

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

December 12, 2012 Item No. 6 Supporting Document No. 1
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**TENTATIVE ORDER NO. R9-2012-0056**

**WASTE DISCHARGE REQUIREMENTS FOR  
LEUTHE RESIDENCE ONSITE WASTEWATER TREATMENT  
SYSTEM, ESCONDIDO, SAN DIEGO COUNTY**

The Discharger, as described in the following table is subject to waste discharge requirements as set forth in this Order:

**Table 1. Discharger Information**

<b>Discharger</b>	Mr. Bill Leuthe
<b>Name of Facility</b>	Leuthe Residence Onsite Wastewater Treatment System
<b>Facility Address</b>	Camino Elena Road
	Escondido, CA 92026
	San Diego County
<b>Facility Contact, Title, and Phone</b>	Mr. Bill Leuthe, Property owner, 760-622-8764
<b>Mailing Address</b>	753 Via Bahia, San Marcos, CA 92069
<b>Type of Facility</b>	Residential Property with Onsite Wastewater Treatment System/Advanced Treatment Unit
<b>Facility Design Flow</b>	600 gallons per day

The discharge by Mr. Bill Leuthe from the discharge point identified in Table 2 below is subject to waste discharge requirements as set forth in this Order.

**Table 2. Discharge Location**

<b>Discharge Point</b>	<b>Effluent Description</b>	<b>Facility Latitude</b>	<b>Facility Longitude</b>	<b>Hydrologic Subarea (HSA) of Discharge</b>
DP 001 (Subsurface Disposal Field)	Secondary treated domestic wastewater	33° 12' 19" N	-117° 07' 25"W	Moosa HSA (903.13)

**Table 3. Effective Date**

This Order was adopted by the California Regional Water Quality Control Board, San Diego Region and is effective on:	December 12, 2012
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I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on December 12, 2012.

**TENTATIVE**

Executive Officer **David W. Gibson**

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## I. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (hereinafter San Diego Water Board), finds:

- A. Background.** On April 4, 2012, Mr. Bill Leuthe (hereinafter Discharger) submitted a Report of Waste Discharge (ROWD) to the San Diego Water Board for the treatment and subsurface disposal of domestic wastewater from a proposed 4-bedroom residence to be located in Escondido, San Diego County. The San Diego Water Board notified the Discharger by letter dated, June 4, 2012, that the ROWD was complete.
- B. Facility Description.** A 4-bedroom single family residence is to be built on a 2.5 acre property located on Camino Elena Road, Escondido, San Diego County in the Moosa Hydrologic Subarea (HSA 903.13) of the Lower San Luis Hydrologic Area (HA 903.10).
- C. Treatment and Disposal System Description.** The Discharger proposes to install an Onsite Wastewater Treatment System/Advanced Treatment Unit (OWTS/ATU) with a subsurface drip irrigation system for treatment and disposal of domestic wastewater from the residence. The proposed OWTS/ATU will consist of a 1,500-gallon primary concrete tank with an Advantex AX20N filter unit, and a 1,000-gallon concrete pump basin. The OWTS will be designed for an average daily flow of 600 gallons per day. The proposed OWTS is designed to meet or exceed the American National Standards Institute/National Science Foundation Standard 40 for a flow of 600 gallons per day. The OWTS/ATU will utilize a subsurface drip irrigation system for wastewater disposal. Subsurface drip irrigation systems apply wastewater at the root zone of the soil allowing for maximum uptake of nitrogen in the wastewater by vegetation in the disposal area. Further removal of organic chemicals and bacteria also occurs as wastewater percolates into the soil in the disposal area.
- D. Need for Advanced Onsite Treatment System.** The property is not located with reasonable proximity to the sanitary sewer system, therefore onsite treatment of wastewater is necessary for the project. The site characteristics are not suitable for use of a conventional leach field. As a result, a subsurface drip irrigation system will be utilized for disposal of effluent produced from the OWTS/ATU.
- E. Domestic Wastewater Constituents.** Domestic wastewater typically contains high concentrations of total dissolved solids, chlorides, phosphates, total nitrogen, and pathogens. Although concentrations of most constituents can be reduced to acceptable levels under optimal system operational and performance conditions, some remain elevated in the effluent exiting the system.
- F. Management.** Effective management of the OWTS/ATU is essential to ensure protection of water quality and public health. Monitoring with remote sensing electronic devices and periodic site inspections by a qualified service provider will provide management direction to the property owner on system operation and maintenance.

