**Lahontan Regional Water Quality Control Board**

# EXECUTIVE OFFICER'S REPORT


## January

### STATE AND REGIONAL

1. **Mid-December 2013 Status of the 2013 Triennial Review Projects** – *Richard Booth*

   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 Basin Plan amendment process, Triennial Review in California is generally limited to identification of the highest priority planning projects to be addressed over the three years between one Triennial Review cycle and the next.

   The Triennial Review was adopted by the Water Board on January 17, 2013 and is used to set priorities for , including Water Board staff time in the Basin Planning Program.

   Table 1 (attached) lists all 25 projects that staff recommended and that the Board adopted in January 2013.

   The priority projects, except for China Lake groundwater MUN de-designation, are on schedule for consideration. (The China Lake municipal supply de-designation project has been delayed until Basin Planning/TMDL staff complete a high priority TMDL Integrated Report evaluating all potential water quality impairments. The Integrated Report is due to come before the Board in April 2014 and the China Lake project is scheduled to follow in May 2014 for Board consideration.) As Table 1 indicates, priority projects related to the septic system policy and to Lake Tahoe were combined as part of the Basin Plan prohibition project to be presented for Board adoption in September 2014. The two priority Salt & Nutrient Management Plans (Mojave Basin and Antelope Valley) are underway. (See this EO report for more information on the Antelope Valley Salt & Nutrient Management Plan.)

   Project #2 (revise water quality objectives for bacteria) is a high priority Basin Planning project with the largest resource allocation for the current Triennial Review period. Consequently, the significant sub-tasks for this project are explained and updated in greater detail in Table A, also attached. As Table A shows, staff and contractors have expended considerable work on this project, primarily gathering the appropriate data for a bacteria water quality objective strategy.

   (Table 1 and Table A, are attached to the end this Report)

## NORTH BASIN

2. **Vegetation Treatment Projects, Field Season, 2013** – *George Cella*

Staff reviewed 21 CAL FIRE issued Exemption and Emergency vegetation harvesting projects, totaling approximately 146,000 acres, and inspected four of these projects. Staff reviewed and inspected 17 private Timber Harvest Plans and one Non-Industrial Timber Management Plan, covering over 14,000 acres in the Lahontan Region.

Six of the nine National Forests across the Lahontan Region submitted vegetation management projects for review this year. Staff reviewed, inspected, and permitted five U.S. Forest Service (USFS) and one U.S. Bureau of Reclamation vegetation management projects, totaling over 9,200 acres. The majority of these projects are designed for hazardous fuels treatment to prevent future wildfires. Staff also reviewed and inspected eight USFS habitat and/or watershed restoration projects, totaling over 1,300 acres. Staff reviewed and commented on six road restoration or campground retrofit construction projects, which propose to disturb a total of approximately 123 acres of land.

The Lake Tahoe Basin Management Unit, of the USFS, conducted its second year of operations on the multiple year South Shore Project, which surrounds the community of South Lake Tahoe. Approximately 510 acres of mechanical treatments and 630 acres of hand treatments were conducted. Activities were also begun on the upper Echo Lakes vegetation management project, where operations were limited to hand crew piling and thinning outside of stream environment zones.

3. **Squaw Creek-Aquifer Interaction Study Results, Placer County** – *Chuck Curtis*

**Draft Report Released**
In late November, the Squaw Valley Public Service District (District) released for comment a draft final report on its studies of the interaction of Squaw Creek and the Olympic Valley (Valley) is also known as Squaw Valley, groundwater aquifer. The studies culminate several years of investigations to (1) improve and quantify understanding of creek/aquifer interaction, (2) diminish groundwater pumping effects on Squaw Creek, and (3) increase groundwater storage in Olympic Valley.

**Setting and Background**
Squaw Creek originates near the Sierra Nevada crest in the area of the Squaw Valley Ski Resort. The creek then flows about 2.5 miles through the Valley, initially through a constructed trapezoidal channel in the ski resort base area and then through a natural channel. As the creek flows through the Valley, it is in direct connection with the aquifer, and may contribute to groundwater recharge or receive flow from the aquifer, depending on the location along the creek and the time of year.

Groundwater from the Valley Groundwater Basin (aquifer, DWR Basin 6-108) is the sole source of domestic and irrigation water used within the Squaw Creek watershed. Some water is used for snow making is also pumped from the aquifer, while other snow-making water comes from wells in the bedrock high on the mountain. The District is the principal supplier of water, and pumps about half to two-thirds of the total water pumped from the aquifer annually.

The Resort at Squaw Creek pumps about one-quarter to one-third of the total to irrigate its golf course, which is located in the center and eastern end of the valley. The Squaw Valley Mutual Water Company and the Squaw Valley Ski Resort pump most of the balance of the annual pumped volume.

**Creek/Aquifer Interaction Studies**
The Water Board's 2006 Squaw Creek Sediment Total Maximum Daily Load (TMDL) report identified reduced creek flow, along with excessive sediment, as adversely affecting aquatic life in Squaw Creek. And, the State Water Board's 2007 resolution approving the TMDL directed the Water Board to support efforts of entities pumping groundwater in Valley to (1) minimize effects on the creek, (2) develop a groundwater management plan that recognizes potential effects of pumping on the creek and seeks to minimize or eliminate adverse effects on Squaw Creek, and (3) conduct a study of potential interaction between groundwater pumping and flows in Squaw Creek.

Since then, Water Board staff participated in the Public Service District's preparation and revision of the Olympic Valley Groundwater Management Plan.

Squaw Creek and the Valley aquifer studies were primarily funded by grants from the Department of Water Resources to the District, with Squaw Valley Real Estate funding part of the last study. Phase I of the creek/aquifer interaction studies was conducted in 2008 through 2010, and reported on in early 2011. This first phase included installing piezometers (shallow wells) and temperature probes in the trapezoidal channel of Squaw Creek, and conducting two pump tests on a municipal well, while recording effects on groundwater elevation in the aquifer and the creek. Phase II analyzed the data from Phase I, quantified the flows between Squaw Creek and the shallow aquifer, integrated information from other studies (including additional test well installation and testing by Squaw Valley Real Estate and temperature and isotopic tracer studies by Lawrence Livermore National Laboratory, the University of Nevada at Reno and California State University East Bay), and updated the groundwater model based on the new information. The draft final report discusses the Phase II activities and results, and includes the Phase I report and supporting reports as appendices.

**West Olympic Valley Results**
The western third of the Valley is the area where most of the non-irrigation groundwater pumping occurs. Aquifer sediments are generally coarse in the western portion of the valley, as this area is closest to the mountain front and source of sediment deposited in the Valley. Squaw Creek flows through the constructed, earthen trapezoidal channel in this part of the Valley. Pumping closer to the creek has a greater effect on creek flow than pumping further away. And, pumping when creek flow is lower has a proportionately greater effect on creek flow.

The report states that creek/aquifer interactions in the western part of the Valley can generally be divided into three time frames: winter through early-summer, mid-summer, and late-summer through fall. In the winter through early-summer, there are relatively high flows in Squaw Creek, and because of snowmelt, groundwater levels are generally at or above the elevation of the creek bed. Groundwater pumping during this period removes little water from the trapezoidal channel compared to the flow of the creek.

