

2018 QUARTERLY REPORT

TAHOE REGIONAL PLANNING AGENCY
Third Quarter: July – September 2018



**TAHOE
REGIONAL
PLANNING
AGENCY**



Photo by Drone Promotions

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TRPA STRATEGIC INITIATIVES

The Tahoe Regional Planning Agency (TRPA) is moving forward with strategic initiatives the Governing Board identified in 2015 as priorities over the next five years. These initiatives align directly with the four objectives in the agency's Strategic Plan.

SHORELINE PLAN INITIATIVE

Final Environmental Impact Statement

After more than two years of collaborative work developing a proposed Shoreline Plan and alternatives, the Final Environmental Impact Statement (FEIS) was completed and presented to the public in September. The FEIS includes revisions based on feedback received during the 60-day public comment period spanning from early May to early

July 2018. TRPA received 149 comments from a variety of stakeholders including agencies, organizations, and individuals.



Many of the comments suggested improvements or revisions to the plan and many of these were incorporated into the final policy recommendations. Policy changes to the plan include an additional no-wake zone safety buffer around non-motorized recreationists, targeted enforcement of noisy boats, phased permitting of new moorings, additional environmental monitoring, and funding for the Lake Tahoe Water Trail. A full list of revisions can be found at <http://www.trpa.org/wp-content/uploads/2-Revisions-to-Plan.pdf>.

Final Policy Recommendations Endorsed by RPIC

In August, TRPA presented the final policy recommendations from the Shoreline Steering Committee to the Regional Plan Implementation Committee, which reviewed and endorsed the proposed policy changes and revisions to the plan. In September, TRPA staff presented the complete adoption package to the committee, including the FEIS, code amendments, and a Shoreline Implementation Program. The committee unanimously recommended that the TRPA Governing Board certify the FEIS and approve the Shoreline Plan. The Advisory Planning Commission and Governing Board will consider approving the plan in October. If approved by the Governing Board, the implementing ordinances will take effect in January 2019.

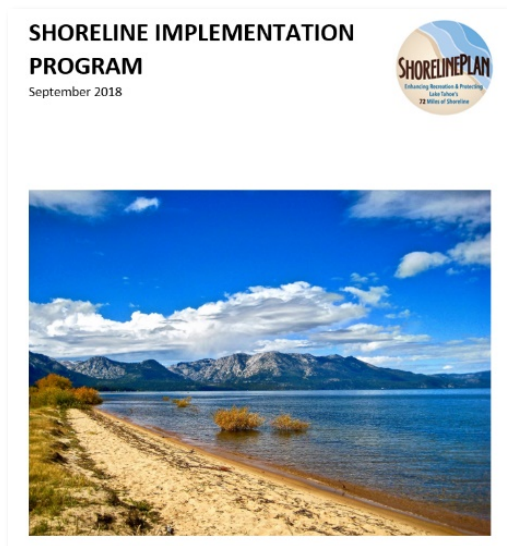
The first year of the Shoreline Plan will focus on identifying and registering existing moorings with a TRPA, federal, or state permit, or evidence of clear existence before 1972. Beginning in 2020, TRPA will permit new moorings using a go-slow approach. All moorings will need to be registered, permitted, and tagged with a radio-frequency identification

tracking system under the Shoreline Plan. TRPA will begin accepting applications for new piers in June 2019. Additional education and enforcement programs will take effect during the 2019 boating season.

Shoreline Implementation Program

The Shoreline Implementation Program demonstrates how the shoreline plan will be implemented and how possible environmental impacts will be successfully mitigated. It also provides more details on a variety of essential new shoreline programs, how these programs will be funded through fees fairly apportioned to various shoreline user groups, and how these programs will improve the environment along Lake Tahoe's shoreline and improve recreation access, safety, and experiences at the lake.

To develop the program, TRPA identified the environmental effects of the plan as well as partner agencies and funding needed to implement the environmental programs that would address those effects. Necessary program elements include additional enforcement, boater education, turbidity monitoring, enhanced boat inspections, mooring permitting and enforcement, and additional aquatic invasive species control.



The Shoreline Steering Committee then proposed the added environmental improvements be funded by fees collected from boating related structures and activities. The fees would pay for permitting and essential programs to avoid, offset, and mitigate environmental impacts associated with the plan. Funding needed for the program would be collected through annual mooring registration fees, an increase to the boat sticker fee collected at the aquatic invasive species boat inspection stations, and through a boat rental concession fee.

More information can be found on the Shoreline Implementation Program at <http://shorelineplan.org/wp-content/uploads/2018/09/Appendix-A-Shoreline-IP.pdf>

Stakeholder Coordination

Once the Shoreline Plan is adopted, TRPA and partner agencies will continue to coordinate on permitting, enforcement, and education. This commitment is reflected in formal agreements between TRPA and multiple agencies that are included in the final Shoreline Plan adoption package. These partnerships include an agreement with California State Lands Commission to allow the two agencies to identify and remove unauthorized buoys (a similar agreement already exists in Nevada); an agreement with local law enforcement, the Coast Guard, and Nevada Division of Wildlife to coordinate education and enforcement of boating safety regulations; and an agreement with California State Lands Commission to ensure that every pier project takes measures to protect the public trust easement on the California side of Lake Tahoe.

DEVELOPMENT RIGHTS STRATEGIC INITIATIVE

Development Rights at September APC

This quarter the Development Rights Working Group received recommendations by both the TRPA Advisory Planning Commission and TRPA Regional Implementation Plan Committee for the proposed changes to the development rights system. The TRPA Governing Board will consider adoption of the recommended changes at the October meeting.



The Development Rights Strategic Initiative proposes five changes to the system:

1. Allowing conversions between different types of development rights – commercial floor area, tourist accommodation units, and residential units of use – using environmentally neutral exchange rates;
2. Expanding the eligibility of the residential bonus unit incentive program;
3. Enhancing the development rights banking system through partnerships with the local land banks;
4. Eliminating overlapping, multi-jurisdictional approvals of development rights transfers; and
5. Eliminating the requirement to have an approved project on a receiving site prior to a transfer of development rights.

When implemented, the changes are expected to encourage and accelerate environmentally beneficial redevelopment needed to achieve the goals of the 2012 Regional Plan.

STORMWATER MANAGEMENT OPERATIONS & MAINTENANCE STRATEGIC INITIATIVE

BMP Certificates Issued

TRPA issues best management practices (BMP) certificates to recognize a parcel's compliance with stormwater management requirements in TRPA's Code of Ordinances. The Stormwater Management Program targets priority properties for BMP compliance in coordination with local jurisdictions to achieve required pollutant load reductions. Concentrating BMP compliance on commercial and large multi-family (six units or more) properties is shown by the Total Maximum Daily Load Program to generate more pollutant load reductions compared to single-family residential properties. This quarter, TRPA issued 108 BMP certificates: 84 for single-family residential parcels, 15 for multi-family residential parcels, and nine for commercial parcels. The cumulative total for 2018 is shown below:

BMP Certificates issued from January 1 to September 30, 2018					
California	Land Use	Total Certificates Issued Year to Date	Certificates Issued Through Permitted Projects	Certificates Issued Through Voluntary Compliance	Certificates Issued Through Enforced Compliance
	Single Family Residential	79	52	25	2
	Multi-Family Residential	3	0	0	3
	Commercial	10	1	6	3
	California Total	92	53	31	8
Nevada	Single Family Residential	56	23	15	18
	Multi-Family Residential	74	59	10	5
	Commercial	2	0	0	2
	Nevada Total	132	82	25	25
	Total Certificates Issued	224	135	56	33

Stateline Stormwater Association Update

An important area-wide system for treating stormwater runoff before it reaches the lake is the long-standing Stateline Stormwater Association system. This quarter, the Michael Laub Building joined the Stateline Stormwater Association in Douglas County, Nevada, completing membership of all possible association participants. The association was formed to construct, operate, and maintain common stormwater control, treatment, and disposal facilities serving the Stateline casino core area. The association includes Mont Bleu, Harrah's, Harvey's, Hard Rock, Park Cattle Company (Edgewood Golf Course), PCS Stateline LLC (the former Wells Fargo Bank parcel), Douglas County (Lake Parkway right-of-way), Nevada Department of Transportation (Highway 50 right-of-way) and now the Michael Laub Building. Improvements constructed by the association tie together the individual properties' drainage systems, deliver an estimated 83 percent of the design storm volume to the underground treatment facility, and discharge to



Map showing the area and boundaries of the Stateline Stormwater Association in Douglas County, Nevada.

the series of wet ponds used for irrigation storage on the golf course. The association assumes responsibility for the common facilities while members take responsibility for their own private facilities.

