

# STATE OF NEVADA

Department of Conservation & Natural Resources

Brian Sandoval, Governor

Leo M. Drozdoff, P.E., Director

DIVISION OF ENVIRONMENTAL PROTECTION

Colleen Cripps, Ph.D., Administrator

December 6, 2012

Richard B. Holmes  
Deputy General Manager  
Engineering and Operations  
Southern Nevada Water Authority  
1001 South Valley View Boulevard  
Las Vegas, NV 89153

Subject: Draft Nevada's 2008-10 Integrated Report

Dear Mr. Holmes,

Thank you for the comments from the Southern Nevada Water Authority (Authority) on Nevada's Draft 2008-10 Integrated Report (IR). The Nevada Division of Environmental Protection (NDEP) appreciates the Authority's data collection and compilation efforts. NDEP's response to specific items and statements contained in your letter is provided in the Enclosure.

Nevada's final 2008-10 IR has been submitted to the U.S. Environmental Protection Agency for approval and is available at <http://ndep.nv.gov/bwqp/303dlist.htm>. Please contact me at (775) 687-9449 if you have any questions or would like to further discuss these matters.

Sincerely,

John O. Heggeness, Supervisor  
Water Quality Standards and Monitoring  
Bureau of Water Quality Planning

Cc: Kathy Sertic, Chief, Bureau of Water Quality Planning

Enclosure

Enclosure

**SOUTHERN NEVADA WATER AUTHORITY**

1001 South Valley View Boulevard • Las Vegas, NV 89153  
(702) 258-3939 • [snwa.com](http://snwa.com)

April 30, 2012

John Heggeness, Branch Supervisor  
Nevada Division of Environmental Protection  
Bureau of Water Quality Planning  
901 S. Stewart Street  
Carson City, NV 89701

**RECEIVED**

**MAY 03 2012**

**ENVIRONMENTAL PROTECTION**

**SUBJECT: Draft Nevada's 2008 — 10 Integrated Report**

Dear Mr. Heggeness:

The Southern Nevada Water Authority (Authority) appreciates the opportunity to comment on the *Draft Nevada's 2008 — 10 Integrated Report*. Observations about the listings of Sloan Channel, Lake Mead Inner Bay, Lake Mead, and the Colorado River from Lake Mohave inlet to the Nevada-California state line are in this letter.

The Authority is a cooperative agency formed in 1991 to address southern Nevada's unique water needs on a regional basis. The Authority is governed by a seven-member Board of Directors comprised of representatives from each of its member organizations. The Authority's mission is to manage the region's water resources and develop solutions that will ensure adequate future water supplies for the Las Vegas Valley. The listing of waterbodies in southern Nevada may affect discharge permits in the Las Vegas Valley. The Authority receives credit for any water returned to Lake Mead and so discharges play an important role in current and future water supplies.

Sloan Channel is listed as impaired water for a number of different parameters (i.e. fluoride, boron, selenium, and pH). The Authority understands that this list covers the time period of 2002 to 2010. In July 2011, the City of North Las Vegas began discharging treated wastewater into the Sloan Channel. This flow should dilute the fluoride, boron, and selenium and the concentration of these constituents should be reduced to concentrations below the beneficial use standards in the future.

**NDEP Response:**

**The 2008-10 Integrated Report (IR) is based on water quality data collected from October 1, 2002 through September 30, 2009. The 2012 IR will be based on water quality data collected from October 1, 2006 through September 30, 2011. A detailed data analysis will be conducted to determine if the Sloan Channel will be removed from Category 5 (303(d) List) in the 2012 IR.**

The inner bay of Lake Mead is listed as impaired water for turbidity because it does not meet the beneficial use standard for aquatic life. The water, wastewater and stormwater agencies in the Las Vegas Valley have spent \$100 million to stabilize the Las Vegas Wash (Wash) to reduce the amount of erosion and total suspended solids and turbidity that enter Lake Mead, and more erosion

