

---

## Central Valley Regional Water Quality Control Board

20 March 2018

WDID: 5A250102001

Ron Sherer, District Manager  
California Pines Community Services District  
HCR4 Box 43002  
Alturas, CA 96101

**CERTIFIED MAIL:**  
**7017 3040 0001 0264 9204**

### SECOND AMENDMENT TO NOTICE OF APPLICABILITY

#### **WATER QUALITY ORDER 2014-0153-DWQ-R5176, GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL DOMESTIC WASTEWATER TREATMENT SYSTEMS, CALIFORNIA PINES COMMUNITY SERVICES DISTRICT, MODOC COUNTY**

On 2 October 2017 the California Pines Community Services District (hereafter “Discharger”) submitted a letter request to the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to allow land-application of partially treated effluent from its wastewater storage ponds as part of the wastewater treatment and disposal facility’s permanent operations. The Central Valley Water Board regulates the wastewater treatment and disposal facility (Facility), located on County Road 71, nine miles southwest of the city of Alturas in Modoc County, under General Waste Discharge Requirements (WDRs) for Small Domestic Wastewater Treatment Systems Order 2014-0153-DWQ-R5176 (General Order).

Based on the site inspection and a case file review, the Facility treats and disposes of less than 100,000 gallons of wastewater per day, and was enrolled under the General Order on 2 December 2014. Land application of treated wastewater was permitted under previous WDRs, but was not used and this provision was later omitted from the NOA that was issued on 2 December 2014.

The 2 October 2017 communication with the Discharger included the following changes in scope to the Facility’s current General Order coverage:

- Seasonal spray irrigation of partially treated water from final sewage stabilization ponds 4 and 5 to an adjacent field for disposal purposes only. No crop irrigation or grazing is planned on the land in question. The proposed application area is bermed and has a tailwater recovery system.
- Proposed land application will not occur when the ground is saturated or frozen and/or there is greater than 50 percent chance of precipitation. The Discharger’s primary objective is to lower water levels in the treatment ponds to perform pond maintenance and maintain sufficient storage capacity.

The General Order prescribes mandatory discharge and monitoring requirements shown in Information Sheet C. Sampling, monitoring, and reporting requirements applicable to your treatment and disposal methods must be completed in accordance with the appropriate

treatment system sections of the *General Order* and the attached *Monitoring and Reporting Program* (MRP). With the added scope of operations, Central Valley Water Board staff has developed an amended MRP specific to your facility's operations. Please find the MRP attached to this letter.

## REGULATORY BACKGROUND

Central Valley Water Board enrolled the Facility under the General Order on 2 December 2014. The Amended Monitoring and Reporting Program requires the following:

- Influent Flow Rate, gallons per day (gpd). At a minimum, total flow is measured monthly and reported quarterly.
- Dissolved oxygen measurement for each pond, mg/L, monthly.
- Freeboard measurement for each pond, 0.1 feet, monthly.
- Visual and olfactory assessment of berm condition and odors.
- Effluent Biochemical Oxygen Demand from final pond, mg/L, monthly.
- Land application daily flow rate, gpd.
- Acreage applied, monthly.
- Local rainfall, inches, daily.
- Visual inspection for evidence of soil saturation/ponding, soil erosion, berm integrity, tailwater pump operation, nuisance odors/vectors, discharge offsite.

## DISCHARGE DESCRIPTION

The California Pines Community Services District is a large recreational subdivision located on County Road 71, Modoc County. The facility consists of two separate areas and covers parts of approximately 60 sections in T39N, T40N, T41N, R10E and R11D, MDB&M in Modoc County. Domestic waste from the northern section of the subdivision, the Lake Units, is discharged to a wastewater system located on the west side of the subdivision. The southern section of the subdivision, the Hill Units, relies on individual septic tanks with leaching systems or (seasonal use) vault systems.

The wastewater collection, treatment and disposal system consists of over 15 miles of collection lines, five lift stations, five treatment and disposal ponds, and a 27-acre spray irrigation area. Much of the collection system relies on gravity flow. Currently the system serves 100 to 125 homes and a trailer park. The treatment system is capable of treating 47,000 gallon per day and the maximum available storage in the ponds is 13.5 million gallons. Local surface water flows by intermittent drainage pathways to the Pit River.

This is an existing facility; therefore enrollment under the General Order is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, title 14, section 15301 which applies to ongoing or existing projects.

## FACILITY SPECIFIC REQUIREMENTS

The Discharger will maintain exclusive control over the discharge, and shall comply with the terms and conditions of this Amended NOA and the General Order 2014-0153-DWQ-R5176, with all attachments.