- G. Service Provider.** Activities to be performed by the service provider include, but are not limited to, performing routine inspections of the OWTS/ATU and the disposal system; responding to alarms and performing telemetric monitoring of the OWTS/ATU; collecting influent and/or effluent samples from the OWTS/ATU; performing maintenance of the OWTS/ATU; and replacing faulty equipment.
- H. Classification of Discharge.** In accordance with the criteria established in section 2200, Title 23 of the California Code of Regulations (CCR), the wastewater discharged from the treatment system is appropriately classified as having a threat to water quality at level 3 and complexity at level B.
- I. Legal Authority.** This Order serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with section 13260).
- J. Background and Rationale for Requirements.** The San Diego Water Board developed the requirements in this Order based on information submitted as part of the ROWD and other available information. The Information Sheet (Attachment C), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order.
- K. Water Quality-Based Discharge Specifications.** Section 13263 of the Water Code requires that waste discharge requirements implement the water quality control plans that have been adopted, taking into consideration the beneficial uses to be protected and the water quality objectives reasonably required for that purpose.
- L. Water Quality Control Plans.** The *Water Quality Control Plan for the San Diego Basin* (hereinafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The proposed OWTS/ATU and the 4-bedroom residence will be located within the Moosa hydrologic subarea (HSA) 903.13 of the Lower San Luis Rey hydrologic area (HA) 903.10. Beneficial uses applicable to the Moosa HSA are municipal and domestic supply, agricultural supply, and industrial service supply. Discharges from the OWTS/ATU could affect the quality of groundwater and surface water impairing these beneficial uses.
- M. Water Quality Objectives.** The Basin Plan establishes the following groundwater quality objectives for the Moosa HSA (903.13):

**Table 4. Water Quality Objectives for Groundwater**

HYDROLOGIC SUB AREA	CONSTITUENT (mg/L or as noted)												
	(Concentrations not to be exceeded more than 10% of the time during any one year period)												
	TDS	Cl	SO <sub>4</sub>	%N <sub>a</sub>	NO <sub>3</sub> <sup>-</sup>	Fe	Mn	MBAS	B	ODOR	TURB (NTU)	COLOR (UNITS)	F
Moosa 903.13	1,200	300	400	60	10	0.3	0.05	0.5	0.75	none	5	15	1.0

Notes: TDS = Total Dissolved Solids; Cl = Chloride; SO<sub>4</sub> = Sulfate; %Na = Percent Sodium; NO<sub>3</sub> = Nitrate; Fe = Iron; Mn = Manganese; MBAS = Methylene Blue Activated Substances; B = Boron; Turb = Turbidity (NTU = Nephelometric Turbidity Units); F = Fluoride.

The requirements of this Order implement the Basin Plan by prescribing waste discharge requirements that will ensure groundwater quality supports the beneficial uses.

- N. Antidegradation Policy.** The State Water Board established California’s antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The San Diego Water Board’s Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in the Information Sheet, the discharge described in this Order is consistent with State Water Board Resolution No. 68-16.
- O. Monitoring and Reporting.** Water Code sections 13267 authorizes the San Diego Water Board to require technical and monitoring reports. Monitoring and Reporting Program No. R9-2012-0056 establishes monitoring and reporting requirements to ensure that the effluent quality complies with the requirements of the Order, and that the OWTS/ATU is properly maintained.
- P. Standard and Special Provisions.** Standard Provisions apply to all WDRs. The Standard Provisions in this Order ensure the facility is designed and operated for the protection of human health, that records are maintained, and that changes are reported. The Special Provisions in this Order ensure that the onsite treatment and disposal system are properly designed, operated, monitored, and maintained.
- Q. California Environmental Quality Act.** The San Diego Water Board adopted a Mitigated Negative Declaration on December 12, 2012 in accordance with the California Environmental Quality Act (Public Resources Code, section 21000 et seq.) for the

discharge of waste from the proposed OWTS/ATU.<sup>1</sup> This mitigated negative declaration identified that the project will not have a significant effect on the environment.