**SNWA MEMBER AGENCIES**

Big Bend Water District • Boulder City • Clark County Water Reclamation District • City of Henderson • City of Las Vegas • City of North Las Vegas • Las Vegas Valley Water District

control work is planned. Although suspended solids transport to inner Las Vegas Bay has been greatly reduced, a turbidity standard of < 25 mg/L may not be appropriate for this inflow area of the lake. Also, the only recruiting populations of razorback suckers on the Colorado River are found in Lake Mead. This area of Lake Mead has been found to be one of the four spawning areas located in the lake due, in part, to the turbidity. Razorback suckers are river fish that thrive in turbid water and the turbidity provides cover for their young, so they are not eaten by other non-native fish.

**NDEP Response:**

**NDEP acknowledges the turbidity standard for the inner Las Vegas Bay may not be appropriate. NDEP (and other states) have requested assistance from the U.S. Environmental Protection Agency (EPA) to develop better turbidity criteria; however, it does not appear to be a priority for EPA at this time. Until the standard is revised, NDEP must use the existing standard to assess waterbodies. Therefore, NDEP will include Las Vegas Bay in Category 5 of the Final 2008-10 IR for turbidity.**

Lake Mead is listed as an impaired water for turbidity because it does not meet the beneficial use standard for aquatic life. After analyzing the data used by the Nevada Division of Environmental Protection (NDEP) to generate the impaired waters list (32935 total and 3782 exceeding measurements), it was found that approximately forty percent of the data was from a faulty turbidity probe used by the Bureau of Reclamation from September 2002 and March 2003 (1480 measurements). The Authority has implemented a quality control program for the data entered into the Lower Colorado River Regional Water Quality Database (Database). High and low values have been entered into a Database screening tool that will analyze any data entered. Notification will be sent to the submitting agency if a high or low value is exceeded, and will be asked to verify the data as correct or make any necessary changes or deletions. Due to the time period of the next review, it is expected that this data will not be included in the 2010 — 2012 review. Twenty-seven percent of high turbidity measurements were from the probe hitting the bottom of the lake when the profile was collected (1036 measurements). These samples should be detected by the new quality control procedures and will be deleted. Thirty percent of the high turbidity measurements were from the other inflow areas of Lake Mead besides the Wash (1122 measurements).

**NDEP Response:**

**NDEP acknowledges the Authority's efforts to implement quality control procedures. As previously stated, the 2012 IR will be based on water quality data collected from October 1, 2006 through September 30, 2011. Therefore, the faulty data collected during 2002-2003 will not be evaluated for the 2012 IR. NDEP will include Lake Mead in Category 5 of the Final 2008-10 IR for turbidity.**

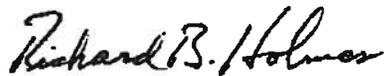
A turbidity standard of <25 mg/L may not be appropriate for these inflow areas of Lake Mead. Razorback suckers have also been found spawning in these areas. Three percent of the data points with turbidity measurements greater >25 mg/L were due to undetermined causes (143 measurements). Some of these data points are from times when storm events have impacted Lake Mead. In 2005 and 2010, turbid, salty water from Muddy and Virgin Rivers storm events came into the Boulder Basin of Lake Mead and could be detected at the bottom of the water column for a period of time. Storm event data could elevate the turbidity of the open water of Lake Mead.

**NDEP Response:**

**NDEP acknowledges the turbidity standard for the inflow areas of Lake Mead may be inappropriate. As stated above, until the standard is revised, NDEP must use the existing standard to assess waterbodies. Without a detailed flow analysis, the data cannot be excluded.**

If you have any questions, or wish further clarification, please do not hesitate to contact me at (702) 862-3708 or [richard.holmes@snwa.com](mailto:richard.holmes@snwa.com).

Sincerely,

A handwritten signature in black ink that reads "Richard B. Holmes". The signature is written in a cursive style with a large initial "R".

Richard B. Holmes  
Deputy General Manager Engineering  
and Operations