



TAHOE
REGIONAL
PLANNING
AGENCY

FINAL PLAN
February 25, 2015

BEST MANAGEMENT PRACTICES ACTION PLAN

TAHOE REGIONAL PLANNING AGENCY

|| *Lake Tahoe*



Executive Summary

At their annual priority setting workshop in February 2013, the TRPA Governing Board directed staff to create a subcommittee of the TRPA Governing Board, along with interested parties, to explore options related to BMP compliance.

On January 29, 2014, TRPA's Regional Plan Implementation Committee (RPIC) endorsed formation of the BMP Compliance Working Group, which was made up of two Board representatives, state and local government representatives, environmental and business community representatives as well as a technical expert.

BMP Compliance Working Group	
California TRPA Governing Board Co-chair	Clem Shute Governor of California Appointee
Nevada TRPA Governing Board Co-chair	Shelly Aldean Carson City Representative
California State Representative	Dan Siegel Deputy California Attorney General
Nevada State Representative	Jason Kuchnicki Lake Tahoe Watershed Program Manager Nevada Division of Environmental Protection
California Local Government Representative	Jason Burke City of South Lake Tahoe Stormwater Program Coordinator
Nevada Local Government Representative	Jason Brand Program Manager / Acting District Manager Nevada Tahoe Conservation District
Business Community Representative	Sara J. Ellis Government Affairs Director for Central Nevada Real Estate Professionals Carrara Nevada
Environmental Community Representative	Melissa Thaw Natural Resources Manager League to Save Lake Tahoe
Technical Expert/Advisory Planning Commission Member	William Loftis District Conservationist Natural Resource Conservation Service

The intent of the Working Group was to guide TRPA's efforts and limited resources to the most effective stormwater management strategies in a manner that is consistent with the Regional Plan, local Area Plans, and TMDL load reduction plans, as well as the overall goal, objectives and feasibility criteria identified by the Working Group.

Goal:

Develop feasible and effective policies and/or other recommendations to improve BMP implementation consistent with the Regional Plan.

Objectives:

- I. Support Regional Plan goals and policies including protecting and enhancing water quality and coordinating with the Lake Tahoe TMDL Programs.
- II. Support local government Area Plan and Load reduction Plans, where applicable.
- III. Simplify/streamline operational processes.
- IV. Focus on options related to BMP compliance, which include in lieu fees, etc.
- V. Meet feasibility criteria, consider funding constraints for the Lake Tahoe BMP Retrofit Program and pursue recommendations that offer the "biggest bang for the buck" in terms of pollutant load reductions.

Feasibility Criteria:

1. Effectiveness: The relative environmental benefit of the regulatory requirement over time.
2. Cost: The relative cost to comply with the regulatory requirement to project applicants, contractors, property owners, or public agencies including TRPA, local jurisdictions and conservation districts. This also includes the cost to monitor and enforce compliance with the requirement.
3. Public Impact: The relative impact of the requirement on the public. This criterion is based on factors other than cost that could place a burden on project applicants, contractors, property owners, or public agencies. Factors include potential delays in project implementation, reductions in the workforce available to implement projects in compliance with requirements, complicated procedural requirements, or other non-monetary impacts to project proponents or other members of the public.
4. Technical Feasibility: The level of technical difficulty in complying with and enforcing compliance with the requirement. Technical feasibility includes the availability of technologies or materials necessary to comply with the requirement, the feasibility of monitoring compliance with the measure, whether compliance can be objectively measured, and whether monitoring and enforcement would require specialized skills or technologies.
5. Effects on Other Resources: The level to which the requirement would have positive or negative impacts on other resource areas. Requirements that would have secondary benefits to other resource areas, such as vegetation preservation or scenic quality, would rank higher. Requirements that have unintended impacts to other resource areas would rank lower.

The Working Group developed this Action Plan over a five month period through the following process:

- March, 2014 – The Working Group endorsed an overall goal to focus their efforts, and a list of objectives and feasibility criteria for their recommendations to adhere to. The working group also identified topics for discussion and requested additional data and analysis to help inform their recommendations.
- July 8, 2014 – The Working Group received an information packet with data, analysis and recommendations on each of the nine discussion topic areas from TRPA staff. The Working Group discussed the materials, provided direction supporting development of a robust disclosure process in lieu of requiring BMPs at point of sale.
- August 20, 2014 – The Working Group reviewed and endorsed the BMP Action Plan with modifications.