Multi-Family BMP Retrofit at 3689 Blackwood Road

TRPA's Stormwater Management Program oversaw the installation of BMPs at a multi-family property located adjacent to a stream environment zone at 3689 Blackwood Road in the City of South Lake Tahoe. Property improvements included installation of a vegetated basin to treat stormwater runoff, trash enclosures, parking barriers to prevent cars from parking off paved areas, and paving a dirt parking area.



BMP retrofit on a multi-family dwelling showing the site before the BMP retrofit project (left) and after project completion.

Process Improvements

BMP Database/LTinfo Integration: At the September meeting of the BMP Working Group, Sitka Technology demonstrated recent reporting improvements made by integrating TRPA's BMP database with the LT Info and Total Maximum Daily Load Stormwater Tools websites. The improvements increase public access to parcel BMP data, provide property owners the ability to print final certificates, streamline BMP compliance reporting, and make it easier for local governments to use parcel BMPs to meet Total Maximum Daily Load requirements.

Site-Constraint Mapping: This quarter, TRPA completed regional mapping of BMP constrained parcels. Stormwater Management Program and GIS staff collaborated to generate a regional map of all parcels unable to meet TRPA's stormwater infiltration requirements due to various site constraints. The process looked at a variety of spatial datasets including on-site verification of land capability and site constraints to determine which properties should install only source control BMPs rather than full infiltration BMPs. Prior to producing the map, stormwater management staff made site-constraint determinations on a parcel-by-parcel basis.

AQUATIC INVASIVE SPECIES STRATEGIC INITIATIVE

Western Governors Association Workshop

In September, Lake Tahoe hosted a Western Governors Association workshop focused on the prevention and control of aquatic invasive species (AIS). Hawaii Gov. David Ige, chair of the association, has prioritized invasive species issues for the governors to work together to solve. TRPA staff Julie Regan and Dennis Zabaglo spoke to the issues on panels focusing on cross-boundary management and coordination and innovative, emerging approaches to prevention and control of AIS. California Natural Resources Secretary John Laird moderated the workshop. Nevada Gov. Brian Sandoval also attended and presented opening remarks highlighting Tahoe's leadership in prevention and control strategy innovations.

AIS Prevention

Prevention Program 10-Year Anniversary. Watercraft inspections began at Lake Tahoe in 2008 in an immediate response to the discovery of quagga mussels in Lake Mead. TRPA and the Tahoe Resource Conservation District, along with dozens of private and public partners, have successfully kept unwanted aquatic invaders at bay since that time. With over 150 waterbodies in the West having been infested with quagga mussels over the last 10 years, the commitment to prevention at Lake Tahoe has paid off. A celebratory event in early October recognized 10 years of accomplishments and thanked and congratulated the partnership for its commitment to protecting Lake Tahoe.

Engagement with the Boat Industry: TRPA is leading the development of relationships with the boat industry to encourage companies to consider AIS when designing and constructing boats. A team of resource managers and boat industry representatives have completed a technical report meant to educate the industry about the problem of invasive species, what resource managers are doing, and what the industry should consider doing to help prevent the spread of AIS. To highlight the report's completion, the American Boat and Yacht Council hosted a second AIS summit, and TRPA staff participated in panel discussions to demonstrate accomplishments in fighting AIS and the need for continued partnerships.

AIS Control

Tahoe Keys: The lagoons and waterways of the Tahoe Keys are heavily infested with invasive aquatic plants making it the AIS program's top priority for control to prevent spread to other parts of the lake. The Tahoe Keys property owners have proposed treatment methods that include use of herbicides, a proposal that is not only controversial, but also a method that has never been used in a pristine waterbody like Lake Tahoe. Because of the wide-ranging views on what should be done, TRPA, together with stakeholders, initiated a collaborative decision-making approach to ensure a wide range of interests are considered in deciding what is needed to control AIS and improve water quality in the Tahoe Keys. Zephyr Collaboration has been selected to lead that collaborative mediation, which will be accompanied by the selection of a firm to develop the necessary environmental documents for TRPA and the Lahontan Regional Water

Quality Control Board to review and evaluate the proposal and alternatives that will be developed through the collaborative process.

Projects: Projects to control invasive aquatic plants and Asian clams have been ongoing at multiple locations around the lake: at the Truckee River (plants), Lakeside Marina (plants), Elks Club Marina (plants), and Sand Harbor (clams). In addition, laminar flow aeration, a new AIS control tool, is being tested at Ski Run Marina. Laminar flow aeration is predicted to cause the organic layer at the bottom of the marina to decompose and limit the food supply for invasive aquatic plants. The Tahoe Keys Property Owners Association has also applied to test this technique in the lagoons and waters of the Keys.

AIS Monitoring

Lake-wide Monitoring of Aquatic Plants: For the first time, aquatic plants are being comprehensively surveyed in Lake Tahoe. Previous more targeted surveys did not include marinas or tributaries. This lakewide survey includes extensive in-water diver transects and remote sensing using bathymetric LiDAR and high-resolution aerial imagery. These survey techniques will provide valuable information about the location of infestations, their density and extent, and will also strengthen strategic planning of future AIS control actions.

ONGOING INITIATIVES AND ANNUAL ACTIVITIES

LONG RANGE & TRANSPORTATION PLANNING DIVISION

State Route 89 Recreation Corridor Management Plan: Led by TRPA, the Tahoe Transportation District, and U.S. Forest Service, this plan brings together 17 agencies and organizations to develop transportation and visitor management strategies to address the impacts of the corridor's high visitor use and travel demand. Progress this quarter included extensive data collection, surveys, stakeholder meetings, and site visits. Data collected will be used to develop a suite of recommended projects and strategies to better manage transportation, recreation, and the visitor experience in the corridor.

2018 Summer Travel Survey: From August 16-27, TRPA staff led the biennial travel survey at 50 different locations throughout the Lake Tahoe Region. Responses to 1,048 survey interviews provide a more complete picture and better understanding of both resident and visitor travel behavior. The resulting survey dataset includes mode share, travel time, origin-destinations, vehicle occupancy, and trip purpose. This data serves many purposes at TRPA such as regional performance metrics, project planning, and travel



The SR 89 corridor runs from West Way in El Dorado County to the El Dorado/Placer County line at Sugar Pine Point State Park.

demand modeling. For example, the survey sample data shows that 73 percent of all trips were completed by personal automobile, with walking (14 percent) and biking (7 percent) as the next most common travel modes. A report presenting the data will be available in fall 2018.

Linking Tahoe Website: TRPA, with partners, refurbished and launched in June the www.LinkingTahoe.com website as a travel options website. Early use of the site is promising. During a 30-day period this quarter, website analytics showed that 89 percent of website viewers are new individual users, totaling 169 new users in 30 days. The most visited pages within the website are “Getting Around,” which highlights travel options for exploring Tahoe, and “Getting Here,” which highlights travel options for getting to Tahoe from outside the region.

Electric Vehicle Readiness: Proactive steps are underway to implement priority actions under the Tahoe-Truckee Plug-In Electric Vehicle Readiness Plan to help reduce vehicle-related air pollution and greenhouse gas emissions. TRPA staff analyzed 20 basin locations for potential charging stations. The analysis included site walks and development of blueprints for infrastructure. The plans will be used in upcoming grant applications to purchase and install charging stations.

CivicSpark: Two fellows began an 11-month work period in the Tahoe Basin through the CivicSpark program. CivicSpark is a California Governor’s Initiative AmeriCorps program dedicated to building local government’s capacity for to address community resilience to changing climate effects. The two fellows will work with TRPA and local government staff on climate change related projects to help implement specific actions outlined in the award-winning Lake Tahoe Sustainability Action Plan.

Housing: The lack of attainable housing in the Tahoe Region is having significant impacts on local communities. Solutions to the region’s housing challenges will take collaboration among diverse stakeholders. TRPA staff are active participants in the Mountain Housing Council and Housing Tahoe partnerships to identify workforce housing needs and policy recommendations. This quarter, TRPA recommended approval of one of the Mountain Housing Council and Housing Tahoe policy recommendations to raise the minimum income for residential bonus units, making residential housing more attainable to residents. TRPA’s priority to address housing issues at Lake Tahoe was featured in the Summer 2018 American Planning Association Housing and Community Development Newsletter. The article highlighted the policy actions that TRPA is planning or has taken to address the “missing middle” and the need for moderate-income housing.

Northern California Assessor's Association Conference: TRPA staff presented at the Northern California Assessor's Association Conference to educate professionals about the unique regulatory framework in Tahoe, the development rights program, and sensitive lot retirement deed restrictions.

