

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**MEETING OF NOVEMBER 4-5, 2015
BARSTOW**

ITEM: 2

SUBJECT: ***PUBLIC HEARING - 2015 TRIENNIAL REVIEW OF THE
WATER QUALITY CONTROL PLAN FOR THE LAHONTAN
REGION (BASIN PLAN)***

DISCUSSION: Periodic review and update of Basin Plans is required under state and federal law. The Triennial Review process in California involves Water Board action to prioritize a list of basin planning issues for the staff to address over the following three years. Triennial Review is not a regulatory action (unless it includes adoption of Basin Plan amendments) and, therefore, does not require environmental review.

For the 2015 Triennial Review process, Water Board staff prepared a draft list of basin planning topics or projects, a staff report, and the status of each topic on the 2012 Triennial Review list. These documents were made available to the public on the Board's webpage and the projects list and hearing notices were sent to Basin Plan electronic mailing lists, including the Triennial Review e-mail list.

The 2015 Triennial Review final projects list shows 20 projects. Since the scoping meeting in September, some projects have been combined into one proposed project as described in the project descriptions. For example, several site specific objective projects and beneficial use revisions for the Mojave River and Mojave groundwater Basin are combined into one project (see Project #6 in Table 3 of the Staff Report). Projects #1 through #3 are specific to the Basin Planning Program and must be continued to administer the Program. Project #4 (Bacteria Water Quality Objective revisions) and Project #5 (Lake Tahoe Nearshore) have undergone years of work and extensive staff resources; these two projects should continue.

Staff received seven public comment letters. Enclosure 3 includes the written public comments and staff response. Staff added two additional project proposals based on public requests during the comment period – (1) the Truckee River Watershed Council and David Herbst requested the Board

consider adopting a standard for deposited/embedded sediment for the Middle Truckee River, and (2) Victor Valley Wastewater Reclamation Authority requested the Board re-evaluate the COLD beneficial use designation for the Mojave River from the Upper Narrows to Helendale.

Staff estimated 15.5 person-years (PYs) would be required to complete all of the projects over three years. The Water Board receives approximately 2 PYs for Basin Planning each year for a total of 6 PYs available over three years. Of the 20 projects listed, staff is currently working on nine projects.

After consideration of written comments, public comments presented during the scoping meeting held in September 2015, and Board member comments, staff prepared final recommendations for planning projects to be addressed over the next three fiscal years (Attachment A to the proposed resolution). Tables 3 and 4 in the Staff Report provide greater detail for each of the 20 proposed projects.

Following Water Board action, the resolution and the administrative record of the 2015 Triennial Review process will be transmitted to the State Water Resources Control Board and the US Environmental Protection Agency. No formal State Board action will be taken.

**RECOMMEND-
ATION:** Adoption of proposed resolution.

| Enclosure | Item | Bates Number |
|------------------|---------------------------------------|---------------------|
| 1 | Proposed Resolution | 2-3 |
| 2 | Staff Report on 2015 Triennial Review | 2-9 |
| 3 | Written Comments with Staff Responses | 2-45 |
| 4 | Water Board staff presentation | 2-83 |

ENCLOSURE 1

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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

RESOLUTION R6T-2015-(PROPOSED)

**TRIENNIAL REVIEW OF WATER QUALITY CONTROL PLAN FOR
THE LAHONTAN REGION (BASIN PLAN)**

WHEREAS, the California Regional Water Quality Control Board, Lahontan Region (Water Board), finds:

1. The Water Quality Control Plan for the Lahontan Region (Basin Plan) took effect March 31, 1995 and has been amended since that date.
2. State and federal laws require periodic review and revision of Basin Plans.
3. The Water Board is responsible for reviewing water quality standards and implementation plans as appropriate and for modifying and adopting standards contained in the Basin Plan under provisions set forth in Section 303(c) of the federal Clean Water Act and Section 13240, Division 7 of the California Water Code. The federal process is called "Triennial Review."
4. The Water Board and its staff implemented the 2015 Triennial Review by:
 - a. Sending letters to the Region's Basin Plan mailing list and the electronic mailing list for Triennial Review, with a list of potential planning issues for public comment.
 - b. Making the issues list and a staff report available to the public on request and posting these materials on the Water Board's Internet web page.
 - c. Noticing and conducting a public scoping meetings at its September 16 and 17, 2015 regular meeting in Barstow.
 - d. Responding to public comments received during the designated period.
 - e. Noticing and conducting a public hearing in Barstow on November 4, 2015, prior to Board consideration.
5. As a result of the Triennial Review process, the Water Board formulated the priority issues list shown in Attachment A. This attachment includes recommendations for both regional and statewide planning priorities and identifies priority topics that would require additional funding to be addressed before the next Triennial Review.

THEREFORE BE IT RESOLVED:

1. The Water Board, in fulfillment of the requirements of Section 303(d) of the Federal Clean Water Act and Section 13240, Division 7 of the California Water Code, has done the following:
 - a. Concluded the 2015 Triennial Review of the Lahontan Basin Plan
 - b. Approved the priority list (Attachment A) for revision of the Lahontan Basin Plan
 - c. Concluded that all other planning issues identified by staff and the public during the 2015 Triennial Review process would require additional funding in order to be addressed before the next Triennial Review.
2. The Water Board's Triennial Review actions do not preclude other Basin Plan revisions that may become necessary before the next Triennial Review in 2018.

I, Patty Z. Kouyoumdjian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Lahontan Region, on November 4, 2015.

PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

Attachment A: 2015 Triennial Review Priority List

**Attachment A -
2015 Triennial Review Priority List
Triennial Review of Water Quality Control Plan for the
Lahontan Region**

| Priority | Projects With Available Resources | PYs over 3 years | Cumulative PYs |
|----------|---|------------------------|-------------------|
| 1 | Program Manager | 0.3 | 0.3 |
| 2 | 2018 Triennial Review | 0.2 | 0.5 |
| 3 | Miscellaneous work that will not directly result in Basin Plan Amendments (e.g., regulatory assistance and corrections) | 0.6 | 1.1 |
| 4 | Bacteria Water Quality Objective revisions | 1.0 | 2.1 |
| 5 | Lake Tahoe Nearshore | 0.5 | 2.6 |
| 6 | Mojave River - add BIOL beneficial use to a reach Mojave River - remove COLD beneficial use from a reach Mojave River - SSOs for reach Mojave Basin - SSOs for select groundwater sub-basins | 1.8 | 4.4 |
| 7 | Squaw Valley groundwater withdrawal & in-stream flow | 0.5 | 4.9 |
| 8 | Evaluate appropriate statistical methods (e.g. replace Means of Monthly Means with annual averages, where appropriate, such as Truckee River and Pine Creek) | 0.5 | 5.4 |
| 9 | Riparian Protection Policy | 0.6 | 6.0 |

Projects Needing Additional Resources

| Priority | | | |
|----------|---|-----|------|
| 10 | Hot Creek Water Quality Objectives | 0.6 | 6.6 |
| 11 | Biological indicators | 0.9 | 7.5 |
| 12 | Region-wide approach to TDS Water Quality Objectives for surface waters | 1.5 | 9.0 |
| 13 | Susan River site specific objectives | 2.0 | 11.0 |
| 14 | Deposited/embedded sediment standard for Middle Truckee River | 0.9 | 11.9 |
| 15 | Remove two beneficial uses from Piute Ponds wetlands | 0.5 | 12.4 |
| 16 | Clarify Lahontan Water Board policy on package plants | 0.1 | 12.5 |
| 17 | Fish Springs site specific objectives | 1.0 | 13.5 |
| 18 | Biotic Ligand Model for copper | 0.5 | 14.0 |
| 19 | Revise PCPs water quality objectives | 1.0 | 15.0 |
| 20 | Eagle Lake "building moratorium" related to septic systems | 0.5 | 15.5 |

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ENCLOSURE 2

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STAFF REPORT

on

**2015 Triennial Review
of the
Water Quality Control Plan
for the Lahontan Region**

California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe CA 96150

November 2015

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Introduction

The California Regional Water Quality Control Board, Lahontan Region (Water Board) is the state agency responsible for setting and implementing water quality standards in about 20% of California - east of the Sierra Nevada crest and in the Northern Mojave Desert (Figure 1). Water quality standards and control measures are contained in the Water Quality Control Plan for the Lahontan Region (Basin Plan). The current Basin Plan took effect in 1995, replacing three earlier plans. As of early 2015, 16 sets of amendments to the 1995 plan have received all necessary approvals. The Basin Plan is available on the Water Board's Internet web page at: <http://www.waterboards.ca.gov/lahontan>.

State and federal laws require periodic review and revision of Basin Plans; the federal process is called "Triennial Review." Due to resource limitations and the complexity of California's plan amendment process, Triennial Review in California is generally limited to identification of high priority planning topics to be addressed over the three years between one Triennial Review cycle and the next. Unless it actually involves adoption of plan amendments, Triennial Review is not a regulatory action and does not require environmental analysis under the California Environmental Quality Act. The Water Board's current Triennial Review priorities were adopted in January 2013 and have been used to allocate resources, including Water Board staff (staff) time, towards accomplishing the priorities as much as feasible.

A public scoping meeting was held on September 17, 2015 in Barstow. A public hearing for Triennial Review adoption is scheduled for the Water Board's November 4 and 5, 2015 meeting in Barstow.

This staff report provides information on the Triennial Review process and on planning topics identified by staff. Additional topics may be identified in written public comments or testimony at the November 2015 public hearing. Staff will make final recommendations regarding priority planning topics following the public hearing. The Water Board will be asked to approve a "short list" of topics to be addressed over the following three fiscal years, and to prioritize the remaining topics for future action as resources allow. The review process does not necessarily mean that specific revisions will be made to the Basin Plan, but after investigation by staff, the identified topics may result in Basin Plan amendments. The Executive Officer or the Water Board has the ability to change priorities between the Triennial Review cycles.

Water Quality Standards

In California, water quality standards include designated beneficial uses of water, narrative and numerical water quality objectives, and a nondegradation policy. Water quality objectives are similar to federal "water quality criteria," but objectives are regulatory and criteria are not. Water quality standards in the Lahontan Basin Plan are set forth in Basin Plan Chapters 2, 3, and 5. (http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/reference)

[s.shtml](#)). The plan's beneficial use tables (Tables 2-1 and 2-2) include both existing and potential beneficial uses. Most of the numerical objectives are based on historical water quality data collected before adoption of the 1975 North and South Lahontan Basin Plans, and reflect antidegradation considerations rather than numeric criteria for the protection of specific beneficial uses. Unless criteria for variances to objectives are specifically included in the Basin Plan, variances or exceptions cannot be granted without Basin Plan amendments to revise the objectives.

Applicable water quality standards also include numerical limits for toxic "priority pollutants" promulgated as surface water standards by the U.S. Environmental Protection Agency (USEPA) under the National Toxics Rule and California Toxics Rule. These standards have not yet been physically incorporated into the Basin Plan.

All of the waters of the Lahontan Region are internally drained, and many of them are isolated. The U.S. Army Corps of Engineers has determined that some waters within the Lahontan Region are not "waters of the United States" under the federal Clean Water Act. State standards still apply to any "waters of the State" that are determined not to be waters of the United States.

Triennial Review Process and Public Participation

The Water Board's 2015 Triennial Review Process involves:

- Sending staff's draft topics list and the hearing notices to the Water Board's Basin Plan mailing list and to an electronic mailing list for Triennial Review.
- Making copies of the hearing notice, topics list, and this staff report available on the Water Board's webpage.
- Providing a 45-day public review period (August 10 through September 24, 2015) for the topics list and the opportunity to submit other topics and written comments.
- Preparing written responses to written public comments. All written comments and responses will be provided to the Water Board before the November 2015 hearing.
- Testimony at the September 2015 scoping meeting and the November 2015 public hearing.
- Water Board adoption of a resolution identifying priority planning topics to be addressed by staff and topics requiring additional funding.
- Submission of the adopted priority list to the State Water Resources Control Board (State Water Board) and U.S. Environmental Protection Agency (USEPA).

Basin Plan Amendment Process

The Basin Plan amendment process is summarized in Table 1, adapted from the State Water Board's planning guidance. As the table indicates, the process is lengthy and complex. (The table does not include the revisions that may need to be made in preliminary drafts in response to comments by internal reviewers, and in response to scientific peer review.) Chronologically, the process can require six months to more than a year between the end of the "research" period in Step A. and Water Board action, and nine months or more can be required after Water Board action for the amendments to receive all needed approvals. "Research" for Basin Plan amendments can include scientific literature review and/or water quality monitoring or special studies. Scientific peer review is required for amendments involving scientific judgment, and the reviewer's comments may result in significant changes to preliminary draft amendments before they are released for public review. Following Water Board adoption, amendments must be approved by the State Water Board, the California Office of Administrative Law (OAL), and (in some cases) the USEPA. To facilitate the OAL review process, staff prepares and indexes a detailed administrative record.

Planning Considerations

Budget. The Water Board's planning resources are limited. Some Basin Plan amendments may also require contracted studies for data collection (e.g., special monitoring studies to facilitate update of water quality objectives) or predictive modeling.

Topics needing additional funding. The State Water Board's guidance for the Triennial Review process asks Regional Water Boards to identify planning topics that would require additional funding to address. The Lahontan Water Board will be asked to choose a small subset of the planning topics identified by staff and the public for emphasis over the next three years; ideally the total estimated cost of the selected topics should not exceed the resources expected to be available within that time. All of the remaining topics will be identified as topics requiring additional funding in order to be addressed during the next three years.

Total Maximum Daily Loads (TMDLs). The federal Clean Water Act requires states to identify surface water bodies that are not meeting standards due to pollutants (the "Section 303(d) list"), and to prepare strategies called TMDLs to ensure attainment of standards. In California, TMDLs and TMDL implementation programs are generally (but not always) adopted as Basin Plan amendments. Priorities and schedules for TMDL development are determined through the Section 303(d) list update process and through the Regional Board's annual TMDL program workplans as informed by the *Guidance for the Prioritization of the Lahontan 303(d) List of Impaired Waters* presented to the Board at the July 2015 Board meeting. Section 303(d) listing does not necessarily mean that TMDLs (and/or Basin Plan amendments) will be developed for all listed waters; the impairment issues may be addressed in other ways.

Work on Basin Plan amendments to incorporate TMDLs will be supported with state and/or federal TMDL program funds, not basin planning funds. Public comments may be submitted on TMDL issues as part of the Triennial Review process. Responses to these comments will be prepared, and they will be added to the Water Board's Triennial Review files. However, the Water Board's action will focus on priorities for use of Basin Planning funds for planning topics other than TMDL development.

Status of 2012 Triennial Review Project List

Table 2 shows the status of the 25 previous 2012 Triennial Review priority list as of August 2015.

