields, Principal Scientist  
Sean L. Culkin, P.G., C.H.G., Consultant  
505 Montgomery Street, 11th Floor  
San Francisco, CA 94111

A handwritten signature in black ink, appearing to read "Bridgette Deshields".

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**Bridgette Deshields**

A handwritten signature in black ink, appearing to read "Sean Culkin".

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**Sean L. Culkin, P.G., C.H.G.**

March 3, 2022

Although there are no specific estimates of the mass of plastics entering Lake Tahoe, the potential mass load of plastic from the proposed tower is expected to be very small due to limited potential for migration (see below). Furthermore, based on the findings of the studies summarized above and the nature of the materials (PVC, which resists degradation), monopine needles are not likely to be a significant source of microplastics to surface water.

## **SURFACE WATER MIGRATION POTENTIAL**

Significant migration of monopine needles from the proposed tower site to Lake Tahoe via existing surface water pathways is unlikely, as outlined below. If any monopine needle pieces were to migrate outside the enclosure, very few would be likely to end up in Lake Tahoe because:

- There is no readily observable pathway for plastic falling in the immediate vicinity of the proposed tower to enter Bijou Park Creek via surface water runoff (see Figures 6 and 7 below).
  - The site of the proposed faux tree tower is currently occupied by a shed, which will be removed prior to construction of the tower, on the property of Hansen’s Snow Tube & Saucer Hill. The shed is at the edge of a slope that angles down towards Ski Run Boulevard. Verizon Wireless will construct a new shelter immediately adjacent to the tower.
  - Between the shed and Ski Run Boulevard are several buildings consisting of a motel, retaining wall, and other structures that would act as local barriers to surface water flow and any associated plastic transport.
  - The shed is approximately 330 linear feet from the uppermost section of Bijou Park Creek drainage area, which is off the property in the north-northwest direction. Separating the watershed from the creek drainage area is a sled/tubing run that appears in photos as a built-up berm that would also act as a barrier to surface water flow downslope of the proposed tower across the property line to the northeast (see image below).
  - The location of the proposed tower is not in the Bijou Park Creek Stream Environmental Zone (see Figure 8 below).
  - The location of the proposed tower is not within the documented 100-year flood inundation area of the creek (see Figure 9 below).
  - The location of the proposed tower is not within areas documented to be prone to flooding (see Figure 10 below).
  - The potential offsite surface water flow direction was observed to be predominantly in the direction of Ski Run Boulevard from the proposed tower site.

- The potential pathway for plastics from the uppermost drainage area of Bijou Park Creek through the creek to the outfall near Lake Tahoe Harbor is a distance of approximately 1.1 miles, and includes highly vegetated surface drainages that would act as a barrier to plastic monopine needle transport.
- The **Bijou Park Creek Watershed Restoration Project** is currently under development. When completed, the project would provide additional barriers for potential transport of plastic needles from the site of the proposed tower via Ski Run Boulevard or Bijou Park Creek. These proposed restoration activities include sediment traps, reduced stream gradient for upper Bijou Park Creek, and diversion of stormwater away from the Ski Run/Needle Peak intersection to an existing treatment basin.



Figure 5: View of proposed tower site from Needle Peak Road.



Figure 6: Proposed tower site.



Figure 7: View of the Hansen's Snow Tube & Saucer Hill from Ski Run Boulevard.

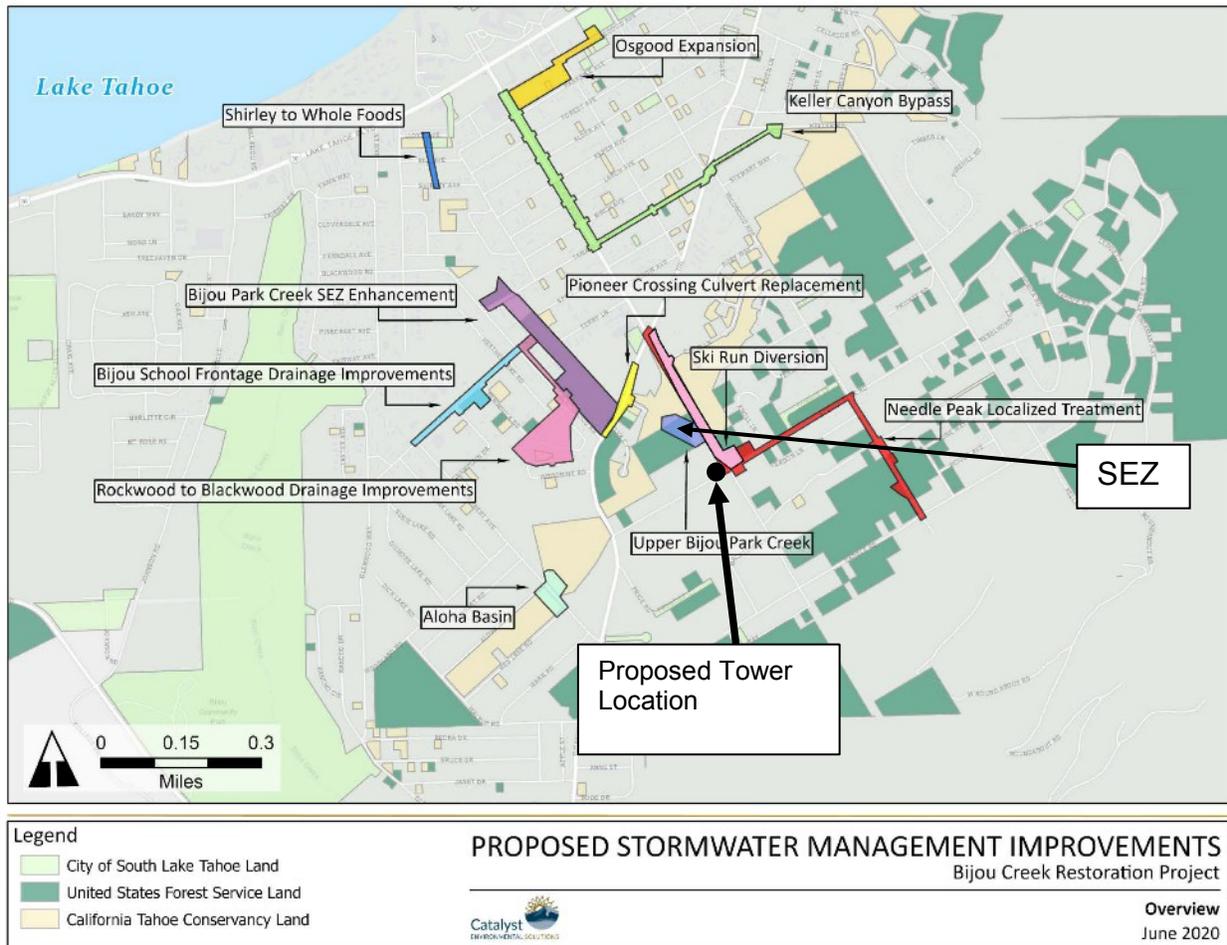
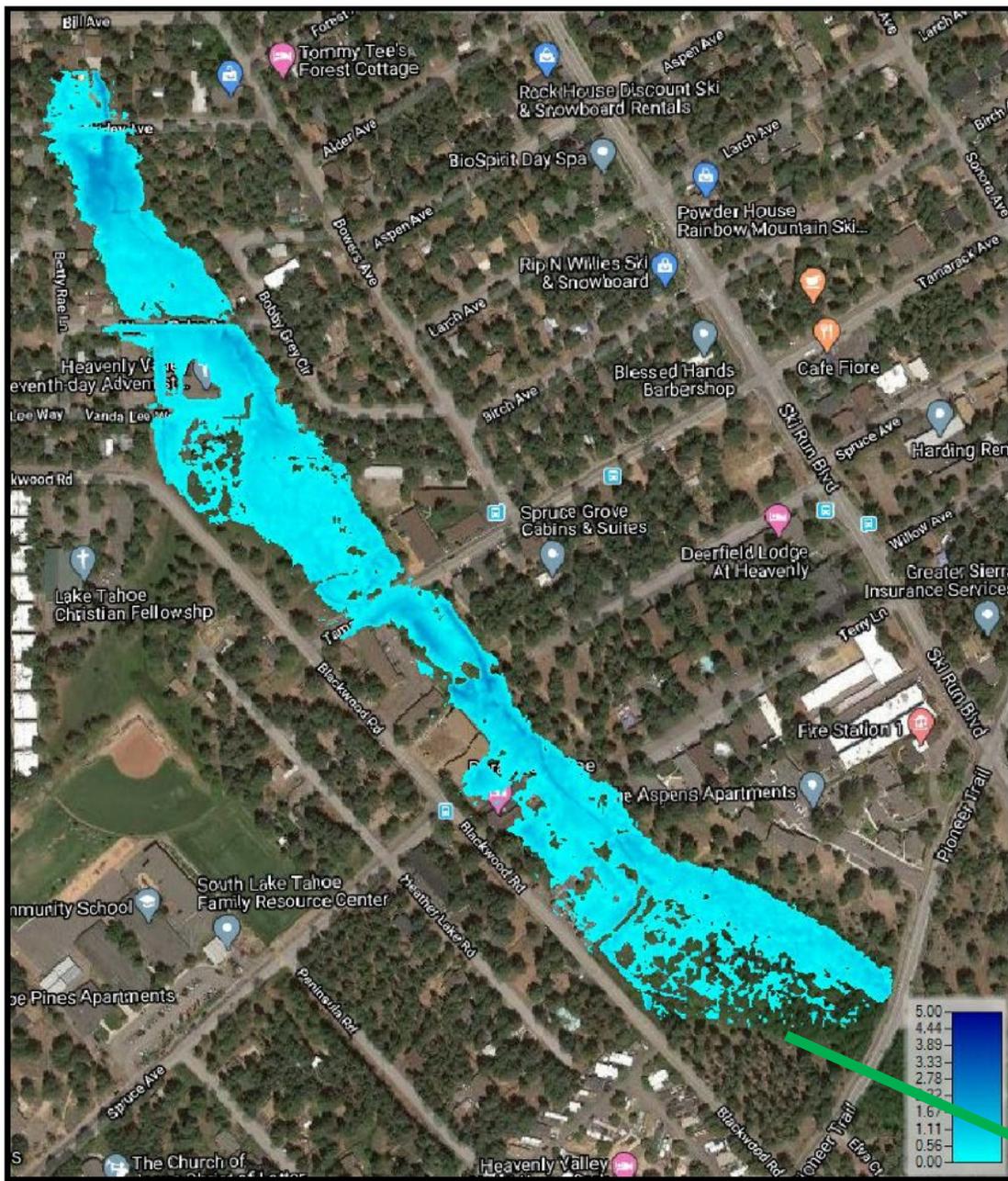


Figure 8: Map showing planned improvements for the Bijou Park Creek Stream Environment Zone (source: City of South Lake Tahoe 2020<sup>8</sup>).

<sup>8</sup> City of South Lake Tahoe. 2020. Public meeting for the Bijou Park Creek Watershed Restoration Project. PowerPoint presentation. City of South Lake Tahoe, CA.

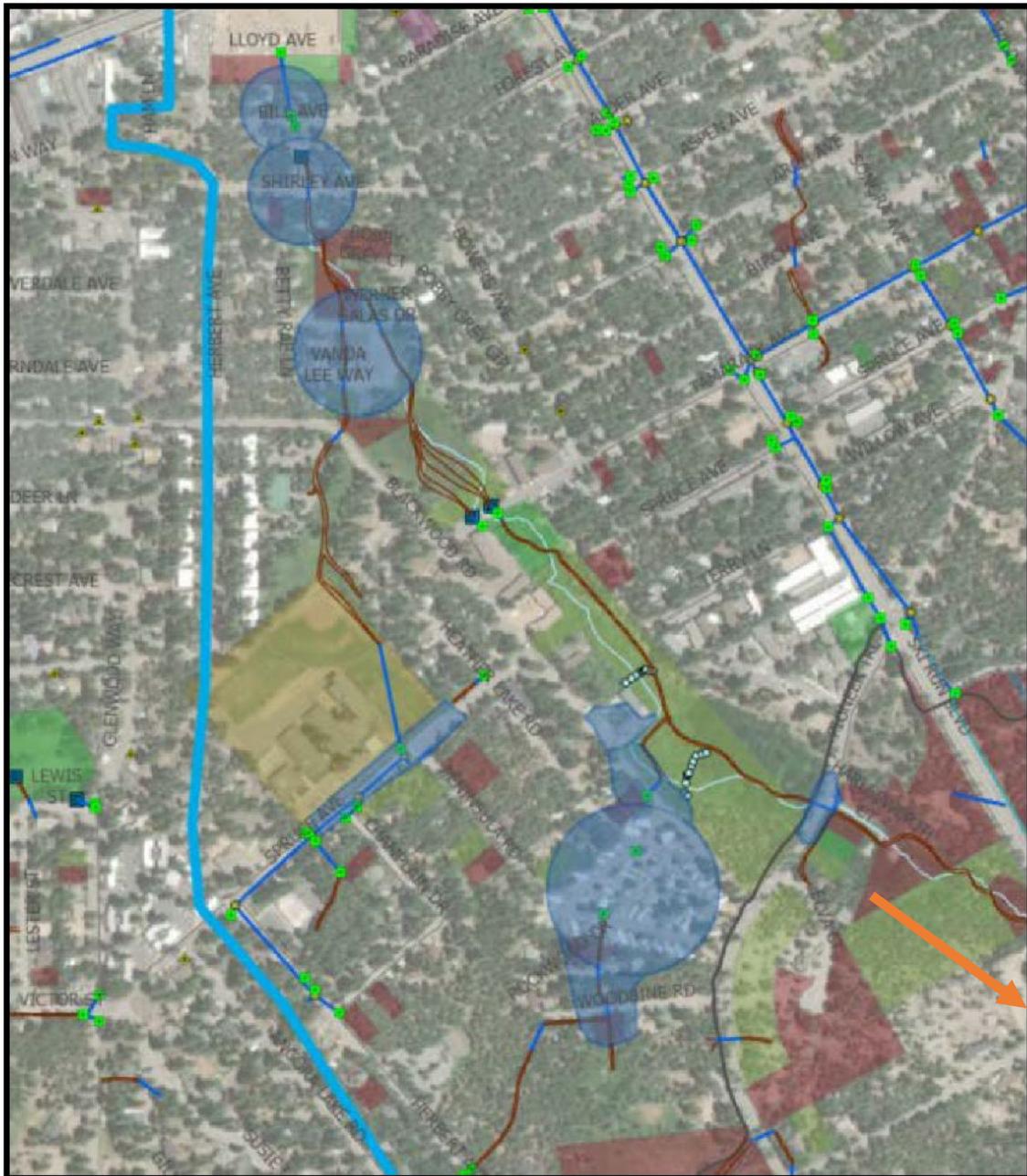


**Figure 14.** Bijou Park Creek Meadow 100-year flood inundation.

Figure 9: Bijou Park Creek Meadow 100-year flood inundation

NOTE: The proposed tower is off the map to the southeast (source: Wildscape 2020<sup>9</sup>).

<sup>9</sup> Wildscape. 2020. Bijou Park Creek Watershed Restoration Project – Preliminary Design Report. Prepared for Public Works Department, City of South Lake Tahoe, CA. Wildscape Engineering Inc., South Lake Tahoe, CA. September 4.



**Figure 15.** Flood prone areas shown in blue.

Figure 10: Flood prone areas shown in blue.

NOTE: The proposed tower is off the map to the southeast (source: Wildscape 2020<sup>9</sup>).

There is a low likelihood of monopine needles from the proposed faux tree tower leading to microplastic contamination of Lake Tahoe via surface water transport. The lack of an obvious,

Sending this again. Splitting up the documents.

Thank You,

*Michelle Duarte*

**Michelle Duarte | Project Manager**

SAC Wireless, 333 University Ave, Suite 200, Sacramento, CA 95825

**C: 916 337 4133** | [michelle.fernandes@sacw.com](mailto:michelle.fernandes@sacw.com) | [www.sacw.com](http://www.sacw.com)



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---

**From:** Michelle Fernandes

**Sent:** Tuesday, August 2, 2022 11:42 AM

**To:** Julie Roll <[jroll@trpa.gov](mailto:jroll@trpa.gov)>

**Cc:** Bridget Cornell <[bcornell@trpa.gov](mailto:bcornell@trpa.gov)>

**Subject:** RE: Soils Hydro - revised excavation depth?

Hi Julie,

We are requesting an updated Soils Hydrology Letter (TRPA File #LCAP2019-0189) for our 1360 Ski Run Cell Tower project (TRPA File #ERSP2021-0389). We had a previous thread on this site and it is below for reference. We are requesting a revised excavation depth of 13.5ft as per the soils/geo report, the mat foundation must bear a minimum of 5ft below the EXISTING grade. Previous excavation was stated at 7.5ft bgs. The soil profile investigated in the soils report was 19.0 feet below bgs. Please see below screenshot from the soils report. This site sits on a slope and this 13.5ft excavation depth is needed for the highest point of the slope. The tower would not have a stable foundation if we didn't excavate at this minimum depth. I have attached the site plans indicating the 13.5ft depth, the soils report and the structural analysis. Please let me know if you need any additional documentation!

### 7.3 Mat Foundation

A mat foundation system may also be used to support the proposed Monopole. The following equation may be used for the design of mat foundation.

$$k = k_1 [(B+1)/2B]^2$$

Where:

k = desired Modulus of Subgrade Reaction for full-sized footing (kcf)

k<sub>1</sub> = Modulus of Subgrade reaction for 1' X 1' plate

B = width of foundation (ft)

For the proposed site, k<sub>1</sub> of 100 kcf is recommended. An ultimate bearing capacity of 6000 psf and an allowable bearing capacity of 2000 psf may be used for foundation bearing on in-situ soil. Mat foundation should be embedded a minimum of 5-ft below the existing grade elevation. Greater embedment may be necessary to resist lateral loads due to wind and seismic forces. Mat slab thickness, reinforcement etc, should be selected by the structural engineer based on the analysis performed considering the loads anticipated and the modulus of subgrade reaction of the soil.

Thank You,

*Michelle Duarte*

**Michelle Duarte | Project Manager**

SAC Wireless, 333 University Ave, Suite 200, Sacramento, CA 95825

**C: 916 337 4133 | [michelle.fernandes@sacw.com](mailto:michelle.fernandes@sacw.com) | [www.sacw.com](http://www.sacw.com)**



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**From:** Bridget Cornell <[bcornell@trpa.gov](mailto:bcornell@trpa.gov)>

**Sent:** Monday, January 3, 2022 4:44 PM

**To:** Julie Roll <[jroll@trpa.gov](mailto:jroll@trpa.gov)>

**Cc:** Michelle Fernandes <[Michelle.Fernandes@sacw.com](mailto:Michelle.Fernandes@sacw.com)>

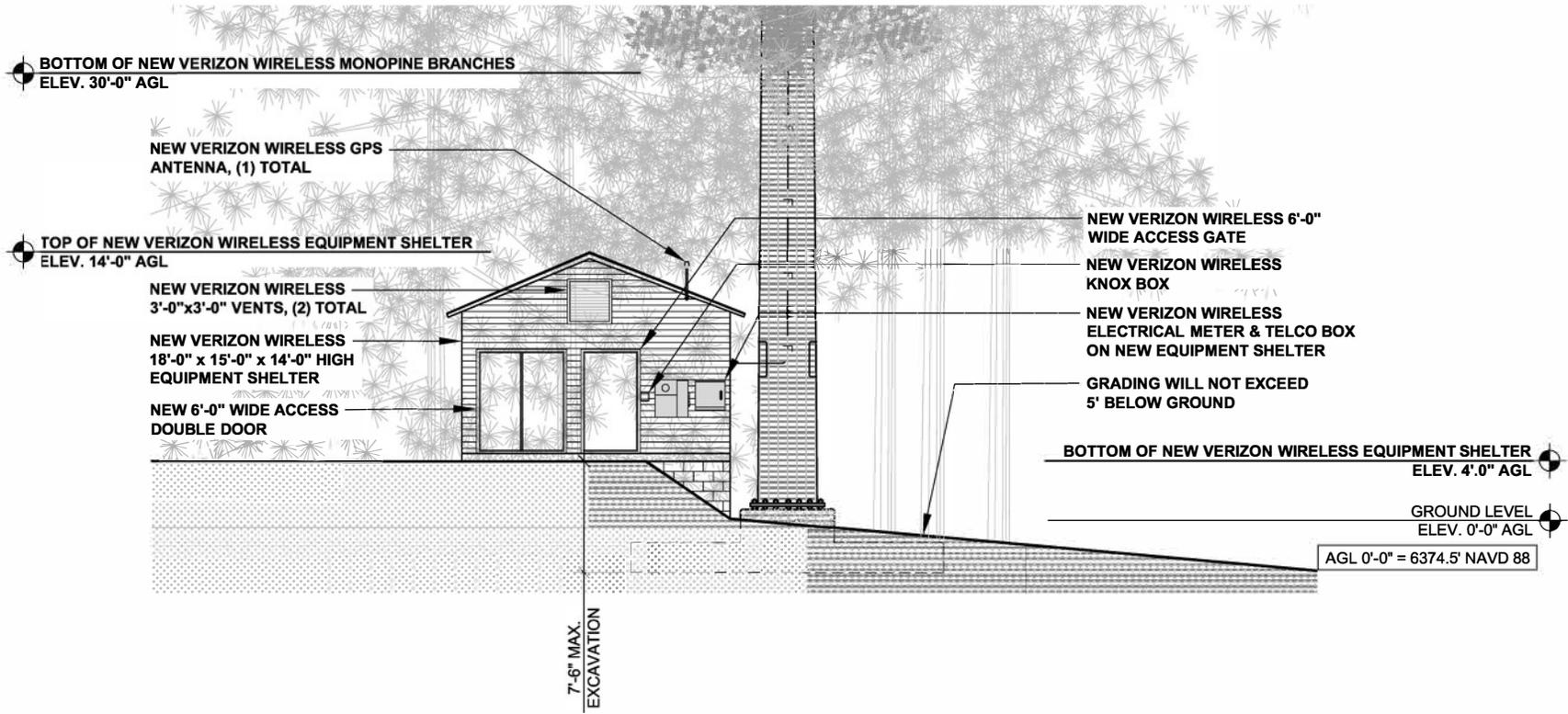
**Subject:** RE: Soils Hydro - revised excavation depth?

Hi Julie:

Thank you for your reply, below.

Michelle Fernandes is cc'd on this email. She represents the applicant for the Ski Run Cell Tower project (TRPA File #ERSP2021-0389).

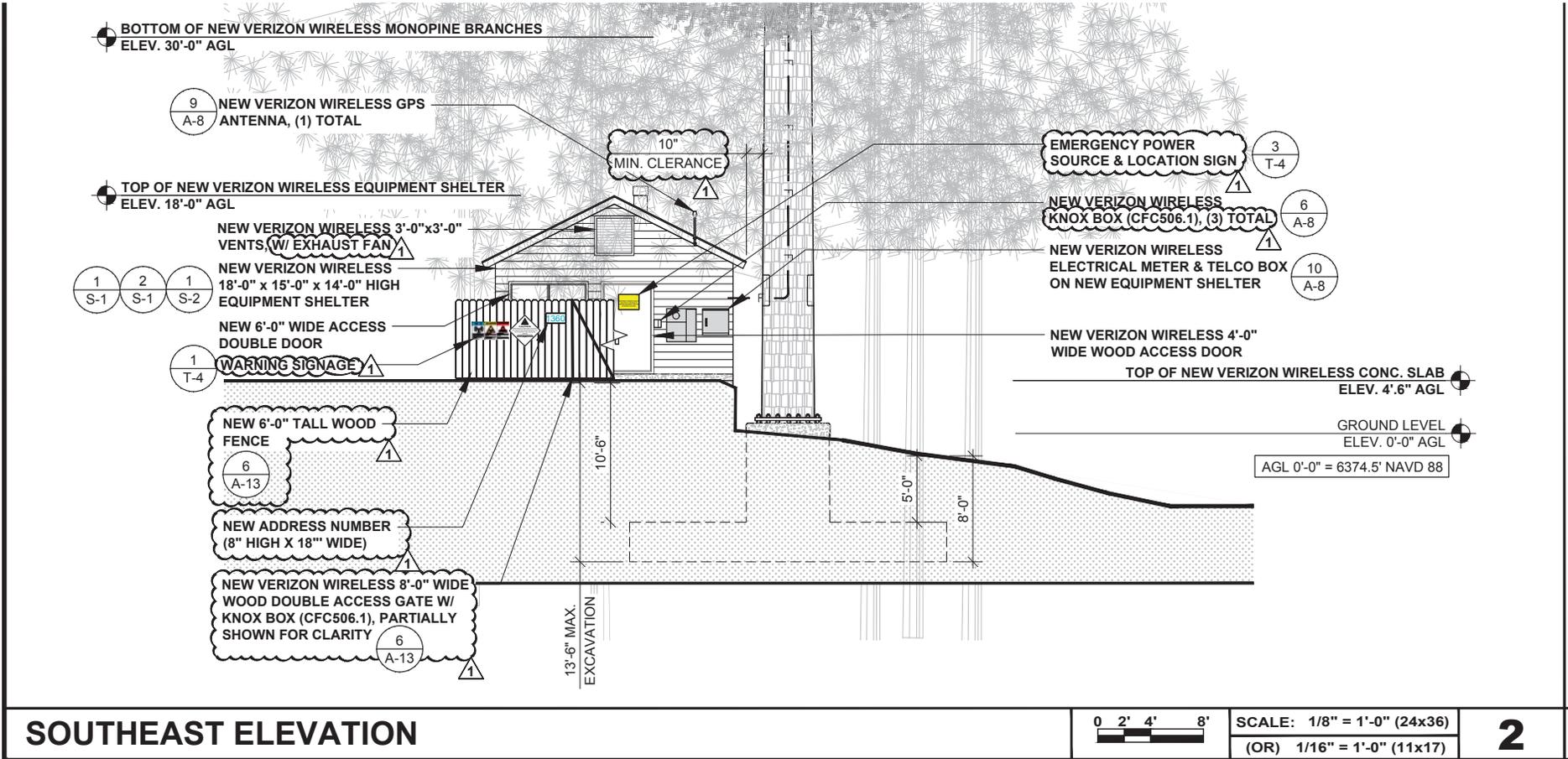
Michelle – will you please email us the current set of revised plans? The plans should reflect the currently proposed excavation depth. Please include a written request for the revised excavation



**SOUTHEAST ELEVATION**



SCALE: 1/8" = 1'-0" (24x36)  
(OR) 1/16" = 1'-0" (11x17)





March 3, 2022

**To: Tahoe Regional Planning Agency**

**From: Charlie Schwartz, Radio Frequency Design Engineer  
Verizon Wireless Network Engineering Department**

**Subject: Statement in Support of Verizon Wireless’s Proposed Facility  
1360 Ski Run Boulevard**

**Executive Summary**

Verizon Wireless has identified a significant gap in service in the Heavenly Valley and Bijou Park areas of South Lake Tahoe. The existing and proposed Verizon Wireless macro facilities in the greater vicinity are too distant to provide coverage and strong dominant signal to the gap area. Small cell facilities in the vicinity provide additional network capacity only to targeted areas with a small coverage footprint.

Further, accelerated growth in voice and data use by Verizon Wireless customers has increased the demand on the existing Verizon Wireless network in a manner that compromises network accessibility and reliability. Due to the high number of visitors to the area, the network already experiences spikes in demand during winter ski season and summer holidays that exhaust network resources and degrade service. During June 2021, downlink data volume was more than 2.5 times the volume during June 2019.

In the South Lake Tahoe area, 36 percent of Verizon Wireless’s bandwidth currently in use is in the mid-band AWS (2100 MHz) and PCS (1900 MHz) frequencies. 64 percent is in the low-band frequencies (700 and 850 MHz). With higher frequencies, the mid-band service provides much greater data capacity. However, the mid-band frequencies do not travel as far as low-band frequencies, and require facilities closer together and closer to the end user to provide reliable service.

Verizon Wireless recently licensed mid-band frequencies in the CBRS and C-band ranges (3550-4000 MHz) and will begin deploying these soon. However, with even higher frequencies, CBRS and C-band signal do not travel as far as low-band frequencies, and have less range than the AWS and PCS bands. Once C-Band is fully deployed, over 80 percent of the available bandwidth in the South Lake Tahoe area will be within the mid-band range. Verizon Wireless designs its networks to ensure that mid-band frequencies can provide adequate capacity as well as coverage.