CURRENT PLANNING DIVISION

Permit Application Review

The number of permit applications received this quarter is up compared to the same quarter last year. The number of applications received this quarter is the highest number of permit applications received in any quarter in the past 10 years. Both the active economy and anticipated changes to the development rights system likely account for the high application numbers.

Summary of TRPA Project Applications Received Quarter 3 2017 through Quarter 3 2018					
	Q3 CY2017	Q4 CY2017	Q1 CY2018	Q2 CY2018	Q3 CY2018
Applications Received¹	243	199	213	278	293
Residential Projects ²	44	25	50	83	63
Commercial Projects ²	5	4	4	5	7
Recreation/Public Service Projects ²	9	11	16	11	9
Environmental Improvement Construction Projects	1	0	5	5	2
Shorezone/Lakezone Projects ²	7	5	4	22	4
Grading Projects	16	7	5	12	14
Verifications and Banking ³	124	123	91	94	145
Transfers of Development	5	7	13	14	14
Other ⁴	32	17	25	32	35
<u>Notes:</u>					
1 Does not include Exempt projects, Qualified Exempt declarations, Tree Removal applications, or Administrative applications.					
2 Includes New Development and Additions/Modification					
3 Includes Soils/Hydrology Verifications, IPES, Land Capability Verifications, Land Capability Challenges, Verifications of Coverage, Verifications of Uses, Site Assessments and Standalone Banking Applications					
4 'Other' includes Historic determinations, Lot Line Adjustments, Temporary projects, Scenic, Underground Tank Removal, Subdivision of Existing Uses, Sign, Allocation Assignments, and other miscellaneous project types					
<u>Source:</u> TRPA Accela Permit Records					

Hearings Officer Meetings

The Hearings Officer approved 15 project applications this quarter:

- Two land capability challenges.
- Replacement of 11,000 linear feet of gas pipelines in Placer and Washoe counties to bring pipeline into code conformance.
- Placement of cellular antennas on existing utility poles within the public right-of-way to improve cell service on the North and South shore areas of Tahoe.
- Upgrades to the existing AT&T wireless communications facility on top of Harvey's Casino in Stateline, Nevada.
- A new 2,400 square foot commercial building in Kings Beach.

- A small seasonal boat tour to operate out of Tahoe Keys Marina.
- A new service station and convenience store in Kings Beach.
- Construction of an eight-unit market-rate multi-family apartment building on a vacant parcel.
- Conversion of the “Le Petit Pier” Restaurant building to a single-family dwelling.
- Modifications to two historic single-family dwellings.
- Demolition and rebuild of a historic residence.
- An addition to a residence in Crystal Bay.

ENVIRONMENTAL IMPROVEMENT PROGRAM DIVISION

The Lake Tahoe Summit

The 2018 Lake Tahoe Summit, sponsored this year by U.S. Senator Dean Heller (R-Nevada), was held at Sand Harbor State Park on August 7. Environmental Improvement Program (EIP) Division Manager Kim Caringer led the collaborative development of the 2017 EIP Accomplishments Report (see Appendix A of this quarterly report) that is made annually to elected officials ahead of the event. The report summarizes the collective achievements of the EIP Partnership for the 2017 calendar year. The Tahoe Interagency Executive Steering Committee also worked together to deliver key messages to elected officials about the 2017 lake clarity readings, the effect climate change is having on the region, and the need for federal appropriations under the Lake Tahoe Restoration Act to continue implementing the highest priorities of the EIP.

An estimated 500 people attended the summit, which featured members of Tahoe’s congressional delegation and keynote speaker Sen. Lisa Murkowski (R-Alaska). Notably, Sen. Murkowski congratulated TRPA in her speech for leading the collaborative partnerships responsible for environmental preservation in the Tahoe Basin. Sen. Heller also saluted TRPA as we approach the Agency’s 50th anniversary in late 2019.



*Attendees at the 2018 Lake Tahoe Summit at Sand Harbor in August.
(Credit: Tom Lotshaw)*

Nevada Legislative Oversight Committee Project Tour

In August, the EIP Division planned and led a boat tour for Nevada Legislative Oversight Committee members to highlight progress on major Nevada EIP projects. Committee members toured the Incline to Sand Harbor bike trail, the Asian clam control project at Sand Harbor, and forest health projects in Douglas County. The tour also included guest speakers and discussions on water quality, lake clarity, sustainable recreation, and transportation.

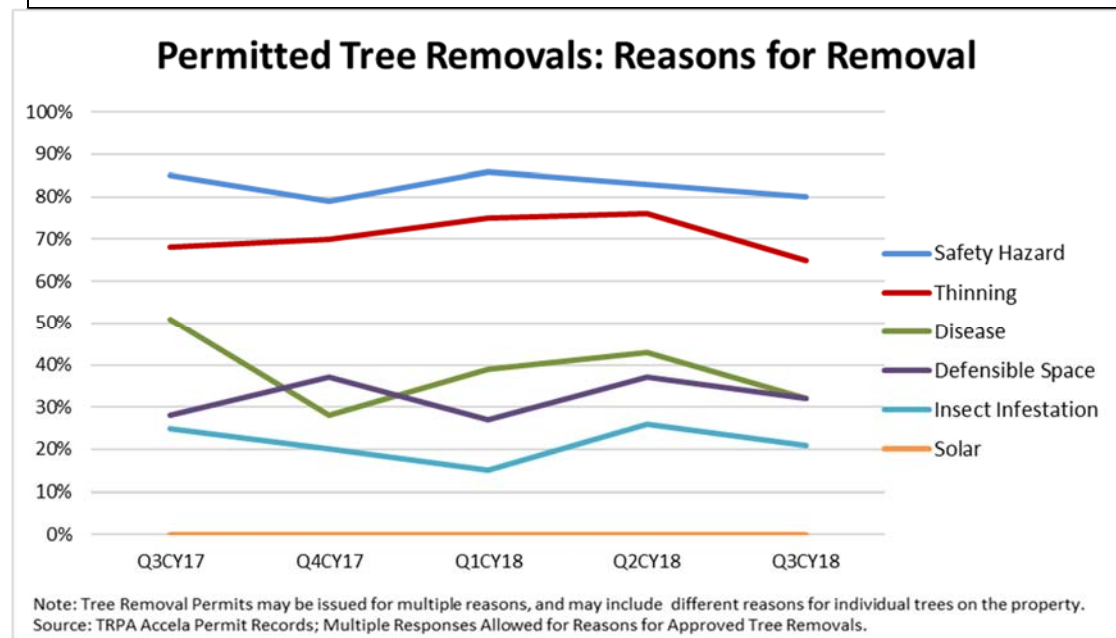
Lake Tahoe West Partnership

This quarter, the Lake Tahoe West Interagency Design Team made progress on developing the landscape restoration strategy for Tahoe's 60,000-acre forested landscape on the West Shore. The team completed the ecological modeling and worked with stakeholders to identify the best land management strategies that will lead to forest health and resilience. The Lake Tahoe West Partnership is now engaged in developing the decision-making tools that will help the partnership weigh the benefits and tradeoffs of different land management strategies. The final restoration strategy is expected in spring 2019.

Urban Forestry/Tree Removal Permits on Private Property

TRPA's forester is part of the network of forestry and fire professionals who help private landowners keep their property safe and defensible from wildfire. TRPA's staff forester provides expertise in tree risk assessment and serves Tahoe's private property owners with thorough tree evaluations. The table below summarizes tree removal applications by quarter since the third quarter of 2017. In the third quarter of 2018, TRPA received 334 tree removal applications. Trees removed due to safety hazard continue to be the primary reason for marking trees for removal.

Summary of TRPA Tree Removal Applications & Permitting Activity Quarter 3 2017 through Quarter 3 2018					
	Q3 CY2017	Q4 CY2017	Q1 CY2018	Q2 CY2018	Q3 CY2018
Tree Removal Applications Received	338	153	90	271	334
Number of Trees Permitted for Removal	1,296	520	339	1,431	1,155
Percent Applications Submitted Online	60%	67%	68%	69%	73%
<u>Source:</u> TRPA Accela Permit Records					



EIP Project Implementation

Progress was made on major multi-year EIP projects this summer:

U.S. Highway 50 "Y" to Trout Creek Water Quality Improvement Project: Caltrans widened the roadway in this high traffic urban area in the City of South Lake Tahoe to provide six-foot shoulders for bike lanes, curb, gutter, and sidewalks. Stormwater improvements were also completed, including the installation of a large sand filter to reduce fine sediment runoff into the Upper Truckee River. Project completion is expected in 2019.



