

## EXECUTIVE OFFICER'S REPORT

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May 2001

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### NORTH BASIN

1. *Tahoe Integrated Information Management System (TIIMS)-Robert Erlich.*

TRPA is working with Tahoe Basin stakeholders, including Regional Board, Tahoe Conservancy, USGS, and Forest Service staff that produce and use water quality research and monitoring data. TRPA is proposing to address long-term information management needs by developing a Tahoe Integrated Information Management System (TIIMS). TRPA is interested in developing a system that helps track progress in implementing the infrastructure improvements in the \$900 million Tahoe Basin Environmental Improvement Program and in meeting TRPA's nine environmental threshold goals. The system also will make it easier for stakeholders to disseminate and access data related to key Tahoe research and management issues.

TRPA has initially contracted with Science Applications and International Corporation (SAIC) to develop a prototype TIIMS, based in part on existing Tahoe GIS and database systems, and using elements from other GIS-based regional environmental information management systems developed by SAIC in Alaska, Montana, and the Chesapeake Bay region.

Regional Board staff participated in selecting the consultant and developing the scope for the initial phase of the project. Along with other agencies, we met with SAIC and TRPA on May 4, 2001 to start identifying information management priorities and roles for key partners. Regional Board staff will provide input during the development of the TIMS prototype during the next six months. Further development of TIMS could provide a single, region-wide repository for water quality data collected by or used by the Regional Board, land management agencies, NPDES stormwater permittees, researchers, and the interested public.

Wider dissemination of information on performance of stormwater treatment BMPs will help implementing agencies and the Regional Board assess BMP performance, encourage selection of appropriate BMPs, and develop sound, data-based TMDLs. While the costs for developing, operating and maintaining a region-wide data information system would be substantial, better access to historic and current water quality, land use, and environmental improvement project information is a priority identified by interagency groups working on water quality issues in the Tahoe Basin.

2. ***California Department of Forestry and Fire Protection Re-Green Activities – Erika Lovejoy***

Staff of the California Department of Forestry (CDF) met with staff from the Regional Board, Tahoe Regional Planning Agency (TRPA), and League to Save Lake Tahoe (League) to review current and planned work for urban fire hazard reduction work around stream environment zone (SEZ) areas. CDF's objectives were to get additional input on regulatory and environmental issues affecting these sites, which are located throughout the Lake Tahoe Basin.

A substantial amount of the work involves cutting down large areas of live lodgepole pine located directly along stream courses, as well as other work that could potentially adversely affect SEZs and floodplains. The Regional Board Basin Plan prohibits disturbance or removal of live vegetation in SEZs "except to maintain the health and diversity of the vegetation, or to maintain the character of the stream environment zone." (Lahontan Basin Plan, 5.13-2) Staff did not disagree that thinning lodgepole thickets could promote health and diversity of vegetation within certain SEZs. However, no definitive evidence was presented that documents the specific situations, levels of thinning, and/or mitigation measures for lodgepole thinning in stream zones that will promote forest health/diversity without creating adverse effects, such as increased water temperature or nutrient leaching. Furthermore, given the amount of work CDF intends to do, there was concern regarding the potential cumulative impacts of the work.

Staff met with CDF a second time and advised them to do a California Environmental Quality Act (CEQA) review

of the project, so our respective agencies could make a proper assessment of the potential environmental impacts. CDF staff agreed that further analysis should be conducted and intends to follow up with their management.

3. ***Tahoe Tom's Gas Station, El Dorado County - Lisa Dernbach***

The responsible parties for the Tahoe Tom's Gas Station submitted a technical report on April 30 to comply with requirements in their cleanup and abatement order. The report, entitled *Final Remedial Action Plan*, discusses implementing additional corrective actions to restore groundwater quality to background conditions. Besides expanding the pump and treat system, the report recommends inoculating the site with non-indigenous microbes and injecting hydrogen peroxide. Board staff will provide comments to the responsible parties before the end of May.

The report, however, does not comply with the cleanup and abatement order requirement for a final design for expanded soil remediation. The final design was due back on September 29, 2000. I will continue working with the Attorney General's office on an injunction to get the responsible parties to submit a final design. A hearing on the matter is schedule for mid-June 2001.