The mid-summer period is characterized by relatively low creek flows and the very end of the annual snowmelt. Flow from the tributaries off of the mountain ceases. Trapezoidal channel interaction with the aquifer changes during this period from the

channel gaining water from the aquifer to losing water to the aquifer, as the aquifer level decreases due to pumping withdrawals. This period generally lasts between a few weeks and a month. Snowmelt continues to recharge the aquifer along the basin boundaries. Though the creek is losing water to the aquifer during this period, the primary source of aquifer recharge is from snowmelt. The wells in the west part of the Valley change from primarily intercepting water before it reaches the trapezoidal channel to pulling water out of the channel.

The late-summer through fall period is characterized by the lack of flow in the trapezoidal channel, as snowmelt has ceased and there is no significant rainfall to supply surface flows. The top of the aquifer in the area of the trapezoidal channel is below the creek bed during this period, so there is no interaction between the creek and the aquifer. Groundwater is pumped from aquifer storage, and, with little recharge, groundwater levels are more rapidly drawn down. Isotope data from water pumped during this period indicate the water is somewhat older, up to three to five years old. This period ends with the return of significant precipitation at the end of the fall. When this happens, surface runoff feeds Squaw Creek, and flows return to the trapezoidal channel. With groundwater levels below the creek bottom before the first rainfall, the trapezoidal channel loses water to the aquifer once flow returns. Groundwater levels may rise rapidly during this change, and, within days of the first significant precipitation, the trapezoidal channel goes from losing water to the aquifer to gaining water from it as the aquifer becomes fully recharged.

**East Olympic Valley Results**

The eastern approximately two-thirds of the Valley contain the meadow and golf course areas. Aquifer sediments in the eastern part of the Valley contain more silt and clay than in the west, and water flows more slowly through these aquifer materials. Groundwater pumped in this part of the Valley is older, with isotope data indicating it is 10 to 50 years old. Groundwater pumping in this area is primarily for golf course irrigation. Squaw Creek meanders through this portion of the Valley, and is not constrained in an artificial channel as in the western portion. Unlike in the west, the creek is continually receiving flow from the aquifer in the eastern portion of the valley. In the spring and early summer, groundwater inputs to the creek constitute a small portion of the creek flow, as the stream flows are high due to snowmelt. By mid-to-late-summer, groundwater makes up essentially all the flow in the creek. An area known as "the upwelling" that feeds a small tributary within the meadow portion of the Valley is fed by deep groundwater, likely from a nearby fault, rather than the upper part of the aquifer that feeds Squaw Creek. The cool flow from the upwelling has been identified as especially important for aquatic life during the summer, when creek temperatures increase. Distributed temperature sensing through the meadow portion of Squaw Creek identified the upwelling tributary as having a noticeable effect on the temperature in Squaw Creek. The upwelling spring and tributary are cooler through the summer and provide refuge for temperature-sensitive species. Though not identified as part of this report, a previous study indicates that a nearby irrigation well significantly affects flow from the upwelling, the well intercepts part of the upwelling flow before it can reach the surface.

**Report Suggestions for Management**
The creek/aquifer interaction studies provide information that may help reduce groundwater pumping's effect on the flow in Squaw Creek and may provide additional groundwater storage in the Valley groundwater basin. The report suggests that pumping in the western part of the Valley should be coordinated with the three periods of creek/aquifer interaction.

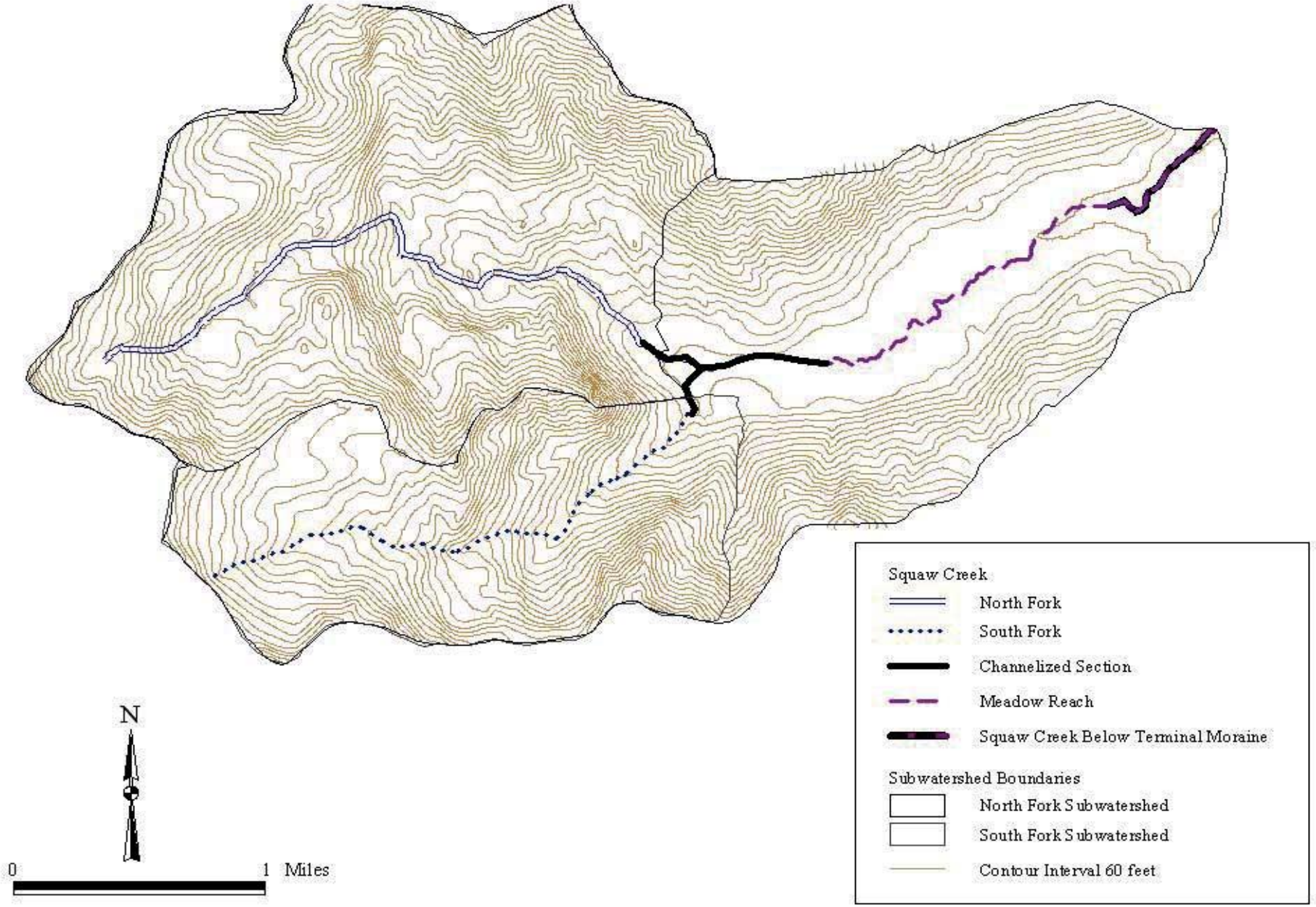
In the spring and early summer, wells closest to the trapezoidal channel should be preferentially pumped. Because flows in the creek at this time are much greater than the volume of pumped water, the effect of any direct capture of creek flow will have an insignificant impact on that flow. This will also maximize groundwater storage in areas of the aquifer away from the creek. In the mid-summer, wells farthest from the creek should be pumped. Flows in Squaw Creek are most affected by pumping during this period; pumping farther from the creek will reduce these impacts. During the late-summer and fall period, wells should be pumped to minimize overall groundwater drawdown. This may be accomplished by pumping smaller volumes from more wells distributed throughout the western portion of the Valley.

