

LAS VEGAS VALLEY WATERSHED ADVISORY COMMITTEE

Southern Nevada Water Authority

100 City Parkway

Las Vegas, NV

April 8, 2014

2:00 p.m.

Members Present: Randall DeVaul, *City of North Las Vegas (CNLV)*
 Gale Fraser, *Clark County Regional Flood Control District (CCRFCD)*
 Priscilla Howell, *City of Henderson (COH)*
 David Johnson, *Las Vegas Valley Water District*
 Zane Marshall, *Southern Nevada Water Authority*
 Dave Mendenhall, *City of Las Vegas (alt. CLV)*
 Tom Minwegen, *Clark County Water Reclamation District (CCWRD)*
 Jane Pike, *Clark County (alt. CC)*

Also Present:	Keiba Crear	Lisa Luptowitz
	Doug Drury	Tom Maher
	Adrian Edwards	Steve Parrish
	Dan Fischer	Brenda Pohlmann
	Sandra Harris	Peggy Roefer
	Gerry Hester	Andrew Trelease
	Zach Hills	Kent Turner
	Ebrahim Juma	Debbie Van Dooremolen

1. Welcome/Call to Order

Tom Minwegen called the meeting to order at 2:00 p.m.

2. Public Comment

Seeing no request for public comment, Tom moved forward with the meeting.

3. Introductions

Participants introduced themselves.

4. Approve January 14, 2014 Meeting Summary

Motion to approve the summary passed.

5. Receive an Informational Update on Matters Related to the Las Vegas Valley Watershed Advisory Committee (LVVWAC) on Items that may appear on Future Regular Board Meetings of LVVWAC Members' Appointing Agencies

Gale Fraser, Clark County Regional Flood Control District (CCRFCD), noted that Kevin Eubanks had retired, and Steve Parrish is the new Assistant General Manager. Andrew Trelease will oversee the Stormwater Quality Management Committee. Construction has begun on the Tropicana Wash which drains into the Flamingo Wash.

Zane Marshall reported that Ron Zegers and Rick Holmes have both retired from the Southern Nevada Water Authority (SNWA). On the LVVWAC, Zane will represent SNWA and Dave Johnson will represent Las Vegas Valley Water District (LVVWD). The April 17 SNWA Board meeting will include the annual budget workshop.

Randall DeVaul, City of North Las Vegas, reported that the Sloan Channel pipeline project in conjunction with Clark County began in April and should be complete within a year.

Tom Minwegen reported that Clark County Water Reclamation District (CCWRD) and Clark County are working on an agreement with SNWA to advance the water quality database for the shallow groundwater issues. As a point of interest, there was a \$5 billion settlement announced by the federal government from Anadarko Petroleum, which is the company that purchased Kerr-McGee. As part of that settlement, \$1.1 billion will be paid to a trust that will clean up the former perchlorate chemical manufacturing site in Nevada. Another item of interest is the fiscal year 2015 President's budget which includes \$775,000 for Lake Mead, specifically the Las Vegas Wash. Of those funds, approximately \$200,000 to \$250,000 is used for administrative fees and the remainder is used for engineering and revegetation activities along the Wash. One other article of interest was the U. S. Environmental Protection Agency's (EPA) Waters of the United States notice of proposed rulemaking for Clean Water Act jurisdiction to clarify which streams, wetlands and other waters are considered waters of the United States. The EPA conducted municipal separate stormwater sewer systems (MS4) program audits and results are expected within two to three months. Tom also reminded all agencies to ensure they have formal representation on the various water related committees. Staff will send out the LVVWAC bylaws and the original and current LVVWAC member list. CCWRD staff is working with SNWA on research projects. There was a radio article noting that drinking tap water can lower your intelligence quotient. This was based on 272 children in Maine who drank well water that contained arsenic and their test scores were lower than average.