The coverage gap and capacity issues described below constitute the “significant gap” Verizon Wireless seeks to serve (the “Significant Gap”). To provide reliable service and avoid further degradation of Verizon Wireless service in the Heavenly Valley and Bijou Park areas, the Significant Gap must be remedied through construction of a new stealth tower facility at 1360 Ski Run Boulevard (the “Proposed Facility”).

### **Verizon Wireless Services**

Verizon Wireless provides personal wireless services, a category of “telecommunications services,” which includes voice services that allow users of mobile, handheld telephones to place and receive calls to other mobile and landline telephone users through the national, switched telephone network using conventional telephone numbers. This includes the ability of such users to connect to emergency personnel through dialing 911. Verizon Wireless’s network also provides information services through its wireless facilities, including the Proposed Facility. These information services include wireless broadband, mobile data networks, and connection to the internet, which Verizon Wireless provides using the same infrastructure as its personal wireless services.

### **Current Network Status**

The Significant Gap in the Heavenly Valley and Bijou Park areas currently receives inadequate service coverage from existing Verizon Wireless macro facilities: the Tahoe PD macro facility 1.25 miles west of the proposed facility, the Kokanee facility 1.25 miles southwest, the Harrah’s facility 1.5 miles northeast, and the South Lake Tahoe (Harvey’s) facility 1.6 miles northeast.

There are five Verizon Wireless small cells in public rights-of-way in the vicinity of the Proposed Facility. Each has a small coverage footprint that provides needed Verizon Wireless network capacity to a targeted area, which will continue after the Proposed Facility is in service. Small cells cannot provide the ubiquitous umbrella coverage required to close a significant gap, which is provided by macro facilities.

- Node 016 – 0.25 miles northwest of the Proposed Facility
- Node 021 – 0.45 miles north
- Node 017 – 0.15 miles southwest
- Node 058 – 0.45 miles southwest
- Node 073 – 0.25 miles west

Other facilities in the greater vicinity cannot serve the gap. The Heavenly Adventure Hub Node 0.6 miles east is low height, with small antennas that primarily serve the Heavenly parking lot, but not the gap area. The Angel’s Roost macro facility near the top of the Heavenly Gunbarrel Express lift, 1.25 miles southeast, does not serve the gap because it is over 1,900 feet greater in elevation with antenna sectors facing the opposite direction.

The Tahoe Seasons facility (approved by the City of South Lake Tahoe in 2020, and pending review by TRPA) will be 0.6 miles east, beyond the gap area, and it will not provide sufficient service coverage to the gap.

### Coverage Gap

Verizon Wireless is experiencing a gap in its service coverage in the Heavenly Valley and Bijou Park areas (the “Coverage Gap”). To the west of the Proposed Facility, reliable AWS in-building service is lacking in an area roughly bounded by Glenwood Way to the west, Deer Lane and Tamarack Avenue to the north, Heavenly Valley Mobile Estates to the east, and Gilmore Lake Road to the south. There is also a lack of in-vehicle service in and around this area, extending as far west as a stretch of Johnson Boulevard south of Highway 50.

To the north, east and south of the Proposed Facility, there will remain a lack of reliable AWS in-building service even after the Tahoe Seasons facility is in service, extending east to some residential areas along Wildwood Avenue and south along Saddle Road. Pockets in these areas lack reliable in-vehicle service.

The Proposed Facility will provide new reliable AWS in-building coverage to those areas where lacking, as well as new reliable in-vehicle service to a larger area. In total, the Proposed Facility will provide reliable service to an area of 1.1 square miles and a population of 2,895. While the network provides service to local residents, it also must serve the many visitors to South Lake Tahoe, estimated in the millions annually, who need reliable service when traveling.

A graphic description of the predicted coverage gap is shown in the first coverage map. The second coverage map includes the improved coverage to be provided by the Proposed Facility. The third map includes coverage of the Proposed Facility and the Tahoe Seasons Facility that is pending review by TRPA.

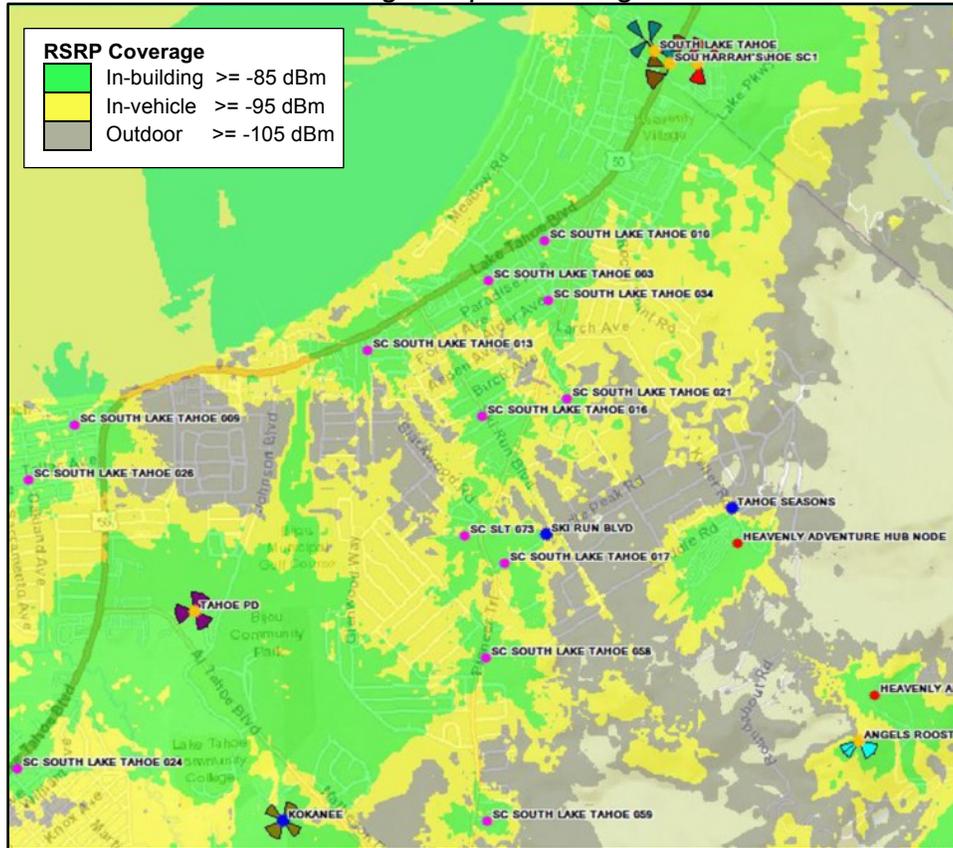
The coverage maps have been prepared using the AWS (2100 MHz) frequency band. The AWS and PCS (1900 MHz) bands use similar frequencies and have similar propagation characteristics, and currently provide the majority of Verizon Wireless service capacity in the area.

Referenced signal receive power (RSRP) is a measurement of signal level in decibels (dBm), which is a negative number that decreases due to distance and other factors. For the coverage maps, the AWS RSRP coverage thresholds are:

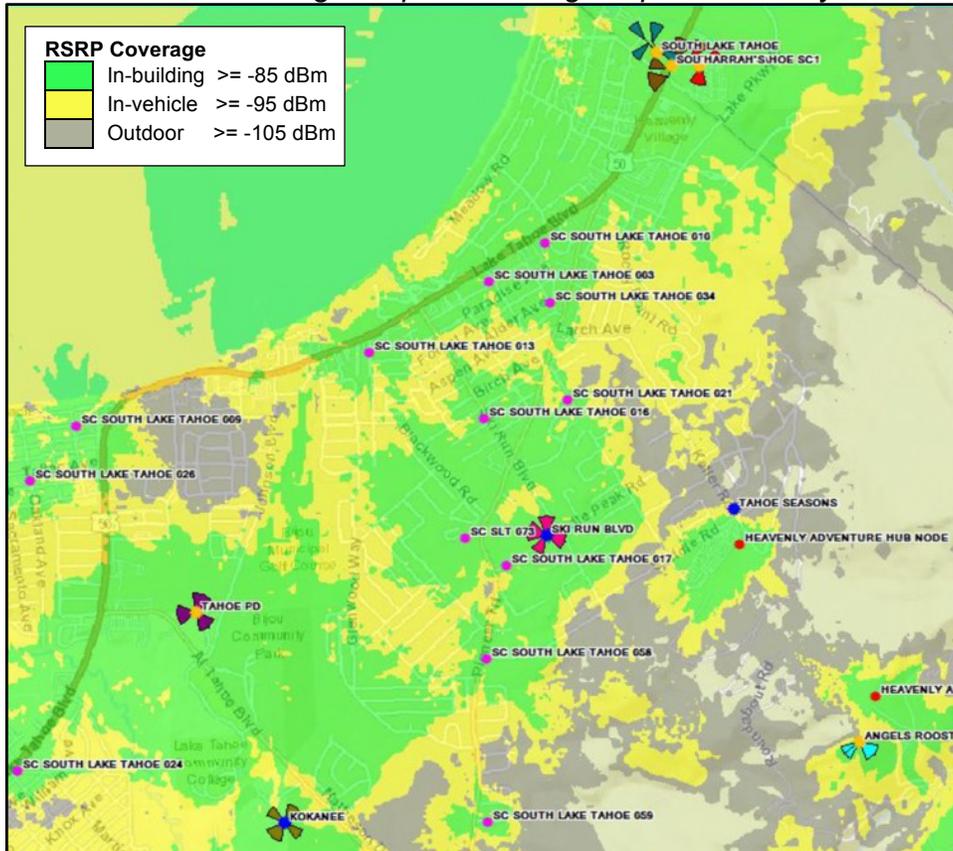
	<b>In-building</b> $\geq$ -85 dBm. Green depicts good coverage that meets or exceeds thresholds for reliable network coverage in homes and vehicles.
	<b>In-vehicle</b> $\geq$ -95 dBm. Yellow depicts reliable in-vehicle coverage only.
	<b>Outdoor</b> $\geq$ -105 dBm. Gray depicts reliable outdoor service only.

Unshaded areas do not receive reliable service levels.

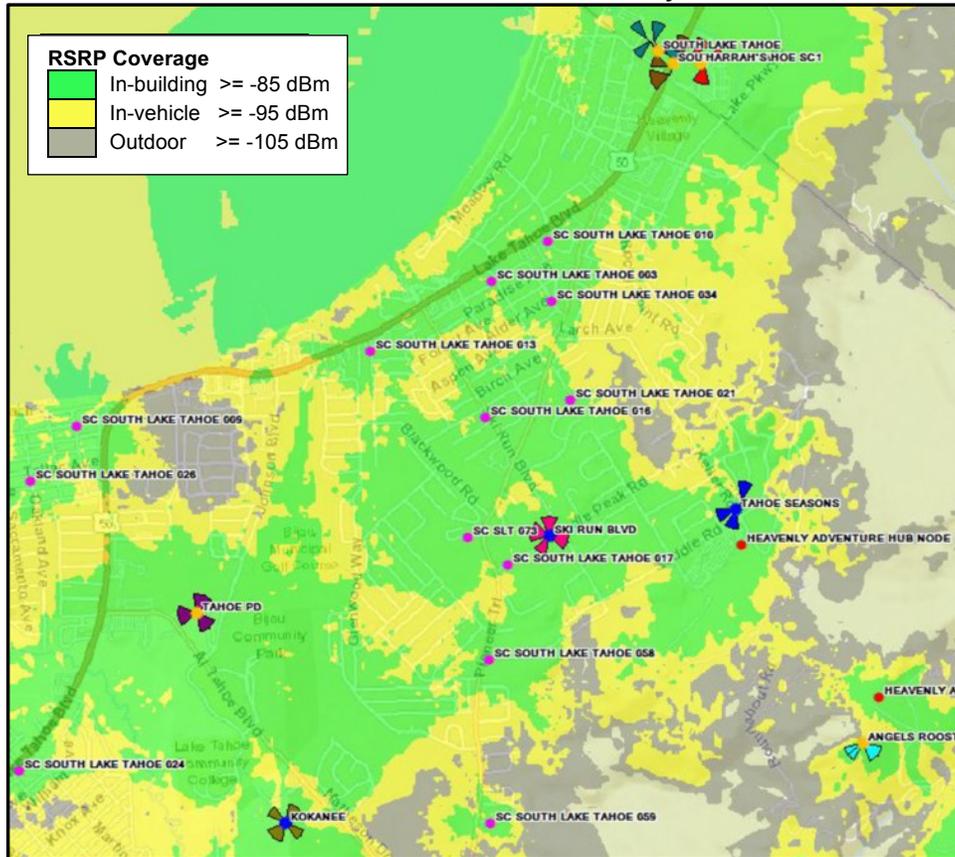
### AWS Coverage Map – Existing Facilities



### AWS Coverage Map – Including Proposed Facility



*AWS Coverage Map – Including Proposed Facility  
and Tahoe Seasons Facility*



**Dominant Signal**

As described above, even after the Tahoe Seasons facility is in service, the specified gap area will receive inadequate service from nearby Verizon Wireless facilities. This is apparent in the following best server maps, which depict the area of dominant signal provided by each nearby Verizon Wireless facility as low as -105 dBm. Signal from each facility is depicted in a different color. Facilities serving the gap are described in the legend. While the best server maps show which facility provides the dominant signal to a particular area, that signal may not be strong enough for customers to make a reliable call or access the network.

Currently, various portions of the gap area are served by several distant macro facilities. Their signal, though dominant, is weak in the gap area due to distance. For example, the Kokanee facility 1.25 miles southwest of the Proposed Facility provides the dominant signal to various areas within the gap, including a residential area east of the Proposed Facility. The Harrah’s facility 1.5 miles northeast provides scattered dominant signal north of the Proposed Facility. Dominant signal of the macro facilities is intermixed with each other and with the small cells, which are intended to provide network capacity to targeted areas with small coverage footprints.

A lack of reliable dominant signal compromises system performance for Verizon Wireless customers, including those in transit, resulting in unreliable service, particularly during busy hours. This affects the reliability of Verizon Wireless service for residents, workers and visitors as well as for communications with emergency services personnel.

At times of high traffic volume, the coverage area of Verizon Wireless facilities shrinks to accommodate an increasing number of mobile devices closer to each facility. As a result, the coverage gap expands and is exacerbated during times of high customer usage. This contraction of coverage has become more relevant as the volume of voice and data services used by wireless customers has increased rapidly over time. According to CTIA's *2021 Annual Survey Highlights*, mobile wireless data traffic has more than doubled since 2016.

As shown on the second best server plot, the Proposed Facility is strategically located to provide strong new dominant signal to the gap area. This will relieve demand on the distant macro facilities and local small cells, allowing each facility to concentrate its resources on users closer to each location.

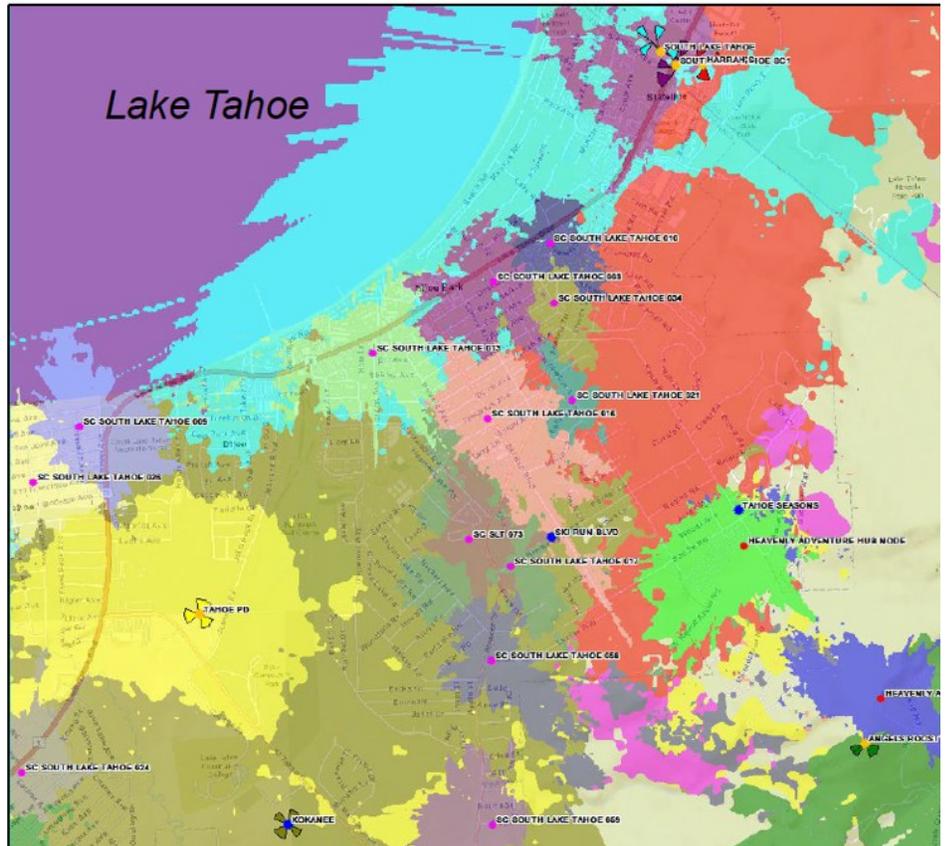
The third best server plot adds the dominant signal of the Tahoe Seasons facility that is pending approval. Its dominant signal will be confined to a distinct area east of the Significant Gap to be served by the Proposed Facility.

Best Server Map – Existing Facilities

AWS Best Server Maps

Existing facilities serving gap

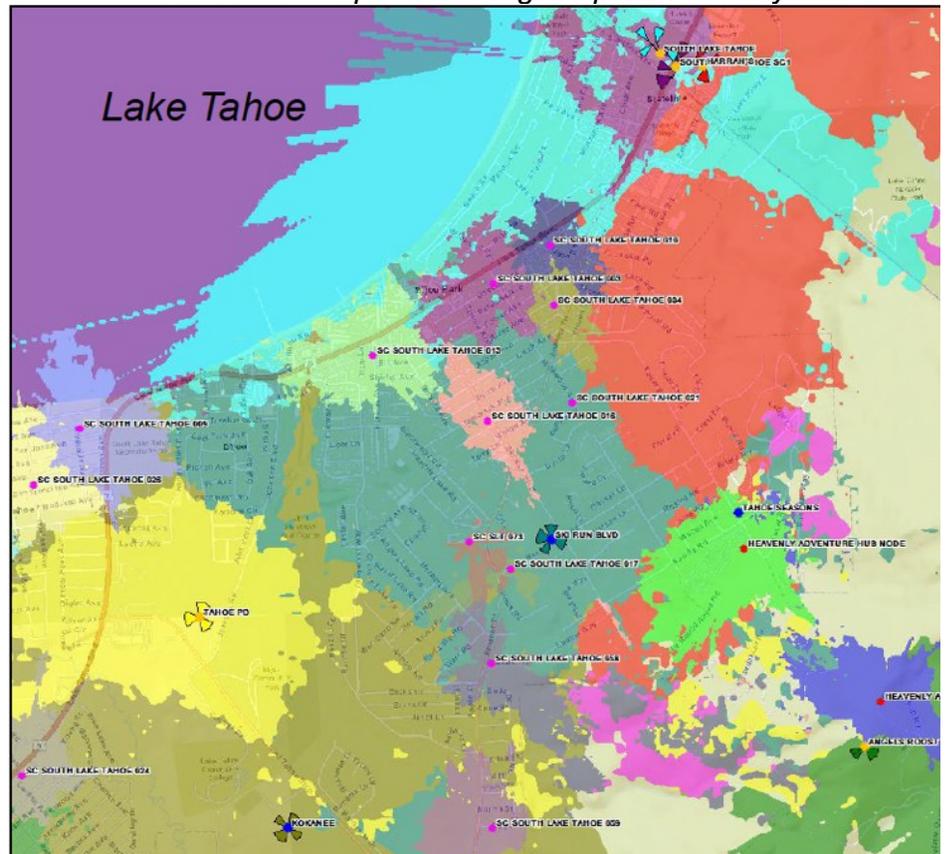
	Kokanee Facility
	Tahoe PD Facility
	Harrah's Facility
	SLT Facility (Harvey's)
	Heavenly Adventure Hub
	Small Cell Node 016
	Small Cell Node 017
	Small Cell Node 021
	Small Cell Node 058
	Small Cell Node 073



Best Server Map – Including Proposed Facility

Proposed facility

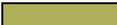
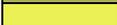
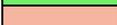
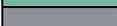
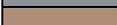
	Ski Run Boulevard Facility
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**Best Server Map – Including Proposed Facility and Tahoe Seasons Facility**

**AWS Best Server Maps**

**Existing facilities serving gap**

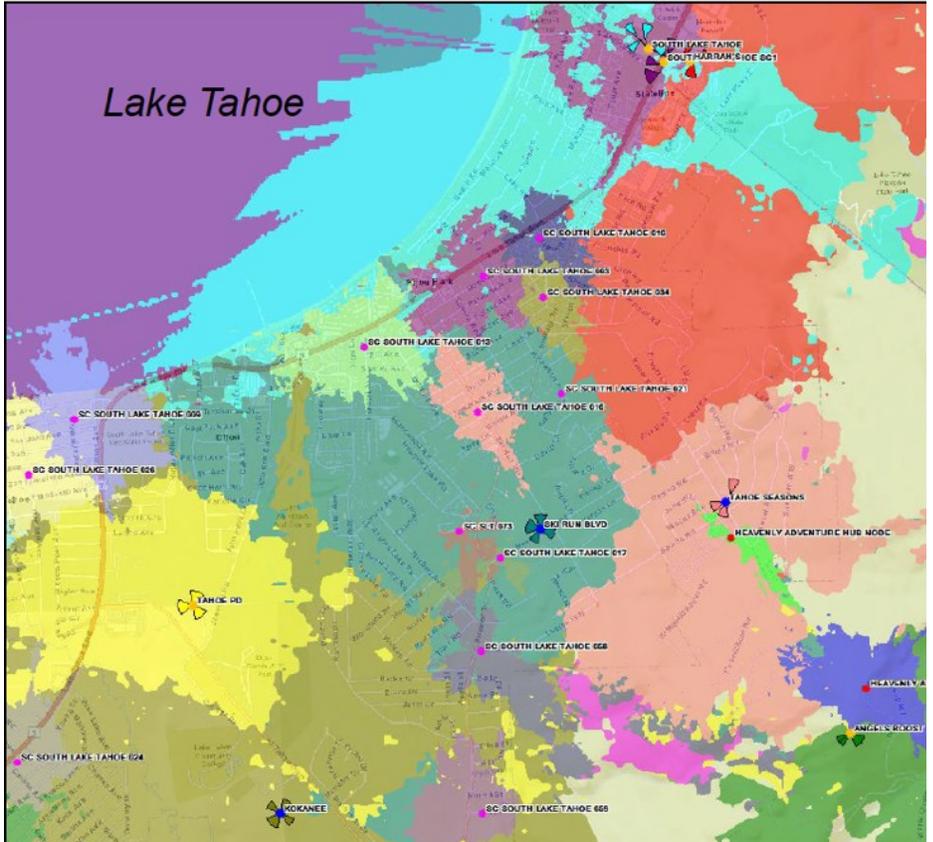
	Kokanee Facility
	Tahoe PD Facility
	Harrah's Facility
	SLT Facility (Harvey's)
	Heavenly Adventure Hub
	Small Cell Node 016
	Small Cell Node 017
	Small Cell Node 021
	Small Cell Node 058
	Small Cell Node 073

**Proposed facility**

	Ski Run Boulevard Facility
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**Pending approval**

	Tahoe Seasons Facility
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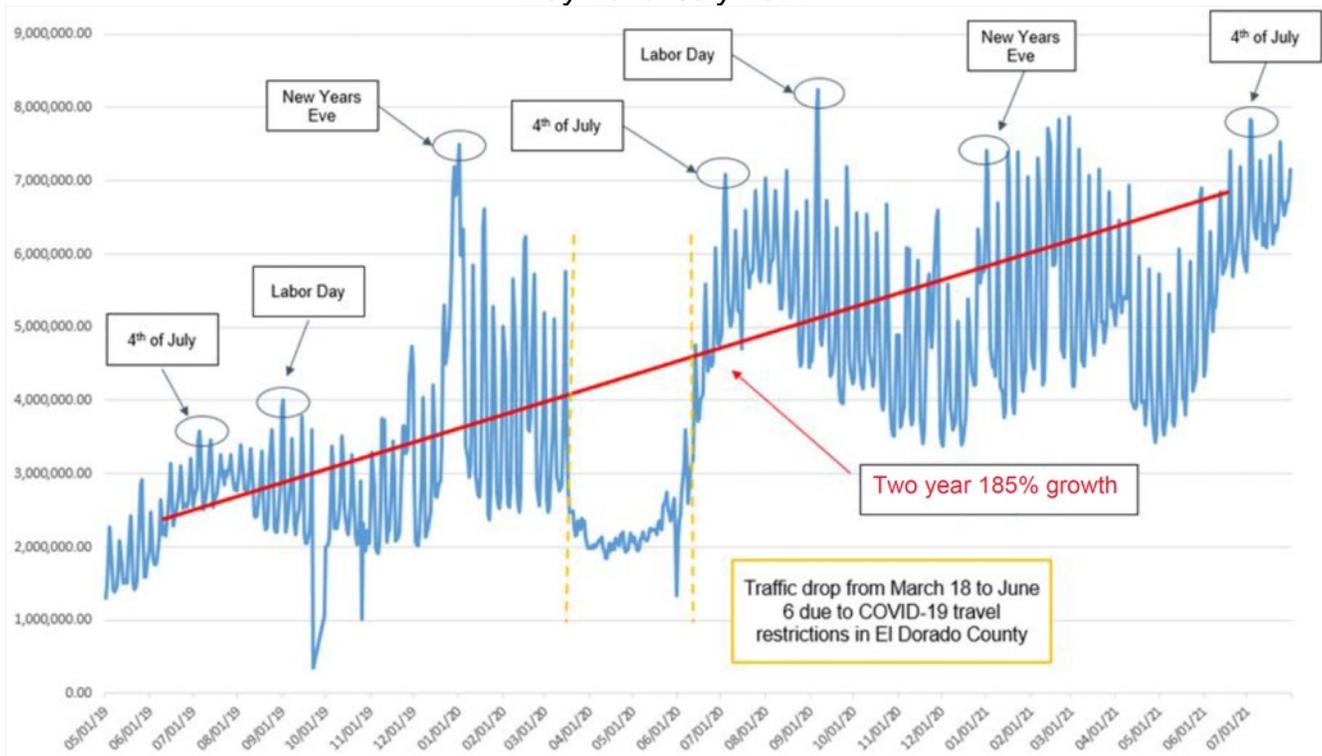


## Capacity Demand

While the network provides service to local residents and workers, it also must serve the many visitors to South Lake Tahoe, estimated in the millions annually in a typical year. Visitor accommodations in particular require reliable in-building service, as do travelers on local roadways.

