

**SECOND LATE REVISION**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION  
MEETING OF SEPTEMBER 14-15, 2016  
APPLE VALLEY**

<b>ITEM 10</b>
<b>WORKSHOP - ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) POLICY IMPLEMENTATION</b>

<b>SECOND LATE REVISION</b>
Please replace Late Addition (Enclosure 5) and Late Revision (Enclosure 6) that were previously provided on September 9, 2016, with the enclosures, below. There are no changes to Enclosure 6 (Water Board staff presentation), below, except for new bates numbers. Insert new enclosures following bates stamp 10-110.

<b>ENCLOSURE</b>	<b>ITEM</b>	<b>BATES NUMBER</b>
<b>5.1</b>	Region 5 Email (Aug. 26, 2016) - Response to Region 3 and Region 6 comments regarding the Kern County Draft LAMP.	<b>10-111</b>
<b>5.1.A</b>	Region 5 Email Attachment – Region 6 comments submitted to Region 5 regarding Kern County Draft LAMP.	<b>10-117</b>
<b>5.2</b>	Region 6 Letter (June 23, 2016) - Response to San Bernardino County Draft LAMP.	<b>10-123</b>
<b>5.2.A</b>	Region 6 Letter, Enclosure 1 – Region 6 Technical Comments.	<b>10-129</b>
<b>5.2.B</b>	Region 6 Letter, Enclosure 2 – Region 8 comments regarding San Bernardino County Draft LAMP.	<b>10-135</b>
<b>5.2.C</b>	Region 6 Letter, Enclosure 3 – Region 7 comments regarding San Bernardino County Draft LAMP.	<b>10-141</b>
<b>5.2.D</b>	San Bernardino County Letter (Sept. 9, 2016) – Response to Region 6 June 23, 2016 letter.	<b>10-147</b>
<b>5.3</b>	Region 6 Memorandum (May 10, 2016) – Comments submitted to Region 5 regarding El Dorado County Draft LAMP	<b>10-151</b>
<b>5.4</b>	Region 5 Email (July 22, 2016) – Region 6 comments regarding Modoc County Draft LAMP	<b>10-155</b>
<b>6</b>	Water Board staff presentation	<b>10-159</b>

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# **ENCLOSURE 5.1**

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**From:** Rapport, Eric@Waterboards

**Sent:** 8/26/2016 2:57:59 PM

**To:** Kolb, Howard@Waterboards, Koo, David@Waterboards, Wu, Eric@Waterboards, Cass, Jehiel@Waterboards, Coony, Mike@Waterboards, Fenton, Donna@(KERN COUNTY)

**cc:** Hatton, Scott@Waterboards, Carpenter, Katie@Waterboards, Smith, Bryan@Waterboards, Wass, Lonnie@Waterboards, Amy Rutledge (RutledgeA@co.kern.ca.us)

**Subject:** Follow-up, 19 Responses in Progress to Comments, Regions 3, and 6, on Kern County's LAMP

You may recall our 19 July 2016 meeting/teleconference on Kern County's LAMP. During the meeting, Region 3 expressed potential concern about un-sewered parcels within incorporated cities. Region 4 later declined to comment due to limited area of Kern County in its jurisdiction. Region 6 has provided written comments. We requested all comments from external Regions by close of business, 12 August 2016. Below are our responses to date:

### Region 3

Regarding un-sewered areas within cities, I asked Brad Banner, California Conference of Directors of Environmental Health, (530-538-6772, [HYPERLINK "mailto:bbanner@buttecounty.net"bbanner@buttecounty.net](mailto:bbanner@buttecounty.net)) to survey County Environmental Health Directors; of respondents, 84% have un-sewered parcels within cities, about 74% enforce county codes within cities, about 5% with current formal Memoranda of Understanding (MOUs); 0% report issues – see first attachment. Based on subsequent discussions with Brad, unless a County Environmental Health Director indicates otherwise, a formal MOU is likely not necessary within Region 5.

Nonetheless, Donna Fenton, Kern County Environmental Health Director (661-862-8726, [HYPERLINK "mailto:donnaf@co.kern.ca.us"donnaf@co.kern.ca.us](mailto:donnaf@co.kern.ca.us)), reports seepage pits in the City of Bakersfield within setbacks of public sanitary sewers. This morning, we discussed these with Phil Burns, City of Bakersfield (661-326-3040, [HYPERLINK "mailto:pburns@bakersfieldcity.us"pburns@bakersfieldcity.us](mailto:pburns@bakersfieldcity.us)). Phil and Donna are considering further edits to Kern County's LAMP and other options. We hope to have this issue resolved by close of business, next Thursday, 1 Sept 2016.

### Region 6

Region 6's tech memo dated 8 August 2016 requests a more conservative approach than in Region 5; see second attachment. The memo generally requests further consideration of OWTS Policy §§9.1, 9.1.9, and 9.1.10. Kern County's LAMP should 1., include a Water Quality Assessment Program with focus on identified areas of potential concern, 2., require cumulative impact analyses for all new subdivisions with lots less than 2.5 acres, regardless of available piped potable water 3., abide by its Basin Plan limits for proposed parcel sizes, 4., consider OWTS referrals less than 10,000 gallons/day projected flow to Regional Boards case-by-case (as we also suggest), and 5., consider Salt and Nutrient Management Plans (SNMPs).

I first discussed the memo with Region 6 staff, Mike Coony and Jay Cass (contact info in memo), their general rationale follows: groundwater within the Antelope Valley is better quality than in the San Joaquin, therefore Region 6's Basin Plan is more conservative than Region 5's for OWTS. Based on a recent USGS study (Izbicki et al 2015), the Antelope Valley has an extended vadose zone, with nitrified wastewater in largely vertical columns to several hundred feet below grade. The SNMP for Antelope Valley proposes increasing artificial recharge, which

can cause an abrupt rise in water table. The rising water table could encounter nitrified wastewater and increase dissolved nitrate concentrations in groundwater. Based on the SNMP, increases could become significant in the next 25 years, dependent on wastewater loading rates. See remaining attachments. (They also wish to add Sand Canyon as an area of concern.) I independently evaluated nitrate loading rates, concur with their rationale, and notified Donna of our intent to require Kern County's LAMP to abide by Region 6's requirements within its jurisdiction. I asked for her issues and concerns.

Donna reports that within Region 6, Kern County has over 10,000 undeveloped, recorded parcels less than 2.5 acres, most with low income owners. Most do not meet the Tier 1 definition of a new subdivision in OWTS Policy §7.8. On some parcels, Kern County Public Health Services Department has already approved standard OWTS based on soils engineers' reports. Donna recommended a compromise that allows standard installations on parcels with permits, and potential engineered systems on the remainder. I pointed out that Tier 1 standards in Policy §7.8 are based on average areas. While Region 6's request for consideration of all new subdivisions with lots less than 2.5 acres might be for Tier 2, I suggested her consideration of a cumulative impact assessment based on Izbicki's 2015 model; and to contact John Izbicki, USGS, San Diego, (619-225-6131/ 778-0444 cell, [HYPERLINK "mailto:jaizbicki@usgs.gov"jaizbicki@usgs.gov](mailto:jaizbicki@usgs.gov) ).

Yesterday, we briefed our Executive Officer on our general approach; see concurs, while Region 5 is the designated Regional Water Board for purposes of LAMP review, Region 6's Basin Plan is more conservative and has a relatively large area of Kern County; therefore the LAMP should abide by Region 6's requirements within its jurisdiction. While in Region 5, we will await data from the first Water Quality Assessment Report to assess adequacy of the current program, in Region 6, due to differing regulatory requirements and hydrogeology, a more proactive approach is appropriate.

**Actions Required:**

1. Kern County to revise LAMP with respect to seepage pits within setbacks of sanitary sewers in the City of Bakersfield. Kern County to propose appropriate cumulative impact assessment for parcels less than 2.5 acres, and address other comments in Region 6' memo. If feasible, complete by close of business, 16 September 2016. We strongly suggest informal discussions with Region 6 staff beforehand.
2. Region 5 staff to revise Preliminary Completeness Checklist, and seek concurrence from Regions 3 and 6.

Thank you for your insightful comments on Kern County's LAMP.

Regards,

Eric

Eric J. Rapport, C.H.G., C.E.G.  
Senior Engineering Geologist (Specialist)  
Onsite Wastewater Treatment System Policy  
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Attachments

Wastewater LAMP MOU Survey.docx.msg

Region 6 Comments - Kern County Draft Local Agency Management Plan.pdf

Antelope Valley\_FINAL SNMP 08-12-2014.pdf

RE Follow-Up This Morning's Discussion on Kern County.msg

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# **ENCLOSURE 5.1.A**

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**Lahontan Regional Water Quality Control Board**

File: Kern County LAMP

**TO:** Katie Carpenter, Engineering Geologist  
Central Valley Regional Water Quality Control Board  
1685 E Street  
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**FROM:**   
Lauri Kemper, Assistant Executive Officer  
Lahontan Regional Water Quality Control Board  
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**DATE:** August 8, 2016

**SUBJECT: Region 6 Comments - Kern County Draft Local Agency Management Plan**

The Regional Water Quality Control Board, Lahontan Region (Water Board) staff has reviewed the May 25, 2016 draft Kern County Local Agency Management Plan (LAMP) and comments provided by Region 5. We appreciate the discussion with Region 5 and Kern County staff on July 19, 2016 to discuss comments. Region 6 provides the following comments on the Kern County LAMP.