As Table 2 indicates, priority projects related to the septic system policy and to Lake Tahoe were combined as part of the Basin Plan prohibition project (known informally as the "Basin Plan cleanup"). The Water Board adopted the Basin Plan cleanup project on April 9, 2014, and the State Board approved the Basin Plan amendments on July 2, 2014. On October 1, 2014, the Office of Administrative Law approved the Basin Plan amendments. Certain parts of these amendments are considered "standards" under the Clean Water Act, which are awaiting approval by USEPA. Standards changes include those to beneficial uses and water quality objectives.

The Antelope Valley Salt & Nutrient Management Plan was adopted by the Water Board during its November 2014 Board meeting in Barstow. Staff presented an update on the Mojave Basin Salt & Nutrient Management Plan at the June 2015 Board meeting.

Project #4 (revise water quality objectives for bacteria) is a high priority Basin Planning project with the largest resource allocation for the current Triennial Review period. Staff presented the project status to the Board during the November 2014 Board meeting in Barstow. Staff is coordinating with State Board staff on the state-wide bacteria objective project.

2015 Triennial Review Planning Topics

Table 3 summarizes priority topics for the 2015 Triennial Review. These include:

- Priorities carried over from previous years,
- Ongoing work, and
- New priorities identified by staff and stakeholders.

The total Person-Years (PYs) estimated for all of the 20 proposed topics over three years is 15.5. Current Basin Planning Program staff resources are approximately two PYs per year. In some cases, other program resources may be used to support basin planning activities, such as TMDL resources.

Staff prepared the final recommendations after reviewing written public comments and testimony. (See Enclosure 3 for comment letters and responses to comments.) Staff will request the Water Board to choose a subset of topics from Table 3 and from any new topics identified at the hearing, if appropriate, and to direct staff to investigate these topics over the next three years and develop draft Basin Plan amendments as appropriate. Table 3 contains descriptions of the projects. Additionally, Table 4 provides information on some of the criteria used to prioritize the list of recommended projects.

Schedules for completion of public draft amendments and Water Board action on specific topics will depend upon the complexity of the selected topics. Some of the topics may be worked upon between Fiscal Years 15-16 and 18-19, with Board action on plan amendments after 2019. If important new topics arise before the next Triennial Review, planning priorities may be changed by the Water Board or the Executive Officer. Topics not selected for emphasis in the next three fiscal years will be identified as topics requiring additional funding. If additional funding is received or outside support provided, staff will attempt to address more topics. Staff will reconsider these topics during the next Triennial Review process and may recommend them as priorities at that time.

Figure 1. Map of the Lahontan Region

Table 1. Summary of Basin Plan Amendment Process

Table 2. August 2015 Status of 2012 Triennial Review Priority Projects

Table 3. 2015 Triennial Review Priority List

Table 4. Criteria for 2015 Triennial Review Priority List

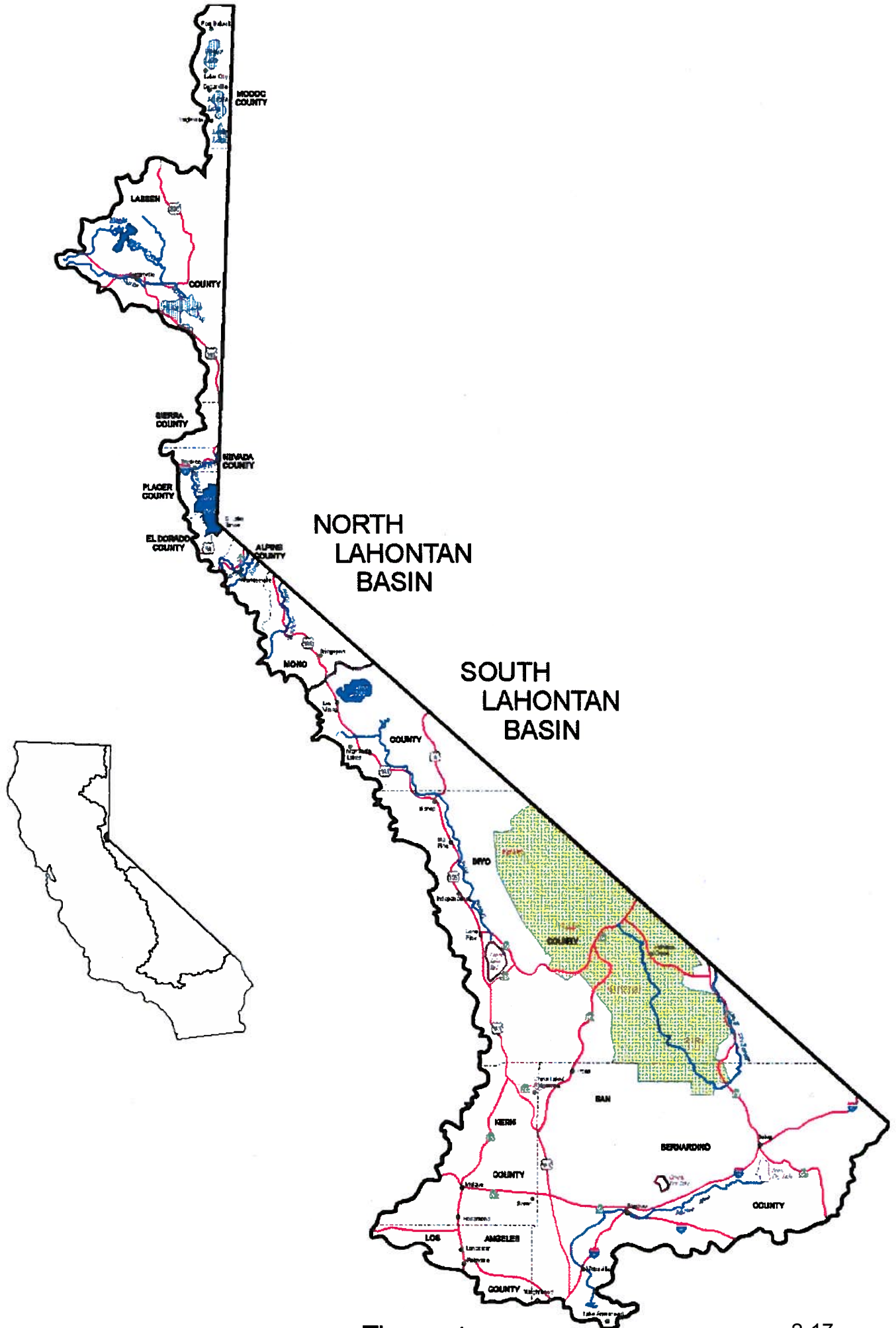


Figure 1

Table 1 Summary of Basin Plan Amendment Process

(Refer to page 37 in the hyperlink)

| WHO... | DOES WHAT? |
|-----------------------|--|
| REGIONAL BOARD | <p>A. IDENTIFY THE NEED for a Plan amendment based on the Triennial Review, public concerns, new or revised laws, regulations or policies, etc. Undertake work to develop solutions - research, field work (e.g. collect chemical, physical, and/or biological monitoring data; data analysis), etc.</p> <p>B. PLAN the Administrative Record for the amendment.</p> <p>C. PREPARE NECESSARY DOCUMENTS STAFF REPORT on the proposed amendment; reasonable alternatives, mitigation, economic considerations, and anti-degradation as required <ul style="list-style-type: none"> • If addressing beneficial uses • If addressing water quality objectives • If addressing an implementation plan THE CEQA CHECKLIST DRAFT AMENDMENT DRAFT RESOLUTION </p> <p>D. EXTERNAL SCIENTIFIC PEER REVIEW</p> <p>E. PUBLISH A HEARING NOTICE / NOTICE OF FILING at least 45 days prior to the hearing</p> <p>F. RESPOND to comments – revising the draft amendment and staff report as necessary</p> <p>G. ADOPTION HEARING</p> <p>H. REGIONAL BOARD TRANSMIT two copies of the complete administrative record to the State Board; and PARTICIPATE in SWRCB Workshop and Board Meeting</p> |
| STATE BOARD | <p>I. APPROVE AMENDMENT at a public meeting (or return it to the Regional Board for further consideration)</p> |
| REGIONAL BOARD | <p>J. TRANSMIT approved amendment to Office of Administrative Law (OAL) for review and approval of the regulatory provisions</p> <p>K. TRANSMIT the OAL approved amendment to US EPA, if needed, for review and approval of surface waters standards and their implementing provisions</p> <p>L. (1) FILE CEQA NOTICE OF DECISION with the Secretary of Resources after final approval by OAL or US EPA. (2) Either pay Department of Fish & Game filing fee or submit Certificate of Fee Exemption.</p> <p>M. PRINT and DISTRIBUTE Amendment</p> |

Table 2 - AUGUST 2015 STATUS of 2012 TRIENNIAL REVIEW PRIORITY PROJECTS

| Projects with Available Resources | Description and Estimated Completion Date | Status in August 2015 |
|--|--|---|
| <p>#1 Prohibition amendments (Basin Plan cleanup)</p> | <p>This project will amend Basin Plan Chapters 4 and 5 to make editorial revisions to remove inconsistencies regarding waste discharge prohibitions and exemption criteria affecting the entire Lahontan Region, add or clarify exemption criteria, and would include some unrelated changes to other parts of the plan.</p> <p>Other proposed changes to the Basin Plan include incorporating State Board policies such as authorizing use of compliance schedules and mixing zones in permits, and the 2012 State Board policy on onsite wastewater treatment systems.</p> | <ul style="list-style-type: none"> • Lahontan Water Board approval on April 9, 2014 • State Board approval on July 2, 2014 • Office of Administrative Law approval on October 1, 2014 <p>Certain amendments that are considered “standards” under the Clean Water Act still need approval by USEPA.</p> |
| <p>#2 Revise water quality objectives for bacteria</p> | <p>Based on the results of ongoing field sampling in the Lahontan Region, revisions to federal criteria for recreational waters, and a proposed State Water Board policy (anticipated in 2014), revisions will be proposed to the current regionwide objectives for “Bacteria, Coliform” specific to our region to incorporate new information including the use of E. coli as an indicator. Water Board contractors are collecting, and Water Board staff are analyzing, data to determine whether bacteria site specific objectives for certain waterbodies are warranted. Staff is evaluating the State Board and USEPA’s E. Coli and enterococci standard setting process. Staff is evaluating options for modernizing bacteria standards.</p> | <ul style="list-style-type: none"> • Field sampling for bacteria analyses are complete (for now) • Producing maps with features pertinent to water quality objective revision decisions • Preparing for public comment meetings and coordination with State Board • Analyses of Microbial Source Tracking samples to begin soon |

| Projects with Available Resources | Description | Status in August 2015 |
|---|---|---|
| #3 Remove the MUN beneficial use designation from select groundwater basins at China Lake Naval Air Weapons Center (NAWS) | Water Board staff has reviewed technical information provided by the U.S. Navy and recommends amending the Basin Plan to remove the MUN use designation for one groundwater basin and the shallow hydrologic zone of another groundwater basin beneath the China Lake NAWS. | This item was adopted at the February 2015 Board meeting in Apple Valley. |
| #4 Incorporate State Water Board onsite wastewater treatment system (OWTS) policy into the Basin Plan and revise existing language and associated changes if needed. | <p>The State Water Board adopted a policy including statewide control measures for onsite wastewater treatment systems (septic systems) on June 19, 2012. The policy directs Regional Water Boards to incorporate it into their Basin Plans within 12 months of its effective date.</p> <p>Revisions to Chapters 4, 6, and the appendices of the Lahontan Basin Plan may also be necessary for compatibility. Staff will not recommend provisions outside the OWTS Policy for systems covered by the Policy, except our prohibitions that are currently in place.</p> | The Policy was adopted at the Water Board's April 2014 as part of the Basin Plan cleanup project (Project #1, above.) |
| #5 Program Manager | The Basin Planning Program Manager participates in State/Regional Water Board Roundtable activities, and workplan development, provides information to the public, etc. | The Program Manager's duties are ongoing. |
| #6 2015 Triennial Review | Prepare the 2015 Triennial Review staff report and priority list. Host scoping meetings and hearings, as necessary, for Water Board consideration. | Scoping and public comment process has begun. |

| Projects with Available Resources | Description | Status in August 2015 |
|--|--|---|
| #7 Miscellaneous work that will not directly result in Basin Plan amendments | Staff resources are needed for work such as: coordination with other states, other agencies, and Native American tribes regarding water quality standards; development and management of contracts related to planning; staff training, coordination with stakeholders involved with aquatic invasive species, etc. | Miscellaneous planning related work is ongoing. |
| #8 Review new scientific information to consider changes to the water quality objectives for nearshore areas of Lake Tahoe. | Evaluate research findings in 2013 and propose next steps to set nearshore assessment indicators as a first step to developing new nearshore water quality standards. Resource needs listed here only include staff evaluation of research findings, interagency coordination, public meetings, stakeholder outreach, and development of a workplan. | In June 2014, staff finalized a plan for implementing a monitoring plan and performing a hotspot causal assessment. |

| Projects with Available Resources | Description | Status in August 2015 |
|--|---|--|
| #9 Incorporate Antelope Valley Salt and Nutrient Management Plan into the Basin Plan | The State Water Board's Recycled Water Policy directs Regional Water Boards to incorporate Salt and Nutrient Management Plans (SNMPs) completed by stakeholder groups into the Basin Plan. | The Antelope Valley SNMP was accepted by the Lahontan Water Board at their November 2014 Board meeting. No Basin Plan amendment is required. |
| #10 Incorporate Mojave Basin Salt and Nutrient Management Plan into the Basin Plan | The State Water Board's Recycled Water Policy directs Regional Water Boards to incorporate SNMPs completed by stakeholder groups into the Basin Plans. Consider revising water quality objectives for Mojave groundwater and river to account for expected changes in salt and nutrients. | Staff will present an update on the Salt & Nutrient Management Plan for the Mojave Basin at the November 2015 Board meeting. |
| #11 Update Chapter 5 of the Basin Plan to reflect pending revisions to the Tahoe Regional Planning Agency's (TRPA's) regional land use and water quality plans. | Chapter 5 of the Lahontan Basin Plan incorporates the regulatory provisions of TRPA's 1988 Water Quality Management Plan for the Lake Tahoe Region ("208 Plan"). TRPA adopted revisions to its regional land use plan on December 12, 2012, and is beginning revisions to the 208 Plan. Staff resources are needed to coordinate with TRPA to ensure consistency with the Lake Tahoe TMDL. Changes to Basin Plan Chapter 5 may be necessary to reflect the TRPA plan revisions as finally adopted. | The updates were adopted at the Water Board's April 2014 as part of the Basin Plan cleanup project (Project #1, above.) |