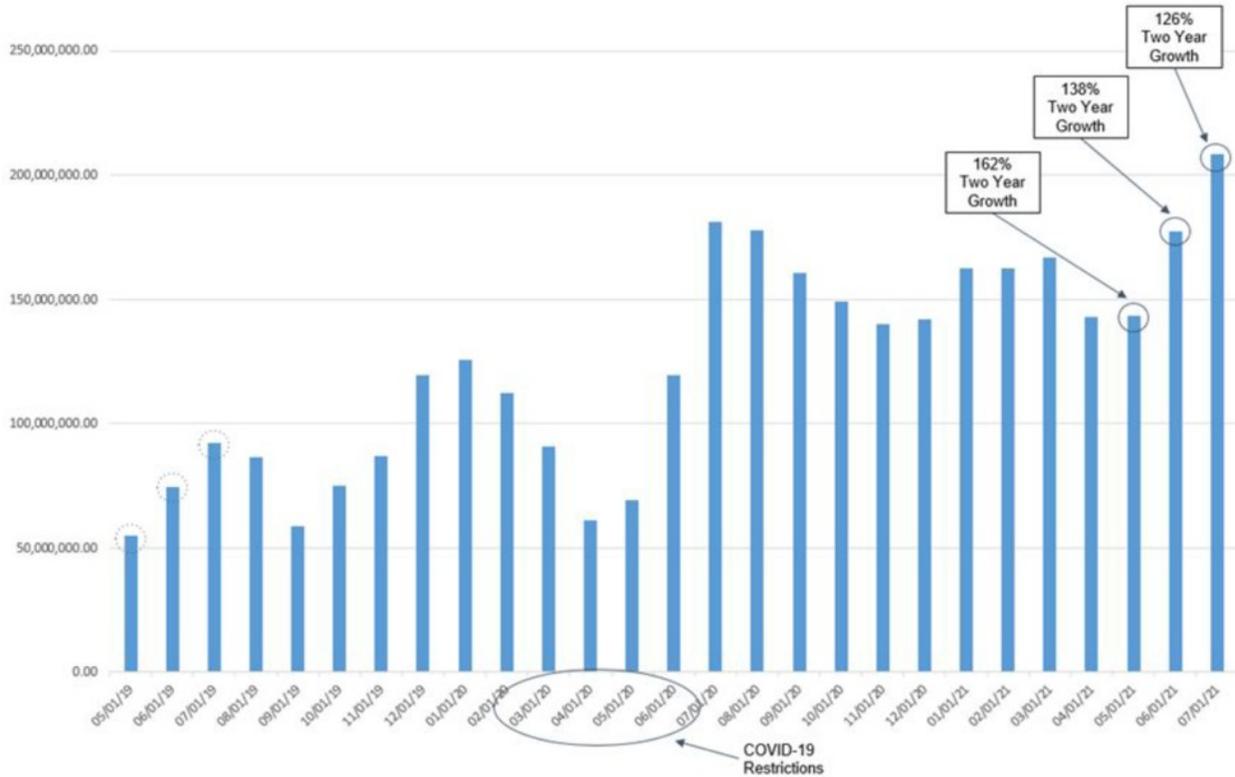
The following graph depicts daily downlink data volume over 26 months through July 2021 for Verizon Wireless facilities serving the south shore area (nine macro facilities and 31 small cells). The red line shows the two-year growth trend, demonstrating that demand increased 185 percent over two years, despite the three-month drop during Spring 2020 due to COVID-19 restrictions. There are significant spikes in demand during holidays, such as New Year's Eve and the Fourth of July (Independence Day).

*Daily Downlink Data Volume in Megabytes  
Verizon Wireless Facilities Serving South Shore Area  
May 2019–July 2021*



The next chart depicts monthly downlink data volume during the same 26-month period for the Verizon Wireless facilities serving the south shore area, showing a marked increase in data use over two years. As compared to the same period in 2019, the months of May through July 2021 showed significant increases in monthly data volume, as much as a 162 percent increase from June 2019 to June 2021. Data use during July 2021 was higher than any previous month.

*Monthly Downlink Data Volume in Megabytes  
Verizon Wireless Facilities Serving South Shore Area  
May 2019–July 2021*



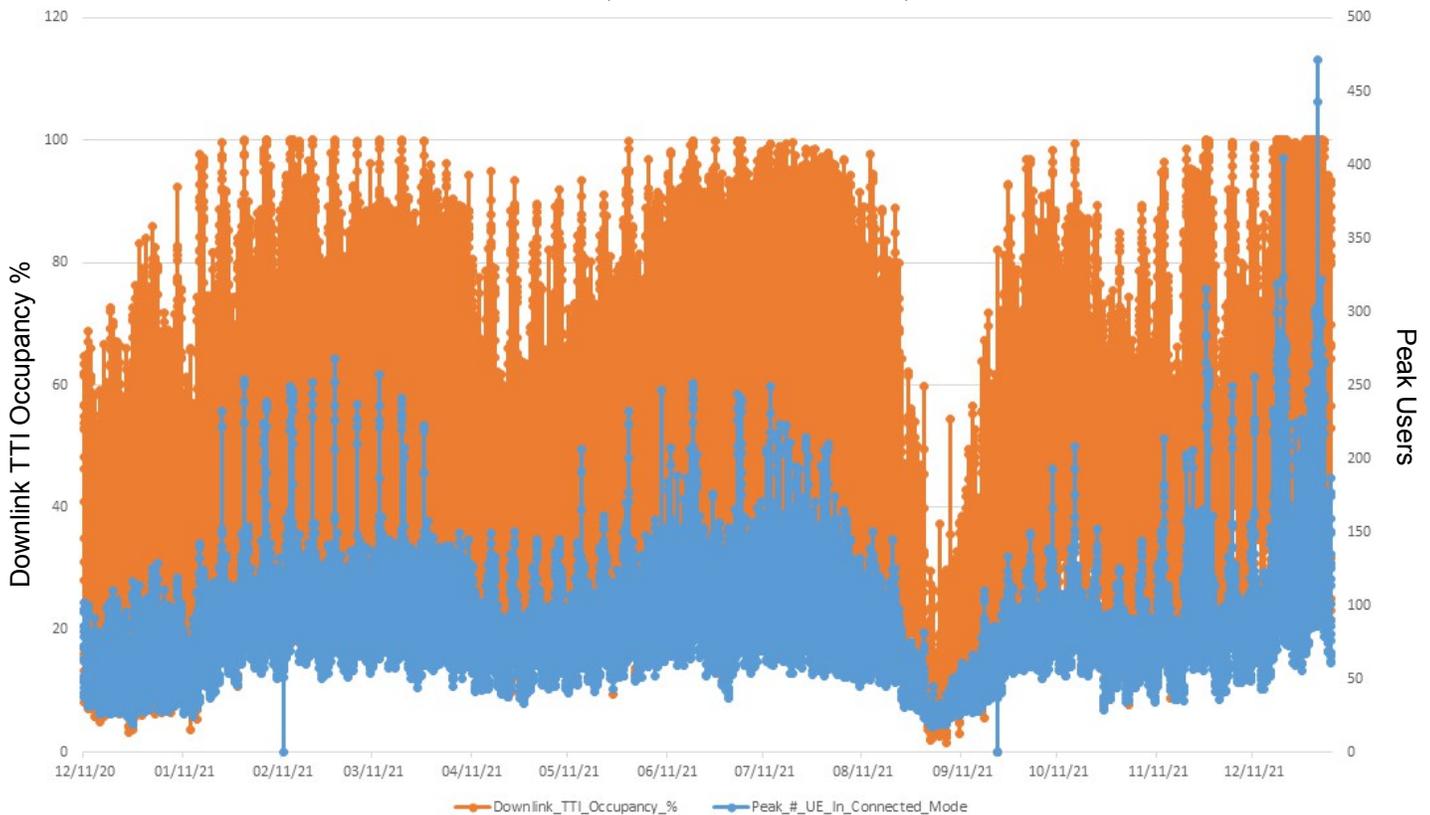
Seasonal high demand exhausts the existing Harrah’s facility, 1.5 miles northeast of the Proposed Facility. Its Gamma (southwest-facing) antenna sector serves a broad area, including a portion of the gap and the busy Heavenly Village.

The following chart shows two types of data for the Harrah’s facility Gamma sector:

- **Peak TTI Occupancy:** The peak downlink channel TTI occupancy within a one-hour period. Transmission time interval (TTI) occupancy is the percentage of the sector’s data resource blocks that is in use within a fixed timeframe.
- **Peak Users:** The peak number of users connected with a one-hour period.

The chart shows data over a one-year period through December 2021 for the AWS frequency band that currently provides the majority of Verizon Wireless’s data capacity in the area. Each vertical line represents one day, and each dot represents a one-hour period, with the peak hourly data results higher on each line.

*Peak Downlink TTI Occupancy and Peak Users per Hour  
Harrah’s Facility Gamma (Southwest-facing) Antenna Sector, AWS Band  
December 11, 2020–December 31, 2021*



When TTI occupancy exceeds 95 percent, connectivity is very unstable and the facility cannot complete connections. Users attempting new connections to the facility are rejected, resulting in the inability to make calls or transmit text messages. Within this one-year period, there were 436 hours during which peak TTI occupancy exceeded 95 percent.

The chart demonstrates that demand is greatest during the winter ski season and summer recreation season. For example, during late December 2021, peak TTI occupancy was very high, reaching 100 percent (the maximum) on most days. The peak number of users was correspondingly high.

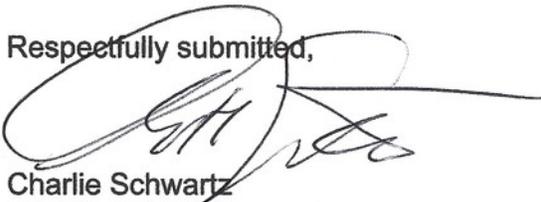
As shown on the best server maps, the Proposed Facility will provide new service to the area currently served by the Harrah's facility Gamma sector. This will relieve demand on the Harrah's facility, allowing it to concentrate its data resources on users nearby.

## Conclusion

As cellular networks mature, the network must be supplemented with more sites closer to customers, in large measure due to the increase in usage of the network. The technology used by Verizon Wireless to provide fourth-generation service requires facilities closer to customers, and this service cannot be provided adequately by the existing facilities that serve the gap area. These coverage and capacity challenges have resulted in the Significant Gap in Verizon Wireless coverage and network capacity in the Heavenly Valley and Bijou Park areas of South Lake Tahoe. Verizon Wireless must deploy the Proposed Facility to provide reliable service to customers and to avoid further degradation of its network in the area of the Significant Gap.

Please feel free to contact me with any questions or comments regarding Verizon Wireless's proposed facilities.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'CS', with a large, sweeping flourish extending to the right.

Charlie Schwartz  
RF Engineering Manager  
Network Engineering Department  
Verizon Wireless

My responsibilities include planning, design and implementation of improvements to network infrastructure to provide reliable service. I have 27 years of experience in the wireless telecommunications industry. I received my Associates Degree in Applied Science in electronic systems from the Community College of the United States Air Force.



Exhibit G

JOHN D'AGOSTINI  
SHERIFF - CORONER - PUBLIC ADMINISTRATOR  
COUNTY OF EL DORADO  
STATE OF CALIFORNIA

REPLY TO:

HEADQUARTERS  
300 FAIR LANE  
PLACERVILLE  
CA 95667  
530 621-5655  
FAX 626-8091

JAIL DIVISION  
300 FORNI ROAD  
PLACERVILLE  
CA 95667  
530 621-6000  
FAX 626-9472

TAHOE PATROL  
1360 JOHNSON BLVD., SUITE 100  
SOUTH LAKE TAHOE  
CA 96150  
530 573-3000  
FAX 544-6809

TAHOE JAIL  
1051 AL TAHOE BLVD.  
SOUTH LAKE TAHOE  
CA 96150  
530-573-3031  
FAX 541-6721

May 30, 2018

Verizon Wireless

Dear Director,

On behalf of the El Dorado County Sheriff's Office, I am writing in support of continued placement of cell sites throughout El Dorado County. Public Safety agencies now rely heavily on wireless communications in the county, and we have noticed that cell & data speeds in many areas of the county are below reliable standards, and in some areas, nearly non-existent. As cellular providers continue to expand and improve their coverage throughout El Dorado County, it enhances our officer safety through better communication with our patrol vehicles and allows citizens better access to public safety resources through their personal cell phones. Each new site allows us to provide better service to the public and increased officer safety.

We appreciate Verizon's commitment to serve our residents and first responders. EL Dorado County has many rural areas, which need reliable cellular service. During past emergencies and natural disasters, Verizon has assisted with mobile sites and other technical resources. Reliable data communication aids with command and control functions.

The need for a reliable, survivable high speed wireless infrastructure throughout El Dorado County is vital and I strongly support the placement of cell sites throughout the county.

Thank you for your continuing efforts to expand your network. Please do not hesitate to contact me if you require addition support in the approval process.

Respectfully,

JOHN D'AGOSTINI  
Sheriff ~ Coroner  
Public Administrator



## **North Tahoe and Meeks Bay Fire Protection Districts**



**222 Fairway Drive  
P.O. Box 5879  
Tahoe City, CA 96145  
530.583.6913  
Fax 530.583.6909**

***Michael S. Schwartz, Fire Chief***

June 5, 2018

Tahoe Regional Planning Agency  
Attention: Paul Nielsen  
128 Market St.  
Stateline, NV 89410

Re: Cellular Site Development

Dear Mr. Nielsen:

I am writing this letter to express our support for the continued placement of cell sites throughout the Lake Tahoe/Truckee Region. Public safety agencies now rely heavily on wireless communications, and we have noticed that cell and data speeds in many areas of Placer County are far below reliable standards, and in some areas, nearly non-existent. My own cellular service in the North Tahoe region has been inconsistent and at times non-functional. As the Fire Chief for the District, I am on call 24/7, so being accessible in emergencies has always been an issue. In addition, I am the California Office of Emergency Services Operational Area Coordinator for the Tahoe Basin and often times deal with natural disasters and report to the CAL OES Warning Center. With the limited cellular service in the Lake Tahoe Basin, public safety suffers as a result.

The District is currently a customer of Verizon Wireless. I have had the privilege to work side by side with Verizon teams and have seen first hand their commitment to serve the public and first responders during the wildland fires throughout the states of California and Nevada. Verizon Wireless consistently goes above and beyond to assist in any way they can. A recent example is the deployment of a cellular-on-wheels unit to provide temporary cell service enhancement for the summer season, including the Fourth of July holiday period. The unit was placed at our Kings Beach station in 2017, and Verizon is planning on providing the same for 2018. This was made possible by Verizon without fiscal impacts to the District.

As mentioned earlier, the public safety agencies in the Tahoe basin rely on cell phone and high speed data communications for many purposes. Some potential uses of voice and data include: command and control during large incidents as well as day-to-day emergency response, routing of emergency apparatus through electronic mapping, accessing critical pre-incident planning information, relaying of patient information to hospitals and communicating with allied agencies.

Tahoe Regional Planning Agency

June 5, 2018

Page 2

The need for a reliable, survivable high-speed wireless infrastructure throughout the Lake Tahoe basin is vital, and I strongly support the placement of cell sites in and around the Tahoe/Truckee area.

Thank you for your attention to this matter. Please do not hesitate to contact me with any questions or concerns you may have.

Respectfully,

A handwritten signature in blue ink, appearing to read "M. Schwartz", written over a horizontal line.

Michael Schwartz  
Fire Chief

SM:km



# PLACER COUNTY SHERIFF CORONER-MARSHAL



MAIN OFFICE  
2929 RICHARDSON DRIVE  
AUBURN, CA 95603  
PH: (530) 889-7800 FAX: (530) 889-7899

SOUTH PLACER STATION  
6140 HORSESHOE BAR ROAD, SUITE D  
LOOMIS, CA 95650  
PH: (916) 652-2400 FAX: (916) 652-2424

NORTH LAKE TAHOE STATION  
P.O. BOX 1710  
TAHOE CITY, CA 96145  
PH: (530) 581-6300 FAX: (530) 581-6377

**DEVON BELL**  
SHERIFF-CORONER-MARSHAL

**WAYNE WOO**  
UNDERSHERIFF

Verizon Wireless  
Dear Director,

On behalf of the Placer County Sheriff's Office, I am writing this letter to express our support for the continued placement of additional cell sites throughout the north shore region of Lake Tahoe. The Lake Tahoe area is a destination for recreational visitors from across the country and the world, and during the peak recreational seasons it is not uncommon to have 100,000 plus visitors on the North Shore alone. Basin wide, untold numbers of both day visitors and longer term vacationers visit throughout the year, and this can frequently have an impact on the ability of existing cell towers to accommodate the fluctuating number of users.

Public safety agencies rely heavily on wireless communications for both traditional communications as well as wireless data systems that support our public safety mission. Our patrol vehicles, deputies and dispatch tools utilize wireless data to keep first responders up to date on calls for service, emergency incidents and locations where incidents are occurring. The importance of reliable cellular communications with respect to providing public safety cannot be understated.

The combination of mountains, valleys, canyons and forests surrounding our region frequently interfere with reliable communications for our first responders. Additionally, the influx of recreational visitors using the same towers can, and has, impacted the reliability of our law enforcement systems. To address this issue during specific peak events, Verizon has on two occasions and at their own expense, deployed temporary cell towers normally used during emergency situations and disasters. Both deployments occurred during the 4<sup>th</sup> of July time period, when the number of visitors at Lake Tahoe exceeded the capacity of key cell towers and our local public safety systems went down for extended periods. I appreciate Verizon's commitment to our public safety mission and the safety of our visitors and community.

It is my understanding that Verizon is in the application process for additional cell tower locations within the Tahoe Region. Please accept this letter as our support for their continued efforts to expand reliable coverage within the Tahoe region.

Respectfully,

Captain Dennis Walsh, Tahoe Station Commander  
Placer County Sheriff's Office  
North Lake Tahoe Station

October 30, 2020

South Lake Tahoe Council Members

(Jason Collin, Mayor, Tamara Wallace, Mayor Pro Tem, Cody Bass, Councilmember, Brooke Laine, Councilmember, Devin Middlebrook, Councilmember)

1901 Airport Road

South Lake Tahoe, California 96150

Dear Council Members,

We write to formally express our support to improve technology infrastructure to 4G in South Lake Tahoe and to encourage you to make wireless connectivity a priority.

TTD recognizes the critical need to upgrade technology infrastructure in order to communicate with the traveling public. TTD operates transit in South Lake Tahoe and has continued to acknowledge that transit applications and parking management systems are dependent on adequate communications to meet the goals and vision of the Regional Transportation Plan and the Transit Master Plan. Transit, parking, and traveling in the Tahoe Basin should be safe, reliable, sustainable, adaptable, and convenient, giving visitors and residents the opportunity to use technology to make informed decisions on and before their trip. Furthermore, these improvements would have positive impacts on our local economy, small business owners, and our first responders by ensuring greater wireless coverage and capacity.

The recent COVID-19 pandemic highlights the importance and necessity of reliable connectivity, which depends on having strong communications infrastructure. During this event, many people lost their jobs or transitioned to working from home. Having reliable connectivity means people are able to connect to their friends, family, colleagues, and government services. Doctors are able to see their patients using FaceTime, Zoom, and other video conferencing options. All of this is possible only in areas that have a robust and reliable communications network.

Our communities and visitors need access to real-time information to address the congestion issues along our narrow mountain roadways to allow travelers to know where and how to access safe parking and transit to enjoy their favorite recreation spots.

Increasing public safety is of special importance at Lake Tahoe and notifications for emergencies rely on communications to assure our communities can safely evacuate. With improved connectivity, more people would be able to call 911 when they need it, and first responders would be able to respond more quickly to address emergency situations such as wildfires and vehicle accidents. Increased connectivity would allow our police and fire professionals to coordinate an accelerated, timely and efficient response to protect our community, and more broadly, our way of life.

We urge you to prioritize this effort and facilitate the deployment of wireless connectivity to assure our public infrastructure investments function adequately and better connect everyone who lives, works and plays in our special region.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Danielle Hughes', with a long horizontal flourish extending to the right.

Danielle Hughes  
Capital Program Manager  
Tahoe Transportation District

April 19, 2022

Farah Ali | Associate Project Manager | Phone: (858) 205-9629  
SAC Wireless, 9020 Activity Road, San Diego, CA 92126  
farah.ali@sacw.com | [www.sacw.com](http://www.sacw.com)



**TERRADYNE ENGINEERING, INC.**  
2691 Dow Ave, Suite F  
Tustin, California 92780  
Phone: 657-212-5800  
[www.terradyne.com](http://www.terradyne.com)

**Exhibit B**

Re: **Geotechnical Plan Review (dated on 1/31/22)**  
Verizon SKI RUN BLVD (PSL #444780)  
1360 Ski Run Blvd (38.937388, -119.950135)  
South Lake Tahoe, El Dorado County, CA 96150  
Terradyne Project No.: L191044

References: *Sheet GR-2m Sheet Title: Concrete Pad Profiles, Sections & Details: Ski Run Blvd PSL # 444780 1360 Ski Run Blvd, South Lake Tahoe, CA 96150, prepared by SAC Wireless, LLC, dated January 31, 2022.*

*Geotechnical Investigation Proposed 112.0-foot High Monopine Verizon SKI RUN BLVD (PSL #444780) 1360 Ski Run Blvd., South Lake Tahoe, CA 96150, SAC Wireless 5015 Shoreham Place, Suite 150, San Diego, CA 92122, Prepared by Terradyne Engineering Inc, Project No.: L191044, dated on July 26, 2019.*

*Updated Geotechnical Investigation Proposed 112.0-foot High Monopine Verizon SKI RUN BLVD (PSL #444780) 1360 Ski Run Blvd., South Lake Tahoe, CA 96150, SAC Wireless 5015 Shoreham Place, Suite 150, San Diego, CA 92122, Prepared by Terradyne Engineering Inc, Project No.: L191044, dated on April 19, 2022.*

To whom it may concern,

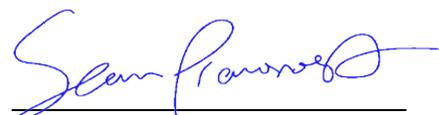
The above referenced plans were reviewed by the undersigned. The plans found to be in general conformance with the intent, purpose, and recommendations in our geotechnical investigation report dated July 26, 2019 and updated geotechnical report dated April 19, 2022. From geotechnical standpoint of view, they are adequate for its intended use.

We appreciate the opportunity of providing our services for this project. If you have questions regarding this report or if we may be of further assistance, please contact us at your earliest convenience.

Respectfully Submitted,  
**Terradyne Engineering, Inc.**

  
Jerry Michal, G.E.  
Senior Geotechnical Engineer



  
Sean Prenovost, P.E. (NV)  
Branch Manager



**Updated Geotechnical Investigation Report  
Proposed 112.0-foot High Monopine  
Verizon SKI RUN BLVD (PSL #444780)  
1360 Ski Run Blvd.  
South Lake Tahoe, CA 96150**

**SAC Wireless  
9020 Activity Road,  
San Diego, CA 92126**

**Attn: Farah Ali  
Associate Project Manager**

**Terradyne Project No.: L191044**

**April 19, 2022**

---

*Terradyne Engineering, Inc.*  
2691 Dow Avenue, Suite F, Tustin, CA 92780  
Office: 657-212-5800 • Website: [www.terra-dyne.com](http://www.terra-dyne.com)

LEGAL COMMITTEE ITEM NO. 3 &  
AGENDA ITEM NO. VIII. A.



**TERRADYNE ENGINEERING, INC.**  
2691 Dow Ave, Suite F  
Tustin, California 92780  
Phone: 657-212-5800  
[www.terradyne.com](http://www.terradyne.com)

April 19, 2022

Farah Ali | Associate Project Manager | Phone: (858) 205-9629  
SAC Wireless, 9020 Activity Road, San Diego, CA 92126  
[farah.ali@sacw.com](mailto:farah.ali@sacw.com) | [www.sacw.com](http://www.sacw.com)

**Re: Updated Geotechnical Engineering Report**  
Verizon SKI RUN BLVD (PSL #444780)  
1360 Ski Run Blvd (38.937388, -119.950135)  
South Lake Tahoe, El Dorado County, CA 96150  
Terradyne Project No.: L191044

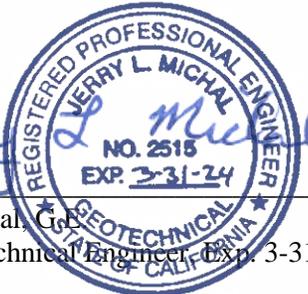
Dear Farah Ali:

Per your request, this letter provides updated geotechnical recommendations by Terradyne Engineering, Inc. (Terradyne) for the proposed improvements at the subject site. This Update Geotechnical Engineering Report have been made based on the review of the plans provided by SAC Wireless, dated January 31, 2022 (SAC 2022). This report provides an addendum to the geotechnical report by Terradyne dated July 26, 2019 (Terradyne 2019). All recommendations provided in Terradyne 2019 remain applicable except for amended herein.

Based on our review of the plans (SAC 2022) and the geotechnical engineering report (Terradyne 2019), it is our opinion that the proposed improvement is feasible from the geotechnical standpoint provided the recommendations contained in Terradyne 2019 and subsequent recommendations provided herein is incorporated into the project plans and specifications.

We appreciate and wish to thank you for the opportunity to service you on this project. Please do not hesitate to contact us if we can be of additional assistance.

Respectfully Submitted,  
**Terradyne Engineering, Inc.**

  
  
Jerry L. Michal, C.E.  
Senior Geotechnical Engineer - Exp. 3-31-2024

  
Sean Prenovost, P.E. (NV)  
Branch Manager

**Updated Seismic Design Parameters**

Seismic design acceleration parameters in accordance with the 2019 CBC and ASCE/SEI 7-16 are presented in the Table below.

<b>Seismic Design Parameters, 2019 CBC and ASCE 7-16</b>	
Latitude	38.937448
Longitude	-119.95011
Site Class	D – Default
Seismic Design Category	D
MCE <sub>R</sub> Ground Motion, S <sub>s</sub> (period=0.2s)	1.436
MCE <sub>R</sub> Ground Motion, S <sub>1</sub> (period=1.0s)	0.504
Site-modified Spectral Acceleration Value, S <sub>MS</sub>	1.723
Site-modified Spectral Acceleration Value, S <sub>M1</sub>	0.905
Numeric Seismic Design Value at 0.2s SA, S <sub>DS</sub>	1.149
Numeric Seismic Design Value at 1.0s SA, S <sub>D1</sub>	0.603
Site Amplification Factor at 0.2s, F <sub>a</sub>	1.200
Site Amplification Factor at 1.0s, F <sub>v</sub>	1.796
Peak Ground Acceleration, PGA	1.2
Site Modification Peak Ground Acceleration, PGA <sub>M</sub>	0.736

Source: ATC Hazards by Location, found at: <https://hazards.atcouncil.org>

Attachment:  
 ATC Hazards by Location Design Parameters

**Search Information**

**Coordinates:** 38.93744830537104, -119.95011076567611  
**Elevation:** 6375 ft  
**Timestamp:** 2022-04-19T15:53:56.509Z  
**Hazard Type:** Seismic  
**Reference Document:** ASCE7-16  
**Risk Category:** II  
**Site Class:** D-default



**Basic Parameters**

Name	Value	Description
$S_S$	1.436	$MCE_R$ ground motion (period=0.2s)
$S_1$	0.504	$MCE_R$ ground motion (period=1.0s)
$S_{MS}$	1.723	Site-modified spectral acceleration value
$S_{M1}$	* null	Site-modified spectral acceleration value
$S_{DS}$	1.149	Numeric seismic design value at 0.2s SA
$S_{D1}$	* null	Numeric seismic design value at 1.0s SA

\* See Section 11.4.8

**Additional Information**

Name	Value	Description
SDC	* null	Seismic design category
$F_a$	1.2	Site amplification factor at 0.2s
$F_v$	* null	Site amplification factor at 1.0s
$CR_S$	0.891	Coefficient of risk (0.2s)
$CR_1$	0.893	Coefficient of risk (1.0s)
PGA	0.614	$MCE_G$ peak ground acceleration
$F_{PGA}$	1.2	Site amplification factor at PGA
$PGA_M$	0.736	Site modified peak ground acceleration
$T_L$	6	Long-period transition period (s)

SsRT	1.436	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.612	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	1.967	Factored deterministic acceleration value (0.2s)
S1RT	0.504	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.564	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.669	Factored deterministic acceleration value (1.0s)
PGAd	0.786	Factored deterministic acceleration value (PGA)

\* See Section 11.4.8

*The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.*

## Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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Exhibit C

**Geotechnical Investigation  
Proposed 112.0-foot High Monopine  
Verizon SKI RUN BLVD (PSL #444780)  
1360 Ski Run Blvd.  
South Lake Tahoe, CA 96150**

**SAC Wireless  
5015 Shoreham Place, Suite 150  
San Diego, CA 92122**

**Attn: Mr. Ryan Lima  
Project Manager**

**Terradyne Project No: L191044**

**July 26, 2019**



Terradyne Engineering, Inc.  
2691 Dow Avenue, Suite F  
Tustin, CA 92780  
Office: 657-212-5800  
www.terradyne.com

July 26, 2019

**SAC Wireless, LLC**  
5015 Shoreham Place Suite 150  
San Diego, CA 92122  
Phone: (619) 471-6359  
Fax: (760) 931-0908  
Email: [ryan.lima@sacw.com](mailto:ryan.lima@sacw.com)  
[www.sacw.com](http://www.sacw.com)

Attn: **Mr. Ryan Lima**  
Project Manager

Re: **Geotechnical Investigation Report**  
Verizon SKI RUN BLVD (PSL #444780)  
1360 Ski Run Blvd (38.937388, -119.950135)  
South Lake Tahoe, El Dorado County, CA 96150  
Terradyne Project No.: L191044

Dear Mr. Lima:

In accordance with your request, Terradyne Engineering, Inc. has performed a geotechnical investigation at the subject site. The purpose of our investigation was to evaluate the geotechnical conditions at the site in the areas of proposed construction and to provide geotechnical parameters for design and construction.