1. Onsite Wastewater Treatment System (OWTS) Policy Section 9.1, Considerations for LAMPs (Relevant LAMP Sections, 2 & 4).

The Water Quality Assessment Program should consider the following elements.

- Identify areas of, and include specific assessment elements for, particular locales or areas of concern with high-risk conditions that may lead to groundwater pollution from OWTS. These areas include poor soil conditions, shallow water table, high domestic well usage, high density of OWTS, areas experiencing large numbers of failing systems, or areas where water quality data indicate trends of

increasing nitrate concentrations in ground or surface waters. Within the Region 6 portion of Kern County these areas include the following.

- Indian Wells Valley
  - Northwest Antelope Valley
  - North Edwards
- Identification of individual residential wells in areas of high density OWTS willing to participate in regional groundwater data collection.
  - Identification of existing monitoring wells or other supply wells in areas of high density OWTS (include names of well owners and any current monitoring being conducted).
  - Assess efforts to establish onsite maintenance districts or zones and feasibility of installing municipal sewage collection systems in areas of high density OWTS.
  - Assess locations near high density OWTS where future groundwater monitoring wells should be installed, especially in areas of shallow groundwater.
  - Assess water quality trends, especially with respect to nitrate concentrations.
2. OWTS Policy Section 9.1.9, Areas of High OWTS Density (Relevant LAMP Section, 2, Appendix B).

Kern County requires a cumulative impact assessment for new subdivisions with lots sizes smaller than 2.5 acres, but only where individual domestic wells are used. The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) requires all groundwater with a municipal beneficial use designation to be free of pollution and the Water Board is required to maintain high quality water for future beneficial uses where feasible. The Water Board recommends that Kern County complete a cumulative impact assessment for all new subdivisions with lots smaller than 2.5 acres, regardless of whether the water supply is from on-site domestic wells or a community water system service.

3. OWTS Policy Section 9.1.10, Limits to parcel size (Relevant LAMP Section, 2).

Clarify what Kern County is proposing for density requirements in LAMP for new and existing subdivisions. Provide justification for the parcel sizes and how ground water quality protection will be ensured.

At a minimum, the Basin Plan's maximum density criteria for use of OWTS should be incorporated into the LAMP unless the County is proposing more restrictive density criteria (such as Tier 1 requirements in the OWTS Policy). These criteria were incorporated in 1988. The Basin Plan, Chapter 4.4, page 4.4-10 may be found at the following internet address:

[http://www.waterboards.ca.gov/lahontan/water\\_issues/programs/basin\\_plan/docs/ch4\\_implementationplans.pdf](http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/docs/ch4_implementationplans.pdf)

- a. Use of OWTS for single family homes on lots subdivided after 1988 may have a gross density of no greater than two (2) single family equivalent dwelling units per acre. Developments with higher density are required to have secondary-level treatment of wastewater. Equivalent dwelling units (EDUs) are defined as 250 gallons per day per EDU. The secondary level treatment also applies to domestic wastewater discharges from commercial, industrial, recreational and all other developments with wastewater discharge volumes exceeding two EDU per acre density (500/gal/day/acre based on 250 gal/day/EDU).
  - b. Use of new OWTS is permitted on lots subdivided prior to 1988 if the lot sizes has a net area greater than or equal to 15,000 square feet.
4. OWTS Policy Section 9.2, Scope of Coverage (Relevant LAMP Sections, 1 & 3, p. 6).

Referrals to Water Board would result in our becoming the lead regulatory agency. Discharges would be regulated by waste discharge requirements which require annual fees and monitoring costs. We concur with Region 5 that Kern County should clarify the systems that will be referred and suggest the County retain lead for all systems up to the OWTS Policy allowed up to 10,000 gal/day.

Additionally, the County should reconsider its intent to seek Water Board approval of each new type of alternative OWTS (LAMP, Page 26; and Kern County Onsite Manual, Part 3). Water Code §13360 prohibits the Water Board from specifying the manner or method of treatment and disposal. Water Board staff welcomes consultation with County staff on specific OWTS applications. Perhaps a better phrase may be the following: "County code allows for the future additions of alternative treatment and dispersal systems, as approved by the director after receiving and considering recommendations from the appropriate Water Board."

5. OWTS Policy Section 9.2.8, Regional Salt and Nutrient Management Plans (Relevant LAMP Section, 4 p. 33, Appendix B).

The LAMP should reference the appropriate Salt and Nutrient Management Plans (Plans).

The Antelope Valley Salt and Nutrient Management Plan prepared by the Antelope Valley Integrated Regional Water Management Plan group may be accessed on the internet at: <http://www.avwaterplan.org/>. The Plan looks to the LAMP to ensure OWTS do not adversely affect groundwater. It concludes that with respect to nitrate, groundwater concentrations levels in the Antelope Valley Groundwater Basin are well below the MCL. It also concludes that with respect to total dissolved solids (TDS), average TDS concentrations in the Antelope Valley Groundwater Basin are below the recommended Secondary Maximum Contaminant Level, or drinking water

standard. This means that receiving groundwater in the Antelope Valley is of high quality and does not appear to have been adversely impacted by OWTS. However, as mentioned earlier, the Water Board is required by state policy and regulations to maintain high quality where feasible or unless specific findings can be made to allow degradation.

The Indian Wells Valley Salt and Nutrient Management Plan is being prepared by the Indian Wells Valley Water District and is not yet completed. The Fremont Valley Salt and Nutrient Management Plan is being prepared by the City of California City and is not yet completed. However, you can incorporate available water quality information and evaluate current water quality conditions and predict any changes (benefit or detriment) based on proposed LAMP implementation.

We look forward to working with Region 5 and Kern County to finalize a LAMP that is protective of public health and groundwater quality from OWTS discharges. Water Board staff are available to discuss our comments and concerns in more detail. If you have any questions, please contact me at (530) 542-5436 ([lauri.kemper@waterboards.ca.gov](mailto:lauri.kemper@waterboards.ca.gov)), Francis Coony at (760) 241-7353 ([mike.coony@waterboards.ca.gov](mailto:mike.coony@waterboards.ca.gov)) or Jehiel Cass at (760) 241-2434 ([jehiel.cass@waterboards.ca.gov](mailto:jehiel.cass@waterboards.ca.gov)).

cc: Donna Fenton, [donnaf@co.kern.ca.us](mailto:donnaf@co.kern.ca.us)

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## **ENCLOSURE 5.2**

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## Lahontan Regional Water Quality Control Board

June 23, 2016

(LAMP) San Bernardino County

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### **Lahontan, Colorado River and Santa Ana Water Board Comments on the San Bernardino County Draft Local Area Management Program**

The County of San Bernardino Department of Environmental Health Services (County) submitted the Draft Local Area Management Program (LAMP) to the California Regional Quality Water Quality Control Boards (Water Boards) within the County's jurisdiction, dated October 30, 2015. The County proposes a LAMP (Tier 2) for new and replacement onsite septic systems instead of Tier 1 compliance under the State Board's June 19, 2012 policy for Onsite Wastewater Treatment Systems (OWTS Policy). As the lead Water Board for review of the County LAMP, the Lahontan Water Board provides these comments following joint review by this agency, the Santa Ana Water Board, and the Colorado River Water Board. Our technical comments as Attachment 1, Santa Ana Water Board comments as Attachment 2, and Colorado River Water Board comments as Attachment 3.

#### **Summary**

The Lahontan Water Board staff finds the LAMP generally meets the intent of the OWTS Policy with one exception. The LAMP is not consistent with OWTS Policy §9.3, primarily with respect to an effective Water Quality Assessment Program that will evaluate the extent and impact of septic discharges on groundwater quality over time.

#### **Issues of Common Concern**

- A. Water Quality Assessment Program – We recognize that the single most challenging issue for the County and Water Boards is development and implementation of a meaningful, cost-effective, and adequate water quality assessment program to satisfy Policy §9.3. The proposed Water Quality Assessment Program described on draft LAMP Page 61 does not meet Policy §9.3.2 requirements, which is to “determine the general operation status of OWTS and to evaluate the impact of OWTS discharges, and assess the extent to which groundwater and local surface water quality may be adversely impacted.” The County's proposed program is too basic and general to achieve the Policy goals.

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

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e-mail [Lahontan@waterboards.ca.gov](mailto:Lahontan@waterboards.ca.gov) | website [www.waterboards.ca.gov/lahontan](http://www.waterboards.ca.gov/lahontan)

The LAMP proposes annual reporting by February 1 with a program assessment every five years as the policy requires. The assessment program is limited to: 1) sampling new individual production wells for selected constituents, 2) establishing baseline water quality using individual and community drinking water wells, and 3) distinguishing water quality degradation from OWTS and other sources.