TRPA's Advisory Planning Commission reviewed the Working Group's final recommendations on October 8, 2014 and advanced the BMP Action Plan to the Governing Board who accepted it unanimously on February 25, 2015.

The BMP Action Plan outlines existing Stormwater Management Program efforts and the recommended actions endorsed by the BMP Compliance Working Group to address the nine discussion topics they identified:

1. Real Estate disclosure process
2. Require BMPs at the point-of-sale
3. Use of forfeited securities
4. Enforcement options, such as recording a notice of noncompliance to a property
5. Prioritize BMP implementation in coordination with Load Reduction Plans
6. Area-wide BMPs and in-lieu fees
7. Additional incentives/subsidies
8. BMP maintenance and adaptive management
9. Additional topics of interest

Generally, recommendations fall into three categories, which are based on the most current water quality science used to develop the TMDL and avoid actions that require new sources of funding to implement:

1. Focus efforts on most effective pollutant load reduction strategies
TRPA has limited funding and staff resources. Recommendations intend to focus efforts where dedicated funding exists and where the greatest pollutant load reductions are achieved. This includes focusing on environmental redevelopment and area-wide BMPs.
2. Coordinate targeted implementation to accelerate BMP compliance
TRPA pursues targeted implementation to accelerate BMP compliance by priority when funds are available. Currently TRPA prioritizes implementation efforts based on proximity to water quality improvement projects and relative contribution to pollutant loading. Recommendations

encourage better aligning TRPA implementation priorities with local jurisdiction load reduction plans and Area Plans in order to support the TMDL and effectuate the 2012 Regional Plan.

3. Improve information systems and complete process improvements

In addition to TRPA, various agencies and jurisdictions provide technical assistance and/or issue permits under an MOU making the need for communication and consistent practices important. Currently, BMP data is collected and provided to TRPA in different timeframes and formats. Internally, TRPA maintains multiple databases that track BMP information which can affect the reliability of information queried. Various recommendations address streamlining TRPA processes to improve operational efficiency, effectiveness and quality of data collected consistent with TRPA's Strategic Plan.

Real Estate Transaction BMP Requirements

Discussion Topics

1. Maintain, modify or enhance the TRPA Real Estate Disclosure Process (or an alternative) to improve BMP implementation and maintenance in connection with real estate transactions.
2. Consider requiring BMP installation on properties at the point of sale or the posting of a financial guarantee at the point-of-sale equal to the cost of implementing BMPs or alternatives.

Overview

Lake Tahoe has some of the strictest water quality requirements in the country, requiring all properties to comply with Best Management Practices outlined in Section 60.4 of TRPA Code. Some proponents support greater means of implementing BMPs to accelerate compliance in the Lake Tahoe Region by requiring implementation of BMPs at the point-of-sale. Others oppose point-of-sale requirements over a concern that it limits potential for redevelopment and encourages the installation of hasty and inexpensive BMPs with little thought for long-term maintenance or consistency with implementation of the Lake Tahoe Total Maximum Daily Load (TMDL). In the Tahoe Basin, local jurisdictions target resources to the highest pollutant loading areas in the Region. Currently at the point of sale, properties must disclose their BMP status and submit a form to TRPA within 30 days of sale according to Section 60.4.4.C of TRPA Code. However, the current paperwork process is cumbersome and the number of disclosure forms received is very low compared to the number of real estate transactions occurring.¹

Existing Efforts

- Triggers for BMP installation include projects permitted by TRPA and MOU partners for new development, redevelopment, and buoys. These projects have to post a security until BMP requirements are met.
- TRPA's grant funded Stormwater Management Program primarily focuses on BMP retrofits through a voluntary approach using education and outreach, but also includes targeted implementation to accelerate BMP compliance.
- TRPA offers coverage incentives for projects that meet BMP requirements and are not located on sensitive lands in an effort to accelerate environmental redevelopment.
- TRPA secured grant funding to enhance the BMP Real Estate Disclosure process.
- TRPA partners with real estate professionals for BMP education and outreach at the point-of-sale.

Recommended Actions

- 1.1 The Working Group supports staff to use existing grant funds to enhance the TRPA BMP Real Estate Disclosure form and improve the submittal process. Enhancing the disclosure process improves TRPA's information system in line with TRPA's Strategic Plan.

¹ As of May 31, 2014 TRPA had received a total of 417 disclosure forms.

