

# Regional Plan Update FactSheet #1: Water Quality and Stream Environment Zones

## ***WHAT IS THIS?***

To update the Tahoe Regional Planning Agency's Regional Plan, staff has prepared a schedule of Milestones. Each Milestone deals with a part of the Plan, and each is preceded by a Stakeholder Process to vet the proposed policy alternatives with Agency partners and constituents.

The FactSheet is a summary of the Stakeholder Process. For policymakers, it provides a framework for decisions. It outlines the major issues identified by staff and stakeholders. It is how policy discussions raised with each Milestone will be memorialized.

Each Milestone will be accompanied by a FactSheet. Each FactSheet will go into a binder called the "FactBook." The FactBook will serve as the seminal piece of background material in defining the policy direction of the Plan.

## ***WHAT CONSTITUTES A FACTSHEET?***

This FactSheet is the first in the series! It focuses on the policy issues surrounding Water Quality and Stream Environment Zones. WQ and SEZ are important parts of the Plan because they are both associated with Environmental Threshold Carrying Capacities. "Thresholds," as they are called, were created pursuant to the Federal Compact that gave birth to TRPA; they are standards of environmental quality to be achieved in the Tahoe Region.

TRPA has nine Threshold Program Areas. They are:

- Water Quality
- Air Quality
- Scenic Resources
- Soil Conservation
- Fisheries
- Vegetation Preservation
- Wildlife
- Noise
- Recreation

WQ is a TRPA Threshold Program Area. SEZ is not a Threshold Program Area *per se*, but there are SEZ Thresholds within Soil Conservation.

## ***HOW SHOULD THE FACTSHEET BE USED?***

The purpose of the FactSheet is to outline the following:

1. What are the legal underpinnings that require TRPA to plan for WQ improvement and SEZ restoration?
2. Why does the staff-proposed alternative portend a better future for Lake Tahoe than the current Plan or the other action alternatives to be analyzed

- with the Environmental Impact Statement (EIS) for the Regional Plan Update?
3. Specifically, what major issues were raised during the Stakeholder Process?
    - a. Which ones resulted in staff recommending changes to the EIS alternatives?
    - b. Which ones did not result in staff recommending changes to the EIS alternatives?
  4. New ideas and best practices that came to light during the Stakeholder Process.

The FactSheet analyzes the major issues for which staff needs direction from the Governing Board. It will include the staff recommendation, stakeholder reaction, the policy pros and cons associated with staff and stakeholder interests, and new ideas and best practices. These are the key areas that need to be understood by policymakers in order to make informed decisions. Staff's proposed course of action for each major issue, which takes stakeholder interests into account, is denoted by *italicized text*.

At the end of the analysis section, there is a page or pages on which each major issue is summarized in a sentence or two, and below the summary are a few blank lines for the reader's own thoughts on the matter. You are invited to use these lines for note-taking and memorializing of your thoughts, thus personalizing your own FactSheet.

Besides providing background and recommendations on all of the major issues, the FactSheet will include:

1. Notes on other issues that were brought up at the stakeholder meetings (including staff responses to the issues).
2. A list of Stakeholder meetings, meeting dates, and participants.
3. A copy of the Project Description document, which summarized (in narrative form) the four alternatives to be analyzed with the EIS for the Regional Plan Update.
4. A copy of the "Matrix" containing all of the Goals, Policies, and Implementation Measures in the four alternatives.

When reading the notes from the stakeholder meetings, pay careful attention to the sentences that are in *italics*. These represent changes to the Project Description and Matrix that staff would like to make based on stakeholder comment. In order to simplify the reader's task of reviewing, all of the stakeholder comments that elicited an italicized response are grouped at the top of each meeting's notes.

These notes, lists, and documents will memorialize the Stakeholder Process and provide evidence of the background materials that influenced the policy recommendations.

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# Water Quality

## **WHAT ARE THE LEGAL UNDERPINNINGS THAT REQUIRE TRPA TO REGULATE AND PLAN FOR WATER QUALITY IMPROVEMENT?**

In 1969, the United States Congress authorized the Tahoe Regional Planning Interstate Compact (amended 1980) to encourage wise use and conservation of the waters and land of the Lake Tahoe region. The Compact directed TRPA to develop a regional long-term plan that would achieve environmental protection while also providing for managed economic growth.

The purity of Lake Tahoe's waters is what makes the Tahoe Region so distinctive. Lake Tahoe is one of the three clearest lakes in the world. Its exceptional water quality is the centerpiece to the scenic beauty of the region, yet that attractive quality depends on preserving the delicate balance between soils, vegetation, and human activity.

The Compact directs TRPA to establish Environmental Threshold Carrying Capacities (Thresholds) that, if attained, would ensure the protection of the Lake and the Basin. The Water Quality Threshold establishes a suite of environmental standards designed to protect, enhance, and maintain the natural value of Lake Tahoe's transparent waters.

Water quality enhancement and protection is the primary directive of this Threshold. TRPA's regulations and ordinances are meant to effectively manage the cause-and-effect relationship between land use, land characteristics, and water quality.

Congress enacted landmark water quality legislation in 1972. The Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), was meant to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The six declared goals of the statute are the following:

1. To attain the "zero discharge of pollutants" into federally protected waters,
2. To enhance and protect beneficial uses and bring water quality up to acceptable standards wherever attainable;
3. To prohibit the discharge of toxic pollutants in toxic amounts;
4. To provide federal assistance to develop publically owned waste water treatment programs;
5. To promote area-wide waste water treatment planning, and
6. To promote research to eliminate the discharge of pollutants into the federally protected waters.<sup>1</sup>

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<sup>1</sup> Public Law 92-500, the Federal Water Pollution Control Act, Section 101.

The CWA provides specially designated water bodies an exceptional level of anti-degradation protection, known as “Tier Three Protection.” It is worth noting that the CWA specifically calls out the need to “preserve the fragile ecology of Lake Tahoe.”<sup>2</sup> When the CWA was adopted in 1972, the annual average transparency of Lake Tahoe was approximately 100 feet. As a result, TRPA adopted a Threshold based on achieving the Tier Three antidegradation standard of 109.6 feet of transparency (as a “winter mean” and not an annual average – more on that later).

The CWA has been referred to as a “technology-forcing statute,” because it places rigorous demands on those who are regulated to achieve high levels of pollution abatement. The two elements of the CWA that are most relevant to the Tahoe region are:

1. Authorization of federal financial assistance for municipal sewage treatment programs, such as California’s Porter-Cologne Water Quality Act.
2. Regulatory requirements for pollution control which apply to private and public dischargers.

In 1980, Lake Tahoe received the designation as an Outstanding National Resource Water (ONRW) from California and the federal government. Nevada classified Tahoe as a “Water of Extraordinary Ecological or Aesthetic Value.” The ONRW designation requires the highest level of non-degradation protection under the CWA.

### ***WHY DOES THE STAFF-PROPOSED ALTERNATIVE PORTEND A BETTER FUTURE FOR LAKE TAHOE THAN THE CURRENT PLAN OR THE OTHER ACTION ALTERNATIVES ANALYZED IN THE RPU’S ENVIRONMENTAL IMPACT STATEMENT?***

For the past thirty years, TRPA, Lahontan, and NDEP relied on water quality standards commonly referred to as Discharge Limits, which numerically define the maximum allowable concentrations for specific pollutants regularly found in urban runoff.

The original Discharge Limits were developed as analogs to the water quality normally found in pristine, undisturbed watersheds. However, this standard was never technically correlated to achieving the recovery of the transparency standard for Lake Tahoe. The policy concept rested on the requirement of stormwater BMPs being properly designed, installed, and maintained on every parcel in the Basin. It was thought that if this could be achieved, then eventually

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<sup>2</sup> Ibid., Section 114.

the transparency of Lake Tahoe would recover. However, this regulatory policy was not based on a scientifically derived relationship between meeting the Discharge Limits and recovering transparency.

Today, a new regulatory policy called the Lake Tahoe Total Maximum Daily Load (TMDL) is being finalized in collaboration between TRPA, the Lahontan Regional Water Quality Control Board (Lahontan), and the Nevada Department of Environmental Protection (NDEP). Adoption of the TMDL is required by federal statute; it represents a merging of TRPA and state water quality policies.

With TMDL implementation we will have, for the first time, a scientifically supported way to link actual implementation efforts to the successful restoration of transparency. This is what makes it a more promising program when it comes to having a real, beneficial effect on Lake Tahoe.

Alternative 2, the staff-proposed alternative, is based on the adoption of the TMDL as the primary new regulatory policy for water quality in the Tahoe Basin. It optimizes uniformity between the three water quality agencies.

Because Basin agencies agree that TMDL represents the best approach to regulating water quality, the adoption of TMDL Goals and Policies in Alternative 2 is repeated for Alternatives 3 and 4. There is an additional provision in Alternative 4 that prohibits the use of phosphorous fertilizer. Alternative 2 is being proposed because it is more flexible, requiring a management plan to control phosphorous instead of a totally prohibiting its use.

Here is the background, in brief:

In the Regional Plan Update, the proposal is to organize the Water Quality Threshold under two Goals. Goal 1 is focused on reducing loads of fine sediment, nitrogen, and phosphorous consistent with the Lake Tahoe Clarity Challenge's annual targets and 5-Year Milestones. The Clarity Challenge is a 20-year plan that outlines the pollutant load reductions that are required to reverse transparency loss and gain ten feet of transparency.

The pelagic (deep water) transparency standard of 109.6 feet has not been met since its adoption. Until recently, there has been a significant and steady decline over the past thirty years. The current annual average transparency appears to be stabilizing at about 70 feet. The policies associated with Goal 1 require, encourage, and incentivize water quality actions that are directly linked to reducing loads of identified pollutants. The Clarity Challenge sets a 20-year interim recovery goal of 79 feet of transparency.

The second Goal and associated policies are designed to control other pollutants and contaminants that may threaten or harm human and environmental health. The policies emphasize control of toxic and hazardous waste and require the

collection, treatment, and export of sanitary sewage. The focus of Goal 2 is to protect the consumptive beneficial use assigned to the municipal water supply by protecting both ground and surface waters.

Nevada, California, and the federal government have all passed legislation that affects water quality planning and regulation in the Tahoe region. NDEP now has the authority to control non point sources of pollution under the two statues, “The Regulation for Control of Water Pollution from Diffuse Sources” and the “Nevada Water Pollution Control Law.” In California, “Porter-Cologne” gives similar authority to the Lahontan, which regulates pollution under a point source control program. TRPA and the federal government are equally represented by the Section 208 Water Quality Management Plan and the Compact.

Section 102 of the CWA directs the Environmental Protection Agency (EPA) to assist state and regional regulators in developing comprehensive programs to address water pollution. The EPA is directed in this section of the CWA to cooperate with other federal agencies, state water pollution control agencies, interstate agencies, and other authorized jurisdictions to prepare comprehensive programs for preventing, reducing, or eliminating the pollution of federally protected surface and ground waters. Section 103 also promotes interstate cooperation and the development of uniform water quality regulations between states wherever possible.

The Clean Water Act establishes the legal framework for developing comprehensive programs to control non point source pollution. Section 208 requires all states to assess the effects of pollution on water quality from non point sources and develop regional regulatory or non-regulatory programs to control them. All Section 208 plans and programs must obtain the approval of the Environmental Protection Agency. TRPA is the authorized agency for implementing the 208 Water Quality Management Plan for the Tahoe Basin.

In establishing regulatory non point source pollution program as required under Section 208, TRPA coordinated with Nevada, California, and the EPA to develop Best Management Practices (BMPs) for the major land uses, as well as an implementation program to guide their application.

***What is a TMDL?*** A TMDL is both a planning process for attaining water quality standards and a quantitative assessment of pollution problems, sources, and the pollutant reduction strategies needed to restore and protect a designated water body. It is designed to identify:

1. The major polluting sources
2. The effect of these pollutants on the designated impaired water body
3. The degree of pollutant reduction necessary
4. How these reductions in pollutant loads will achieve the applicable water quality standards into the foreseeable future



When developed, the TMDL applies water quality-based effluent limitations on specific pollutants. The effluent limitations are calculated to assure that discharges are in compliance with the established criteria for protecting a designated beneficial use after pollutants mix with streamflow or are diluted and assimilated into a water body. These effluent limitations are expressed as a concentration (i.e. milligrams per liter), a mass (pounds per day or annum), or in Lake Tahoe's case, both.