A Policy Tier 2 LAMP involves a fundamental shift from a purely prescriptive to partially performance-based program as described in Policy §9.5 and §9.6. The monitoring and water quality assessment program should address or include the following principles:

- Be adaptive and modified over time in collaboration with affected stakeholders.
- Include basic elements that apply county-wide;
- Include specific elements for particular locales or areas of concern such as high density OWTS, areas experiencing large numbers of failing systems, or areas where water quality data indicate trends of increasing nitrate concentrations in ground or surface waters;
- Identify individual owner residential wells in areas of high density OWTS willing to participate in regional groundwater data collection;
- Identify areas with high density OWTS, especially those located in high risk areas where hydrogeological conditions, soil conditions, shallow water table, or high domestic well usage may lead to pollution from OWTS;
- Assess efforts to establish onsite maintenance districts or zones and feasibility of installing municipal sewage collection systems in areas of high density OWTS;
- Assess particular areas with high numbers of failing systems;
- Assess locations near high density OWTS where future groundwater monitoring wells should be installed, especially in areas of shallow groundwater;
- Assess water quality trends, especially with respect to nitrate concentrations;
- Clarify procedures to exchange data with other agencies and collaboration efforts that can be improved;
- Consider electronic mapping location of existing and new OWTS, focusing on areas with characteristics listed under Section 9.1 of the OWTS Policy; and,
- Identify existing supply and monitoring wells (private and public) and prioritize wells that can be used to assess water quality associated with OWTS over time.

B. Jurisdictional Area – San Bernardino County covers a large area and encompasses numerous incorporated cities and federal lands with interspersed private lands that are not under the jurisdiction of the County's septic system approval authority. Some cities retain septic system approval and others do not. We recognize that these boundaries change over time. We request clarification in the form of a map that identifies areas within the County that are subject to the proposed LAMP requirements. Please provide these data in printed format and in ArcGIS data format (shape files).

C. Septic System Discharge Density – We recognize that each Water Board has similar, although different, approaches to the OWTS discharge minimum area, or maximum density, that were developed in the late 1980's. However, since then the County subdivision minimum lot size for a single family home with OWTS discharge has generally been one-half acre. The County proposes to continue this lot size through the LAMP.

It is also generally understood that OWTS discharges pollute groundwater over time, primarily with respect to pathogens and nitrate, under various soil type, climatic, hydrogeological, and *density* conditions<sup>1</sup>. We believe that in arid regions with closed groundwater basins, high density OWTS discharges will have long-term adverse groundwater impacts.

While we believe the County should consider increasing the minimum lot size for future subdivisions, we accept the County's proposal to continue this density standard provided there is an adequate Water Quality Assessment Program.

We also believe that certain areas of high density OWTS should be considered for municipal sewage collection systems. The Colorado River Water Board adopted Basin Plan prohibitions for the Town of Yucca Valley area. In the Lahontan Water Board jurisdiction, the community of Wrightwood, Phelan commercial core, and north Barstow have a high density of OWTS. The County should endeavor to identify areas with high density OWTS and develop plans to connect these areas to municipal or regional sewage collection systems. Treatment alternatives should include both centralized and decentralized treatment.

- D. Basin Plan Prohibitions - Policy §2.1 states that OWTS must comply with the *Water Quality Control Plan for the Lahontan Region* (Basin Plan) prohibitions. The Policy also states that if the prohibition authorizes discharges under specified conditions, the owner of OWTS must comply with those Basin Plan conditions, typically called "exemptions". Only the Regional Water Board or the State Water Resources Control Board can modify the Basin Plan. The LAMP should refer to each Water Board's Basin Plan OWTS prohibition and exemption conditions.
- E. Identifying Unauthorized Systems - We believe that the County practices and policies, including the LAMP, should describe tasks and milestones to identify and address unauthorized OWTS, including existing: cesspools, systems with flow greater than 10,000 gal/day, high-strength wastewater discharges, or inappropriately functioning grease traps.

## Closing

The OWTS Policy designates the Lahontan Regional Water Quality Control Board (Lahontan Water Board) as the lead Water Board for the purposes of reviewing and approving San Bernardino County's Draft LAMP. The three Water Board staffs are available to discuss these comments at your convenience. If you have questions, please contact either of the following individuals:

- Lahontan Water Board - Mike Plaziak (760) 241-7325  
[mike.plaziak@waterboards.ca.gov](mailto:mike.plaziak@waterboards.ca.gov)

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<sup>1</sup> Izbicki, John A.; Flint, Alan L.; O'Leary, David R.; Nishikawa, Tracy; Martin, Peter; Johnson, Russell D.; and Clark, Dennis A., "Storage and mobilization of natural and septic nitrate in thick unsaturated zones, California", *Journal of Hydrology*, 10.1016/j.jhydrol.2015.02.005

- Colorado River Water Board - Mary Serra (760) 776-8972  
[mary.serra@waterboards.ca.gov](mailto:mary.serra@waterboards.ca.gov)
- Santa Ana Water Board – Milasol Gaslan (951) 782-4419  
[milasol.gaslan@waterboards.ca.gov](mailto:milasol.gaslan@waterboards.ca.gov)

We thank you for your efforts to develop a LAMP that is protective of water quality. We would request a meeting with your staff to discuss our comments in more detail. The Policy requires the Water Boards to review and approve LAMPs by May 2017. To that end, the County's LAMP will need to be finalized by Fall/Winter 2016 in order to meet the Policy schedule.



Mike Plaziak, P.G.  
Supervising Engineering Geologist  
South Lahontan Basins Division

Enclosures:

1. Lahontan Water Board technical comments
2. January 15, 2016, Santa Ana Water Board comments
3. February 25, 2016, Colorado River Water Board comments

cc w/enc: Mary Serra, Colorado River Water Board, [mary.serra@waterboards.ca.gov](mailto:mary.serra@waterboards.ca.gov)  
Susan Beeson, Santa Ana Water, [susan.beeson@Waterboards.ca.gov](mailto:susan.beeson@Waterboards.ca.gov)  
Milasol Gaslan, [milasol.gaslan@waterboards.ca.gov](mailto:milasol.gaslan@waterboards.ca.gov)  
Rob Tucker, Lahontan Water Board, [robert.tucker@waterboards.ca.gov](mailto:robert.tucker@waterboards.ca.gov)

MC/rc/LAMP comments 6-23-16 mp

# **ENCLOSURE 5.2.A**

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## Lahontan Water Board Technical Comments

Following are technical comments on the draft LAMP. Page numbers refer to the Draft LAMP.

1. General. The Draft LAMP indicates that only "Alternate Onsite Treatment Systems" are required to maintain annual operating permits from the County's Division of Environmental Health. The Building and Safety Division is responsible for issuing permits for "new construction, repair and replacement of OWTS," while Code Enforcement is responsible for inspections, operation, maintenance, and responding to failures of OWTS systems. The LAMP should include a County organizational chart, describing how the multiple County divisions will collaborate and describe inventory control and proposed data reporting methodology.
2. Page 1 - The draft LAMP indicates that only 15% of the county is subject to the LAMP requirements. We recommend the County's LAMP include a map, including but not limited to:
  - Jurisdictional areas e.g. where County has jurisdiction and where local governments or other entities have jurisdiction;
  - Locations where permits are issued for new or failing systems in the past twelve months;
  - Onsite maintenance districts or zones;
  - Water Board septic system prohibition areas;
  - Locations of impaired water bodies due to nitrogen or pathogens and impaired water bodies with an approved Total Maximum Daily Load; and,
  - Water quality assessment program features (e.g. wells included for sampling and analysis, surface water collection stations, etc.).
3. Page 2 – Definitions, Domestic Well. Please revise the last clause to read the following: "...and is not regulated by the SWRCB Division of Drinking Water (DDW)."
4. Page 4 – Definitions, Notice of Condition – Please clarify and explain the legal basis, scope, and purpose of the referenced Notice of Condition site specific document.
5. Page 10 – LAMP Standards Applicability, Requirements and Exceptions, 1<sup>st</sup> sentence. Please revise as follows: "...to protect public health, water quality, and safety."
6. Pages 8, 23, 24, 25, 26, 32, 41, 42 — Statements on these pages indicate that the County may refer selected new and replacement OWTS to the Water Board at its discretion. Please note that for OWTS that are not covered under the scope of San Bernardino County's LAMP (Policy §9.1, §2.6.1), Policy §2.6.1 requires the owner to submit a report of waste discharge to the Water Board. In addition, the owner must pay fees and obtain waste discharge requirements (Policy §12.0). We request that the LAMP clarify that County will make the initial referral to the Water Board and

include a County contact to which questions may be addressed. We have been contacted by many applicants, ostensibly referred by the County, that have no idea of the reason for their referral. The LAMP should indicate that Water Board requirements vary from region-to-region and case-by-case, but regulation by the Water Board may significantly delay the project and introduce additional requirements.