[Projects #12 through #25, listed below, require additional resources to complete]

| Projects Requiring Additional Resources | Description | Status in August 2015 |
|--|---|---|
| #12 Hydromodification (Riparian Protection Policy) | Revise Basin Plan to include specific implementation measures to protect all beneficial uses or ground and surface waters from the effects of development and hydromodification. Specific emphasis is needed on protecting desert surface waters, including measures to control or prevent excessive erosion of soft soils and subsequent down stream sediment deposition, adversely impacting Aquatic and Wildlife Habitats. | No staff work performed specific to a Basin Plan amendment. |
| #13 Biological indicators | Revise existing narrative water quality objective for protection of aquatic communities (nondegradation of aquatic communities objective). | No staff work performed specific to a Basin Plan amendment. |
| #14 Squaw Valley groundwater withdrawal | Evaluate the effects of potential increased groundwater withdrawal in Squaw Valley on the water quality of Squaw Creek and its tributaries. In particular, examine the interplay of water supply and water quality influencing biological conditions and a consideration of flow requirements for Squaw Creek. | A consultant for Squaw Valley Public Services District submitted a Squaw Creek/Aquifer interaction study in November 2014. The Executive summary states, "The study added to understanding the Valley's hydrology and provided guidance on how to avoid negative impacts to Squaw Creek." Staff is evaluating the study. |
| #15 Revised Hot Creek water quality objectives | Develop revised objectives for Hot Creek (Owens River HU) based on changes in water quality related to increased constituent levels emanating from the natural groundwater flows entering the creek. | No staff work performed specific to a Basin Plan amendment. |

| Projects Requiring Additional Resources | Description | Status in August 2015 |
|--|---|--|
| <p>#16 Adopt or revise site-specific water quality objectives for Fish Springs in the Owens Valley to facilitate NPDES permitting for a state fish hatchery.</p> | <p>The Department of Fish and Wildlife operates Fish Springs hatchery in the Owens Valley where source water is ground water and the discharge from the hatchery forms Fish Springs Creek. The Basin Plan currently has an objective for Fish Springs Creek above the hatchery; however, water no longer exists at that location. Water Board proposes removing this objective from the Basin Plan and setting an objective for Fish Springs creek below the hatchery. This effort may involve gathering additional water quality information from LADWP.</p> | <p>No staff work performed specific to a Basin Plan amendment.</p> |
| <p>#17 Susan River site specific objectives</p> | <p>Develop revised objectives for section of the Susan River and its tributaries downstream of Susanville’s Community Services District (District). Consider lowering water quality while ensuring continued protection of beneficial uses. Staff will need to involve the District, current downstream agricultural users, and the Department of Fish and Wildlife in evaluating alternatives including: increased treatment, increased land disposal capacity, and establishing or ensuring minimum flows in Susan River and its tributaries.)</p> | <p>No staff work performed specific to a Basin Plan amendment.</p> |
| <p>#18 Revise Chapter 3 language on determining compliance with water quality objectives.</p> | <p>The proposed revisions would change water quality objectives expressed as “means of monthly means” to annual means and define minimum sample numbers and sampling frequencies for determining compliance with objectives. This could avoid the need for new Clean Water Act Section 303(d) listings based on very small sample numbers, and facilitate delisting.</p> | <p>No staff work performed specific to a Basin Plan amendment.</p> |
| <p>#19 Dairies Strategy</p> | <p>Revise the Basin Plan, Section 4.10, to include an updated Dairy Regulatory Strategy to address groundwater pollution from dairies. (It may be possible to implement an appropriate strategy without a Basin Plan amendment.)</p> | <p>No staff work performed specific to a Basin Plan amendment. Staff continues to implement the 2010 Dairies Strategy.</p> |

| Projects Requiring Additional Resources | Description | Status in August 2015 |
|---|--|---|
| #20 BIOLOGICAL Beneficial Use for Mojave River | Add the Biological Use (BIOL) for specific reaches of the Mojave River with remaining viable habitat, specifically from Bear Valley Road to Helendale. | No staff work to date specific to a Basin Plan amendment. |
| #21 Clarify Table 2-1, for Hydrologic Unit 628 (Mojave River) | Correct duplicative features of list of beneficial uses between the major and sub-watershed of the Mojave River Hydrologic Unit. | The Policy was adopted at the Water Board's April 2014 as part of the Basin Plan cleanup project (Project #1, above.) |
| #22 Eagle Lake "building moratorium" | Amend the Basin Plan to lessen restrictions on building density for septic systems. This project may be addressed by incorporating State Board's new Onsite Wastewater Treatment Systems Policy. | No staff work to date specific to a Basin Plan amendment. |
| #23 Biotic Ligand Model for copper | Incorporate the USEPA national criteria for copper into water quality standards program using the Biotic Ligand Model. | No staff work to date specific to a Basin Plan amendment. |
| #24 Revise PCPs water quality objectives | The USEPA recommends a revision of water quality objectives for pentachlorophenol (PCPs), where appropriate. The USEPA believes existing objectives are not sufficiently protective of early life stages of salmonids. | No staff work to date specific to a Basin Plan amendment. |

| Projects Requiring Additional Resources | Description | Status in August 2015 |
|---|---|---|
| #25 Remove two beneficial uses from Piute Ponds wetlands | This project would involve removal of Groundwater Recharge (GWR) and Agricultural Supply (AGR) beneficial uses from the Piute (also known as Paiute) Ponds and wetlands in the Amargosa Creek watershed eastern Los Angeles County. The ponds and wetlands are maintained with effluent from the Los Angeles County Sanitation District No. 14 (Lancaster) wastewater treatment facilities. | No staff work to date specific to a Basin Plan amendment. Staff is considering whether to recommend removal of the two beneficial uses. |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|--|---|
| <p>#1</p> <p>Program Manager</p> | <p>Status: The Program Manager’s duties are ongoing.</p> <p>Description: The Basin Planning Program Manager participates in State/Regional Water Board Roundtable activities, workplan development, provides information to the public, etc.</p> <p>Public Comments: none</p> <p>PYs over 3 years: 0.3</p> <p>Criteria: Basin Planning Program, underway, region-wide</p> <p>Conclusion: High priority and “above the line”</p> |
| <p>#2</p> <p>2018 Triennial Review</p> | <p>Status: To be completed in November 2018</p> <p>Description: Prepare the 2018 Triennial Review staff report and priority list. Host scoping meetings and hearings, as necessary, for Water Board consideration.</p> <p>Public Comments: None</p> <p>PYs over 3 years: 0.2</p> <p>Criteria: Required by law (Clean Water Act), Basin Planning Program, region-wide</p> <p>Conclusion: High priority and “above the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|--|--|
| <p>#3</p> <p>Miscellaneous work that will not directly result in Basin Plan amendments</p> | <p>Status: Miscellaneous planning related work is ongoing.</p> <p>Description: Staff resources are needed for work such as: coordination with other states, other agencies, and Native American tribes regarding water quality standards; development and management of contracts related to planning; staff training, coordination with stakeholders involved with aquatic invasive species, etc. Assist regulatory staff in follow-up and implementation of new Basin Plan changes.</p> <p>Miscellaneous corrections and improvements (e.g., editorial revisions, correct references to new policies and plans, consistent use of terms) occasionally are necessary and will “accompany” other Basin Plan amendments to minimize staff resources.</p> <p>Public Comments: none</p> <p>PYs over 3 years: 0.6</p> <p>Criteria: Basin Planning Program, underway</p> <p>Conclusion: High priority and “above the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|---|
| <p>#4</p> <p>Revise water quality objectives for bacteria</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: The current objective of 30-day log mean of 20 colony forming units of fecal coliform per 100 mL in the Lahontan Basin Plan applies to all surface waters in the region and is the most stringent objective in the State of California. Based on the results of ongoing field sampling in the Lahontan Region, revisions to federal criteria for recreational waters, and a proposed State Water Board policy to incorporate the use of E. coli as an indicator (anticipated in late 2016), revisions to the Lahontan Basin Plan may be proposed to establish site-specific objectives.</p> <p>Water Board staff and contractors are collecting, and analyzing data to evaluate the current condition of water body reaches in the Lahontan region and determine what applicable objective should be applied based on beneficial uses. Staff is evaluating the State Board proposed standard and USEPA's guidance. Staff will consider the effects of climate change on land uses and water quality. Staff is coordinating with State Board in the development of the statewide applicable objective to ensure the Lahontan region is accurately represented.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. William Thomas on behalf of Dave Wood Ranches 2. William Thomas on behalf of Centennial Ranches <p>PYs over 3 years: 1.0</p> <p>Criteria: public health, environment, underway, public interest, region-wide, affected by climate change</p> <p>Conclusion: High priority and "above the line"</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|--|--|
| <p>#5</p> <p>Review new scientific information to evaluate the need for changes to the water quality objectives for nearshore areas of Lake Tahoe.</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: Evaluate research findings, including the effects of climate change, and begin collecting data to establish baseline and assess trends using agreed upon nearshore assessment indicators as a first step to evaluating the need for new nearshore water quality standards and determining the most appropriate standards.</p> <p>Resource needs listed here only include staff evaluation of research findings, interagency coordination, public meetings, stakeholder outreach, and contract management (including developing scopes of work for indicator monitoring, causal assessments, and understanding nearshore processes).</p> <p>Public Comments: none</p> <p>PYs over 3 years: 0.5</p> <p>Criteria: Required by law (California legislation), environment, aquatic life, underway, public interest, multi-benefits, affected by population growth, affected by climate change</p> <p>Conclusion: High priority and “above the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|-----------------------|---|
| #6 (continued) | <p>Additionally, some stakeholders are interested in preserving higher quality groundwater and support development of more protective groundwater sub-basin objectives to limit discharges of TDS and nitrogen. (Perhaps using Region 8’s “Groundwater Management Zones” with “maximum benefit objectives” as a model for Region 6.) This project would focus on the Mojave groundwater Basin and sub-basins.</p> <p>Staff will use available data to evaluate groundwater quality, assimilative capacity, effects of climate change, and the ability to maintain higher quality waters for specific groundwater sub-basins. Staff will evaluate the data and recommend whether it is appropriate to set specific WQOs. The Resource Needs estimate does not include producing a basin plan amendment.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. Victor Valley Water Reclamation Authority <p>PYs over 3 years: 1.8 for all four sub-tasks</p> <p>Criteria: public health, environment, aquatic life, public interest, multiple-benefits, affected by population change, affected by climate change</p> <p>Conclusion: High priority and “above the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|--|---|
| <p>#7</p> <p>Squaw Valley groundwater withdrawal</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: Evaluate the effects of potential increased groundwater withdrawal in Squaw Valley on the water quality of Squaw Creek and its tributaries. In particular, examine the interplay of water supply and water quality influencing biological conditions. This topic may also involve a consideration of flow requirements for Squaw Creek possibly in the form of flow objectives, with regulatory effect, to protect certain beneficial uses.</p> <p>Public Comments: none</p> <p>PYs over 3 years: 0.5</p> <p>Criteria: environment, aquatic life, underway, affected by population change, affected by climate change</p> <p>Conclusion: High priority, but “below the line”</p> |
| <p>#8</p> <p>Evaluate appropriate statistical methods (e.g., replace Means of Monthly Means with annual averages, where appropriate, such as Truckee River and Pine Creek)</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: The proposed revisions would change water quality objectives expressed as “means of monthly means” to annual means and define minimum sample numbers and sampling frequencies for determining compliance with objectives. This could avoid the need for new Clean Water Act Section 303(d) listings based on very small sample numbers and facilitate delisting.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. William Thomas on behalf of Centennial Ranches 2. Victor Valley Wastewater Reclamation Authority <p>PYs over 3 years: 1.0</p> <p>Criteria: public interest, multi-benefits, region-wide</p> <p>Conclusion: High priority and “above the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|---|
| <p>#9</p> <p>Riparian Protection Policy</p> <p>(Protecting and Enhancing Watershed Resiliency)</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: Revise Basin Plan to include specific implementation measures to protect all beneficial uses of ground and surface waters from the effects of development and hydromodification. Specific emphasis is needed on protecting desert surface waters, including measures to control or prevent excessive erosion of soft soils and subsequent down stream sediment deposition that adversely impacts Aquatic and Wildlife Habitats. Staff will consider the effects of climate change that may produce more frequent and more severe flashy events.</p> <p>Other enhancements could include improving meadows and floodplains to increase groundwater storage and improve flood attenuation.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. William Thomas on behalf of Dave Wood Ranches 2. William Thomas on behalf of Centennial Ranches <p>PYs over 3 years: 2.0</p> <p>Criteria: environment, aquatic life, underway, multiple benefits, region-wide, affected by climate change</p> <p>Conclusion: High priority and “above the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|---|
| <p>#10</p> <p>Revise Hot Creek water quality objectives</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: Develop revised objectives for Hot Creek (Owens River HU) based on changes in water quality related to increased constituent levels emanating from the natural groundwater flows entering the creek. This effort would assist the Department of Fish and Wildlife in complying with its permit requirements for the Hot Creek Hatchery. The Department of Fish and Wildlife has collected water quality data for this effort.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. William Thomas on behalf of Dave Wood Ranches <p>PYs over 3 years: 0.6</p> <p>Criteria: underway, agency interest, affected by climate change</p> <p>Conclusion: High priority and “below the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|---|
| <p>#11</p> <p>Biological indicators</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: This topic was originally described as “Revise existing narrative water quality objective for protection of aquatic communities (nondegradation of aquatic communities objective).”</p> <p>The current topic description is “Develop narrative and/or numeric biological objectives (i.e., biocriteria) to protect the biological integrity of the Region’s surface waters. This may include development of new objectives, applying a California Stream Condition Inventory score (CSCI), and/or revising and/or expanding the applicability of the Basin Plan’s current narrative objectives for “Nondegradation of Aquatic Communities and Populations” (which currently apply only to wetlands).</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. Thomas on behalf of Dave Wood Ranches 2. Thomas on behalf of Centennial Ranches 3. Victor Valley Wastewater Reclamation Authority <p>PYs over 3 years: 0.9</p> <p>Criteria: environment, aquatic life, underway, multi-benefits, region-wide, affected by climate change</p> <p>Conclusion: High priority and “below the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|--|
| <p>#12</p> <p>Region-wide approach to TDS water quality objectives for surface waters</p> | <p>Status: Newly proposed topic</p> <p>Description: Site specific TDS objectives for surface waters were developed based on limited samples and protect/maintain high quality water but are typically more stringent than needed to protect beneficial uses. Development of the original TDS objectives did not consider the effects of a changing climate on water quality objectives (WQOs).</p> <p>Two possible options are proposed:</p> <p>(A) Adopt a regionwide TDS WQO that would supersede the existing site specific objectives.</p> <p>(B) Adopt new site specific objectives for TDS that are based on protection of beneficial uses, and adopt a more stringent value, if applicable that is based on new data, for maintaining high quality water.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. Victor Valley Water Reclamation Authority <p>PYs over 3 years: 1.5</p> <p>Criteria: underway, region-wide, affected by climate change</p> <p>Conclusion: High priority, but “below the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|---|
| <p>#13</p> <p>Susan River site specific objectives</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: Consider revised objectives for section of the Susan River and its tributaries downstream of Susanville’s Community Services District (District). Consider lowering water quality while ensuring continued protection of beneficial uses. This project is in a preliminary evaluation stage. Staff will need to involve the District, current downstream agricultural users, and the Department of Fish and Wildlife in evaluating alternatives including: increased treatment, increased land disposal capacity, winter storage of treated wastewater, and establishing or ensuring minimum flows in Susan River and its tributaries in light of possible effects from climate change.)</p> <p>Public Comments: none</p> <p>PYs over 3 years: 2.0</p> <p>Criteria: -</p> <p>Conclusion: Medium priority and “below the line”</p> |
| <p>#14</p> <p>Adopt a standard for deposited/embedded sediment for the Middle Truckee River</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: The Truckee River Watershed Council and David Herbst requested the Board consider adopting a standard for deposited/embedded sediment for the Middle Truckee River. They submitted deposited/embedded sediment data showing beneficial use impairment is occurring, supporting a conclusion that the current TMDL target is not sufficient to detect actual impairment from excess sediment.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. David Herbst with Sierra Nevada Aquatic Research Laboratory 2. Truckee River Watershed Council <p>PYs over 3 years: 0.9</p> <p>Criteria: environment, aquatic life, public interest</p> <p>Conclusion: Medium priority and “below the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|--|
| <p>#15</p> <p>Remove two beneficial uses from Piute Ponds wetlands</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: This topic would involve removal of Groundwater Recharge (GWR) and Agricultural Supply (AGR) beneficial uses from the Piute (also known as Paiute) Ponds and wetlands in the Amargosa Creek watershed in eastern Los Angeles County. The ponds and wetlands are maintained with effluent from the Los Angeles County Sanitation District (LACSD) No. 14 (Lancaster) wastewater treatment facilities. LACSD believes these beneficial uses do not actually exist for these receiving waters and could become an urgent issue for LACSD’s activities. The existing waste discharge permit expires in 2020. Application of drinking water or salt-sensitive agriculture-based limits to end of pipe discharges and the receiving water would likely require the construction and implementation of advanced treatment facilities.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. County Sanitation Districts of Los Angeles County <p>PYs over 3 years: 0.5</p> <p>Criteria: agency interest Conclusion: Medium priority and “below the line”</p> |
| <p>#16</p> <p>Clarify Lahontan Water Board policy on package plants</p> | <p>Status: Newly proposed topic.</p> <p>Description: The current Basin Plan indicates all package plants will be regulated under Waste Discharge Requirements (WDRs). Los Angeles County (and potentially other counties and local municipalities) believes small aerated package plants are considered “alternative” systems and are authorized under their local authority and do not require additional authorization from the Water Board. Clarification on the applicability and specific authorization is necessary and may result in a basin plan amendment, clarification memo, or Water Board approvals of Local Area Management Plans.</p> <p>Public Comments: none PYs over 3 years: 0.1 Criteria: region-wide Conclusion: Medium priority and “below the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|---|---|
| <p>#17</p> <p>Adopt or revise site-specific water quality objectives for Fish Springs Creek in the Owens Valley</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: The Department of Fish and Wildlife (DFW) operates Fish Springs hatchery in the Owens Valley where source water is groundwater and the discharge from the hatchery forms Fish Springs Creek. The Basin Plan currently has an objective for Fish Springs Creek above the hatchery; however, water no longer exists at that location. Water Board proposes removing this objective from the Basin Plan and setting an objective for Fish Springs Creek below the hatchery. This effort will involve gathering additional water quality information. It is no longer needed to assist DFW in achieving permit compliance because the Water Board and USEPA approved use intake credits.</p> <p>Public Comments: none</p> <p>PYs over 3 years: 1.0</p> <p>Criteria: -</p> <p>Conclusion: Medium priority and “below the line”</p> |
| <p>#18</p> <p>Biotic Ligand Model for copper</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: Incorporate the USEPA national criteria for copper into water quality standards using the Biotic Ligand Model.</p> <p>Public Comments (see Attachment B): 1. Victor Valley Wastewater Reclamation Authority</p> <p>PYs over 3 years: 0.5</p> <p>Criteria: environment, aquatic life, region-wide, agency interest</p> <p>Conclusion: Low priority and “below the line”</p> |