- R. Notification of Interested Persons.** The San Diego Water Board has notified the Discharger and interested persons of its intent to prescribe WDRs for the proposed discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Information Sheet of this Order.
- S. Executive Officer Delegation of Authority.** The San Diego Water Board by prior resolution has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to Water Code section 13223. Therefore, the Executive Officer is authorized to act on the San Diego Water Board's behalf on any matter within this Order unless such delegation is unlawful under Water Code section 13223 or this Order explicitly states otherwise.
- T. Consideration of Public Comment.** The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**THEREFORE, IT IS HEREBY ORDERED**, that the Discharger, in order to meet the provisions contained in Division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder shall comply with the following requirements in this Order:

## II. DISCHARGE PROHIBITIONS

- A. Discharges of waste or sewage sludge or solids to lands which have not been specifically described in the ROWD or this Order, and for which valid waste discharge requirements are not in force are prohibited.
- B. Discharges of treated or untreated solid or liquid waste to a navigable water or tributary of a navigable water are prohibited unless as authorized by an National Pollutant Discharge Elimination System permit issued by the San Diego Water Board.
- C. Discharges of treated or untreated solid or liquid waste directly or indirectly to any surface waters of the State (including ephemeral streams and vernal pools) are prohibited.
- D. The treatment, storage, or disposal of waste in a manner that creates a pollution, contamination or nuisance, as defined by Water Code section 13050, is prohibited.

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<sup>1</sup> Resolution No. R9-2012-0057, Adoption of a Mitigated Negative Declaration Regarding Potential Environmental Impacts For the Leuthe Residence Onsite Wastewater Treatment System, Escondido, San Diego County

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- E. The discharge of wastewater shall not cause a violation of the waste discharge prohibitions contained in the Basin Plan.
- F. Discharges of waste other than domestic wastewater to the OWTS/ATU or disposal system are prohibited.
- G. Surfacing or ponding of wastewater from the OWTS/ATU and the disposal system are prohibited.
- H. The discharge of materials in concentrations that are deleterious and inhibiting to OWTS/ATU operations is prohibited. Deleterious and inhibiting materials include biocides, and all products and matters defined in Chapter 41, Division 4.5, Title 22 of the California Code of Regulations.
- I. The discharge of regenerating saline backwash from water softeners to the OWTS/ATU or disposal system is prohibited.

### III. DISCHARGE SPECIFICATIONS

- A. The monthly average effluent flow rate from the OWTS/ATU shall not exceed 600 gallons per day.
- B. The discharge of an effluent containing pollutants in excess of the following discharge specifications is prohibited:

**Table 5: Discharge Specifications**

Constituent	UNITS (milligrams per Liter (mg/L) or as noted)	Monthly Average <sup>1</sup>	Daily Maximum <sup>2</sup>
Biological Oxygen Demand (BOD, 5 day @ 20 degrees celsius)	mg/L	30	45
Total Suspended Solids (TSS)	mg/L	30	45
pH	pH units	within the limits of 6.0-9.0 at all times	

<sup>1</sup>The monthly average discharge specification shall apply to the arithmetic mean of the results of all samples collected during each calendar month.

<sup>2</sup>The daily maximum discharge specification shall apply to the results of a single composite or grab sample representing non-overlapping 24-hour periods.

- C. The percent removal of total nitrogen from the influent shall not be less than fifty percent when comparing influent and effluent samples collected on the same day.

#### IV. PROVISIONS

##### A. Standard Provisions

The Discharger shall comply with all following Standard Provisions:

1. The San Diego Water Board may initiate enforcement action against the Discharger, which may result in the termination of the discharge, if any person uses, transports, or stores such waste in a manner which creates, or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050.
2. The Discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the Water Code and is grounds for (a) enforcement action; (b) termination, revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised WDRs.
3. The Discharger shall allow the San Diego Water Board, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to do the following:
  - a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this Order.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order.
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this Order.
  - d. Sample or monitor, at reasonable times for the purposes of assuring compliance with this Order or as otherwise authorized by the Water Code, any substances or parameters at any location.
4. The Water Code provides that any person who intentionally or negligently discharges waste in violation of any Order issued, reissued, or amended by the San Diego Water Board shall be liable civilly in accordance with Water Code section 13350.
5. The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and is subject to a civil liability in accordance with Water Code section 13268.



