

## Lahontan Regional Water Quality Control Board

November 21, 2016

File: LAMP

Jason Phillippe  
Program Manager  
Environmental Health Services  
385 North Arrowhead Ave.  
San Bernardino, CA 92415  
[jason.phillippe@dph.sbcounty.gov](mailto:jason.phillippe@dph.sbcounty.gov)

### **September 9, 2016, San Bernardino County Environmental Health Services to Lahontan Water Board, Response to Regional Water Board Comment Letter**

On November 15, 2016 you contacted Jehiel Cass of the Lahontan Water Board staff and informed him that San Bernardino County intends to finalize and submit a revised Local Agency Management Program (LAMP) shortly.

Mr. Cass indicated we would provide these specific recommendations regarding your proposed Water Quality Assessment Plan (WQAP), which was described in Chapter 8 of the draft San Bernardino County LAMP submitted on October 30, 2015. Your September 9, 2016 letter reaffirms that your WQAP described in the draft LAMP meets the OWTS Policy Tier 2 requirements for a WQAP.

Lahontan Water Board staff recommends that you consider including the following specific items in your WQAP.

- Work with Crestline Sanitation District (SD) and Lake Arrowhead Community Services District (CSD) to utilize surface water quality data collected by them.
- Resume data collection, groundwater monitoring, and reporting at Wrightwood.
- Assess the cumulative effect of OWTS nitrate discharges in high density areas of San Bernardino County in the Lahontan Region.
- Support Adelanto, Hesperia, and Apple Valley's WQAP in their cumulative impact assessments for non-sewered areas adjacent to their jurisdictional boundaries.

Crestline SD and Lake Arrowhead CSD perform surface water sampling areas in areas that remain on OWTS. These OWTS are allowed under an exemption to the Lahontan Basin Plan prohibition on account of the high cost of extending public sewers to these

AMY L. HORNE, PHD, CHAIR | PATTY Z. KOUYOUMDJIAN, EXECUTIVE OFFICER

areas. This surface water sampling is conducted to determine if existing OWTS are degrading water quality from pathogens and nutrients. Lahontan Water Board does not expect you to collect and analyze samples. Instead, Lahontan Water Board staff suggests you obtain the data from Crestline SD and Lake Arrowhead CSD and evaluate it for pathogen and nutrient trends.

Up until 2012, County Service Area (CSA) 56 Wrightwood collected quarterly samples from a down gradient monitoring well, analyzed the samples for constituents including pathogens and nutrients, and reported the results to the Water Board. The CSA also collected data on issued construction permits for onsite systems in Wrightwood. The CSA collected and reported the data under Lahontan Water Board Order 76-38 and Revised Monitoring and Reporting Program Revised June 24, 1982. Lahontan Water Board rescinded the Order in 2013 because there was no treatment facility associated with the Order.

Wrightwood is an area of concern on account of failing OWTS and surfacing of groundwater during years of high precipitation<sup>1</sup>. Resumption of sampling and reporting in the WQAP will help identify conditions associated with OWTS discharges. The information will also aid in the timing for implementing a sewage collection and treatment system to serve part or all of the Wrightwood community. This is particularly needed as the county moves towards establishing a community services district (CSD) with authority to conduct sewer system planning. Please note that the CSA may fund and perform the work at no expense to County Environmental Health Services.


The need for assessing the cumulative effect of OWTS nitrate discharges in San Bernardino County was presented at the Lahontan Water Board OWTS workshop on September 15, 2016. OWTS discharges will eventually recharge underlying aquifers, even where the density is limited to a minimum of 2 equivalent dwelling units per acre. The high density areas in San Bernardino County within the Lahontan region are Phelan, North Barstow, and along the Mojave River.

Lastly, Water Board comments on the Adelanto, Hesperia, and Apple Valley LAMP expressed the need for assessing the cumulative impact of OWTS in 1) existing non-sewered areas within these municipalities and 2) existing and planned development in areas adjacent to the municipal jurisdictional boundaries. Lahontan Water Board staff encourages that your WQAP include support where necessary in these communities.

Recently John A. Izbicki, USGS, published<sup>2</sup> a paper describing the use of an Unsaturated Zone (UZ) computer model to predict the storage and mobilization of OWTS nitrate for Yucca Valley community within the Colorado River Basin Region. One of the findings in this paper is that OWTS nitrate discharges reached groundwater in ½ the time from areas of high density OWTS. USGS has offered use of the UZ model for other areas that have similar climate and geology as Yucca Valley. Lahontan Water Board would accept a WQAP proposal to use this model or a similar model in assessing the cumulative impact to aquifers in high OWTS density areas. We suggest that this computer modeling be conducted in conjunction with the 5-Year WQAP report

and periodically thereafter when comparing the computer model results to other collected groundwater data as a result of land development and growth patterns. We have asked USGS to provide logistical information on how you can engage their services. We will provide this information when it becomes available.

Please consider these recommendations as you assemble your final LAMP. If you have any questions, please call me at 760-241-7353 ([Mike.Coony@waterboards.ca.gov](mailto:Mike.Coony@waterboards.ca.gov)) or Jehiel Cass, P.E., Senior Engineer 760-241-2434 ([jehiel.cass@waterboards.ca.gov](mailto:jehiel.cass@waterboards.ca.gov)).

*for*  
  
Mike Coony, P.E.  
Water Resources Control Engineer

<sup>1</sup>Lahontan Water Board OWTS Workshop of September 15, 2016, Bate number 10-13.

<sup>2</sup>Izbicki, John A., et al, Storage and mobilization of natural and septic nitrate in thick unsaturated zones, California, *Journal of Hydrology*, 2015

cc: Mary Serra, Colorado River Basin Water Board [Mary.Serra@waterboards.ca.gov](mailto:Mary.Serra@waterboards.ca.gov)  
Doug Wylie, Colorado River Basin Water Board [Doug.Wylie@waterboards.ca.gov](mailto:Doug.Wylie@waterboards.ca.gov)  
Susan Beeson, Santa Ana Water Board [Susan.Beeson@Waterboards.ca.gov](mailto:Susan.Beeson@Waterboards.ca.gov)  
Milasol Gaslan, Santa Ana Water Board [Milasol.Gaslan@Waterboards.ca.gov](mailto:Milasol.Gaslan@Waterboards.ca.gov)  
John A. Izbicki, USGS [jaizbicki@usgs.gov](mailto:jaizbicki@usgs.gov)  
Alan L. Flint, USGS [aflint@usgs.gov](mailto:aflint@usgs.gov)  
Sean McCarthy, DDW [Sean.McCarthy@waterboards.ca.gov](mailto:Sean.McCarthy@waterboards.ca.gov)  
Steve Samaras, Special Districts Department [ssamaras@sdd.sbcounty.gov](mailto:ssamaras@sdd.sbcounty.gov)  
Stephanie Carroll, Wrightwood Municipal Advisory Council  
[steph.carroll.office@gmail.com](mailto:steph.carroll.office@gmail.com)  
Natalie Lopiccolo, Wrightwood Municipal Advisory Council  
[nlopiccolo@cleartalk.net](mailto:nlopiccolo@cleartalk.net)  
Lynn Crawford, Wrightwood Sewer Committee [lynn.crawford@verizon.net](mailto:lynn.crawford@verizon.net)