- In accordance with the 2 December 2014 NOA, flow rates are generally less than 40,000 gpd, percolation rates of local soils are low, and the best available data show depth to groundwater is approximately 30 feet. Nitrogen monitoring is not required.
- Discharge of treated wastewater from the facility is prohibited under conditions other than those authorized in the Amended NOA.
- Storm water runoff from the irrigation field shall not be discharged to any surface water drainage course within 30 days of the last wastewater application.
- Monitoring and reporting will be conducted as prescribed in the attached Amended MRP.

Additionally the General Order states in Section B.1.L that the Discharger shall comply with the setbacks as described in Table 3. This table summarizes different setback requirements for wastewater system equipment, activities, and storage and/or treatment ponds from sensitive receptors and property lines where applicable. The Discharger shall comply with the following applicable setback requirements as summarized in the following table.

Site Specific Applicable Setback Requirements					
Equipment or Activity	Domestic Well	Flowing Stream <sup>a</sup>	Ephemeral Stream Drainage <sup>b</sup>	Property Line	Lake or Reservoir <sup>d</sup>
Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System <sup>e</sup>	150 ft. <sup>y</sup> 100 ft. <sup>o</sup> 50 ft. <sup>c</sup>	50 ft. <sup>c</sup>	50 ft.	5 ft. <sup>c</sup>	200 ft. <sup>w</sup> 50 ft. <sup>c</sup>
Leach Field <sup>f</sup>	100 ft. <sup>o,c</sup>	100 ft. <sup>c</sup>	50 ft.	5 ft. <sup>c</sup>	200 ft. <sup>w</sup> 100 ft. <sup>c</sup>
LAND APPLICATION AREA REQUIREMENTS					
LAA (undisinfected secondary recycled water) <sup>i</sup>	150 ft. <sup>s</sup>	100 ft.	100 ft.	100 ft. <sup>x</sup> 50 ft. <sup>p</sup>	200 ft.
Spray Irrigation (disinfected tertiary recycled water) <sup>k</sup>	No spray irrigation of any recycled water, other than disinfected tertiary recycled water, shall take place within 100 feet of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.				
WASTEWATER STORAGE AND/OR TREATMENT PONDS					
Impoundment (undisinfected secondary recycled water) <sup>i</sup>	150 ft. <sup>s</sup>	150 ft.	150 ft.	50 ft.	200 ft.
<p>LAA denotes Land Application Area. Sec denotes secondary.</p> <p><sup>a</sup> A flowing stream shall be measured from the ordinary high water mark established by fluctuations of water elevation and indicated by characteristics such as shelving, changes in soil character, vegetation type, presence of litter or debris, or other appropriate means.</p> <p><sup>b</sup> Ephemeral Stream Drainage denotes a surface water drainage feature that flows only after rain or snow-melt and does not have sufficient groundwater seepage (baseflow) to maintain a condition of flowing surface water. The drainage shall be measured from a line that defines the limit of the ordinary high water mark (described in “a” above). Irrigation canals are not considered ephemeral streams drainage features. The ephemeral stream shall be a “losing stream” (discharging surface water to groundwater) at the proposed wastewater system site.</p> <p><sup>c</sup> Setback established by California Plumbing Code, Table K-1.</p> <p><sup>d</sup> Lake or reservoir boundary measured from the high water line.</p> <p><sup>e</sup> Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System addresses equipment located below ground or that impedes leak detection by routine visual inspection.</p> <p><sup>f</sup> Leach Field includes all subsurface dispersal systems, including mound systems except seepage pits.</p> <p><sup>i</sup> Undisinfected secondary recycled water is defined in California Code of Regulations, title 22, section 60301.900.</p> <p><sup>k</sup> Additional restrictions for spray irrigation of recycled water are contained in California Code of Regulations, title 22, section 60310(f)</p> <p><sup>o</sup> California Well Standards, part II, section 8. Site-specific conditions may allow reduced setback or require an increased setback. See discussion in Well Standards.</p> <p><sup>p</sup> Setback for drip or flood application methods. Spray irrigation is subject to additional setbacks and restrictions. (See footnote k.)</p> <p><sup>s</sup> Setback established by California Code of Regulations, title 22, section 60310(d).</p> <p><sup>w</sup> Setback established by the Onsite Wastewater Treatment System Policy, section 7.5.5.</p> <p><sup>x</sup> Setback established by California Code of Regulations, title 22, section 60310(f).</p> <p><sup>y</sup> Setback established by Onsite Wastewater Treatment System Policy, section 7.5.6.</p>					