6. The Discharger shall report any noncompliance that may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Any discharge of treated or untreated wastewater resulting from sewer line breaks or pump failures, or surfacing wastewater in the disposal area must be reported to the San Diego Water Board within 24 hours.
7. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
8. Upon reduction, loss, or failure of the treatment facility, the Discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies for example, when the primary source of power of the treatment facility has failed, is reduced, or is lost.
9. A copy of this Order shall be maintained at the facility and shall be available to operating personnel at all times.
10. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. Records may be maintained electronically. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the San Diego Water Board.
11. The Discharger shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the San Diego Water Board, upon request, copies of records required to be kept by this Order.
12. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

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- a. Violation of any terms or conditions of this Order.
- b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts.
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the Discharger for the modification, revocation, reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

13. The Discharger shall file a new Report of Waste Discharge at least 120 days prior to the following:
  - a. Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the wastes.
  - b. Significant change in the treatment or disposal method (e.g., change in the method of treatment which would significantly alter the nature of the waste).
  - c. Change in the disposal area from that described in the findings of this Order.
  - d. Increase in flow rate beyond that specified in this Order.
  - e. Other circumstances that result in a material change in character, amount, or location of the waste discharge.
  - f. Any planned change in the regulated facility or activity which may result in noncompliance with this Order.
14. This Order is not transferable to any person except after notice to the San Diego Water Board. The Discharger shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current Discharger and the new discharger. This agreement shall include an acknowledgement that the existing Discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. The San Diego Water Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the Water Code.
15. Where the Discharger becomes aware that he failed to submit any relevant facts in a ROWD or submitted incorrect information in a ROWD or

in any report to the San Diego Water Board, he shall promptly submit such facts or information.

16. All applications (including ROWDs), reports, or information submitted to the San Diego Water Board shall be signed as follows:
  - a. Applications (including ROWDs) shall be signed by the Discharger or by the Legally Responsible Official of the Discharger.
  - b. All other reports required by this Order and other information required by the San Diego Water Board shall be signed by the Legally Responsible Official or a duly authorized representative of the Discharger. An individual is a duly authorized representative only if all of the following are true:
    - i. The authorization is made in writing by the Legally Responsible Official.
    - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the facility.
    - iii. The written authorization is submitted to the San Diego Water Board.
  - b. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

## **B. Monitoring and Reporting Program Requirements**

The Discharger shall comply with Monitoring and Reporting Program No. R9-2012-0056 and future revisions thereto.

## **C. Special Provisions**

### **1. Treatment and Disposal System Design and Operation Specifications**

- a. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This

provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

- b. The OWTS/ATU and the disposal system must be designed, maintained, and operated to comply with any requirements, regulations or standards specified by the County of San Diego Department of Environmental Health (County DEH). The design and operation of the OWTS/ATU and the disposal system shall be consistent with the criteria identified in Section IV.C.1.c of this Order, unless the County DEH determines that alternative criteria for a specific project provide equivalent or better protection of public health and the environment.
- c. Prior to installation of the OWTS/ATU and the disposal system, a design plan shall be submitted to the San Diego Water Board. The design plan shall be certified and signed by a professional civil engineer, licensed pursuant to California law. At a minimum, the design plan shall include but not be limited to the following measures, unless alternative measures are prepared that provide equivalent water quality protection:
  - i. The OWTS/ATU must be certified by the National Science Foundation as a Class 1 treatment unit pursuant to the American National Standards Institute/National Science Foundation (ANSI/NSF) Standard 40.
  - ii. The OWTS/ATU and the disposal system shall be designed to disperse effluent to subsurface soils in a manner that maximizes unsaturated zone treatment and aerobic decomposition of soluble and particulate organic compounds and other pollutants in the effluent. In addition, to ensure wastewater is applied on the disposal area at agronomic rates, the disposal area must be a minimum of 6,430 square feet (ft<sup>2</sup>), and must be covered with vegetation to allow for uptake of nutrients from wastewater applied.
  - iii. The OWTS/ATU shall be equipped with a visual or audible alarm as well as a two way telemetric alarm that alerts the owner and service provider in the event of system malfunction. This requirement for equipping the OWTS/ATU with a telemetric alarm shall only be waived if the property owner demonstrates to the satisfaction of the County DEH that a telemetric alarm is impracticable.
  - iv. The OWTS/ATU and the disposal system shall be protected against 100-year peak stream flows as defined by the County of San Diego Flood Control Agency.
  - v. The OWTS/ATU and disposal system shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm.