We appreciate and wish to thank you for the opportunity to serve you on this project. Please do not hesitate to contact us if we can be of additional assistance during the Construction Materials Testing and Quality Control phases of construction.

Respectfully Submitted,  
**Terradyne Engineering, Inc.**

Haicheng Mao, MSCE, E.I.T.  
Staff Engineer

A. Wahab Noori, P. E.  
Senior Engineer / RCE C-081696  
Registration Exp. Date: 03/31/2020



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## **APPENDIX A**

Figure A - Vicinity Map  
Figure B - Approximate Boring Location Plan  
Figure C - Regional Geological Map and Legend  
Figure D - USGS Topographic Map  
Figure E - CGS Seismic Hazard Information

## **APPENDIX B**

Boring Log: B-1  
Key to Classification Terms and Symbols

## **APPENDIX C**

Laboratory Tests

## **APPENDIX D**

ATC-127 - Applied Technology Councils/USGS Site Specific Seismic Hazard information

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## **EXECUTIVE SUMMARY**

The soil conditions at the site of the 112.0-ft High Monopine and associated cellular equipment at 1360 Ski Run Blvd, South Lake Tahoe, El Dorado County, California was explored by drilling one boring to a refusal depth of 19.0-ft. However, it should be noted, we were not able to drill at exact location of monopole due to the mature trees & constraints. Laboratory tests were performed on selected specimens to evaluate the engineering characteristics of various soil strata encountered in our test boring.

This report presents a description of subsurface conditions encountered at the site, recommended foundation systems, and design and construction criteria influenced by the subsurface conditions. It is based on data obtained from field investigations, laboratory test results and our previous experience with similar projects.

- During our operation, drilling difficulties and refusal experienced at depth 19 ft below existing grade. As such, a heavy duty drilling rig capable of drilling through GRANODIORITE (Bedrock) is highly recommended.
- Based on our California Geological Survey (CGS) research, the seismic hazard information (Figure E, Appendix A) pertaining to the subject site as follows:
  - 1) This parcel (02558077) is not within an Earthquake Fault Zone;
  - 2) This parcel (02558077) has not been evaluated by CGS for seismic landslide hazards;
  - 3) This parcel (02558077) has not been evaluated by CGS for liquefaction hazards;
- Based on a review of the existing geologic information, no major surface fault crosses through or extends toward the site. The potential for surface rupture resulting from the movement of nearby major faults is not known with certainty but is considered low.
- Based on the results of the field investigation, the proposed 112.0-ft High Monopine may be supported on a straight shaft (minimum Ø60”) drilled pier. However, drilling difficulties and challenges associated with refusal on rocks should be expected.
- The proposed 112.0-ft High Monopine may also be supported on a mat foundation system. For the design of the structure, modulus of subgrade reaction (k1) of 100 kcf is recommended. An ultimate bearing capacity of 6000 psf and an allowable bearing capacity of 2000 psf may be used for foundation bearing on in-situ soil/bedrock.
- We believe a pad & pier foundation is also another option to be considered. For the design of a pad & pier foundation system, the geotechnical parameters recommended for the straight shaft pier and mat foundation system may be utilized as needed.

- The equipment cabinets/pads may be supported on mat slab foundation system. For the design of the structure, modulus of subgrade reaction ( $k_1$ ) of 50 kcf is recommended. An ultimate bearing capacity of 4500 psf and an allowable bearing capacity of 1500 psf may be used for foundation bearing on in-situ soil.
- Ground water was not encountered during the field exploration. However, Ground water levels will fluctuate with seasonal climatic variations and changes in the land use.

Detailed descriptions of subsurface conditions, engineering analysis, and design recommendations are included in this report.

## **1.0 INTRODUCTION**

This report presents the results of our subsurface exploration and geotechnical analysis for the proposed 112.0-ft High Monopine and associated appurtenances at 1360 Ski Run Blvd, South Lake Tahoe, El Dorado County, California. This project was authorized by Mr. Ryan Lima from SAC Wireless, LLC.

## **2.0 PROPOSED CONSTRUCTION**

This project is a Verizon Unmanned Telecommunication Wireless Facility. It will consist of construction of the following construction within 624 SF lease area:

- New Verizon Wireless 24'-0" X 26'-0" Lease Area
- New Verizon Wireless 18'- 10" X 15'-0" Equipment Shelter on New Concrete Pad
- New Verizon Wireless 30kw Generac Standby Generator w/132 Gallon Diesel Tank (U1142)
- New Verizon Wireless GPS Antenna
- New Verizon Wireless Electrical Meter Mounted on New Equipment Shelter
- New Verizon Wireless Fiber Box Mounted on New Equipment Shelter
- New Verizon Wireless 112'-0" High Monopine
- (12) New Verizon Wireless 8' Tall Panel Antennas
- (12) New Verizon Wireless RRUS
- (4) New Verizon Wireless 6627 RAYCAPS
- New Verizon Wireless Hybrid Cables

## **3.0 PURPOSE AND SCOPE OF SERVICES**

The purpose of our geotechnical investigation was to evaluate the subsurface and groundwater conditions of the site and provide geotechnical engineering recommendations for the design and construction of the proposed project. Our scope of services includes the following:

- 1) Drilling and sampling of one boring to a refusal depth of 19.0-ft in the project area;
- 2) Observation of the groundwater conditions during drilling operations;
- 3) Performing laboratory tests;
- 4) Review and evaluation of field and laboratory tests;
- 5) Compilation, generalization and analysis of the field and laboratory data according to the project requirements;
- 6) Preparation of recommendations for the design and construction of the structure;
- 7) Consultations with Primary Professionals and members of the design team on findings and recommendations and the preparation of a written geotechnical engineering report for their use in the preparation of design and construction documents.

The Scope of Services does not include an environmental assessment of the presence or absence of wetlands and/or hazardous or toxic materials in the soil, surface water, groundwater, or air, in the proximity of this site. Any statements in this report or on the boring log regarding odors, colors or unusual or suspicious items or conditions are strictly for the information of the client.

#### **4.0 SITE CONDITIONS**

The proposed 24-ft by 26-ft cellular site is within a commercial property with numerous trees, located in South Lake Tahoe, El Dorado County, California. There are no water features observed in the vicinity of the proposed site. The site drainage system is by sheet flow to multiple directions and generally toward north.

#### **5.0 GEOTECHNICAL INVESTIGATION**

The field exploration to determine the engineering characteristics of the subsurface materials included a reconnaissance of the project site, drilling the boring, and obtaining bulk and split-barrel samples. One soil test boring was drilled at the project site. The boring was drilled to a refusal depth of 19.0-ft below the existing ground surface.

The soil boring was performed with a drilling rig (CME-75) equipped with a rotary head. Conventional hollow stem augers were used to advance the hole and samples of the subsurface materials were obtained using a standard 2.0-inch O.D., 1-3/8-inch I.D, split-barrel sampler. The samples were identified according to depth, encased in polyethylene plastic wrapping to protect against moisture loss, and transported to the laboratory in special containers. The following samples, presented in Table No. 1, were collected as a part of our field exploration procedure:

**Table No. 1**

<u>Type of Sample</u>	<u>Number Collected</u>
Bulk Sample	1
Spilt Spoon Samples	5

#### **5.1 Groundwater Information**

Groundwater seepage was not encountered during the drilling operation. However, it should be noted, groundwater levels will fluctuate with seasonal climatic variations and changes in the land use. The low permeability of the soils may require several days for groundwater to enter and stabilize in the boreholes. It is not unusual to encounter shallow groundwater during or after periods

of rainfall. Surface water tends to percolate through the surface until it encounters a relatively imperious layer.

## 5.2 Field Log

A field log was prepared for the test boring. This log includes information concerning the boring method, samples attempted and recovered, and the presence of various materials (such as silt, clay, gravel or sand) and groundwater observations. It also includes an interpretation of the subsurface conditions between samples. Therefore, this log includes both factual and interpretive information.

## 5.3 Presentation of the Data

The final log represents our interpretation of the contents of the field log for the purpose delineated by our client. The final log and key to classification terms and symbols are included in Appendix B.

## 5.4 General Subsurface Conditions

The soils underlying the site may be grouped into two generalized strata with similar physical and engineering properties. The lines on the log designating the interface between soil strata represent approximate boundaries. The transition between materials may be gradual. The soil stratigraphy at the boring location is presented in the Boring Log. The engineering characteristics of the underlying soils, based on our field and laboratory test results, are summarized and presented in Table No. 2.

**Table No. 2**

<u>Stratum</u>	<u>Depth Range Feet</u>	<u>Blows Per Foot</u>	<u>Remark</u>
<b><u>Colluvium/Residual Soil (Qc)</u></b>	0.5' – 7.5'	4-12	No Groundwater encountered
<b><u>Bryan Meadow Granodiorite (Kbm)</u></b>	7.5' – 19'	50+	

The above description generally highlights the major soil stratification features and soil characteristics. The test boring log should be consulted for specific information at the boring location.

## **5.5 Laboratory Testing Program**

In addition to field exploration, a supplemental laboratory testing program was conducted to determine additional pertinent engineering characteristics of the subsurface materials that are necessary to evaluate the soil parameters. These tests include:

- 1) Moisture & Density (ASTM D2216 & ASTM D2937)
- 2) Grain Size Distribution (ASTM D422)
- 3) Expansion Index Test (ASTM D4829)
- 4) Corrosion Potential (CT 417, CT 422, CT 532 (643))

### **5.5.1 Corrosion Potential Screening**

A representative soil sample was tested to measure electrical resistivity, pH, soluble sulfate and chloride concentration. The results are presented on Table No. 3.

**Table No.3**

<b>Sample Location/ Depth (ft)</b>	<b>pH</b>	<b>Soluble Sulfate (ppm)</b>	<b>Soluble chlorides (ppm)</b>	<b>Resistivity (<math>\Omega</math>.cm)</b>
B-1/0-3.0	6.64	115	76	6,000.0

### **Soluble Sulfate Content**

A near-surface soil sample was tested during our investigation for soluble sulfate content. The result of this test indicates a soluble sulfate content of (0.0115) percent by weight or negligible sulfate exposure. As such, the soils exposed are not expected to pose a critical potential for sulfate reaction with concrete. Per ACI 318-14 Table 19.3.1.1, the requirement of Exposure Category (S) and Class (S0) may be appropriate for design where there is no cement type restriction.

### **Resistivity, Chloride and pH**

Soil corrosivity to ferrous metals can be estimated by the soil's pH level, electrical resistivity, and chloride content. In general, soil having a minimum resistivity less than 2,000 ohm-cm is considered corrosive. Soil with a chloride content of 500 ppm or more is considered corrosive to ferrous metals.

As a screening for potentially corrosive soil, a representative soil sample was tested during our investigation to determine soil resistivity, chloride content, and pH level. The soil resistivity measurement of the sample was approximately (6,000.0) ohm-cm, chloride content was approximately (76) ppm, and the pH level was approximately (6.64). The results indicate that the

soil is mildly corrosive to ferrous metals. However, a standard corrosion protection measure is advisable to be considered in the design. It should be noted that Terradyne does not practice corrosion engineering. Our initial screening here should be construed as an assessment aid to the owner or owner's representative. A corrosion specialist should be consulted for any specific design requirement.

## Concrete

Laboratory test indicated that the subject site contains soil sulfate content in the negligible range (i.e., less than 1000 part per million). However it is recommended that concrete for all construction at the site utilize a wide and commercially available Type-II Portland cement with a maximum 0.50 water/cement ratio and should comply with all the requirements of current Code. The minimum compressive strength of concrete for caisson supporting the monopole shall be 4000 psi at 28 days and maximum slump during placement shall be five inches. For all other miscellaneous appurtenances, the minimum compressive strength of concrete shall be 2500 psi at 28 days and maximum slump during placement shall be five inches. The minimum concrete cover should be 3-inches for the deep foundation and 1.5 inch for all other miscellaneous concrete elements. Final selection of the appropriate concrete design should be made by the project structural engineer based on the local laws and ordinances, and desired level of conservatism.

## 6.0 SEISMIC DESIGN PARAMETERS

The principal seismic hazard that could affect the site is ground shaking resulting from an earthquake occurring along several major active or potentially active faults in California. Design of the proposed improvements in accordance with current CBC requirements is intended to reduce the impact of seismic shaking on the proposed improvements. Recommended seismic design acceleration parameters in accordance with the 2016 CBC are presented in Table 4 below.

**Table 4**

<b>Seismic Parameters</b>	
Site Class	D
Seismic Design Category	D
Spectral Response ( $S_s$ )	1.571 g
Spectral Response ( $S_1$ )	0.540 g
Spectral Response ( $S_{MS}$ )	1.571 g
Spectral Response ( $S_{M1}$ )	0.809 g
Spectral Response ( $S_{DS}$ )	1.047 g
Spectral Response ( $S_{D1}$ )	0.540 g

$F_a$	1.000
$F_v$	1.500

**Note:** ATC-127 - Applied Technology Councils/USGS Site Specific Seismic Hazard information is attached in Appendix D. Final selection of the appropriate seismic design coefficients should be made by the structural consultant based on the local laws and ordinances, expected building response, and desired level of conservatism.

## 7.0 FOUNDATION RECOMMENDATIONS

### 7.1 Drilled Pier

Straight shaft drilled pier may be considered to support the proposed 112.0-ft High Monopine Tower. The drilled depth should be determined by the project structural engineer per geotechnical design parameters tabulated below.

### 7.2 Lateral Load Analysis

Since the pier will be subjected to lateral load and moment, a lateral load analysis should be conducted. Elastic pier behavior should be assumed in the process. A pier diameter of 60 inches or greater diameter may be considered for the cell tower.

**Table. 5A**

Depth (ft)	N-Value Range	Effective Soil Unit Wt (PCF)	Est. Cohesion (PSF)	Est. Angle of Internal Friction	Active Rankine Coeff ( $K_a$ )	Passive Rankine Coeff ( $K_p$ )
0.5-7.5	4-12	120	-	30	0.333	3.000
7.5-19	50+	135	1000	45	0.172	5.828

**Table. 5B**

Depth ft	Ultimate Uplift Skin Friction (PSF)	Allowable Uplift Skin Friction (PSF)	Ultimate Compression Skin Friction (PSF)	Allowable Compression Skin Friction (PSF)	Mod. Of Subgrade Reaction (KCF)
0.5-7.5	250	125	500	250	50
7.5-19	500	250	1000	500	150

### **7.3 Mat Foundation**

A mat foundation system may also be used to support the proposed Monopole. The following equation may be used for the design of mat foundation.

$$k = k_1 [(B+1)/2B]^2$$

Where:

k = desired Modulus of Subgrade Reaction for full-sized footing (kcf)

k<sub>1</sub> = Modulus of Subgrade reaction for 1' X 1' plate

B = width of foundation (ft)

For the proposed site, k<sub>1</sub> of 100 kcf is recommended. An ultimate bearing capacity of 6000 psf and an allowable bearing capacity of 2000 psf may be used for foundation bearing on in-situ soil. Mat foundation should be embedded a minimum of 5-ft below the existing grade elevation. Greater embedment may be necessary to resist lateral loads due to wind and seismic forces. Mat slab thickness, reinforcement etc, should be selected by the structural engineer based on the analysis performed considering the loads anticipated and the modulus of subgrade reaction of the soil.

#### **7.3.1 Equipment Cabinets/Pads**

The equipment cabinets/pads may be supported on mat slab foundation system. For the design of the structure, modulus of subgrade reaction (k<sub>1</sub>) of 50 kcf is recommended. An ultimate bearing capacity of 4500 psf and an allowable bearing capacity of 1500 psf may be used for foundation bearing on compacted soil. The slab embedment should be per minimum current code requirement. The upper 12" of all subgrades should be moisture conditioned to near optimum moisture content and compacted to minimum 90% of maximum dry density before construction of any proposed improvements. All shallow foundation system should be designed to withstand frost effect as required by the local jurisdiction and 2016 CBC, Chapter 18.

### **7.4 LATERAL EARTH PRESSURES**

#### **7.4.1 Passive Earth Pressure**

Lateral loads may be resisted by friction provided by the soil on the base of the foundation and also by passive earth pressure. A coefficient of friction of 0.40 of dead load may be used. An allowable passive earth pressure of 350 psf per foot of depth may be used for footings poured on compacted in-situ soil/bedrock. A factor of safety of 1.5 was used in calculating passive earth pressure. Frictional resistance and passive pressure resistance may be used in combination if friction coefficient is reduced by one-third. A one-third increase in passive pressure may be used for resistance against seismic and wind loading.

## 7.4.2 Active Earth Pressure

Active earth pressures behind walls depend on wall movement, back fill slope, surcharge loads and back fill material.

**Table No. 6**

<b>Equivalent Fluid Density</b>	
<b>(PCF)</b>	<b>Level Backfill</b>
Active Condition	40
At-rest Condition	65

These equivalent fluid densities do not include the effect of seepage pressures, surcharge loads such as construction equipment, vehicular loads or future storage near the walls. If the basement wall or cantilever retaining wall can tilt forward to generate “active earth pressure” condition, the values under active condition should be used. For rigid non-yielding walls which are part of the building, the values” at rest condition” should be used. The compactive effort should be controlled during backfill operations. Over compaction can produce lateral earth pressures in excess of at rest magnitudes. Compaction levels adjacent to below-grade walls should be maintained between 90 and 95 percent of current standard Proctor (ASTM D1557) maximum dry density.

The backfill behind the wall should be drained properly. The simplest drainage system consists of a drain located near the bottom of the wall. The drain collects the water that enters the backfill and this may be disposed of through outlets along the base of the wall. To insure that the drains are not clogged by fine particles, they should be surrounded by a granular filter. In spite of a well-constructed toe drain, substantial water pressure may develop behind the wall if the backfill consists of clays or silts. A more satisfactory drainage system, consisting of a back drain of 12 inches to 24 inches width gravel may be provided behind the wall to facilitate to drainage.

## 8.0 CONSTRUCTION GUIDELINES

### 8.1 Construction Monitoring

As Geotechnical Engineer of Record for this project, Terradyne, should be involved in monitoring the foundation installation and earthwork activities. The performance of any foundation system is not only dependent on the foundation design but is strongly influenced by the quality of construction. Prior to construction, please contact our office so that a Foundation and Earthwork Monitoring Plan can be incorporated into the Project Quality Control Program.

## **8.2 Site Preparation**

Site preparation consists of the removal of any organic material including tree roots, subgrade preparation and the placement of structural fill and compaction of the subgrade. The upper 12” of all miscellaneous appurtenances subgrades should be moisture conditioned to near optimum moisture content and compacted to minimum 90% of maximum dry density before construction of any proposed improvements. The project geotechnical engineer should approve the subgrade preparation, the fill materials, and the method of fill placement and compaction.

In areas where there is pavement, vegetation and all loose or excessively organic materials, cobbles, boulders and debris should be stripped to a minimum depth of six inches and removed from the site. Roots of trees to be removed within the construction areas should be grubbed to full depths. After stripping operations, the subgrade should be scarified to a depth of 6 inches prior to fill placement and recompacted to 90 percent of the maximum dry density as determined by ASTM D1557, with moisture content up to 2 percent higher than the optimum moisture. The exposed subgrade should not be allowed to dry out prior to placing structural fill. Voids caused by site preparation, such as tree and boulder removal, should be replaced with select structural fill and compacted in accordance with the select fill compaction recommendations. Proper site drainage should be maintained during construction so that ponding of surface run-off does not occur and cause construction delays and/or inhibit site access.

## **8.3 Drainage**

Ground water seepage was not encountered during the drilling operation. Minor groundwater seepage may be encountered within the proposed foundation zone and grading excavations at the time of construction, especially after periods of heavy precipitation. Small quantities of seepage may be removed by conventional sump and pump methods of dewatering.

## **8.4 Temporary Drainage Measures**

Temporary drainage provisions should be established to minimize water runoff into construction areas. If standing water does accumulate, it should be removed by pumping as soon as possible. Adequate protection against sloughing of soils should be provided for workers and inspectors entering the excavations. This protection should meet OSHA and other applicable building codes.

## **8.5 Select Structural Fill**

Any select structural fill used at the site should have a Liquid Limit less than 35 and a Plasticity Index between 5 and 15. The fill should contain no particles greater than one (1) inch in diameter. The percent passing U.S. Standard Sieve No. 4 should be between 40 and 80 percent and

passing Sieve No. 40 between 10 and 50 percent. The percent passing Sieve No. 200 should be less than 20 percent.

Pit-run gravels (with some clay binders) and crushed limestone (with sufficient fines to bind the aggregate together) are examples of suitable select structural fill materials. The fill materials should be placed in loose lifts not to exceed 8 inches thick and compacted to 90 percent of the maximum dry density as determined by ASTM D1557, with moisture content within 2 percent over the optimum moisture content.

## **8.6 Groundwater**

In areas where significant cuts (2-ft or more) are made to establish final grades for pads, attention should be given to possible seasonal water seepage that could occur through natural cracks and fissures in the newly exposed stratigraphy. Subsurface drains may be required to intercept seasonal groundwater seepage. The need for these, or other dewatering devices, on pads should be carefully addressed during construction. Our office could be contacted to visually inspect final pads to evaluate the need for such drains.

Groundwater seepage may occur several years after construction if the rainfall rate or drainage changes in the vicinity of the project site. If seepage runoff occurs towards the site, an engineer should be called on to evaluate its' effect and determine whether French drains are required at the location.

## **8.7 Control Testing and Field Observation**

Subgrade preparation and structural fill placement should be monitored by the project geotechnical engineer or his representative. Field-tests for moisture content and relative compaction of the fill soils shall be performed by Terradyne, Inc. Location and frequency of tests shall be at our field representative(s) discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction. Any areas not meeting the required compaction should be re-compacted and retested until compliance is met.

## **9.0 DRAINAGE AND MAINTENANCE**

Final drainage is important for the performance of the proposed construction. Landscaping, plumbing, and downspout drainage (if any) is also important. It is vital that all drainage be transported away from the site so that water does not pond, which can result in a soil volume change underneath the structures. Irrigation or plumbing leaks (if any) should be repaired as soon as possible in order to minimize the magnitude of a moisture change under the slab. Large trees and

shrubs should not be planted in the immediate vicinity of the structures, since root systems can cause a substantial reduction in soil volume in the vicinity of the trees during dry periods.

## **9.1 AGENCY REVIEW**

All soil, geologic, and structural aspects of the proposed Project are subject to the review and approval of the governing agency(s). It should be recognized that the governing agency(s) can dictate the manner in which the project proceeds. They could approve or deny any aspect of the proposed improvements and/or could dictate which foundation and grading options are acceptable.

## **9.2 PLAN REVIEW**

Upon completion, we should review the project plans and specifications to check that they conform to the intent of our recommendations.

## **9.3 ADDITIONAL GEOTECHNICAL SERVICES**

Additional geotechnical services will be required subsequent to the investigation report. Additional fees will accrue for the additional services. The additional fees will depend on the scope of the additional work. A separate proposal and agreement will be prepared for the additional services. The following services are considered additional services.

- Response to questions from the reviewing agencies.
- Once plans for the proposed development are completed, the geotechnical consultant will need to review and approve the drawings.
- During construction, the geotechnical consultant will need to observe and test earthwork and observe foundation excavations for the proposed development.

## **10.0 LIMITATIONS**

Only a shallow portion of subsurface conditions have been reviewed and evaluated during this investigation. No warranties in any respect are made as to the future performance of the subject project. More rigorous criteria could be adopted if a lower risk of future problems is desired. Conclusions, recommendations, and other information contained in this report are based upon the assumption that the subsurface conditions do not vary appreciably between and adjacent to the observation points. Although no significant variation is anticipated, it must be recognized that variations can occur. This report has been prepared for the sole use and benefit of our client. The intent of the report is to advise our client on geotechnical matters involving the proposed improvements. It should be understood that the geotechnical consulting provided, and the contents of this report are not perfect. Any errors or omissions noted by any party reviewing this report and/or any other geotechnical aspect of the project should be reported to this office in a timely

fashion. The client is the only party intended by this office to directly receive the advice. Subsequent use of this report can only be authorized by the client. Any transferring of information or other-directed use by the client should be considered "advice by the client."

Geotechnical engineering is characterized by uncertainty. Geotechnical engineering is often described as an inexact science or art. Conclusions and recommendations presented herein are partly based upon the evaluations of technical information gathered, partly on experience, and partly on professional judgment. The conclusions and recommendations presented should be considered "advice." Other consultants could arrive at different conclusions and recommendations.

Typically, "minimum" recommendations have been presented. Although some risk will always remain, lower risk of future problems would usually result if more restrictive criteria were adopted. Final decisions on matters presented are the responsibility of the client and/or the governing agencies. No warranties in any respect are made as to the performance of the project.

## REFERENCES

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- The Applied Technology Council (ATC) Hazards by Location, Retrieved from <https://hazards.atcouncil.org/>
- Armin, R.A., and John, D.A., 1983, [Geologic map of the Freel Peak 15' quadrangle, California and Nevada, with Quaternary geology by J.C. Dohrenwend](#): U.S. Geological Survey, Miscellaneous Investigations Series Map I-1424, scale 1:62,500
- California Geological Survey (CGS) Seismic Hazard Information  
<https://maps.conservation.ca.gov/cgs/EQZApp/app/#>

# **APPENDIX A**



Not to Scale

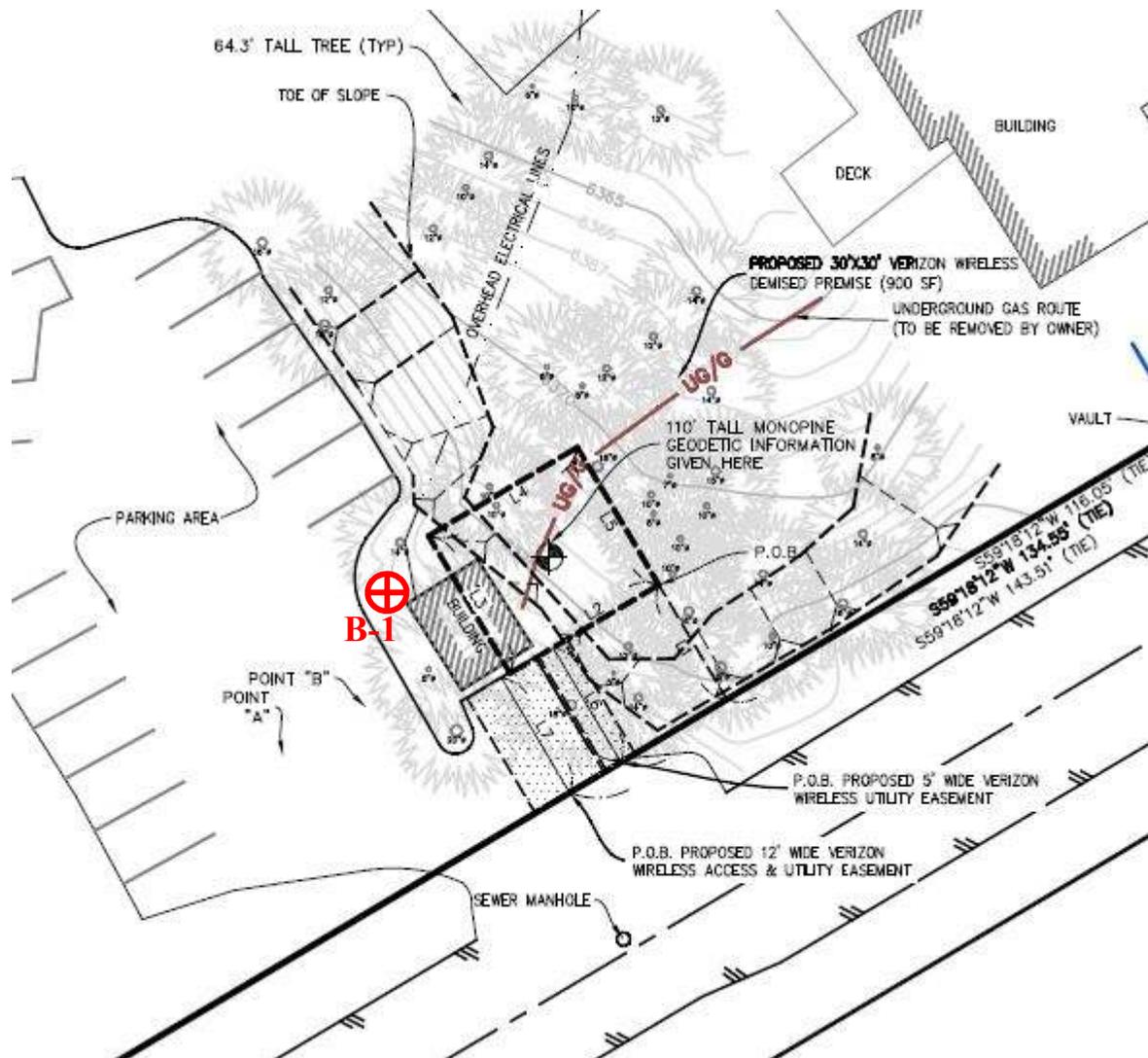
**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

Vicinity Map

Terradyne Project No: L191044 Figure: A  
 619 LEGAL COMMITTEE ITEM NO. 3 &

AGENDA ITEM NO. VIII. A.