7. Page 10 — LAMP Standards Applicability, Requirements and Exceptions, Exceptions. Related to the above comment, the bottom of this page lists specific OWTS which are not included in the LAMP. Please clarify if supplemental treatment systems as defined in Policy §1.0 are included in the term "wastewater treatment plants of any kind or size". Supplemental treatment systems for small applications are not necessarily a wastewater treatment plant. The County is authorized to approve supplemental treatment systems provided there is a performance monitoring and inspection program as required in Policy § 9.4.6. We prefer the County approve supplemental treatment systems for small applications and require periodic performance monitoring and inspections. If not, applicants must submit a report of waste discharge to the Water Board (Policy 2.6.1).
8. Page 10 — The County has permitting authority for onsite wastewater disposal siting, design, operation, maintenance and has historically focused its efforts to protect public health. The OWTS Policy advocates for the additional protection of water quality. The Draft LAMP should include the County's wastewater disposal ordinance for reference, a discussion of modifications, if any, to that ordinance, and the schedule for its hearing and adoption of the final LAMP by the County's Board of Supervisors. In addition, clarification is necessary where the Draft LAMP cites "public health and safety" (such as at the bottom of page 51) as its mandate, leaving out water quality considerations. This is because Water Code §13291(a)(4), under Chapter 4.5, Onsite Sewage Treatment System", requires that county adopted regulations for onsite system must include systems that have a "a reasonable potential to cause a violation of water quality objectives ..."
9. Pages 13, 18, 25, 35, 36, 38 and Table of Contents– Please add a definition for "alternative treatment systems" and explain the relationship to the "supplemental treatment" term defined in the LAMP and OWTS Policy.
10. Page 18 — The Draft LAMP (Minimum Qualifications and Certification for OWTS Practitioners) should detail the function of a "service provider." The term service provider is listed in the definitions section on page 6 and minimum qualifications should be defined. The Draft LAMP should also detail the methodology that the County will use to either accept a national OWTS educational certification for service provider or create a program of its own.
11. Page 24 and 25, Densities and Minimum Lot Sizes. The draft LAMP proposes an equivalent dwelling unit (EDU) flow of 300 gallons per day. This is greater than Lahontan's Water Board's Basin Plan criteria of 250 gallons per day found on page

4.4-10. For projects in the Lahontan Water Board's jurisdiction, please use 1 EDU = 250 gallons per day.

12. Page 26 — Minimum Requirements for Natural Ground Slope and Percolation Rates, Natural Ground Slope. In the draft LAMP, the county proposes the owner obtain Water Board approval for proposed OWTS where the slope exceeds 25%. Water Code §13360 prohibits Water Board to stamp approve this type of report. The Policy §9.4.4 states that systems with a slope greater than 30% must be approved by a qualified professional as defined in OWTS Policy §1.0. Water Board staff recommend revision of this section in a manner to reflect the policy and Water Code §13360.

13. Page 27 — OWTS Design Table, first row after header row, second column, systems greater than 10,000 gallons per day. Please replace second bullet to read as follows: "Will be referred to the appropriate Water Board for review and permit issuance (Policy §2.6 and 2.6.2).

14. Pages 31 and 32 — Prohibitions and Exemptions. Requesting Exemptions in Prohibition Areas: The prohibitions in the County areas of the Lahontan region are presented in the *Water Quality Control Plan for the Lahontan Region (Basin Plan)*, Page 4.1-21. The Mojave Hydrologic Unit Prohibition No. 3, states the following:

*"The discharge of waste from new leaching or percolation systems is prohibited in the following areas (Figure 4.1-17):*

*(a) The Silverwood Lake watershed.*

*(b) Deep Creek and Grass Valley Creek watersheds above elevation 3,200 feet.*

*For this prohibition, "new" systems are any installed after May 15, 1975.*

*An exemption to this prohibition may be granted whenever the Water Board's Executive Officer finds that the operation of septic tanks, cesspools, or other means of waste disposal in a particular area will not, individually or collectively, directly or indirectly, adversely affect water quality or beneficial uses, and that the sewerage of such area would have a damaging effect upon the environment."*

Please clarify, under OWTS prohibitions, "Lahontan RWQCB Prohibition Areas 1-5", should be "Mojave Hydrologic Unit Prohibition Area 3." Under Lahontan Water Board Order No. 6-81-3 for Crestline and Lahontan Water Board Order No. 6-84-93 for Lake Arrowhead, the County is authorized to issue OWTS building permits in these exemption areas, usually without Lahontan Water Board's approval. Please add the OWTS approval process for Lake Arrowhead and Crestline exemption areas.

15. Page 40 — Alternative Treatment Systems, Wastewater Sample Requirements for Supplemental Treatment Systems. Please specify the required sampled constituents and sample locations for performance monitoring of supplemental treatment systems. For effluent, Lahontan Water Board staff suggests the

constituents listed in the Lahontan Water Board Basin Plan, page 4.4-7, to include as a minimum the following:

- nitrate (as nitrogen)
- total (Kjeldahl) nitrogen

Lahontan Water Board also suggests sampling the influent for total nitrogen to determine the nitrogen removal rate. Nitrogen is important because in its oxidized state, nitrate, is very stable, and its concentration in water below the drain field may pollute groundwater.

16. Page 57 - LAMP Scope of Coverage, Site Assessment. OWTS Policy Section 9.2.6, page 30, specifies that the LAMP include, "An assessment of existing and proposed disposal locations for septage, the volume of septage anticipated, and whether adequate capacity is available." Please include a site evaluation by the Building and Safety Division to:

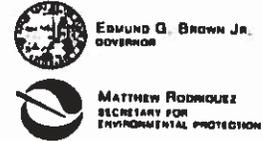
- Ensure the proper system design, and the existing and proposed disposal locations for septage meet the minimum requirements of the LAMP.
- Determine compliance with site suitability requirements, the volume of septage anticipated and whether adequate capacity is available for the septage disposal.

17. Page 58 — Local Watershed Management. Please clarify groundwater data collection, exchange and assessment plans with local agencies and methods to manage data and assess effectiveness of the County's water quality assessment program.

- Mojave Water Agency (MWA) groundwater data. This agency consolidates data from source agencies into a single database for the Mojave groundwater basin and Lucerne Valley.
- Crestline Sanitation District performs water quality assessments in their respective area.
- Lake Arrowhead Community Services District performs water quality assessments in their respective area.
- In Wrightwood, County Special Districts formerly collected samples from a County Service Area (CSA) 56 groundwater monitoring well in compliance with waste discharge requirements Order 6-76-38. While the Lahontan Water Board rescinded this order in 2013, the County still maintains this well and well sampling could be resumed as an element of the water quality assessment program.

# **ENCLOSURE 5.2.B**

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**Santa Ana Regional Water Quality Control Board**

January 15, 2016

Mike Plaziak, Supervising Engineering Geologist  
Lahontan Regional Water Quality Control Board, Victorville Office  
14440 Civic Drive, Suite 200  
Victorville, CA 92392

**COMMENTS ON SAN BERNARDINO COUNTY'S PROPOSED LOCAL AGENCY  
MANAGEMENT PROGRAM**

Dear Mr. Plaziak:

San Bernardino County falls within multiple Regional Water Board jurisdictions. The Lahontan Regional Water Quality Control Board (Region 6) is the designated<sup>1</sup> Regional Water Board, for purposes of reviewing and, if appropriate, approving the Local Agency Management Plan (LAMP) for San Bernardino County. It is our understanding that Region 6 will coordinate the comments from the three Regional Boards (Regions 6, 7, and 8) on this LAMP.

Consistent with this approach, we have the following general comments that apply to the LAMP area as a whole and specific comments applicable to areas within the Region 8 jurisdiction.

**General Comments:**

1. LAMP, Chapter 1, Introduction: The LAMP states that the unincorporated area under County's jurisdiction spans 1.9 million acres and encompasses 15% of the entire County. An additional 4% is directly under the control of 24 incorporated city governments.

The County LAMP should identify where the unincorporated 15% area is located and indicate if any areas under the control of the 24 incorporated city governments will be subject to this LAMP.

2. LAMP, Chapter 1, Introduction: The LAMP states that the requirements defined in Tier 1 of the Onsite Wastewater Treatment System (OWTS) Policy do not meet the future development needs of the County due to diversity. Therefore, under Chapter 3, Siting Standards, Density/Minimum Lot Size Requirements, the County proposes any new lot creations, subdivisions, etc. will require a minimum of one-half acre lot size. All other lots created prior to the LAMP adoption will be grandfathered from the one-half acre requirement. Further, the County proposes to defer those projects that may require a more stringent lot size requirement for the protection of water quality to the Regional Board offices.

<sup>1</sup> Attachment 3 of the Onsite Wastewater Treatment Policy,  
[http://www.waterboards.ca.gov/water\\_issues/programs/owts/docs/owts\\_policy.pdf](http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf).

We note that the County's approach to the proposed Density/Minimum Lot Size Requirements (MLSR) of one-half acre is somewhat consistent with the Santa Ana Region's MLSR as adopted September 8, 1989 (and subsequent amendments), and also the Memorandum of Understanding between the County and the Santa Ana Regional Board. However, Section 7.8, Tier 1 of the OWTS Policy sets the standard for low risk siting and design requirements that calls for a larger lot size based on average annual rainfall (2.5-acre lots sizes or more). LAMPs approved under Tier 2 provide an alternative to Tier 1 if such proposal will still achieve the Policy's purpose.

We agree that those lots created prior to September 7, 1989 should continue to be grandfathered from the Policy provided they meet County requirements and are not located within areas of water quality concern, including the septic system prohibition areas within Region 8. However, the County should consider the adoption of a 2.5-acre lot size requirement or Tier 1 requirements for those specific areas which are necessary in order to protect water quality and not simply defer those areas to the Regional Board.

To address diversity within the County, we are also agreeable to the County's approval of proposed one-half acre lot size requirements for any new lots being created with supporting documentation on a case-by-case basis or for specific geographic areas to be identified in the LAMP where the County had evaluated site conditions and determined that higher density will continue to protect water quality and public health. In identifying requirements different from Tier 1 for specific areas, the OWTS Policy specifies that the County consider the factors identified in Section 9.1, as well as any other conditions deemed appropriate.