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- vi. The disposal system shall be designed and maintained to reduce orifice clogging and root intrusion.
- vii. The disposal system shall be designed, located, and maintained to prevent a vehicle from being driven over it.
- viii. The disposal system shall be flushed once every three months for the first year or until vegetation is established (whichever occurs first). Flushing shall occur every six months thereafter.
- ix. Sufficient land area shall be reserved for possible future 100 percent replacement of the disposal area.
- x. The disposal area shall be designed to extend one foot beyond the sides of the outermost emitter lines.
- xi. Subsurface drip disposal systems are pressure distribution systems. Head loss calculations shall be provided to ensure proper hydraulic pressure at the emitter.
- xii. Drip irrigation systems shall be time-dosed over the 24-hour period. Demand control dosing shall override timed-dosing in periods of flow where timed dosing cannot accommodate the excessive flow.
- xiii. Emitter lines shall be designed as a continuous loop circuit with no dead-ends and be drawn to scale with emitter spacing indicated on the drawings.
- xiv. Vacuum release valves shall be installed at the highpoint of the emitter lines.
- xv. The maximum emitter longitudinal spacing on an emitter line shall be 2 feet. The maximum spacing between adjacent emitter lines in an absorption bed configuration shall be 2 feet. The emitter orifice must be at least 24 inches from the seasonal high water table.
- xvi. The setback from drip emitter lines to building foundations and property lines shall be no less than 2 feet.
- xvii. The horizontal distance between pressure water mains and any part of the OWTS/ATU or disposal system shall not be less than 10 feet.
- xviii. The elevation of any fill covering the disposal area shall extend no less than 18 inches away from all emitter lines before tapering down to natural grade. Minimum cover on the emitter lines shall be 6 inches for all drip

irrigation systems. The maximum cover shall be no greater than 12 inches.

- xix. The system shall include a petcock on the dosing pump discharge line for effluent sampling.
- xx. Drip irrigation systems shall be designed to have a minimum operating pressure at the emitter head of 10 pounds per square inch (psi), a maximum operating pressure at the emitter head of 45 psi, a maximum system operation pressure of 60 psi, and a maximum discharge rate per emitter of 1.5 gallons per hour.
- xxi. No part of the disposal system shall be closer than 100 feet to any water supply well, stream, channel, or other water source.
- xxii. All systems shall incorporate an automatic mechanism for backwashing or flushing the drip lines and filters.

## 2. Certification Report

The professional civil engineer who designed the onsite wastewater treatment and disposal systems, or the civil engineer's designee, shall observe the entire installation and shall certify in writing that the installed system complies with the certified design plan. The professional civil engineer shall affix their signature, engineering license number, and certification statement to the certification report. The certification statement shall read:

"I certify that the engineering features of the onsite wastewater treatment and disposal systems have been examined by me and found to substantially comply with all specifications contained in the design plan that was the basis for issuance of the waste discharge requirements. I certify that the operation and maintenance manual for this OWTS and disposal system have been prepared or examined by me or by an individual(s) under my direct supervision and that there is reasonable assurance, in my professional judgment that the system, when properly operated and maintained in accordance with the operation and maintenance manual, will achieve the established performance standards and comply with all applicable statutory requirements and rules of the State of California."

The discharge shall not commence until such time that the following tasks are completed:

- a. The certification report is received by the San Diego Water Board.
- b. The exposed OWTS and drip irrigation system have been inspected by the San Diego Water Board or its designee prior to being buried.

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- c. The San Diego Water Board notifies the Discharger by letter that the discharge may be initiated.