---

Central Valley Regional Water Quality Control Board

**TECHNICAL MEMORANDUM**

**TO:** George Low, P.G.  
Senior Engineering Geologist

**FROM:** Monique Gaido, P.G.  
Engineering Geologist

**DATE:** 20 March 2018

**SIGNATURE:** Original signed by Monique Gaido

**SUBJECT: REVIEW OF NITRATE AND SETBACK CONDITIONS FOR CALIFORNIA PINES  
COMMUNITY SERVICES DISTRICT, MODOC COUNTY, GENERAL ORDER WDR  
2014-0153-DWQ-R5176 AMENDMENT**

Staff has reviewed the case file and a 9 May 2017 Inspection Report for the California Pines Community Services District (Facility). The Report assesses the general condition and adequate maintenance of the collection system, lift stations, and disposal ponds. Reporting and correspondence with Facility staff documented surface water management issues which occurred in the winter and early spring of 2017 due to unusually wet weather patterns and structural improvements of pond berms in the fall of 2017.

Central Valley Water Board staff issued a 30 June 2017 Amendment to Notice of Applicability letter to allow temporary spray irrigation to land on Facility-owned property directly north of the wastewater storage and disposal ponds. Land application of partially treated effluent to this parcel was previously permitted under Waste Discharge Requirements (WDR) Order 94-047. The Facility requested to omit spray irrigation operations at the time of Facility's 2 December 2014 enrollment under General WDR for Small Domestic Wastewater Treatment Systems Order 2014-0153-DWQ-R5176. The purpose of this Technical Memorandum Amendment is to include spray irrigation activities as part of the Facility's routine operations.

**Potential Threats to Water Quality**

The wastewater treatment system is located west of the main community development of California Pines, greater than 200 feet from the development property line and fence. The closest potable water well is greater than 1,200 feet from the wastewater ponds, and the closest well has a static water depth of 30 feet from the top of the well casing. Depth to groundwater directly under the ponds is unknown, but 20 feet appears to be a valid assumption. The ponds are designed as evaporation/percolation disposal; however, an engineering report submitted to the agency in 1985 by James Arden, PE describes the ponds as built from "clayey soil" with a permeability estimate of "...6 ft/year for lagoon bottoms and berm materials." This percolation rate ( $6 \times 10^{-6}$  cm/s) is well within the range of wastewater treatment ponds and is nearing permeability design requirements of strictly evaporative ponds.

Completion of the Nitrate Checklist in Attachment 1 of Order 2014-0153-DWQ indicates the following flow and rationale:

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

---

364 Knollcrest Drive, Suite 205, Redding, CA 96002 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

A1 Exceed 20,000 gpd? Yes.  
Wastewater flow generally less than 35,000 gpd

A2 Shallow groundwater? No.  
The percolation rate compared to Table 5 is very low and the ponds are primarily designed and used as evaporation ponds. Estimated water depth below the ponds is 30 feet.

A3 Excessive percolation rate/fractured environment? No.  
The pond area is primarily Buntingville clay loam (Web Soil Survey), and the pond berms and bottoms have an estimated percolation rate of  $6 \times 10^{-6}$  cm/s.

A4 Exceed domestic wastewater strength? No.  
In October 2017 laboratory test results for Pond 5 effluent were 17 mg/L for Biological Oxygen Demand (BOD) and 13 mg/L for Total Suspended Solids. These results demonstrate relatively low domestic wastewater strength.

A5 Nitrogen removal may be required? No.  
No domestic well is in the vicinity, the percolation rate is very low, the wastewater is typical of domestic waste suitable for regulation under the General Order 2014-0153-DWQ.

Conclusion: No nitrogen testing or nitrogen removal is required.

### Monitoring Requirements

To protect water quality, General Order monitoring requirements will be sufficient without the addition of nitrogen monitoring to evaluate treatment system percent removal. In summary, Staff recommends quarterly reporting of average daily flow rate for each month in the period; monthly effluent monitoring for BOD; monthly visual observations for the disposal fields for monitoring for Saturated Soils, Surfacing Wastewater, Erosion, Odors, and Berm conditions, and quarterly reporting for any offsite solids disposal. Additional land application monitoring shall include monthly volume of wastewater applied and monthly precipitation. Monitoring results shall be reported quarterly by the first day of the second month after the quarter ends (e.g. January-March report is due by May 1st). Annual monitoring will be included with the fourth quarter monitoring.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

AMENDED MONITORING AND REPORTING PROGRAM 2014-0153-DWQ-R5176

FOR

CALIFORNIA PINES COMMUNITY SERVICES DISTRICT

MODOC COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system. This MRP is issued pursuant to Water Code section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board (Regional Water Board) Executive Officer.