4. ***Update on Squaw Valley Public Service District, Water Supply Well No. 3 and the Opera House UST Diesel Contamination, Placer County – Tammy Lundquist***

In March 2001, Squaw Valley Ski Corporation installed a mid-level groundwater monitoring well to check potential migration of a diesel contamination plume into a deeper zone. Plume migration into the deeper zone concerns Staff because the Squaw Valley Public Services District (SVPSD) Supply Well No. 3 is screened in the deeper zone. Board staff received the First Quarter Groundwater Monitoring Report on May 10, 2001, which showed total petroleum hydrocarbons as diesel, (TPHd) in two of the nine-onsite wells. MW-3, in the vicinity of the former tank excavation, showed a TPHd concentration of 200 parts per billion (ppb). MW-9, the newly installed deep well, was sampled in March and April and showed TPHd concentrations of 120 ppb and 91 ppb, respectively; the taste and odor threshold for TPHd is 100 ppb. The laboratory noted the TPHd detections in the two wells were uncharacteristic of common fuels and lubricants and may include some undifferentiated heavier-end hydrocarbons. Staff is reviewing the technical report and will determine what corrective actions, if any, are needed.

5. ***Bodie Hills Working Group, Revised Grazing Practices-Bud Amorfini***

Regional Board staff are participating in the Bodie Hills Working Group, which was organized by the federal Bureau of Land Management (BLM) to implement new grazing management standards on BLM grazing allotments in the Bodie Hills area. The BLM's grazing management standards are intended to protect water quality,

conserve riparian vegetation, protect affected wildlife, and minimize soil erosion while balancing economic use of public lands with environmental protection. Group participants include ranchers, agency personnel, environmental groups, and private property owners. The process involves a long-term effort to educate stakeholders and implement practices that are protective of the environment.

A variety of rangeland management practices are being implemented in the Bodie Hills allotments, including placing exclusion fencing at riparian areas, developing water sources away from sensitive areas, managing cattle grazing patterns, rotating grazed areas, and implementing a 40-percent forage utilization standard (no more than 40 percent of forage may be grazed before use is concluded). Regional Board staff will continue to raise water quality issues in regularly scheduled meetings and will also be attending field trips designed to gain hands-on experience with forage measurement criteria and rangeland health assessments. Members of the public are also invited to attend field trips planned this summer. Field trips to conduct rangeland health assessments and forage utilization measurements are offered in June and July.

6. ***Markleeville Public Utility District, Small Communities Grant approved for streambank stabilization project, Markleeville Creek, Alpine County – Jason Churchill***

On May 17, 2001, the State Water Resources Control Board awarded a \$120,000 construction grant to the Markleeville Public Utility District (the District) under the Small Communities Grant (SCG) program. A portion of the District's sewage force main is situated in an

embankment below the facility access road, along a section of Markleeville Creek that was severely eroded during the 1997 floods. The SCG grant will help cover costs for a District project to stabilize the embankment and prevent a discharge of raw sewage to Markleeville Creek (tributary to the East Fork Carson River) in the event of force main or access road failure.

The SCG program provides water quality improvement grants to small, needy communities, such as the town of Markleeville served by the District. To assist the District in qualifying for a grant, a Time Schedule Order (TSO) No. 6-00-70 was issued on August 15, 2000, requiring the District to submit a time schedule and corrective action plan. The District provided the required plan and, last Fall, completed Phase I of the project: stabilizing the toe of the eroding slope with rock riprap, incorporating bioengineering to provide improved riparian habitat. Completion of Phase II to stabilize the upper part of the slope, below the District's access road, is expected later this year. Upon completion of Phase II, Regional Board staff plan to recommend rescinding the TSO.

7. ***Big Tree Dry Cleaners, Placer County - Lisa Dernbach***

On April 27, 2001, I sent a letter to the responsible parties of the Big Tree Cleaners informing them that the public hearing for consideration of an administrative civil liability order is planned to be continued at the July 2001 Board meeting in Tahoe City. The letter states the Regional Board is expecting the responsible parties to submit documents for expanded remediation at the site before then. If the parties submit an acceptable remediation strategy, I am willing

to consider discussing a settlement of the ACL complaint.