### **3. Operation and Maintenance Manual**

A copy of the facility operation and maintenance (O & M) manual shall be maintained at the site and shall be available to operation personnel and San Diego Water Board staff at all times. The O & M manual shall include, at a minimum:

- a. The name, address, telephone number, and business and professional license number of the OWTS/ATU designer.
- b. The name, address, telephone number, and business and professional license number, where applicable, of the OWTS/ATU installer.
- c. The name, address, and telephone number of the service provider that maintains the OWTS/ATU.
- d. Instructions for proper operation and maintenance and a protocol for assessing performance of the OWTS/ATU.
- e. The design flow and performance requirements for the OWTS/ATU.
- f. A list of types of substances that could inhibit performance if discharged to the OWTS/ATU.
- g. A list of substances that could cause a condition of pollution or nuisance if discharged to the OWTS/ATU, including but not limited to pharmaceutical drugs and water softener regeneration brines.

### **4. Service Provider**

The Discharger shall obtain and maintain a contract with a service provider to ensure proper operation, maintenance, and monitoring of the OWTS/ATU. Proper operation and maintenance includes effective performance, adequate funding, adequate training of service providers, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

### **5. Sale of Property**

Upon the sale of the Property, it is the obligation of the Discharger to provide the buyer, through escrow or otherwise, with a complete copy of this Order and the O&M manual for the OWTS/ATU.

## **6. Sewage Solids and Sludge Specifications**

- a. Solids and sludge storage shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination or pollution. All collected sludge and other solids pumped from the OWTS/ATU must be disposed of in a municipal solid waste landfill or disposed of in a sludge-only landfill in accordance with Code of Federal Regulations (CFR) Title 40 Parts 503 and 258, and California Code of Regulations (CCR) Title 27.
- b. Septic tanks shall be pumped when the combined thickness of sludge and scum exceeds one third of the septic tank depth as measured from the water line to the bottom of the tank.

## **7. Notifications**

- a. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Discharger from liability under federal, State, or local laws, nor create a vested right for the Discharger to continue the waste discharge.
- b. These requirements have not been officially reviewed by the United States Environmental Protection Agency and are not issued pursuant to Clean Water Act section 402.
- c. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
- d. This Order becomes effective on the date of adoption by the San Diego Water Board.





## **ATTACHMENT A – DEFINITIONS**

"Annually" means a calendar year.

"Design plan" means the report containing design specifications for the proposed OWTS/ATU and disposal system. The design plan must discuss the requirements listed in Section C.1.c.ii (Treatment and Disposal System Design and Operation Specifications) of this Order.

"Disposal system" means a subsurface drip irrigation system for the final wastewater treatment and subsurface discharge.

"Domestic wastewater" means the type of wastewater normally discharged from, or similar to, that discharged from plumbing fixtures.

"(Drip) emitter line" means the tubes that comprise the subsurface drip irrigation system and deliver treated domestic wastewater to the upper layer of the soil column.

"Onsite wastewater treatment system(s)" (OWTS) has the same meaning found in section 13290 of the Water Code. The short form of the term may be singular or plural.

"Ponding" means the accumulation of water on the surface of the ground.

"Property" means the location of the OWTS/ATU. Specifically, the approximately 2.5 acre property located on Camino Elena Road, Escondido, San Diego County.

"Qualified professional" means an individual licensed or certified by a State of California agency to design and construct the OWTS/ATU, including an individual who possesses a registered environmental health specialist certificate or is currently licensed as a professional engineer or professional geologist.

"Septic tank" means a watertight, covered receptacle designed for primary treatment of wastewater and constructed to:

1. Receive wastewater discharged from a building;
2. Separate settleable and floating solids from liquid;
3. Digest organic matter by anaerobic bacterial action;
4. Store digested solids; and
5. Clarify wastewater for further treatment with final subsurface discharge.

"Septic tank effluent" means wastewater discharged from a septic tank.

"Service provider" means a person capable of operating, monitoring, and maintaining an OWTS/ATU consistent with the requirements and responsibilities of this Order and the O&M manual.

"Sewage sludge or solids" means the solid portion of the wastewater that has settled out of the liquid and accumulates at the bottom of the septic tank.

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"Subsurface drip irrigation system" means a disposal system designed to apply wastewater at the upper layer of the soil column using pressure distribution.

"Surface flow" means the movement of wastewater that has surfaced and flows away from the disposal area.

"Treated domestic wastewater" means the wastewater that has undergone additional wastewater treatment for the purpose of distributing to a subsurface drip irrigation system.