Installation of a Delaware sand filter near the Upper Truckee River in July 2018 as a part of the U.S. Highway 50 "Y" to Trout Creek project (Credit: Caltrans)

Fanny Bridge/State Route 89 Community Revitalization Project: Major components of the Tahoe City Community Revitalization project were completed this summer. Construction began on the new bridge and alignment that will redirect traffic and reduce congestion in Tahoe City. Construction also continued on the Dollar Creek and Meeks Bay multi-use paths. These new travel routes and pathways are critical links in improving transportation on the West Shore. Project completion is expected in 2019.

Nevada Stateline to Stateline Bikeway: This three-mile, multi-use path from Incline Village to Sand Harbor State Park is nearly finished after most of the major construction was completed in 2018. The path is expected to open to the public in spring 2019. Transportation partners are also making progress on planning for the next eight-mile segment that will continue the pathway further south along the Nevada side of the lake.

RESEARCH & ANALYSIS DIVISION

Parcel Tracker Updates

The Lake Tahoe Info Parcel Tracker (<https://parcels.laketahoeinfo.org/>) provides information to the public about parcels in the Tahoe Region. Information on over 550 parcels was updated in the Parcel Tracker this quarter. TRPA also responded to almost 50 help requests directly through the Parcel Tracker. These requests from property owners, real estate agents, and local government partners request updated permitting information on parcels.



ProjectFirma User Group Meeting

ProjectFirma is an instance of where the newly emerging sharing economy provides networked benefits, often at no cost to users like TRPA. In September, TRPA hosted a ProjectFirma User Group meeting at the TRPA offices. ProjectFirma is a version of the EIP

Project Tracker that is co-licensed by TRPA and Sitka Technology Group who worked with TRPA to build the EIP Tracker. There are currently five instances of ProjectFirma:

1. [EIP Project Tracker](#) | TRPA, launched: 2014
2. [Clackamas Partnership Project Tracker](#) | Clackamas Partnership, Oregon, launched: 2017
3. [California RCD Project Tracker](#) | Resource Conservation Districts across California, launched: 2017
4. [Watershed Health Outcomes Project Tracker](#) | Peaks to People Water Fund, Colorado, launched: 2018
5. [Conservation the Idaho Way Project Tracker](#) | Idaho Soil & Water Conservation Commission, launched: 2018

Two more instances of ProjectFirma for the Washington Department of Natural Resources and the Puget Sound Partnership are currently in development. Representatives from all these groups came together to showcase individual applications of ProjectFirma and demonstrate how they are using the software for their organization's needs. The group discussed new functionality that could be added to the system.



Attendees at the ProjectFirma User Group meeting hosted by TRPA in September 2018. (Photo: Matt Deniston)

Map Services Update

Often a story can be told and understood more readily using maps. Accordingly, TRPA continues to grow its strengths in providing GIS services and GIS data analytics to the agency and public alike.

- www.tahoeopendata.org has **additional downloadable resources** and has been updated to contain a gallery of interactive maps.
- Deployed a real-time **smoke forecast map** that was viewed by the public over 8,000 times. The map can be viewed at: <http://gis.trpa.org/smokemap/>.
- All agency ArcMap (GIS) users were transitioned to **advanced licenses** this quarter, allowing for increased functionality and productivity.
- Over 50 TRPA staff have been allocated ArcGIS online accounts extending GIS functionality to almost all staff.

Integrated Monitoring

Partners in the basin continue to look for opportunities to streamline and better coordinate monitoring and data collection to inform management decisions. From June through August, NASA, U.S. Forest Service Pacific Southwest Research Station, Lake Valley Fire Department, University of Nevada Reno, and TRPA partnered to collect updated LiDAR data for the basin. LiDAR is a remote sensing technology that uses laser pulsed from an airplane to assess topography and vegetation. The data will be used to quantify wildfire risk, tree mortality, impervious cover, stream channel condition, and evaluate the response of forest communities to forest health treatments. Quantifying the benefits of fuels treatments is essential to designing better forest health treatments and optimizing resource allocation by EIP partners to reduce wildfire risk and promote resiliency in the basin's forests.

Conservation Manager's Roundtable

TRPA staff in July attended a Conservation Managers Workshop in Portland, Oregon, where people from 10 natural resource organizations in California, Idaho, Nevada, Oregon, and Washington shared experiences and best practices in organizational development, monitoring, and resource conservation.



*Attendees at the Conservation Manager's Roundtable meeting in July 2018.
(Photo: Damon Knight).*

2017 Clarity Numbers

The Total Maximum Daily Load is the science-based adaptive management framework to restore the historic clarity of Lake Tahoe over the next 70 years. 2017 was a year of climatic extremes. Numerous atmospheric rivers, near record snowpack at higher elevations, multiple rain on snow events, and record lake temperatures led to an historic low annual average lake clarity. Scientists are evaluating whether 2017 may be a harbinger of things to come or is an anomalous outlier. In response to decline in lake clarity in 2017, the states of California and Nevada directed the Tahoe Science Advisory Council to take a fresh look at how we monitor the lake's health, to ensure managers are getting the information they need to make informed decisions about the regions' future. The council is working closely

with program managers so that their recommendations can be integrated into the existing management frameworks. Environmental Improvement Program partners also continue to review project design and implementation criteria to account for climate adaptation.

EXTERNAL AFFAIRS

TRPA supports a culture committed to public education, outreach, and community engagement to implement the Tahoe Regional Plan. The external affairs team leads public engagement initiatives in collaboration with a wide variety of agency and nonprofit stakeholders. This quarter, TRPA continued ongoing education and outreach in the Lake Tahoe Region to raise awareness about issues at Lake Tahoe and improve public understanding about the role of TRPA and the EIP collaborative partnership.

Legislative Affairs

Tahoe Partnership: TRPA collaborated with representatives of the Tahoe Partnership Darcie Collins and Andrew Strain on meetings with members of the congressional delegation in Washington D.C. in September. The partnership is advocating for federal funding under the Lake Tahoe Restoration Act.



Tahoe Partnership members Darcie Collins and Andrew Strain with TRPA External Affairs Chief Julie Regan in Washington, D.C.

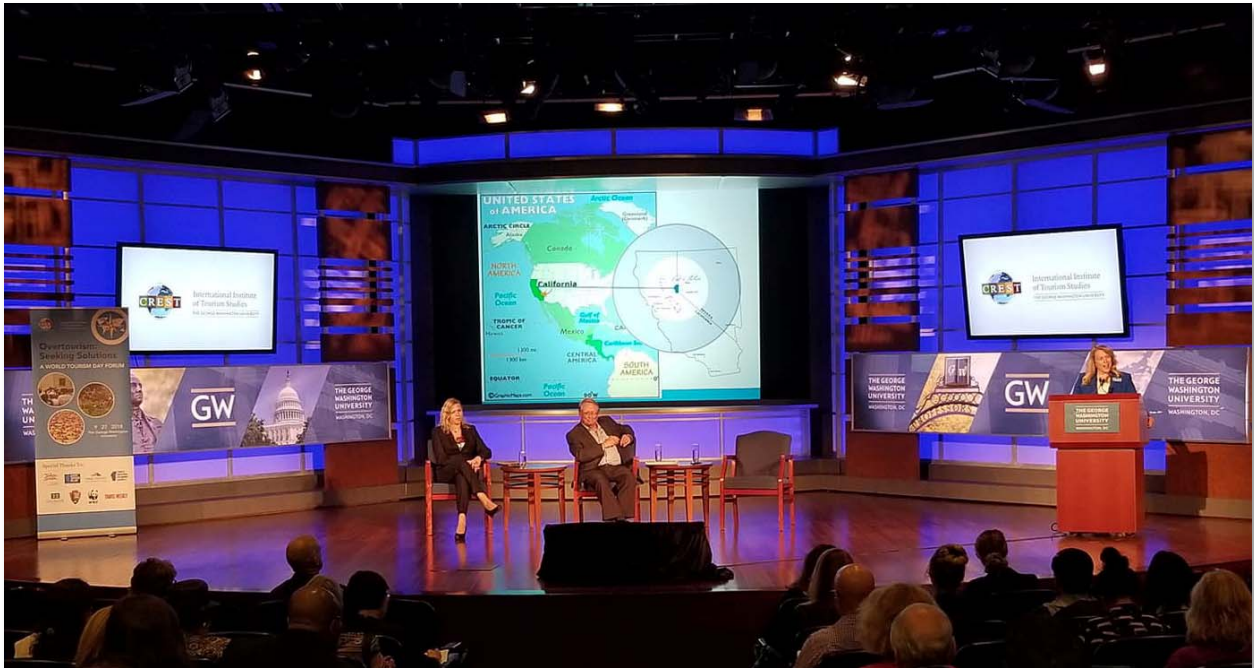
Public Outreach and Education

Tahoe Watershed Summit: External affairs staff participated in the annual Tahoe Basin Watershed Education Summit at Meeks Bay on September 27-28. TRPA partnered with Sierra Watershed Education Partnership to lead a station on citizen science for more than 30 high school students from Lake Tahoe and Truckee.