Table 3 - 2015 Triennial Review Priority List

| Topic | Description |
|--|--|
| <p>#19</p> <p>Revise PCPs water quality objectives</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: The USEPA recommends a revision of water quality objectives for pentachlorophenol (PCPs), where appropriate. The USEPA believes existing objectives are not sufficiently protective of early life stages of salmonids.</p> <p>Public Comments (see Attachment B):</p> <ol style="list-style-type: none"> 1. Victor Valley Wastewater Reclamation Authority <p>PYs over 3 years: 1.0</p> <p>Criteria: region-wide</p> <p>Conclusion: Low priority and “below the line”</p> |
| <p>#20</p> <p>Eagle Lake “building moratorium”</p> | <p>Status: This topic is continued from the 2012 Triennial Review List.</p> <p>Description: Amend the Basin Plan to lessen restrictions on building density for septic systems. (Currently, 20-acre minimum for new development)</p> <p>Public Comments: none</p> <p>PYs over 3 years: 0.5</p> <p>Criteria: -</p> <p>Conclusion: Low priority and “below the line”</p> |

Table 4
Criteria for 2015 Triennial Review Priority List

| Priority | Proposed Project | PYs over 3 years | Cumulative PYs | Required by Law | Basin Planning Program | Public Health | Environment | Aquatic Life | Underway | Expressed public or agency interest | Multi-benefits | Region-wide versus site specific | Affected by population change | Affected by Climate Change |
|----------|---|------------------|----------------|-----------------|------------------------|---------------|-------------|--------------|----------|-------------------------------------|----------------|----------------------------------|-------------------------------|----------------------------|
| 1 | Program Manager | 0.3 | 0.3 | - | yes | - | - | - | yes | - | - | region-wide | - | - |
| 2 | 2018 Triennial Review | 0.2 | 0.5 | yes | yes | - | - | - | - | - | - | region-wide | - | - |
| 3 | Miscellaneous work that will not directly result in Basin Plan Amendments (e.g., regulatory assistance and corrections) | 0.6 | 1.1 | - | yes | - | - | - | yes | - | - | - | - | - |
| 4 | Bacteria Water Quality Objectives revisions | 1.0 | 2.1 | - | - | yes | yes | - | yes | yes | - | region-wide | - | yes |
| 5 | Lake Tahoe Nearshore | 0.5 | 2.6 | yes | - | - | yes | yes | yes | yes | yes | - | yes | yes |
| 6 | Mojave River - BIOL, COLD, and WQOs for reaches. Mojave Basin - SSOs for select groundwater sub-basins. | 1.8 | 4.4 | - | - | yes | yes | yes | - | yes | yes | - | yes | yes |
| 7 | Squaw Valley groundwater withdrawal & in-stream flow | 0.5 | 4.9 | - | - | - | yes | yes | yes | - | - | - | yes | yes |
| 8 | Evaluate appropriate statistical methods (e.g. replace Means of Monthly Means with annual averages, where appropriate) | 0.5 | 5.4 | - | - | - | - | - | - | yes | yes | region-wide | - | - |
| 9 | Riparian Protection Policy | 0.6 | 6.0 | - | - | - | yes | yes | yes | - | yes | region-wide | - | yes |
| 10 | Hot Creek Water Quality Objectives | 0.6 | 6.6 | - | - | - | - | - | yes | yes | - | - | - | yes |
| 11 | Biological indicators | 0.9 | 7.5 | - | - | - | yes | yes | yes | - | yes | region-wide | - | yes |
| 12 | Region-wide approach to TDS WQOs for surface waters | 1.5 | 9.0 | - | - | - | - | - | yes | - | - | region-wide | - | yes |
| 13 | Susan River SSOs | 2.0 | 11.0 | - | - | - | - | - | - | - | - | - | - | - |
| 14 | Deposited/embedded sediment standard for Truckee River | 0.9 | 11.9 | - | - | - | yes | yes | - | yes | - | - | - | - |
| 15 | Remove two beneficial uses from Piute Ponds wetlands | 0.5 | 12.4 | - | - | - | - | - | - | yes | - | - | - | - |
| 16 | Clarify Lahontan Water Board policy on package plants | 0.1 | 12.5 | - | - | - | - | - | - | - | - | region-wide | - | - |
| 17 | Fish Springs site specific objectives | 1.0 | 13.5 | - | - | - | - | - | - | - | - | - | - | - |
| 18 | Biotic Ligand Model for copper | 0.5 | 14.0 | - | - | - | yes | yes | - | yes | - | region-wide | - | - |
| 19 | Revise PCPs water quality objectives | 1.0 | 15.0 | - | - | - | - | - | - | - | - | region-wide | - | - |
| 20 | Eagle Lake "building moratorium" related to septic systems | 0.5 | 15.5 | - | - | - | - | - | - | - | - | - | - | - |

SSOs = Site specific objectives
TDS = Total Dissolved Solids
PCPs = pentachlorophenol

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ENCLOSURE 3

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Enclosure 3

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION

2015 Triennial Review Comment Letters and Responses to Comments

Water Board staff received seven comment letters related to the 2015 Triennial Review. The table below lists the attached letters in order of date received.

| | Subject | Author | Agency | Received |
|---|--|---|---|-----------------|
| 1 | Water Quality Objectives – Bacteria Riparian Protection Biological Indicators Hot Creek Objectives | William Thomas on behalf of Dave Wood Ranches | Best Best & Krieger, Attorneys at Law | 9/4/15 |
| 2 | Bacteria Objectives Lake Tahoe Standard Riparian Standard to Enhance Watershed Biological Indicators Data – Means of Monthly Means | William Thomas on behalf of Centennial Ranches | Best Best & Krieger, Attorneys at Law | 9/4/15 |
| 3 | Consider adopting a standard for the Truckee River TMDL for deposited/embedded sediment | Dr. David Herbst, Research Biologist | Sierra Nevada Aquatic research Laboratory | 9/18/15 |

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**2015 Triennial Review
Comment Letters**

| Subject | Author | Agency | Received | |
|----------------|---|--|---|---------|
| 4 | GWR and AGR Beneficial uses from Piute Ponds wetlands | Ann Heil, Monitoring Section Head, Technical Services Department | Los Angeles County Sanitation Districts Nos. 14 and 20 | 9/23/15 |
| 5 | Add a priority project to consider adding a standard to the Truckee River TMDL for deposited/embedded sediment 305(b)/303(d) Integrated Report, Middle Truckee River sediment and turbidity water quality objectives Truckee River Sediment TMDL presentation | Lisa Wallace, Executive Director Michele Prestowitz, Program Manager | Truckee River Watershed Council | 9/23/15 |
| 6 | Outreach and collaboration | Jeanette Hayhurst, Chairperson of the Technical Advisory Committee to the Mojave Water Agency Lance Eckhart, Director of Basin Management and Resource Planning and Mojave IRWM Plan and SNMP Project Manager for the Mojave Water Agency | Technical Advisory Committee to the Mojave Water Agency | 9/24/15 |

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**2015 Triennial Review
Comment Letters**

| Subject | Author | Agency | Received |
|--|-----------------------------|--|-----------------|
| 7 | Logan Olds, General Manager | Victor Valley Wastewater Reclamation Authority | 10/5/15 |
| Site Specific Objectives for a reach of the Mojave River | | | |
| Region-wide approach to TDS objectives for surface water | | | |
| Biological indicators | | | |
| Compliance language pertaining to monthly means | | | |
| Biological beneficial use for the Mojave River | | | |
| Biotic Ligand Model for copper | | | |
| Revision PCP water quality objectives | | | |
| Consider re-evaluation of the COLD beneficial use designation for the Mojave River from the Upper Narrows to Helendale | | | |

Comment

Response

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September 4, 2015

VIA EMAIL (richard.booth@waterboards.ca.gov)
Richard Booth
California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

RE: COMMENTS RE BASIN PLAN AMENDMENTS – TRIENNIAL REVIEW
BASIN PLAN OBJECTIVES

Dear Mr. Booth:

On behalf of Dave Wood Ranches, we respond to the request for public input on the Lahontan Board’s Triennial Review of Basin Plan Objectives.

We run cattle on the leased Los Angeles Department of Water and Power (LADWP) Chance Ranch below the town of Mammoth Lakes. Those cattle also graze on two USFS lands on each side of U.S. 395. We have operated the Chance Ranch for decades, and coordinate very closely with LADWP on all matters affecting this ranch.

Follows are our initial comments on the August 10, 2015 notice and request for public input on the triennial review of the basin plan proposed amendments.

Project: Water Quality Objectives – Bacteria

As the Board’s document specifies, the Lahontan Basin Plan has for decades had an “outlier” level of 20 col. fecal coliform, where the balance of the state has a fecal objective level of 200 col FC/100mL. This anomaly has persisted in the basin plan for decades since it was originally adopted for Lake Tahoe, and was subsequently morphed to apply throughout the basin without any data or evaluation of its appropriate applicability to any or all waters of the region.

The agricultural community has challenged this improper basin objective for many years as the Bridgeport Agricultural Waiver was adopted and subsequently amended. Similarly, agriculture has challenged this improper objective in each of the basin plan triennial review sessions. In several of these hearing sessions, board members had expressed that they would fix this improper fecal objective. It was often stated that the Board would make the overdue amendment soon, or in the next waiver, or during the next triennial review. Those statements have been hollow as the Lahontan Board has not made the basin amendments to the pathogen

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Lahontan’s 20 fecal coliform/100 mL was originally set for Lake Tahoe and subsequently adopted for the rest of the region. Since then, substantial sampling efforts have shown that most of the waters of the region attain the 20 fc/100 mL standard. However, the 20 fc/100 mL may not be appropriate for some waters of the region, as the commenter asserts.