Because the trapezoidal channel drains the upper part of the aquifer during certain periods, the report suggests modifying the trapezoidal channel to increase aquifer storage. An inflatable dam at the bottom end of the channel could function to hold back water in the creek, which would help recharge the upper part of the aquifer near the channel, and which could release stored water in mid-summer when creek flows are low. An inflatable dam could be deflated to pass flood flows. The report notes that flood safety needs to be considered in any channel modifications. While not discussed in the report, the trapezoidal channel could also be modified by raising the channel bottom and increasing the width of the channel. This could maintain flood flow capacity while reducing the channel's capacity to drain the aquifer in mid-summer. Raising the creek bottom could also help recharge the shallow aquifer near the creek.

The report also recommends reducing pumping in the eastern portion of the Valley, and moving as much pumping as possible to the western end of the Valley. Maintaining high groundwater levels in the meadow through the summer and fall would result in increased creek flows, which would provide lower temperatures for aquatic life and may eliminate the formation of isolated pools, where fish are often trapped and die.

The recharge area along the basin margins and edge of the Valley floor should be protected or restored to promote infiltration and recharge of the aquifer. This area of permeable sediments should also be protected from contamination, as rapid movement through these sediments makes control and remediation of contamination before it reaches municipal wells difficult.

The report concludes that any expansion of the current wellfield should focus on the western portion of the Valley. Wellfield expansion should also be designed to provide the flexibility in pumping strategies identified above to minimize the adverse effects of pumping on Squaw Creek during certain periods.




**Squaw Creek Reaches and Watershed Topography**

4. **First Annual Monitoring Report for the Silver King Creek Paiute Cutthroat Trout Restoration Project (NPDES Permit No. CA0103209) Alpine County –** *Bruce Warden*

   The Water Board adopted a National Pollutant Discharge Elimination System (NPDES) permit on April 14, 2010, which allows the California Department of Fish and Wildlife (CDFW) to treat approximately 7 linear miles of Silver King Creek and tributaries with the chemical rotenone to restore a native Paiute Cutthroat trout population. Removal of non-native fish from the creek prior to re-introduction of Paiute Cutthroat trout is required to preclude inter-species competition and genetic dilution of the Paiute Cutthroat trout population. The project was implemented August 28-30, 2013. The CDFW submitted the first annual monitoring report for the project November 6, 2013.

   The permit requires that chemicals used in treatment not be detected outside of the project area at any time during the project. The project area includes the treatment locations, a neutralization station, plus an in-stream zone that extends downstream from the neutralization station the distance flow travels for thirty minutes.

   A total of fifty seven water samples were collected of which six showed a detection of chemical constituents at concentrations barely above analytical reporting limits. The violation was entered into CWIQS. After cessation of rotenone application, the neutralization system was shut down prior to all treated flow reaching the neutralization station, likely from slow-flowing tributaries. Post-shutdown water quality samples were collected too soon for complete system flushing/neutralization of treatment constituents. Test fish downstream of the neutralization station did not show any signs of stress from the low concentrations of chemicals. Follow up monitoring and analyses confirmed that treatment chemicals were not detected outside of the project area 24 hours after project completion, as required by the permit.

   For the treatment planned in 2014, the CDFW is extending the time to its neutralization system shutdown to account for slow flow from tributaries, and its scheduled monitoring program to coincide closer the completion of the neutralization process, about twenty four hours after the neutralization station is shut down.

5. **Final Update Report on USEPA Wetland Grant Awarded to TRPA, Water Board and Aquatic Science Center for *Sierra Nevada Test of California Wetland and Riparian Area Monitoring Program* (Tahoe WRAMP) -** *Tobi Tyler and Hannah Schembri*

   A Final Report on the Tahoe Wetland and Riparian Area Monitoring Program (WRAMP) project has been sent to U.S. Environmental Protection Agency (USEPA) and is available at the website: http://www.tahoemonitoring.org/tahoe-wramp.html.

   The Tahoe WRAMP Project's final meeting was held on November 21, 2013, at the Water Board office in Lake Tahoe to discuss results of the Project. Twenty-five people attended the meeting in person and eleven participated via phone and internet conferencing. Dr. Josh Collins, from the San Francisco Estuary Institute (SFEI), presented the project accomplishments, which included wetland and riparian mapping of the Upper Truckee River and Third Creek watersheds to initiate Tahoe Aquatic Resource Inventory (TARI), assessing stream condition on these two watersheds using California Rapid Assessment Method (CRAM), training approximately 100 people on the use of CRAM, comparing existing Stream Environment Zone (SEZ) maps with TARI and SFEI's Riparian Width Estimator Tool, assessing SEZ effectiveness using CRAM, developing the new CRAM module for slope wetlands, and tracking restoration projects using the new on-line geo-spatial database, EcoAtlas. Dr. Collins also demonstrated how the WRAMP toolset can be used to evaluate differences in overall ecological conditions of wetlands and stream resources between watersheds statewide, and to assess wetland

restoration progress over time using project performance curves.

SFEI staff, Tony Hale and Kristen Cayce, followed up with a presentation and live demonstration of EcoAtlas and the eCRAM tool, highlighting the benefits of these tools that were designed to address the needs of local and regional scientists and managers. Both TARI and California Aquatic Resource Inventory (CARI) were demonstrated with EcoAtlas, which can be accessed at www.ecoatlas.org. CARI, developed with input from an interagency science advisory group using standard protocols for mapping and quality assurance, is the state-wide version of TARI.

Shane Romsos, with the Tahoe Regional Planning Agency, provided an update on the status of a research project to refine SEZ conditions and functions, review delineation criteria, and clarify the SEZ classification system and mapping protocol to better characterize SEZ types.

Following this presentation, attendees participated in a facilitated group discussion on how Tahoe area agencies and project proponents and their designers might use the information obtained from this project and what next steps, in addition to the above-cited research project, might proceed on the heels of this project. Participants expressed interest in using EcoAtlas in the Tahoe basin, as the Upper Truckee River Restoration Workshop (May 2013) indicated a need for greater public participation and information sharing. The tools transferred and developed as part of this project are ripe for use in the Tahoe basin and the Lahontan Region as a whole.