Fire Fest: Staff represented TRPA at the 2018 Fire Fest event at Hard Rock Hotel and Casino on September 29, engaging with the public to help them learn more about wildfire risk, prevention, and community preparedness, and how TRPA and other members of the Tahoe Fire and Fuels Team are working to reduce catastrophic wildfire risk at Lake Tahoe.

Cal Fire Grant: TRPA and other partners on the Tahoe Fire and Fuels Team applied for and are working to finalize a \$59,950 grant from Cal Fire to help pay for a two-year outreach campaign in 2019 and 2020 to raise greater public awareness about wildfire risk, prevention, and steps people can take to improve wildfire preparedness at Lake Tahoe.

World Tourism Day: External Affairs Chief Julie Regan represented TRPA at a World Tourism Day Forum that focused on problems of overtourism. At the forum, industry experts shared ideas on how communities can benefit from tourism economically while ensuring that tourism does not degrade daily life, disrupt natural and cultural resources, reduce visitor experiences or quality of life for local residents. The forum was hosted by The Center for Responsible Travel and George Washington University's International Institute of Tourism Studies.



TRPA shared the stage with Maria Reynisdóttir from Iceland's Ministry of Industries and Innovation and Jonathan Tourtellot, Founder of National Geographic's Center for Sustainable Destinations in late September on World Tourism Day. Photo courtesy of the Center for Responsible Travel.

FINANCE, INFORMATION TECHNOLOGY, & FACILITIES

Finance Update

Work has begun on fiscal years 2019/21 biennial budget for the State of Nevada and fiscal year 2019/20 budget for California.

Tahoe Regional Planning Agency
First Quarter Revenue vs. Expenses

	FY 2018	FY 2017	Change
Revenues			
State Funding	6,773,441	6,427,187	346,254
Grants	214,772	179,359	35,413
Fees for Service	941,107	963,636	(22,530)
Other	201,983	235,030	(33,047)
Total	8,131,303	7,805,212	326,091
Expenses			
Compensation	1,426,081	1,237,309	188,771
Contracts	375,978	525,913	(149,935)
Financing	9,900	9,445	455
Other	331,061	369,205	(38,144)
Total	2,143,020	2,141,873	1,147
Net Fund Balance	<u>5,988,283</u>	<u>5,663,339</u>	<u>324,943</u>

Tahoe Regional Planning Agency
First Quarter Change in Net Assets

	Beginning	End	Change
Assets			
Current Assets	30,273,102	28,912,143	(1,360,959)
Long Term Assets	9,594,629	9,594,629	0
Total	39,867,731	38,506,772	(1,360,959)
Liabilities			
Current Liabilities	491,849	493,802	1,953
Deferred Revenue	2,009,173	2,126,483	117,310
Deposits	462,957	442,957	(20,000)
Long Term Debt	8,445,000	8,445,000	0
Mitigation Funds	10,843,115	10,010,456	(832,659)
Securities	5,304,215	5,138,042	(166,173)
	27,556,308	26,656,739	(899,568)
Net Fund Balance	<u>12,311,423</u>	<u>11,850,033</u>	<u>(461,391)</u>

Facilities Update

The agency signed a long-term lease with a new tenant, and the building is now fully leased. During the last three months, solar panels on the roof of the TRPA building have generated 402,152 kilowatt hours of electricity reducing carbon dioxide emissions by 281.5 tons.

HUMAN RESOURCES

Training and Development: Alison Gaulden of the University of Nevada, Reno Reynolds School of Journalism returned this quarter to hold a multi-agency workshop, "Writing for Results," and provided a refresher session for staff who participated in an earlier offering of the workshop.

Performance Reviews: At the end of each fiscal year, managers at TRPA review each staff member's individual action plan and determine how well each employee is meeting his or her goals, the agency's work program goals, and core competencies for all employees. These reviews are the basis for end of year incentive pay as well, which is paid in July.

New Retirement Plan Administrator: Human Resources and Finance staff selected Voya as the new administrator for the agency's retirement plans following a competitive request for proposals process. The agency is now transitioning its retirement plans to the new administrator.



Bill Watson leading a tour for TRPA staff of the historic Thunderbird Lodge.

Annual Summer Picnic Held at Thunderbird Lodge: The Thunderbird Lodge graciously allowed TRPA to hold its annual staff picnic at the lodge on a Monday when the lodge is normally closed to the public. TRPA staff spent part of an afternoon at the historic site enjoying a barbeque lunch, tours of the historic property, and stories as only its expert curator Bill Watson can tell them. Thank you Bill for the opportunity and hospitality.

New TRPA Staff



Tom Boos, Environmental Improvement Division

Tom is the new associate environmental specialist at TRPA focused on the prevention duties of the aquatic invasive species (AIS) program. Tom was previously the AIS coordinator for the State of Montana. He is originally from Wisconsin and graduated from the University of Wisconsin, Madison with a degree in landscape architecture focused on ecological restoration and land use planning.



Michael Conger, Long Range & Transportation Planning

Michael is the new senior long range planner at TRPA. Michael has a bachelor's degree in city and regional planning and a master's degree in public policy, both from Cal Poly San Luis Obispo. He spent several years in progressively more responsible planner roles with San Luis Obispo County before joining TRPA. Michael's work at TRPA is focused on area plan updates and code amendments.



Karen Fink, Long Range & Transportation Planning

Karen Fink rejoined TRPA, this time as a senior planner. Karen is working on policies that affect housing and Regional Plan goals for sustainable redevelopment. We are excited to have Karen back at TRPA!