Legend:

 Approximate Boring Location



Not to Scale

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

Approximate Boring Location Plan

Terradyne Project No: L191044

Figure: B

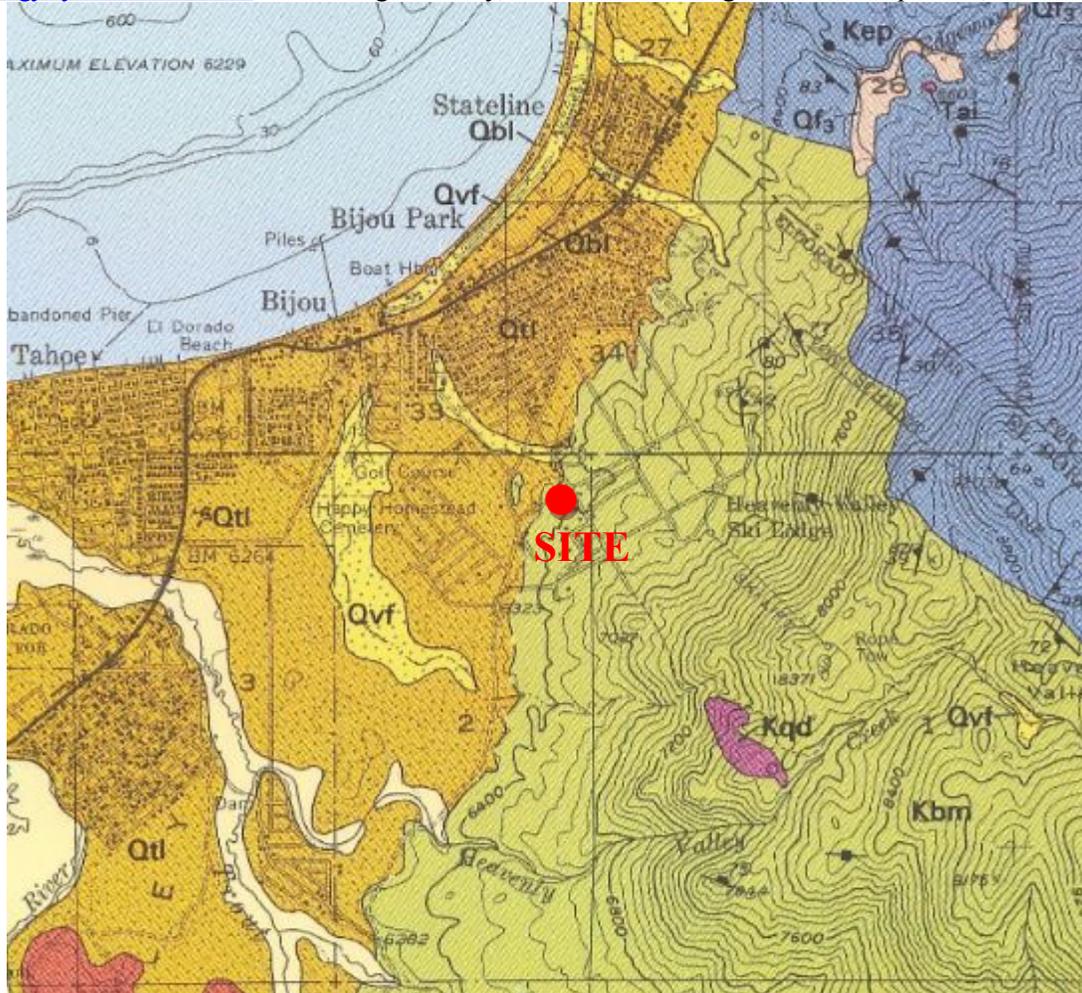
620

LEGAL COMMITTEE ITEM NO. 3 &

AGENDA ITEM NO. VIII. A.

# National Geologic Map Database

Armin, R.A., and John, D.A., 1983, [Geologic map of the Freel Peak 15' quadrangle, California and Nevada, with Quaternary geology by J.C. Dohrenwend](#): U.S. Geological Survey, Miscellaneous Investigations Series Map I-1424, scale 1:62,500



**Kbm** BRYAN MEADOW GRANODIORITE (Upper Cretaceous) — Light-gray medium-grained hypidiomorphic-granular granodiorite typically containing about 5 percent subhedral and euhedral hornblende crystals as long as 1 cm, and similar amounts of pseudo-hexagonal books of biotite in a groundmass of feldspar and quartz. Subhedral plagioclase crystals are commonly rimmed with myrmekite, and poikilitic phenocrysts of weakly micropertthitic microcline occur locally. Euhedral sphene crystals as long as 2 mm are ubiquitous. Discoid mafic inclusions are locally common. A more leucocratic, silicic phase of this pluton (stippled) is mapped in the vicinity of Horsethief Canyon and Horse Meadow. Other relatively small areas of leucocratic rock are common, particularly near margins of this pluton. K-Ar biotite ages of  $87.1 \pm 2$  and  $87.4 \pm 2$  m.y. ( $89.3 \pm 2$  and  $89.6 \pm 2$  m.y., respectively, using decay constants of Steiger and Jager, 1977) are reported by Evernden and Kistler (1970) for a sample of Bryan Meadow Granodiorite collected in Horsethief Canyon

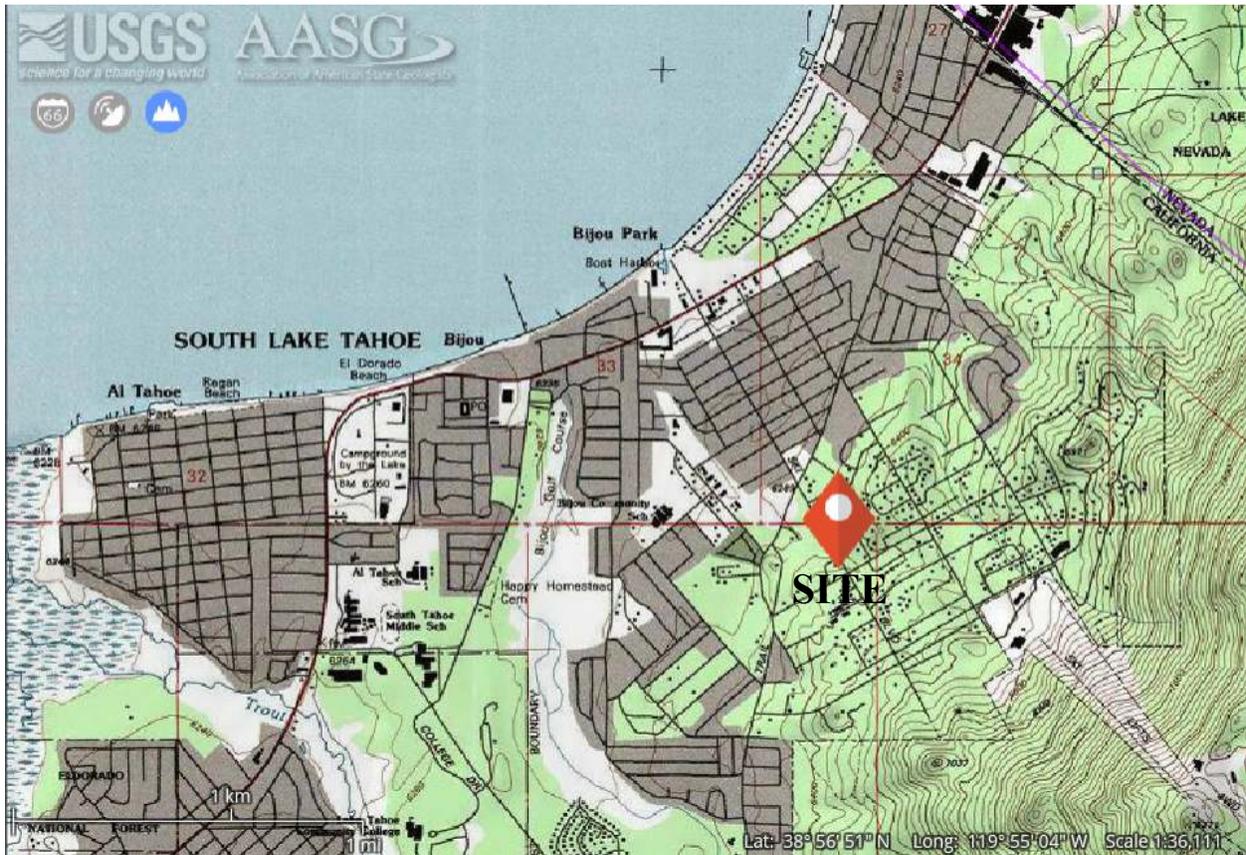
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 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

USGS Geologic Map and Legend

Terradyne Project No: L191044  
 621 LEGAL COMMITTEE ITEM NO. 3 & Figure: C

AGENDA ITEM NO. VIII. A.



Armin, R.A., and John, D.A., 1983, [Geologic map of the Freel Peak 15' quadrangle, California and Nevada, with Quaternary geology by J.C. Dohrenwend](#): U.S. Geological Survey, Miscellaneous Investigations Series Map I-1424, scale 1:62,500

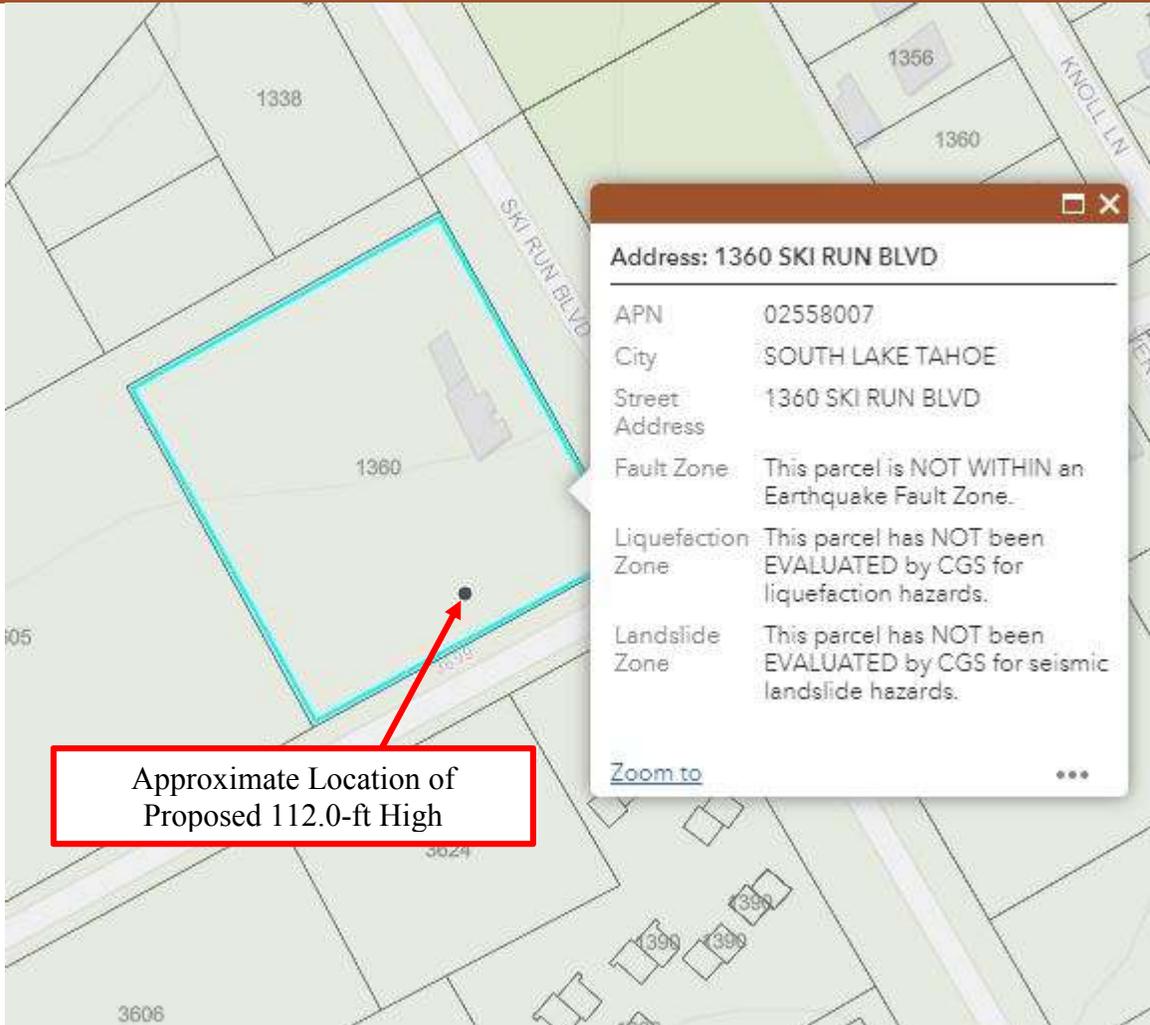
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 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

USGS Topographic Map

Terradyne Project No: L191044 Figure: D  
 622 LEGAL COMMITTEE ITEM NO. 3 &

AGENDA ITEM NO. VIII. A.



Source: California Geological Survey (CGS)

Ref: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

CGS Seismic Hazard Information

Terradyne Project No: L191044

Figure: E

## **APPENDIX B**

Project: **Verizon SKI RUN BLVD (PSL #444780)**  
 Project Location: **1360 Ski Run Blvd, South Lake Tahoe, CA 96150**  
 Project Number: **L191044**

**Log of Boring 1**  
**Sheet 1 of 1**

Date(s) Drilled <b>07/17/2019</b>	Logged By <b>AM</b>	Checked By <b>AN</b>
Drilling Method <b>Standard Penetration Test using Hollow-Stem Auger</b>	Drill Bit Size/Type <b>8 in</b>	Total Depth of Borehole <b>19 feet bgs</b>
Drill Rig Type <b>CME-75</b>	Drilling Contractor <b>Moore Twinning Associates, Inc.</b>	Approximate Surface Elevation <b>6373 ft</b>
Groundwater Level and Date Measured <b>Not encountered</b>	Sampling Method(s) <b>Bulk, SPT</b>	Hammer Data <b>140 lbs, 30" drop</b>
Borehole Backfill <b>Native soil</b>	Location <b>See boring location plan</b>	

C:\Users\LAJX\_2\Downloads\Company\_File\All\_projects\Geotechnical\_projects\L191044-1360 Ski Run Blvd, South Lake Tahoe, CA 96150\Boring log\L191044-Boring log\_bgd(master 2 lab).ipf

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	REMARKS AND OTHER TESTS
6373	0						TOPSOIL,			
			B-1 @ 1'	9/75	SP		0.5'-7.5' COLLUVIUM/RESIDUAL SOIL (Qc)	4.52	106.4	
			B-1 @ 0.5'-3'		SP		Poorly graded SAND with gravel, slightly silty, trace clay, dark brown, slightly moist, medium dense,	4.52		
6368	5		B-1 @ 5'	2/22	SP		Same as 1',	4.33	87.6	
6363	10		B-1 @ 10'	12/50 for 5"			7.5'-19.0' BRYAN MEADOW GRANODIORITE (Kbm)			
							GRANODIORITE, light brownish gray, slightly moist, very hard,	4.96	131.7	
6358	15		B-1 @ 15'	37/50 for 3"			Same as 10',	5.32	132.4	
			B-1 @ 19'	50 for 2"			Same as 15', became pale gray, Refusal on rocks,	1.19	138.4	
6353	20						End of Boring @ refusal depth of 19.0 ft No caving or groundwater encountered Borehole backfilled with native soil 07/17/2019			
6348	25									
6343	30									

**Figure 1**

Project: **Verizon SKI RUN BLVD (PSL #444780)**  
 Project Location: **1360 Ski Run Blvd, South Lake Tahoe, CA 96150**  
 Project Number: **L191044**

**Key to Log of Boring  
 Sheet 1 of 1**

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8	9	10	11

**COLUMN DESCRIPTIONS**

- |   |  |
|---|--|
| <p><b>1</b> Elevation (feet): Elevation (MSL, feet).<br/> <b>2</b> Depth (feet): Depth in feet below the ground surface.<br/> <b>3</b> Sample Type: Type of soil sample collected at the depth interval shown.<br/> <b>4</b> Sample Number: Sample identification number.<br/> <b>5</b> Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.<br/> <b>6</b> Material Type: Type of material encountered.</p> | <p><b>7</b> Graphic Log: Graphic depiction of the subsurface material encountered.<br/> <b>8</b> MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.<br/> <b>9</b> Water Content, %: Water content of the soil sample, expressed as percentage of dry weight of sample.<br/> <b>10</b> Dry Unit Weight, pcf: Dry weight per unit volume of soil sample measured in laboratory, in pounds per cubic foot.<br/> <b>11</b> REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.</p> |
|---|--|

**FIELD AND LABORATORY TEST ABBREVIATIONS**

- |   |  |
|---|--|
| <p>CHEM: Chemical tests to assess corrosivity<br/>         COMP: Compaction test<br/>         CONS: One-dimensional consolidation test<br/>         LL: Liquid Limit, percent</p> | <p>PI: Plasticity Index, percent<br/>         SA: Sieve analysis (percent passing No. 200 Sieve)<br/>         UC: Unconfined compressive strength test, Qu, in ksf<br/>         WA: Wash sieve (percent passing No. 200 Sieve)</p> |
|---|--|

**MATERIAL GRAPHIC SYMBOLS**

- |  |   |
|--|---|
|  Granodiorite |  Poorly graded SAND (SP) |
|--|---|

**TYPICAL SAMPLER GRAPHIC SYMBOLS**

- |   |   |
|---|---|
|  Auger sampler                       |  CME Sampler                                     |
|  Bulk Sample                         |  Grab Sample                                     |
|  3-inch-OD California w/ brass rings |  2.5-inch-OD Modified California w/ brass liners |

**OTHER GRAPHIC SYMBOLS**

- |  |
|--|
|  Water level (at time of drilling, ATD)               |
|  Water level (after waiting)                          |
|  Minor change in material properties within a stratum |
|  Inferred/gradational contact between strata          |
|  Queried contact between strata                       |

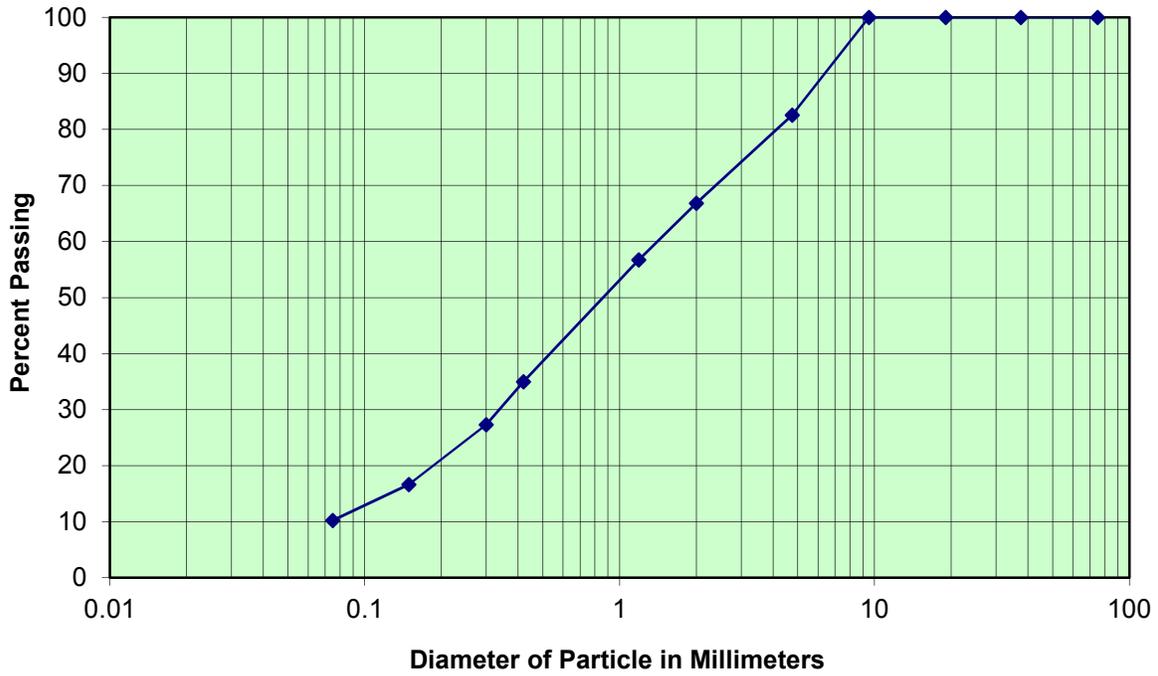
**GENERAL NOTES**

- Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
- Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

C:\Users\LAX\_2\Downloads\Company\_File\All\_projects\Geotechnical\_projects\L191044-1360\_Ski\_Run\_Bldg\_South\_Lake\_Tahoe\_CA\_96150\Boring\_log\L191044-Boring\_log\_bgd(master\_2\_lab).ipf

## **APPENDIX C**

**Gradation Test Results**



**B-1 @ 0-3.0'**

Gravel	Sand	Fines
17.6%	72.8%	9.6%

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

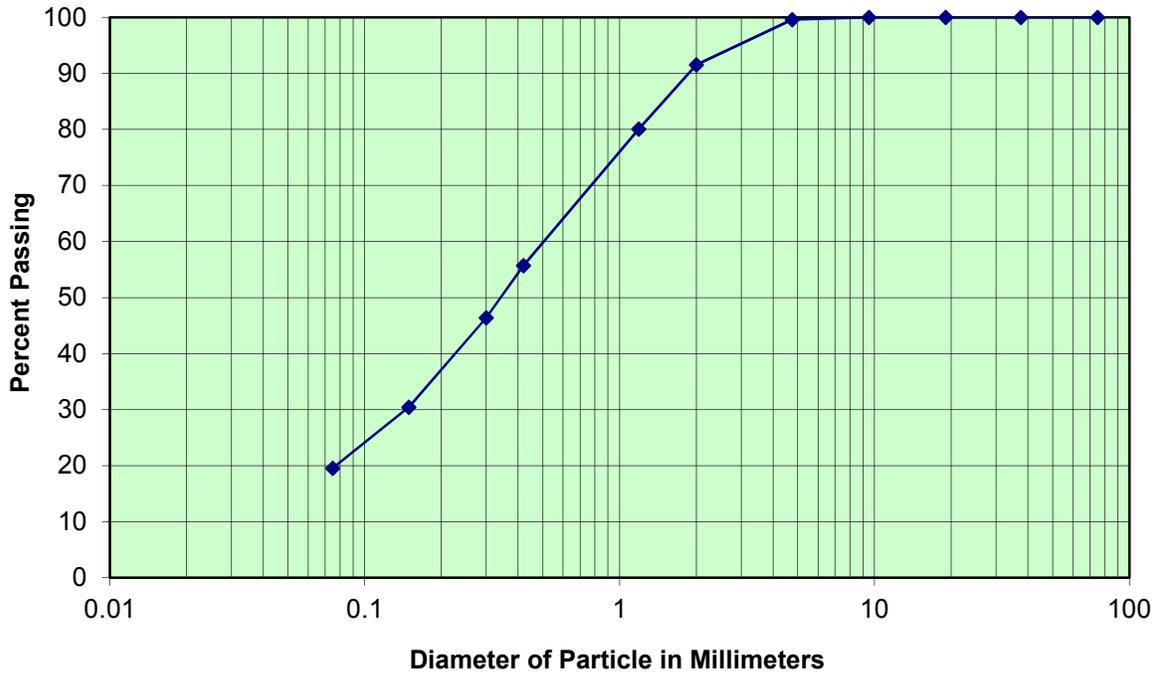
**Terradyne Engineering, Inc.**

Grain Size Distribution Chart

Terradyne Project No: L191044  
 628 LEGAL COMMITTEE ITEM NO. 3 & Figure: F

AGENDA ITEM NO. VIII. A.

**Gradation Test Results**



**B-1 @ 10.0'**

Gravel	Sand	Fines
0.3%	80.1%	19.6%

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

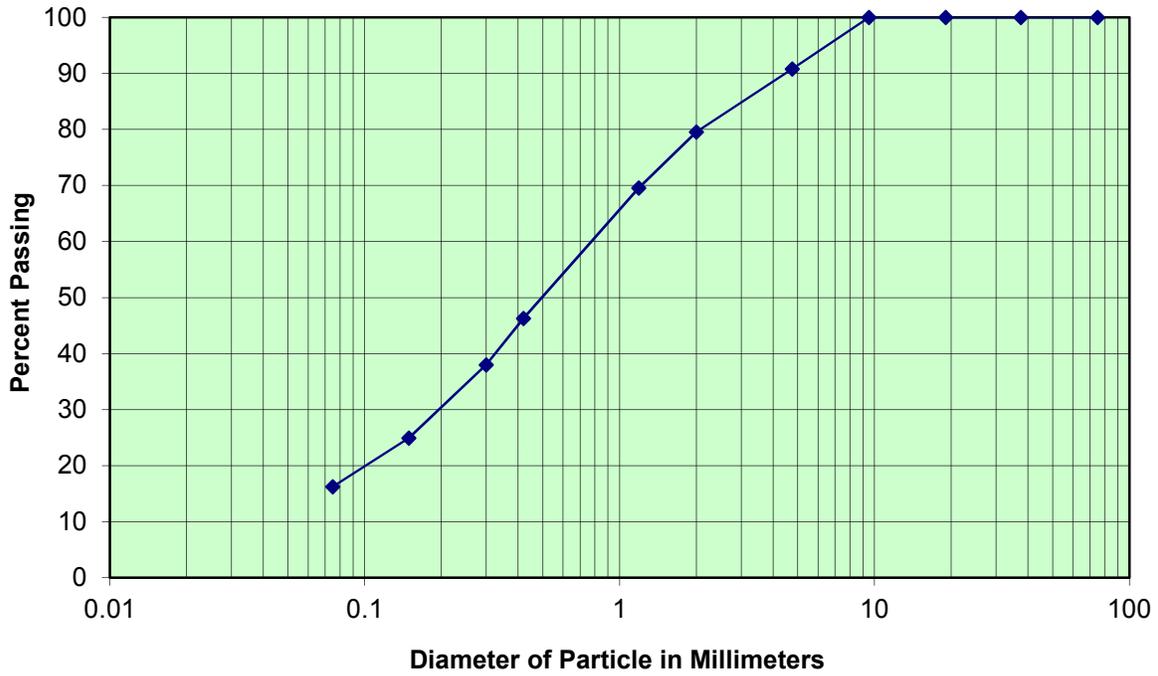
**Terradyne Engineering, Inc.**

Grain Size Distribution Chart

Terradyne Project No: L191044

Figure: G

**Gradation Test Results**



**B-1 @ 15.0'**

Gravel	Sand	Fines
9.2%	74.6%	16.2%

**Geotechnical Investigation Report**  
 Verizon SKI RUN BLVD (PSL #444780)  
 1360 Ski Run Blvd (38.937388, -119.950135)  
 South Lake Tahoe, El Dorado County, CA 96150

**Terradyne Engineering, Inc.**

**Grain Size Distribution Chart**

Terradyne Project No: L191044      Figure: H  
 630 LEGAL COMMITTEE ITEM NO. 3 &

AGENDA ITEM NO. VIII. A.