In waters where industrial and municipal sources have achieved technology-based effluent limitations, yet water quality standards have not been met, pollution dischargers may be required to meet additional control requirements. When this is the case, such as here in Lake Tahoe, the water body is designated through Section 303d of the CWA as "impaired." Lake Tahoe has been defined as impaired due to its declining transparency. Section 303d requires states to develop and implement a TMDL for controlling those pollutants known to impair a protected beneficial use. In Tahoe's case, the TMDL is designed to control the pollutants known to reduce lake transparency.

***What are the TMDL Pollutants of Concern and how are they linked to the recovery of Lake Tahoe's transparency?*** The Lake Tahoe TMDL has specifically identified and addressed the three pollutants determined to be responsible for transparency decline: fine sediment, (mineral particles < 16 micrometers in diameter), nitrogen, and phosphorous. TMDLs are generally limited to the evaluation of a single pollutant-waterbody combination. However, the declining transparency in Lake Tahoe is the result of a complex interaction of different pollutants originating from diverse sources.

Here is the background, in brief:

Before its amendment in 1987, the CWA focused primarily on point source pollution, which are pollutants discharged from discrete and identifiable sources (such as pipes and outfalls). However, non point source pollution (e.g., stormwater runoff from forests, construction sites, and urban areas) represents a substantive part of the region's water quality problems. As rainfall and snowmelt runoff travels across land towards surface waters it picks up pollutants, including fine sediments, nutrients, and toxic substances that are known to degrade water quality. Non point sources of pollution are covered by state programs for the management of stormwater runoff under CWA Section 319. States are equally encouraged to pursue groundwater protection as part of their overall non point source pollution control efforts under this provision.

The CWA since 1987 emphasizes the need to control non point source pollution. Section 319 requires the states to identify water bodies in which their Section 208 Plan and programs were unsuccessful in controlling pollutants. The Lake Tahoe

TMDL has been completed to determine how to allocate acceptable pollutant loads to identified pollutant sources.

With the Congressional direction of the Clean Water Act, the Compact, and a completed Lake Tahoe TMDL, TRPA emerges with the mission to update its Regional Plan, to the greatest extent achievable, to represent a unified approach to water quality planning, pollution control, and environmental regulation.

As mentioned, the TMDL will be administered through a pollution allocation system. This system represents the critical pathway to restoring transparency by establishing annual pollutant load reduction targets and Five-Year Milestones. The Lake Clarity Crediting Program establishes the framework that connects on-the-ground actions to the goal of restoring transparency. It defines a comprehensive and consistent accounting system to track pollution load reductions from urban stormwater using Lake Clarity Credits. The Program has been designed to align policies with ongoing implementation programs in order to maintain accountability and motivate those specific actions that will result in transparency recovery.

The TMDL established that urban stormwater contributes more than 70 percent of the fine sediments and a significant portion of the nitrogen and phosphorous loads entering the lake. Because of this finding, the Lake Clarity Crediting Program will only apply to the urban areas of the Tahoe region.

The Program defines pollutant load reduction as the difference between the estimated average annual amount of pollutants being generated from an area under baseline (present day) conditions to the estimated average annual amount of pollutants expected to be reduced by implementing stormwater program remedies. These treatment remedies could include designing and constructing a water quality project, initiating innovative road surface maintenance activities by employing advanced vacuum-sweepers, or adopting and enforcing stormwater oriented municipal ordinances.

The Regional Plan Update proposes to incorporate load reduction credits required by the pollutant allocations into the Water Quality Threshold as a compliance measure. The annual reporting of pollutant load reduction credits will also be used by the Environmental Improvement Program (EIP) as a performance measure for reporting progress.

California's urban jurisdictions will develop, adopt, and implement Stormwater Management Plans (SWMPs). In Nevada, the functional equivalent is called a Stormwater Load Reduction Plan (SLRP). Both of these plans will define the capital water quality project and stormwater maintenance program actions necessary to meet the allocation credit requirements for a given year.

EIP project selection will strongly consider load reduction potential as a factor in determining funding priorities. These stormwater plans identify the pollutant controls that will be implemented in specific urban sub-watersheds (or “catchments”). These proposed actions and controls are designed to achieve the load reductions and clarity credits necessary to be in compliance with Nevada’s TMDL Memorandum of Agreement and California’s NPDES permit.

***Will regulating water quality under the TMDL require a “two track” approach to permitting projects?*** The short answer is yes. The old system of Discharge Limits will still be used for small projects, and the TMDL will be used for large projects.

The Plan alternatives require both regulatory approaches be employed because they each apply to different permitting scenarios. A TMDL model was developed to provide engineers and planners with a tool for estimating the load reduction benefits that will result from an EIP water quality project and large-scale development projects. Because of this, public projects will be developed and permitted under TMDL load reduction findings for fine sediment, nitrogen, and phosphorous.

In contrast, the majority of private parcel development will be guided by updated Concentration Based Effluent Limitations (CBELs), because these projects are too small for the TMDL model to be effective. These Discharge Limits are informed by the TMDL and will apply to the BMPs implemented at the parcel scale. In effect, application of CBELs will ensure TMDL compliance at the parcel scale without necessitating the use of the TMDL model to review small projects.

## ***SPECIFICALLY, WHAT MAJOR ISSUES WERE RAISED DURING THE STAKEHOLDER PROCESS THAT RESULTED IN STAFF RECOMMENDING CHANGES TO THE PLAN ALTERNATIVES?***

***WQ Issue #1: Should the TRPA defer to the Forest Service’s BMP Guidelines?*** The Plan alternatives include language (i.e., proposed Policy 1.2 and associated Implementation Measure) that essentially would require the U.S. Forest Service to design their BMPs to the standards of the TRPA BMP Handbook. The Forest Service voiced concern over the updating of TRPA’s BMP Handbook, which is being updated for the first time since 1988 and is undergoing significant revisions to accommodate the new program emphasis the TMDL places on BMP implementation and effectiveness.<sup>3</sup>

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<sup>3</sup> The Best Management Practices Handbook: Volume 2 - 208 Water Quality Management Plan for the Lake Tahoe Region

The Forest Service requested that TRPA defer to the USFS BMP Handbook for guiding the use of BMPs on National Forest lands. Staff considered this request and concluded that the USFS and TRPA BMP Handbooks provide equivalent protection of water quality. *Therefore, TRPA staff proposes that the alternatives for the updated Regional Plan be amended to defer to its USFS BMP Handbook as the guiding document for applying BMPs on U.S. Forest Service lands.*

The update of TRPA's BMP Handbook will include a Forest Operations BMP chapter specifying BMPs for forested uplands. There are a number of other state land management agencies that own forest lands and are not guided by the Forest Service BMP Handbook. These agencies will continue to be subject to the TRPA BMP Handbook. Therefore, the Forest Operations BMP chapter will be made consistent with the USFS BMP Handbook in order to provide a common set of guidelines for all agencies responsible for forested upland BMPs.

***WQ Issue #2: How will the updated Regional Plan improve BMP compliance in the Basin?*** During the water quality stakeholders meetings, several issues related to BMP compliance were raised, including:

- The need for assurance that the existing BMP retrofit dates will remain unchanged.
- Support for further development of a programmatic approach to achieving "area-wide water quality treatment" as a project-level mechanism for accelerating BMP compliance.
- Identification of the Plan alternatives failure to provide details or address TRPA's commitment to pursue BMP program compliance (i.e., enforcing the current regulatory mandate).
- Whether there is a role for the local jurisdictions to play regarding BMP enforcement.
- Concern over the historical failure of TRPA to enforce BMP compliance. (Stakeholders stated that this precedent could be used by the local jurisdictions as a reason for not meeting future TMDL annual load reduction targets and Five-Year Milestones.)

During the past 20 years, three significant barriers to attaining 100% private parcel participation in the BMP program have been identified. Those issues are:

1. The expense of BMP implementation.
2. The focus on voluntary compliance has led to the wide-spread public perception that TRPA will not pursue compliance through enforcement.
3. Some property owners' concern that BMPs have no beneficial effect on water quality.

In response to stakeholder concerns and the need to increase BMP compliance to protect water quality, TRPA has developed one new recommendation for inclusion in the Project Description and the Matrix. *Staff proposes to add a policy*

*to all three action alternatives in the Water Quality Subelement that states: “TRPA will develop and implement a focused enforcement strategy to accelerate BMP compliance in high-priority areas as informed by the TMDL and assist local jurisdiction implementation of stormwater management plans.”*

The BMP Program should increase compliance through smart, focused enforcement within the water quality “hot spots” identified in the TMDL analysis. In order to follow through on the above policy and drive its implementation, the following program proposals are suggested:

1. TRPA could use its **Priority Watershed GIS maps** to identify properties in TMDL “hot spots,” EIP water quality project areas, and the shorezone, as well as properties adjacent to SEZs. This effort would help to focus implementation on the priority areas (i.e., areas where the greatest pollutant load reductions are possible).
2. **Grouping adjacent properties** to achieve common BMP solutions has proven to be an effective tactic for gaining BMP retrofit compliance. This puts the properties on the same accelerated implementation schedule and results in the following benefits: greater pollutant load reductions, an enhanced perception of fairness, more consistency and coordination among private landowners, and better opportunities for applying economies-of-scale and cost sharing.

This approach could also enhance public-private partnerships associated with implementation of the EIP by increasing the private sector financial contribution. Increasing BMP compliance through comprehensive neighborhood-wide water quality solutions is anticipated to be a key element to local jurisdictions’ implementation of stormwater management plans and achievement of the TMDL pollutant load reduction milestone. Legal and financial questions that will need to be addressed include the following

- a. What would the criteria and formula be for generating the private property individual contribution?
  - b. What account will private parcel contributions be deposited in, and how will the funds be transferred to the local jurisdictions for planning and permitting area-wide solutions when implementing EIP projects?
  - c. What mechanisms can be developed to fairly hold single-family parcel owners accountable for installing and maintaining BMPs within EIP project areas?
3. TRPA could **organize initial meetings with property owners** to provide pertinent information including existing site conditions analysis, regulatory and permitting guidance, and mechanisms for facilitating multi-parcel project area coordination (such as formulation of a homeowners’

association if desired). Property owners will have the choice to work individually or work together to attain full BMP compliance.

4. **An “in-lieu” project participation fee system for “constrained” properties** could be developed. Constrained parcels have limited ability to capture and infiltrate stormwater. This can be due to high seasonal groundwater, shallow utilities, or bedrock, for examples. For constrained parcels, TRPA legal staff and the BMP Program Manager will need to work closely with the local jurisdictions to develop options that will allow all properties, constrained or not, to come into compliance with BMP Program requirements.
5. The BMP Program could **retain legal expertise to help develop the program proposals described above**. Legal resources are important in identifying what constraints and opportunities exist. Counsel focused on BMP compliance could assist in developing neighborhood-wide water quality solutions in a legally defensible way<sup>4</sup>.
6. The BMP Program could **retain legal expertise to assist when enforcement is required**. The Regional Plan established Priority Watersheds and associated deadlines for installing private parcel BMPs. The last deadline passed on October 15, 2008, and deadline extensions are not proposed as part of the Regional Plan Update. Article 9 of TRPA’s Rules of Procedure compels uncooperative parcel owners to install their BMPs through an incremental enforcement process. This process requires repeated written notification with the potential to issue a maximum fine of \$4,000.
7. The BMP Program could **retain a Certified Public Accountant familiar with Tahoe Basin regulations** to manage the financial aspects of the “in-lieu” fee program for constrained parcels and the financial accounting and routing system for area-wide projects.

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<sup>4</sup> Discussions between TRPA, the California Attorney General, and California and Nevada 319(h) grant funders have resulted in developing the policy and ordinance mechanisms for “plumbing” private residences into neighborhood stormwater treatment projects.

**SPECIFICALLY, WHAT MAJOR ISSUES WERE RAISED DURING THE STAKEHOLDER PROCESS THAT DID NOT RESULT IN STAFF RECOMMENDING CHANGES TO THE PLAN ALTERNATIVES?**

***WQ Issue #3: The Forest Service BMPs should not be evaluated by a separate entity, as they already have their own annual BMP evaluation process.*** The Forest Service expressed concern over the proposed policy requiring the evaluation of BMP effectiveness and performance. They stated that this requirement should not apply to the BMPs that it implements in the forested uplands.

The Pollution Reduction Opportunity Report (PRO), produced during phase two of the TMDL analysis, identified the options for reducing pollutant loads from the four largest source categories, one of which is forested upland (the others are urban upland, atmospheric deposition, and stream channel erosion). The PRO identified a number of disturbed settings in the forested upland such as unpaved roads, ski runs, and campgrounds. In these settings, the relatively high sediment yield makes the application of BMPs both necessary and cost-effective.