APPENDIX A

Environmental Improvement Program Handouts from the 2018 Lake Tahoe Summit



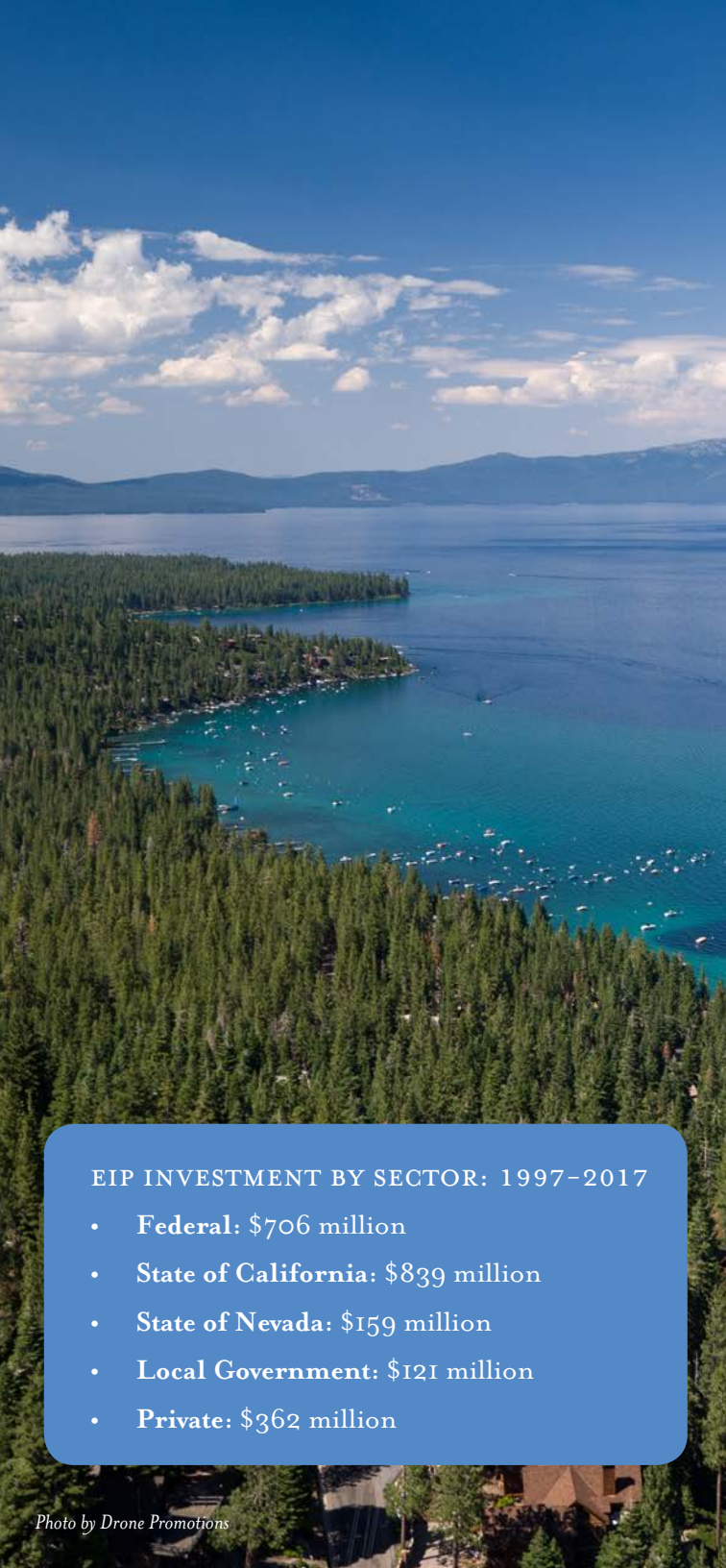
Photo by Drone Promotion

LAKE TAHOE SUMMIT • 2017 ACCOMPLISHMENTS

Environmental Improvement Program

August 2018





ENVIRONMENTAL IMPROVEMENT PROGRAM

Formed in 1997, the Lake Tahoe Environmental Improvement Program (EIP) is an unparalleled partnership working to achieve major environmental goals for the Region. Local, state, and federal government agencies, private entities, scientists, and the Washoe Tribe of Nevada and California are all collaborating to restore the water clarity and environmental health of Lake Tahoe. The collective impact of 50-plus partner organizations last year resulted in improved forest and ecosystem health, restored fish and wildlife habitat, and better public recreational access. However, emerging threats from climate change, invasive species, and wildfire are challenging the partnership in unprecedented ways. For example, the end of the most severe drought in a millennium followed by the wettest winter on record and warming summer temperatures all combined in 2017 to reduce the lake's average annual clarity to its lowest recorded level. Continued investment in the EIP from all sectors is necessary to build upon the success of the last 20 years and to adapt to more extreme weather events.

1997-2017 EIP ACCOMPLISHMENTS

154 miles of bike and pedestrian multi-use trail constructed or improved

3,195 feet of public shoreline added

780 miles of roadway upgraded to reduce erosion and stormwater pollution

62 acres of treatment to remove invasive weeds and Asian clams

74,638 acres of forest treated to reduce hazardous fuels

70,917

boats inspected for aquatic invasive species

30,576

boats decontaminated

1,735 acres of SEZ restored or enhanced*

**This includes the 592 acres of the Upper Truckee River Marsh Restoration Project, which is currently in the planning phase. The project will be one of the largest stream environment zone (SEZ) restorations undertaken at Lake Tahoe.*

EIP INVESTMENT BY SECTOR: 1997-2017

- Federal: \$706 million
- State of California: \$839 million
- State of Nevada: \$159 million
- Local Government: \$121 million
- Private: \$362 million

WATER QUALITY AND CLARITY

Sand Harbor Lake Tahoe Nevada State Park. Drone Promotions (left). Restored Zephyr Cove beach outfall. Nevada Tahoe Conservation District (right).

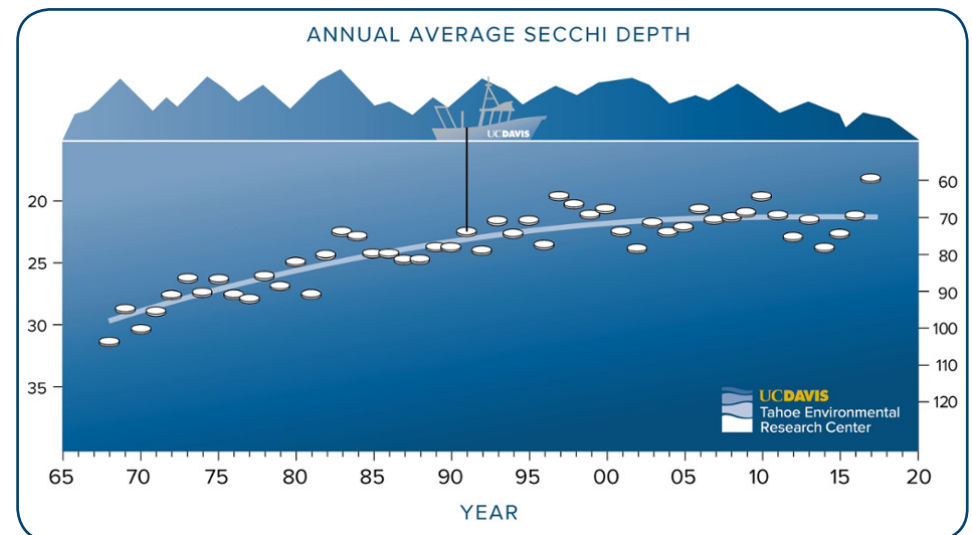
The 1960s building boom in the Tahoe Basin caused a precipitous decline in the lake's water clarity because of increased stormwater runoff in urban areas that carries fine sediment, nitrogen, and phosphorus into the lake. EIP projects are treating stormwater runoff and restoring important natural filters like meadows and wetlands. Despite an improvement in clarity over the last 20 years, Tahoe's average annual clarity declined to 59.7 feet in 2017—the lowest level ever recorded. The end of the worst drought in 1,200 years followed by one of the wettest winters on record combined to reduce clarity. But clarity numbers are rebounding in 2018 and the five-year average lake clarity is 70 feet, showing that environmental improvement projects are working.

2017 ACCOMPLISHMENTS

- Local jurisdictions and state transportation partners prevented approximately 299,550 pounds of fine sediment from entering the lake through water quality projects.
- El Dorado County created eight new stormwater infiltration basins and restored 3.5 acres of stream environment zone near Meyers Creek, reducing fine sediment by more than 50 percent.
- Nevada Tahoe Conservation District completed the Zephyr Cove Water Quality project preventing stormwater from discharging into the lake.
- The City of South Lake Tahoe demolished the blighted Knights Inn motel and started constructing new infrastructure to reduce flooding and revitalize the community.

FUTURE PRIORITIES

- Achieve the 2021 milestones for the Total Maximum Daily Load program to continue the reduction of fine sediment, nitrogen, and phosphorus reaching Lake Tahoe.
- Construct area-wide stormwater treatment basins in urban zones to efficiently filter large areas of runoff.
- Pursue dedicated funding for operations and maintenance of stormwater infrastructure and roads.



Graphic courtesy of UC Davis: <http://terc.ucdavis.edu/stateofthelake>



WATERSHED RESTORATION

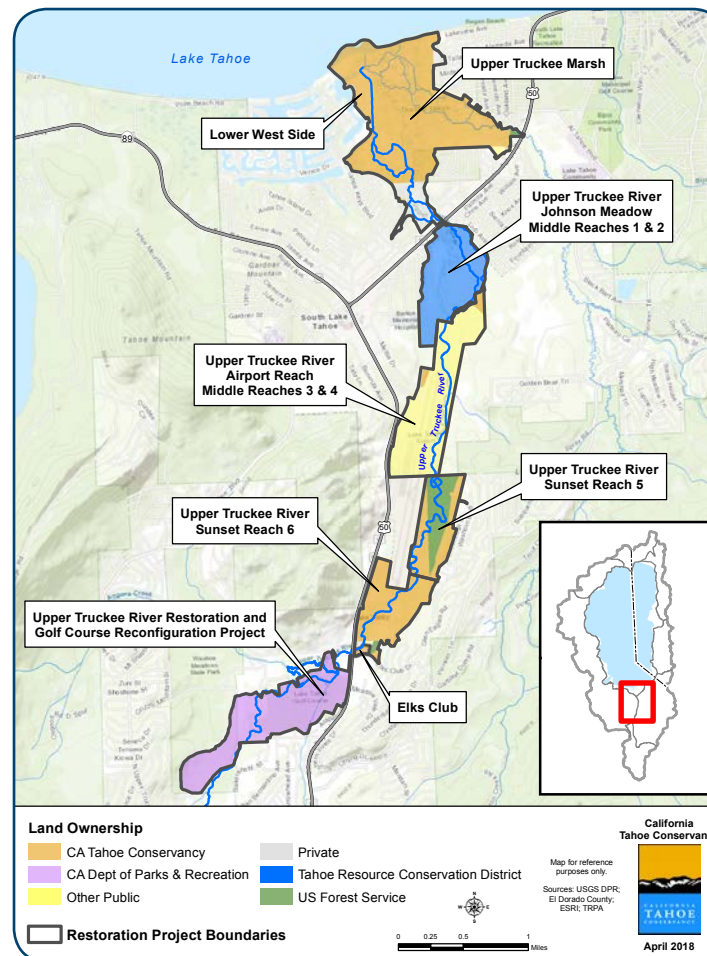


Johnson Meadow at peak flow. Tahoe Resource Conservation District (left). Edgewood Creek by Tom Lotshaw (right).