2.1 The Working Group supports development of a robust disclosure process over actively enforcing BMP installation at the point-of-sale. TRPA shall continue partnering with real estate professionals to promote BMP education and outreach at the point-of-sale, which supports the Regional Plan's voluntary approach for BMP retrofits.

2.2 Support the TMDL with BMP Implementation Efforts

Continue to focus BMP implementation efforts in coordination with strategies prioritized by local jurisdiction Load Reduction Plans and Area Plans. This focuses TRPA resources in areas that achieve the greatest pollutant load reduction and supports the TMDL and effectuates the 2012 Regional Plan in line with working group objectives. Some local jurisdictions TMDL strategies include private property BMPs while others include public-private partnerships for area-wide treatments. If outcomes from TMDL implementation are shown to make insufficient gains towards improving Lake Tahoe's water quality, actively enforcing BMP installation at the point-of-sale should be revisited at the next Regional Plan four-year review.

Compliance Procedures and Enforcement Options

Discussion Topics

3. Revise BMP compliance procedures for permitted projects to provide flexibility in the use of forfeited securities and/or in imposing penalties.
4. Consider enforcement options, such as recording a notice of noncompliance to a property deed under certain circumstances.

Overview

Permitted projects post a financial security that gets returned after the project meets various TRPA requirements including, but not limited to, installation of BMPs. Projects that do not meet requirements are given a chance to comply, and as a last resort TRPA may use the security to effect compliance. However, this process is impractical because the forfeited securities cannot be used to install any improvements including BMPs without authorization from the non-compliant property owner. Greater flexibility in the use of the funds, such as augmenting local jurisdiction water quality mitigation funds, could improve progress towards water quality gains.

Article 9 in TRPA's Rules of Procedure outlines processes and penalties for properties failing to meet TRPA requirements, including installation of BMPs. Granting additional enforcement authority, such as recording a notice of non-compliance to a property deed under certain circumstances, may increase compliance rates with TRPA requirements, including but not limited to, installation of BMPs.

Existing Efforts

- TRPA staff drafted proposed amendments to Chapter 5 of TRPA Code and Article 9 and 13 of TRPA's Rules of Procedure to provide greater flexibility in the use of forfeited securities to implement the highest priority water quality projects.

Recommended Actions

- 3.1 Request the TRPA Legal Committee to review amendments to TRPA's Code, including those providing greater flexibility in the use of forfeited securities.
Review by TRPA's Legal Committee is necessary since the endorsed revisions impact projects other than just those installing BMPs. Both co-chair Aldean and Shute sit on the Legal Committee and can communicate between the groups.
- 4.1 Request the TRPA Legal Committee of the Governing Board review amendments to TRPA's Rules of Procedure, including recording a notice of non-compliance to a property deed under certain circumstances.
Review by TRPA's Legal Committee is necessary since the endorsed revisions impact projects other than just those installing BMPs. Both co-chair Aldean and Shute sit on the Legal Committee and can communicate between the groups.
- 4.2 Improve implementation tracking and reporting
Update Agency implementation tracking processes to improve accuracy of data reported. Specific recommendations include linking each APN to a BMP implementation or compliance file. This will facilitate the tracking of parcels with completed BMPs and those being targeted for compliance. Report out on compliance actions annually in the TRPA Annual Report.

Coordinate BMP Implementation with Load Reduction Plans

Discussion Topics

5. Target and prioritize accelerated BMP implementation in coordination with local jurisdiction Load Reduction Plans.

Overview

With the support of grant funding, TRPA has targeted properties in all land use categories to accelerate BMP compliance since 2003. These efforts typically involve sending a Notice of Failure to Implement BMPs certified mail to targeted properties, tracking response rates and providing technical assistance to facilitate compliance. Current grant funding supports these efforts in both Nevada and California until 2016 and 2017 respectively and TRPA will continue to apply for additional funds annually. TRPA selects areas targeted for accelerated BMP Implementation consistent with the 2009 TRPA BMP Enforcement Strategy, which prioritizes properties based on their proximity to EIP projects and SEZs, if they are considered a source of pollutants, or are the subject of complaints. TRPA has not updated the strategy since 2009 and it does not reflect current policies of the Regional Plan to coordinate with local jurisdictions, TMDL load reduction plans, and/or Area Plans.