As the largest land manager in the Tahoe Basin, the U.S. Forest Service has a responsibility to address runoff problems caused by its developed facilities and properties in the urbanized area and disturbed areas within the undeveloped forested uplands. The TMDL Program expects the USFS Forest Plan to fully commit to exceptional levels of BMP implementation and maintenance as a standard practice associated with all its activities.

Another important matter is the Forest Service's commitment to increased forest fuels management. Future monitoring must ensure these management activities are being appropriately evaluated in order to determine if TMDL assumptions will be durable over time. The Lake Tahoe Interagency Monitoring Program's (LTIMP) stream monitoring network will play a key role in providing the data to evaluate the load reduction assumptions from these land uses. The effective application and maintenance of BMPs will continue to be assessed on a project level basis.

*Consequently, TRPA is still supporting the rigorous technical evaluation of BMP effectiveness because the assumptions associated with the TMDL are only as good as the technology that will be relied on to reduce identified pollutants of concern. TRPA staff is not proposing any changes to the Regional Plan alternatives regarding evaluation of the BMPs on USFS lands.*

Staff acknowledged to the Forest Service that the technical monitoring and effectiveness evaluation of urban area BMPs will be the highest priority, since the greatest pollutant reduction loads will come from urban areas. Evaluation of

forest land BMPs will be a lesser priority and will be based on available LTIMP resources. With this assurance, the Forest Service agreed to withdraw their objection to an outside entity evaluating the effectiveness of their BMPs.

***WQ Issue #4: The TMDL has resulted in an unfunded regulatory mandate for the jurisdictions.*** The City of South Lake Tahoe (CSLT) stated that economics will strongly influence their ability to meet the TMDL program requirements, citing the TMDL as an “unfunded regulatory mandate.” *Based on the level of TMDL load reduction expected from the local jurisdictions, the state and federal programs in place to help fund achievement of TMDL requirements, and TRPA’s proposed land use incentives, staff does not propose to change the Regional Plan alternatives in response to this concern.*

Representatives from Placer County and the CSLT both stated that California Proposition 213’s requirement for achieving a two-thirds majority vote creates a significant impediment to establishing stormwater utility districts. However, these stormwater public works programs have been successfully established all around the country and are considered a feasible mechanism for generating the dedicated fee revenue necessary for implementing stormwater program responsibilities.

The Integrated Water Quality Management Strategy Report (IWQMS) was produced during phase two of the TMDL analysis. It combines selected pollutant controls from each of four source categories to develop several candidate integrated strategies (build-out scenarios). The preferred alternative that emerged is referred to as the “Recommended Strategy to Meet the Clarity Challenge.”

The IWQMS evaluated the financial costs and load reduction requirements associated with implementing the Recommended Strategy. A 20-year capital and annual operations and maintenance cost analysis was conducted on a control-by-control basis (i.e., water quality project-by-water quality project). The capital costs analyzed included all implementation expenses such as planning, design, acquisition, and the stormwater facilities’ life cycle operations, maintenance, and replacement requirements.

Implementing the entire Recommended Strategy would require an estimated capital investment of approximately \$1.5 billion dollars over 15 years, \$1.3 billion of which will be for urban upland pollution controls (e.g., water quality improvement projects). Only \$210 million will be required to implement the necessary controls in the other three pollution source categories. The high costs associated with the urban upland are commensurate with its overriding importance in reducing pollutant loads. Both capital and operations and maintenance costs are crucial to detail because state and federal funding has historically supported capital investments while the local jurisdictions have been



responsible primarily the operations and maintenance costs associated with the facility or infrastructure.

The Recommended Strategy assumes funding in the amount of \$500 million is available for each 5-year implementation period. This assumption is both ambitious and challenging but not unrealistic because committed funding was reported at \$1.1 billion for the first ten years (1997-2007) of the Lake Tahoe EIP. It should be noted that more than half of this funding was expended on water quality improvement projects. During the recent EIP Update, a finance plan was prepared that included seven case studies of local jurisdiction approaches to generating funding for stormwater management. The EIP Phase Two Finance Option Report also identifies several options for financing the local share of the EIP but does not recommend a specific approach.

TRPA's Land Use Program is proposing to release allocations as incentives to help generate the funding necessary to implement local stormwater programs. TRPA is also considering releasing allocations to help the jurisdictions financially front-load the development and adoption of their Stormwater Management Plans (SWMPs) in California and Stormwater Load Reduction Plans (SLRPs) in Nevada.

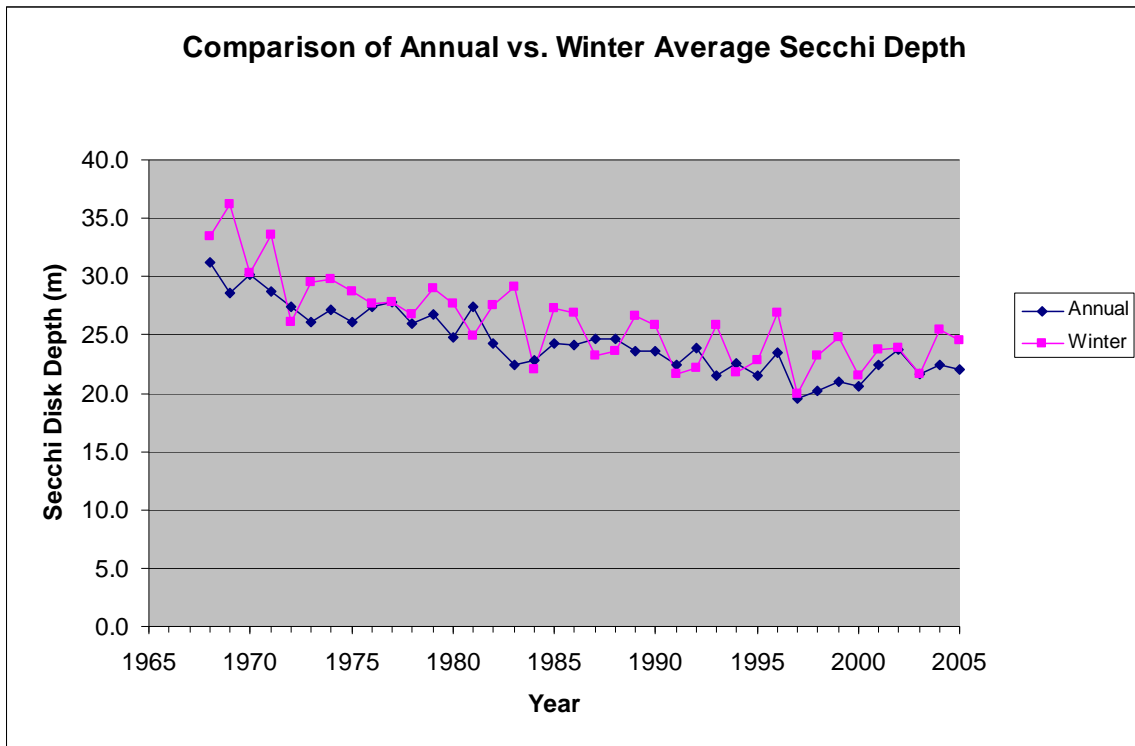
The Land Use Program's proposed strategies for creating incentives and the state and federal funding attached to the EIP will attempt to address part of the local jurisdictions' financial concerns over the "unfunded mandate" created by TMDL requirements.

***WQ Issue #5: General agreement with the proposal to change the pelagic (deep water) Threshold standard for transparency from a winter mean to an annual average.*** The way that transparency is measured is with a Secchi disk. It is a measure of how far the human eye can see down through the water column when an observer lowers a 25-centimeter diameter disk into the water from the surface. The 1982 "Environmental Impact Statement for the Establishment of TRPA's Environmental Threshold Carrying Capacities" recommends defining the pelagic transparency threshold as both a winter mean of 33.4m (109.6 feet) and an annual average of 28.7 m (94.2 feet), as measured between 1968 and 1971. The 1987 Regional Plan adopted only the winter mean.

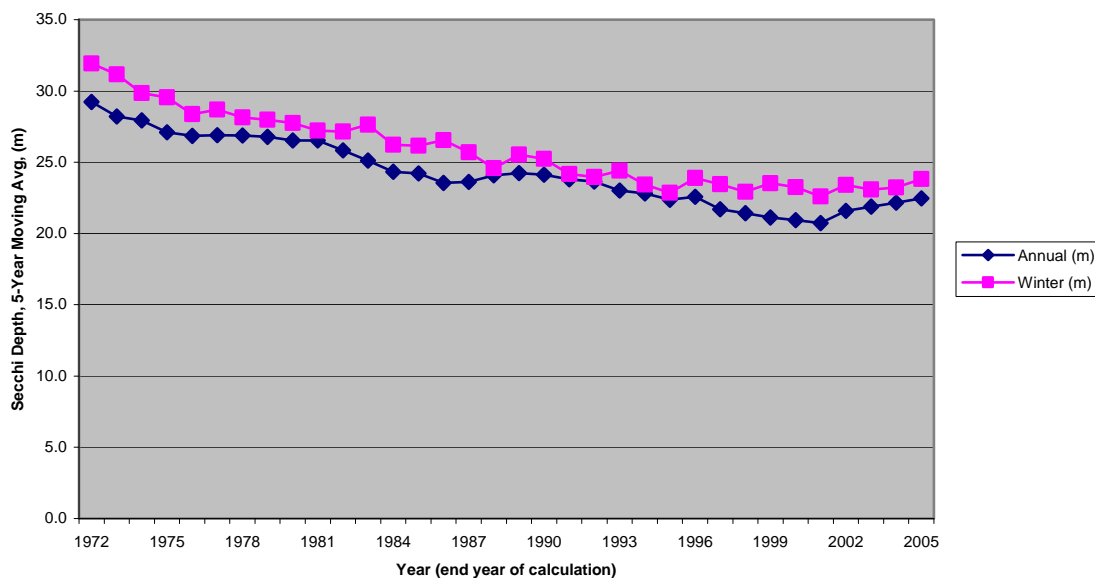
The winter mean is not consistent with the Nevada and California standards. The TMDL has provided the technical platform and programmatic opportunity to establish common standards between all three water quality regulatory agencies. *TRPA staff recommends taking advantage of this opportunity by proposing a single amendment to the Water Quality Threshold. This recommendation would honor the scientific rationale and programmatic guidance provided by the TMDL for establishing a single protective standard for measuring transparency.*

TRPA staff is recommending the amendment of the pelagic standard to be common with the Lahontan Regional Water Quality Control Board’s annual average transparency standard of 29.7 m (97.4 feet). The winter standard does not reflect the entire year, because it does not account for transparency during the three other seasons. This is particularly relevant for the spring months when melting snow is normally delivering the largest pollutant loads of the year. Summer is also critical because it is the peak season for water contact recreation such as swimming, boating, and fishing. This is the time of the year when most people come to visit Lake Tahoe. Consequently, the annual average is protective of all lake conditions and accounts for all seasonal variability.

Staff is concerned that some TRPA constituents may only look at the numbers and see that the proposal is to “lower the standard” from 109.6 to 97.4 feet. This is a valid concern, and it should be noted that before staff decided to recommend the Threshold change, much research was done. In fact, with summer transparency often as low as 40 or 45 feet, an annual average of 97.4 feet that has to take these low readings into account is right in line with a winter mean of 109.6 feet. Also, it provides a more consistent reading that is not so influenced by seasonal fluctuations in transparency. The below graphs illustrate both of these points:



Comparison of Annual vs. Winter Average Secchi Depth Using 5-Year Moving Averages



## NEW IDEAS AND BEST PRACTICES THAT CAME TO LIGHT DURING THE STAKEHOLDER PROCESS

***WQ Issue #6: Why isn't staff proposing other Threshold changes to protect Lake Tahoe, specifically in the littoral zone?*** There is a noticeable decline of water quality in the littoral, or nearshore zone of Lake Tahoe. This is important because these waters are the most visible and vulnerable to aesthetic degradation. It is also the principal location in the lake where contact beneficial uses such as swimming and beach recreation occur. This unique shallow zone is most directly influenced by tributary outflow, groundwater discharge, and urban point source and non point source runoff. In fact, runoff must pass through this zone on its route to mixing with deeper waters. The only Water Quality parameter that TRPA has monitored in the nearshore is turbidity. Turbidity is defined as the cloudiness in a water column caused by the suspension of fine sediments.

Despite the importance of littoral water quality, Lahontan, NDEP, and TRPA have given priority to the amendment of the pelagic Threshold standard. This is because the TMDL Program had access to a significant volume of historical data to analyze and develop the correlation between a measured pollutant and the response of the lake if that pollutant is reduced by a certain amount. The littoral zone does not have a monitoring program that could provide the historical data

necessary to analyze and develop a correlation between a pollutant and an observable water quality problem.