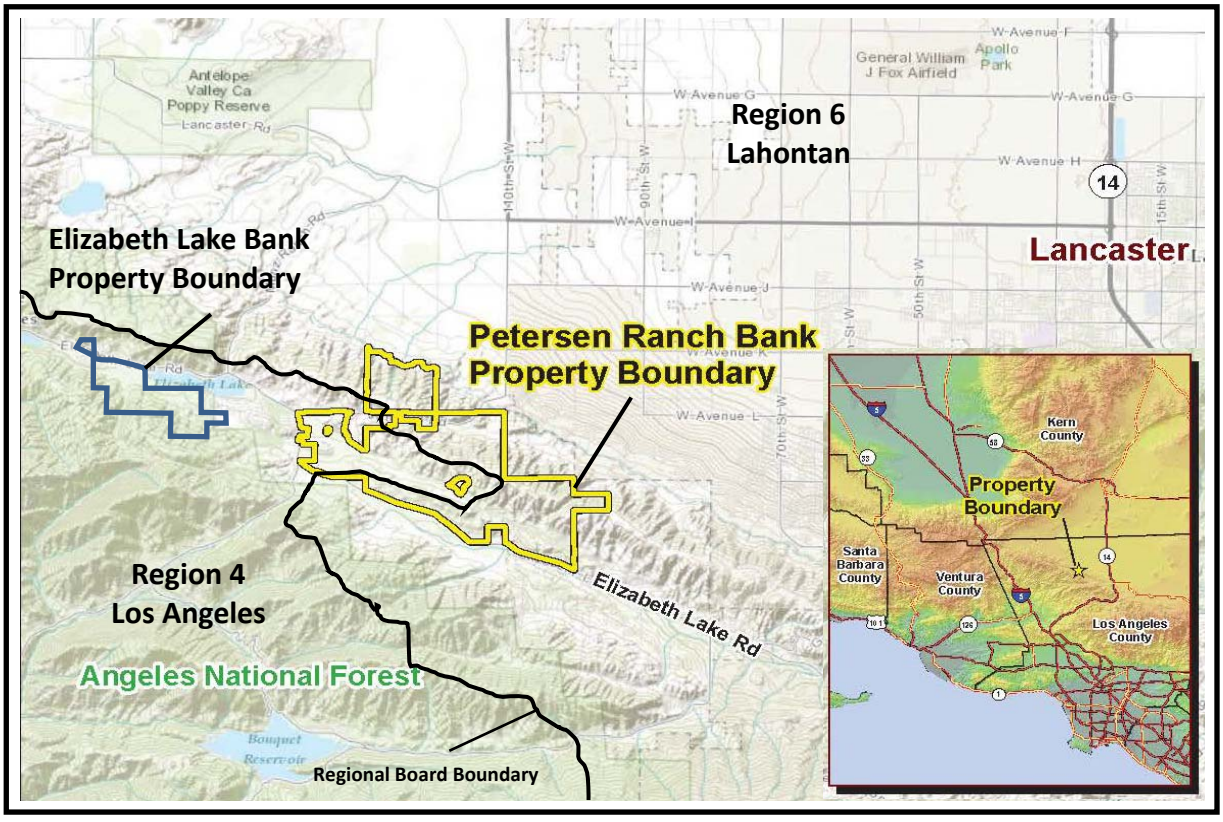
Another next step discussed was Phase II of the State Water Board's Wetland and Riparian Area Protection Policy, which focuses on developing state-wide water quality standards (beneficial use designations and water quality objectives) for wetlands throughout the state. A Phase II pilot project involving the Upper Truckee River is underway to demonstrate the Policy's watershed approach to wetland planning protection, and to help develop statewide wetland standards.

## SOUTH BASIN

6. **Peterson Ranch Mitigation Bank, Leona Valley and Elizabeth Lake, Los Angeles County** – *Jan M. Zimmerman*

Land Veritas, Corp. proposes to establish the Petersen Ranch Mitigation Bank ("Bank") in Los Angeles County. The Bank will focus on restoration, enhancement, and preservation of wetland and riparian habitats, as well as rare and sensitive wildlife and plant species at two properties, the Petersen Ranch Bank Property and the Elizabeth Lake Bank Property, in unincorporated Leona Valley and Lake Hughes, respectively. The Bank is proposed primarily as mitigation for Clean Water Act (CWA) Sections 404 and 401, Porter Cologne, and California Fish and Wildlife Code Section 1602. Once approved, the Peterson Ranch Mitigation Bank will be the first within the Lahontan Region.

The Petersen Ranch Bank Property is approximately 3,785 acres and currently supports approximately 101 acres of seasonal and perennial wetlands, over 25 acres of ephemeral streams, 1,997 acres of stream buffer habitats, 4 acres of open waters, 100 acres of non-wetland riparian habitats, and 3 acres of alluvial floodplains. Wetland re-establishment, rehabilitation, enhancement, and preservation are proposed to remove berms, return degraded man-made stock ponds to wetland habitats, and improve hydrologic connectivity with nearly 80 acres of adjoining wetlands being enhanced and restored. Swainson's hawk, tricolored blackbird, burrowing owl, coast horned lizard habitats, and sensitive natural communities will be protected and restored. Nearly half of the Peterson Ranch property is located within the Lahontan Region, with the remainder of the property located within the Los Angeles Region.



The Elizabeth Lake Bank Property is approximately 317 acres and currently supports approximately 4 acres of emergent marsh, 10 acres of riparian wetlands, 5 acres of wetland seep, less than 1 acre of wetland depression, 7 acres of dry wash, 10 acres of open water, and less than 1 acre of ephemeral streams. A large portion of Elizabeth Lake is bordered by a historic alluvial fan. The degraded alluvial fan habitat has high potential for restoration due to constructed earthen berms that currently prevent natural storm flows out of Lucky and Munz canyons. The site also offers a great diversity of vegetation and habitat including southern cottonwood willow riparian forest, mixed chaparral, California buckwheat scrub, interior live oak scrub, rabbitbrush scrub and California annual grassland. The site is being proposed as mitigation for desert wash/alluvial fan, Swainson's hawk, riparian, and sensitive natural communities. The Elizabeth Lake property is located entirely within the Los Angeles Region.

Under the federal mitigation rule, bank proposals are reviewed, evaluated and negotiated by a team of agencies called the Interagency Review Team or IRT. The United States Army Corps of Engineers (USACE), Los Angeles District, is the primary lead agency for the Peterson Ranch IRT. Other IRT members include staff from the USEPA (Region 9), the USFW, the CDFW and the Los Angeles and Lahontan Regional Water Boards. The role of IRT members is to 1) review technical reports associated with the property resources and to provide feedback related to their agencies purview, 2) provide input on bank credit determinations, 3) provide input on the development of a mitigation banking instrument and the terms and conditions of bank approval or certification, and 4) review bank instrument modifications, amendments, and/or terminations. Water Board staff have been actively participating in the Peterson Ranch IRT since April 2013.

USACE staff anticipates circulating the Peterson Ranch Mitigation Bank Final Prospectus and Public Notice for a 30-day public comment period beginning in late November 2013. It is anticipated that the Peterson Ranch Mitigation Bank will receive approval from the USACE by the end of 2014.