Some properties targeted for accelerated BMP implementation have already met BMP requirements, but for a variety of reasons do not have a BMP certificate on record in TRPA's BMP database. For properties in compliance with BMP requirements, including any required maintenance verification, TRPA updates the BMP implementation status in the BMP database and issues a BMP Certificate.

Existing Efforts

- TRPA secured grant funding for accelerated BMP implementation in targeted areas in both Nevada and California until 2015 and 2017 respectively. During the 2014 season, 295 Notices of Failure to Implement BMPs were sent certified mail to non-compliant properties and technical support provided by TRPA and the Conservation Districts. As of December 31, 2014, 28 of the noticed properties achieved a BMP Certificate.
- Recent efforts to accelerate BMP implementation in the City of South Lake Tahoe and Washoe County were coordinated with jurisdictional representatives on the Environmental Improvement Program (EIP) Parcel BMP Working Group. This Working Group is made up of staff from partner agencies and local jurisdictions implementing stormwater programs to meet TRPA and TMDL requirements.
- TRPA secured grant funding to update the Charter and Strategic Plan for the EIP Parcel BMP Working Group. These documents outline the mission and strategic goals for the BMP Retrofit Program and identify roles for partner agencies and implementers. They will help coordinate areas targeted for prioritization and create uniform processes across the Lake Tahoe Region for different strategies to accelerate BMP implementation.

Recommended Actions

- 5.1 In coordination with the EIP Parcel BMP Working Group, update the 2009 BMP Enforcement Strategy to include coordination with local jurisdiction load reduction plans and Area Plans. The updated implementation priorities are intended to effectuate the 2012 Regional Plan, support

the TMDL and be additive to the existing criteria by which TRPA and local governments prioritizes areas targeted for implementation.

5.2 Use existing grant funding to update the Charter and Strategic Plan for the EIP Parcel BMP Working Group.

5.3 Improve BMP Implementation Tracking and Reporting

Streamline BMP data collection processes and reporting to improve accuracy of BMP implementation and maintenance information and efficient data transfer that supports TMDL credit calculations. Report out on implementation and compliance actions annually in the TRPA Annual Report. Improving collection and reporting of BMP implementation, compliance and maintenance information supports the TRPA Strategic Plan.

Area-Wide Water Quality Treatment

Discussion Topic

6. Facilitate and promote area-wide treatment and in lieu fees.

Overview

TRPA requires all properties in the Lake Tahoe Region to meet BMP requirements pursuant to Section 60.4 of TRPA Code. Public/private area-wide water quality treatment facilities and funding mechanisms are an alternative approach to meeting certain parcel specific BMP requirements. In many situations, area-wide treatment provides greater water quality benefits compared to individual BMP retrofits and facilitates more effective maintenance over time. Prior to the 2012 Regional Plan, area-wide treatment projects focused on constrained properties unable to meet infiltration requirements. The Regional Plan expanded the applicability of area-wide treatments to all properties, when they show equal or greater water quality benefits to parcel specific treatments and are approved as part of an Area Plan. Meeting Lake Tahoe TMDL load reduction requirements also provides greater incentive for local jurisdictions to explore area-wide treatments because of the economies of scale for installation and on-going operations and maintenance. Coordination between TRPA and local jurisdictions to identify opportunities for area-wide treatment consistent with TMDL Load Reduction Plans and incorporating them into Area Plans facilitates and promotes area-wide treatment.

Existing Efforts

- Recently completed area-wide treatment projects include the Bijou Erosion Control Project and Harrison Avenue Water Quality Improvement and Streetscape Project in the City of South Lake Tahoe, and the Cave Rock Area Wide Stormwater Treatment Basin Retrofit in Nevada. These projects employ different in lieu funding mechanisms that address construction and/or long term operation and maintenance costs.
- TRPA partners with local jurisdictions to facilitate private property participation in area-wide treatments by using available grant funds to send joint notification letters to contributing parcels out of compliance with TRPA's BMP requirements.
- Certain Area Plans currently under development identify additional area-wide treatment projects that offer multiple environmental benefits, such as the Tahoe Valley Greenbelt project and the Meyers Erosion Control project. These multi-faceted projects have better opportunities to secure funding from a wider variety of sources.

Recommended Actions

- 6.1 Identify opportunities for area-wide treatment and other multifaceted projects and incorporate them into Area Plans. Use the EIP Parcel BMP Working Group meetings as the forum for coordination. TRPA's partnership with local jurisdictions helps implement area-wide treatments and coordinates compliance efforts in areas that support the greatest load reduction.
- 6.2 Track and report out in TRPA's Annual Report properties that achieved a BMP Certificate from participating in an area-wide water quality treatment.

