

LAKE MEAD WATER QUALITY FORUM
January 25, 2011
Meeting Summary

I. Introductions – Forum members and participating audience members introduced themselves.

II. Status Reports:

1. Perchlorate Update - (NDEP – Las Vegas)

The following perchlorate update was discussed by Todd Croft, NDEP, Las Vegas.

LV Wash:

- The perchlorate mass loading passing Northshore Road for October 2010 was ~ 68 lbs/day. This is within the range observed over the last three years of ~55 to ~90 lbs/day.
- This continues to be an approximate 90 % reduction from pre-remediation values.
- The Southern Nevada Water Authority (SNWA) began this winter's weir construction period in December 2010 with renewed construction on the Lower Narrows Weir and Homestead Weir.
- Monitoring conducted by the SNWA since dewatering was initiated in December 2010 has shown the combined project discharge has been less than ~ 40 lbs/day.
- Perchlorate mass loading from all discharges should not increase Lower Colorado River downstream concentrations by more than ~ 1 ug/L (1 ppb) above the existing range in perchlorate concentrations which is ~ 0.7 to 1.9 ppb.

Willow Beach:

- The perchlorate concentration measured at Willow Beach in the Colorado River system continues to remain at or less than ~ 2 ppb since December 2008. The perchlorate concentration at Willow Beach for December 2010 was 1.8 ppb.

Colorado River:

- MWD has reported perchlorate concentrations < 2.0 ppb for all samples collected between July 2008 and December 2010. The perchlorate concentration at Whitsett sampling point during December 2010 was 1.1 ppb.

Tronox LLC (formerly Kerr-McGee):

- The Fluidized Bed Reactor (FBR) perchlorate treatment system continues to operate.
- ~ 3,310 tons (total) of perchlorate have been removed from the environment through December 31, 2010 as follows:
 - 417 tons from the seep area;
 - 1,099 tons from the Athens Road Well Field; and
 - 1,794 tons from the On-site Well Field.

AMPAC:

- The In-Situ Bioremediation (ISB) perchlorate treatment system continues to operate at approximately 225 gpm with a mass loading (destruction) of approximately 43 pounds per day.
- The ISB plant is proposed to be converted to a Fluidized Bed Reactor (FBR) treatment system capable of treating an approximate combined 800 gpm of perchlorate-impacted groundwater from multiple well fields.
- AMPAC continues to operate the ISB system until the ex-situ FBR treatment system is constructed and brought on-line. NDEP expects an operational ex-situ system in ~ 12 – 18 months that will additionally tie in recently completed “source area” extraction wells.

Nationally:

- In March 2004, the Cal/EPA’s Office of Environmental Health Hazard Assessment (OEHHA) published a 6 ppb public health goal (PHG) for perchlorate.
- On January 7, 2011, the California Office of Environmental Health Hazard Assessment (OEHHA) released a draft technical support document for a proposed, revised public health goal (PHG) for perchlorate.
- The proposed revised California PHG for perchlorate is 1 ug/L (ppb). The current California PHG for perchlorate is 6 ppb. California developed their current State Maximum Contaminant Level (MCL) of 6 ppb for perchlorate in 2007 based upon the current PHG of 6 ppb.
- OEHHA will hold a public workshop in Oakland, California on February 23, 2011 and is soliciting comments on the draft report during a 45-day comment period which extends through 5:00 pm on 02/23/11.
- For more information, you can visit: www.oehha.ca.gov

2. Quagga Mussels (NPS)

Mr. Ken Turner of National Parks Services (NPS) began by discussing their partnership with UNLV where they implemented their first year of monitoring through an “Interagency Quagga Mussel Monitoring Plan” in 2010. Every major basin of Lake Mead had been sampled quarterly throughout the past year for adult and juvenile quagga mussels. That data is currently being worked on and may be presented at a future forum. Mr. Turner further stated that the monitoring work will continue but will be less frequent in some areas. Some of the basins will be sampled once in 2011 but the Boulder Basin will be sampled quarterly.

Parks Services (NPS) met in December 2010 with the Arizona Game and Fish Department and the Nevada Division of Wildlife to discuss the procedures for cleaning boats in Lake Mead and notifying the proper agencies to report boats that had been cleaned. Mr. Turner stated that NPS is currently working on updating their procedures for getting that information to them.

Mr. Turner discussed two agreements that were developed in December 2010. The first one went to Desert Research Institute (DRI) for “Population Dynamics of Quagga Mussels in Soft Sediments in Las Vegas Bay, Boulder Basin and Overton Arm”. The second agreement went to the University of Nevada – Las Vegas (UNLV) for “Developing Natural Life History Information in Reproduction Sediment Rates”. This work is estimated to be continuing for the next 18 months.