## Expansion Index Test (ASTM D 4829)

Project Name: Verizon SKI RUN BLVD (PSL #444780)	Sample By: Moore Twinning	Date: 07/20/19
Project No. : L191044	Tested By: WS	Date: 07/24/19
Boring No.: B-1	Depth (ft): 0-3.0'	
Sample No. : Bulk Sample		
Soil Identification: Poorly graded SAND, slightly silty, trace clay, dark brown		

Dry Wt. of Soil + Cont. (g)	442.4
Wt. of Container No. (g)	0.0
Dry Wt. of Soil (g)	442.4
Weight Soil Retained on #4	77.2
Sieve Percent Passing # 4	82.5%

MOLDED SPECIMEN	Before Test	After Test
Specimen Diameter (in.)	4	4
Specimen Height (in.)	1.00	1.00
Wt. Comp. Soil + Mold (g)	757.7	770.5
Wt. of Mold (g)	367.0	367.0
Specific Gravity (Assumed)	2.65	2.65
Ring Factor	0.301	0.301
Wet Wt. of Soil + Cont. (g)	176.9	189.8
Dry Wt. of Soil + Cont. (g)	169.5	178.5
Wt. of Container (g)	100.8	105.6
Moisture Content (%)	10.8	15.5
Wet Density (pcf)	117.6	121.5
Dry Density (pcf)	106.2	105.2
Degree of Saturation (%) [ S meas]	51.2	71.7

**SPECIMEN INUNDATION** in distilled water for the period of 24h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Reading (in.)
7/23/2019	12:20 PM			0.032
7/24/2019	4:40 PM		1700	0.036

Expansion Index (EI)=(Final rdg-InitialRdg)/Initial Thick)x1000	4	Plate: I
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## **APPENDIX D**

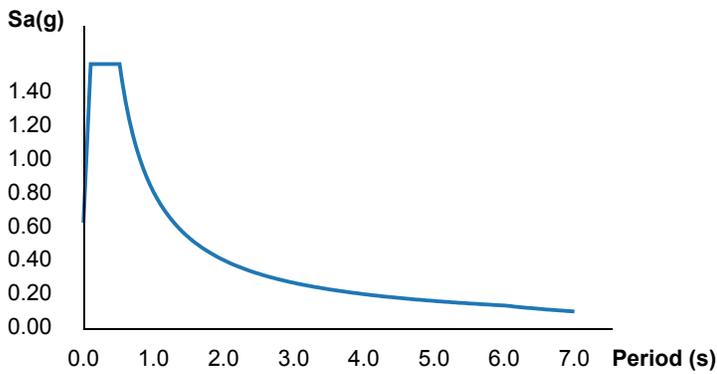
# ATC Hazards by Location

## Search Information

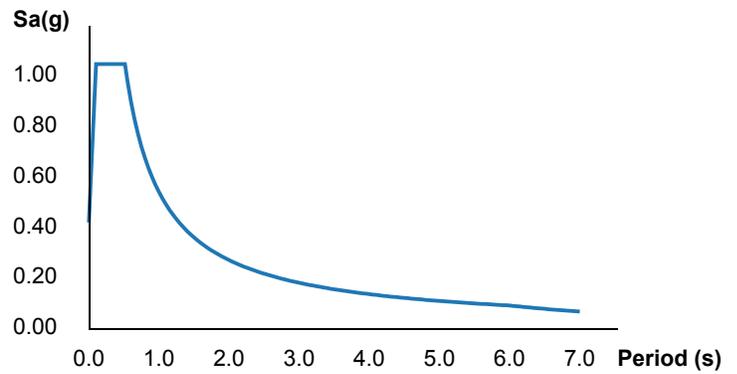
**Coordinates:** 38.937388, -119.950135  
**Elevation:** 6366 ft  
**Timestamp:** 2019-06-18T00:26:50.279Z  
**Hazard Type:** Seismic  
**Reference Document:** ASCE7-10  
**Risk Category:** II  
**Site Class:** D



### MCE<sub>R</sub> Horizontal Response Spectrum



### Design Horizontal Response Spectrum



## Basic Parameters

Name	Value	Description
S <sub>S</sub>	1.571	MCE <sub>R</sub> ground motion (period=0.2s)
S <sub>1</sub>	0.54	MCE <sub>R</sub> ground motion (period=1.0s)
S <sub>MS</sub>	1.571	Site-modified spectral acceleration value
S <sub>M1</sub>	0.809	Site-modified spectral acceleration value
S <sub>DS</sub>	1.047	Numeric seismic design value at 0.2s SA
S <sub>D1</sub>	0.54	Numeric seismic design value at 1.0s SA

## Additional Information

Name	Value	Description
SDC	D	Seismic design category
F <sub>a</sub>	1	Site amplification factor at 0.2s
F <sub>v</sub>	1.5	Site amplification factor at 1.0s
CR <sub>S</sub>	0.928	Coefficient of risk (0.2s)

CR <sub>1</sub>	0.91	Coefficient of risk (1.0s)
PGA	0.588	MCE <sub>G</sub> peak ground acceleration
F <sub>PGA</sub>	1	Site amplification factor at PGA
PGA <sub>M</sub>	0.588	Site modified peak ground acceleration
T <sub>L</sub>	6	Long-period transition period (s)
SsRT	1.571	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.693	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	2.429	Factored deterministic acceleration value (0.2s)
S1RT	0.54	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.593	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.775	Factored deterministic acceleration value (1.0s)
PGAd	0.833	Factored deterministic acceleration value (PGA)

*The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.*

## Disclaimer

Hazard loads are provided by the U.S. Geological Survey [Seismic Design Web Services](#).

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**Soil Hydrological Investigation**

September 1, 2022

Marchel Munnecke, CPSS # 497703

**1360 Ski Run Blvd.,  
South Lake Tahoe, Eldorado County, CA 96151  
APN 025-580-007.**

**Summary of findings:**

Ms. Munnecke observed a pit partially excavated for a cell tower foundation. The pit varied in depth, with up to an 8-foot cut on the upper slope and approximately a 4 foot cut on the downslope side. Excavation was halted due to the inability of the backhoe to dig through the hard granitic bedrock. The bedrock slopes to the northeast nearly parallel to the surface topography with approximately 5 percent slope.

A pit was described in the deepest area with the smoothest wall for a soil profile description. At this location, there is 10 inches of fill material over the original soil. The buried surface horizon is present from 10 to 22 inches, and subsoil is present from 22 to 41 inches. At 41 inches, highly weathered granitic material is present with 85 percent paragravels. Roots are present in this horizon so it was not called paralithic horizon (Cr). From 65 to 94 inches, is a paralithic horizon composed of fractured and moderately weathered granitic bedrock. Fine and medium roots extend into these fractures. At 94 inches is hard bedrock. At this weathered to hard bedrock interface, there is a layer less than 1 inch thick, where roots are restricted above the bedrock. There are no signs of redoximorphic features in the form of iron concentrations or depletions in this profile.

Across the wall of this pit, the boundary to the weathered and hard bedrock is visible, and there are no signs of water perching above this boundary. In some areas the fractured bedrock is not present, and the weathered “grus” material gradually becomes less and less weathered and very difficult to dig and is root restrictive. The vegetation in this area is Jeffrey pine forest with montane shrubs such as greenleaf manzanita in the understory. There is an area of SEZ to the northwest, but it is lower in elevation and does not affect the hydrology of this area. Seasonal groundwater tables are typically perched above the bedrock layer not within the bedrock, thus a water table is not anticipated in the requested excavation depth of 13.5 feet.

## Soil Profile Descriptions

Marchel Munnecke

Field Date: 9-1-2022



**Photo 1a. Soil profile description, 1b. Weathered and fractured bedrock.**

### Pit 1:

**Drainage Class:** Somewhat excessively drained

**Hydrologic Group:** A

**Parent Material:** Colluvium and residuum from granitic parent material over highly weathered and hard granitic bedrock.

**Slope:** 8 % (estimate as location has been excavated)      **Aspect:** Northeast

### Description:

- Oi      0 to 2 inches; mulch and pine needles; clear smooth boundary.
- A      2 to 10 inches; gravelly loamy coarse sand, dark grayish brown (10YR 4/2), very dark grayish brown (10YR 2/2) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine to medium roots; many very fine to fine irregular pores; 15 percent gravels; clear smooth boundary.
- Ab      10 to 22 inches; gravelly loamy coarse sand, brown (10YR 5/3), very dark grayish brown (10YR 3/2) moist; moderate medium granular structure; soft, very friable, nonsticky and

nonplastic; many very fine to fine and common coarse roots; many very fine to fine irregular pores; 25 percent gravel; gradual wavy boundary.

Bw 22 to 41 inches; gravelly loamy coarse sand, brown (10YR 5/3), dark grayish brown (10YR 4/2) moist; moderate medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine to coarse roots; many very fine and fine irregular pores; 30 percent gravel; clear wavy boundary.

C 41 to 65 inches; Coarse paragravelly sand; pale brown and light yellowish brown (10YR 6/3, 10YR 6/4), dark yellowish brown (10YR 4/4) moist; structureless; moderately hard, firm, nonsticky and nonplastic; few fine to medium roots; many very fine and fine irregular pores; 85 percent gravel; clear wavy boundary.

Cr 65 to 94 inches; light grey and very pale brown (10YR 7/2, 10YR 7/3) weathered granitic bedrock with black minerals; roots are limited to cracks in the weathered granitic rock.

R 94- 96+ inches; Hard granitic bedrock.



Photo 2. Panorama of pit.

**Soil Hydrological Investigation**

September 14, 2022

Marchel Munnecke, CPSS # 497703

**1360 Ski Run Blvd.,  
South Lake Tahoe, Eldorado County, CA 96151  
APN 025-580-007.**

**Observation to 13.5 feet:**

Mrs. Munnecke, consulting soil scientist, was on site September 14, 2022, with Julie Roll and John Marshall from TRPA. A previous soil description was provided to TRPA on September 2, 2022, from the site visit on September 1, 2022. The first visit described the soil profile to a depth of 94 inches (8 feet), which had weathered bedrock at 65 inches (5.4 feet), hard bedrock 94 inches (7.8 feet), and no indicators of a seasonal groundwater, such as redoximorphic features or water seepage. The observation on September 14, 2022 extended the observation to a depth of 13.5 feet on the upper, deepest part of the pit. Hard granitic bedrock was present for the remainder of the soil profile from 8 to 13.5 feet, and there was no evidence of water seepage, or redoximorphic features that would indicate a seasonal water table. There were no indicators of groundwater or a seasonal high water table, across the entirety of the pit

Photo 2. Panorama of pit to the base level, with a maximum cut of 13.5 feet.



Attachment F

Soil Hydrological Investigation dated September 1, 2022

## **Soil Hydrological Investigation**

September 1, 2022

Marchel Munnecke, CPSS # 497703

**1360 Ski Run Blvd.,**

**South Lake Tahoe, Eldorado County, CA 96151**

**APN 025-580-007.**

### **Summary of findings:**

Ms. Munnecke observed a pit partially excavated for a cell tower foundation. The pit varied in depth, with up to an 8-foot cut on the upper slope and approximately a 4 foot cut on the downslope side. Excavation was halted due to the inability of the backhoe to dig through the hard granitic bedrock. The bedrock slopes to the northeast nearly parallel to the surface topography with approximately 5 percent slope.

A pit was described in the deepest area with the smoothest wall for a soil profile description. At this location, there is 10 inches of fill material over the original soil. The buried surface horizon is present from 10 to 22 inches, and subsoil is present from 22 to 41 inches. At 41 inches, highly weathered granitic material is present with 85 percent paragravels. Roots are present in this horizon so it was not called paralithic horizon (Cr). From 65 to 94 inches, is a paralithic horizon composed of fractured and moderately weathered granitic bedrock. Fine and medium roots extend into these fractures. At 94 inches is hard bedrock. At this weathered to hard bedrock interface, there is a layer less than 1 inch thick, where roots are restricted above the bedrock. There are no signs of redoximorphic features in the form of iron concentrations or depletions in this profile.

Across the wall of this pit, the boundary to the weathered and hard bedrock is visible, and there are no signs of water perching above this boundary. In some areas the fractured bedrock is not present, and the weathered "grus" material gradually becomes less and less weathered and very difficult to dig and is root restrictive. The vegetation in this area is Jeffrey pine forest with montane shrubs such as greenleaf manzanita in the understory. There is an area of SEZ to the northwest, but it is lower in elevation and does not affect the hydrology of this area. Seasonal groundwater tables are typically perched above the bedrock layer not within the bedrock, thus a water table is not anticipated in the requested excavation depth of 13.5 feet.

## Soil Profile Descriptions

Marchel Munnecke

Field Date: 9-1-2022



**Photo 1a. Soil profile description, 1b. Weathered and fractured bedrock.**

### Pit 1:

**Drainage Class:** Somewhat excessively drained

**Hydrologic Group:** A

**Parent Material:** Colluvium and residuum from granitic parent material over highly weathered and hard granitic bedrock.

**Slope:** 8 % (estimate as location has been excavated)      **Aspect:** Northeast

### Description:

- Oi      0 to 2 inches; mulch and pine needles; clear smooth boundary.
- A      2 to 10 inches; gravelly loamy coarse sand, dark grayish brown (10YR 4/2), very dark grayish brown (10YR 2/2) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine to medium roots; many very fine to fine irregular pores; 15 percent gravels; clear smooth boundary.
- Ab      10 to 22 inches; gravelly loamy coarse sand, brown (10YR 5/3), very dark grayish brown (10YR 3/2) moist; moderate medium granular structure; soft, very friable, nonsticky and

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C 41 to 65 inches; Coarse paragravelly sand; pale brown and light yellowish brown (10YR 6/3, 10YR 6/4), dark yellowish brown (10YR 4/4) moist; structureless; moderately hard, firm, nonsticky and nonplastic; few fine to medium roots; many very fine and fine irregular pores; 85 percent gravel; clear wavy boundary.

Cr 65 to 94 inches; light grey and very pale brown (10YR 7/2, 10YR 7/3) weathered granitic bedrock with black minerals; roots are limited to cracks in the weathered granitic rock.

R 94- 96+ inches; Hard granitic bedrock.



Photo 2. Panorama of pit.

Attachment G

Soil Hydrological Investigation dated September 14, 2022

## Soil Hydrological Investigation

September 14, 2022

Marchel Munnecke, CPSS # 497703

**1360 Ski Run Blvd.,**

**South Lake Tahoe, Eldorado County, CA 96151**

**APN 025-580-007.**

### Observation to 13.5 feet:

Mrs. Munnecke, consulting soil scientist, was on site September 14, 2022, with Julie Roll and John Marshall from TRPA. A previous soil description was provided to TRPA on September 2, 2022, from the site visit on September 1, 2022. The first visit described the soil profile to a depth of 94 inches (8 feet), which had weathered bedrock at 65 inches (5.4 feet), hard bedrock 94 inches (7.8 feet), and no indicators of a seasonal groundwater, such as redoximorphic features or water seepage. The observation on September 14, 2022 extended the observation to a depth of 13.5 feet on the upper, deepest part of the pit. Hard granitic bedrock was present for the remainder of the soil profile from 8 to 13.5 feet, and there was no evidence of water seepage, or redoximorphic features that would indicate a seasonal water table. There were no indicators of groundwater or a seasonal high water table, across the entirety of the pit

Photo 2. Panorama of pit to the base level, with a maximum cut of 13.5 feet.



Attachment H

TRPA Code of Ordinances Section 33.3.6.

**CHAPTER 33: GRADING AND CONSTRUCTION**

33.3 Grading Standards

33.3.6 Excavation Limitations

---

1. The maximum fill slope shall be determined on the basis of the risk of instability or soil erodibility. Additional information, which may include a subsurface soil and geological report pursuant to Section 33.4, or other available information may be required.
2. No organic material, such as vegetation or rubbish, or any other material not capable of proper compaction or stability, or that has the potential for environmental impact, shall be permitted in fills.
3. Borrowing for fill is prohibited unless approved by TRPA. Borrowing of material from rockfalls and slides may be allowed pursuant to memorandums of understanding between TRPA and road maintenance organizations. Approved borrow sites shall be subject to subparagraph 33.3.5.A above.
4. TRPA may impose setbacks as set forth in the Design Review Guidelines.

**33.3.6. Excavation Limitations**

The following limitations to excavation shall apply:

**A. Groundwater Interception**

Groundwater interception or interference is prohibited except as set forth below:

1. Excavation is prohibited that interferes with or intercepts the seasonal high water table by:
  - a. Altering the direction of groundwater flow;
  - b. Altering the rate of flow of ground water;
  - c. Intercepting ground water;
  - d. Adding or withdrawing ground water; or
  - e. Raising or lowering the water table.
2. TRPA may approve exceptions to the prohibition of groundwater interception or interference if TRPA finds that:
  - a. Excavation is required by the International Building Code (IBC) or local building code for minimum depth below natural ground for above ground structures;
  - b. Retaining walls are necessary to stabilize an existing unstable cut or fill slope;
  - c. Drainage structures are necessary to protect the structural integrity of an existing structure;
  - d. It is necessary for the public safety and health;
  - e. It is a necessary measure for the protection or improvement of water quality;
  - f. It is for a water well;

- g. There are no feasible alternatives for locating mechanical equipment, and measures are included in the project to prevent groundwater from leaving the project area as surface flow, and any groundwater that is interfered with is rerouted in the ground water flow to avoid adverse impacts to riparian vegetation;
- h. It is necessary to provide two off-street parking spaces, there is no less environmentally harmful alternative, and measures are taken to prevent groundwater from leaving the project area as surface flow;
- i. It is necessary to provide below grade parking for projects that qualify for additional height under subsection 37.5.4 or 37.5.9 to achieve environmental goals, including scenic improvements, land coverage reduction, and area-wide drainage systems. Measures shall also be included in the project to prevent ground water from leaving the project area as surface flow and that any groundwater, that is interfered with is rerouted into the groundwater flow to avoid adverse impacts to hydrologic conditions, SEZ vegetation, and mature trees; or
- j. It is necessary for a marina expansion approved pursuant to Chapter 14: *Specific and Master Plans*, and the environmental documentation demonstrates that there will be no adverse effect on water quality.

**B. Excavations**

Excavations in excess of five feet in depth or where there exists a reasonable possibility of interference or interception of a water table shall be prohibited unless TRPA finds that:

1. A soils/hydrologic report prepared by a qualified professional, which proposed content and methodology has been reviewed and approved in advance by TRPA, demonstrates that no interference or interception of groundwater will occur as a result of the excavation;
2. The excavation is designed such that no damage occurs to mature trees, except where tree removal is allowed pursuant to subsection 33.6.5: *Tree Removal*, including root systems and hydrologic conditions of the soil. To ensure the protection of vegetation necessary for screening, a special vegetation protection report shall be prepared by a qualified professional identifying measures necessary to ensure damage will not occur as a result of the excavation; and
3. Excavated material is disposed of pursuant to subsection 33.3.4: *Disposal of Materials*, and the project area's natural topography is maintained pursuant to subparagraph 36.5.1.A. If groundwater interception or interference will occur as demonstrated by a soils/hydrologic report prepared by a qualified professional, then the excavation can be made as an exception pursuant to subparagraph 33.3.6.A.2, provided measures are included in the project to maintain groundwater flows to avoid adverse impacts to SEZ vegetation and to prevent any groundwater or subsurface water flow from leaving the project area as surface flow.

**C. Minimum Excavation**

The area and extent of all excavation shall be minimized to avoid unnecessary soil disturbance.

**33.3.7. Discovery of Historic Resources**

Whenever historical, pre-historical, or paleontological materials appearing to be 50 years or older are discovered during grading activity and have not been accounted for previously pursuant to Section 67.3, grading shall cease and TRPA shall be notified immediately. TRPA shall suspend grading and consult with the appropriate local, state, or federal entities and determine whether the site should be nominated as a historic resource. The property owner shall provide protection for the discovered material during this period. If a nomination is made, the site shall be subject to the provisions of Chapter 67: *Historic Resource Protection*.

**33.4. SPECIAL INFORMATION REPORTS AND PLANS**

**33.4.1. Subsurface Investigations and Reports**

When TRPA determines that stability on or in the vicinity of the project area may be lessened by the proposed grading, or that grading will be performed at any of the locations listed below, TRPA may require a subsurface investigation and preparation of a subsurface soil and geographical report by a qualified professional. The report shall provide information sufficient to determine the effect of grading on stability, groundwater, and, if present, antiquities.

**A. List of Locations**

Grading at any of the following locations may be grounds for requiring subsurface investigations and reports:

1. Fault zones;
2. Contact zones between two or more geologic formations;
3. Zones of trapped water or high water tables;
4. Areas where bodies of intrusive materials, such as rocks or boulders, are prevalent;
5. Historic landslide areas or where the topography indicates prehistoric landslides;
6. Adversely-sloped bedding planes, short-range folding areas, overturned folds, fractures, and other geologic formations of similar importance;
7. Proposed or existing fill slopes above a cut slope;
8. Proposed or existing cuts exceeding 20 feet in height, unless in competent rock;
9. Proposed or existing fills exceeding 20 feet in height;

Attachment I

Staff email and attachments re approved coverage dated September 14, 2022

**From:** Bridget Cornell <bcornell@trpa.gov>  
**Sent:** 9/14/2022 4:45:54 PM  
**To:** John Marshall <jmarshall@trpa.gov>  
**Cc:** Katherine Huston <khuston@trpa.gov>;  
**Subject:** RE: Miller appeal Verizon Cell Tower  
**Attachments:** [image001.png](#), [image002.jpg](#), [image003.jpg](#), [image004.jpg](#), [image005.jpg](#), [ERSP2019-0389 Equipment Shelter Page - bkc markup.pdf](#), [2022 Appeal - Exhibit 6 - Coverage Analysis from the Approved Plans - bkc Notes.pdf](#)

---

Hi John:

I have been reviewing the pages you mentioned below and Mr. Miller's Exhibit 6. I am not entirely following the numbers he references, but I may now see what part of the confusion is.

The easy clarification regarding the equipment shelter, the dimensions of the slab upon which the shelter sits are 18 feet by 24 feet. See attached, "ERSP2019-0389 Equipment Shelter Page – bkc markup." I have added some notes and possible explanation.

I am not following where Mr. Miller is getting the numbers he references related to the tower foundation. The confusion there may lie in the various perspectives that are shown in the plans. The "Exhibit 6" that is attached in his appeal references four separate profiles that are included in the approved plans. Unfortunately, the profiles are labeled numerically, 1 through 4, but not in the directional perspective (i.e., southeast, etc.). It is not perfectly clear looking at these profiles which portion of coverage is attributable to each segment of the project (e.g., equipment shelter, tower foundation, etc.). Truthfully, I think the 304 square feet of coverage the applicant has identified in the coverage table attributable to the "Cell Tower Footing" is overstated.

I can see how someone may interpret some of the profile perspectives as presuming the "concrete pad" being associated with the tower footing. It is not. The "concrete pad" is the base of the equipment shelter and generator base. I believe he is presuming that is additional land coverage associated with the footing.

I have added some notes to Exhibit 6. See attached, "2022 appeal Exhibit 6 Coverage Analysis from the Approved Plans – bkc Notes."

Please review the attached and let me know if you have any questions. I am available all day tomorrow if you'd like to schedule some time to discuss. Or shall I sign up for your office hours?

If you'd like to discuss, it would be best if we both are looking at the approved plans.

Thanks John!

Bridget

Bridget K. Cornell  
Current Planning  
(775) 589-5218

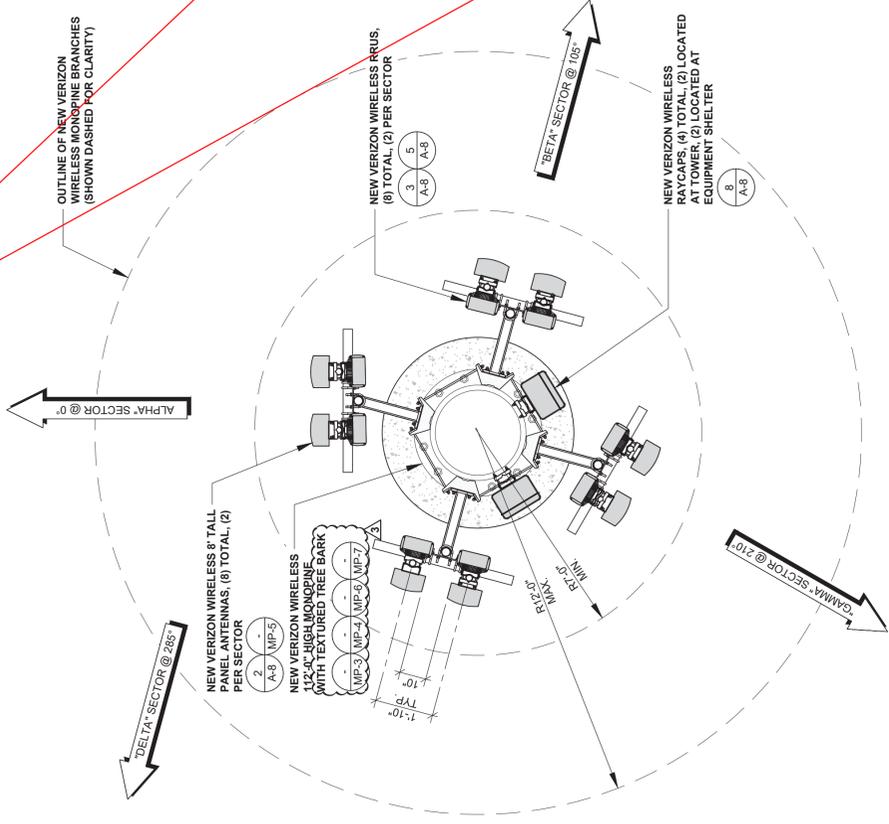


Find parcel-specific information and permit history.  
<https://parcels.laketahoeinfo.org/>

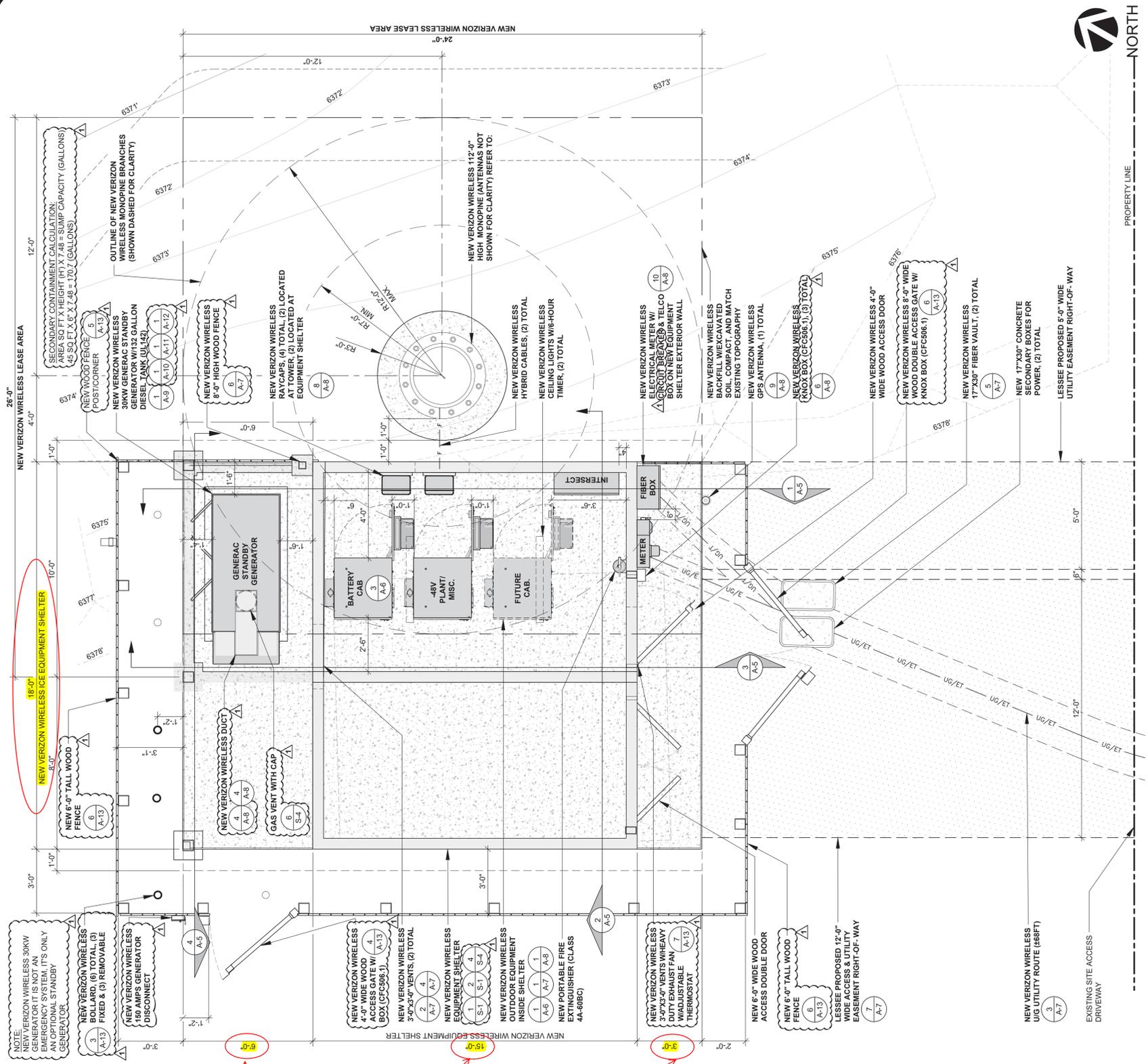


These plans have been reviewed and approved as required under TRPA Rules, Regulations, and Ordinances only. TRPA has not reviewed and shall not be responsible for any elements contained in these plans, i.e. structural, electrical, mechanical, etc. which are not required for review under said Rules, Regulations, and Ordinances.