6. Receive Presentation from the Agencies on Drinking Water Regarding Past and Future Activities and Possible Implications for the Las Vegas Wash

Tom reminded the committee that this presentation was the last in a series of information sharing on the Wash, Wastewater and Water Reuse (W3) process and the combined effort to come together and address water issues. Dave Johnson presented and began with significant eras in the timeline. In 1947, Nevada legislature created the LVVWD to service Las Vegas and unincorporated areas of Clark County. In 1952, the Union Pacific Railroad sold the Las Vegas Land and Water Company (predecessor to LVVWD) for \$2.5 million. In 1954, LVVWD operations began on July 1 and LVVWD drilled their first well. In 1955, Las Vegas received its first delivery of surface water from Basic Magnesium, Inc., Henderson and the first reservoir was constructed in Charleston Heights. In 1960, the design began on a two stage Southern Nevada Water System to treat and deliver Lake Mead water to Las Vegas. In 1971, the Southern Nevada Water Project began delivering water to Las Vegas. In 1981 the maximum water demand exceeded 200 million gallons per day (MGD) for the first time, and the next year, construction of the second stage of the Southern Nevada Water project was completed, increasing treatment and transmission capacity to 400 MGD. In 1991, SNWA was formed to address southern Nevada's water needs on a regional basis including the creation of a conservation plan. In 1992, SNWA signed a contract with the Bureau of Reclamation allowing Nevada to withdraw its full allotment of 300,000 acre feet of water from the

Colorado River. In 1995, SNWA launched a public works program to ensure that water delivery kept pace with the growth in the valley and the United States Geological Survey released a report of endocrine disrupting chemicals in the Las Vegas Bay. In 1997, SNWA developed the Groundwater Management Program and perchlorate was detected in drinking water and in Colorado River below Lake Mead. In 1998, SNWA and member agencies launched restoration efforts in the Las Vegas Wash and 72% of voters approved a quarter penny sales tax increase to help fund improvements to water infrastructure. In 2002, LVVWD service population surpassed one million people and River Mountains Water Treatment Facility opened with the capacity to treat and deliver up to 300 MGD. In 2007, quagga mussels were discovered in Lake Mead. In 2008, construction began on Intake 3. Mandatory drought restrictions were made permanent in 2009. In 2012, the state engineer ruled on Spring, Cave, Dry Lake and Delemar Valleys and the water pact was signed with Mexico. In 2013, Bureau of Land Management issued rights-of-way for the Groundwater Development Program. A chart showing water use from 1970 until 2012 indicated the benefits of conservation as the valley grew.

The Alfred Merritt Smith Water Treatment Facility (AMSWTF) has a capacity of 600 MGD with a treatment process of chlorine (quagga control) ozonation, ferric chloride, flash and rapid mixing, flocculation, filtration, fluoride, chlorine, zinc orthophosphate. The River Mountains Water Treatment Facility (RMWTF) has a capacity of 300 MGD and that treatment process is chloramines (quagga control), ozonation, ferric chloride, flash and rapid mixing, flocculation, filtration, fluoride, chlorine, and zinc orthophosphate. The difference is RMWTF has deep bed filters, hypochlorite and chloramines for quagga control; AMSWTF has shallower bed filters, uses liquid chlorine and uses chlorine for quagga control. The capital improvements plan includes \$45,286,601 remaining for the Wash; \$734,600,000 remaining for water resources; \$12,900,000 remaining for power supplies and energy resources; \$46,700,000 remaining for general system improvements and \$464,200,000 to complete Intake Number 3 (prior expenditure of \$313,800,000). Dave showed a photograph of the current erosion control structures in construction and expected construction through 2017 along the Wash. When looking at Intake No. 3, the original design of the tunnel was to minimize the influence of the Wash on the intake. Intake No. 1 feeds AMSWTF and Intake No. 2 primarily feeds RMWTF. The intake system operations with spur tunnel will allow Intake No. 2 to receive water from Intake No. 3. An additional project is in place to connect to Intake No. 1 and is 60% complete with the evacuation for connection. The challenges with the project are considerable: variable geology, highest pressure experienced in a tunneling project, intake structure installed in 350 feet of water, intake structure connection to existing operating intakes after three miles of tunneling. Milestones of the project include intake completion by the end of 2014 and operational by July 2015. The final completion of the third intake is expected by October 2015. Of course there were complications. The cutter head was replaced and there were change orders with cost impacts of \$13.6 million and time impacts of 399 calendar days.

Adrian Edwards reported on the City of Henderson (COH) facility. The COH water treatment plant was constructed in 1994 with a capacity of 15 MGD. It provides 15% of the flow of the community's drinking water. The treatment process is chlorine, ferric chloride, fluoride, flash and rapid mixing, flocculation, filtration, UV disinfection (added in 2002), chlorine and zinc orthophosphate. The water source is the BMI Intake. Water demands for the COH are 40 MGD in winter and 110 MGD in summer months. There are 40 reservoirs delivering approximately 110 million gallons; 35 pumping stations; three flow control facilities; 35

hydraulically independent pressure zones and more than 100 pressure reducing stations. Adrian pointed out that the water that is not produced by COH is purchased from SNWA.