3. OWTS Policy Section 9.2.6, page 30, specifies that the LAMP include, "An assessment of existing and proposed disposal locations for septage, the volume of septage anticipated, and whether adequate capacity is available."

In Chapter 7, LAMP Scope of Coverage, Site Assessment, page 57, please revise as follows:

**"Site Assessment**

Prior to approving the use of an OWTS, a site evaluation by the Building and Safety Division will be required to:

- Ensure the proper system design, and the existing and proposed disposal locations for septage meet the minimum requirements of the LAMP.
- Determine compliance with site suitability requirements, the volume of septage anticipated and whether adequate capacity is available for the septage disposal."

4. OWTS Policy Section 9.3.2, page 31 specifies the County's responsibility to "Maintain a water quality assessment program to determine the general operation status of OWTS and to evaluate the impact of OWTS discharges, and assess the extent to which groundwater and local surface water quality may be adversely impacted. The focus of the assessment should be areas with characteristics listed under section 9.1."

The LAMP specifies that the County will annually report the number, location, and description of permits issued for OWTS or where a variance is granted. In addition to maintaining records for newly permitted OWTS, the County should maintain an inventory of existing and new OWTS. As part of the water quality assessment program (WQAP), please map the location of existing and new OWTS, focusing on areas with characteristics listed

under Section 9.1 of the OWTS Policy. Mapping will assist in evaluating the County's rationale for the design and implementation of the WQAP specified under Section 9.3.2. The WQAP is intended to determine the general operational status of OWTS and to evaluate the impact of OWTS discharges on groundwater and surface water quality.

5. Consistent with the rationale in item 4 above, please add the following information as the fourth bulleted item on page 61 of the LAMP, Chapter 8, Reporting to the Regional Water Quality Control Boards as follows:
  - The quantity and location of complaints pertaining to OWTS in areas where this LAMP is applicable, and specifying which complaints were investigated, and how the complaints were resolved.
  - The permits issued for new and replacement OWTS, including the number, location and description of the permits, and which Tier the permit was issued under.
  - The quantity, location and description of permits issued for OWTS where a variance from the approved LAMP was granted.
  - Electronic workable file (such as an Excel spreadsheet) which contains information on all new, replaced, or current OWTS. At a minimum, please include the following information:
    - o Latitude & Longitude
    - o Parcel size
    - o Number of structures
    - o Bedrooms per Dwelling(s)/structure
    - o Estimated gallons per day of wastewater

**Specific Comments Applicable to San Bernardino County Areas within Region 8 Jurisdiction:**

6. LAMP, Chapter 4, OWTS Design and Construction: The County proposes to continue to defer all projects within the Fontana/Bloomington area to the Regional Board for consideration. Please advise why the County prefers to defer these OWTS projects within these specific areas to the Regional Board.
7. LAMP, Sections 9.2.8, on page 30, states that the LAMP's permitting program provide "Any consideration given to the development and implementation of, or coordination with, Regional Salt and Nutrient Management Plans."

The Salt and Nutrient Management Plan for Region 8 is now incorporated into the Basin Plan. The Basin Plan specifies surface and groundwater water quality objectives for TDS and N and identifies those groundwater basins that have no TDS assimilative capacity. The Basin Monitoring Program Task Force (BMPTF) periodically assesses the water quality for TDS and N within the region. The OWTS impact to TDS and N objectives should be included in the County's 5 year evaluation of OWTS impacts to groundwater and surface water.

8. LAMP, Chapter 8, Reporting to the Regional Water Quality Control Boards, page 61 identifies the information to be reported annually to the Regional Boards.

January 15, 2016

A majority of 303(d) listed water bodies in Region 8 are impaired for pathogens and nutrients. Some publicly owned treatment works in Region 8 have acceptance criteria for septage wastes. Hauler loads are rejected when those acceptance criteria are not met.

We recommend that the LAMP include a brief description of procedures used by the County to ensure that pumped septage wastes generated within the County are disposed of properly. An example would be for the DEHS licensing and reporting requirement for Liquid Waste Haulers to include information that would allow the County to report annually that all pumped septage have been accounted for and disposed of properly. Also, please modify the bulleted item on page 61, under "Reporting to the Regional Water Quality Control Boards" as follows:

- The number, location and results of septic tank pumper inspection reports which were received. Provide a summary of total volume generated and hauled and the corresponding disposal locations.

In closing, we appreciate Region 6's efforts in coordinating the review of the proposed Local Agency Management Plan and look forward to further discussions regarding the Santa Ana Regional Board comments, as needed. Should you have any questions, please contact me at (951) 782-4419 or at [milasol.gaslan@waterboards.ca.gov](mailto:milasol.gaslan@waterboards.ca.gov) or Susan Beeson at (951) 782-4902 or at [susan.beeson@waterboards.ca.gov](mailto:susan.beeson@waterboards.ca.gov).

Sincerely,



*for* Milasol C. Gaslan, Chief  
Wastewater Program

Cc: Jehiel Cass, Lahontan Regional Water Quality Control Board, R6V  
Francis Coony, Lahontan Regional Water Quality Control Board, R6V  
Mary Serra – Colorado River Regional Water Quality Control Board, R7

# **ENCLOSURE 5.2.C**

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## Colorado River Basin Regional Water Quality Control Board

Sent via email

February 25, 2016

Mike Plaziak, Supervising Engineering Geologist  
[mike.plaziak@waterboards.ca.gov](mailto:mike.plaziak@waterboards.ca.gov)  
 Lahontan Regional Water Quality Control Board, Victorville Office  
 14440 Civic Drive, Suite 200  
 Victorville, CA 92392

### COMMENTS ON SAN BERNARDINO COUNTY'S DRAFT LOCAL AGENCY MANAGEMENT PROGRAM

Dear Mr. Plaziak

Colorado River Basin Regional Water Quality Control Board (Colorado River Basin Water Board) staff received a copy of the draft "Local Agency Management Program for Onsite Wastewater Treatment Systems" (Draft LAMP) from San Bernardino County, Public Health, and Environmental Health Services on November 2, 2015. The Draft LAMP was developed in response to the State Water Resources Control Board's *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (OWTS Policy).

The OWTS Policy designates the Lahontan Regional Water Quality Control Board (Lahontan Water Board) as San Bernardino County's primary contact for the purposes of reviewing and, if appropriate, approving the Draft LAMP. Because San Bernardino County includes jurisdictional areas within the Colorado River Basin Water Board, the Lahontan Water Board staff requested written comments on the Draft LAMP. Our comments are as follows:

1. The County has permitting authority for onsite wastewater disposal siting, design, operation, maintenance and has historically focused its efforts to protect public health. The OWTS Policy advocates for the additional protection of water quality. The Draft LAMP should include the County's wastewater disposal ordinance for reference, a discussion of modifications, if any, to that ordinance, and the schedule for its hearing and adoption of the final LAMP by the County's Board of Supervisors. In addition, clarification is necessary where the Draft LAMP cites "public health and safety" (such as at the bottom of page 51) as its mandate, leaving out water quality considerations.

2. As a point of clarification, the Draft LAMP should improve its description of the extent of its jurisdictional boundaries for onsite wastewater treatment system permitting authority as it relates to the incorporated areas of Needles, Twentynine Palms and Yucca Valley.
3. The Draft LAMP should use the following text in order to improve the definition of Regional Water Quality Control Board: "Regional Water Board is any of the Regional Water Quality Control Boards designated by California Water Code Section 13200. Any reference to an action of the Regional Water Board in this Policy also refers to an action of its Executive Officer. Depending on the site specific location of the onsite wastewater treatment system, Regional Water Board reference in this document may refer to the Colorado River Basin Water Board, the Lahontan Water Board, or the Santa Ana Water Board."
4. Section 2.1 of the OWTS Policy states "All new, replacement, or existing OWTS within an area that is subject to a Basin Plan prohibition of discharges from OWTS, must comply with the prohibition." The Colorado River Basin Water Board has an onsite wastewater prohibition zone in San Bernardino County in the incorporated area of Yucca Valley.

The Draft LAMP includes an authority statement on page 12; "The Building and Safety Division requires Division of Environmental Health Safety approval on all OWTS proposals when the OWTS is located within a prohibition area." In addition, the Draft LAMP includes a discussion of Prohibitions and Exemptions beginning on page 31 that lists Yucca Valley and contains a protocol to obtain an exemption from the Basin Plan prohibition. The Colorado River Basin Water Board's Basin Plan prohibition cannot be modified by the LAMP. Only the Regional Water Board or the State Water Resources Control Board can modify the Basin Plan<sup>1</sup>. The Colorado River Basin Water Board Basin Plan contains protocols for OWTS owners seeking an exemption.