In response to my letter, I received correspondence from the new attorney representing the TCN Company and William McClintock. The letter states the attorney plans to meet with the attorney for the Pomins in mid-May to discuss the matter. The letter stresses that TCN will no longer bear the entire burden of a problem it did not create. Nor will Mr. McClintock deplete his personal resources in an attempt to find a cure for the problem. Any attempt by the Board to assess penalties against TCN or Mr. McClintock will be met with vigorous defense.

In April, the Regional Board received the quarterly monitoring report for the Big Tree Cleaners. The report shows that tetrachloroethene (PCE) concentrations in monitoring well MW-4D, adjacent to Lake Tahoe, increased from non-detect in September 2000 to 27 µg/l in April 2001. The information suggest the pump and treat system, extracting groundwater at a rate of 2 gallons per minutes, is unable to fully contain the PCE plume from migration. I will continue to work with the responsible parties to have them submit documents for expanded remediation and to settle the ACL complaint.

8. ***Stratton/Osburn Amended Administrative Civil Liability Complaint, Truckee, Nevada County-James Brathovde***

On May 11, 2001 the attorneys representing Edgar Stratton and Kenneth Osburn agreed on specific terms to settle a proposed administrative civil liability (ACL) complaint. The terms for settlement included payment of \$4,000 dollars and submittal of a workplan and an amended ACL Complaint

incorporating these terms has been issued. The workplan for additional soil and groundwater sampling at the Dependable Tow site was submitted on May 14, 2001. The workplan proposes to sample at three locations and test for gasoline, diesel, benzene and MTBE. The possible presence of cobbles and river rock will determine the technology chosen for the investigation: excavator, direct push probe or air rotary drilling rig. Soil samples will be taken at five foot intervals. The soil and groundwater sampling results and report of findings are to be submitted by September 1, 2001.

### **SOUTH BASIN**

9. *Air Sampling Support at Pacific Gas and Electric Company (PG&E), Hinkley – Joe Koutsky*

In Spring 2001, Lahontan Regional Water Quality Control Board staff (Board staff) assisted the California Air Resources Board (CARB) with air monitoring at the Hinkley PG&E facility. At the request of the California Department of Health Services (CDHS), Environmental Health Investigations Branch, Board staff collected ground water samples to correlate ground water and air monitoring data. This monitoring effort is intended to address possible concerns about potential airborne levels of hexavalent and total chromium, and the exposure of nearby residents and field workers from the irrigation (remediation) process regulated in Board Order No. 6-97-81 (Order).

CDHS released a Public Health Assessment (PHA) of the PG&E facility in January 2001. The PHA evaluated the public health implications of hexavalent chromium contamination in ground water and concluded that the Hinkley site did not

appear to pose a current or future health hazard to Hinkley residents. However, the document recommended that, in order to assure public safety, additional air and ground water monitoring be conducted by appropriate regulatory agencies. In January 1999, CDHS held a public meeting attended by Hinkley residents. Many community members did not think that the assessment adequately captured the extent of chromium exposure and were especially concerned that the available data had been collected by PG&E and contractors, and their potential exposure to contaminated air from compressor-station and agricultural-irrigation mists.

As a result of the community's concerns and the recommendations in the PHA, CDHS requested CARB to conduct ambient air monitoring of the area near the East Land Treatment Unit (LTU), regulated in the Order. The LTU is a pivoted agricultural irrigation mechanism, a part of the ground water remediation project, in which, hexavalent chromium is reduced to trivalent chromium in the soil. In April and May 2001, Board staff retrieved water samples from the irrigation network for analysis of hexavalent and total chromium to correlate ground water and air monitoring data. The results of the investigation will be made available by CARB to interested parties in late summer to early fall 2001, and will be used by CDHS to analyze for health risks. CDHS has not yet determined when and how its health risk analysis will be released to the public.

10. *City of Palmdale to Install Samplers beneath Maxwells®* - *Tim Post*

In a meeting held on April 11, 2001, the City of Palmdale proposed to install suction lysimeters (unsaturated zone sampling devices) in the subsurface directly beneath several Maxwells® planned for installation this year. The purpose of these sampling devices is to characterize the quality of water being discharged into the subsurface through the Maxwells® from nuisance-water and storm-water runoff events. Installing the sampling devices as part of Maxwell® installation will be considerably cheaper than installing the devices near existing Maxwells® and place the sampling devices in the optimum location characterizing the water quality emanating from the Maxwells®. The data generated from these lysimeter installations will be used to determine if the discharge from Maxwells® is a threat to water quality.