Staff has not yet proposed a Bacteria Water Quality Objective (WQO) revision for public review for two reasons: (1) additional data were needed to confirm waters that meet or exceed the standard, and (2) State Board staff has proposed a revision of a bacteria standard for recreational beneficial use and Lahontan staff has been coordinating efforts with State Board staff.

| <u>Comment</u> | <u>Response</u> |
|---|--|
| <div data-bbox="470 280 718 367" data-label="Image"> </div> <p data-bbox="268 391 399 431">September 4, 2015 Page 2</p> <p data-bbox="268 464 903 521">objective. That should all now be in the past as there have been additional compelling factors issued well above this particular region which mandate an adjustment in the Region's bacteria standard.</p> <p data-bbox="268 537 913 594">First, after years of review, the US EPA has set forth its evaluation of bacteria, and has published its recommended bacteria standard as 126 col. E.coli/100 mL. This region, therefore, should shift to an E.coli objective, and promulgate it at 126 col. E.coli/100mL.</p> <p data-bbox="268 610 903 691">Second, the SWRCB has been evaluating the statewide basin standards, and may set a single statewide pathogen objective, although this may be difficult balancing both inland and beach standards; however, it is clear that the State Board is concerned with outlier objective situations, such as in the Lahontan Region. This must end, and the EPA guideline be adopted.</p> <p data-bbox="268 708 924 862">Specific to our ranch, we graze cattle throughout the Chance Ranch meadow, which is bisected by Mammoth Creek. Upstream of the ranch is the town of Mammoth Lakes with many houses along the creek, extensive recreation in and around the creek and the town's feeder drain waters, run into the creek. This area also includes golf courses, pack stations, many fishermen, and other recreational activities, all adjacent to the creek. Further above town, the Mammoth Creek source waters are impacted by campgrounds, homes, resorts, and many hundreds of person day users. Throughout the area are squirrels, rodents, deer, bear, and numerous dogs. Mammoth Creek is far from pristine.</p> <p data-bbox="268 878 919 951">On the Chance Ranch itself, we have protected Mammoth Creek by riparian fencing, rest rotation grazing, and other management practices to protect and restore the stream bank riparian area to improve stream bank stability, stream morphology, improve fish habitat, and to protect water quality.</p> <p data-bbox="268 967 913 1024">Immediately below the ranch, however, Mammoth Creek flows through a heavily used fishery, and then intersects hot volcanic outflow of intensely hot and chemically polluted water, which thereby totally destroys all the quality water in Mammoth Creek.</p> <p data-bbox="268 1040 892 1097">The bacteria standards should therefore have no applicability to this highly impacted creek whatsoever; but certainly the 20 col. FC is totally inapplicable. Therefore, Mammoth Creek should either be exempted, or the US EPA level of 126 col. E.coli/100mL be adopted.</p> <p data-bbox="317 1114 531 1138">Project: Riparian Protection</p> <p data-bbox="268 1154 909 1227">On the Chance Ranch, we, in cooperation with the landowner, LADWP, had fenced the watercourses into riparian pastures and implemented rest rotation grazing to enhance woody vegetation growth to improve stream bank restoration, stream sinuosity, fish habitat, and improve water quality, which often is impacted from activities upstream of the ranch. This</p> <p data-bbox="268 1243 388 1260">82234.00001\16071386.1</p> | <p data-bbox="1050 505 1900 561">Staff acknowledges that State Board is considering setting a state-wide bacteria standard for recreation based, in part, on US EPA recommendations.</p> <p data-bbox="1050 610 1906 773">Staff evaluates the sources of bacteria in several ways, including : (1) visual observations during sampling and institutional knowledge, (2) contract bacteria source studies (e.g., Sierra Nevada Aquatic Research Lab), and (3) microbial source tracking analyses of samples collected by Lahontan staff and contractors. Staff considers multiple sources in their evaluation and eventual recommendation for bacteria WQO revisions.</p> <p data-bbox="1050 805 1837 829">Staff carefully review reports submitted on grazing management practices.</p> <p data-bbox="1050 911 1717 935">Staff considers natural impacts to water quality, as appropriate.</p> |

Comment

Response



September 4, 2015
Page 3

project was designed by leading expert Bill Platts, and has received awards from each conservation and environmental groups. It was also the precursor of LADWP engaging similar management throughout their area ranches.

Consequently, is no reason for the Lahontan Regional Board to otherwise regulate riparian zones in these areas of the Region.

Moreover, the meadow areas of this ranch and throughout the Region are very stable due to flat terrain and mature native grasses, so there are not erosion risks, which were referenced. Additionally, there are no problems associated with flood erosions needing any attenuation.

Project: Biological Indicators

The proposal to develop new biological objectives (bio-criteria), such as applying the "California Stream Condition Inventory Score (CSCD), or more widely applying the wetland criteria dealing with protecting aquatic communities is unnecessary. Using insects for regulatory purposes is yet a developing science, and completely premature to convert to a regulatory provision. The populations of our Caddis and Stone Flies peak and rebound quickly and vary substantially within single stream reaches.

Project: Hot Creek Objectives

We take no position as to Hot Creek objectives; however, we do note that these hot and chemical flows into Mammoth Creek totally render the quality standards as to Mammoth Creek meaningless immediately below our Chance Ranch.

Sincerely,

William J. Thomas
for BEST BEST & KRIEGER LLP

WJT:img

Cc: Kimberly Cox, Board Chair
Keith Dyas, Vice Chair
Peter Pumphrey
Amy Horne, Ph.D.
Don Jardine
Eric Sandel
Patty Kouyoumdjian
Bruce Warden

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Staff acknowledges your comment that there is no reason to regulate riparian zones in the area in question.

Staff acknowledges your comment but note that there has been extensive work on biological indicators to represent water quality. Any proposal for biological indicators as narrative and/or numeric objectives will undergo public review and will be subject to peer review.

Comment

Response

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William J. Thomas
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william.thomas@bbklaw.com
File No. 82226.00001

September 4, 2015

VIA EMAIL

Richard Booth
California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

RE: COMMENTS RE BASIN PLAN AMENDMENTS – TRIENNIAL REVIEW
BASIN PLAN OBJECTIVES

Dear Mr. Booth:

On behalf of Centennial Ranches, we respond to the request for public input on the Lahontan Board's Triennial Review of Basin Plan Objectives.

Project: Bacteria Objectives:

As the Board's document specifies, the Lahontan Basin Plan has an "outlier" level of 20 col. fecal coliform/100mL, where the balance of the state has a fecal objective level of 200 col FC/100mL. This anomaly has persisted in the basin plan for decades since it was originally adopted for Lake Tahoe, and subsequently morphed throughout the basin without any data or evaluation of its appropriate applicability to any or all waters of the region, most specifically agricultural waters.

The agricultural community has challenged this improper basin objective for many years as the Bridgeport Agricultural Waiver was adopted and subsequently amended. Similarly, we have challenged this improper objective in each of the basin plan triennial review sessions. In several of these hearing sessions, board members had expressed that they would fix this improper fecal objective. It was often stated that the Board would make the overdue amendment "soon," or in the next waiver," or "the next triennial review." Those statements have turned out to be hollow as the Lahontan Board has not made the basin amendments to this anomaly pathogen objective. That should all now be in the past as there have been additional compelling factors well above and beyond this particular region.

82226.00001\16067386.1

Lahontan's 20 fecal coliform/100 mL was originally set for Lake Tahoe and subsequently adopted for the rest of the region. Since then, substantial sampling efforts have shown that most of the waters of the region attain the 20 fc/100 mL standard. However, the 20 fc/100 mL may not be appropriate for some waters of the region, as the commenter asserts.

Staff has not yet proposed a Bacteria Water Quality Objective (WQO) revision for public review for two reasons: (1) additional data were needed to confirm waters that meet or exceed the standard, and (2) State Board staff has proposed a revision of a bacteria standard for recreational beneficial use and Lahontan staff has been coordinating efforts with State Board staff.

| Comment | Response |
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| <p style="text-align: center;">IBk BEST BEST & KRIEGER ATTORNEYS AT LAW</p> <p>Richard Booth September 4, 2015 Page 2</p> <p>First, after years of review, the US EPA has set forth its evaluation of bacteria standards, and has published its bacteria standard as 126 col. E.coli/100mL. This region, therefore, should shift to an E.coli objective, and promulgate that objective at the 126 col. E.coli/100mL level.</p> <p>Second, the SWRCB has been evaluating a possible statewide basin standard, and may set a single statewide pathogen objective, although this may turn out to be difficult as they attempt to balance both inland and beach standards; but, it is clear that the State Board is concerned with the outlier situations, such as in the Lahontan Region. Therefore, this must end, and the EPA guideline be adopted.</p> <p>Project: Lake Tahoe Standard:</p> <p>It is interesting that the Board is considering splitting the Tahoe water quality standards based on the distance from shore. In that the bacterial standard of 20 col. FC/100mL was originally set for Lake Tahoe, now may be a perfect time to adopt the US EPA recommended 126 col. E.coli/100 mL across the entire basin. Alternatively, the Board could do so for the entire basin and only for waters near the shore of Tahoe, and setting a special, more strict standard for Lake Tahoe mid-lake.</p> <p>Project: Riparian Protection to Enhance Watershed:</p> <p>In the Bridgeport Valley, we have fenced the natural waterways to protect water quality and enhance native protective growth (particularly woody species) along the waterways. We have, additionally, fenced other watercourses, armored livestock crossings and limited livestock access to creeks.</p> <p>The Bridgeport Valley is very level, has stable soils throughout the ranch, and is characterized by abundant forage and extensive woody species across the western and southern reaches of the valley. The valley receives runoff from watercourses directly from the Sierra slope, and is a valley "sponge" for water. No further regulation is necessary for "riparian protection" or "floodplain" improvement, or increasing "groundwater storage or flood attenuation."</p> <p>Project: Biological Indicators:</p> <p>The description is unclear as to what "new objectives" for stream condition are contemplated. Further, the expansion of the objective "protecting aquatic community populations" from applicability to wetlands and extending it to meadows is also uncertain and concerning.</p> <p>82226.00001 116067386.1</p> | <p>Staff acknowledges that State Board is considering setting a state-wide bacteria standard for recreation based, in part, on US EPA recommendations.</p> <p>The "Lake Tahoe Standard" or Nearshore Project is intended to address water clarity and algal growth, not bacteria. But staff acknowledge that a separation of nearshore and mid-lake for the purposes of different water quality objectives could apply to bacteria water quality objectives as well.</p> <p>Staff acknowledges your comment stating there is no reason to regulate riparian zones in the Bridgeport Valley.</p> <p>If the biological indicator project is performed, new objectives for stream condition not be determined (and brought out for public review) until studies are complete. Similarly, expanding the applicability of the current narrative objectives for "Nondegradation of Aquatic Communities and Populations" is not is determined. Staff notes that an expansion to meadows is "concerning."</p> |

Comment

Response



Richard Booth
September 4, 2015
Page 3

Project: Data – Means of Monthly Means

Water sampling in the Eastern Sierra streams is limited as to runoff season, icing and snow conditions, and limited use periods. These and other factors lead to limited sampling and thus, a limited assortment of data points. This supports the proposed amendment to Means of Monthly Means. It will also balance out data fluctuations, which makes both landowner management and Board enforcement more difficult.

Sincerely,



William J. Thomas
for BEST BEST & KRIEGER LLP

WJT:img

Cc: Kimberly Cox, Board Chair
Keith Dyas, Vice Chair
Peter Pumphrey
Amy Horne, Ph.D.
Don Jardine
Eric Sandel
Patty Kouyoumdjian
Bruce Warden

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| <u>Comment</u> | <u>Response</u> |
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| <p style="text-align: center;">David B. Herbst, PhD Sierra Nevada Aquatic Research Laboratory University of California 1016 Mt Morrison Road Mammoth Lakes CA 93546</p> <p style="text-align: right;">September 18, 2015</p> <p>Richard Booth Chief, TMDL/Basin Planning Unit Lahontan Regional Water Quality Control Board 2501 Lake Tahoe Blvd So. Lake Tahoe, CA 96150</p> <p>Re: Priority projects for Triennial Review of the Water Quality Control Plan for the Lahontan Region (Basin Plan)</p> <p>Dear Mr. Booth,</p> <p>As a scientist who has been involved in a variety of research projects in support of developing standards and guidance for water quality in the Lahontan Region, I have produced work resulting in an aquatic invertebrate bioassessment index for the Region, sediment and invertebrate measures of impaired condition on Squaw Creek, and many other assessments and reviews of the health of stream habitat and water in the Sierra. More recently I've done work under research grants from the Truckee River Watershed Council (and earlier from Lahontan) to study the condition of biological health in the Middle Truckee with regard to the relation of deposited sediment on the diversity and types of indicator invertebrate organisms. These studies collectively can be used to identify how and where sediments are impairing aquatic health of the river and tools that can be used to assess ongoing changes and track areas of improvement or degradation in this aspect of water quality where it might occur. Suspended sediment standards alone do not address impacts to aquatic life health, are episodic in nature, and seem to be uncoupled from the deposition patterns observed. So I encourage, as part of prioritizing projects for the triennial review, that LRWQCB consider adopting a standard for the Truckee River TMDL for deposited/embedded sediment. I'd be happy to advise on how this might be done, using results of past research (reports available) and strategy for how monitoring can inform management and the achievement of standards.</p> <p style="text-align: center;">Best Regards</p> <p style="text-align: center;">David B. Herbst, PhD, research biologist</p> | <p>Staff added the project "Truckee River embedded sediment standard" to the list of 2015 Triennial Review Recommended Priority Projects for the Board's consideration.</p> |

Comment

Response



**COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY**

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

September 23, 2015
File No. 32-11.01.00

Via Electronic Mail

Mr. Richard Booth
California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

Dear Mr. Booth:

2015 Triennial Review of the Lahontan Basin Plan

Thank you for the opportunity to provide comments on the 2015 Triennial Review of the Water Quality Control Plan for the Lahontan Region (Basin Plan). Within the jurisdiction of the California Regional Water Quality Control Board, Lahontan Region (Regional Board), County Sanitation District Nos. 14 and 20 of Los Angeles County (Sanitation Districts) operate the Lancaster and Palmdale Water Reclamation Plants (WRPs), respectively. These plants operate under Regional Board Orders and may be directly impacted by modifications to the Basin Plan.

The Sanitation Districts request that the Regional Board consider as a high priority for the 2015 Triennial Review the examination of Beneficial Use (BU) designations for Amargosa Creek downstream of the point of Lancaster WRP discharge, Piute Ponds (also known as "Piute Ponds"), and the Piute Ponds Wetlands, all of which are located in the Lancaster Hydrologic Area. The Regional Board has put forth substantial efforts toward designating specific BUs for Piute Ponds in the past and has repeatedly indicated its intent^{1,2} to consider changes in the designation of other BUs, namely Ground Water Recharge (GWR) and Agricultural Supply (AGR). This specific issue was considered in the 2009 and 2012 Triennial Reviews, and was identified by the Regional Board as a priority, but one that would require additional resources in order to be addressed.³


The Sanitation Districts would like to support efforts to de-designate these BUs, and suggest that the issue be considered as a high priority because these beneficial uses do not actually exist for these receiving waters and could become an urgent issue for Sanitation Districts' activities. Regional Board staff has indicated that they are considering whether to begin working on revising the Sanitation District No. 14's current waste discharge permit, which includes allowing discharge from the Lancaster WRP to the Piute Ponds receiving water. Regardless of the timing of this review, a permit renewal will be required before terms in the permit expire in 2020. The Sanitation Districts are greatly concerned that inappropriate water quality standards could be applied to these receiving waters, and the discharges to them, despite the fact that the GWR and AGR BU designations are not appropriate. Application of

¹ Letter to Sanitation Districts from Regional Board, "Comments On Los Angeles County Sanitation Districts' October 2003 Aquatic Biological Survey and Beneficial Use Designation Reports for Piute Ponds, Amargosa Creek, and Rosamond Dry Lake," January 20, 2004.

² Lahontan Regional Board, "Technical Staff Report: Revised Water Quality Standards for Surface Waters of the Antelope Hydrologic Unit," August 2007.

³ Regional Board Resolutions R6T-2009-013 and R6T-2013-0008.