7. **Antelope Valley Regional Water Management Group, Meetings for the Integrated Regional Water Management Plan Update and the Salt and Nutrient Management Plan** – *Jan M. Zimmerman*

   The Antelope Valley Regional Water Management Group (RWMG) held a stakeholder meeting on October 16, 2013. The purpose of this meeting was to present to the stakeholders a progress report on the efforts to update the Integrated Regional Water Management Plan (IRWMP) and to discuss other matters pertaining to the RWMG. Brian Deitrich of RMC Consultant Inc. (RMC) led the stakeholder meeting. Mr. Deitrich informed the group that the 2013 IRWMP update is moving forward as scheduled and that progress is being made to finalize the draft. An update on the current Proposition (Prop) 84 grant funding opportunities was also provided to the group. Following the competitive grant application review process, the Department of Water Resources (DWR) did not recommend Prop 84 implementation funds for the Boron Arsenic Pilot Study. The Boron pilot study would consider the feasibility of alternatives to reduce the concentration of arsenic in the potable water system; alternatives to be considered include drilling a new well, well head treatment for existing wells, and blending with import water. On behalf of the RWMG stakeholders, RMC has responded to DWR's application scoring results requesting that the Boron pilot study be reconsidered for funding.

Following the IRWMP update, several stakeholders participated in a subcommittee meeting for the Salt/Nutrient Management Plan (SNMP). Aracely Jaramillo, Los Angeles County Department of Public Works, Waterworks Division, led the stakeholders in the discussion. The group discussed narrative water quality objectives, as outlined in the Lahontan Basin Plan, and the process for determining assimilative capacity. In addition, the group discussed the need to include in the SNMP a programmatic antidegradation analysis for all known existing and proposed projects. The intent behind the programmatic analysis is to streamline permitting for future projects. Those projects not identified in the SNMP would have to provide a project-specific anitidegradation analysis or it may trigger an update to the SNMP as part of the permitting process. To help in that effort, Water Board staff provided the SNMP subcommittee members with examples of recent antidegradation analyses submitted to the Water Board.

Since the October 2013 stakeholder meetings were held, the draft 2013 IRWMP update has been made available for public review. An electronic copy of the draft plan is available at http://www.avwaterplan.org/. The 30-day comment period for the draft 2013 IRWMP update ends on December 11, 2013.

8. **Chevron Mining Inc. (Formerly Molycorp Inc.) Cleanup and Abatement Order No. 6-97-66 Status of Wastewater Pipeline Removal** – *Christy Hunter*

In 1997, Executive Officer Harold Singer issued a Cleanup and Abatement Order (CAO) No. 6-97-66 to Molycorp, Inc., the National Park Service (NPS), and the U.S. Bureau of Land Management (BLM) requiring investigation of pipeline spills and cleanup of pipe scale and contaminated soils associated with the spills throughout the length of pipeline leading from the Mountain Pass Mine and Mill onto Ivanpah Dry Lake. The pipeline crossed public lands managed by the BLM, a portion of the Mojave National Preserve administered by the NPS, and Molycorp, Inc. property. Waste discharge ceased in 1998. The investigation showed that wastewater and pipe scale containing elevated levels of barium, radium, thorium and uranium were discharged to lands owned by the NPS and the BLM. Subsequent investigations revealed two historic pipeline release locations, which were added to the scope of remedial activities. With the exception of two very minor and localized areas of contamination, all surface spill related waste material was removed by the fall of 2000. However, mining-related waste material remained in the buried pipeline and surrounding subsurface soil. At that time, then owner Molycorp, Inc. proposed to remediate all wastes associated with the pipeline including removal of the entire length of the pipeline.

In 2005, Molycorp, Inc. was acquired by ChevronTexaco and, in 2007, Chevron Mining, Inc. (CMI) was created when the parent company (ChevronTexaco) merged its mining operations (the former Pittsburg & Midway Coal Mining and Molycorp, Inc.) into one unit. In 2009, CMI sold its ownership of the Mountain Pass Mine and Mill to a newly created company, Molycorp Minerals, LLC. However, CMI retained ownership and cleanup liability of the Ivanpah former evaporation ponds including the wastewater pipeline. In December 2009, CMI began implementation of an interagency approved work plan to remove and remediate pipeline-related spills. (Pipeline removal for a short [500 feet] segment of pipeline actually occurred in the summer of 2008 to accommodate expansion of nearby Interstate Highway 15.)

Removal of the entire pipeline and soil remediation work was completed in three phases between April 2008 and March 2012. In compliance with CAO No. 6-97-66, final documentation of the Ivanpah wastewater pipeline removal/remediation project was

submitted to Water Board staff in June 2012. The BLM, NPS, and their consultants have provided oversight of these remediation activities, in concert with review from our Water Board staff and the California Department of Public Health, Radiological Health Branch staff. With this final documentation, Water Board staff will be preparing a rescission of CAO No. 6-97-66.

9. **County Sanitation District No. 14 of Los Angeles County (District), Lancaster Water Reclamation Plant, Los Angeles County –** *Mike Coony*

***Status of Compliance Task Completions***
In June 2013, the Water Board rescinded Cease and Desist Order (CDO) No. R6V-2004-0038 and R6V-2004-0038-A01 because the District had completed actions to eliminate effluent-induced overflows from the Piute Pond discharge site to Rosamond Lake. Water Board staff determined that the combination of recycled water availability for reuse at existing permitted reuse sites, lined storage reservoirs, and Piute Pond capacity (without overflows) have eliminated induced overflows.

As owner of Piute Ponds, the terminal receiving water of treated effluent and one-time source of overflow to Rosamond Dry Lake, the Air Force can now direct the District at specified times and manner to increase discharges to Piute Ponds so that they intentionally overflow into Rosamond Lake for the purpose of habitat maintenance and enhancement.

Compliance issues associated with the CDO are attained and the facility is operating in compliance with their waste discharge requirements.

***Pretreatment Program***
*Note: This is a separate topic and not part of previous enforcement actions*

In July 2013, Water Board staff commenced the process of requiring the District to implement an enforceable pretreatment program. The purpose of a pretreatment program is to control waste constituents that may either interfere or pass through a wastewater treatment facility.

Under state and federal regulations, municipal discharges of 5 mgd or greater must implement a pretreatment program. The District's waste discharge requirements currently do not have a pretreatment program requirement.

The District submitted their pretreatment program to the Water Board on September 30, 2013. In December 2013, Water Board staff determined that the program meets the federal pretreatment program requirements. The next step is a public comment period. Program approval is through adoption of waste discharge requirements, which plan to be presented at a future Water Board meeting.