Randy DeVaul presented for the City of North Las Vegas (CNLV). On average, the capacity for CNLV is 44.6 MGD. There are over 100 square miles of service area, including Sunrise Manor. There are over 85,000 active services and 10 years ago there were only 50,000 services. There are more than 1,400 miles of pipe. CNLV has 10 water reservoirs and 80 million gallons of storage capability. There are 10 pump stations and five production wells currently using gas chlorine that will convert to chlorine tablets. In addition there are four artificial recharge wells and over 37,000 valves in the system. About 49,000 acre feet of water is used each year, with about 10% coming from production wells. An automatic meter reading system was installed 10 years ago, with a 10-year battery warranty. Last year the budget was increased to replace registers and batteries. CNLV has also begun a pilot program for a virtual network that allows the meter information to upload into a cloud and be captured.

The LVVWD has over 377,000 active services with 23 pressure zones. There are more than 4,500 miles of pipe, more than 1,000 miles of service laterals and 78 reservoirs with over 900 million gallons of storage. LVVWD has 58 pumping stations, 79 production wells and 25 artificial recharge wells. In addition, there are over 111,000 valves and six solar-electric facilities generating 3.1 megawatts of power. Infrastructure is 20% production, which includes pumping stations, reservoirs, wells and related infrastructure. The remaining 80% is distribution. That includes over 4,500 miles of pipes and more than 1.9 miles of service laterals. When compared to other similar sized utilities, the overall state of LVVWD infrastructure is good, including the distribution system, with low water losses and a low main-break rate. The area that could be better is service line failures. Nellis Air Force Base owns and operates four drinking water wells. The wells are used in the summer months to supplement water from Lake Mead. Each well is treated with hypochlorite at the well head. Future challenges include regulation changes, deteriorating infrastructure, water quality changes in Lake Mead, impacts of the Wash and other inflows to Lake Mead, climate change impacts on Lake Mead, infrastructure maintenance costs, environmental/sustainability measures and labor issues relating to retirement/knowledge retention. As demographics shift, recruitment of specialty technical based talent will also be a challenge.

7. Presentation on the 2013 Accomplishments Document

This item was tabled, as the document remains in review. It will be on the next meeting agenda.

8. Presentation on the 2013 Year-End Report

Debbie Van Dooremolen presented. The 2013 Year-End Report was previously sent out for review and comments. Printed final copies will be distributed at the LVWCC annual tour on April 22. The document repeated the refreshed look used last year including the design, and the structure includes the flap that covers the 44 action items meant to be opened and lined up with the numbers that relate to that particular section. One key factor that comes out of the Year-End Report each year is a summary and evaluation of the Las Vegas Wash Comprehensive Adaptive Management Plan action items. Of the 44 action items, 24 are complete, two are ongoing and 18 are perpetual and expected to continue for the life of the project. The report includes the 2013 activities maps which show locations of activities currently underway.

Major accomplishments include completing construction of Upper Narrows & Duck Creek Confluence weirs; finalizing summary report of fourth round of bioassessment monitoring; converting two real-time water quality monitoring stations to telemetry stations; treating invasive weeds at the Mitigation Ponds; re-initiating yellow-billed cuckoo surveys, identified possible breeder; revegetating approximately 25 acres; conducting archaeological testing of the Beehive Rockshelter site; completing the outreach plan and hosting 22,804 unique visitors on lvwash.org.

9. Set Next Meeting Date and Propose Items for the Next Meeting's Agenda

Suggestions include a report on the MS4 audit, 2012 Strategies Document, 2013 Accomplishments Document, an update on the Long-Term Operating Plan and an update on the President's budget. Information was also requested on the Park Service budget for the area of the Wash below Lake Las Vegas which needs stabilization. There was a suggestion to move the LVVWAC meetings around so that members are more familiar with the facilities mentioned in W3 presentations. The meeting will move to a quarterly schedule, however, should the need arise additional meetings will be called.

10. Public Comment

There were no comments. Meeting adjourned.