"Quarterly" means once per three consecutive month period beginning with January, April, July, or October.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**TENTATIVE MONITORING AND REPORTING PROGRAM NO. R9-2012-0056**

**LEUTHE RESIDENCE ONSITE WASTEWATER TREATMENT SYSTEM  
ESCONDIDO, SAN DIEGO COUNTY**

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code Section 13267. The Water Code authorizes the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to ensure that the Discharger complies with Order No. R9-2012-0056

**I. GENERAL MONITORING PROVISIONS**

- A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this MRP and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. Monitoring points shall not be changed without notifying, and receiving approval from the San Diego Water Board for the proposed monitoring location change.
- B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge rates throughout the range of expected discharge volumes.
- C. Monitoring must be conducted according to United States Environmental Protection Agency (USEPA) test procedures approved under 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this MRP.
- D. Unless otherwise permitted by the San Diego Water Board, all analyses shall be conducted at a laboratory certified to perform such analyses by the California Department of Public Health (CDPH). The Discharger must use a laboratory capable of producing and providing quality assurance/quality control (QA/QC) records for San Diego Water Board review. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports submitted to the San Diego Water Board.

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- E. Any report presenting new analytical data is required to include the complete laboratory analytical report(s). The laboratory analytical report must be signed by the laboratory director and contain:
1. A complete sample analytical report
  2. A complete laboratory quality assurance/quality control (QA/QC) report.
  3. A discussion of the QA/QC data.
  4. A transmittal letter indicating whether or not all the analytical work was supervised by the director of the laboratory, and containing the following statement, "All analyses were conducted at a laboratory certified for such analyses by the CDPH in accordance with current USEPA procedures."
- F. Specific methods of analysis must be identified in the Discharger's monitoring reports. If the Discharger proposes to use methods or test procedures other than those included in the most current version of 40 CFR 136, "*Guidelines Establishing Test Procedures for the Analysis of Pollutants; Procedures for Detection and Quantification*", the exact methodology must be submitted for review and must be approved by the San Diego Water Board prior to use.
- G. If the Discharger monitors any pollutants more frequently than required by this MRP, using test procedures approved under 40 CFR, Part 136, or as specified in this MRP, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharger's monitoring report. The increased frequency of monitoring shall also be reported.
- H. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this MRP, and records of all data used to complete the application for this MRP. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when required by the San Diego Water Board. Records of monitoring information shall include the following:
1. The date, exact place, and time of sampling or measurements.
  2. The individual(s) who performed the sampling or measurements.
  3. The date(s) analyses were performed.
  4. The individual(s) who performed the analyses.
  5. The analytical techniques or methods used.

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6. The results of such analyses.
  - I. All monitoring instruments and devices that are used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
  - J. The Discharger shall report all instances of noncompliance with Order No. R9-2012-0056 in monitoring reports submitted to the San Diego Water Board.
  - K. The monitoring reports shall be signed by an authorized person as required by Section IV.A.16 (Standard Provisions) of Order No. R9-2012-0056.
  - L. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.
  - M. The Discharger shall identify all missing or non-valid monitoring or sampling results in monitoring reports submitted. All instances of missing or non-valid results must be accompanied by an explanation of their root cause and the steps the Discharger has or will take to prevent future instances. Missing or non-valid results may be considered violations of Order No. R9-2012-0056 that could result in enforcement action depending on the frequency of such instances and efforts by the Discharger to prevent such failures.

**II. INFLUENT MONITORING**

A sample of the influent entering the OWTS/ATU shall be collected and analyzed for total nitrogen in accordance with the criteria specified in Table B-1 below:

**Table B-1. Influent Monitoring<sup>1</sup>**

Constituent	Units	Sample Type	Sampling Frequency <sup>2,3</sup>	Reporting Frequency <sup>4</sup>
Total Nitrogen (as N)	mg/L	Grab <sup>5</sup>	Quarterly	Annually

<sup>1</sup>Influent and effluent samples shall be collected on the same day.

<sup>2</sup>Sampling shall be conducted quarterly during the first year the OWTS is in operation, and annually thereafter.

<sup>3</sup>Quarterly is defined as once per three consecutive month period beginning with January, April, July, or October.

<sup>4</sup>Annually is defined as once per calendar year.

