ALGAE TASK FORCE MEETING #1
MEETING SUMMARY
May 6, 2010

1. **Why is LMWQF initiating the Task Force at this time?**
   In an attempt to be proactive, the LMWQF has reconvened the Algae Task Force and asked Doug Drury (CCWRD) to head it up. The recent golden algae bloom at Lake Las Vegas was the catalyst and the LMWQF is interested in preventative measure recommendations as well as a preparedness plan should a similar incident occur in the future.

2. **Proactive future actions?**
   Some real time monitoring is being done, but there seems to be a need for more storm water data. Currently, analysis is mostly chlorophyll-a in the lake and Total P in the Wash. A better characterization of the Wash data and Total P going into the Bay would be helpful. All data will require a quick turnaround by the laboratories, so it can be reported to the LMWQF, and then decisions can be made if further action is required.

   The Task Force may look at conducting speciation of the algae in Lake Las Vegas in the future.

   The Lake Las Vegas permit requires sampling only if they are going to discharge. This past winter they did discharge. They have a long list of what they need to sample and if the data meets the limits they can discharge, otherwise they can't. They don't sample for Chl-a, Total P, algae, plankton, etc. If algae were killing off fish in the lake then the effluent was probably toxic and they are prevented from discharging toxicity.
   During future critical times there may be a need to not have Lake Las Vegas discharge.

3. **Members – open to all**
   Core group of 10 people will make the recommendations, but a larger group will be kept informed with meeting summaries and information posted to the NDEP website under LMWQF.

4. **Background information**
   Dr. Drury handed out a packet of 7 documents (see below). His philosophy is the more information that is available the better. What other information is needed?
   a. *Algae Task Force report to LMWQF – November 1, 2001*
   b. *The Lake Mead Algal Bloom of 2001*
   c. *Water Quality Monitoring in Las Vegas Wash: Lake Las Vegas Project 1994*
   d. *New Mexico State University – Toxic Golden Algae (Prymnesium parvum) – January 2010*
   e. *Nevada Division of Environmental Protection Fact Sheet – Lake Las Vegas Resort*
   f. *Nevada Division of Environmental Protection – Permit No. NV0022691*
   g. *Conductivity Surfer Plots 2001 vs. 2010*

5. **Factors attributed to the 2001 algae bloom**
   Out of the previous Task Force came the conclusion that the algae bloom was caused by several factors including: treatment plants discharging higher amounts of P in the winter months and acknowledgement that P from warm storm water during spring rains may have helped trigger the bloom. During a storm 20-30 times more P can come down than would in a normal day. That is 1-2 months of P in a single day.

6. **Flows entering Las Vegas Bay**
   How the Wash inserts itself into the Lake and factors based on TDS, conductivity, lake temperature, and density determines where the mass of P enters the lake. If it spreads out on the surface, it can cause a larger algae population. There may be a need to develop some sort of predictive tool to say when the Wash goes out on the top, as well as when it needs to be looked at and/or monitored more frequently.

7. **Collection/testing/reporting on a real time basis**
   The current storm water sampling data does not capture the true essence of the storm. Collection is often hindered because it storms on weekends or after midnight. Safety while collecting samples is also an issue. Flood Control is trying to characterize, but there isn't really enough data. Procedures are not in place to sample the Bay (for Total P and Chl-a) the day of a storm. The Task Force may need to pick a site that is already being sampled occasionally and then after a storm make sure it is sampled. It was recommended to find a site somewhere between LWLVB1.2 and the mouth of the Wash.

   The City of Las Vegas suggested adding an additional sample site in the Bay closer to the delta to get background data to compare to the other 4 sites in the Bay. Currently, SNWA samples site LWLVB_B.

   The Task Force will need to be prepared to sample next year in late winter/early spring (growing season) every two weeks. Then as a group the data can be reviewed, evaluated on a real time basis as much as possible, and recommendations made to the LMWQF on any mitigating action that may need to be taken.

8. **Needed future information/data?**
   Data is uploaded to the SNWA website weekly. City of Henderson has data available quarterly. There are some tests run on the speciation and toxicity of the algae in the inner Bay, so some data on that is available.

9. **Laboratory turn-around time**
   During the next growing season if samples are taken every two weeks a quick turnaround by the labs will be needed. Possibly a formal action by the Algae Task Force to get everyone to push samples through during that time will be needed.

10. **Website for posting of data? Recommendations and meeting summaries**
    The meeting summaries, additional documents, and future meeting dates will be posted on the NDEP website under the LMWQF section. An e-mail with summaries attached will be sent out to all and will include a hyperlink to the NDEP website.

11. **Tasks for next meeting**

    Include Steve Weber , Erik Orsak, and Jon Sjoberg in meeting appointment
    Doug to request Lake Las Vegas data from NDEP
    Dana will check the possibility of collecting a sample during a storm above the City of Henderson's discharge point. Also, will check their permit regarding reporting if they grab a sample.
    Doug will check the possibility of collecting a sample during a storm on CCWRD property
    Can a sample be taken during a storm from the bridge located near Lake Las Vegas?
    Obtain more wet weather monitoring information from MWH
    Dan to ask someone from MWH to attend the next meeting
    Dan will check the MWH contract regarding permit sampling requirements, procedure, intent, sample sites, equipment, etc.

12. **Set next meeting date**

    Thursday, June 3 at 2:00 p.m. at CCWRD – meeting appointment will be sent out