Lake Tahoe owes its remarkable clarity to several factors, including its great depth, volume, and the runoff that is filtered through the surrounding watershed and wetlands before running into the lake. Many of the basin's watersheds have been degraded due to development in floodplains and stream environment zones disrupting the natural flow of water into Lake Tahoe. Restoring the complex ecosystem in these watersheds requires integrated projects that improve habitat, restore the natural flow of streams and rivers, and build the watershed's resiliency to large storms, drought, fire, and invasive species.

2017 ACCOMPLISHMENTS

- Nevada State Lands acquired 7.67 acres of sensitive land near Edgewood Creek, permanently protecting an important area from future development.
- Federal and state partners removed non-native fish from Fallen Leaf Lake and its tributaries to improve native fish habitat.



- Placer County completed the Snow Creek Wetlands Restoration project, removing 6,000 feet of coverage and building a new bridge to protect restored wetlands.
- The U.S. Forest Service, in partnership with the Washoe Tribe, restored 110 acres of native aspen trees.

FUTURE PRIORITIES

- Restore Johnson Meadow and the Upper Truckee River Marsh.
- Expand the Upper Truckee River Watershed Restoration Strategy to integrate climate change resilience and adaptation.
- Remove Burton Creek Dam and restore Antone Meadow in Burton Creek State Park.
- Complete the Meeks Bay Ecosystem Restoration project to remove a decommissioned marina, treat aquatic invasive species, and restore the natural flow of Meeks Creek.

10 years
fighting invasive species

AQUATIC INVASIVE SPECIES

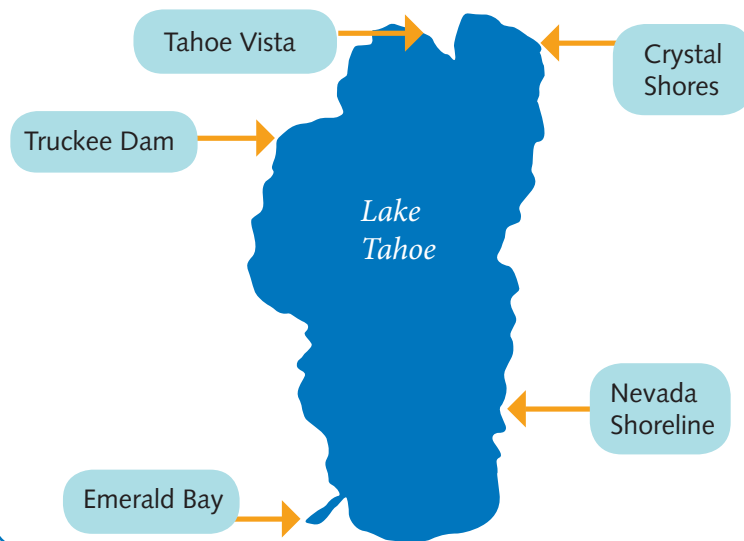
The nationally-recognized Lake Tahoe Watercraft Inspection Program is celebrating 10 years of fighting aquatic invasive species with no new invasions detected. Led by the Tahoe Regional Planning Agency and the Tahoe Resource Conservation District, the program inspects all motorized watercraft to ensure aquatic invasive species are not introduced into Lake Tahoe. EIP partners also implement projects to control and reduce populations of aquatic invasive plants, clams, and warm water fish through a science-based management plan. Control of these invasive species improves lake clarity, restores habitat for native species, and protects the recreation opportunities that drive Lake Tahoe's economy. Managers and scientists continue to work together to monitor lake conditions, experiment with new treatment technologies, and prevent the introduction and spread of invasive species.

2017 ACCOMPLISHMENTS

- Inspected 8,870 boats for aquatic invasive species.
- Intercepted 41 boats carrying aquatic invasive species, including eight boats carrying zebra or quagga mussels.

- Treated 14.5 acres of aquatic invasive plants and Asian clams.
- Began testing ultraviolet light technology to treat invasive plants in Lakeside Marina.
- Surveyed 35 acres of Lake Tahoe for aquatic invasive species through the League to Save Lake Tahoe's volunteer Eyes on the Lake program.

LOCALIZED ERADICATION OF AQUATIC INVASIVE PLANTS (TO DATE)



FUTURE PRIORITIES

- Complete an environmental analysis and a collaborative plan for the treatment of aquatic invasive plants in the Tahoe Keys.
- Continue to pioneer new technologies for the treatment of aquatic invasive species.
- Work with marinas to incentivize the prevention and treatment of aquatic invasive species.
- Develop a monitoring plan for consistent, lake-wide surveillance that will enhance strategic planning.

Photos by Novus Select

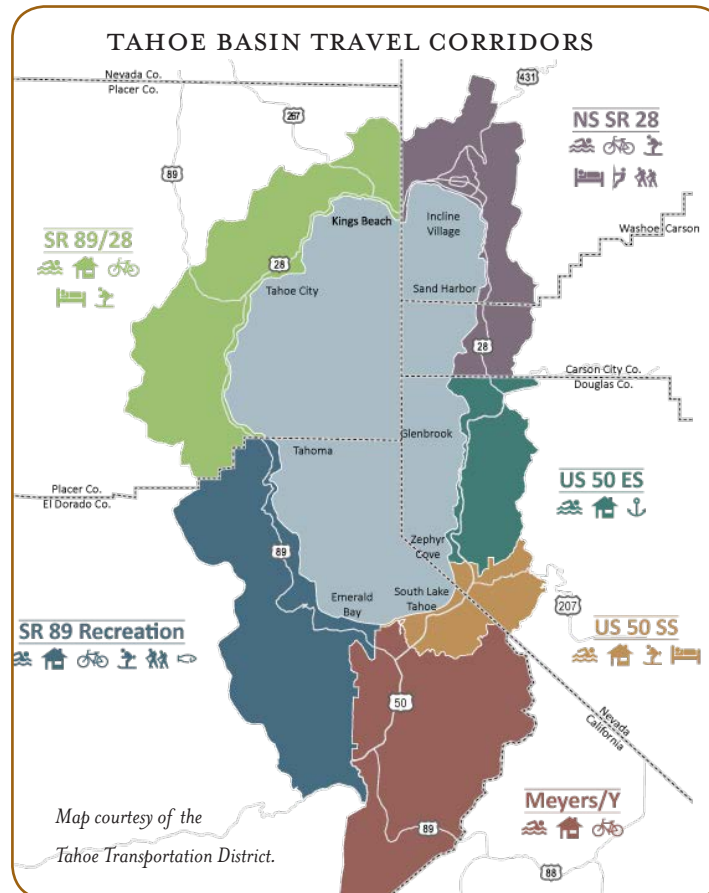


Transit service in the U.S. 50 South Shore corridor. Aurora Photos/Rachid Dahnoun (left). Lime bike rider. Chris McNamara (right).

Lake Tahoe is within driving distance of three major metropolitan areas—Sacramento, the San Francisco Bay Area, and Reno—making it a popular vacation destination. Local and regional transportation solutions are a high priority to improve connectivity and safety, meet resident and visitor travel needs, and reduce environmental impacts. The 2017 Regional Transportation Plan lays out travel corridors and is a blueprint for transforming transportation at Lake Tahoe.

2017 ACCOMPLISHMENTS

- California and Nevada convened the Bi-State Transportation Working Group, a team of federal, state, local, and private sector policy leaders working to accelerate transportation improvements at Lake Tahoe.
- The City of South Lake Tahoe completed the Ski Run to El Dorado Beach Path—a critical link for bikers and pedestrians.



- The League to Save Lake Tahoe and Lime Bike's pilot bike share project averaged 200 rides per day.
- The Tahoe Basin met its goal of reducing 5 tons of particulate emissions through local woodstove rebate programs.
- Transportation partners broke ground on the Incline to Sand Harbor shared-use path and Fanny Bridge Community Revitalization Project.

FUTURE PRIORITIES

- Implement the 10-Year Action Plan of priority projects.
- Implement pilot projects to test new technologies and travel options.
- Construct critical links in the Tahoe Trail multi-use path.
- Electrify transportation fleet vehicles.



SCIENCE AND MONITORING



Lake Tahoe from above. Drone Promotions (left). Scientists launch an underwater drone. Brant Allen, UC Davis Tahoe Environmental Research Center (right).