<sup>5</sup>A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

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### III. EFFLUENT MONITORING

Samples of the final effluent shall be collected from the OWTS/ATU prior to discharge to the disposal system. The Discharger is responsible for monitoring and reporting in accordance with the following criteria:

**Table B-2. Effluent Monitoring<sup>1</sup>**

Constituent	Units	Sample Type	Sampling Frequency <sup>2,3</sup>	Reporting Frequency <sup>4</sup>
Flow Rate	mgd	Continuous	Continuous	Annually
Biological Oxygen Demand (BOD, 5 day @ 20 degrees celsius)	mg/L	Grab <sup>5</sup>	Quarterly	Annually
Total Suspended Solids (TSS)	mg/L	Grab <sup>5</sup>	Quarterly	Annually
Total Dissolved Solids (TDS)	mg/L	Grab <sup>5</sup>	Quarterly	Annually
pH	pH Units	Grab <sup>5</sup>	Quarterly	Annually
Total Nitrogen (as N)	mg/L	Grab <sup>5</sup>	Quarterly	Annually

<sup>1</sup>Influent and effluent samples shall be collected on the same day.

<sup>2</sup>Sampling shall be conducted quarterly during the first year the OWTS is in operation, and annually thereafter.

<sup>3</sup>Quarterly is defined as once per three consecutive month period beginning with January, April, July, or October.

<sup>4</sup>Annually is defined as once per calendar year.

<sup>5</sup>A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

### IV. MAINTENANCE AND INSPECTION

- A. The Discharger or service provider shall inspect the septic tank annually and report the sludge depth and scum thickness (in feet) in each compartment annually.
- B. Visual inspections of the disposal system shall be conducted on a weekly basis for the first three months and on a monthly basis for the following nine months. After the first year, a visual inspection of the disposal system shall be conducted every six months.
- C. A record of inspections and maintenance activities shall be maintained by the Discharger for a minimum of five years. Records must include the date of the inspection and/or maintenance, and a summary of all observations or activities.

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## V. SEWAGE SOLIDS

A log of the type, quantity, location, and manner of disposal of solids removed in the course of sewage treatment shall be maintained at the facility and a report summarizing the data shall be submitted annually.

## VI. REPORTING REQUIREMENTS

- A. The Discharger shall submit an annual monitoring report containing the results of all monitoring specified in Sections II and III of this MRP. Annual monitoring reports must include the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the annual monitoring report.
- B. Laboratory reporting limits shall be lower than or equal to the discharge specifications. Constituents not detected below the method detection limit shall be reported as non-detect with the applicable value (e.g. ND<0.05 mg/L). Constituents detected between the laboratory reporting limit and method detection limit shall be reported as “estimated concentrations” or noted with appropriate laboratory flags.
- C. The annual monitoring report must be received by the San Diego Water Board no later than **5:00pm on January 30 each year**. The annual monitoring report must include the following:
  1. Influent and effluent analysis results arranged in tabular format. The data shall be summarized to clearly illustrate whether the OWTS/ATU is operating in compliance with discharge specifications.

A cover letter to the annual monitoring report. The information contained in the cover letter shall clearly identify violations of the Order; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation. A summary of all observations and activities completed for inspection and/or maintenance of the OWTS/ATU and the disposal system, including photographs of the wastewater disposal area to document compliance with Section IV. B (Maintenance and Inspection) of this MRP.

2. A log of alarm notifications (specifying the date and time of alarm notifications) sent from the telemetric alarm, and a description of corrections or repairs made in response to alarm notifications.
3. A log of the type, quantity, location and manner of disposal of solids removed in the course of sewage treatment pursuant to Section IV of this MRP.



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- D. Annual monitoring reports must be submitted to the San Diego Water Board, signed and certified as required by the Section IV.A.16 of the Order, to the address listed below:

California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123

In the event the San Diego Water Board changes offices, the new office address can be found on the following web page:

[http://www.waterboards.ca.gov/sandiego/about\\_us/contact\\_us/](http://www.waterboards.ca.gov/sandiego/about_us/contact_us/)

Monitoring reports shall be submitted in electronic format on a Compact Disc (CD) or other appropriate media to the San Diego Water Board. A signed paper transmittal letter shall be submitted along with the CD (or other appropriate media). All correspondence and documents submitted to the San Diego Water Board shall include the reference code "<staff name>" in the header or subject line, where "<staff name>" is the first initial and last name of the San Diego Water Board case manager.