In the Plan alternatives, there is no recommendation for the littoral zone set by the TMDL. However, all three water quality agencies are developing policy and a monitoring program to address nearshore water quality issues, including the management challenges associated with aquatic invasive species. Today, the agencies are beginning to monitor conditions in the nearshore and the tributaries that feed into Lake Tahoe. Within the next few years, there will be adequate data collected, and *TRPA staff will propose to create a suite of littoral standards.*

***WQ Issue #7: Is Secchi transparency the only way to measure the health of the pelagic zone?*** California and Nevada have both identified the visual aesthetics of Lake Tahoe's water as a quality to be protected under the designation of "non-contact water recreation" beneficial use. The two states have developed a second standard that goes beyond Secchi transparency depth in measuring water quality. This related standard is called "clarity." Clarity is defined as the vertical extinction of light as it penetrates the deep lake water column. More accurately, it is the fraction of light held back per meter of water depth by absorption and scattering.

The TMDL distinctly evaluated the various water quality standards between TRPA, Lahontan, and NDEP and selected the most appropriate and protective numeric standards for transparency and clarity. After the update of the Plan, *TRPA is planning to propose augmenting its transparency standard with a clarity standard so that all three agencies can converge around one singular transparency standard and one singular clarity standard by which to evaluate deep water quality.*

***WQ Issue #8: Private sector representatives recommended the use of a pro forma economic analysis to inform the allocation- and incentive-based system for land use regulation.*** Effective water quality and land use planning will demand consideration of specific economic and market trends known to affect Lake Tahoe. *Staff met with representatives from the private sector and agreed with their assertion that economic analysis will provide necessary information in shaping policy. Staff proposes to perform this analysis to inform TRPA on ways to achieve Water Quality and Land Use Program goals by developing incentives that provoke positive responses from project proponents and investment decision makers.*

The suggestion was to engage in pro forma cash flow and market trends analysis. This type of economic analysis would model feasibility under a range of project alternatives, financing, partnership options, disposition strategies, and measures of financial return. It would include an assessment of alternatives and a peer review of strategies for implementing economic tactics to achieve program

goals. *Staff proposes that the Land Use Program will conduct the analysis to better inform its transfer ratios and incentive packages.*

The proposed analysis would provide economic refinement of land use incentives, set the stage for future implementation strategies, and include comparative analysis at the macro-scale through a multi-jurisdictional fiscal analysis and at the micro-scale through the testing of implementation alternatives. These analyses can be used to confirm the rationality behind proposed policy directions represented in the Regional Plan.

The primary analytical task is to ground recommendations for the creation of incentives in realistic, current market conditions. The analysis could include:

- Continued assessment of existing and future market conditions and opportunities, including retail and commercial trends.
- Comparative analysis of implementation alternatives to ensure they are realistic and economically feasible.
- Consideration of the phasing of implementation strategies.
- Assistance and peer review for comparative analysis of pro-forma testing
- Formulation of economic strategies to ensure that positive effects on investment decision-making are developed.
- Assistance and peer review of fiscal analysis to facilitate a meaningful comparison between the policies associated with EIS alternatives.
- Detailed market knowledge of adjacent local and regional areas as a foundation for comparative economic analysis.

TRPA wants to advance policies to ensure the realization of the community's vision as expressed through the Pathway process. For example, it is critical to understand where the market would lead without regulatory influence or intervention, or where public effort and investment is necessary to achieve specific environmental goals. These efforts are best done simultaneously, because markets are fluid and can change dramatically over time.

## Water Quality Issues: YOUR THOUGHTS

**WQ Issue #1: Should the TRPA defer to the Forest Service's BMP Guidelines?**

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**WQ Issue #2: How will the updated Regional Plan improve BMP compliance in the Basin?**

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**WQ Issue #3: The Forest Service BMPs should not be evaluated by a separate entity, as they already have their own annual BMP evaluation process.**

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**WQ Issue #4: The TMDL has resulted in an unfunded regulatory mandate for the jurisdictions.**

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**WQ Issue #5: General agreement with the proposal to change the pelagic (deep water) Threshold standard for transparency from a winter mean to an annual average.**

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**WQ Issue #6: Why isn't staff proposing other Threshold changes to protect Lake Tahoe, specifically in the littoral zone?**

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**WQ Issue #7: Is Secchi transparency the only way to measure the health of the pelagic zone?**

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**WQ Issue #8: Private sector representatives recommended the use of a pro forma economic analysis to inform the allocation- and incentive-based system for land use regulation.**

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# Stream Environment Zones

## **WHAT ARE THE LEGAL UNDERPINNINGS THAT REQUIRE TRPA TO REGULATE AND PLAN FOR STREAM ENVIRONMENT ZONE RESTORATION?**

In 1980, the Compact<sup>5</sup> found that Lake Tahoe and other resources of the Lake Tahoe Region provide unique environmental and ecological values that were threatened from resource use and increasing urbanization. Shortly thereafter, the Governing Board issued Resolution 82-11<sup>6</sup>, which established Thresholds for a variety of natural resource areas, including Stream Environment Zones (SEZs). SEZs are areas that owe their physical and biological characteristics to the presence of surface water and groundwater. Common types of SEZs include lakes, stream channels and associated floodplains, meadows, groundwater seeps, marshes, and fens.

Here is the background, in brief:

It is estimated that there are approximately 21,944 acres of SEZ in the Tahoe Basin, representing approximately 10.4% of total land area. Although SEZs constitute only a small portion of the total land area, they are a valued resource and provide a variety of critical ecosystem functions such as fish and wildlife habitat, water quality improvement, floodwater storage, and biological productivity. Seventy-five percent of the marshes and 50% of the meadows in the Basin have been altered because of urbanization and development.

Protection, restoration, and enhancement of SEZ lands are essential for maintaining and improving environmental quality in the Lake Tahoe Basin and for achieving Threshold standards for water quality, soil conservation, vegetation, fisheries, wildlife, recreation, and scenic resources.

The Threshold standard for SEZ lands is a numeric standard that sets a goal of restoring 100% of disturbed lands in undeveloped, unsubdivided lands and 25% of SEZ lands that have been disturbed, developed, or subdivided. This would obtain a 5% total increase in the area of naturally function SEZ lands basin-wide. This translates to restoration target of approximately 1,094 acres within the urban boundary and an undetermined target for SEZ restoration outside the urban boundary. As of 2006, approximately 379 acres of SEZ restoration has been

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<sup>5</sup> Tahoe Regional Planning Agency. 1980. December 19. Tahoe Regional Planning Compact. Stateline, NV.

<sup>6</sup> Tahoe Regional Planning Agency. 1982. Resolution No. 82-11: Resolution of the governing body of the Tahoe Regional Planning Agency adopting environmental threshold carrying capacities for the Lake Tahoe Region. Stateline, NV.



conducted within the urban boundary, representing roughly 36% of the urban area target acreage<sup>7</sup>.

The Threshold standard for Naturally Functioning SEZs is currently not in attainment. However, progress has been and is being made. From 1980 to 2004, about 379 acres were restored. The 2006 Threshold Evaluation<sup>8</sup> report projected attainment for 2026, which means restoring 721 additional acres of disturbed, developed, or subdivided SEZ.

Given the fact that only about 15 acres per year were restored over the last 25 years – and that acreage may have been the “low-hanging fruit” – it seems the 2006 projection may be optimistic. The policies in the staff-proposed alternative for the Regional Plan Update – both in SEZ and in the Land Use Element (in which new incentives are being proposed to promote transfer of development out of sensitive lands) – are intended to accelerate threshold attainment.

***Why is SEZ being considered with Water Quality and not with Soil Conservation?*** First of all, SEZ is its own Subelement (under the Conservation Element) of the Plan. Secondly, the importance of SEZ policy is felt most acutely in its impact on water quality. Therefore, it made sense to think about SEZ and WQ together.

### ***WHY DOES THE STAFF-PROPOSED ALTERNATIVE PORTEND A BETTER FUTURE FOR LAKE TAHOE THAN THE CURRENT PLAN OR THE OTHER ACTION ALTERNATIVES ANALYZED IN THE RPU’S ENVIRONMENTAL IMPACT STATEMENT?***

Alternative 2 proposes to improve the performance and effectiveness of existing SEZ Program strategies by:

1. Restructuring the SEZ program around the four core elements that the EPA has identified as being essential for effective, comprehensive state wetlands programs.
2. Developing key work products, such as a standardized SEZ classification system, Basin-wide inventory and general condition assessment, and revised SEZ identification criteria and delineation standards to provide a technically sound, scientifically defensible foundation for the core program elements and facilitate more informed and effective regulation and restoration planning, including the watershed-based approach to planning emphasized in the Pathway Desired Conditions for SEZs.

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<sup>7</sup> Tahoe Regional Planning Agency. 2007. September. 2006 Threshold Evaluation. Stateline, NV.

<sup>8</sup> Ibid.

3. Updating and standardizing regulatory requirements and environmental review permitting processes to incorporate contemporary standards and methodologies, streamline the SEZ environmental review and permitting process, and further reduce losses in SEZ acreage and function from new development, disturbance, and resource management operations.

The TRPA's SEZ program essentially has two core functions and programmatic strategies for Threshold attainment:

1. To implement prohibitions and other regulatory measures to minimize additional losses of SEZ acreage and function from new development, disturbance, and resource management operations.
2. To provide for net gains in SEZ acreage and function through implementation of the EIP.

Like Alternative 2, Alternatives 3 and 4 also would not alter the core functions and programmatic strategies of the SEZ Program as it exists today. They would simply improve the performance and effectiveness of existing strategies. Additional policies and implementation measures designed to accelerate SEZ Threshold attainment are housed in the Land Use Element in the form of transfer ratios and incentives.

The differences between the action alternatives are in the compensatory mitigation ratios proposed for new permanent, unavoidable impacts to SEZs. Specifically, Alternative 2 proposes to adopt a variable compensatory mitigation ratio that would range from a minimum of 1.5:1 to a maximum of 4:1, depending on the type and quality of SEZ affected, the extent and duration of proposed or anticipated impacts, and the likelihood that proposed compensatory mitigation would be successful in replacing lost SEZ acreage and function. This approach gives TRPA maximum flexibility in setting compensatory mitigation requirements to ensure that proposed impacts are fully mitigated. Conversely, Alternatives 3 and 4 propose to adopt fixed compensatory mitigation ratios of 1.5:1 and 4:1, respectively.

The use of a fixed ratio gives TRPA less flexibility, but offers greater predictability to project proponents. The lower fixed mitigation ratio of 1.5:1 that is proposed under Alternative 3 is identical to the ratio implemented today under the 1987 Regional Plan, whereas the mitigation ratio of 4:1 proposed under Alternative 4 is significantly higher and is intended to serve as a deterrent to SEZ encroachment and to provide insurance against net loss of SEZ acreage and function. Alternative 1 is the no action alternative, and proposes continuation of the fixed 1.5:1 mitigation ratio that is in place today.

***What is the connection between the proposed SEZ alternatives and what came out of the Pathway process for SEZ?*** This question was asked by a few stakeholders because the members of the Pathway Forum

were unable to come to consensus on certain aspects of the SEZ Program. The May 2006 Pathway Forum Report stated that a consensus had been reached on the SEZ Vision. Consensus was not reached on Pathway Desired Conditions for SEZs.

Subsequent to the Forum Report, the 2006 Threshold Evaluation proposed Desired Conditions for SEZs that are consistent with the Vision. The proposed SEZ Goals, Policies, and Implementation Measures in the Project Description and Matrix are intended to result in achievement of the Desired Conditions.

***SPECIFICALLY, WHAT MAJOR ISSUES WERE RAISED DURING THE STAKEHOLDER PROCESS THAT RESULTED IN STAFF RECOMMENDING CHANGES TO THE PLAN ALTERNATIVES?***

***SEZ Issue #1: Establishing TRPA regulatory definitions for permanent SEZ disturbance might affect Lahontan's and the Forest Service's regulatory programs and resource management operations.*** Both TRPA and Lahontan currently implement broad prohibitions against new "permanent disturbance" in SEZs. With the exception of certain unavoidable permanent disturbances (such as public outdoor recreation projects, public service projects, and water quality improvement projects) new permanent disturbance in SEZs is strictly prohibited by both agencies. Nonetheless, neither has adopted a formal, regulatory definition for "permanent disturbance."

Permanent disturbance determinations are made independently on a project-by-project basis by both agencies. They are often incongruent, making for a somewhat subjective, inefficient, and inconsistent regulatory permitting process. Accordingly, development and adoption of official definitions for permanent and temporary SEZ disturbance has been proposed under Alternatives 2 and 4 of the Regional Plan Update. Both Lahontan and the Forest Service have expressed concern with regards to how TRPA's proposed regulatory definition of "permanent disturbance" might affect their regulatory programs and resource management operations.