John (?) of NDOW stated that after a few years of being vacant, they have refilled the position for a statewide invasive species coordinator. John (?) announced that Karen Vargas, who is originally from NDEP, is now the staff biologist for aquatic invasive species for NDOW.

3. Selenium Subcommittee

Ms. Peggy Roefer of SNWA announced that the subcommittee had recently met on January 5, 2011. They discussed two studies which are funded through the Wash team using reclamation funding. The first is the Whitney-Mesa Area Drainage Study to observe the selenium mobilization throughout the golf course. The second is the Las Vegas Wash Selenium Modeling Study to observe the flows and losses in the system. The committee will be reviewing the proposals once they are submitted.

Ms. Roefer further announced that SNWA has been receiving updates on selenium concentrations in the Wetlands Park. The next Subcommittee meeting is scheduled to be a tour of the Wetlands Park in order to get a better understanding of the water flows there. That meeting is scheduled for April 6th after the Research and Environmental Monitoring Study Team. They will be leaving for the Wetlands Park at 3:30 pm. Anyone who is interested may attend.

4. Las Vegas Wash Coordination Committee (SNWA)

Ms. Debbie Vandoormolen of SNWA announced that the Administrative Study Team and the Research and Environmental Monitoring Study Team both met on January 5, 2011. The next meeting is scheduled for April 6, 2011.

The annual tour will be the next LVWCC meeting held on April 26th beginning at 8:30 am. First there will be a brief open meeting and then they will go out to the various wash sites and to Las Vegas Bay at Lake Mead. The time of return is expected to be around 2:30 pm.

The 2010 year-end report is currently being drafted and that will be distributed in April.

The Erosion Control Program for 2011 Wash EIP was approved at the January SNWA Board Meeting. There is a concern with the 22% decrease in sales tax revenue however there are still SNPLMA funds available which will help considerably with the 2011-2012 Work Plans which are projected to cost around \$45 million dollars.

The Lower Narrows and Homestead Weirs will be finished by mid-year and is currently 73% complete.

In regard to construction activities on the Wash, Ms. Vandoormolen mentioned that the BOR crews will be arriving within 3 to 4 weeks. They hope to get a lot done for the two months the crew will be working. They will be doing the usual things such as weir maintenance, vegetation maintenance, site clearing, bank protection, etc.

The reports for the 2010 endangered bird species monitoring have been completed and is available on their website: lvwash.org. This also includes the marsh bird studies.

The bat and nocturnal invertebrate study and marsh locust small mammal study have been completed. The large mammal study is planned to be completed in about a month.

There is approximately 280 acres of re-vegetation in place.

Water quality monitoring is still ongoing with regular monthly mainstream monitoring, NDEP, TSS and Perchlorate Monitoring. Quarterly monitoring includes tributary and shallow groundwater wells as well as extensive selenium monitoring. There are also three water quality monitoring hydro labs in place. The surface water quality program assessment has been completed and the draft plan created from that assessment will be going for external review within the next few weeks. The most important things about this plan are that it relies heavily on inter-agency coordination and sharing of resources to increase efficiency of the monitoring network. This can help improve the limited resources of people and money that is available. This will concentrate the monitoring efforts to where they make the most sense.

5. SCOP Update (CWC)

Mr. Jim Devlin of the Clean Water Coalition (CWC) reported that the CWC Board has suspended SCOP construction until January 2012. He stated that this item is to be reconsidered at the board meeting being held at 1:00pm the same day. It is expected that it could either stay suspended for longer or possibly even be terminated. Since the SCOP will not be constructed in the near term the board is also taking action to dissolve or disband the CWC which will take place at their March meeting and more than likely CWC will be closed by the end of the fiscal year.

6. Algae Task Force

Mr. Doug Drury of the Clark County Water Reclamation District (CCWRD) reported on the current status for the Algae Task Force for the Las Vegas Bay. There is not a report currently available which he speculated was due to it being such a wet year. Mr. Drury stated that with such a wet year that it would be a good time to collect data throughout the spring and summer. There will not be a report until Fall 2011.

III. Presentations:

1. The Limnological Status of Boulder Basin. Lakes Mead 2004-2009
Todd Tietjen, Ph.D., Limnological Project Manager,
Southern Nevada Water Authority (SNWA)

Presentations and other information is available on the NDEP website at ndep.nv.gov/forum

IV. Other Items/Announcements

V. Next Forum Meeting

The next Lake Mead Water Quality Forum meeting was scheduled for July 26th, 2011, (A Wash Tour was scheduled for April's meeting).

VI. Adjourn

The meeting was adjourned at 11:45am