5. The Colorado River Basin Water Board under the delegated authority of its Executive Officer requires the ability to identify new areas of special concern with regard to onsite wastewater treatment system disposal resulting from their density and threat to groundwater quality. Colorado River Basin Water Board staff recommends that the text of Chapter 4 (OWTS Design and Construction, Special Considerations) include the following text:

"Areas of Special Concern or Designated Maintenance Areas: Improper siting, design, operation and maintenance or density may subsequently be determined to be a source of pathogens or nitrogen in groundwater or surface water. The Areas of Special Concern may be identified by the

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<sup>1</sup> A copy of the Basin Plan can be downloaded at:  
[http://www.waterboards.ca.gov/coloradoriver/water\\_issues/programs/basin\\_planning/](http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/)

San Bernardino's Public Health Officer or the appropriate Regional Water Board's Executive Officer. The following provisions apply:

- a. No existing OWTS within the Area of Special Concern or Designated Maintenance Areas, shall be expanded or otherwise modified to accommodate new construction and/or additional wastewater generating fixtures or appliances unless that system is designed to remove no less than eighty percent (80%) of the nitrogen released in the effluent (advanced treatment, denitrifying systems).
  - b. The minimum parcel size for any new subdivision or residential lot division within an Area of Special Concern or a Designated Maintenance Areas shall be one dwelling unit per two and one half (2.5) acres.
  - c. No application for a new septic system shall be accepted for any lot within the Area of Special Concern or a Designated Maintenance Areas unless that system is designed to remove no less than eighty percent (80%) of the nitrogen released in the effluent (advanced treatment, denitrifying systems)."
6. The 2.5 acre lot size is the OWTS Policy strategy to control density within San Bernardino County for areas with low rainfall. The County might also offer an alternative strategy to control density. This might include strategies to measure and report regional density in conjunction with a one-acre or smaller lot size; or shallow groundwater monitoring in areas with overall densities greater than one dwelling unit per two and one half (2.5) acres.
  7. The Colorado River Basin Water Board does not have any Clean Water Act Section 303(d) listed impaired water bodies within San Bernardino County. As such, no comments are provided for the Draft LAMP provisions for Advanced Protection Management Program for Impaired Areas including those OWTS that neighbor 303(d) listed impaired water bodies for nitrogen or pathogens.
  8. The Draft LAMP presents cesspools in a fashion that indicates they are not under the County's purview and states on page 57: "Cesspools are no longer allowed in the County of San Bernardino. When County staff discovers a cesspool is still in use, the property owner will be required to replace the cesspool with an OWTS, which meets current standards. The timeframe for complying with this requirement will vary based on the condition of the cesspool and the potential threat it represents to public health and safety." The OWTS Policy prohibits cesspools. The Colorado River Basin Water Board staff believe cesspools pose a significant threat to groundwater water quality. Cesspools must be timely located and properly abandonment and replacement with the appropriately sited and designed onsite wastewater treatment system in accordance with the OWTS Policy.

9. The Draft LAMP indicates that only "Alternate Onsite Treatment Systems" are required to maintain annual operating permits from the County's Division of Environmental Health. The Building and Safety Division is responsible for issuing permits for "new construction, repair and replacement of OWTS," while Code Enforcement is responsible for inspections, operation, maintenance, and responding to failures of OWTS systems. The Draft LAMP should include a County organizational chart, describe how the multiple divisions will collaborate and describe inventory control and proposed data reporting methodology.
10. Page 18 of the Draft LAMP (Minimum Qualifications and Certification for OWTS Practitioners) should detail the function of a "service provider." The term service provider is listed in the definitions section on page 6 and minimum qualifications should be defined. The Draft LAMP should also detail the methodology that the County will use to either accept a national OWTS educational certification for service provider or create a program of its own.

Colorado River Basin Water Board staff are available to meet with you and support the Lahontan Water Board's efforts to coordinate the successful review and approval of the San Bernardino County LAMP. Contact me at 760-776-8972 or at [mary.serra@waterboards.ca.gov](mailto:mary.serra@waterboards.ca.gov), or Mr. Doug Wylie at 760-776-8960 or at [doug.wylie@waterboards.ca.gov](mailto:doug.wylie@waterboards.ca.gov) with questions or to facilitate ongoing review and approval efforts.

Sincerely,



Mary Serra  
Supervising Water Resources Control Engineer

cc: Jehiel Cass, Lahontan Water Board; [jehiel.cass@waterboards.ca.gov](mailto:jehiel.cass@waterboards.ca.gov)  
Francis Coony, Lahontan Water Board; [francis.coony@waterboards.ca.gov](mailto:francis.coony@waterboards.ca.gov)  
Milasol Gaslan, Santa Ana Water Board; [milasol.gaslan@waterboards.ca.gov](mailto:milasol.gaslan@waterboards.ca.gov)

# **ENCLOSURE 5.2.D**

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## Public Health Environmental Health Services

**Trudy Raymundo**  
Director

**Corwin Porter, MPH, REHS**  
Assistant Director

**Maxwell Ohikhuare, M.D.**  
Health Officer

**Josh Dugas, REHS**  
Division Chief

September 9, 2016

Mike Plaziak, P.G.  
Supervising Engineering Geologist  
Lahontan Regional Water Quality Control Board  
14440 Civic Drive, Suite 200  
Victorville, CA 92392

### Response to Regional Water Board Comment Letter

The County of San Bernardino appreciates the opportunity to work with the State Water Board and its Regional Boards to protect our valuable water resources and to provide our residents and visitors with clean water that is protected from degradation by septic systems. On June 24, 2016, the County received from the Lahontan Regional Water Quality Control Board (Regional Water Board) comments on the Local Agency Management Program (LAMP) that the County submitted to the Regional Board on October 30, 2015. We are pleased to announce that the majority of requested changes can and will be accommodated by the County. Some of the recommendations from the Regional Water Board can be accommodated using a strategy that is different from that suggested by the Regional Water Board. Other recommendations cannot be accommodated due to one or more of the following reasons:

- The requested change is not required by Onsite Wastewater Treatment Systems (OWTS) Policy;
- The requested change is not feasible;
- The requested change is cost prohibitive.

Following are the recommendations that cannot be accommodated:

- Water Quality Assessment Program (WQAP) (Page 1, section A) - The County WQAP proposal meets OWTS policy requirement 9.3.2.
- Sewering High Density OWTS Areas (Page 3, section C, paragraph 3) - The County agrees that when the Regional Water Board determines that ground water is being substantially impacted by high density OWTS, municipal sewage collection should be sought. The County does not have the authority, nor the operating or financing mechanisms, to require this activity. Such activities would require further discussions with the Regional Water Boards and involved parties.
- LAMP scope of coverage and site assessment (Enclosure 1, item 16) – The County's current process for conducting inspections during construction meets OWTS policy standard 9.2.6. We will continue to ensure systems are properly designed and have adequate capacity as part of our plan review, inspection and approval process.

#### BOARD OF SUPERVISORS

ROBERT A. LOVINGOOD  
Vice Chairman, First District

JANICE RUTHERFORD  
Second District

JAMES RAMOS  
Chairman, Third District

CURT HAGMAN  
Fourth District

JOSIE GONZALES  
Fifth District

GREGORY C. DEVEREAUX  
Chief Executive Officer

- Areas of Special Concern and Designated Maintenance Areas (Enclosure 3, page 2, item 5) - Authority to designate Areas of Special Concern should remain solely with the Regional Water Boards Executive Officer. Fifty percent (50%) nitrogen reduction is adequate for OWTS's in Areas of Special Concern according to State OWTS policy 10.9.1.

The following are recommendations that can be accommodated in a manner differing from what was requested by the Regional Water Board:

- LAMP Standards Applicability, Requirements and Exceptions (Enclosure 1, item 10) - As an alternative to accepting national OWTS educational certification or creating a local program for service providers, the County will require annual certification from an approved third party for service providers.
- Annual Reporting and existing OWTS inventory (Enclosure 2, item 4) – Historical GPS data on existing septic system location is not available. The County will begin documenting GPS coordinates of OWTS's as new septic systems are approved, repairs are made or complaints are investigated. This information will be mapped and reported annually.
- Identifying Unauthorized Systems (Page 3, section E) - The County will actively search for unauthorized and failing systems during the course of routine field inspections and investigations. The County does not intend to initiate a grease trap interceptor program.

We look forward to continued partnership with Regional Water Boards in the development and implementation of the San Bernardino County LAMP. Please feel free to schedule a meeting if further discussion is needed.

Thank you,



Jason Phillippe, REHS

# **ENCLOSURE 5.3**

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**TO:** Eric Rapport  
Senior Engineer Geologist  
[Eric.Rapport@waterboards.ca.gov](mailto:Eric.Rapport@waterboards.ca.gov)  
**California Regional Water Quality Control Board, Central Valley Region**

  
**FROM:** Robert Tucker  
Water Resource Control Engineer  
[Robert.Tucker@waterboards.ca.gov](mailto:Robert.Tucker@waterboards.ca.gov)  
**California Regional Water Quality Control Board, Lahontan Region**

**DATE:** May 10, 2016

**SUBJECT: Comments on the El Dorado County Local Agency Management Plan (LAMP)**

We appreciate the opportunity to comment on the El Dorado County LAMP for onsite waste treatment systems (OWTS). Our comments are limited because we are not aware of any portions of El Dorado County within the Lahontan region where the discharge of treated wastewater from OWTS is legally allowed. Basically, OWTS discharges in most - if not all - of El Dorado County that is within the Lahontan Region are restricted by the California Water Code to provide for protection of Lake Tahoe water quality. Here are our comments/questions on the LAMP:

1. A map of El Dorado County would be helpful to understand if any portion of the county is within the Lahontan Region, but not within the Lake Tahoe watershed. Please consider providing a map of the County.
2. In reviewing the LAMP we did not see information on minimum parcel size regarding the siting criteria for OWTS, but in section 5.3.1.2 the LAMP appears to be very strict requiring 5 acres for an OWTS without a public water system available. The cited section appears to be a requirement for new subdivisions. Is that correct? Is there a minimum parcel size siting criterion for new OWTS on existing lots?
3. In the introduction of the LAMP on page 9, under "Reporting to RWQCB," number 3 states the following:  
  
"The number, location and description of permits issued for OWTS where a variance from the approved LAMP was granted."