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| <u>Comment</u> | <u>Response</u> |
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| <p data-bbox="247 256 378 272">Mr. Richard Booth</p> <p data-bbox="617 256 642 272">-3-</p> <p data-bbox="827 256 961 272">September 23, 2015</p> <p data-bbox="247 313 961 386">In addition, as described earlier, there is very limited connectivity from Amargosa Creek downstream of the point of Lancaster WRP discharge, Piute Ponds, or the Piute Ponds Wetlands to the regional groundwater aquifer that is used for some agricultural activities. Thus, the AGR beneficial use for groundwater would not be affected by de-designating this use for the surface water.</p> <p data-bbox="247 407 961 500">Again, the Sanitation Districts thank you for the opportunity to comment on the 2015 Triennial Review of the Basin Plan. Additionally, the Sanitation Districts may be able to offer staff resources to assist with your Basin Planning efforts as they pertain to Sanitation Districts' activities and concerns. If you have any questions, please contact Erika Bensch at (562) 908-4288, extension 2836 or by email at erikabensch@lacsds.org.</p> <p data-bbox="653 532 865 654"> Very truly yours,  Ann Heil Monitoring Section Head Technical Services Department </p> <p data-bbox="247 672 386 688">ATH:AJH:EXB:lmb</p> | <p data-bbox="1052 326 1892 472">Although this project has received low priority Triennial Review status in the past, and is not recommended for high priority in the 2015 Triennial Review process, staff recommends further discussion with LA County Sanitation Districts to explore modifications to the project and possible cost-sharing steps.</p> |

| Comment | Response |
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| <p>530.550.8760 P.O. Box 8568 Truckee, CA 96162 truckeeriverwc.org #truckeeriverday</p> <p>California Department of Fish and Wildlife California Department of Parks and Recreation California Department of Water Resources California Fly Fisher Magazine Glenshire Homeowners Association DMB/Highlands Group, LLC East West Partners Friends of Squaw Creek KidZone Museum Lahontan Regional Water Quality Control Board Mountain Area Preservation Nevada County North Lake Tahoe Resort Association Northstar California Placer County Placer County Water Agency Sagehen Creek Field Station - UC Berkeley Sierra Business Council Sierra County Sierra Watch Sierra Watershed Education Partnerships Squaw Valley and Alpine Meadows Tahoe-Truckee Sanitation Agency Town of Truckee Trout Unlimited Truckee Donner Land Trust Truckee Donner Public Utility District Truckee Meadows Water Authority U.S. Army Corps of Engineers USDA Forest Service</p> | <div data-bbox="436 250 793 344" data-label="Image"> </div> <p data-bbox="352 367 520 386">September 23, 2015</p> <p data-bbox="352 407 758 521">Richard Booth Chief, TMDL/Basin Planning Unit Lahontan Regional Water Quality Control Board 2501 Lake Tahoe Blvd. South Lake Tahoe, CA 96150 Submitted via Richard.Booth@waterboards.ca.gov</p> <p data-bbox="352 542 464 561">Dear Richard,</p> <p data-bbox="352 583 940 618">Thank you for the opportunity to offer comments on the priority projects for the Triennial Review of the Lahontan Basin Plan.</p> <p data-bbox="352 639 940 716">The Truckee River Watershed Council respectfully requests the Lahontan Water Board add a priority project to the Triennial Review to consider adding a standard to the Truckee River TMDL for deposited/embedded sediment.</p> <p data-bbox="352 737 947 850">TRWC was founded to protect and restore the water quality and the biological resources of the Truckee River. We identify, coordinate, fund, and implement restoration and preservation projects related to the health, beauty, and economy of the watershed. As such, we reviewed the proposed priority list with interest and offer the following comments in support or an additional standard for the Middle Truckee River watershed.</p> <p data-bbox="352 872 953 964">We respectfully remind the Lahontan Water Board of our 2014 request for an additional TMDL standard for the Middle Truckee River Watershed. Please see the attached letter dated May 16, 2014 and presentation to the Board on June 19, 2014. The content of these materials is summarized below.</p> <p data-bbox="352 985 940 1062">The current TMDL standard does not appear to be sufficient to detect actual impairment from excess sediment. An additional standard that directly assesses impacts to beneficial uses may be necessary.</p> <p data-bbox="352 1083 953 1278">Integrated Report calls for further investigation. The April 2014 Clean Water Act Sections 305(b) and 303(d) Integrated Report (Integrated Report) for the Lahontan Region states, "Though the total suspended sediment data shows the Truckee River meets the TMDL sediment target since 2004, consistent exceedances of the turbidity water quality objective for the past several years raises concern about effectiveness of the implemented actions and the other TMDL targets. Because total suspended sediment is closely related to turbidity, the fact that the total suspended sediment target is met while the turbidity objective is not met must be further investigated."</p> <p data-bbox="485 1317 764 1333">Truckee River Watershed Council is a nonprofit 501(c)(3) organization.</p> |

| <u>Comment</u> | <u>Response</u> |
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| <p>Data supports the need for further investigation. In 2010 and 2011 TRWC implemented a monitoring plan* in support of the Truckee River TMDL. The monitoring program consisted of (1) suspended sediment and turbidity monitoring, (2) bioassessment studies, and (3) sediment deposition surveys.</p> <p>The data demonstrated inconsistencies between the current TMDL standard and support of beneficial uses:</p> <p>(1) Suspended Sediment Concentration meets standard. The suspended sediment (SSC) and turbidity monitoring focused on three crucial tributary streams: Cold Creek, Donner Creek, and Trout Creek. The SSC data* collected from these tributaries demonstrated that for the monitoring period the three tributary streams had suspended sediment concentrations below the TMDL standard (SSC concentration of 25 mg/L or less 90% of the time).</p> <p>(2) However, bioassessment studies find Beneficial Uses are impaired.* In contrast to the SSC and turbidity monitoring, the bioassessment data strongly supported that beneficial uses are impaired in the Truckee River:</p> <ul style="list-style-type: none"> • Compared to reference streams, the Truckee River consistently scored lower on the Eastern Sierra Index of Biological Integrity. In 2010, Dr. David Herbst of U.C. Santa Barbara – Sierra Nevada Aquatic Research Laboratory, conducted a reference-test study comparing several sites along the Truckee River to similar eastern Sierra streams with less watershed disturbance (Carson, Walker, and Markleeville Creek). All sampling sites on the Truckee River scored below the "not supporting of beneficial uses" or "partially supporting" thresholds. Reference streams scored as "supporting" or "partially supporting". • There were significant differences in biological conditions starting with just 20% sediment coverage. At 80% or greater sediment coverage, there were very significant decreases in biological condition.* Based upon this work, additional monitoring was conducted to more specifically examine the relationship between sediment and biological communities. A patch-scale study to examine the relationship between deposited sediment and biological condition of the benthic community, and found: <ul style="list-style-type: none"> ➢ Decrease in the quantity and quality of food resources, meaning that both the number and size of benthic macroinvertebrates decreased with increasing sediment coverage; ➢ The BMI community shifted away from organisms intolerant of pollution towards species that are more tolerant of poor water quality. <p>(3) Sediment Deposition is widespread.* We completed surveys to assess the extent of sediment deposition near our bioassessment sampling sites*. In these surveys, at six of the ten sampling sites, 50% or more of the survey points</p> <p style="text-align: center;"><i>Page 2 of 4</i></p> | |

| <u>Comment</u> | <u>Response</u> |
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| <p>measured sediment coverage in the excessive category (80 – 100% coverage by fine sediment).</p> <p>Current TMDL Standard does not reflect that Beneficial Uses Are Not Supported. Taken together, these studies indicate that Beneficial Uses including "Cold Freshwater Habitat" and "Spawning Reproduction and Development" are likely to not be fully supported in the Truckee River due to impacts on the base of the food web and excess deposited sediment. The current TMDL standard based on suspended sediment concentrations does not support beneficial uses.</p> <p>We highlight our monitoring data to support the Lahontan Water Board staff conclusions that:</p> <ul style="list-style-type: none"> • Beneficial uses are impacted in the Truckee River; • The current TMDL numeric standard does not appear to be sufficient to detect actual impairment from excess sediment. <p>There is precedent for standards based on deposited/embedded sediment. The following TMDLs partially address deposited/embedded sediment and the impact to Beneficial Uses. These could possibly be a starting point for development of an additional standard for the Truckee River TMDL:</p> <p>SWRCB Region 6 – Lahontan Region, sediment TMDLs</p> <ul style="list-style-type: none"> • Blackwood Canyon • Squaw Creek <p>SWRCB Region 1 – North Coast, sediment/siltation TMDLs</p> <ul style="list-style-type: none"> • Cape Mendocino – Mattole River • Eel River • Mad River <p>The Watershed Council's goal is to complete 50 high priority projects in the next 10 years in order to improve the health and function of the Truckee River watershed. Identifying the appropriate standard for the Truckee River TMDL is fundamental to our ability to address the problems of our watershed. We strongly encourage the Lahontan Water Board to add a priority project to the Triennial Review to consider adding a standard to the Truckee River TMDL for deposited/embedded sediment.</p> <p>Thank you for considering our comments.</p> <p style="text-align: right;"><i>Page 3 of 4</i></p> | |

Comment

Response

Sincerely,



Lisa Wallace
Executive Director



Michele Prestowitz
Program Manager

CC: Beth Christman, Truckee River Watershed Council

Attachments:

1. TRWC letter of May 16, 2014: 305(b)/303(d) Integrated Report, April 2014
2. TRWC presentation to LRWQCB of June 19, 2016: Truckee River Sediment TMDL

*All data can be found in reports on our website at www.truckeeriverwc.org:

- [Bugs, Dirt, and Data – New Findings about Why the Truckee River Needs Our Help 1.27.15](#)
- [Middle Truckee River - Benthic Macroinvertebrate Responses to Sediment Deposition](#)
- [Middle Truckee River TMDL Bed Conditions Monitoring Report WY 2010-2011](#)
- [Middle Truckee River TMDL Bed Conditions Monitoring Report WY 2014](#)
- [Middle Truckee River TMDL Suspended Sediment Monitoring Report WY2011](#)
- [Middle Truckee River TMDL Suspended Sediment Monitoring Report WY2012](#)
- [Middle Truckee River TMDL Suspended Sediment Monitoring Report WY2013](#)
- [Middle Truckee River TMDL Suspended Sediment Monitoring Report WY 2014](#)
- [Middle Truckee River – Use of Benthic Invertebrate Indicators to Evaluate Excess Sediment Deposition](#)
- [Annual Monitoring Data Report 8.30.2008](#)
- [Annual Monitoring Data Report 2010](#)
- [Annual Monitoring Data Report 12.2011](#)
- [Annual Monitoring Data Report 12.2012](#)
- [Annual Monitoring Data Report 12.2013](#)
- [Annual Monitoring Data Report 2.10.2015](#)

Staff added the project "Truckee River embedded sediment standard" to the list of 2015 Triennial Review Recommended Priority Projects for the Board's consideration.

Please note it is possible to employ bioassessment metrics and embeddedness to evaluate TMDL attainment, particularly if beneficial uses are not fully protected. Such an approach may result in appropriate impairment assessment without a Basin Plan amendment.

Staff prefer to emphasize using existing tools to determine whether narrative water quality objectives for biological communities are being met.

Also note that TMDL funding, as opposed to Basin Planning resources, can be used for these types of evaluations and determinations.

Comment

Response

530-550-8760
P.O. Box 8566
Truckee, CA 96162
truckeeriverc.org



Truckee River Watershed Council

Collaborative solutions to protect, enhance and restore the Truckee River Watershed

- California Department of Fish and Wildlife
- California Department of Parks and Recreation
- California Department of Water Resources
- California Fly Fisher Magazine
- Glenshire Homeowners Association
- DMB-Hylands Group, LLC
- East West Partners
- Friends of Squaw Creek
- KidZone Museum
- Lahontan Regional Water Quality Control Board
- Mountain Area Preservation
- Nevada County
- North Lake Tahoe Resort Association
- Northstar California
- Placer County
- Placer County Water Agency
- Sagehen Creek Field Station - UC Berkeley
- Sierra Business Council
- Sierra County
- Sierra Watch
- Squaw Valley and Alpine Meadows
- Tahoe Truckee Sanitation Agency
- Town of Truckee
- Trout Unlimited
- Truckee Donner Land Trust
- Truckee Donner Public Utility District
- Truckee Meadows Water Authority
- U.S. Army Corps of Engineers
- USDA Forest Service Tahoe National Forest

Carly Nilson
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

May 16, 2014

RE: 305(b)/303(d) Integrated Report, April 2014

Thank you for the opportunity to offer comments on the recently released Clean Water Act Sections 305(b) and 303(d) Integrated Report (Integrated Report) for the Lahontan Region.

Support for Maintaining Listings

The Truckee River Watershed Council (TRWC) supports maintaining the listings for water bodies in the Truckee River watershed, including the Middle Truckee River, Donner Lake, and Squaw Creek. This comment letter will focus on data regarding the Middle Truckee River.

We agree with the conclusion presented in the Integrated Report Staff Report that the Truckee River is not ready for delisting. As stated on Page 10 of the Report, we agree that there needs to be further investigation of the current sediment target and turbidity water quality objectives.

Data in Support of the Listing

Impairment of Beneficial Uses. The Integrated Report is based on data collected through 2010. Data TRWC has collected since 2010 indicate that:

1. The current TMDL standard may not detect impairment of beneficial uses.
2. Beneficial uses are impacted in the Truckee River.

In 2010 and 2011 TRWC implemented a monitoring plan in support of the Truckee River TMDL. The monitoring program consisted of suspended sediment and turbidity monitoring as well as bioassessment studies.

Suspended Sediment Concentration. Our suspended sediment (SSC) and turbidity monitoring focused on three key tributary streams: Cold Creek, Donner Creek, and Trout Creek. The SSC data collected from these tributaries demonstrated that for the monitoring period the three tributary streams had suspended sediment concentrations below the TMDL standard, which is that the SSC concentration is 25 mg/L or less 90% of the time.

Truckee River Watershed Council is a nonprofit 501 (c)(3) organization.

| <u>Comment</u> | <u>Response</u> |
|---|-----------------|
| <p>Bioassessment. In contrast, the bioassessment data strongly supported that beneficial uses are impaired in the Truckee River. We summarize below the key results from these studies.</p> <p>We developed a monitoring program with Dr. David Herbst of U.C. Santa Barbara – Sierra Nevada Aquatic Research Laboratory. In 2010, we conducted a “reference-test” study comparing several sites along the Truckee River to similar eastern Sierra streams with less watershed disturbance (Carson, Walker, and Markleeville Creek). Compared to similar reference streams, the Truckee River consistently scored lower on the Eastern Sierra Index of Biological Integrity. All sampling sites on the Truckee River scored below the “not supporting of beneficial uses” or “partially supporting” thresholds. Reference streams scored as “supporting” or “partially supporting”.</p> <p>Based upon this work, we completed additional monitoring in 2011 to more specifically examine the relationship between sediment and biological communities. We completed a “patch-scale” study to examine the relationship between deposited sediment and biological condition of the benthic community. There were significant differences in biological conditions starting with sediment coverage of just 20%. At 80% or greater sediment coverage there were very significant decreases in biological condition.</p> <p>The differences in biological condition include:</p> <ul style="list-style-type: none"> • Decrease in the quantity and quality of food resources, meaning that both the number and size of benthic macroinvertebrates decreased with increasing sediment coverage; • The BMI community shifted away from organisms intolerant of pollution towards species that are more tolerant of poor water quality. <p>Sediment Deposition. In addition to the bioassessment work, we completed surveys to assess the extent of sediment deposition near our bioassessment sampling sites. In these surveys, we found that:</p> <ul style="list-style-type: none"> • Sediment deposition was fairly widespread; • At six of the ten sampling sites, 50% or more of the survey points measured sediment coverage in the excessive category (80 – 100% coverage by fine sediment). <p>Beneficial Uses Not Supported. Taken together, these studies indicate that beneficial uses including “Cold Freshwater Habitat” and “Spawning Reproduction and Development” are likely to not be fully supported in the Truckee River due to impacts on the base of the food web and excess deposited sediment.</p> <p>De-listing is Pre-Mature</p> <p>We recognize that data from our studies are not included in the current Integrated Report. We are highlighting our current data to support the Lahontan Water Board staff conclusions that:</p> <ul style="list-style-type: none"> • De-listing is premature; | |

Comment

Response

- Beneficial uses are not being supported;
- The current TMDL numeric standard does not appear to be sufficient to detect actual impairment from excess sediment.