*In response to this concern, TRPA staff proposes to coordinate with partner agencies during development of the regulatory definition for permanent disturbance. The intent will be to develop a regulatory definition that:*

1. Provides adequate protection for SEZs.
2. Is consistent with state wetlands and SEZ policies to the extent possible.
3. Does not unnecessarily burden forest fuels and vegetation management projects with compensatory mitigation requirements.

**Pros of TRPA Staff Position:** TRPA's proposal to develop and adopt a formal regulatory definition for permanent disturbance will improve regulatory protections for SEZs and facilitate a more predictable, streamlined, consistent, and effective regulatory permitting process.

**Cons of TRPA Staff Position:** TRPA's proposal to develop and adopt a formal regulatory definition for permanent disturbance may increase compensatory mitigation requirements for forest fuels and vegetation management projects implemented by the Forest Service.

### ***SEZ Issue #2: Why is staff recommending Alternative 2's flexible approach to Compensatory Mitigation for New Disturbance in SEZs?***

Compensatory mitigation for unavoidable impacts to wetlands, riparian areas, and surface waters (i.e., SEZs) is a standard requirement under most state and federal regulatory programs, as is the use of mitigation-to-impact ratios to establish project-specific and programmatic compensatory mitigation requirements. The primary objective of compensatory mitigation is to offset unavoidable impacts and prevent a net loss of wetland acreage and function.

In most instances, compensatory mitigation-to-impact ratios are not "one size fits all." Instead, they typically vary from low (e.g. 1:1) to high (e.g. 4:1) depending on the type and quality of habitat affected, the duration and extent of the impact, and the likelihood that proposed compensatory mitigation actions will be successful in offsetting anticipated project-related impacts. Ratios greater than 1:1 serve as deterrents and provide a margin of safety that ensures that proposed compensatory mitigation is sufficient to fully offset proposed impacts and prevent a net loss in acreage and function.

The existing Plan's SEZ regulations are partially consistent with this approach in that they require compensatory mitigation for new, unavoidable disturbance in SEZs. They are only partially consistent in that the compensatory mitigation-to-impact ratio for new disturbance is fixed at 1.5:1, regardless of SEZ type and quality or the duration of proposed project-related impacts. TRPA currently does not have the option of adjusting the mitigation-to-impact ratio or the type of mitigation to ensure that project impacts are fully offset and do not result in a net loss in SEZ acreage or function.

Under Alternative 2, TRPA would replace the existing fixed 1.5:1 mitigation-to-impact ratio with a variable, project-specific ratio ranging from a minimum of 2:1 to a maximum of 4:1. As proposed, mitigation ratios will be determined by TRPA staff on a project-by-project basis using the following criteria:

1. The type and quality of SEZ affected.
2. The extent and duration of proposed or anticipated impacts.
3. The likelihood that proposed mitigation will fully compensate for all permanent, unavoidable impacts on SEZ acreage and function.

During the stakeholder meetings in December 2009, staff from the California Tahoe Conservancy (CTC) indicated that they were generally agreeable to a variable SEZ mitigation-to-impact ratio but requested TRPA consider lowering the minimum compensatory mitigation requirement from 2:1 to 1.5:1. CTC staff are of the opinion that a mitigation-to-impact ratio of 1.5:1 is typically sufficient to fully mitigate permanent SEZ impacts associated with their projects, and that ratios higher than this would unnecessarily increase the cost of implementing Threshold-related projects implemented by CTC (e.g., bike trails).

TRPA staff agreed with this request. A compensatory mitigation ratio of 1.5:1 is currently implemented by some federal and state regulatory agencies for common, low quality jurisdictional habitats that are relatively easy to replace. *Therefore, TRPA staff is proposing to revise the compensatory mitigation requirement under Alternative 2 to include a variable, project-specific mitigation-to-impact ratio that will range from 1.5:1 to 4:1 instead of 2:1 to 4:1.*

### ***SPECIFICALLY, WHAT MAJOR ISSUES WERE RAISED DURING THE STAKEHOLDER PROCESS THAT DID NOT RESULT IN STAFF RECOMMENDING CHANGES TO THE PLAN ALTERNATIVES?***

***SEZ Issue #3: TRPA's proposal to create definitions for the different types of compensatory SEZ mitigation may create conflict with the operations of other agencies.*** 1987 Regional Plan regulations require compensatory mitigation at a rate of 1.5:1 for all new permanent disturbance in SEZs. That is, for every square foot of new permanent disturbance, project proponents must provide 1.5 square feet of compensatory mitigation in the form of SEZ restoration. Under the Plan, "SEZ restoration" can include any three of the following actions:

1. SEZ Enhancement. Enhancement actions restore or enhance one or more functions of existing, degraded SEZ lands. Enhancement activities result in a net gain of function, but do not result in a net gain in acreage.
2. SEZ Restoration. Restoration actions aim to re-establish or rehabilitate the natural or historic extent and function of SEZs in areas where they have been converted to non-SEZ land types as a result of development (e.g., placement of fill material) and disturbance (e.g., stream channelization and ditching for range management). SEZ restoration actions result in a net gain of both acreage and function.
3. SEZ Creation. Creation actions involve the creation or "establishment" of new SEZs in areas where they did not exist under natural or historic conditions. Creation projects result in a net gain of both acreage and function.

Compensatory mitigation for most projects is supplied by the California Tahoe Conservancy (CTC) and the Nevada Division of State Lands (NDSL) land banks in the form of SEZ mitigation or “restoration” credits. Neither land bank currently distinguishes between the different types of mitigation actions listed above. As such, the land banks are entitled to generate SEZ restoration credits from projects that result in restoration, enhancement, or creation of SEZ.

Unlike land coverage rights, SEZ restoration credits are not geographically encumbered by Hydrologic Transfer Area restrictions and can be transferred anywhere in the Basin to fulfill compensatory SEZ mitigation requirements.

The primary responsibility for attainment of the numeric Threshold standard for SEZ restoration falls on the EIP. In comparison, the core function of TRPA’s SEZ Program, including the compensatory mitigation requirements described above, is to “hold the line” by preventing a net loss of SEZ acreage and function. The Program allows for restoration credits that are generated by enhancement actions (i.e., actions that do not result in net gain in SEZ acreage) to be used as compensatory mitigation for projects that obliterate (i.e., remove) SEZ acreage. The end result is a net loss of acreage at the project level and deceleration of SEZ Threshold attainment.

For example, if ten acres of SEZ are obliterated during installation of a bike trail, and the land bank credits used as mitigation for this impact were generated from an SEZ enhancement project that did not result in a net gain in acreage, then the net result of this exchange would be a net loss of ten acres of SEZ. In this instance, only SEZ restoration and/or creation, both of which result in a net gain in acreage, would be suitable compensatory mitigation for the bike trail impacts.

To address this deficiency in the existing SEZ regulatory program, and to improve SEZ project tracking under the EIP, TRPA has proposed to develop and adopt formal definitions for SEZ enhancement, restoration, and creation and to modify existing compensatory mitigation requirements under Alternatives 2, 3, and 4 of the Regional Plan Update. As envisioned, all compensatory mitigation would be commensurate with the nature of proposed impacts to SEZs resulting in no net loss of SEZ acreage and function at the project level.

The SEZ definitions proposed to be developed Alternatives 2, 3, and 4 will likely be based on those developed by the EPA and other federal and state regulatory agencies. The definitions envisioned by TRPA are generally consistent with those listed above. During the stakeholder meeting process conducted in December 2009, Forest Service staff expressed concern regarding the definitions for SEZ enhancement and SEZ restoration envisioned by TRPA, stating that the definitions are not consistent with those they currently use. The Forest Service suggested that they would prefer if TRPA would recognize and adopt definitions for different types of “SEZ restoration” rather than distinguish restoration from enhancement actions.

The CTC generally agreed with the proposal to develop and adopt SEZ definitions. Concern was expressed, however, that given the small size of the Basin and TRPA's proposed increases to SEZ mitigation-to-impact ratios, land banks may not be able to meet their needs or the public demand for SEZ mitigation credits.

In addition, CTC expressed concern regarding possible adoption of watershed-based restrictions or other types of geographic restrictions on the transfer of SEZ mitigation credits that may result from analysis of proposed future SEZ inventory and general condition assessment data.

TRPA recognizes that distinguishing between SEZ enhancement and restoration may affect the ability of the public land banks to meet the demand for SEZ mitigation credits. However, preventing the net loss of SEZ acreage and function from land development and disturbance is the core function of TRPA's SEZ Program. As such, TRPA has agreed to continue to engage with its partners during the development of formal regulatory definitions for SEZ enhancement, restoration, and creation, with the understanding that the resulting definitions must help TRPA to achieve this core programmatic objective.

Although TRPA has agreed to continue to engage the Forest Service and CTC on this issue, no change to the Project Description or Matrix is proposed at this time. TRPA's position is that the definitions proposed under Alternatives 2, 3, and 4 will be consistent or compatible with state and federal regulatory program definitions.

**Pros of TRPA Staff Position:** TRPA's proposal to define SEZ enhancement, restoration, and creation will improve the effectiveness of compensatory SEZ mitigation efforts and reduce the net loss of SEZ acreage and function as a result of new land development and disturbance. The proposal to develop and adopt a formal regulatory definition for permanent disturbance will improve regulatory protections for SEZs and facilitate a more predictable, streamlined, consistent, and effective regulatory permitting process.

**Cons of TRPA Staff Position:** TRPA's proposal to define SEZ enhancement, restoration, and creation, in combination with the agency's proposal to increase compensatory SEZ mitigation ratios, could affect the ability of public land banks to meet the demand for SEZ mitigation credits and thereby curtail or hinder implementation of certain Threshold-related projects (e.g., bike trails).

## **SEZ Issues: YOUR THOUGHTS**

***SEZ Issue #1: Establishing TRPA regulatory definitions for permanent SEZ disturbance might affect Lahontan's and the Forest Service's regulatory programs and resource management operations.***

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***SEZ Issue #2: Why is staff recommending Alternative 2's flexible approach to Compensatory Mitigation for New Disturbance in SEZs?***

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***SEZ Issue #3: TRPA's proposal to create definitions for the different types of compensatory SEZ mitigation may create conflict with the operations of other agencies.***

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## **Appendix**

- A. Stakeholder comments and TRPA responses from WQ meetings
- B. Stakeholder comments and TRPA responses from SEZ meetings
- C. Bibliography for Water Quality Section
- D. List of WQ and SEZ Stakeholder meetings, meeting dates, and participants
- E. Project Description document (see included CD)
- F. Matrix of Goals, Policies, and Implementation Measures (see included CD)

**Appendix A**  
**Summary of Stakeholder Comments and TRPA Responses  
from the Water Quality Subelement Stakeholder Meetings**

**State Water Quality Agencies**  
**Lahontan W.Q.C.B and NDEP**

1. **Stakeholder Comment:** Both water quality regulatory agencies identified policies in the Project Description that implied possible inconsistencies with our intention as described in the Matrix.

**TRPA Response:** *Staff proposes to edit the Project Description to provide better clarity regarding intent with the Matrix.*

2. **Stakeholder Comment:** The Project Description states that TMDL load reductions will be the “*primary*” water quality finding for permitting projects when, in fact, the TMDL findings will in most circumstances be limited to EIP water quality and larger scale development projects.

**TRPA Response:** *Staff proposes to update the Project Description accordingly.*

3. **Stakeholder Comment:** There are two proposed policies in the Project Description that refer to “reducing fine sediment” when they should include “and nutrients,” too. (TMDL pollutants include Fine Sediment, Nitrogen, Phosphorous)

**TRPA Response:** *The intent was to include the reference to nutrients and staff proposes to update the Project Description accordingly.*

4. **Stakeholder Comment:** The Project Description fails to provide details or address TRPA’s commitment to pursue BMP program compliance (i.e., enforcing the current regulatory mandate).

**TRPA Response:** The FactSheet for the WQ Milestone discusses this as “**WQ Issue #2: How will the updated Regional Plan improve BMP compliance in the Basin?**” *Staff proposes to update the Project Description and Matrix with the following proposed policy, “TRPA will develop and implement a focused enforcement strategy to accelerate BMP compliance and assist local jurisdiction implementation of stormwater management plans.”*

5. **Stakeholder Comment:** Both partner water quality regulatory agencies expressed concern over the historical failure of TRPA to enforce BMP compliance and may be used by the local jurisdictions as a reason for not meeting the future TMDL annual load reduction targets and 5-Year Milestones.