We did not find the procedures for a variance in the LAMP. It is understandable that variances may need to occur; however, there needs to be a description of the procedure in the LAMP. We suggest Lake Tahoe basin should be singled out as an area where no variance for OWTS will be allowed. A variance for a holding tank within the Lake Tahoe watershed basin could be acceptable (no discharge). A variance for an OWTS with a discharge within the Lake Tahoe watershed basin would be an illegal variance from the California Water Code Sections 13951-13952.2. The LAMP must describe the procedures for allowing a variance.

Please contact me at (530) 542-5467 ([robert.tucker@waterboard.ca.gov](mailto:robert.tucker@waterboard.ca.gov)) if you have any questions.

cc (via email):        Scott Armstrong, Senior Engineering Geologist, SWQCB, Region 5  
                             Lixin Fu, Water Resource Control Engineer, SWQCB, Region 5

RTT/ma/T: Comments on El Dorado LAMP  
File Under: ECM/General/Counties/El Dorado/Septic Systems

# **ENCLOSURE 5.4**

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From: Rapport, Eric@Waterboards  
Sent: Friday, July 22, 2016 8:09 AM  
To: warrenfarnam@co.modoc.ca.us  
Cc: Tucker, Robert@Waterboards; Smith, Bryan@Waterboards  
Subject: Informal Questions, Modoc Co LAMP

Warren;

My counterpart in Region 6 is out of the office. In the interim, I have some informal questions and comments:

1. Standard areas in Modoc for OWTS with projected sewage flow of 450 gpd are 1 acre with a private well, ½ acre with piped water. Does Modoc County EHD either adjust area, or require supplemental treatments for higher projected flows?
2. Monitoring and Identification of High Risk Areas, page 49, has a typo; should read...."in Modoc County is planned to be developed by year five when the State Water Board renews the waiver. ..."
3. Please further clarify Modoc County EHD's variance procedures, for example in cases where a new or replacement OWTS does not meet minimum standards in OWTS Policy Section 9.4, or local codes.

I would certainly appreciate your comments by 8/4/2016.

Thanks,

Eric

Eric J. Rapport, C.HG., C.E.G.  
Senior Engineering Geologist (Specialist)  
Onsite Wastewater Treatment System Policy  
Central Valley Regional Water Quality Control Board  
364 Knollcrest Drive, Suite 205  
Redding, CA 96002  
(530) 224-4998 direct  
(530) 224-4845 main  
(530) 224-4857 FAX

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# **ENCLOSURE 6**

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# Agenda Item No. 10 Onsite Wastewater Treatment System Policy Implementation

Mike Coony, P.E  
Water Resources Control Engineer  
Lahontan Regional Water Quality Control Board  
September 15, 2016



## Outline

- **OWTS Policy overview**
  - Septic system description and locations; policy purpose, tiers, responsibilities, implementation
- **LAMP topics**
  - Implementation timeline, Density, Water Quality Assessment Program, and Supplemental Treatment Systems (STS)
- **LAMP Issues**
- **Discussion**
  - Opportunity for Water Board input

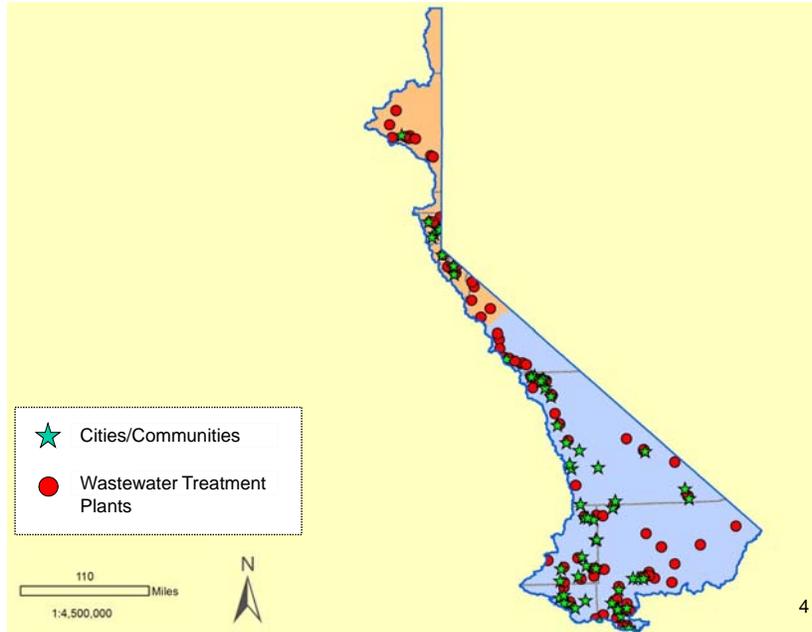
# Summary of LAMP Issues

- Density
- Water Quality Assessment Programs
- Supplemental Treatment Systems (STS)
- Local agency funding



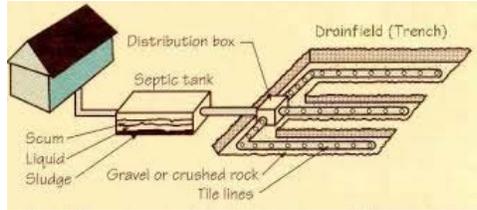
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Lahontan Areas Served with a Wastewater Treatment Plant



4

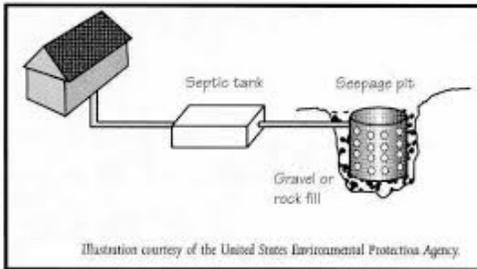
### Conventional Onsite Wastewater Treatment System



Schematic of a Leach Line



Prefabricated leach chamber



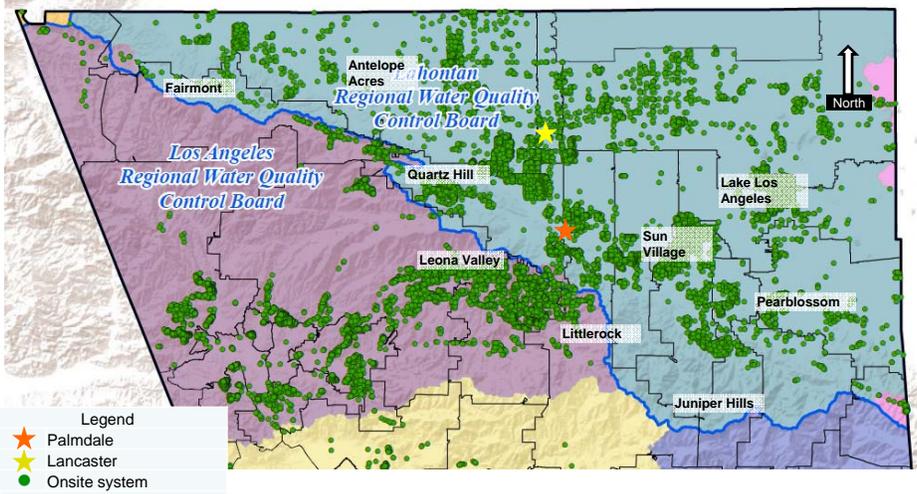
Schematic of a Seepage Pit (Dry Well)



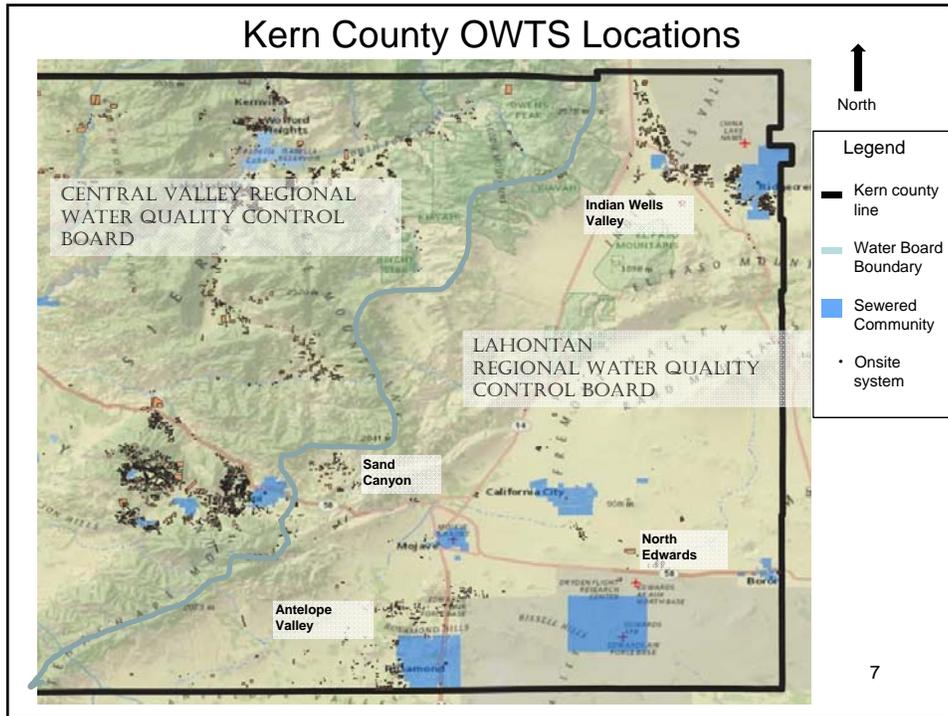
Fabricated in-place pit

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### North Los Angeles County OWTS Locations