11. *IMC Chemicals (IMCC) – Michele Ochs*

**Beneficial Uses** - To support evaluation of site-specific designations of Beneficial Uses for the waters of Searles Lake; IMCC has proposed to study the ephemeral waters found on the surface of Searles Lake and compare their characteristics to the process brines. This spring, Searles Lake has had more standing water than usual due to a wetter than normal climate this past winter. To take advantage of the condition, IMCC initiated sampling and characterization of the different kinds of waters found on the lake. Results of sampling analysis are pending.

Additionally, IMCC has proposed to evaluate naturally occurring waters found in the surrounding Searles Valley. The study of these waters will commence in summer 2001.

**Improving Technology** - As part of Cleanup and Abatement Order No. 6-00-64, IMCC and its consultants continue to investigate new analytical methods and evaluate IMCC's chemical processes to evaluate technically and economically feasible alternatives to detect and reduce contaminants in the discharge. Two separate peer review groups have been established to comment on the studies. A panel consisting of experts from certified commercial laboratories has been established to review the analytical methods study. Finding the appropriate experts to review such specialized procedures was a difficult task. Board staff has met with the proposed peer reviewers and believe the independent review will provide additional expertise for evaluation of the study results.

**WDR Compliance** - Results from daily sampling of effluent shows that the interim effluent limits set forth in the WDRs were exceeded once during the month of April. During April, bird deaths averaged about one a week. The bird resting pool, built by IMCC under the guidance of the Department of Fish and Game, is constructed and being fed with brackish water. Duck decoys will be used to lure birds to the resting pond and away from the process brines. The pool is a pilot project. Board staff will provide additional information regarding whether the bird resting pool is successful as the pilot project progresses.

12. *Caltrans Rush Creek ACL Amended for Supplemental Environmental Project – Douglas Feay*

The Caltrans Rush Creek Administrative Civil Liability (ACL) has been amended to incorporate a Supplemental Environmental Project (SEP) proposed by Caltrans. The project consists of stormwater treatment for the community of Lee Vining. Board staff reviewed the proposed SEP and recommend its acceptance in lieu of the monetary assessment originally proposed. The amended ACL was reissued to Caltrans during May 2001 and Caltrans has indicated that they will sign the Waiver of Hearing and implement the SEP. The reissued ACL contains a deadline of December 30, 2002 for Caltrans to complete the proposed SEP. If by that date the proposed project is not complete and functioning, then Caltrans will be required to pay the full amount of the civil liability.

13. ***Landfill Final Closure at CAOC 35 – Marine Corps Logistics Base, Barstow - Jehiel Cass***

The Marine Corps Logistics Base, Barstow has recently completed installing the final cover on closed landfill CAOC 35 as required in the Operable Unit 5 and 6 Record of Decision. The Regional Board approved an alternative landfill cover for this site that meets the performance standards of Title 27, California Code of Regulations. This landfill was previously regulated by the Regional Board and operated from 1965 until 1989 as a non-hazardous Class III landfill accepting household waste from the Yermo and Nebo Annexes along with some commercial and industrial waste from the base activities.

After sub-grade preparation (compaction and grading to a uniform 1% slope), a three-foot thick monolithic earthen cap was constructed over the approximately 10-acre site. Over the monolithic cap was placed a six-inch thick gravel armor barrier to reduce wind

erosion and prevent burrowing animals from digging into the landfill. An instrumented infiltration monitoring system (consisting of rain gage, soil moisture sensors, data logger, and solar cell) was installed to verify the performance of the monolithic cap. The final cover is designed to minimize infiltration of rainwater into the landfill by holding soil moisture in the monolithic cover and releasing it to the atmosphere by evaporation.

14. ***Characterization of Regional Dry Lake Playa Water Quality - Kai Dunn***

Board staff, in coordination with the California Department of Fish and Game, is conducting a sampling project to characterize surface water quality on dry lake playas in the desert area. The objectives of the sampling project are to develop general data for regional dry lake, saltpan playas, and to compare variability of water quality among regional playas between highly disturbed versus relatively undisturbed locations. There are five sampling locations: Owens Lake, Panamint Dry Lake, Searles Lake, Harper Dry Lake and Death Valley Playas. One-time data on the salinity, ionic, organic and metal constituents of standing water on dry lake saltpan playas will be obtained. The information will provide a baseline with which to evaluate dry lake playa characteristics. The sampling project started on March 20, 2001, and continues till May 11, 2001. The Department of Fish and Game Water Pollution Control Laboratory is in the process of analyzing the samples, and results are expected in June. Further information will be provided on the findings of the study.