**TRPA Response:** See TRPA Response to Stakeholder Comment #4.

6. **Stakeholder Comment:** There is now a clear partition as to which water quality standards will guide which permitting scenarios. The updated Concentration Based Effluent Limitations (CBELs or Concentration Based Discharge Standards) will apply to the vast majority of development projects. TMDL water quality findings, which are based on reducing loads of fine sediment and nutrients (N and P), will apply to all EIP water quality projects and some larger scale development projects.

**TRPA Response:** Future code provisions will specify the required water quality findings for all project types. Specific findings will be developed for capital water quality projects, large and medium size projects, and smaller classes of projects.

7. **Stakeholder Comment:** Both partner water quality regulatory agencies generally support staff's recommendation to provide incentives to local jurisdictions to help facilitate meeting TMDL interim targets and 5-Year Milestones.

**TRPA Response:** Comment noted. The Land Use Milestone meeting will discuss the incentives that are proposed in the Regional Plan.

8. **Stakeholder Comment:** Both partner water quality regulatory agencies requested assurance that the existing BMP retrofit dates will remain unchanged.

**TRPA Response:** The Project Description does not propose changes to the BMP retrofit dates.

9. **Stakeholder Comment:** Is there a role for the local jurisdictions to play regarding private BMP enforcement?

**TRPA Response:** The Project Description does not include policies relating to local jurisdiction enforcement of BMP retrofit program. However, implementation of storm water management plans may involve local jurisdictions playing a role in accelerating BMP compliance at their discretion.

10. **Stakeholder Comment:** Both partner water quality regulatory agencies support the further development of a programmatic approach for achieving "area-wide" water quality treatment as a project-level mechanism for accelerating private BMP compliance.

**TRPA Response:** The Matrix contains implementation measures that propose alternative approaches to the water quality project delivery process to allow development of area-wide approaches to treating water quality. Additional

implementation measures proposed dedicating long-term enforcement staff to achieve BMP compliance.

**Local Jurisdictions**  
**Placer, El Dorado, Douglas, and Washoe Counties,**  
**City of South Lake Tahoe**

11. **Stakeholder Comment:** All participants articulated the concern that the proposed water quality policies lack sufficient Code-level detail to evaluate how implementation would occur at the permitting and project scale.

**TRPA Response:** *Staff proposes to develop detailed implementation approaches to be incorporated into draft Code language.*

12. **Stakeholder Comment:** All participants agreed that it is appropriate for TRPA to unify with Lahontan’s transparency standard by adopting the “annual average Secchi disk measurement and depth” (33.4m to 29.7m or 109.6 ft. to 97.4 ft.).

**TRPA Response:** Justification of the proposed change is found in the Lake Tahoe Total Maximum Daily Load, 2009, pp. 4-1, 4-2, and 5-8 thru 6-3; the FactSheet for the WQ Milestone discusses this as “**WQ Issue #5: General agreement with the proposal to change the pelagic (deep water) Threshold standard for transparency from a winter mean to an annual average.**”

13. **Stakeholder Comment:** All participants supported the proposal to “front-load” the new water quality and land use program by releasing allocations upon the Regional Plan’s adoption and then follow up annually by auditing and reporting on the jurisdictions’ performance for achieving water quality objectives (i.e., TMDL annual load reduction targets and 5-Year Milestones).

**TRPA Response:** Linking allocations to pollutant load reductions is a goal of the Regional Plan Update. The staff-proposed alternative uses allocations of commercial floor area (CFA) as incentives to help local jurisdictions leverage private funding for environmental improvements, particularly water quality improvements. Alternative 2 proposes issuing a set amount of CFA upon Regional Plan adoption – this is the concept of “front loading.” **The allocation program will be discussed in more detail as part of Land Use Milestone meeting.**

14. **Stakeholder Comment:** All participants requested a more precise operational definition of “irrevocable commitment.” Does it mean that a project must be both fully funded and permitted in order for TRPA to release allocations? All participants stated that “irrevocable commitments” as they are currently defined and practiced is too cumbersome and restrictive because project timelines are long, and securing investment can often take many years.

**TRPA Response:** Irrevocable commitments provide legally-binding assurance that water quality improvements will be constructed in that funding and permits are secured. **The Land Use Milestone meeting will further discuss the concept of irrevocable commitments.**

15. **Stakeholder Comment:** The City of South Lake Tahoe (CSLT) stated that charging for CFA in order to generate program funding for water quality improvements is not supportable.

**TRPA Response:** The staff-proposed alternative does not rely on charging for CFA; it gives the local jurisdictions flexibility in determining how to use allocations to achieve water quality objectives. CSLT objected to Alternative 4 (in the Project Description's Land Use Element), which proposes that fees be collected for CFA to generate revenue for water quality improvements and programs. The advantage of this approach is that it would provide a predictable mechanism to generate local revenue for implementation of improvements. The CSLT does not support the Alternative 4 approach.

16. **Stakeholder Comment:** Placer County expressed concern that Lahontan's Basin Plan and the TRPA Regional Plan play duplicative roles in regulating water quality. They suggested that Lahontan be the one water quality regulator and, that TRPA should contract back, providing the land use incentives to encourage compliance (i.e., provide the financial offset) with Lahontan's TMDL water quality regulations.

**TRPA Response:** The TRPA Compact requires TRPA to regulate water quality in the Tahoe Basin. The RPU is an opportunity to achieve greater consistency among regulatory agencies; this is reflected in the proposed policies.

17. **Stakeholder Comment:** CSLT and Placer County stated that economics strongly influence their ability to meet TMDL water quality program requirements, citing the TMDL as an unfunded regulatory mandate).

**TRPA Response:** Comment noted; the FactSheet for the WQ Milestone discusses this as "**WQ Issue #4: The TMDL has resulted in an unfunded regulatory mandate for the jurisdictions.**"

18. **Stakeholder Comment:** The CA jurisdictions encouraged TRPA to enhance existing and provide additional incentives, such as increasing the maximum allowable coverage on commercial properties from 50% to 70%.

**TRPA Response:** Allocation of CFA is one of the incentives in the Plan alternatives. In fact, the staff-proposed alternative provides for increasing coverage on all properties in Community Plan areas from 50% to 70%, whether

they are developed or undeveloped. (Today, 70% coverage is only allowed on undeveloped parcels, while developed parcels are limited to 50% coverage.)

19. **Stakeholder Comment:** The CSLT requests TRPA examine ways to limit (control) the price of coverage in order to keep development costs down and encourage redevelopment.

**TRPA Response:** The RPU does not propose that TRPA take a role as a land bank in order to stabilize or set land coverage costs.

20. **Stakeholder Comment:** The CSLT requests TRPA to develop a more predictable system for allocating additional development.

**TRPA Response:** TRPA acknowledges the value in developing a more predictable allocation system and will work with stakeholders during the land use milestone process to do so.

21. **Stakeholder Comment:** Placer County cited the concern that state and federal agencies may begin to restrict grant funding for water quality projects unless private BMP compliance is concurrently achieved during implementation of water quality projects.

**TRPA Response:** TRPA understands that funding entities may, in certain circumstances, seek to achieve greater BMP compliance through capital projects. The RPU proposes policies to encourage area-wide approaches to treating water quality and develop targeted BMP enforcement strategies to help accelerate BMP retrofit compliance where appropriate.

22. **Stakeholder Comment:** Placer County and the CSLT both stated that California's Proposition 213 requirement for achieving a 2/3 majority vote creates a significant impediment to establishing stormwater utility districts.

**TRPA Response:** Comment noted; the FactSheet for the WQ Milestone discusses this as "**WQ Issue #4: The TMDL has resulted in an unfunded regulatory mandate for the jurisdictions.**"

23. **Stakeholder Comment:** Suggestion was made to stress the goal of achieving consistency between regulating agencies and desire to maintain existing streamlining efforts represented by Memoranda of Understanding (MOU).

**TRPA Response:** The RPU is an opportunity to achieve greater consistency among regulatory agencies. MOU, which continue to be promoted in the updated RPU, represent an important tool in streamlining regulation and achieving greater efficiencies in implementing environmental improvements.

24. **Stakeholder Comment:** Placer County expressed concern that new regulations would increase the cost of installing BMPs on properties. Request was made to provide additional details concerning new BMP requirements.

**TRPA Response:** Significant cost increases associated with installing BMPs on small-scale projects are not anticipated. Opportunities to achieve pollutant load reductions on large-scale projects may result in increased costs. Revisions to the BMP Handbook will provide options for installing water quality improvements that achieve compliance at the least possible cost.

25. **Stakeholder Comment:** Placer County expressed concern that new TMDL requirements would lead to increase administration costs for local jurisdictions.

**TRPA Response:** Administration costs associated with initial implementation of the TMDL program are expected.

26. **Stakeholder Comment:** Placer County encouraged increasing incentives to foster environmental improvements.

**TRPA Response:** Increased incentives are proposed and will be further discussed during the Land Use Milestone meeting.

**State and Federal Land Management Agencies**  
**United States Forest Service, California Tahoe Conservancy, Nevada**  
**Division of State Lands, and the Washoe Tribe**

27. **Stakeholder Comment:** The USFS requested TRPA incorporate by reference, or defer to the current USFS BMP Handbook when developing any new BMP program requirements. (PSW Water Quality Management for Forest System Lands in CA, Best Management Practices, 2000).

**TRPA Response:** Comment noted; the FactSheet for the WQ Milestone discusses this as “**WQ Issue #1: Should the TRPA defer to the Forest Service’s BMP Guidelines?**”

28. **Stakeholder Comment:** The USFS expressed concern over the proposed policy which requires the evaluation of BMP effectiveness and performance. They stated that USFS BMPs in the forested uplands should not be the priority for evaluating BMP effectiveness since existing USFS BMP evaluations occur on an annual basis and BMPs in the urban areas represent the greatest opportunity to achieve pollutant load reductions.

**TRPA Response:** Comment noted; the FactSheet for the WQ Milestone discusses this as “**WQ Issue #3: The Forest Service does not want the**

**effectiveness of their BMPs to be evaluated by a separate entity, as they already have their own annual BMP evaluation process.”**

29. **Stakeholder Comment:** There is an apparent disconnect between policy and rationale related to achieving TMDL load reductions. The concern is that regulations and incentives that apply to the urban areas will also apply to the forest uplands when that does not appear to be the intent. Intent needs to be clearly reflected in policy language.

**TRPA Response:** *Staff proposes to update the Project Description and Matrix to clarify this distinction.*

30. **Stakeholder Comment:** Is TRPA recommending a potential contraction of the urban boundary?

**TRPA Response:** This small but critical part of the proposed policy is currently articulated in the Project Description. *Staff proposes to delete the reference to contacting the urban boundary because its inclusion was an error and not represented in the Matrix.*

31. **Stakeholder Comment:** The CTC and NDSL both asked what TRPA meant by “require acquisition and buy-out programs to permanently retire coverage?”

**TRPA Response:** *Staff proposes to revise the Project Description to no longer include this policy in the Water Quality Subelement, since it is more appropriate for the Soils Subelement.*

32. **Stakeholder Comment:** Would requiring temporary or permanent BMPs as articulated in WQ Policy 1.3 give TRPA authority to issue a stop work order if TRPA disagrees with the USFS BMP applications?

**TRPA Response:** TRPA currently has the authority to issue stop work orders and proposes to maintain this authority in the updated Regional Plan.

33. **Stakeholder Comment:** The USFS expressed concern over how the new Regional Storm Water Monitoring Program (RSWMP) will be funded and how its governing structure will be organized.

**TRPA Response:** Funding sources for long-term RSWMP involvement are currently being developed.

34. **Stakeholder Comment:** All participants requested further clarification regarding the justification for the “80%” policy target number for restoring “disturbed lands.”
- What is the regulatory definition of “disturbed lands?”
  - How will the restoration of disturbed lands be measured?
  - Achieving 80% restoration from what baseline number? (Acreage?)



**TRPA Response:** The 80% number is being carried over from the current Plan and was derived from the Bailey Report. The 208 Plan contains the current definition of “disturbed lands.” They are measured in acres. The baseline number was established by NRCS soils surveys (1968-71). Proposed WQ Policy 1.4 includes updating the “disturbed lands” definition to include functional criteria.

**Private Sector Representatives**  
**Pat Davison, Lew Feldman, and Andrew Strain**

35. **Stakeholder Comment:** Lew Feldman, Esq. said that increasing ratios for transfers out of sensitive areas would help accelerate environmental improvements by incentivizing redevelopment.