BMP Incentives

Discussion Topic

7. Seek funding for additional incentives to encourage BMP implementation, such as a robust subsidy program through reimbursements.

Overview

TRPA provides several incentives to encourage BMP implementation. These include development commodities offered in exchange for relocating development out of sensitive lands into Centers with BMP improvements, certain exemptions for the calculation of land coverage for temporary coverage, pervious coverage and ADA facilities, as well as administering the Lake Friendly Business Program. Some feel these incentives should be augmented with a robust reimbursement subsidy program for single family residential properties, while others question whether the investment of staff time and resources to administer such a program would be worth the load reduction achieved.

Existing Efforts

- TRPA's 2012 Regional Plan encourages environmental redevelopment with BMP installation in areas the TMDL identified as contributing high levels of pollutants loads by offering development commodities in exchange for relocating development out of sensitive lands and into Centers. TRPA tracks and reports on the use of development commodities through the annual Regional Plan performance measures.
- TRPA's 2012 Regional Plan allows certain exemptions for the calculation of land coverage for temporary coverage, pervious coverage and ADA facilities. These coverage incentives provide some relief for homeowners trying to improve their properties when they complete their BMPs and are located in non-sensitive lands. TRPA tracks and reports on BMP certificates issued to permitted projects, including those that use coverage incentives through the annual Regional Plan performance measures.
- TRPA administers the Lake Friendly Business Program in Nevada and California through 2015 and 2017 respectively with existing grant funding. This focuses TRPA's resources on high pollutant loading land uses by incentivizing BMP maintenance on commercial properties. Properties demonstrating proof of maintenance receive free advertising showcasing them as a Lake Friendly Business.

Recommended Actions

- 7.1 Evaluate Regional Plan BMP incentives during the four-year update cycle using annual Regional Plan performance measure data and adjust incentives as needed. These incentive programs are newly developed since adoption of the Regional Plan in December 2012 and need time to work.
- 7.2 Pursue new grant funds as they become available for incentive programs, including the Lake Friendly Business Program.
- 7.3 Partner with other entities like the Tahoe Chamber, Prosperity Center, Tahoe Fund and League to Save Lake Tahoe to leverage communication and outreach efforts in order to increase use of existing BMP incentives such as the Lake Friendly Business Program.

BMP Maintenance and Adaptive Management

Discussion Topics

8. BMP maintenance and adaptive management.

Overview

BMP Maintenance

The TMDL finds that sustaining pollutant load reductions requires regular inspection and maintenance of stormwater treatment BMPs.² The responsibility for the operation and maintenance (O&M) of BMPs resides with property owners, which leaves approximately 43,000 separate O&M systems to monitor and maintain if each parcel installs BMPs separately. Private/public area-wide water quality treatment systems facilitate more efficient and cost effective maintenance as well as long term funding mechanisms through in-lieu fees. To facilitate future maintenance on high pollutant loading properties, TRPA requires commercial and large multi-family BMP retrofit projects to submit a BMP Maintenance Plan that follows criteria outlined in Chapter 6 of the BMP Handbook prior to permit acknowledgement. Through existing grant funds, TRPA offers incentives for commercial properties to perform routine BMP maintenance with the Lake Friendly Business Program and recently developed additional BMP maintenance educational materials.

In addition to water quality improvement projects and road maintenance operations, local jurisdictions may register private property BMPs to meet their TMDL crediting target. Verification protocols to evaluate the functionality of private property BMPs for the Lake Tahoe Clarity Crediting Program are in the process of being developed although concerns exist regarding the potential cost to implement them. TRPA secured limited grant funding to provide maintenance verification support to the local jurisdictions over the next two years beginning in October of 2014. California funding is restricted and cannot support direct TMDL implementation.

Adaptive Management

TRPA's Regional Plan adheres to a regular four-year cycle of plan evaluation and update to facilitate amendments determined necessary through an adaptive management process. This adaptive management process considers the status of plan implementation, progress towards thresholds, and updated science to determine what, if any, Regional Plan amendments are needed.³

Existing Efforts

- The Nevada Division of Environmental Protection (NDEP) is in the process of developing a maintenance verification protocol for private parcel BMPs to be used for TMDL crediting. Nevada awarded NV319 grant funds to TRPA and other funding sources are being provided to the Conservation Districts and Washoe and Douglas Counties to coordinate with NDEP in developing the maintenance protocols as part of a BMP Maintenance Guidance document for local jurisdictions.