This page shows the detailed drawing for the Equipment Shelter footprint. By my hand: 3' x 15' + 6' = 24 feet 24' x 18' = 432 square feet Regarding the



PANEL ANTENNAS @ 103'-0" CENTERLINE



EQUIPMENT LAYOUT

**ISSUE STATUS**

REV	DATE	DESCRIPTION	BY
0	01/13/22	BUILDING SUBMITTAL	FA
1	05/10/22	CITY COMMENTS	FA
2	07/18/22	CITY COMMENTS	FA
3	08/01/22	CONSTRUCTION CHANGE	FA



**PROPRIETARY INFORMATION**  
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SKI RUN BLVD  
PSL# 444780  
1360 SKI RUN BLVD  
SOUTH LAKE TAHOE, CA 96150

SHEET TITLE:  
EQUIPMENT &  
ANTENNA LAYOUTS

**A-2**

PROPERTY LINE



NORTH

SCALE: 3/8" = 1'-0" (24x36)  
(OR) 3/16" = 1'-0" (11x17)

0 1' 2' 3'

1

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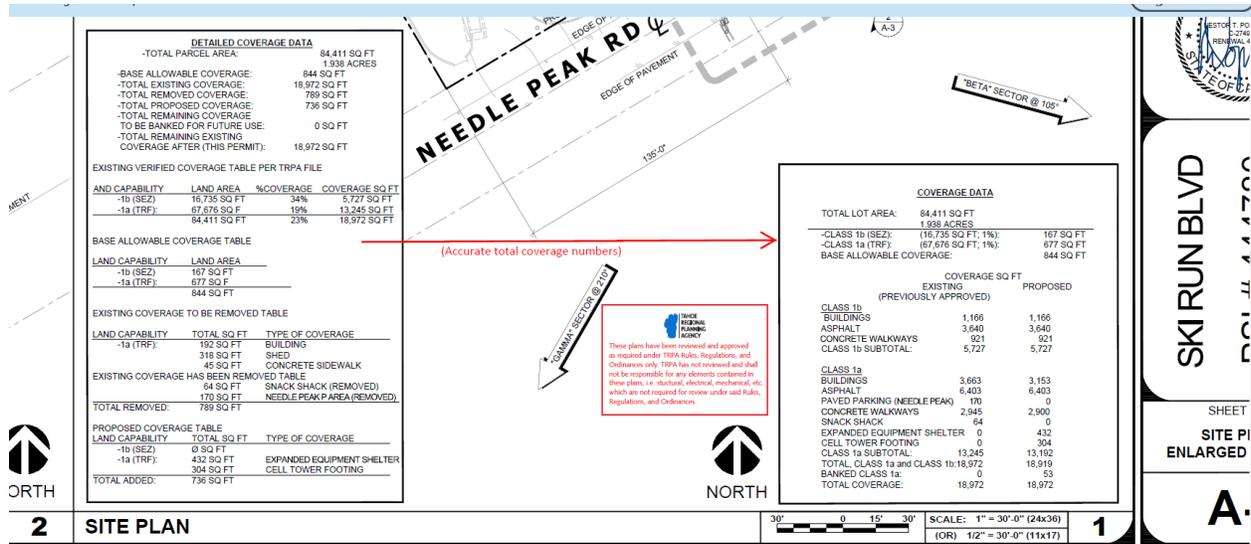
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Appeal Exhibit 6

Excerpts are from the Approved Plans – set 1 of 2:

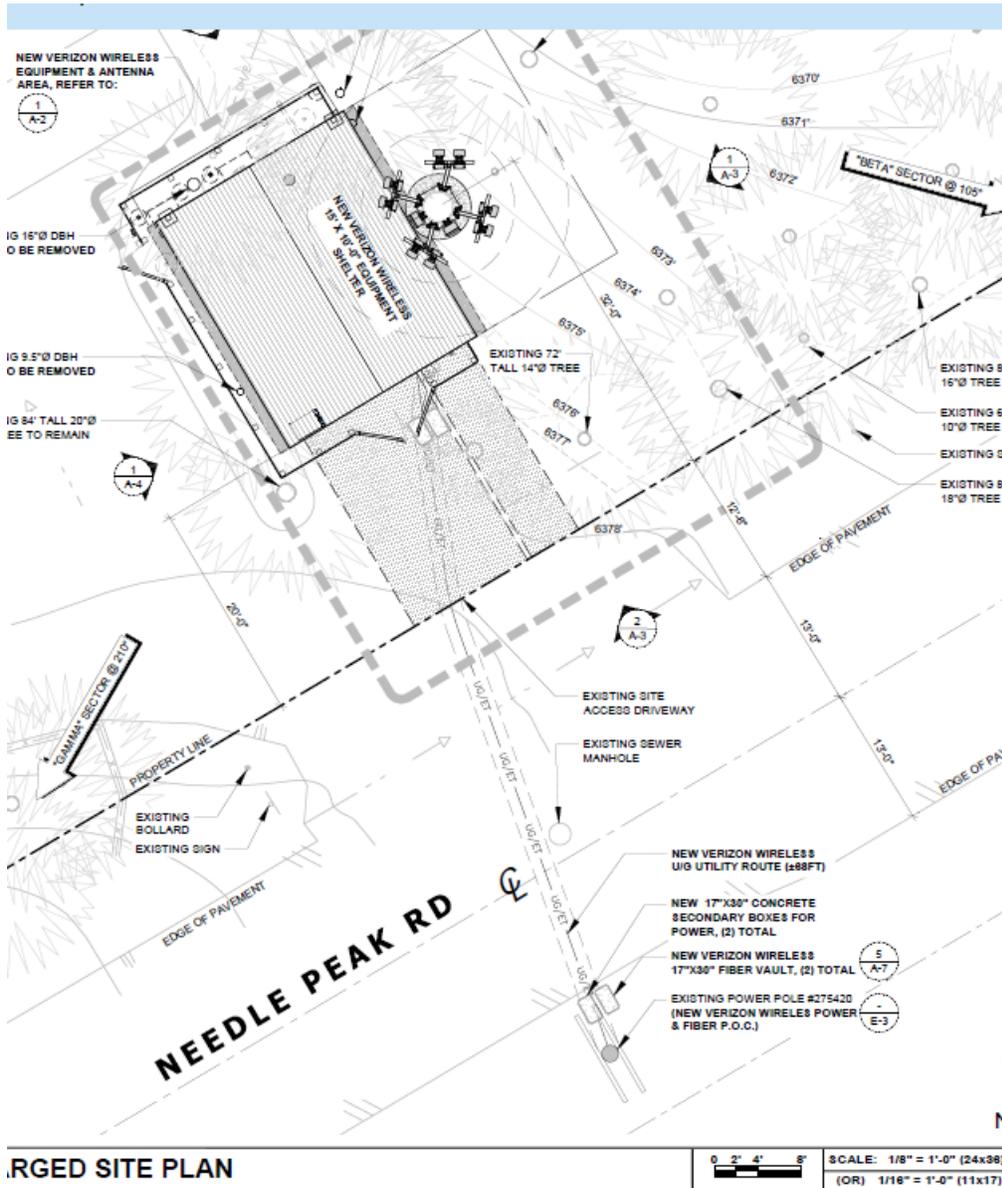
The plan sheets seems to show a number of inconsistencies with regard to dimensions for what will actually be built. In every case I carefully measured using the scaled drawings provided, I determined that the Project, if built according to the approved plans, will be overcovered with regard to the 736 square feet of total coverage available for the project.

Sheet A-1: It is clear from the table to the right below that proposed coverage is 432 sf for the “EXPANDED EQUIPMENT SHELTER” and 304 sf for the “CELL TOWER FOOTING” bringing the “TOTAL PROPOSED COVERAGE” to 736 sf, as shown in the table to the right, with “TOTAL REMAINING COVERAGE TO BE BANKED FOR FUTURE USE” of zero. So be it. I don’t know how the numbers were derived, nor do I need or care to know for purposes here.



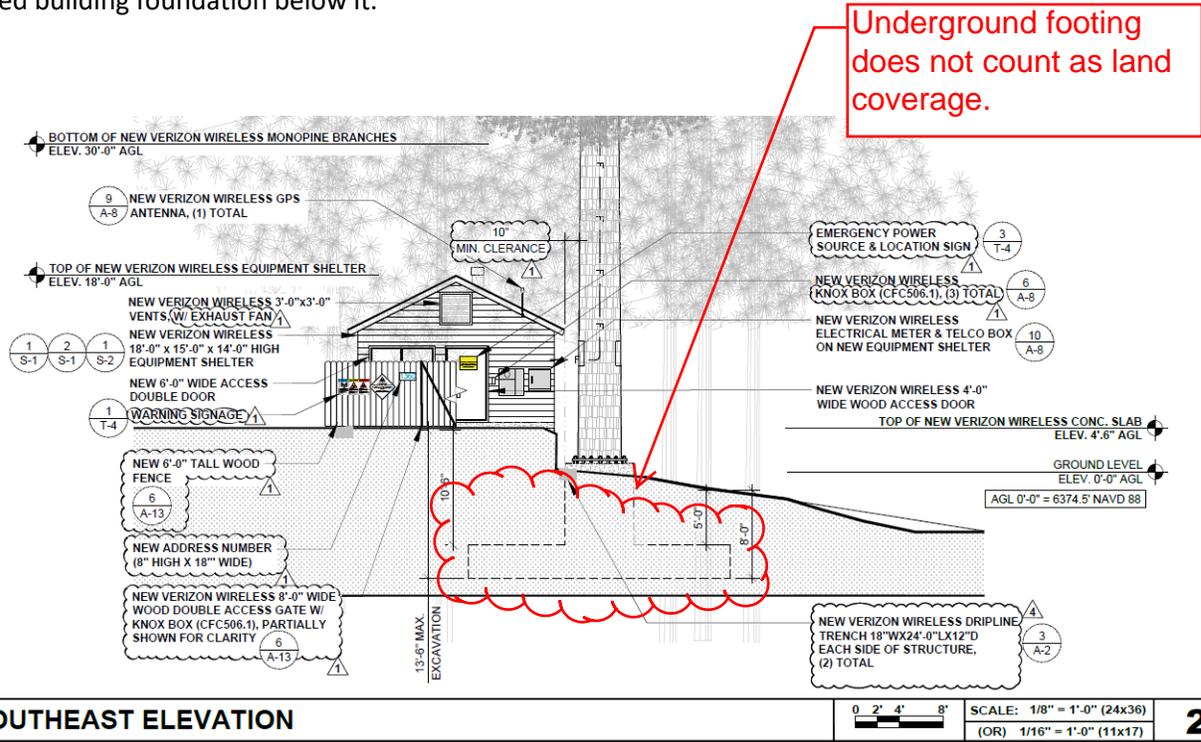
**Excerpts are from the Site Plan/Enlarged Site Plan Sheet**

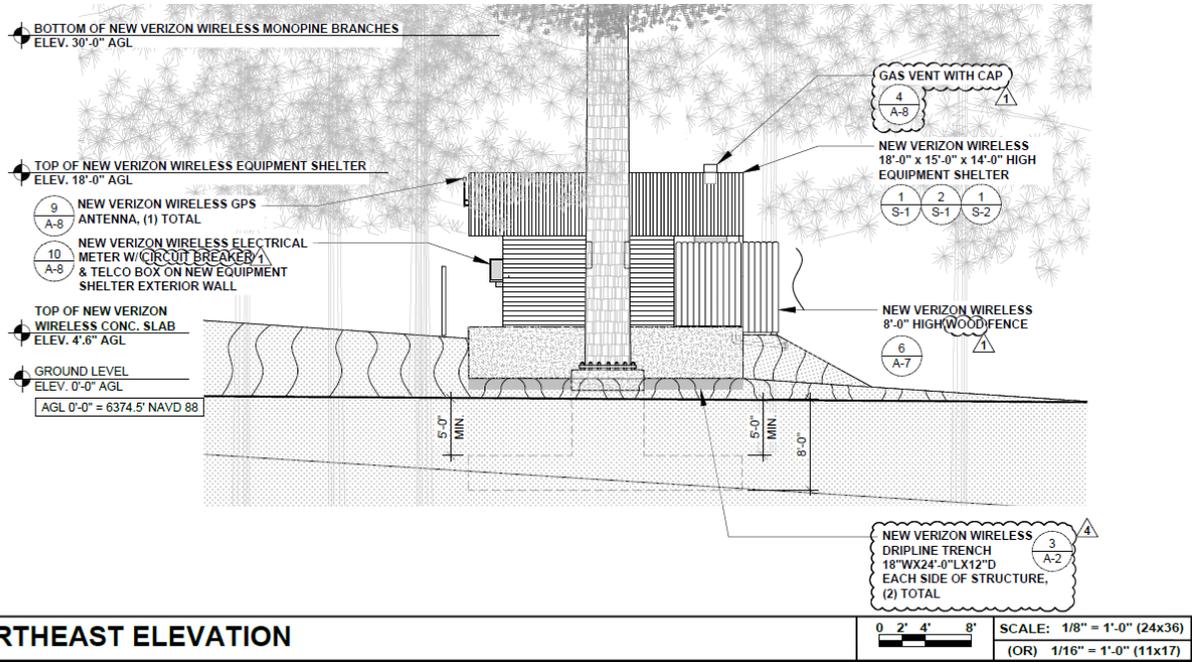
Looking first at the plan-view shown in the sheet, below, noting there are many great “plan views” to evaluate, or any other information, perhaps because the application was deficient of “Floor Plans” as required for a complete application (just speculating). This is from the sheet stamped with approval (not shown) as it is the larger of the identical depictions, and seems to be the only plan view available to evaluate in this way. (All other depictions below are from the Elevation drawings.) Shows the infiltration trenches for the roof on both sides. The depth of the roof is 24.5 ft. Leaving the driveway out, the width of the roof (from left side) plus the tower foundation (depicted by square gray line at right) is 32 feet.  $24.5 \text{ ft} \times 32 \text{ ft} = 785 \text{ sq ft}$ .  $785 - 736 = 49 \text{ sq ft}$  over the allowed coverage.



bkc 09/14/2022: Actual footprint of equipment shelter footprint (i.e., what is counted towards land coverage) is 18 feet by 24 feet, which equals 432 square feet of coverage. The roof dimensions may vary. A typical roof overhang is 18" - 24". Presuming the bottom of the roof eave is at least 6 feet off the ground, when applying the "3:1 Height Reduction Ratio," the overhang does not create additional land coverage. I am not sure where the 24.5 feet and 32 feet come from?

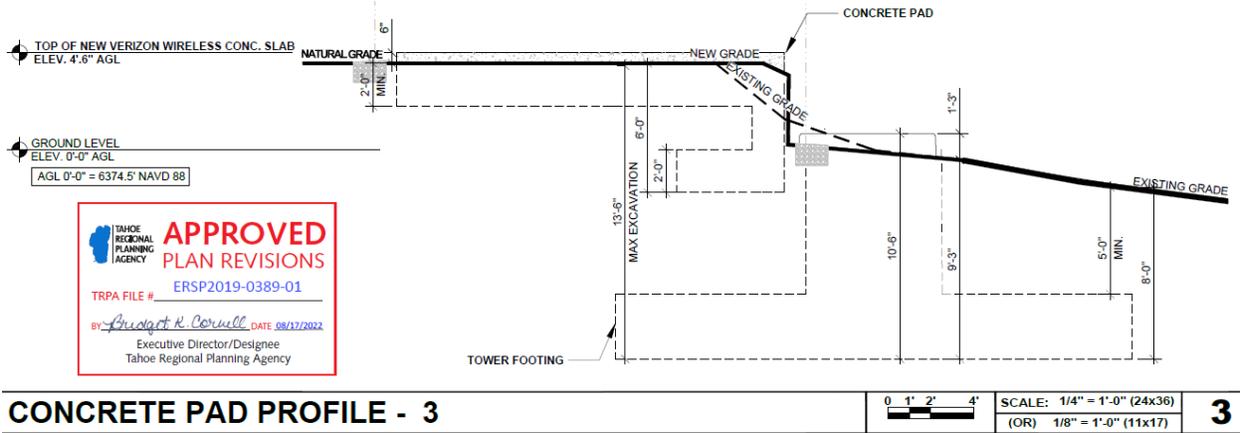
Sheet A-3 has dimensioned drawings for the shed and tower SE and NE elevation views, shown below. The horizontal length in the SE view from the building side at the extreme left, to the right edge of the tower foundation is measured at 35.2 ft. The horizontal length shown is consistent for shed roof and foundation and is measured at 25.6 feet.  $35.2 \text{ ft} \times 25.6 \text{ ft} = 901.1 \text{ sf}$ . Coverage shown less coverage allowed is  $901 \text{ sf} - 736 \text{ sf} = \mathbf{165 \text{ sf over allowed coverage}}$ . Noting also, the callout on the SE view says the floor plan length for the shed is 18 ft, but with roof extensions it measures 25.6 feet, the same as shed building foundation below it.





**Excerpts are from the Approved Plans – set 2 of 2:**

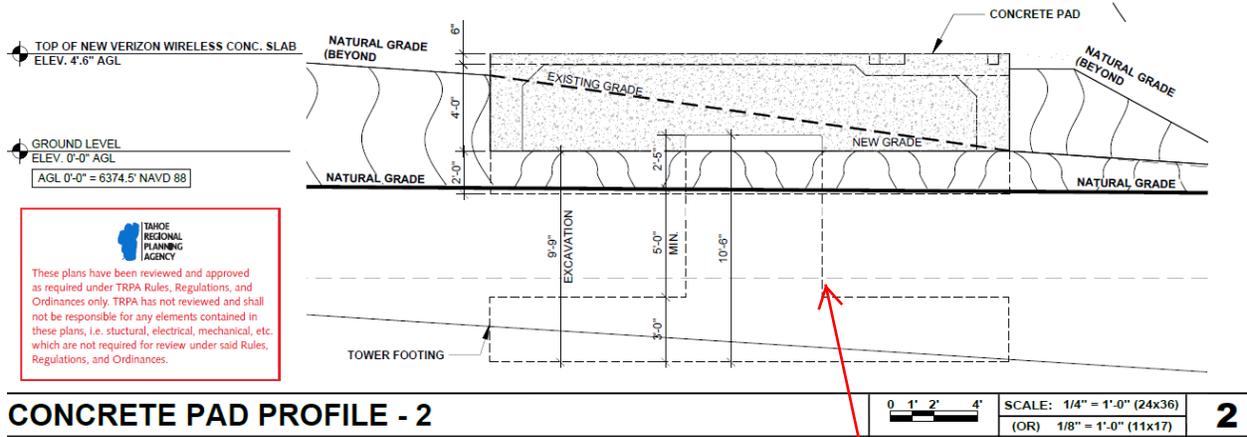
In the depiction of the tower foundation below, viewed from the shed front, from sheet GR-2, the width measurement appears to be very close to 25 ft. This drawing shows the narrow 1 ft gap for the shed roof runoff, between the shed foundation and the tower foundation riser, drainage also intercepted by the foundation below. The total width of the two foundations, from the outer edges of them, is around 35.5 ft, and does not include the roof overhang on the left, for drainage.



**APPROVED**  
**PLAN REVISIONS**  
 TRPA FILE # ERSP2019-0389-01  
 BY Gregory K. Cornell DATE 08/17/2022  
 Executive Director/Designee  
 Tahoe Regional Planning Agency

Mr. Miller may be confusing the "concrete pad" as the "Cell Tower Footing." The concrete pad shown in this perspective is for the equipment shelter, etc.

In this detail below from sheet GR-2, viewed from the shed side, the width of the foundation is close to 23.5 ft, the same as the foundation.



Taking the measurements from the Concrete Pad Profiles above, the combined footprint is estimated at 35.5 ft X 23.5 ft = 834 sf. Coverage shown less coverage allowed is 834 sf – 736 sf = **98 sf over allowable coverage**; recall the roof overhang was not shown and has been left out of the estimation.

As per above, in most cases, a roof overhang does not count towards land coverage calculation. When applying 3:1 Height Reduction calculation, an 18"-24" overhang is not creating additional land coverage.

The underground "Cell Tower Footing" does not count towards land coverage. Only the portion that is exposed on the surface.

Attachment J

Exhibit G to Verizon's Response to Notice of Appeal (see Attachment D at Exhibit A) Letters of Support  
from Local Public Safety and Transportation Agencies



Exhibit G

JOHN D'AGOSTINI  
SHERIFF - CORONER - PUBLIC ADMINISTRATOR  
COUNTY OF EL DORADO  
STATE OF CALIFORNIA

REPLY TO:

HEADQUARTERS  
300 FAIR LANE  
PLACERVILLE  
CA 95667  
530 621-5655  
FAX 626-8091

JAIL DIVISION  
300 FORNI ROAD  
PLACERVILLE  
CA 95667  
530 621-6000  
FAX 626-9472

TAHOE PATROL  
1360 JOHNSON BLVD., SUITE 100  
SOUTH LAKE TAHOE  
CA 96150  
530 573-3000  
FAX 544-6809

TAHOE JAIL  
1051 AL TAHOE BLVD.  
SOUTH LAKE TAHOE  
CA 96150  
530-573-3031  
FAX 541-6721

May 30, 2018

Verizon Wireless

Dear Director,

On behalf of the El Dorado County Sheriff's Office, I am writing in support of continued placement of cell sites throughout El Dorado County. Public Safety agencies now rely heavily on wireless communications in the county, and we have noticed that cell & data speeds in many areas of the county are below reliable standards, and in some areas, nearly non-existent. As cellular providers continue to expand and improve their coverage throughout El Dorado County, it enhances our officer safety through better communication with our patrol vehicles and allows citizens better access to public safety resources through their personal cell phones. Each new site allows us to provide better service to the public and increased officer safety.

We appreciate Verizon's commitment to serve our residents and first responders. EL Dorado County has many rural areas, which need reliable cellular service. During past emergencies and natural disasters, Verizon has assisted with mobile sites and other technical resources. Reliable data communication aids with command and control functions.

The need for a reliable, survivable high speed wireless infrastructure throughout El Dorado County is vital and I strongly support the placement of cell sites throughout the county.

Thank you for your continuing efforts to expand your network. Please do not hesitate to contact me if you require addition support in the approval process.

Respectfully,

JOHN D'AGOSTINI  
Sheriff ~ Coroner  
Public Administrator



## North Tahoe and Meeks Bay Fire Protection Districts



**222 Fairway Drive  
P.O. Box 5879  
Tahoe City, CA 96145  
530.583.6913  
Fax 530.583.6909**

***Michael S. Schwartz, Fire Chief***

June 5, 2018

Tahoe Regional Planning Agency  
Attention: Paul Nielsen  
128 Market St.  
Stateline, NV 89410

Re: Cellular Site Development

Dear Mr. Nielsen:

I am writing this letter to express our support for the continued placement of cell sites throughout the Lake Tahoe/Truckee Region. Public safety agencies now rely heavily on wireless communications, and we have noticed that cell and data speeds in many areas of Placer County are far below reliable standards, and in some areas, nearly non-existent. My own cellular service in the North Tahoe region has been inconsistent and at times non-functional. As the Fire Chief for the District, I am on call 24/7, so being accessible in emergencies has always been an issue. In addition, I am the California Office of Emergency Services Operational Area Coordinator for the Tahoe Basin and often times deal with natural disasters and report to the CAL OES Warning Center. With the limited cellular service in the Lake Tahoe Basin, public safety suffers as a result.

The District is currently a customer of Verizon Wireless. I have had the privilege to work side by side with Verizon teams and have seen first hand their commitment to serve the public and first responders during the wildland fires throughout the states of California and Nevada. Verizon Wireless consistently goes above and beyond to assist in any way they can. A recent example is the deployment of a cellular-on-wheels unit to provide temporary cell service enhancement for the summer season, including the Fourth of July holiday period. The unit was placed at our Kings Beach station in 2017, and Verizon is planning on providing the same for 2018. This was made possible by Verizon without fiscal impacts to the District.

As mentioned earlier, the public safety agencies in the Tahoe basin rely on cell phone and high speed data communications for many purposes. Some potential uses of voice and data include: command and control during large incidents as well as day-to-day emergency response, routing of emergency apparatus through electronic mapping, accessing critical pre-incident planning information, relaying of patient information to hospitals and communicating with allied agencies.

Tahoe Regional Planning Agency

June 5, 2018

Page 2

The need for a reliable, survivable high-speed wireless infrastructure throughout the Lake Tahoe basin is vital, and I strongly support the placement of cell sites in and around the Tahoe/Truckee area.

Thank you for your attention to this matter. Please do not hesitate to contact me with any questions or concerns you may have.

Respectfully,

A handwritten signature in blue ink, appearing to read "M. Schwartz", written over a horizontal line.

Michael Schwartz  
Fire Chief

SM:km



# PLACER COUNTY SHERIFF CORONER-MARSHAL



MAIN OFFICE  
2929 RICHARDSON DRIVE  
AUBURN, CA 95603  
PH: (530) 889-7800 FAX: (530) 889-7899

SOUTH PLACER STATION  
6140 HORSESHOE BAR ROAD, SUITE D  
LOOMIS, CA 95650  
PH: (916) 652-2400 FAX: (916) 652-2424

NORTH LAKE TAHOE STATION  
P.O. BOX 1710  
TAHOE CITY, CA 96145  
PH: (530) 581-6300 FAX: (530) 581-6377

**DEVON BELL**  
SHERIFF-CORONER-MARSHAL

**WAYNE WOO**  
UNDERSHERIFF

Verizon Wireless  
Dear Director,

On behalf of the Placer County Sheriff's Office, I am writing this letter to express our support for the continued placement of additional cell sites throughout the north shore region of Lake Tahoe. The Lake Tahoe area is a destination for recreational visitors from across the country and the world, and during the peak recreational seasons it is not uncommon to have 100,000 plus visitors on the North Shore alone. Basin wide, untold numbers of both day visitors and longer term vacationers visit throughout the year, and this can frequently have an impact on the ability of existing cell towers to accommodate the fluctuating number of users.

Public safety agencies rely heavily on wireless communications for both traditional communications as well as wireless data systems that support our public safety mission. Our patrol vehicles, deputies and dispatch tools utilize wireless data to keep first responders up to date on calls for service, emergency incidents and locations where incidents are occurring. The importance of reliable cellular communications with respect to providing public safety cannot be understated.