**TRPA Response:** Proposed policies include increasing transfer ratios to incentivize transfers out of sensitive areas. *Staff recommends that a financial analysis be conducted in cooperation with the private sector to provide guidance on establishing ratios that are effective incentives.* The FactSheet for the WQ Milestone discusses this as “**WQ Issue #8: Private sector representatives recommended the use of a pro forma economic analysis to inform the allocation- and incentive-based system for land use regulation.**”

36. **Stakeholder Comment:** Andrew Strain (Heavenly Ski Resort-Vail Properties) suggested that a *pro-forma economic analysis* would assist in calculating what the appropriate transfer ratios should be. Increased ratios could also be justified for transfers that achieve multiple threshold benefits.

**TRPA Response:** See TRPA Response to Stakeholder Comment #35.

37. **Stakeholder Comment:** Lew Feldman stated that local data and trend analyses point to a continued decrease in the Basin’s resident population. This may result in a decreased demand for CFA and may undermine it as an effective incentive for realizing water quality benefits. Tourist Accommodation Units (TAUs) will be a more effective incentive to future redevelopment than CFA.

**TRPA Response:** See TRPA Response to Stakeholder Comment #35.

38. **Stakeholder Comment:** Andrew Strain said that he believed there is value in establishing a revolving fund to provide an additional cost-reducing incentive to accelerate implementation of TMDL water quality improvements.

**TRPA Response:** The Project Description does not propose establishing a revolving fund. *Staff proposes to research and evaluate the utility and feasibility*

*of establishing a revolving fund to accelerate the implementation of TMDL water quality improvements.*

39. **Stakeholder Comment:** Pat Davison (Tahoe-Truckee Contractors Association Representative) wanted to know if BMPs and fire defensible space requirements are both required at point-of-sale. Increased outreach to educate public on updated BMP requirements is still necessary.

**TRPA Response:** Defensible space improvements are not proposed to be required at point-of-sale. The intent is to ensure that BMPs are installed consistent with defensible space treatments. It should be noted that there is an inconsistency between the project narrative and Matrix. The Matrix, which is correct, shows the only difference between action alternatives is the prohibition of phosphorous in Alternative 4. *Staff proposes to remove references to requiring installation of BMPs at point of sale in the Project Description under Alternative 4.*

40. **Stakeholder Comment:** Lew Feldman said that future development and redevelopment may not require as much land coverage as in the past. The future focus will be on tourist-oriented allocations and not land coverage.

**TRPA Response:** Transfer ratios for all allocations are proposed in the RPU and will be further discussed in the Land Use Milestone meeting.

41. **Stakeholder Comment:** Lew Feldman and Andrew Strain said that residential development is less a water quality problem than the road system. They suggested that existing TRPA regulation over-emphasizes residential development as the primary source for Lake Tahoe's water quality problems.

**TRPA Response:** The new policies related to achieving water quality objectives focus on the road network, large parcel development, and increased operations and maintenance of water quality facilities.

42. **Stakeholder Comment:** Pat Davison said pervious pavement (e.g., "low impact development" BMPs) should be encouraged and incentivized. TRPA should consider coverage reduction ratios; alternative practices should be accepted as certified BMPs.

**TRPA Response:** The updated BMP Handbook provides for the use of alternative BMPs if deemed effective. Coverage reduction ratios for use of pervious pavers or pavement are not currently recommended in proposed policies since sufficient data does not exist to support such a change.

43. **Stakeholder Comment:** Andrew Strain was unsure about how TRPA permits would apply the TMDL water quality findings for private parcels and properties that cross both a jurisdiction's political and stormwater management plan's catchment boundaries.

**TRPA Response:** The Lake Clarity Crediting Program has anticipated and provides remedy for addressing this issue, which requires communication between the jurisdictions and property owners to assign Credits to the appropriate jurisdictions.

44. **Stakeholder Comment:** Andrew Strain said that Heavenly Ski Resort would like to be a part of the TMDL beta-testing period.

**TRPA Response:** Staff will be working with Heavenly to engage them in the beta-testing period.

45. **Stakeholder Comment:** TRPA should consider an alternative procedure for administering the allocation program. The program could be redesigned to allow TRPA to keep control of allocations and manage the incentive program without local jurisdiction involvement.

**TRPA Response:** The Project Description policies related to allocating additional development involves TRPA metering allocations to the jurisdictions (who ultimately distribute those allocations to development projects).

46. **Stakeholder Comment:** All three participants stated that streamlining the TRPA permit process would be a major incentive to redevelopment and building the improvements to achieve the Clarity Challenge. (A more linear and predictable regulatory process would reduce risk and financial uncertainty.) The nature of the current, unpredictable permitting process creates a major dis-incentive for investors and developers. Lew Feldman and Andrew Strain said that mitigation costs and permitting timelines should be more realistic and predictable.

**TRPA Response:** The TMDL program includes tools (such as the Pollutant Load Reduction Model) that will refine the project delivery process for EIP water quality projects and can also be used in permitting large-scale development projects. During the development of Code language, details pertaining to streamlining the permit process will be developed.

### **Conservation Community**

#### **League to Save Lake Tahoe and Tahoe Area Sierra Club**

47. **Stakeholder Comment:** TRPA's has not a prioritized BMP enforcement in the past and can't be relied upon in the future. Need new enforcement strategies.

**TRPA Response:** See TRPA Response to Stakeholder Comment #4.

48. **Stakeholder Comment:** Suggestion was made that water quality mitigation fees do not include costs associated with operations and maintenance.

**TRPA Response:** *Staff proposes to research this issue further and present recommendations during the subsequent Water Quality Milestone meeting.*

49. **Stakeholder Comment:** Concern expressed that TRPA's historic inability to enforce regulations will persist in implementation of new Regional Plan.

**TRPA Response:** Comment noted.

50. **Stakeholder Comment:** A funded and established monitoring program needs to be in place before new allocations of development are issued.

**TRPA Response:** Implementation of the TMDL will rely on local jurisdictions' on-going assessments of their storm water infrastructure, evaluating the effectiveness of their operations and maintenance programs. Lake Clarity Credits will be awarded (in part) based on the effectiveness of the jurisdictions' operations and maintenance efforts. TRPA anticipates developing an auditing component to ensure the accuracy of local jurisdictions' assessments.

51. **Stakeholder Comment:** Concern was expressed that SEZ restoration efforts are not factored into the pollutant load reductions for urban lands.

**TRPA Response:** Currently, SEZ restoration efforts are not factored into the Lake Clarity Crediting Program, since the focus is on achieving reductions from developed urban uplands.

52. **Stakeholder Comment:** Auditing of local jurisdictions' BMP rapid assessments should occur and have consequences if assessments are determined inaccurate.

**TRPA Response:** The auditing program details have yet to be developed, but staff anticipates a reduction in Credits awarded if auditing reveals discrepancies.

53. **Stakeholder Comment:** Concern expressed over how irrevocable commitments are guaranteed (i.e., what happens if the improvements never occur?). Can an irrevocable commitment be "revoked?" Does an irrevocable commitment only require the improvement to be funded and permitted?

**TRPA Response:** The Project Description in the Land Use Subelement states that irrevocable commitments require proposed improvements to be both fully funded and permitted. Staff believes this provides sufficient guarantee that the improvements will be constructed. The intent of an irrevocable commitment is that it cannot be revoked.

54. **Stakeholder Comment:** Suggestion was made that instead of requiring an irrevocable commitment, environmental improvements should be constructed prior to development projects proceeding.

**TRPA Response:** Alternative 4 in the Land Use Subelement requires construction of the improvements (as opposed to Alternative 2, which only requires that full funding and permits be secured).

55. **Stakeholder Comment:** Will the EIS for the Project Description evaluate potential impacts associated with new proposed CFA?

**TRPA Response:** The EIS for the Project Description will evaluate potential impacts associated with new proposed CFA.

**Appendix B**  
**Summary of Stakeholder Comments and TRPA Responses**  
**from the Stream Environment Zones Subelement**  
**Stakeholder Meetings**

**State Water Quality Agencies**  
**Lahontan W.Q.C.B and NDEP**

1. **Stakeholder Comment:** Timing/phasing of implementation measures needs to be identified (i.e., which will be a part of RPU and which ones will be post-RPU?).

**TRPA Response:** The Matrix of Goals, Policies, and Implementation Measures (“Matrix”) indicates that the regulatory definition of “SEZ” will be revised. It also describes the need to develop an SEZ classification and assessment system as well as new SEZ maps. *Staff proposes to update the Matrix and the Project Description document to indicate which measures will be developed following adoption of the updated Regional Plan.*

2. **Stakeholder Comment:** Agree that definition for permanent and temporary disturbance is needed but want consistency among agencies. State of California is working on a definition.

**TRPA Response:** *Staff will work with our regulatory partners and stakeholders to develop updated definitions for permanent and temporary disturbance for inclusion in the updated Regional Plan if direction to do so is given by the Governing Board at the SEZ Milestone meeting.*

3. **Stakeholder Comment:** Agree that multiple options should be provided for applicants to meet mitigation requirements but concerned that in-lieu fee option implies that you can pay fee for the impact and not actually mitigate it.

**TRPA Response:** The Project Description recognizes the need to provide several options for applicants to meet mitigation requirements through approaches such as providing on- or off-site mitigation, purchasing mitigation credits from a land bank, and paying an in-lieu fee. *Staff proposes to develop an in-lieu fee program which will ensure that fees are used to provide effective mitigation.*

4. **Stakeholder Comment:** Need explanation how proposed SEZ policy evolved from Pathway discussions (in light of the fact that much of the direction for SEZs was left unresolved).

**TRPA Response:** The FactSheet for the SEZ Milestone describes how proposed SEZ goals and policies evolved from SEZ Pathway discussions.

5. **Stakeholder Comment:** Need to explain rationale for mitigation ratio differences between the alternatives.

**TRPA Response:** The FactSheet for the SEZ Milestone describes the rationale for including different mitigation ratios from one alternative to another.

6. **Stakeholder Comment:** It is unclear as to why a new SEZ definition, classification, delineation, and assessment system is needed.

**TRPA Response:** The FactSheet for the SEZ Milestone discusses the need for a new definition, classification, delineation, and assessment system.

7. **Stakeholder Comment:** Need to reduce complexity associated with differentiating between SEZ and 1b classifications.

**TRPA Response:** All SEZ lands are classified 1b in the Bailey Land Classification system. However, all 1b lands are not in SEZs. SEZ lands are regulated to limit disturbance, and 1b lands are regulated to limit coverage. Staff has proposed to clarify this distinction and does not believe that this complicates anything.

8. **Stakeholder Comment:** Separate permit for SEZ disturbance represents more regulatory complexity.

**TRPA Response:** Staff committed to developing a more stringent permitting and environmental review process without having to require a separate permit for SEZ disturbance, as is indicated in the Matrix.

#### **Local Jurisdictions**

#### **Placer, El Dorado, Douglas, and Washoe Counties, City of South Lake Tahoe**

9. **Stakeholder Comment:** Group generally agreed that developing an SEZ classification system is reasonable.

**TRPA Response:** Comment noted.

10. **Stakeholder Comment:** What is the relationship between current Threshold status and proposed implementation measures?

**TRPA Response:** The FactSheet for the SEZ Milestone discusses the relationship between current status and proposed measures.

11. **Stakeholder Comment:** Implementation measures need additional detail. For example, the in-lieu fee program will apply in “certain circumstances,” and those circumstances should be clarified.

**TRPA Response:** The first set of stakeholder meetings is designed to clarify policy priorities. Once the Governing Board has had a chance to weigh in at the first Milestone meeting, this will have been accomplished, and staff will begin providing additional, specific details.

12. **Stakeholder Comment:** Is TRPA’s desire to achieve “net gain” factored into the proposed mitigation ratios (i.e., are additional environmental improvements built into the ratios or do they only represent what is needed to mitigate the impact)?

**TRPA Response:** The reason mitigation ratios across all alternatives are, at lowest, 1.5:1, is not to achieve net gain. Requiring 1.5 square feet of mitigation for every square foot of disturbance is meant to ensure that function is not lost when an SEZ is disturbed. Since restored SEZs rarely provide the function of virgin, undisturbed SEZs, 1:1 mitigation typically results in loss of function. It is acceptable – and it is several other agencies’ policies – to require 1.5:1 as the base ratio. The higher mitigation ratios are geared solely to maintain function, as well. (For example, 4:1 mitigation may be needed to maintain function when a riparian wetland is disturbed and mitigation is the restoration of a dry meadow.)

13. **Stakeholder Comment:** Mitigation ratio increases need further justification. What proof is there that higher ratios are needed because mitigation to date has not been successful?