² TMDL synthesis of findings and program adjustment recommendations memo 2010-2013, p. 6.

³ TRPA 2012 Regional Plan, Chapter 1 – Introduction, pp 1-4: http://www.trpa.org/wp-content/uploads/Regional_Plan_Goals_Policies_Final-2012-12-12.pdf

- TRPA provides information on BMP maintenance practices and requirements in the TRPA Best Management Practices Handbook and may revoke BMP Certificates for properties where BMPs are not functioning.⁴
- TRPA administers the Lake Friendly Business program through existing grant funds to incentivize BMP maintenance on commercial properties.⁵
- TRPA secured grant funding from California and Nevada and developed instructional maintenance videos to facilitate private property BMP maintenance⁶
- TRPA secured limited grant funding to conduct targeted maintenance verification by priority and in coordination with local jurisdiction load reduction plans.⁷

Recommended Actions

- 8.1 Update the Inspection, Maintenance and Monitoring Chapter of TRPA's BMP Handbook with verification protocols currently under development to align with the Lake Clarity Crediting Program.⁸
- 8.2 Include submittal of a BMP Maintenance Plan as a standard condition of approval for all commercial and multi-family residential permitted projects, not just BMP retrofit projects. These plans provide documentation that facilitates long term maintenance and should be provided for all commercial and multi-family residential projects.
- 8.3 Update water quality policies and ordinances as needed through the Regional Plan adaptive management process as it relates to all types of land uses and allocate resources accordingly. These include regular updates to the BMP Handbook to help ensure information reflects current best practices, such as requiring pretreatment for certain infiltration systems to facilitate maintenance.

⁴ 2012 Regional Plan Policy WQ-3.11 and 3.12; TRPA Code Section 60.4.9; TRPA's Stormwater Management Program Website – BMP Inspection, Maintenance and Monitoring: <http://www.tahoebmp.org/Maintenance.aspx>

⁵ NV319 and CA319 grant funds support TRPA administration of the Lake Friendly Business Program. Commercial properties who submit maintenance documentation received free advertisement and their BMP certificate re-issued with a new date.

⁶ TRPA received Proposition 50 Supplemental and Nevada 319 grant funding to develop instructional BMP maintenance videos to post on the Stormwater Management Program website by Dec 2014

⁷ TRPA received NV319 funding to contact 2,000 commercial and MFR properties in Nevada for maintenance by December 2015. Properties are selected in coordination with local jurisdictions and those that submit maintenance verification documentation get their BMP certificate re-issued with a new date. Grant funding supports limited TRPA staff time to provide technical assistance on a first come first served basis until December 2015. Properties contacted that remain out of compliance are followed up with enforcement on a priority basis in coordination with local jurisdictions. CA319 funds awarded but not yet under contract support similar processes in California for 500 properties.

⁸ TRPA BMP handbook, Chapter 6 – Inspection, Maintenance and Monitoring:
http://www.tahoebmp.org/Documents/BMPHandbook/Ch6_InspectionMaintenanceandMonitoring.pdf
 TRPA Stormwater Management Program Website – BMP Inspection, Maintenance and Monitoring:
<http://www.tahoebmp.org/Maintenance.aspx>

Other Topics of Interest

Discussion Topic

9. address additional topics of interest including Marina BMPs, connectivity, BMPs on vacant lots and parcels with subsurface contamination

Overview

Marinas

Fourteen commercial marinas exist in the Lake Tahoe Region, with two located in Nevada and 12 located in California. Several private marinas also exist region-wide. Marinas can provide water-oriented services, boat storage and support facilities and services for private boat fueling, sewage pump-out, engine repair and boat launching, as well as commercial tours and rentals. The Lahontan Regional Water Quality Control Board oversees and regulates both surface water and stormwater for California marinas under NPDES permit NO. CAG616003.⁹ The Nevada Division of Environmental Protection (NDEP) regulates marinas in Nevada: marinas with fuel, boat cleaning, repair or maintenance facilities are subject to Phase I NPDES stormwater permitting requirements.