The combination of mountains, valleys, canyons and forests surrounding our region frequently interfere with reliable communications for our first responders. Additionally, the influx of recreational visitors using the same towers can, and has, impacted the reliability of our law enforcement systems. To address this issue during specific peak events, Verizon has on two occasions and at their own expense, deployed temporary cell towers normally used during emergency situations and disasters. Both deployments occurred during the 4<sup>th</sup> of July time period, when the number of visitors at Lake Tahoe exceeded the capacity of key cell towers and our local public safety systems went down for extended periods. I appreciate Verizon's commitment to our public safety mission and the safety of our visitors and community.

It is my understanding that Verizon is in the application process for additional cell tower locations within the Tahoe Region. Please accept this letter as our support for their continued efforts to expand reliable coverage within the Tahoe region.

Respectfully,

Captain Dennis Walsh, Tahoe Station Commander  
Placer County Sheriff's Office  
North Lake Tahoe Station

October 30, 2020

South Lake Tahoe Council Members

(Jason Collin, Mayor, Tamara Wallace, Mayor Pro Tem, Cody Bass, Councilmember, Brooke Laine, Councilmember, Devin Middlebrook, Councilmember)

1901 Airport Road

South Lake Tahoe, California 96150

Dear Council Members,

We write to formally express our support to improve technology infrastructure to 4G in South Lake Tahoe and to encourage you to make wireless connectivity a priority.

TTD recognizes the critical need to upgrade technology infrastructure in order to communicate with the traveling public. TTD operates transit in South Lake Tahoe and has continued to acknowledge that transit applications and parking management systems are dependent on adequate communications to meet the goals and vision of the Regional Transportation Plan and the Transit Master Plan. Transit, parking, and traveling in the Tahoe Basin should be safe, reliable, sustainable, adaptable, and convenient, giving visitors and residents the opportunity to use technology to make informed decisions on and before their trip. Furthermore, these improvements would have positive impacts on our local economy, small business owners, and our first responders by ensuring greater wireless coverage and capacity.

The recent COVID-19 pandemic highlights the importance and necessity of reliable connectivity, which depends on having strong communications infrastructure. During this event, many people lost their jobs or transitioned to working from home. Having reliable connectivity means people are able to connect to their friends, family, colleagues, and government services. Doctors are able to see their patients using FaceTime, Zoom, and other video conferencing options. All of this is possible only in areas that have a robust and reliable communications network.

Our communities and visitors need access to real-time information to address the congestion issues along our narrow mountain roadways to allow travelers to know where and how to access safe parking and transit to enjoy their favorite recreation spots.

Increasing public safety is of special importance at Lake Tahoe and notifications for emergencies rely on communications to assure our communities can safely evacuate. With improved connectivity, more people would be able to call 911 when they need it, and first responders would be able to respond more quickly to address emergency situations such as wildfires and vehicle accidents. Increased connectivity would allow our police and fire professionals to coordinate an accelerated, timely and efficient response to protect our community, and more broadly, our way of life.

We urge you to prioritize this effort and facilitate the deployment of wireless connectivity to assure our public infrastructure investments function adequately and better connect everyone who lives, works and plays in our special region.

Sincerely,

A handwritten signature in blue ink, appearing to read "Danielle Hughes", with a long horizontal flourish extending to the right.

Danielle Hughes  
Capital Program Manager  
Tahoe Transportation District





# **Tahoe In Brief**

## **Governing Board Monthly Report**

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September 2022

# TRPA CALENDAR AT-A-GLANCE

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## SEPTEMBER 2022

- September 28: TRPA Governing Board Meeting\*

## OCTOBER 2022

- October 12: TRPA Advisory Planning Commission Meeting, 9:30 a.m.
- October 12: Threshold Update Initiative Stakeholder Working Group Meeting
- October 25: Destination Stewardship North Shore Public Workshops
- October 26: TRPA Governing Board Meeting\*
- October 26: Destination Stewardship South Shore Public Workshops

## NOVEMBER 2022

- November 9: TRPA Advisory Planning Commission Meeting, 9:30 a.m.
- November 16: TRPA Governing Board Meeting\*

\*Each month from July to December the meeting theme will relate to one of the strategic initiatives in the 2022-2023 Annual Work Plan. The themes by month are:

- July: Housing
- August: Innovation
- September: Transportation and Destination Stewardship
- October: Climate Change
- November: Environmental Improvement Program/Forest Health
- December: Thresholds



*Several Governing Board members and staff toured the Tahoe Events Center following the August board meeting to see the construction underway.*

## TRPA STRATEGIC INITIATIVES

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# TRPA STRATEGIC INITIATIVES

Set by the Governing Board, these strategic initiatives reflect the agency's commitment to protect Lake Tahoe's environment while improving regional transportation, increasing diverse housing options, and facilitating community revitalization.

- **Building Resiliency: Climate Change and Sustainability**
- **Keeping Tahoe Moving: Transportation and Destination Stewardship**
- **Tahoe Living: Housing and Community Revitalization**
- **Restoration Blueprint: Environmental Improvement Program Implementation**
- **Measuring What Matters: Thresholds and Monitoring Update**
- **Digital First: Innovation**

### ***BUILDING RESILIENCY: CLIMATE CHANGE & SUSTAINABILITY STRATEGIC INITIATIVE***

Every TRPA initiative includes strategies to strengthen the resilience of Tahoe's environment, communities, and economy to the emerging stresses of climate change and to improve the region's sustainability. The Climate Change Strategic Initiative harmonizes the goals of both states and local governments in the Tahoe Region while maintaining the region's reputation as a global leader in sustainability.

**Climate Smart Code:** TRPA intern Kamryn Kubose assisted staff with researching best practices for climate smart programs and codes across the country and completed a survey of local stakeholders in support of the Climate Change and Sustainability strategic initiative. Survey results, best practices, and next steps will be presented to the Governing Board in October.

**TRPA Staff Contact:** Devin Middlebrook, Sustainability Program Manager  
775-589-5230, [dmiddlebrook@trpa.gov](mailto:dmiddlebrook@trpa.gov)

**Associated Working Group(s)/Committee(s):**

- Tahoe Interagency Executive Steering Committee

**Website(s):**

- <https://www.trpa.gov/programs/climate-resilience/>
- <https://sustainability.laketahoeinfo.org/>

**KEEP TAHOE MOVING: TRANSPORTATION & DESTINATION STEWARDSHIP STRATEGIC INITIATIVE**

This initiative includes an update of the Regional Transportation Plan/Sustainable Communities Strategy, which encompasses greenhouse gas (GHG) reduction, the work of the Bi-State Consultation on Transportation, destination stewardship planning, and ongoing transportation corridor planning.

**Unmet Transit Needs:** TRPA is seeking feedback from transit users this October. TRPA, in its role as the Regional Transportation Planning Agency (RTPA), performs an annual unmet transit needs process. Pursuant to the California Transportation Development Act (TDA), the process seeks to identify any unmet transit needs and ensure those that are reasonable to meet and are met before TDA funds are expended for non-transit uses, such as streets and roads. Currently, all TDA funds are allocated to transit uses.

**Safety Strategy Update:** Staff are beginning initial steps to update the Lake Tahoe Regional Safety Strategy, which was created in 2019 to identify opportunities to reduce the likelihood and risk of crashes on Tahoe roads. The strategy supports the Regional Transportation Plan's (RTP) safety goal: to increase the safety and security for all users of Tahoe's transportation system. The decision to update the Safety Strategy has been spurred by a new transportation funding source, Safe Streets and Roads for All (SS4A), established by the Bipartisan Infrastructure Law, with \$5 billion in appropriated funds over the next five years. Staff are seeking to update the Safety Strategy to meet SS4A eligibility to help partner organizations in the basin apply for implementation funds and in turn, accelerate progress toward the RTP's Safety Goal. A component of the funding source is a commitment toward Vision Zero, the goal of zero roadway fatalities and serious injuries.

**Tahoe Regional Trails Plan:** The Regional Trails Plan is the Tahoe Basin's long-term vision for a connected and accessible dirt trail network among all basin partners. TRPA is working with a steering committee of land managers and trail stewardship organizations to identify a list of regionally significant trail and trailhead projects that meet the plan goals and objectives. The plan will include a vision for trail connections, rerouting trails to more sustainable alignments, formalizing social trails, and improvements to existing trails and trailheads. The plan is anticipated to be completed in early 2023.

**Tahoe Destination Stewardship:** The Destination Stewardship Plan is organizing outreach with the broader community to inform strategies to address shared recreation and tourism

challenges in the Tahoe Region. Active outreach includes visitor and resident surveys and Spanish and English destination stewardship workshops in September and October. TRPA's Victoria Ortiz facilitated both Spanish-speaking workshops in September.



*Representatives from Tahoe Hispanic communities provide insight on the Transportation Equity Study and Destination Stewardship Plan at two Spanish-speaking workshops in September. A huge thank you to Bill Martinez of the Family Resource Center, and Anibal Cordoba Sosa of the Sierra House, for their support.*

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**Associated Working Group(s)/Committee(s):**

- Bi-State Consultation on Transportation
- Transportation Performance Technical Advisory Committee
- Tahoe Transportation Implementation Committee
- Lake Tahoe Destination Stewardship Plan Core Team and Executive Team
- Lake Tahoe-Truckee Destination Stewardship Coordinating Committees
- Regional Trails Plan Steering Committee

**Website(s):**

- <https://www.trpa.gov/transportation/#programs>

- <https://www.trpa.gov/programs/sustainable-recreation/>
- <https://stewardshiptahoe.org/>

**Newsletter:** Sign up to receive news by sending an email to [enews@trpa.gov](mailto:enews@trpa.gov) and put “Transportation” or “Destination Stewardship” in the subject line.

**TAHOE LIVING: HOUSING & COMMUNITY REVITALIZATION STRATEGIC INITIATIVE**

This initiative addresses strategies for implementing affordable and achievable workforce housing as a key component of healthy, sustainable communities in the region. The Tahoe Living initiative implements the Regional Plan, the Regional Transportation Plan/Sustainable Communities Strategy, the Regional Housing Needs Allocation, and other identified regional housing needs.

**Coverage, Density, and Height Development Right Standards Amendments:** In July, TRPA staff held a housing workshop for the Governing Board, including a request for feedback on the Tahoe Living Working Group’s recommended changes to TRPA’s coverage, density and height standards, which were informed by input from the Local Government and Housing Committee. The Governing Board expressed support for bold steps to address Tahoe’s lack of affordable and workforce housing and directed staff to proceed with drafting code language and conducting the needed environmental analysis to move the code amendments forward. Staff anticipates bringing draft code language to the Tahoe Living Working Group in early 2023.

**Tahoe Housing Catalyst Program/REAP 2.0:** TRPA received input from many working group members in response to an initial July memo on the REAP 2.0 grant program of projects for Lake Tahoe. On September 6, TRPA released a memo on the draft evaluation metrics for stakeholder feedback and will request guidance from the Local Government and Housing Committee on these metrics at the September Governing Board meeting. The September 6 memo is available on the Tahoe Living Working Group webpage (see link below).

**New Housing Under Construction, ADU Permits Issued:** Workforce housing and deed restricted projects are moving forward throughout the region including:

- 2160 Barton Avenue, South Lake Tahoe, CA: 14 rental units (under construction)
- Saint Joseph Community Land Trust Riverside Avenue homes, South Lake Tahoe, CA: three deed restricted moderate-income homes (under construction)
- Brown Bear Studios, 279 Bear Street, Kings Beach, CA: 14 tourist accommodation units converting to single-room occupancy units through Homekey (also includes BMP installation and façade improvements)
- 13 accessory dwelling unit permits have been issued since October 2021: nine in Placer County and four in the City of South Lake Tahoe.

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**Associated Working Group(s)/Committee(s):**

- Tahoe Living Working Group
- TRPA Governing Board Local Government & Housing Committee

**Website(s):**

- Meeting materials are posted on the Tahoe Living Working Group page: <https://www.trpa.gov/tahoe-living-housing-and-community-revitalization-working-group-2/>
- Tahoe Housing Story Map: <https://storymaps.arcgis.com/stories/62ae9110d85c43ecb381eb3f3ccec196>

**Newsletter:** Sign up to receive housing news by sending an email to [enews@trpa.gov](mailto:enews@trpa.gov) and put "Housing" in the subject line.

**MEASURING WHAT MATTERS: THRESHOLD & MONITORING UPDATE STRATEGIC INITIATIVE**

This initiative focuses on how information is collected, analyzed, and applied to support better decisions that accelerate environmental improvement. The initiative's scope includes review of the threshold standards that establish the basin's goals and updating the performance measures the Environmental Improvement Program uses to assess effectiveness of all components of the Regional Plan.

**Tahoe Science Advisory Council Recreation Monitoring and Evaluation Plan:** Staff is working with the Tahoe Science Advisory Council on the development of a Sustainable Recreation Monitoring and Evaluation Plan scope of work. The plan is designed to target the needs of outdoor recreational activities in the Lake Tahoe Basin through a science-based adaptive management structure. Using existing research, input from stakeholders, the public, and working groups, the project will offer recommendations for meaningful tourism monitoring plan and indicators. The plan is set to launch later this year.

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**Associated Working Group(s)/Committee(s):**

- Threshold Update Initiative Stakeholders Working Group
- Tahoe Science Advisory Council

**Website(s):**

- Tahoe Science Advisory Council: <https://www.tahoesciencecouncil.org/>
- Threshold Dashboard: <https://thresholds.laketahoeinfo.org/>

## ADDITIONAL UPCOMING ITEMS OF INTEREST

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### **Shoreline Public Safety Facilities:**

TRPA staff will provide an informational presentation on the Shoreline Public Safety Facilities planning process at the October Governing Board meeting. This planning process convened a working group of first responders and land managers from around the Tahoe Basin to identify preferred locations for dedicated lake-based public safety facilities.

Tahoe Douglas Fire Protection District, Douglas County Sheriff's Office, Nevada Division of Wildlife, and the USDA Forest Service are planning renovations to accommodate a public safety facility at the Zephyr Cove pier. The group is looking into funding sources for the project and expect to begin seeking a contract for design and engineering with the goal of constructing an operational public safety facility by spring 2024.

### **Finance and Facilities Update:**

TRPA recently submitted formal budget requests to both California and Nevada to obtain funding for operations for the FY 2023/24 in California and the FY 2023/25 biennium budget in Nevada. The project to fix the leaky TRPA building roof has been completed. This project was funded from bond proceeds when the TRPA building was re-financed two years ago.

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## STAFF REPORT

Date: September 21, 2022

To: Local Government and Housing Committee

From: TRPA Staff

Subject: "Tahoe Housing Catalyst" proposed evaluation metrics for the California Regional Early Action Planning (REAP) 2.0 Program

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### Summary and Staff Recommendation:

The REAP 2.0 grant program, administered by the California Department of Housing and Community Development (HCD), seeks to accelerate progress toward state housing goals and climate commitments through regional actions. Eligible applicants for REAP 2.0 funds are metropolitan planning organizations (MPOs) and councils of governments. As the MPO for the Tahoe region, the Tahoe Regional Planning Agency/Tahoe Metropolitan Planning Organization is eligible to apply for a \$604,134.15 non-discretionary allocation of funds by December 31, 2022. In accordance with the grant requirements, TRPA has developed evaluation metrics prior to project selection.

TRPA staff requests feedback and guidance from the Local Government and Housing Committee on the proposed evaluation metrics in Attachment A.

### Background/Discussion:

In preparation for application submittal to the REAP funding program, TRPA has issued two memos to stakeholders to seek input on use of the funds and has also conducted multiple one-on-one conversations with stakeholders. While the REAP funding is not a competitive program, but rather a direct allocation to MPOs based on population, HCD requires a robust public outreach process and demonstration of compliance with program requirements as part of the application process. The program as a whole must show:

- A nexus to all REAP 2.0 objectives, utilizing numeric metrics
- A significant beneficial impact
- Benefit disadvantaged and historically underserved communities
- Include targeted outreach to disadvantaged and historically underserved communities, including Tribal Entities, particularly "Impacted Households" and "Disproportionately Impacted Households"
- Geographic equity
- Region-wide impact benefiting impacted households
- Focus implementation in areas that satisfy infill development
- Provide an appropriate mix of implementation and planning activities

In response to TRPA's July 11 memo to stakeholders (Attachment B), TRPA received input from eight different partners, including representatives of disadvantaged and historically underserved communities. Partners provided input on possible evaluation metrics and initial project concepts. Based on that input, TRPA developed proposed evaluation metrics, and released these metrics to the same stakeholders for input on September 6, requesting comments be submitted by September 27.

At the Local Government and Housing Committee meeting TRPA will report on any feedback received on these draft evaluation metrics.

Next Steps:

After receiving Local Government and Housing Committee feedback on the metrics, TRPA will set a deadline for final submittal of projects. TRPA will then evaluate and select projects, then request approval of the full program of projects from the TMPO Governing Board prior to submitting an application to HCD.

Contact Information:

For questions regarding this agenda item, please contact Karen Fink at (775) 589-5258 or kfink@trpa.gov.

Attachments:

- A. "Tahoe Housing Catalyst" proposed evaluation metrics (September 6, 2022 Memo), with edits since release shown in "track changes"
- B. Link to "Tahoe Housing Catalyst" program overview (July 11, 2022 Memo)

Attachment A

“Tahoe Housing Catalyst” proposed evaluation metrics (September 6, 2022 Memo), with edits since release shown in “track changes”



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MEMO

Date: September 6, 2022

To: Local Jurisdiction Community Development, Housing and Transportation Staff  
Tahoe Living Housing and Community Revitalization Working Group  
Washoe Tribe of Nevada and California

From: Karen Fink, Tahoe Regional Planning Agency

Re: "Tahoe Housing Catalyst" proposed evaluation metrics for the California Regional Early Action Planning (REAP) 2.0 Program

Summary

This memo identifies metrics for evaluating Tahoe Housing Catalyst projects for inclusion in an application to the State of California’s Regional Early Action Planning (REAP) 2.0 Program. TRPA will bring the evaluation metrics to the TRPA’s Local Government and Housing Committee on September 28, 2022 for review and feedback. See the timeline section below for additional milestones. TRPA requests input on the proposed evaluation metrics by September 27, 2022.

REAP 2.0 Program Background

The California Department of Housing and Community Development (HCD), in collaboration with the Office of Planning and Research (OPR), the Strategic Growth Council (SGC), and the State Air Resources Board (CARB), has released the [Notice of Funding Availability \(NOFA\) and Final Guidelines – Metropolitan Planning Organization Allocation Regional Early Action Planning Grant \(REAP 2.0\)](#) (Attachment A). The principal goal of REAP 2.0 is to make funding available to Metropolitan Planning Organizations (MPOs) and other regional entities for Transformative Planning and Implementation Activities that meet housing and equity goals, reduce vehicle miles traveled (VMT) per capita, and advance implementation of the region’s Sustainable Communities Strategy (SCS).

The REAP 2.0 grant program seeks to accelerate progress towards state housing goals and climate commitments through regional actions. The state program goals are to accelerate infill housing development, reduce vehicle miles traveled (VMT), increase housing supply at all affordability levels, affirmatively further fair housing, and facilitate the implementation of adopted regional and local plans to achieve these goals.

Eligible applicants for REAP 2.0 funds are MPOs and Councils of Governments. The TRPA fulfills the role of the Tahoe Metropolitan Planning Organization (TMPO) and has been identified in the guidelines as being eligible for \$604,134.15 of formula REAP 2.0 funding. Funds must be encumbered no later than June 30, 2024 and expended no later than June 30, 2026. MPOs may suballocate funding to other forms of governments or entities per the requirements in Section 401 and Section 406 of the guidelines.

REAP 2.0 Objectives include:

- (A) Accelerating Infill Development that Facilitates Housing Supply, Choice, and Affordability
- (B) Affirmatively Furthering Fair Housing
- (C) Reducing Vehicle Miles Traveled

Based on the REAP 2.0 Threshold Requirements (Section 203), the program as a whole must show:

- A nexus to all REAP 2.0 objectives
- A significant beneficial impact, including substantial changes in land use patterns and travel behaviors
- That it meets the definition of a Transformative Planning and Implementation Activity (see the Definitions section in Attachment A)
- That it targets funding to benefit disadvantaged and historically underserved communities
- A reasonable and verifiable methodology

#### Tahoe Housing Catalyst Program

From July 11 to August 3, 2022, TRPA requested input from housing and transportation stakeholders, the Washoe Tribe, representatives of disadvantaged and historically underserved communities, and other partners on evaluation metrics and proposed uses for the Tahoe Housing Catalyst Program. Based on this input, TRPA has drafted recommended evaluation metrics to be used in selecting a program of projects.

#### *Stakeholder Input*

Nearly all stakeholders providing input on the program emphasized that increasing the number of new housing units is the number one need. While community organizations expressed the need for cash or rental assistance directly to struggling families, or money to support capital projects such as the Sugar Pine Village affordable housing project or similar projects, they also noted that planning efforts that would make it easier and less costly for future projects to be built are critical as well. While rental assistance and project subsidies satisfy a near-term need, for the amount of money spent they are less likely to contribute to solving the longer-term housing shortage.

The City of South Lake Tahoe strongly advocated for using all of the REAP 2.0 funding to advance necessary environmental and threshold analysis associated with the medium-term priority actions identified by the Tahoe Living Housing and Community Revitalization Working Group. The City noted that there are other funding sources for the planning and construction of actual housing projects such as Sugar Pine Village, and that the relatively small size of the REAP grant, compared to other housing funding sources, makes it a “right fit” to use for a focused planning effort. The Tahoe Living Working Group’s medium-term priority actions are focused on zoning and code changes that would address hurdles that currently prevent or slow the construction of lower-cost housing options.

The draft program looks to direct as many funds as possible to tangible outcomes, while minimizing expenditure of resources on administration.

*Draft Evaluation Metrics*

The proposed evaluation metrics below incorporate input from stakeholders and REAP 2.0 program requirements.

Metric	Points
Is the project expected to influence a substantial change in land use patterns and travel behaviors, particularly with respect to reducing VMT per capita? (Yes/No)	15
Is the project expected to facilitate the construction or preservation of 100 or more units of <b>low-, moderate-, achievable- or naturally affordable workforce housing</b> that would not otherwise be built? (Yes/No)	15
Is the project expected to facilitate the construction or preservation of 100 or more units of deed-restricted <b>low-, or moderate-</b> income housing that would not otherwise be built? (Yes/No)	15
Is the project expected to increase the number of new low-; moderate-; and achievable or naturally affordable workforce housing units that <b>are permitted under an expedited review process?</b> (Yes/No)	10
Will the project include a complete environmental analysis, that analyzes all <b>environmental threshold and regional plan impacts?</b> (Yes/No)	15
Is the project expected to permanently increase the overall affordable and workforce housing stock? (Yes/No)	10
Does the project target funding to benefit disadvantaged and historically underserved communities (Yes/No)	15
What is the regional level of impact of the project? (3 points for each county/jurisdiction affected)	15
Cost effectiveness – Cost per new unit anticipated	15
Total Possible Points	125

The proposed metrics support a program that will lay the groundwork for more privately funded and publicly-subsidized projects to deliver affordable-, moderate-, and workforce units region-wide. TRPA requests that stakeholders review these metrics and provide additional input for TRPA to consider.

*Initial Input on Proposed Uses*

As part of the initial input collected on the Tahoe Housing Catalyst Program, TRPA requested high-level project ideas from stakeholders. The following is a preliminary list of proposed uses developed for possible inclusion in the program based on discussion with and input from stakeholders. After receiving feedback from the Local Government and Housing Committee on the evaluation metrics, TRPA will set a deadline for final submittal of projects. TRPA will then evaluate and select projects, then request approval of the full program of projects from the TMPO Governing Board prior to submitting an application to HCD. After accounting for outreach and program administration, there will be approximately \$550,000 remaining to fund proposed uses.

Project Name/Description
<b>Update Development Standards</b> to facilitate affordable-, moderate-, and workforce multi-family development and accessory dwelling units (ADUs) (Tahoe Living Priority Action Phase 2A and 2B). Draft conceptual policy changes to coverage, density, height, development rights, and parking and conduct environmental analysis.
<b>Update Permitting Requirements for Multi-Family Housing.</b> Analyze whether hearing requirements should be different for multi-family and single-family housing and update permitting requirements where appropriate (Tahoe Living Long-Term Priority Action).
<b>Update TRPA Mitigation Fees.</b> Analyze and update, where appropriate, TRPA mitigation fees, taking into consideration that affordable-, moderate-, and workforce housing may have different impacts than other homes.
<b>Mitigation of Lost Housing.</b> Strengthen TRPA requirements for mitigating impacts of new development on available workforce housing.
<b>Public Lands</b> – funding for TRPA and local jurisdictions to undertake plan updates to rezone certain publicly owned properties to allow multi-family.
<b>Banking and Transferring Potential Residential Units of Use</b> for ADUs from unbuildable publicly-owned lots.
<b>Pre-Development Project Funding</b> for specific affordable housing projects
<b>Rental Assistance</b> for households through social service organizations
<b>Advertising/Marketing funding</b> for rental and for-sale incentive programs sponsored by local jurisdictions
<b>Expand Education</b> about housing opportunities, such as new housing that becomes available, or ownership opportunities. Raise awareness among visitors, second homeowners of the costs local workers are facing.
<b>Direct Sub-allocation</b> of funding to local jurisdictions based on population for a portion of the funds for implementation of RHNA Cycle 6 Housing Elements.

Schedule

**July 2022**

- Solicited input from stakeholders on:
  - Overall Tahoe Housing Catalyst Program
  - Initial project and program concepts (due August 3, 2022)
  - Evaluation metrics
- Posted process on webpage

Gathered input through an online request form and one-on-one follow-up with local jurisdictions and representatives from underserved communities.

*Complete*

**August 2022**

- Developed preliminary evaluation metrics and project/program list, based on input received in July

*Complete*

**September 2022**

- Release draft evaluation metrics
- Local Government and Housing Committee feedback on evaluation metrics

**October 2022**

- TRPA staff prepare recommended project/program list, using approved metrics

**November 2022**

- TMPO Governing Board endorsement of final proposed list and authorization to submit REAP 2.0 application

**December 2022**

- Submit final application to California Department of Housing and Community Development

**June 30, 2024**

- Encumbrance Deadline. All funds must be awarded and encumbered.

**June 30, 2026**

- Expenditure and Close-out Report

**April - June of every year\***

- Annual Reports. Recipients must submit an annual report every year.

Next Steps

TRPA requests input on the draft evaluation metrics by September 27, 2022 in writing or at the Local Government and Housing Committee Meeting on September 28, 2022.

Contact

For more information or questions contact Karen Fink at [kfink@trpa.org](mailto:kfink@trpa.org) or 775-589-5258.

Attachments

Attachment A: [Notice of Funding Availability and Final Guidelines – Metropolitan Planning Organization Allocation Regional Early Action Planning Grant \(REAP 2.0\)](#)

Attachment B

[“Tahoe Housing Catalyst” program overview \(July 11, 2022 Memo\)](#)





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STAFF REPORT

Date: September 21, 2022  
To: TRPA Ad Hoc Executive Director Search Committee  
From: TRPA Staff  
Subject: TRPA Executive Director Recruitment

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Summary and Recommendation:

At the June Governing Board meeting, the Governing Board approved the designation of an Ad Hoc Committee to manage the recruitment for the Executive Director position. Additionally, staff selected the Prothman Company as the external recruiting firm to advertise and recruit for a new Executive Director. Prothman has since conducted the recruitment and received 25 applications for the role. Of those 25, two have PHD's, 16 have Master's degrees. four have Double Master's degrees, six have previous Executive Director level experience, 12 have Department Director experience, three have MPO experience, and eight have Assistant Director experience. Applicants come from across the country: five California, four Nevada, two Oregon, two Utah, two Arizona, two Kansas, and one each from Washington, Pennsylvania, New Hampshire, Missouri, Colorado, Illinois, and Nebraska. There is 1 internal applicant.

Prothman will conduct an initial screening of all applications received and interview approximately eight qualified candidates and recommend a subset of these candidates for review by the Ad Hoc Committee. At the committee meeting, Prothman will report on their findings and discuss each candidate screening, explain their recommendations, and facilitate the committee's process for selecting finalists by the Ad Hoc Committee for approval to move to the Governing Board for a final interview and selection.

Requested Motion:

In order to approve Prothman's recommendations for final candidate selection for the Executive Director role, the Ad Hoc Committee should make the following motion:

- 1) A motion to approve Prothman's recommended selection of Executive Director candidates for interview by the Governing Board.

In order for motions to pass, a majority of the quorum of Ad Hoc Committee members is required.

Contact Information:

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