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## OWTS Policy Purpose

- Allows continued use of OWTS
- Establishes risk-based, 5-tiered approach
- Recognizes local agencies provide the most effective means to manage OWTS
- Conditionally waives the requirement for OWTS owners to obtain Waste Discharge Requirements (WDRs)
- Replaces Basin Plan Septic System Criteria



## Tier Overview

TIER	OWTS DESCRIPTION
0	Existing OWTS
1	New or replacement OWTS that meet Policy requirements
2	New or replacement OWTS that comply with a Local Agency Management Program
3	Existing, new, or replacement OWTS that are located near impaired water bodies (none yet in Region 6)
4	Any OWTS requiring corrective action

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## OWTS Policy Responsibilities

- OWTS Owners
  - Comply with OWTS Policy and local agency requirements
  - Treat only domestic wastewater
  - Submit a Report of Waste Discharge if:
    - Flow rate exceeds 10,000 gallons/day
    - Does not comply with local agency program
    - Receives high strength wastewater (> BOD 900 mg/L)
    - Receives commercial food wastewater and does not have a oil/grease interceptor

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## OWTS Policy Responsibilities (continued)

- Local Agencies
  - Submit a LAMP by **May 13, 2016**, or select Tier 1
  - If under a LAMP ...
    - Submit OWTS permit data annually
    - Maintain records
    - Implement a Water Quality Assessment Program (WQAP)
- Regional Water Boards
  - Amend Basin Plan (done)
  - Review and approve LAMPs (in progress)

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## Implementation Timeline

Initial five-year period



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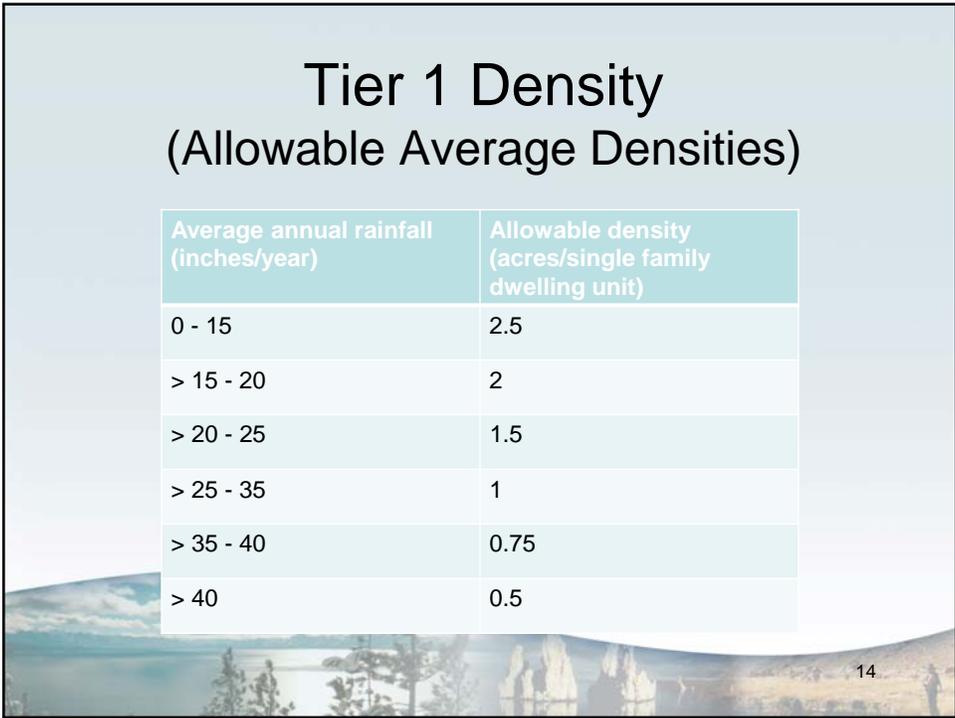
## Tier 1 – Low Risk New or Replacement OWTS

- Minimum site evaluation and siting standards
  - Soils and percolation tests
  - Depth to groundwater
  - Setbacks
  - Density as a function of annual precipitation
- Minimum OWTS design and construction standards



## Tier 1 Density (Allowable Average Densities)

Average annual rainfall (inches/year)	Allowable density (acres/single family dwelling unit)
0 - 15	2.5
> 15 - 20	2
> 20 - 25	1.5
> 25 - 35	1
> 35 - 40	0.75
> 40	0.5



## Tier 2 – LAMPS

- Tier 2 takes effect when Water Board approves local agency's LAMP
- Maximum flow limit is 10,000 gallons/day
- LAMP allows an alternative method to achieve OWTS Policy objectives
  - May be more or less stringent than Tier 1
  - Requires Water Quality Assessment Program (WQAP)



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## Proposed LAMP densities

- Lahontan's Basin Plan Criteria – ½ acre minimum lot size per EDU
- Variable densities depending on site conditions
- Tier 1 densities for new subdivisions allowing vacant lots in existing subdivisions to install OWTS



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## Proposed Water Quality Assessment Programs

- Details of program identified in future
- Rely on data collected by others
- Rely on inspection and performance monitoring
- Interpretative approach undefined



## High Risk Areas (STS may be needed)

- Potential surface water impairment
  - Mountain areas, shallow soil over granite
- Potential groundwater impairment (high density)
  - Along the Mojave River
    - Hesperia, Apple Valley, San Bernardino County
  - Lower slopes of the San Gabriel Mountains
    - Wrightwood
    - Little Rock, Pearblossom, Quartz Hill, Lake Los Angeles
- Shallow groundwater
  - Woodfords, Alpine County



## Why density matters?

- Hantzsche and Finnemore (1992) found that 2½ acres or more is needed to protect groundwater in arid areas.
- Izbicki (USGS) et al (2015) performed model simulation for 1 EDU per ¼ acre where water table is 500 ft beneath ground surface
  - For a single house, groundwater impacts estimated in 100 years
  - For a tract with 16 houses, impacts occur in 50 years



## Summary of LAMP Issues

- Density – risk of WQ degradation; no findings to ensure WQ protection
- Water Quality Assessment Programs – limited or non-existent
- Supplemental Treatment Systems (STS) – LAMPs lack information on how operations will be tracked to ensure effectiveness
- Local agency funding – lacking; limits ability to implement LAMPs



## Density Strategies in LAMPs

- Support Tier 1 densities for new subdivisions for most areas
- Require findings on how proposed density is as protective as Tier 1
- Consider increased monitoring where high risk of impairment and/or in areas where higher densities are proposed



## Water Quality Assessment Program (WQAP)

- Focus on high risk areas
- Consider all data sources
  - Monitoring wells (new and existing)
  - Existing groundwater supply well data
  - Surface water monitoring
  - Other existing data sources
- Collaborate with local agencies and stakeholders on WQAP effectiveness



## Supplemental Treatment Systems (STS)

- Local Agency needs to ensure ongoing compliance by periodic monitoring and inspections
- Encourage Local Agencies to develop operating permit program
- At least one agency proposes to refer new STS to Water Board for WDR issuance

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## Local Agency Funding

- Support increased funding to implement LAMP
- Additional technical expertise needed to implement WQAP and oversee STS performance

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## Discussion

Does Water Board support strategies presented to improve LAMPs ? Other ideas or input?

- Density – Tier 1 preference; higher density areas require increased monitoring
- WQAP – Monitoring in high risk areas rather than jurisdiction-wide
- STS – Support inspection and effluent monitoring in a local agency regulatory program
- Funding - Need to require funding plan that meets LAMP needs

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## Next Steps

- Review draft LAMPs; prepare comments
- Meet with local agencies to resolve issues and support effective LAMPs
- For LAMPs where Region 6 is lead; bring agenda items for Board consideration

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## Abbreviations

Item	Description
BOD	Biochemical Oxygen Demand
DDW	Division of Drinking Water
EDU	Equivalent dwelling unit
ft	feet
gal	gallons
GAMA	Groundwater Ambient Monitoring and Assessment
Geo-tracker	State Water Board data system for selected groundwater monitoring data
LAMP	Local Agency Management Plan

Item	Description
OWTS	Onsite Wastewater Treatment System
RWD	Report of Waste Discharge
SNMP	Salt and Nutrient Management Plan
sq ft	square feet or square foot
STS	Supplemental Treatment System
TMDL	Total Maximum Daily Load
WDR	Waste Discharge Requirement
WC	(California) Water Code
WQAP	Water Quality Assessment Program