While only four of the 14 Tahoe marinas have a BMP certificate on record with TRPA, staff believes that a number of marinas may have already met BMP requirements through various development permits or as required by their NPDES stormwater permits, but may not have received a certificate from TRPA. This may be due to internal miscommunication between the BMP retrofit database and final inspections issued for current planning projects, or may be due to the fact that property owners in compliance with NPDES requirements have not requested a final BMP inspection from TRPA. Many of these projects occurred before the BMP retrofit database and current planning final inspection processes were integrated. TRPA staff is confident that current planning projects completed today are adequately reporting BMP installations to the BMP retrofit database. Through coordination with Lahontan and NDEP, TRPA staff believes that many of the marinas may be eligible for BMP certificates.

Hydrologic Connectivity

Hydrologic connectivity refers to the degree to which stormwater runoff generated on a parcel travels directly into Lake Tahoe. Stormwater runoff that drains to a pipe or tributary flowing to the Lake is considered directly connected, where runoff that either stays onsite or flows to an area where it is infiltrated into the ground before reaching the Lake is considered disconnected. Not all runoff poses the same risk to Lake Tahoe clarity and certain locations are higher priorities to address because of their hydrologic connectivity, land use, and/or soil type. Recognizing that a one size fits all parcel specific approach to BMP requirements does not take into account the importance of hydrologic connectivity, the Regional Plan Update advanced provisions allowing local jurisdictions flexibility to propose area-wide treatment facilities and in-lieu funding mechanisms in their local Area Plan. Local jurisdiction load reduction plans identify catchments that generate high pollutant loads and are highly connected to the Lake in order to prioritize their efforts and resources to address these areas of importance.

BMPs on Vacant Lots

The TMDL evaluated pollutant potential from forested lands and undeveloped urban lands with various ranges of vegetative cover and determined they generate the lowest pollutant potential. There is no

⁹ Lahontan Marina General Permits -- ORDER NO. R6T-2011-0024, NPDES NO. CAG616003:
http://www.waterboards.ca.gov/lahontan/board_decisions/adopted_orders/2011/docs/r6t2011_0024.pdf

formal data supporting the notion that vacant urban lots contribute any more pollutants than undeveloped forest lands.

Subsurface Contamination

There are a wide variety of existing subsurface soils, groundwater contamination sites, and active remediation sites within the urbanized areas of the Lake Tahoe Region. There is not currently a connection between protecting the groundwaters that are a source for drinking water and the parcel specific BMP requirement applied to all parcels, regardless of subsurface contamination. There are situations where infiltration BMPs are required on top of sites with documented and undocumented leaking underground storage tanks (LUSTs) subject to voluntary and involuntary clean-up orders. Some sites include active MTBE or PCE soil vapor extraction remediation activities, which should not include onsite infiltration of the 20-year, 1 hour design storm currently required by the parcel based BMP regulations. The one-size-fits-all policy encourages the infiltration of surface water on parcels with subsurface contaminated soil and groundwater plumes in contradiction to efforts to extract, remediate, and contain subsurface pollutants and contaminated groundwater plumes.

Existing Efforts

- The Lahontan Regional Water Quality Control Board oversees and regulates both surface water and stormwater for California marinas under NPDES permit NO. CAG616003.¹⁰ The Nevada Division of Environmental Protection (NDEP) regulates marinas in Nevada, where marinas with fuel, boat cleaning, repair or maintenance facilities are subject to Phase I NPDES stormwater permitting requirements.
- The City of South Lake Tahoe is identifying areas of subsurface contamination in the Tahoe Valley Area Plan where parcel specific infiltration BMPs may be inappropriate.
- Section 60.3 of TRPA Code outlines source water protection requirements.

Recommended Actions

- 9.1 Coordinate with Lahontan and NDEP to determine which marinas are in compliance with NPDES requirements and eligible for a BMP Certificate.
- 9.2 Consider focusing on non-compliant marinas for accelerated BMP implementation in coordination with Lahontan and NDEP.
- 9.3 Focus resources and staff time on strategies that achieve the greatest pollutant load reduction including stormwater management in high loading and connected areas identified by TMDL load reduction plans, while minimizing risk of subsurface contamination to groundwater drinking sources.

¹⁰ Lahontan Marina General Permits -- ORDER NO. R6T-2011-0024, NPDES NO. CAG616003:
http://www.waterboards.ca.gov/lahontan/board_decisions/adopted_orders/2011/docs/r6t2011_0024.pdf