All data can be found in reports posted on our website: www.truckeeriverwc.org/about/documents.

Next Steps

We would like to formally request a time at a future Lahontan Water Board meeting to present the results of our TMDL monitoring program in greater depth.

Thank you for considering our comments.

Sincerely,



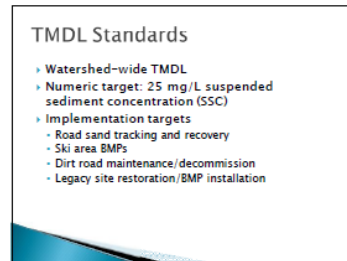
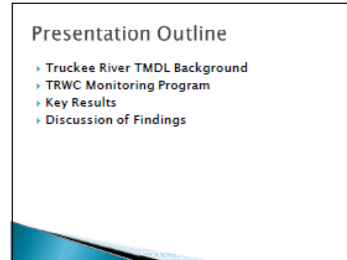
Beth Christman
Director of Restoration Programs

Lisa Wallace
Executive Director

Comment

Response

10/3/2015



Comment

10/3/2015

Response

Where are we now?

- › TRWC began TMDL monitoring in 2010
 - Only TMDL-specific monitoring
- › We now have data that shows biological impairment
- › Current TMDL standard not suited to assess biological impact
- › Preliminary meeting with LRWQCB staff

Why TRWC is Monitoring

- › Lack of strong monitoring plan in the adopted TMDL
- › Need for watershed-based vs. individual permittee reports
- › Inconclusive biological studies - need for more data
- › Establish "baseline" conditions to track progress

Monitoring Plan Elements

- › Macroinvertebrates
 - Index of Biological Integrity study - reference test
 - Patch-scale sediment
 - Repeat LRWQCB 2004 sampling below tributaries
 - Studies completed 2011
- › Sediment and Turbidity
 - Near continuous turbidity
 - Suspended sediment grab samples
 - Bed surveys
 - Funded through WY2014

Partners

- › Town of Truckee
- › Placer County

Comment

10/3/2015

Technical Advisory Committee

- › CA Department of Water Resources
- › Lahontan Regional Water Quality Control Board
- › Placer County
- › Town of Truckee
- › U.S. Geologic Survey

Elements Presented Today

- › Macroinvertebrate - reference/test
- › Macroinvertebrate - patch-scale
 - Studies by UCSB- SNARL, Dr. David Herbst
- › Suspended sediment and turbidity summary
 - Studies by Balance Hydrologics

Key Points

1. Biological data shows impairment
2. Disconnect between current numeric standard and detecting impairment

Bioassessment

- › Reference/ Test Study (2010)
- › Patch Scale Fine Sediment Study (2011)

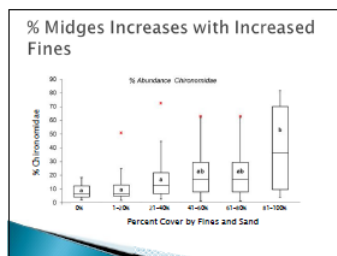
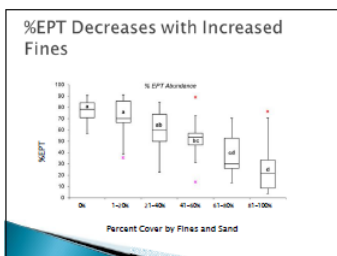
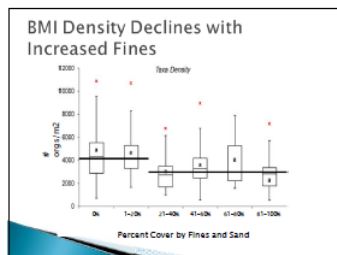
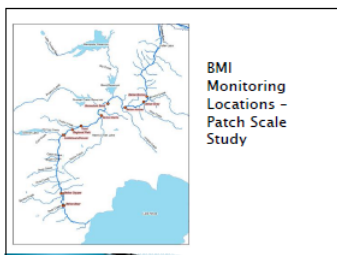
3

Response

Comment

10/3/2015

Response

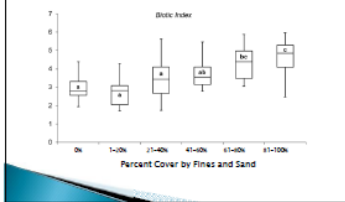


Comment

Response

10/3/2015

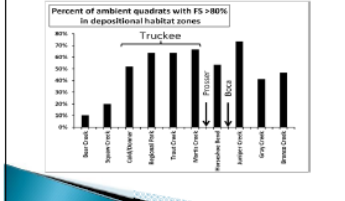
Fewer Intolerant, More Tolerant Species with Increased Fines



Summary of Biological Impacts

- Food quality and quantity decreases
- Fewer insects
- Smaller body size
- Sensitive taxa are lost from the community
- Sediment thresholds
 - Impacts appear >20% fine and sand cover
 - Impacts significant at 80%

How Prevalent is Sediment Deposition?



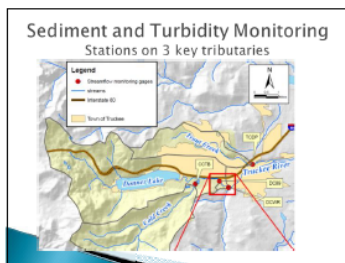
Suspended Sediment Results

- Disconnect between bioassessment and sediment data

Comment

10/3/2015

Response



Suspended Sediment/Turbidity Results

- Data from WY 2010 – 2013
- Tributaries are meeting suspended sediment concentration standard of 25 mg/L 90% of the time

Beneficial Uses are Impaired

- Biological data show increased sediment = decreased condition
- Sediment deposition is fairly widespread in sampling reaches
- SSC data suggest current standard is largely met in 3 monitored tributaries

Next Steps

- Additional standard for Truckee River that directly assesses impacts to beneficial uses
 - Biological?
 - Deposited Sediment?
- Fund additional monitoring
 - Sediment distribution
 - Additional bioassessment sites
 - Depending on standard:
 - Annual cost \$20,000 – \$150,000+
 - Study period 2-5 years

Comment

10/3/2015

Response

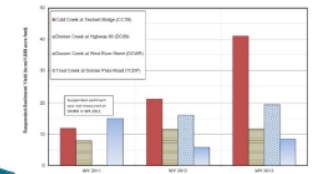
Questions?

• Reports available at: www.truckeeiverwc.org

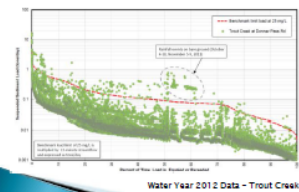
Beth Christman
(530) 550-8760
bchristman@truckeeiverwc.org

Additional Information –
Suspended Sediment

Total Loading from Tributaries



Relationship to TMDL SSC Standard?

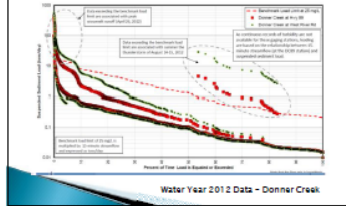


Comment

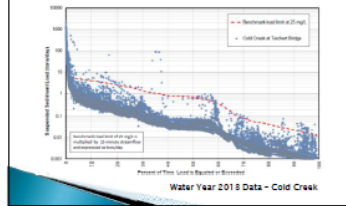
10/3/2015

Response

Relationship to TMDL SSC Standard?



Relationship to TMDL SSC Standard?



Key Sediment/Turbidity Conclusions

- Tributaries are meeting suspended sediment concentration standard of 25 mg/L 90% of the time
- Lower Donner watershed extremely high load contribution
- Early season rain storms result in significant loading

Farad Data

Table 3. Annual 90th percentile of suspended sediment as measured at the Farad monitoring station.

| Water Year | 90th Percentile SSC (mg/L) | Number of Samples |
|------------|----------------------------|-------------------|
| 2000-2001 | 7 | 12 |
| 2001-2002 | 55 | 26 |
| 2002-2003 | 51 | 36 |
| 2003-2004 | 7 | 12 |
| 2004-2005 | 6 | 12 |
| 2005-2006 | 7 | 12 |
| 2006-2007 | 4.82 | 12 |
| 2007-2008 | 6.37 | 12 |
| 2008-2009 | 13 | 11 |
| 2009-2010 | 6.03 | 12 |

NOTE: Data for Water Years 2001-2002 to 2009 are from the Truckee River TMDL TSS1 Report. Data for Water Years 2010-2011 is derived from the NCEP website. Data for Water Years 2011-2012 was received from NCEP upon request.

From LRWQCB, 2011. Truckee River Status Report

Comment

Response

TECHNICAL ADVISORY COMMITTEE
TO THE MOJAVE WATER AGENCY



13846 Conference Center Drive
Apple Valley, CA 92307
(760) 946-7000
www.mojavewater.org

**2015 EXECUTIVE
COMMITTEE**

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Vice Chairperson
Chuck Bell

Secretary
Kirby Brill

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Marina West

Upper Mojave River Basin
Bob Tinsley

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Perry Dahlstrom

Lower Mojave River Basin
Ellen Johnson

El Mirage Basin
Don Bartz

Lucerne Valley Basin
Richard Selby

At Large
Patty Kouyoumdjian

September 24, 2015

**Sent Via email.*

Mr. Richard Booth
California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

Subject: Public Input on the Triennial Review of the Lahontan Basin Plan

Dear Mr. Booth,

The Technical Advisory Committee (TAC) to the Mojave Water Agency (MWA) appreciates this opportunity to provide input on the Triennial Review of the Lahontan Basin Plan. The draft 2015 Triennial Review project list contains broad project objectives and as specific policies evolve as a result of these objectives, we highly encourage continued outreach and collaboration with stakeholders such as ourselves. Having the Lahontan Regional Water Quality Control Board (LRWQCB) as an Executive Member of the TAC for many years has allowed our agencies to work together to develop broadly supported resource management decisions.

Various major works, both in technical and policy nature have been developed through the TAC and MWA over the past several years. Examples of these include the Integrated Regional Water Management Plan, Urban Water Management Plan, Groundwater Management Plan and Salt and Nutrient Management Plan (DRAFT). These major works are in addition to many regional scientific studies that have been completed in the Lahontan region. All of the aforementioned work has been completed in coordination with the TAC to foster broad stakeholder support regarding resource understanding and subsequent resource management decisions.

The TAC and MWA encourage that the aforementioned work and existing stakeholder outreach process involving the TAC be considered when developing new policies to support the objectives described in the Triennial Review. We would appreciate the continued consideration of the TAC and MWA as partners in the development phase of any new major policy decisions that affect the region. The stakeholders in the region have benefited greatly over the last two

Comment

September 24, 2015
Mr. Richard Booth
California Regional Water Quality Control Board
Lahontan Region
Page 2

decades by sharing knowledge, ideas, resources and perspectives as a group. The TAC and MWA look forward to continued collaboration with the LRWQCB and staff as we manage the water resources of our desert environment together.

Please feel free to contact us at (760) 946-7000 with any questions.

Sincerely,
**Technical Advisory
Committee**



Jeanette Hayhurst,
Chairperson

Sincerely,
Mojave Water Agency



Lance Eckhart, P.G., C.H.G.
Director of Basin Management
and Resource Planning and
Mojave IRWM Plan and
SNMP Project Manager

ATTACHMENT: TAC Stakeholder List

Response

Thank you for your words of support and acknowledgement of collaboration for the important issues in the Mojave area. Water Board staff also look forward to continued collaboration.

| <u>Comment</u> | <u>Response</u> |
|---|-----------------|
| <p style="text-align: center;">Technical Advisory Committee Participants 2014 Mojave Region Integrated Regional Water Management Plan</p> <ul style="list-style-type: none"> • 29 Palms, City of • Adelanto, City of • Agio Real Estate • Altec Engineering • Apple Valley Chamber • Apple Valley Heights County Water District • Apple Valley Ranchos Water • Apple Valley, Town of • Aqua Capital Management • Bar H Mutual Water Company • Bar-Len Mutual Water Company • Barstow Chamber • Barstow, City of • Best, Best, Krieger • Bighorn-Desert View Water • Building Industry Association • Center Water Company • Chevron • Citizens for a Better Community • Daggett Chamber Of Commerce • Daggett CSD • Daily Press Newspaper • Department of Fish and Game • Department of Water Resources • Desert Dawn Mutual Water Company • Desert Springs Water Company • Deziign Engineering • Earth Science Consulting • El Mirage Chamber of Commerce • GEI Consultants • Golden State Water Company • Helendale CDS • Helendale Chamber of Commerce • Hesperia Golf & Country Club • Hesperia, City of • Hi Desert Water • Hi-Desert Medical Center • Jess Ranch • Joshua Basin Citizens Advisory • Joshua Basin Water District • Jubilee Mutual Water • Lake Wainani • Lucerne Valley Chamber of Commerce • Lucerne Valley Leader Newspaper • Lucerne Vista Water Company • Mariana Ranchos County Water District • Marine Corps • Mojave Desert Resource Conservation District • Mountaineer Progress Newspaper • Natural Resource Conservation Service, Victorville • Navajo Mutual Water Company • Newberry CSD • Newberry Springs Chamber • Newberry-Harvard Association • Nissi Agents • Oro Grande Agriculture • Phelan Chamber of Commerce • Phelan Piñon Hills CSD • Pinon Hills Chamber of Commerce • Psomas Consulting • Rancheritos Mutual Water • San Bernardino County • San Bernardino County Advanced Planning Division • San Bernardino County Board of Supervisors • San Bernardino County Department of Public Health • San Bernardino County Department of Public Works • San Bernardino County Local Agency Formation Commission • San Bernardino County Special Districts • Sheep Creek Water Company • Sierra Club/Mojave Group • Silver Lakes Association • So & Associates • Stakeholders (35) • State Water Resource Conservation Board - Lahontan • State Water Resource Conservation Board-Colorado • Sunset Breeze Real Estate • Thunderbird County Water District • Todd Engineers • United States Army Corps of Engineers • United States Bureau of Reclamation • Valley Wide News • Victor Valley Wastewater Reclamation Authority • Victorville Water District • Victorville, City of • Yermo CSD • Yucca Valley Chamber • Z107.7 FM Joshua Tree | |