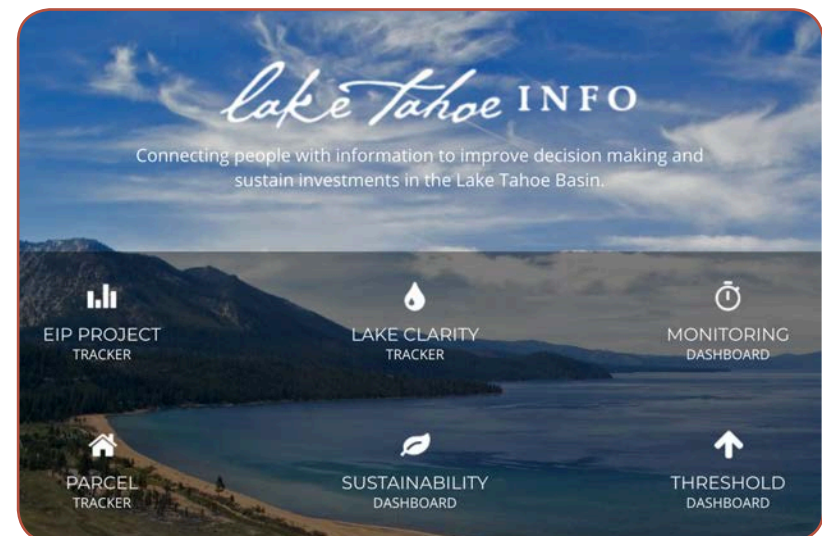
Lake Tahoe scientists and land managers have worked together for decades to ensure restoration activities are informed by the best available science. Lake Tahoe has become one of the “world’s smartest lakes” with its long-term data record and the use of new technologies such as autonomous underwater vehicles, satellites, and aerial drones. Continued investment in research and monitoring to learn more about lake dynamics and its response to extreme weather events is critical in helping EIP managers better understand what actions will be most effective today and in the future.

2017 ACCOMPLISHMENTS

- In consultation with the Tahoe Science Advisory Council, TRPA adopted a reorganization of the basin’s environmental threshold standards.
- TRPA launched the LTinfo.org Monitoring Dashboard to aggregate Tahoe Basin monitoring activities and provide data, maps, and photos.
- Tahoe scientists began a pilot Mysis shrimp removal project which could improve lake clarity.
- The Tahoe Environmental Research Center installed nearshore monitoring stations at Camp Richardson and Timber Cove.
- The U.S. Geological Survey completed water quality research that indicated groundwater nutrients are contributing to algal blooms along the nearshore.

FUTURE PRIORITIES

- Complete a comprehensive review and update of the Lake Tahoe Basin’s environmental thresholds.
- Explore monitoring techniques to gather data on changing lake dynamics.
- Increase land-based and aerial data collection to better understand watershed health.
- Continue research on drivers of nearshore conditions.





FOREST HEALTH & FUELS REDUCTION



Hazardous fuels reduction (left). Emerald Fire burn area on the West Shore of Lake Tahoe (right). Photos by Drone Promotions.

Catastrophic wildfire is a major threat to Lake Tahoe's watershed and tourist-based economy. The Tahoe Fire and Fuels Team, which includes federal, state, and local agencies, is committed to creating fire-adapted communities and treating forests in the wildland urban interface to protect the Tahoe Basin from catastrophic wildfire. With over 100 million dead trees covering the state of California as a result of prolonged drought, the team is also prioritizing building resilience to extreme weather conditions. Partners are collaborating to develop new and innovative approaches to restore and maintain forest health. Through the Lake Tahoe West Restoration Partnership, EIP partners are developing a large-scale landscape restoration strategy for the West Shore that can serve as a model throughout the Tahoe Basin.

2017 ACCOMPLISHMENTS

- The Tahoe Fire and Fuels Team treated 3,569 acres of forest to reduce hazardous fuels and prevent catastrophic wildfire.
- Tahoe Network of Fire Adapted Communities launched a Data Collection App that tracks defensible space inspections across all fire protection districts in the Tahoe Basin.
- The U.S. Forest Service completed the environmental review for 3,800 acres of hazardous fuels treatment in South Lake Tahoe.

FUTURE PRIORITIES

- Complete initial treatment of 117,000 acres of wildland urban interface at Lake Tahoe.
- Increase the capacity of crews to remove hazardous fuels.
- Complete the Lake Tahoe West Restoration Strategy.
- Increase the utilization of biomass and wood products.
- Support the restoration of 2.4 million acres of Sierra Nevada forests through the Tahoe-Central Sierra Initiative.

Lake Tahoe West Restoration Partnership

In 2017, the partnership completed the Landscape Resilience Assessment. For the assessment, agencies shared the best available data across 60,000 acres to evaluate the current environmental conditions of the project area. These conditions help determine the ecosystem's resilience to a variety of disturbances amplified by climate change, such as drought, fire, insects, and flooding.

The assessment is available for review at:
www.nationalforests.org/LakeTahoeWest





SUSTAINABLE RECREATION



Riders make their way down the Angora Ridge Trail. TAMBA (left). Ben Fish hikes above Emerald Bay. Amy Fish(right).

Lake Tahoe is experiencing record visitation for its world class recreational opportunities. While outdoor recreation is a major driver of Lake Tahoe's economy, overcrowding in peak seasons can degrade natural areas and lessen the visitor experience. The EIP partnership is working to implement strategies that meet visitor demand while protecting the Tahoe Basin's unique natural resources.

2017 ACCOMPLISHMENTS

- The U.S. Forest Service and Tahoe Area Mountain Biking Association built 4.5 miles of the new Angora Ridge Trail.
- Tahoe residents and visitors contributed over 17,000 volunteer hours to maintain 168 miles of the Tahoe Rim Trail.
- Public and private partners expanded messaging of the Take Care stewardship campaign to educate visitors on critical issues.
- Vail Resorts and partners implemented interpretive signage and hiking trails for the Epic Discovery project at Heavenly Mountain Resort.

FUTURE PRIORITIES

- Develop a Tahoe Basin Sustainable Recreation Strategy.
- Complete the State Route 89 Recreation Corridor Management Plan.
- Implement priority projects in the Kings Beach State Recreation Area.
- Expand public access to provide high-quality recreational experiences.
- Increase recreation data collection to better inform land managers.



LOOKING FORWARD

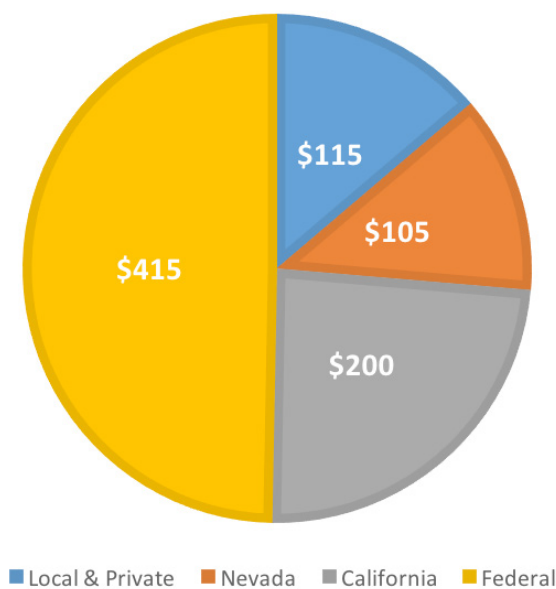
Photo by Kippy Spilker

Future support of the Lake Tahoe Environmental Improvement Program (EIP) is crucial to protecting the investments and accomplishments of local, state, and federal government partners along with the private sector and Washoe Tribe of Nevada and California. With emerging environmental threats from climate change, wildfire, and invasive species, continuing the commitment to Lake Tahoe is more important than ever.

EIP FUTURE PRIORITIES

- Continue to secure federal appropriations through the Lake Tahoe Restoration Act.
- Direct funding from California Proposition 68 to high-priority California EIP projects.
- Pursue continued bond sales from the \$105 million committed by the Nevada Legislature in 2009.
- Establish a sustainable funding source to maintain the investment made in projects and infrastructure over the last 20 years.
- Incentivize private investment in the EIP by strengthening public-private partnerships.

EIP FUTURE FUNDING TARGETS
IN MILLIONS



Lake Tahoe Restoration Act

In 2016 the Lake Tahoe Restoration Act authorized up to \$415 million over 7 years for the EIP. In federal fiscal year 2018, \$5.5 million was appropriated for forest health and aquatic invasive species projects.

Partners are working with the congressional delegation to seek future appropriations across all EIP program areas.



Published by the Tahoe Regional Planning Agency
- August 2018 -