**SCHEDULE OF TASKS**
LANCASTER WATER RECLAMATION PLANT (LWRP)
COUNTY SANITATION DISTRICT NO. 14 OF LOS ANGELES COUNTY (DISTRICT)

| PERFORMANCE TASK | DUE DATE | STATUS |
|---|---|---|
| **Required by Waste Discharge Requirements<br>Board Order R6V 2002-053<br>Board Order R6V 2002-053A1 (Adopted 7/13/2005)** | | |
| Nuisance Condition | | |
| II.B.4. – Complete project to eliminate nuisance condition created by effluent induced overflow from Piute Ponds to Rosamond Dry Lake. | August 25, 2005 | (Extended under CDO No. R6V-2004-0038A1) |
| **Required by: Waste Discharge Requirements<br>Board Order R6V 2002-053A2 (Adopted 3/14/2007)** | | |
| Engineering Reports (Tertiary Treatment Plants) | | |
| II.B.1. – Acceptance of engineering report for 15-mgd tertiary treatment plant by Executive Officer. | Before discharging from plant | Report submitted, Public Health reviewing report. |
| II.B.2. – Acceptance of engineering report for MBR tertiary treatment plant with UV disinfection by Executive Officer. | Before discharging from UV system | Issued July 9, 2009 |
| Farm Management Plan (Agricultural Site) | | |
| II.C.1. – Submit farm management plant for Fields 7 & 8, and 11 – 20. | Submit report nine months before irrigation in fields | Met |
| Vadose Zone Monitoring (Agricultural Site) | | |
| II.D.1. – Submit vadose zone monitoring plan (if an alternate plan is proposed) for Fields 1 - 6, 9 & 10. | June 14, 2007 | Met |
| II.D.1. – Implement vadose zone monitoring plan for Fields 1 - 6, 9 & 10. | March 14, 2008 | Met |
| II.H.3. (MRP) – Submit vadose zone monitoring plan for Fields 7 & 8 and 11 – 20. | One year before irrigation | Met |
| Groundwater Monitoring (Agricultural Site) | | |
| II.E.1. – Complete a minimum of eight TDS sampling rounds for each monitoring well in Fields 1 to 8, calculate the existing water quality for each well, and report the results of the calculations and data used to make the calculations in the 3rd quarter 2007 self-monitoring report. | October 30, 2007 | Met (Oct 29, 2007) |
| II.E.2.a. - Submit work plan for installing additional monitoring wells for Fields 9 through 12. | April 20, 2007 | Met |
| II.E.2.a. - Complete installation of additional monitoring wells for Fields 9 through 12. | June 15, 2007 | Met |

| PERFORMANCE TASK | DUE DATE | STATUS |
|---|---|---|
| II.E.2.b. - Complete a minimum of eight TDS sampling rounds for each monitoring well in Fields 9 to 12, calculate the existing water quality for each well, and report the results of the calculations and data used to make the calculations in the 4th quarter 2007 self-monitoring report. | January 30, 2008 | Met (Submitted Oct 29, 2007. Results are in 3rd quarter 2007 self-monitoring report) |
| II.E.3.a. - Submit work plan for installing additional monitoring wells for Fields 13 through 20. | Submit report one year before irrigation in fields | Met |
| II.E.3.b. - Complete a minimum of eight TDS sampling rounds for each monitoring well in Fields 13 to 20, calculate the existing water quality for each well, and report the results of the calculations and data used to make the calculations in the quarter report following the quarter the samples were collected. | Complete before irrigation in fields | Met (Submitted Jan 28, 2010. Results are in 4th quarter 2009 self-monitoring report) |
| Abandoned Wells (Agricultural Site) | | |
| II.F. – Submit report demonstrating that destruction of abandoned wells have been completed for Fields 13 – 20. | Submit report three months before irrigation in fields | Met (Submitted Feb 7, 2011) |
| Run On and Run Off Controls (Agricultural Site) | | |
| II.G.1. – Submit report demonstrating that run on and/or run off controls have been implemented for Fields 1 - 6 | Submit report one month before irrigation in fields | Met |
| II.G.1. – Submit report demonstrating that run on and/or run off controls have been implemented for Fields 7 – 20. | Submit report one month before irrigation in fields | Submitted report for Fields 11 and 12 |
| **Required by: Waste Discharge Requirements Board Order R6V 2006-0051** | | |
| II.A. - Submit work plan for installing additional monitoring wells for the proposed storage reservoirs. | April 9, 2007 | Met (Submitted 16 days late) |
| II.B.1 - Submit the final design for the proposed storage reservoirs. | Before constructing the reservoirs | Met |
| II.B.2 - Submit a construction QA/QC program for the proposed storage reservoirs. | Before constructing the reservoirs | Met |
| II.B.3 - Submit certification that proposed reservoirs were constructed as proposed. | Before use of the reservoirs | Met (Submitted Apr 13, 2011 and accepted Dec 9, 2011) |

10. **County Sanitation District No. 20 of Los Angeles County (District), Palmdale Water Reclamation Plant, Los Angeles County** – *Christina Velasquez and Mike Coony*

***Status of Compliance Tasks***

**Cease and Desist Order**
Cease and Desist Order (CDO) No. R6V-2004-0039 and No. R6V-2004-0039-A01 was rescinded in June 2011 because the District has achieved compliance with all requirements in the CDO. The facility continues to operate in compliance with waste discharge requirements.

**Cleanup and Abatement Order**
Cleanup and Abatement Order (CAO) No. R6V 2003-056 requires the District to delineate groundwater nitrate contamination, develop a remediation plan, implement a remedial action plan, and reduce the amount of nitrate percolating to groundwater. The District submitted Containment and Remediation Plan Supplement No. 4 (December 2011), which included an updated mathematical modeling and analysis plan of cleanup alternatives. Based on the model, the groundwater plume will achieve stability, however, areas of groundwater with nitrate (as N) exceeding 7 to 8 mg/L will remain at the end of the 55-year simulation period for all alternatives evaluated. The concentrations and extent of nitrate in groundwater are predicted to decrease relatively slowly during the last 20 years of the simulated period for all four alternatives. As an interim remedial measure, the District has implemented improved effluent management, and construction and operation of six groundwater extraction wells. Improved effluent management was implemented through expansion of the agricultural reuse site and construction of winter effluent storage reservoirs so that effluent is applied to crops at agronomic rates. This practice has been in effect beginning in calendar year 2010.

**Investigative Order**
Based on information in the Containment and Remediation Plan Supplement No. 4, the District was issued Investigative Order R6V-2012-0056 requiring work plans to update plume delineation, plume containment, and evaluate the causes of increasing nitrate concentrations in the northwest area of the nitrate plume. The District submitted all required work plans. The District is working with Air Force Plant 42 and Los Angeles World Airport for site access to implement the work plan. The District also continues to look for additional uses (users) for recycled and/or extracted groundwater from the plume. Currently, extracted water from the plume is being blended with treated recycled water and delivered to AG Sod Farms, Inc. The District submitted a technical report in compliance with the 13267 order that reviews available technologies and literature to assess the cost and feasibility of removing nitrate from groundwater to levels of 3 mg/L or less. The technical report is currently being reviewed.

**Compliance Task Status Table**
A table showing the status of compliance with actions related to the clean-up of groundwater is included at the end of this report. Status of CDO compliance actions are no longer included because the CDO was rescinded in June 2011.

***Pretreatment Program***
*Note: This is a separate topic and not part of previous and current enforcement actions*

In July 2013, Water Board staff commenced the process of requiring the District to have and implement an enforceable pretreatment program. The purpose of a pretreatment program is to control waste constituents that may either interfere or pass through a wastewater treatment facility.

Under state and federal regulation, municipal discharges of 5 mgd or greater must implement a pretreatment program. The District's waste discharge requirements currently do not have a pretreatment program requirement. The District submitted their pretreatment program to the Water Board on September 30, 2013. In December 2013, Water Board staff determined that the program meets the federal pretreatment program requirements. The next step is a public comment period. Program approval is through adoption of waste discharge requirements, which plan to be presented at a future Water Board meeting.