**TRPA Response:** The FactSheet for the SEZ Milestone discusses the justification for increasing mitigation ratios.

14. **Stakeholder Comment:** Mitigation ratios should be the same for restoration credit transferred out of an SEZ and for mitigation credit transferred into an SEZ. It is not fair that an applicant proposing to impact a high-function SEZ may be required to provide mitigation at, say, 4:1, while an applicant proposing to restore an impaired high-function SEZ would only be given mitigation credit at 1:1.

**TRPA Response:** At this point, staff is not proposing to award coverage at a higher ratio than 1:1 – even for restoration of a high-function SEZ – because doing so would be akin to creating coverage out of thin air. The Land Use Milestone will handle this in greater detail, because Land Use is the part of the Plan that includes transfer ratios. It is anticipated that staff will be looking for Governing Board direction at that time.



**Private Sector Representatives**  
**Pat Davison, Lew Feldman, and Andrew Strain**

15. **Stakeholder Comment:** The Project Description should describe how the applicable mitigation ratio will be determined (i.e. justification 1:1.5 – 1:4).

**TRPA Response:** Implementation details will be developed after general direction has been given at the SEZ Milestone meeting. In brief, variable mitigation ratios will be determined from considering the quality of SEZ values impacted, likelihood of mitigation success, and temporal aspect of impact.

16. **Stakeholder Comment:** The Project Description should identify implementation measures to be developed after RPU and what will be policy in the interim.

**TRPA Response:** See TRPA Response to Stakeholder Comment #1.

17. **Stakeholder Comment:** Contractors' Association agrees that an in-lieu fee would be appropriate in circumstances where impacts are small. Agree that multiple options should be provided for applicants to meet mitigation requirements.

**TRPA Response:** See TRPA Response to Stakeholder Comment #3.

18. **Stakeholder Comment:** A definition for temporary vs. permanent disturbance is needed.

**TRPA Response:** See TRPA Response to Stakeholder Comment #2.

19. **Stakeholder Comment:** Heavenly supports requirement to provide additional information on SEZ coverage relocation findings required for project approval.

**TRPA Response:** A proposed implementation measure requires that additional information be provided regarding SEZ coverage relocation findings to ensure that more consistent determinations are made during review of project applications.

**State and Federal Land Management Agencies**  
**United States Forest Service, California Tahoe Conservancy,  
Nevada Division of State Lands, and the Washoe Tribe**

20. **Stakeholder Comment:** Policy 1.7, which concerns permissible uses in SEZs, should allow for the construction of access facilities to Lake Tahoe that comply with the American Disabilities Act.

**TRPA Response:** *Staff proposes to include the construction of access facilities to Lake Tahoe that comply with the American Disabilities Act as a permissible use in SEZ in the new Regional Plan.*

21. **Stakeholder Comment:** For all policies and measures that describe the development and adoption of protocols for classification, assessment, and monitoring, TRPA must acknowledge that existing and upcoming protocols adopted by other agencies will be integrated into those adopted by TRPA. This will help to avoid duplication or conflicts among agencies.

**TRPA Response:** *Staff proposes to update the Project Description and Matrix to acknowledge that existing protocols for classification, assessment, and monitoring used by other agencies will be incorporated into any new protocols where appropriate. Federal and state land management agencies would be consulted during the development of new protocols to ensure opportunities to reduce duplication and conflict.*

22. **Stakeholder Comment:** Agencies are concerned that they are only able to review portions of Matrix and therefore cannot take position on alternatives without seeing the larger picture associated with all Threshold areas.

**TRPA Response:** Agencies have been given the sections of the Project Description and Matrix that are germane to the Milestone at hand. Agency representatives that have specifically asked for the documents in their entirety have been given the documents.

23. **Stakeholder Comment:** Need to be clear on implementation measures that will be delayed/phased until after RPU and who will pay to develop the measures.

**TRPA Response:** See TRPA Response to Stakeholder Comment #1.

24. **Stakeholder Comment:** The Project Description and Matrix include conflicting statements concerning Pathway Desired Conditions for SEZs.

**TRPA Response:** The FactSheet for the SEZ Milestone describes how proposed SEZ goals and policies evolved from SEZ Pathway discussions.

25. **Stakeholder Comment:** Excess coverage mitigation should be allowed anywhere in the Tahoe Basin. Current provisions are too restrictive. Greater levels of coverage retirement will be achieved with more flexible regulations.

**TRPA Response:** The Project Description recognizes the need to provide several options for applicants to meet mitigation requirements through approaches such as providing on- or off-site mitigation, purchasing mitigation credits from a land bank, or paying an in-lieu fee. **Staff will consider using this**

approach for revising the Excess Coverage Mitigation Program during the Land Use Milestone process.

26. **Stakeholder Comment:** Land banks and others with banked SEZ restoration credits under the existing Regional Plan must be allowed to use such credits for any type of SEZ mitigation requirement under the proposed Regional Plan.

**TRPA Response:** This comment indicates concern that once new definitions for “restoration” and “enhancement” are developed, limitations may be placed on the use of credits. For example, restoration credits can currently be used anywhere in the Basin. Staff understands the need to provide a transition between implementation of the existing and proposed Regional Plan that does not compromise entities’ ability to use allocations generated and banked under the existing Plan. Staff will continue to work with stakeholders to ensure new policies do not significantly compromise the value and use of those allocations.

27. **Stakeholder Comment:** General agreement on need to define “restoration,” “enhancement,” and “creation” of SEZ as well as “permanent” and “temporary disturbance.” The group stated they need to review details, such as the number of SEZs that will be classified, before fully endorsing proposals. Complexity may make the system unusable for the general public as well as the land banks.

**TRPA Response:** Comment noted. Additional details will be developed once general direction on this issue is given at the SEZ Milestone meeting.

28. **Stakeholder Comment:** Additional details are needed on the proposed compensatory mitigation policies.

**TRPA Response:** The FactSheet for the SEZ Milestone describes the rationale for the proposed compensatory mitigation policies.

29. **Stakeholder Comment:** TRPA must assess whether there is need for all the policy statements currently drafted. Some of the existing policies are redundant and dilute the message regarding how to best achieve the end goal.

**TRPA Response:** Comment noted.

30. **Stakeholder Comment:** Consideration should be given to allowing excess coverage mitigation fees to be used for restoration and enhancement of SEZs instead of requiring the retirement of a set amount of coverage.

**TRPA Response:** See TRPA Response to Stakeholder Comment #25.

31. **Stakeholder Comment:** Regarding Policy 1.2, SEZ Restoration and Enhancement, is there a conflict with proposed policies in the Recreation

Element related to no net loss at a recreation site? Couldn't this policy be interpreted to require removal of recreation facilities located in SEZs?

**TRPA Response:** Policy 1.2 states in part: "Restore and enhance the historic extent and natural condition and functions of all converted and degraded SEZ lands..." In the main, however, the policy is intended to distinguish between SEZ "restoration" and "enhancement" and set a goal for restoration of SEZs within the urban boundary. It is not intended to require removal of recreation facilities or other development located in SEZs (except where feasible and practical as determined by the appropriate land management agency). A similar policy exists in the current Plan; the new policy will not be interpreted differently.

32. **Stakeholder Comment:** How does Policy 1.9 differ from what is required by National Environmental Policy Act requirements? What will the standards be, are there any cost implications, and do increased costs factor into the implementation of the new policy?

**TRPA Response:** Policy 1.9 concerns "Project Alternatives Analysis and Design Requirements." An associated implementation measure requires that additional information be provided on SEZ coverage relocation findings to ensure more consistent determinations during review of project applications. The first set of stakeholder meetings is designed to clarify policy priorities. Once the Governing Board has had a chance to weigh in at the first Milestone meeting, this will have been accomplished, and staff will begin providing additional, specific details.

33. **Stakeholder Comment:** The language in Policy 1.10 is very broad. Implementation measures should state that bicycle trails or public access roads incorporating either a boardwalk or turnpike design are eligible for SEZ enhancement credit because the design only degrades some SEZ function and does not obliterate all SEZ functions.

**TRPA Response:** Policy 1.10 concerns compensatory mitigation. SEZ Issue #2 in this FactSheet discusses compensatory mitigation and the justification for proposal to increase mitigation ratios. Raised boardwalks are examples of improvements that will be allowed in SEZs if no feasible alternative location exists; they will be eligible for enhancement credit. Staff will consult with stakeholders during development of implementation details to ensure that this concern is addressed.

**Conservation Community**  
**League to Save Lake Tahoe and Tahoe Area Sierra Club**

34. **Stakeholder Comment:** Concern expressed that recent studies have concluded that water quality micro-filtration facilities need to be constructed in lower parts of

the watershed – which are often SEZs! Construction of these facilities would compromise ability to achieve SEZ Thresholds.

**TRPA Response:** The existing TRPA Code of Ordinances contains exceptions to the prohibition of additional disturbance in an SEZ for certain uses. Water quality facilities are among those uses for which exceptions are provided. Staff will address this issue and provide a rationale for such facilities receiving an SEZ disturbance exception in the updated Regional Plan and when Code revisions are brought forward for Governing Board consideration.

35. **Stakeholder Comment:** What happens if projects involving the restoration of disturbed lands are not successful in the future?

**TRPA Response:** The Project Description includes a policy to revise the definition of “SEZ restoration” and adopt new definitions for “SEZ enhancement” and “SEZ creation.” These new definitions support the development guidelines that will be used to determine when SEZ restoration, enhancement, and creation efforts are determined to be complete and successful. The Environmental Improvement Program is currently developing performance measures for what constitutes a successful SEZ restoration effort. A proposed implementation measure states that a project’s mitigation ratio depends on the prospects for success of its required restoration efforts. All in all, the use of new definitions, performance measures, and mitigation ratios will help to reduce the risk of restoration efforts being unsuccessful in the future.

36. **Stakeholder Comment:** Concern expressed about how SEZ policies are supported by Pathway discussions when no agreement was made by the Forum.

**TRPA Response:** See TRPA Response to Stakeholder Comment #4.

## **Appendix C**

### **Bibliography for Water Quality Section**

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**Appendix D**  
**List of WQ and SEZ Stakeholder Meetings, Meeting Dates, and Participants**

<b>Regulatory Agencies</b>	<b>Invitees</b>	<b>Attended</b>	<b>Meeting Date</b>
	Bob Larson, Lahontan RWQCB	Yes	12/16/2009
	Jason Kuchnicki, Nevada Dept. Environmental Protection	Yes	12/16/2009
<b>Environmental Groups</b>	<b>Invitees</b>	<b>Attended</b>	<b>Meeting Date</b>
	Carl Young, League to Save Lake Tahoe	Yes	1/7/2010
	Roger Rosenburger, Tahoe Area Sierra Club		
	Jennifer Quashnick, Tahoe Area Sierra Club	Yes	1/7/2010
	Nicole Gergans, League to Save Lake Tahoe	Yes	1/7/2010
	Laurel Ames, Tahoe Area Sierra Club	Yes	1/7/2010
<b>Private</b>	<b>Invitees</b>	<b>Attended</b>	<b>Meeting Date</b>
	Lew Feldman, Attorney	Yes	12/17/2009
	Steve Teshara, N. Lake Tahoe Resort Association		
	Pat Davison, Contractors Association Truckee Tahoe	Yes	12/17/2009
	Andrew Strain, Heavenly	Yes	12/21/2009
<b>Local Jurisdictions</b>	<b>Invitees</b>	<b>Attended</b>	<b>Meeting Date</b>
	Rick Angelocci, City of South Lake Tahoe Planning	Yes	12/21/2009
	Jennifer Merchant, Placer County	Yes	12/21/2009
	Paul Thompson, Placer County Planning	Yes	1/7/2010
	Peter Mauer, El Dorado County Planning	Yes	12/21/2009
	Brandy McMahon, Douglas County Planning	Yes	12/21/2009
	Lee Plemel, Carson City Planning	Yes	12/21/2009
	Eva Krause, Washoe County Planning	Yes	12/21/2009
	Chuck Greene, Washoe County , APC	Yes	12/21/2009
<b>State and Federal</b>	<b>Invitees</b>	<b>Attended</b>	<b>Meeting Date</b>
	Bruce Eisner, California Tahoe Conservancy	Yes	12/22/2009 & 1/5/2010
	Charlie Donohue, Nevada Division of State Lands	Yes	12/22/2009
	Eli Ilano USFS LTBMU	Yes	1/8/2010
	Mistia Zuckerman, Washoe Tribe	Yes	12/22/2009
	Scott Carroll, California Tahoe Conservancy	Yes	12/22/2009
	Sue Norman, USFS LTBMU	Yes	12/22/2009 & 1/8/2010
	Mike LeFevre, USFS LTBMU	Yes	12/22/2009 & 1/8/2010
	Denise Downey, USFS LTBMU	Yes	1/8/2010