15. ***Status of Molycorp Pipeline Spill Cleanup Project - Mike Plaziak***

In July and August 1996, approximately 230,000 gallons of wastewater were spilled in seven separate locations along a 13-mile pipeline from Molycorp's Mine and Mill facility to evaporation ponds on Ivanpah Dry Lake Playa. The pipeline failed during maintenance operations to remove pipe scale. Wastewater and pipe scale, containing elevated levels of barium, uranium, thorium and radium, were discharged to lands owned by the National Park Service (NPS) and the Bureau of Land Management (BLM).

The Executive Officer issued Cleanup and Abatement Order (CAO) No. 6-97-66 to Molycorp, NPS, and BLM on April 21, 1997 requiring investigation of the pipeline spills and cleanup of pipe scale and contaminated soils. In response, an Incident Command System was initiated by the federal agencies under the lead of BLM in July 1997 to address remedial activities to remove the pipe scale and impacted soil. Board staff was among federal and state representatives who provided regulatory support and oversight to the incident commander.

Subsequent investigations revealed two historic pipeline release locations, not associated with the 1996 spills, that were added to the scope of remedial activities. With the exception of two very minor and localized areas of contamination, all of the spill-related material was removed by the fall of 2000. The materials remaining at the spill site were identified as posing no threat to human health or water quality and are to be removed during pipeline removal work that is planned for later this year. In compliance with CAO No. 6-97-66 and subsequent amendments, Molycorp has submitted a completion report documenting the remedial work performed and staff and the federal agencies have provided comments on the submittal. While on-site occupation of the

Incident Command Post ceased during the fall of 2000, the BLM continues to perform minor housekeeping and administrative oversight of the remediation site from an off-site location.

16. ***Edwards Air Force Base, Air Force Research Laboratory (AFRL) Propulsion Directorate – Elizabeth Lafferty***

Edwards Air Force Base, Air Force Research Laboratory (AFRL) Propulsion Directorate site known as Site 133 has a new ground water sparging and Granular Activated Carbon (GAC) adsorption system on line to treat ground water within a mixed plume of solvents, gasoline-oxygenate and rocket fuel additive. The GAC system was chosen because it is the only technology that will address this particular mix of contaminants. The solvents and their concentrations are: trichloroethylene (TCE) at 6,100 parts per billion (ppb), tetrachloroethylene (PCE) at 1,100 ppb, methyl tertiary butyl ether (MTBE) at 4,100 ppb, and rocket fuel additives N-nitrosodimethylamine (NDMA) at 0.029 ppb and ammonium perchlorate at 92 ppb. Site 133 is the largest ground water contaminant plume beneath the AFRL. The plume occurs within fractures in granitic bedrock beneath 1 to 12 feet of unconsolidated alluvium. Ground water beneath the site is not used as drinking water.

**Treatability Study Goals** – The three goals of the current cleanup at Site 133 are:

- 1) plume control through ground water extraction to control the expansion of the plume;
- 2) removal of contaminants from the ground water within the plume; and
- 3) evaluate the effectiveness and cost of using GAC to treat perchlorate, MTBE and NDMA.

**Cleanup Process** - Ground water is extracted from 20 wells producing up to 100 gallons per minute. Three 2,000-pound GAC canisters are connected in series. The treated water is discharged to the AFRL Wastewater Treatment Plant (WWTP) at the rate of 29,000 gallons per day. Treated water analysis results show non-detectable concentrations of the constituents of concern (COCs). Within the GAC system the water is regularly sampled so that "breakthrough" of the COCs from the canister will be prevented.

The entire ground water treatment system is over sized for future expansion. Space for doubling the size of the treatment unit is built-in. As treatment of the other nearby plumes is brought on line, additional GAC units can easily be added. The system costs about one million dollars to construct, operate and maintain for one year at a cost of approximately 10.5 cents per gallon.