**SCHEDULE OF TASKS**
PALMDALE WATER RECLAMATION PLANT (PWRP)
COUNTY SANITATION DISTRICT NO. 20 OF LOS ANGELES COUNTY (DISTRICT)

| PERFORMANCE TASK | DUE DATE | STATUS |
|---|---|---|
| **Required by Cleanup and Abatement Order R6V 2003-056** | | |
| **Plume Delineation** | | |
| 1.1.1 – Submit a plan to delineate the nitrate plume to background levels. | Feb 16, 2004 | Met |
| 1.1.2 – Complete plume delineation. | Aug 15, 2004 | Met |
| **Plume Containment** | | |
| 1.2.2 - Submit a final plan (including extraction well locations and pumping rates) and time schedule for containing the plume. | Sept 15, 2004 | Met |
| 1.2.3 – Achieve plume containment. | Sept 30, 2005 | Not met |
| **Plume Remediation** | | |
| 1.3.1 - Submit a plan describing the proposed plume remediation describing how groundwater will be restored to background or propose alternative cleanup levels pursuant to SWRCB Resolution 92-49. | Sept 15, 2004 | Not met - In progress |
| 1.3.2 – Implement the proposed plan for groundwater extraction and agricultural irrigation (or an equally acceptable alternative). | Sept 15, 2005 | Not met - In progress |
| **Abatement** | | |
| 2.1 – Submit a plan describing proposed abatement actions. | March 31, 2004 | Met |
| **Reporting**<br>3.2 – Submit quarterly status reports until remediation is complete including actions completed in the last three months and expected in the next three months report. | February 1, May 1, August 1, and November 1 | Ongoing |

| | | |
|---|---|---|
| **Required by: Monitoring and Reporting Program No. R6V-2011-0012**<br>*The itemized tasks are associated with groundwater cleanup activities* | | |
| II.B.3 – Submit quarterly reports for<br>-Groundwater Monitoring Report<br>-Groundwater Extraction Operations Report<br>-Agricultural Site Monitoring Report<br>-Agricultural Vadose Zone Monitoring Report<br>-Agricultural Site Monitoring, Operations, and Chemical Use Monitoring Report<br>-Chemical Use Monitoring Report<br>-Storage Reservoir Site Vadose Zone Monitoring Report<br>-Biosolids Storage and Disposal Report | 15th working day of the second month following each quarterly monitoring period | Ongoing |
| II.B.4. – Submit annual reports for<br>-Treatment plant<br>-Groundwater monitoring | March 1st of each year | Ongoing |
| **Required by Resolution No. R6V-2005-0010** | | |
| A. - Discharger should initiate cleanup project to reduce nitrate concentrations in groundwater to less than 10 mg/L as N, as soon as possible. | As soon as possible | In progress |
| B. - Discharger should submit an evaluation for additional options for remediation of groundwater after the 10 mg/L as N level is achieved. Focus should be on less than 2 mg/L as N (background), which will be used to establish the final cleanup standard. | Apr 13, 2006 | Not met - further analysis on-going |

| **Required by Investigative Order No. R6V-2012-0056** | | |
|---|---|---|
| **A.1 Plume Delineation** | | |
| • Submit a plume delineation plan (to update the plume as delineated in 2004 to comply with CAO No. R6V-2003-056). | Jan. 1, 2013 | Met |
| • Begin implementation of the plan within 30 days after Executive Officer's acceptance of the work plan. | (Date to be determined) | In progress – implementation of the plan contemplated site access delays. |
| **A.2 Plume containment** | | |
| • Submit a plume containment evaluation plan. | Jan. 1, 2013 | Met |
| **A.3 Plume Evaluation Near MW23** | | |
| • Submit a plan and schedule to evaluate increasing nitrate concentration trends in the vicinity of MW 23. | Jan. 1, 2013 | Met |
| • Implement the plan within 30 days after Executive Officer's acceptance of the work plan. | Jan. 1, 2013 | Met |
| **A.4 Remediation Options and Uses of Extracted Groundwater** | | |
| a. Submit a plan and schedule to establish short-term options for uses of extracted groundwater that will reduce adverse effects of extraction on groundwater overdraft conditions. | Jan. 1, 2013 | Met |
| b. Provide for the Executive Officer's acceptance a technical report that reviews available technological information and literature to assess the cost and feasibility of removing nitrate from water to levels of 3 mg/L or less. | Oct. 31, 2013 (Extension Date) | Met |

**Table 1 - DECEMBER 2013 STATUS of 2013 TRIENNIAL REVIEW PRIORITY PROJECTS**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| Projects with Available Resources | Description and Estimated Completion Date | Status in mid-December 2013 |
|---|---|---|
| #1<br>Prohibition amendments (Basin Plan cleanup) | 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.<br><br>Other proposed changes to the Basin Plan include incorporating State Board policies such as authorizing use of compliance schedules in NPDES permits, mixing zones for NPDES permits, and the 2012 State Board policy on onsite wastewater treatment systems. | Staff presented a status update to the Board in November 2013, and received direction from the Board on completion of the proposed amendments. Staff expects the amendments will be considered at the April 2014 Board meeting. |
| #2<br>Revise water quality objectives for bacteria | 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.<br><br>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. | (see Table A below) |
| #3<br>Remove the MUN beneficial use designation from two groundwater basins at China Lake Naval Air Weapons Center | Water Board staff has reviewed technical information provided by the U.S. Navy. If the MUN use is shown not to be an existing or feasibly attainable use of the affected ground waters, Table 2-2 of the Basin Plan may be amended to remove the MUN use designation for portions of two groundwater basins. | Progress delayed due to higher priority task related to the Integrated Report. Progress scheduled to resume for May 2014 proposed Board adoption. |

**Table 1 - DECEMBER 2013 STATUS of 2013 TRIENNIAL REVIEW PRIORITY PROJECTS**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| Projects with Available Resources | Description | Status in mid-December 2013 |
|---|---|---|
| #4<br>Incorporate State Water Board onsite wastewater treatment system (OWTS) policy into the Basin Plan and revise existing language and associated changes if needed. | 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.<br><br>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. | Staff expect the policy will be adopted at the Water Board's April 2014 as part of the Basin Plan cleanup project (Project #1, above.) |
| #5<br>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<br>2015 Triennial Review | Prepare the 2015 Triennial Review staff report and priority list. Host scoping meetings and hearings, as necessary, for Water Board consideration. | Work on the 2015 Triennial Review process is expected to begin in FY 14/15. |
| #7<br>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. |

**Table 1 - DECEMBER 2013 STATUS of 2013 TRIENNIAL REVIEW PRIORITY PROJECTS**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| Projects with Available Resources | Description | Status in mid-December 2013 |
|---|---|---|
| #8<br>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. | Staff and the principal investigator presented the Nearshore Evaluation Report to the Board in November 2013. Staff is currently developing a schedule for developing and implementing a monitoring plan, hotspot causal assessment, and decisions on nearshore water quality objectives. Staff plans a public meeting in late January to discuss this schedule, and presentation of this schedule to legislative staff in March. |
| #9<br>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 Plans. The Antelope Valley SNMP is expected to be submitted to the Water Board in 2014. Consider revising groundwater objectives to account for expected changes in salt and nutrients. | The 30-day Draft comment period ended on Dec 11th. The Integrated Regional Water Management group is currently reviewing comments. |
| #10<br>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 expects the Mojave Basin Salt & Nutrient Plan will be completed Spring 2014. |