Comment

Response



Victor Valley Wastewater Reclamation Authority
A Joint Powers Authority and Public Agency of the State of California
20111 Shay Road, Victorville, CA 92394
Telephone: (760) 246-8638
Fax: (760) 246-2898
e-mail: mail@vwwra.com

September 30,2015

Richard W. Booth
Senior Engineering Geologist
Chief, TMDL/Basin Planning Unit
Lahontan Water Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Dear Mr. Booth,

Thank you for the opportunity to provide comments on the list of priority projects for the 2015 Triennial Review of the Lahontan Basin Plan. We also appreciate the extension of the comment deadline to October 2, 2015. On behalf of the Victor Valley Wastewater Reclamation Authority, we have reviewed the project list and offer the following comments on a few of the projects:


- Site Specific Objectives for a reach of the Mojave River – The proposed project is to “Establish Site Specific Objectives for groundwater in the Mojave River Flood Plan Aquifer and surface water in the perennial reach of the Mojave River downstream of Victor Valley Wastewater Reclamation Authority (VWVRA) to Silver Lakes (Helendale).” As noted further on in the description, VWVRA agrees that surface water quality objectives at Barstow may not be applicable to the reach of the Mojave River into which VWVRA discharges because of the unusual hydrology and ephemeral nature of the river in this area. As this project moves forward, we urge you to utilize the substantial data set and beneficial use assessment that was generated as part of the Mojave River Characterization Study (MRCS) that was conducted by VWVRA and approved by the Lahontan Regional Board in 2010. The MRCS was conducted as a Supplemental Environmental Project (Order Nos. R6V-2006-0055, R6V-2008-0036). The conclusions of this study determined that there were no exceedances of nitrate objectives in the river and that exceedances of salts objectives observed at only one of the monitoring location were unrelated to VWVRA’s effluent. Included in the MRCS was the finding that neither MUN nor AGR were current uses of the Mojave River in the study area. GWR, however, is a current beneficial use. In addition, VWVRA has studied the impacts of its discharges to local groundwater extensively. In general, the impact of VWVRA’s discharge to local groundwater has been positive. VWVRA has provided substantial data to show that nitrogen and TDS levels in the downgradient groundwater is below water quality objectives and has improved as a result of treatment plant upgrades. With this in mind, VWVRA would be happy to support efforts to develop site specific objectives for the reach of the Mojave River downstream of VWVRA to Silver Lakes that considers the condition of the receiving water under current operation of VWVRA’s facilities.
- Region-wide approach to TDS objectives for surface water -The description of the proposed project states that “Site specific TDS objectives for surface water were

Staff acknowledges that the water quality objectives for nitrogen and TDS may not be appropriate between VWVRA and Helendale This topic has been added as a combined “Mojave River and Basin” project (Project #9 in the Priority List) and assigned a high priority for the 2015 Triennial Review.

Staff appreciates that VWVRA agrees that the water quality objectives for the Mojave River at Barstow may not be applicable for the reach of the Mojave River to which VWVRA discharges. Currently, there is perennial flow from the VWVRA discharge location to Helendale, with ephemeral flow downstream. Staff concurs that all available data, including that collected by VWA, should be used in this assessment.

Staff appreciates your comment about TDS water quality objectives for the Mojave and may consider including the site specific objective topic, including TDS, to the combined “Mojave River and Basin” project.

| <u>Comment</u> | <u>Response</u> |
|---|--|
| <p>developed based on limited samples and protect/maintain high quality water but are typically more stringent than needed to protect beneficial uses. VVWRA agrees that TDS objectives are often more stringent than needed for surface water. The Mojave River is a good example of this, where as noted above, MUN and AGR are not current uses of the reach of the Mojave River downstream from the VVWRA discharge. Therefore, as is the case for VVWRA, TDS effluent limits based on the recommended MCL of 500 mg/L may be overly protective. It should also be noted that water quality objectives for TDS are based on a secondary MCL that is associated with aesthetics rather than human health concerns. Surface water objectives that are established based on the protection of the groundwater basin may make more sense but in this case objectives should be set with the recognition that impacts should be set based on the point of use (e.g., potable wells) rather than based on the point of discharge. With this in mind, VVWRA would support an option where TDS objectives are based on the results of the SNMP that was developed by the Mojave Water Agency and its partners and is scheduled for approval by the Regional Board in 2015.</p> <ul style="list-style-type: none"> • Biological Indicators – This project is currently described to “Develop narrative and/or numeric biological objectives (i.e., biocriteria) to protect the biological integrity of the Region’s surface waters.” The description goes on to say that it may be determined that it is necessary to expand the applicability of the Basin Plan’s current narrative objective for non-degradation of aquatic communities which only applies to wetlands. If it is decided to expand this to other surface waters, VVWRA urges the Board to consider available information on beneficial uses including the Beneficial Use Assessment that was conducted for the MRCS. In addition, VVWRA would recommend that the Regional Board align this process closely with the Statewide Biological Integrity Assessment effort that has been underway since 2010 particularly with respect to the use of the California Stream Condition Index (CSCI) that is also mentioned in the proposed project description. • Compliance language pertaining to monthly means - The proposed revisions would change water quality objectives expressed as “means of monthly means” to annual means and define minimum sample numbers and sampling frequencies for determining compliance with objectives. VVWRA is supportive of any modification that results in water quality and beneficial use assessments being based on data that is truly representative of receiving water conditions and, therefore, would support this effort. • Biological beneficial use for the Mojave River – The proposed project is to “Add the Biological Use (BIOL) for specific reaches of the Mojave River with remaining viable habitat, specifically from Bear Valley Road to Helendale.” Again, to the extent that it is applicable, VVWRA would recommend that the results of the MRCS Beneficial Use Assessment be used in this effort. Under this project, the presence of aquatic species, waterfowl and wildlife were evaluated for the Mojave River. • Biotic Ligand Model for copper – The proposed project would be to “Incorporate the USEPA national criteria for copper into water quality standards program using the Biotic Ligand Model.” Current copper water quality criteria are a function of hardness. However, the hardness based criteria may be under protective at low pH and overprotective at higher dissolved organic carbon. The Biotic Ligand Model (BLM) provides a mechanistic framework for the established effects of copper speciation by addressing the relative bioavailability of different copper species. The BLM | <p>Staff acknowledges your comment to consider available information such as the Beneficial Use Assessment and the Statewide Biological Integrity Assessment effort.</p> <p>Staff appreciate your support of this topic.</p> <p>Staff acknowledge you suggestion to use the results of the Beneficial Use Assessment.</p> <p>The Biotic Ligand Model for copper is listed as a separate project for region-wide application. However, based on your comment, staff will consider evaluating its applicability to copper water quality objectives specific to the Mojave River as part of the “Mojave River and Basin” project.</p> |

| <u>Comment</u> | <u>Response</u> |
|---|--|
| <p>accounts for important inorganic and organic ligand interactions of copper while also considering competitive interactions that influence binding of copper at the site of toxicity. The BLM's ability to incorporate metal speciation reactions and organism interactions allows prediction of metal effect levels to a variety of organisms over a wide range of water quality conditions. Application of the BLM has the potential to substantially reduce the need for site-specific modifications, such as Water Effect Ratio, to account for site-specific chemistry influences on metal toxicity. VVWRA believes the use of the BLM may provide more representative copper water quality standards for the Mojave River.</p> <ul style="list-style-type: none"> • Revision pentachlorophenol water quality objective –The proposed project would be to “The USEPA recommends a revision of water quality objectives for pentachlorophenol (PCPs), where appropriate. The USEPA believes existing objectives are not sufficiently protective of early life stages of salmonids.” With respect to the applicability of this proposed revision to the Mojave River, the MRCS Beneficial Use Assessment reported no observation of migratory aquatic species in the study area. VVWRA believes, therefore, that it is unlikely that this revision to the water quality objective is applicable to the Mojave River. • VVWRA would also like to proposal that a project to reevaluate the COLD beneficial use designation for the Mojave River from the Upper Narrows to Helendale. This use was evaluated as part of the MRCS Beneficial Use Assessment and it was determined to be uncertain as to whether the Mojave River in that reach can support cold weather ecosystems. None of the species known to live in the Mojave River are known to specifically require cold water habitats. During the winter, the temperatures in the Mojave River would likely be considered cold. However, during the summer months, the temperatures rise by as much as 10 °C in the shallow Mojave River. <p>Thank you for the opportunity to review and comment on the proposed project list. Please, feel free to contact me should you have any questions regarding our comments.</p> <p>Sincerely,</p>  <p>for Logan Olds General Manager</p> | <p>Thank you for your observation about the unlikely applicability of the PCP objective revision to the Mojave River</p> <p>Staff will consider your request to re-evaluate COLD as a beneficial use designation from Upper Narrows to Helendale. This topic has been added to the “Mojave River and Basin” project. Staff will consider the assessment’s conclusion and other possibilities such as establishing COLD and WARM beneficial uses for different times of the year.</p> |

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ENCLOSURE 4

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ADOPTION HEARING 2015 TRIENNIAL REVIEW ITEM #2

BARSTOW NOVEMBER 4, 2015

Lahontan Regional Water Quality Control
Board

Presented by Rich Booth

TMDL/Basin Planning Unit Supervisor



1

Adoption Hearing - 2015 Triennial Review

- What is a Triennial Review and why we need one?
- How did each of the 20 proposed projects come to be on the proposed topics list
- The goal today is to adopt a prioritized list of Basin Planning topics or projects



2

Adoption Hearing - 2015 Triennial Review

There were 22 projects/topics proposed during the September Scoping Meeting

- Several were combined into one and a new project added to the combination (Mojave)
- Another new one added (Middle Truckee River)

For a total of 20 projects



3

Adoption Hearing - 2015 Triennial Review

Agenda Package:

- Green Sheet
- Resolution with Priority List
- Staff Report - Tables 3 and 4
- Responses to Comments



4

Adoption Hearing – 2015 Triennial Review

| Project Number | Proposed Project | Resource Needs person-years (PYs) over three years | Background |
|----------------|---|--|--|
| 1 | Basin Planning Program Manager (currently - Mary Fiore-Wagner) | 0.3 | The Program Manager's duties are ongoing |
| 2 | 2018 Triennial Review | 0.2 | To be completed in November 2018 |
| 3 | Miscellaneous work that will not directly result in Basin Plan amendments (and "fixes") | 0.6 | Miscellaneous planning related work is ongoing |

5

Adoption Hearing – 2015 Triennial Review

| Project Number | Proposed Project | Resource Needs person-years (PYs) over three years | Background |
|----------------|--|--|------------|
| 4 | Revise Bacteria Water Quality Objectives | 1.0 | Underway |
| 5 | Lake Tahoe nearshore | 0.5 | Underway |

6

Adoption Hearing – 2015 Triennial Review

| Project Number | Proposed Project | Maximum Resource Needs person-years (PYs) over three years | Background |
|----------------|---|--|---------------------------|
| 6 | BIOLOGICAL beneficial use for Mojave River | | Combined |
| 6 | Site Specific Objectives for specific reaches of the Mojave River | | Combined |
| 6 | Re-evaluate COLD beneficial use designation for a reach of the Mojave River | | Combined (newly proposed) |
| 6 | Site Specific Objectives for specific groundwater basins | 1.8 total for all four topics | Combined |

7

Adoption Hearing – 2015 Triennial Review

| Project Number | Proposed Project | Maximum Resource Needs person-years (PYs) over three years | Background |
|----------------|---|--|--|
| 7 | Squaw Valley groundwater withdrawal & in-stream flow | 0.5 | Continued from 2012 Triennial Review Topic List |
| 8 | Evaluate appropriate statistical methods to evaluate data | 0.5 | Reduced scope of Means of Monthly Means revision |
| 9 | Riparian Protection Policy | 0.6 | Continued from 2012 Triennial Review Topic List and reduced in scope |

8

Adoption Hearing – 2015 Triennial Review

| Project Number | Proposed Topic | Maximum Resource Needs person-years (PYs) over three years | Background |
|----------------|--|--|---|
| 10 | Hot Creek Water Quality Objectives | 0.6 | Continued from 2012 Triennial Review Topic List |
| 11 | Biological indicators | 0.9 | Continued from 2012 Triennial Review Topic List |
| 12 | Region-wide approach to Total Dissolved Solids (TDS) Water Quality Objectives for surface waters | 1.5 | Newly proposed project |
| 13 | Susan River site specific objectives | 2.0 | Continued from 2012 Triennial Review Topic List |

9

Adoption Hearing – 2015 Triennial Review

| Project Number | Proposed Topic | Maximum Resource Needs person-years (PYs) over three years | Background |
|----------------|---|--|---|
| 14 | Truckee River embedded sediment standard | 0.9 | Continued from 2012 Triennial Review Topic List |
| 15 | Remove two beneficial uses from Piute Ponds | 0.5 | Continued from 2012 Triennial Review Topic List |
| 16 | Clarify policy on package plants | 0.1 | Continued from 2012 Triennial Review Topic List |
| 17 | Fish Springs site specific objectives | 1.0 | Continued from 2012 Triennial Review Topic List |

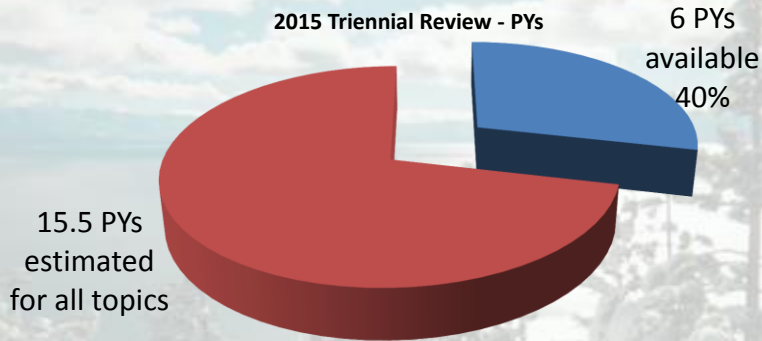
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Adoption Hearing - 2015 Triennial Review

| Project Number | Proposed Topic | Maximum Resource Needs person-years (PYs) over three years | Background |
|----------------|--------------------------------------|--|---|
| 18 | Biotic Ligand Model for copper | 0.5 | Continued from 2012 Triennial Review Topic List |
| 19 | Revise PCPs Water Quality Objectives | 1.0 | Continued from 2012 Triennial Review Topic List |
| 20 | Eagle Lake "building moratorium" | 0.5 | Continued from 2012 Triennial Review Topic List |

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Adoption Hearing - 2015 Triennial Review



To

The total estimated PYs for all 20 topics over three years is 15.5 PYs

The current staff allocation is approximately 6 Pys over three years.



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Adoption Hearing - 2015 Triennial Review



Mojave Desert sunset

Water Board