**Table 1 - DECEMBER 2013 STATUS of 2013 TRIENNIAL REVIEW PRIORITY PROJECTS**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| Projects with Available Resources | Description | Status in mid-December 2013 |
|---|---|---|
| #11<br>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").<br><br>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. | Chapter 5 revisions are being considered 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 mid-December 2013 |
|---|---|---|
| #12<br>Hydromodification<br><br>(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<br>Biological indicators | Revise existing narrative water quality objective for protection of aquatic communities (nondegradation of aquatic communitties objective). | This project is on hold pending outcome of the State Water Board's Bio-objectives development process |
| #14<br>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. | Studies of the interaction of Squaw Creek with the Olympic Valley Groundwater Basin were finalized in late 2013. The studies identified potential strategies that could be implemented to reduce the effect of groundwater pumping on Squaw Creek flow. (See Executive Officer's report item on this issue.) |

**Table 1 - DECEMBER 2013 STATUS of 2013 TRIENNIAL REVIEW PRIORITY PROJECTS**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| Projects Requiring Additional Resources | Description | Status in mid-December 2013 |
|---|---|---|
| #15<br>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. | In progress |
| #16<br>Adopt or revise site-specific water quality objectives for Fish Springs in the Owens Valley to facilitate NPDES permitting for a state fish hatchery. | 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. | In progress |
| #17<br>Susan River site specific objectives | 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.) | No staff work performed specific to a Basin Plan amendment. |
| #18<br>Revise Chapter 3 language on determining compliance with water quality objectives. | 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. | No staff work performed specific to a Basin Plan amendment. |

**Table 1 - DECEMBER 2013 STATUS of 2013 TRIENNIAL REVIEW PRIORITY PROJECTS**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| Projects Requiring Additional Resources | Description | Status in mid-December 2013 |
|---|---|---|
| #19<br>Dairies Strategy | 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.) | No staff work performed specific to a Basin Plan amendment. Staff continues to implement the 2010 Dairies Strategy. |
| #20<br>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<br>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. | Staff will make these changes to Table 2-1 as part of the Basin Plan Cleanup project (Project #1 above). |
| #22<br>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<br>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<br>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. |
| #25<br>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 A - Bacteria Water Quality Objective Tasks**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| ***Task*** | ***Details*** | ***Mid-December 2013 Status*** |
|---|---|---|
| (1) Proposition 84 grant | **(1)** Rivers and Ranches- (a) implementation of grazing management practices on private ranch properties.<br>**(2)** UC Davis subcontract- (b) pre and post- management practices implementation bacterial monitoring and bacterial source tracking in priority watersheds to determine source of impairment (Trout Crk, Tallac Crk, Susan River, Bishop Crk, Swauger Crk);<br>**(3)** UC Santa Barbara subcontract – (c) establishment of a bacterial analysis lab near Mammoth Lakes; receive and run water samples. | **(1)** Two ranchers have signed up for grant, one in the Little Truckee watershed and the other in the Bridgeport Valley.<br>**(2)** UC Davis will sample pre-and post-management practice implementation during the upcoming grazing season.<br>**(3)** UCSB collected 182 samples at 54 sites and will analyze using qPCR analysis. Final report in 2016. |
| (2) Grazing Advisory Group (GAG) | Internal R6 working group that coordinates efforts and shares data between Non-point Source (NPS), Surface Water Ambient Monitoring Program (SWAMP), and basin planning projects related to grazing and bacteria. Coordinate on projects/contracts and determine/delegate work tasks. This is the platform for sharing information, coordinating projects in the region, and planning new/future projects. | Monthly or quarterly during development of possible bacteria water quality objectives amendment. |
| (3) Eastern Sierra Bacteria monitoring (internal) | Monitoring performed by R6 planning, Non-Point Source, and SWAMP staffs during the grazing season, including pre- and post- grazing. Based on data, monitoring sites may change or additional sites may be added. This monitoring ensures Lahontan staff is evaluating possible impairments due to grazing and tracking seasonal/annual variations. | Monitoring complete for the season. |
| (4) Compile all bacterial data and map it | This data should include data from the UC Davis contract #08-076-160 (completed July 15, 2010) which includes 337 stream water samples collected from 35 sample locations and analyzed for *E. coli* and fecal coliform. Additional data to be analyzed includes the Bridgeport ranchers Grazing Waiver data, internal Eastern Sierra Bacteria data, SWAMP data, permittee data (?), and data from future grants/contracts. | In progress. |

**Table A - Bacteria Water Quality Objective Tasks**
**(attachment to State and Regional EO Report Item No. 1, pg. 1)**

| ***Task*** | ***Details*** | ***Mid-December 2013 Status*** |
|---|---|---|
| (5) Compile all Bridgeport Valley Grazing Waiver information | Evaluate the Bridgeport Waiver information, including the "Section 13267" information submitted last year by the ranchers. This evaluation can and should include reporting on miles of property fenced from waterways, miles of streams still exposed to uncontrolled access by livestock, acres of various implementation actions completed, proportion of irrigation return flows treated or eliminated, money spent, Grazing Management Practices (GMPs) in relation to distance to monitoring sites, etc. This information will assist in evaluating efforts of Bridgeport Valley ranchers and determine if they have completed all feasible GMPs on their properties. If this information is not readily available, additional PYs would be needed to gather this information from the ranchers. | All ranchers are enrolled in the Grazing Waiver.<br><br>In March 2014, Water Board staff will report on the monitoring results of best management practices. |
| (6) UC Santa Barbara SNARL contract No. 12-067-160 | At no fewer than 8 watersheds, conduct longitudinal (i.e., headwaters-to-mouth) stream surveys for bacterial indicators. This design can provide site-specific data for many watersheds and the data analysis could reveal trends (and quantification) of bacteria levels in headwaters (i.e., "background"), above/below grazing areas, above/below urban/residential areas, etc. | The contractor collected 160 samples from 55 sites in 2013. Fecal indicator bacteria analyses have been completed; qPCR analyses pending. Staff will coordinate 2014 monitoring plans with contractor. |
| (7) Track USEPA/StBd bacteria standards | USEPA announced its release of new Water Quality Criteria for Recreational Waters in November 2012. The State Board is in the process of creating a new bacteria amendment based on USEPA's announcement. Staff will need to evaluate the new USEPA guidance and possibly provide input to State Board for our regional interests/considerations. | Water Board staff met with the State and Regional Boars working group in October 2013 and has commented on issue papers related to bacteria standards. |
| (8) Internal working group to evaluate basin plan amendment options | This group evaluates the information gathered and tasks completed (in this table) to define feasible options for a regionwide basin plan amendment to present to upper management and Lahontan's Grazing Advisory Group. | In progress. |
| *9) Possible future contract (FY 14-15)*: UC Santa Barbara SNARL contract | If funded, the contractor will test and employ library-independent microbial source tracking approaches to determine bacteria sources in surface waters. Specifically, the contractor will test and refine recently developed animal feces-specific *Bacteriodes spp*. qPCR primers, and use the assays to determine bacteria sources in the Region. | Contract request (for $295,200) submitted with implementation expected to begin Spring 2014. |