The State Water Resources Control Board (State Water Board) and Regional Water Boards are transitioning to the paperless office system. In some regions, Dischargers will be directed to submit reports (both technical and monitoring reports) to the State Water Board's Electronic Content Management (ECM) database via email in portable document format (pdf). The email address for the ECM submittal is: [centralvalleyredding@waterboards.ca.gov](mailto:centralvalleyredding@waterboards.ca.gov)

Water Code section 13267 states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

Water Code section 13268 states, in part:

“(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with article 2.5 (commencing with section 13323) of chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

The Discharger owns and operates the wastewater system that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ. The reports are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Regional Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a State Water Board California Environmental Laboratory Accreditation Program certified laboratory, or:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

### **POND SYSTEM MONITORING <sup>1</sup>**

#### Influent Monitoring

Influent samples shall be taken from a location that provides representative samples of the wastewater and flow rate. At a minimum, influent monitoring shall consist of the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Flow Rate <sup>a</sup>	gpd	Meter	Continuous	Quarterly

gpd denotes gallons per day. mg/L denotes milligrams per liter.

<sup>a</sup>. At a minimum, the total flow shall be measured monthly to calculate the average daily flow for the month. If wastewater is stored and applied to land, flow rate measurement is also needed on the effluent flow.

#### Wastewater Pond Monitoring

All wastewater and treated wastewater storage ponds (lined and unlined) shall be monitored as specified below:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Dissolved Oxygen	mg/L	Grab	Monthly	Quarterly
Freeboard	0.1 feet	Measurement	Monthly	Quarterly
Odors	--	Observation	Monthly	Quarterly

<sup>1</sup> Determine the need for monitoring based on the flow rate and Attachment 1. Biochemical oxygen demand limits apply with flow rates above 400 gpd; nitrogen limits may apply at flow rates above 20,000 gpd. (See General Order Section D, Effluent Limits and Attachment 1, Nitrogen Effluent Limit Evaluation.)

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Berm condition	--	Observation	Monthly	Quarterly

mg/L denotes milligrams per liter.

#### Effluent Monitoring

Effluent samples shall be taken from a location that provides representative samples of the wastewater. At a minimum, effluent monitoring shall consist of the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Biochemical Oxygen Demand	mg/L	Grab	Monthly	Quarterly

mg/L denotes milligrams per liter.

#### **LAND APPLICATION AREA MONITORING**

The Discharger shall monitor LAAs when wastewater and/or supplemental irrigation water is applied. If wastewater/supplemental irrigation water is not applied during a reporting period, the monitoring report shall so state. LAA monitoring shall include the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Wastewater Flow <sup>a</sup>	gpd	Meter <sup>a</sup>	Monthly	Quarterly
Local Rainfall	Inches	Weather Station <sup>b</sup>	Monthly	Quarterly
Acreage Applied <sup>c</sup>	Acres	Calculated	Monthly	Quarterly
Application Rate	gal/acre/mo	Calculated	Monthly	Quarterly
Soil Erosion Evidence	--	observation	Monthly	Quarterly
Containment Berm Condition	--	observation	Monthly	Quarterly
Soil Saturation/Ponding	--	observation	Monthly	Quarterly
Nuisance Odors/Vectors	--	observation	Monthly	Quarterly
Discharge Off-Site	--	observation	Monthly	Quarterly

gpd denotes gallons per day.

- a. Meter requires meter reading, a pump run time meter, or other approved method.
- b. Weather station may be site-specific station or nearby governmental weather reporting station.
- c. Acreage applied denotes the acreage to which wastewater is applied.
- d. Application rate may also be reported as inch/acre/month.

## SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

## REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernible. The data shall be summarized to clearly illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

During the life of this General Order, the State Water Board or Regional Water Board may require the Discharger to electronically submit monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) program Internet web site or alternative database. Electronic submittal procedures will be provided when directed to begin electronic submittals. Until directed to electronically submit monitoring reports, the Discharger shall submit hard copy monitoring reports.

### A. Quarterly Monitoring Reports

Quarterly reports shall be submitted to the Regional Water Board on the **first day of the second month after the quarter ends** (e.g. the January-March Quarterly Report is due by May 1<sup>st</sup>). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the quarterly reports shall include:

1. Results of all required monitoring.
2. A comparison of monitoring data to the discharge specifications, applicable effluent limits, disclosure of any violations of the NOA and/or General Order, and an explanation of any violation of those requirements. (Data shall be presented in tabular format.)
3. If requested by staff, copies of laboratory analytical report(s) and chain of custody form(s).

### B. Annual Report

Annual Reports shall be submitted to the Regional Water Board by **March 1<sup>st</sup> following the monitoring year**. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. An evaluation of the performance of the wastewater treatment facility, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation as described in the General Order (Provision E.2.c) shall also be submitted.
3. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.

4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
5. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.

A letter transmitting the monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

*"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 the 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."*

The Discharger shall implement the above monitoring program as of the date of this MRP.

Ordered by:

*Original signed by Bryan Smith*

---

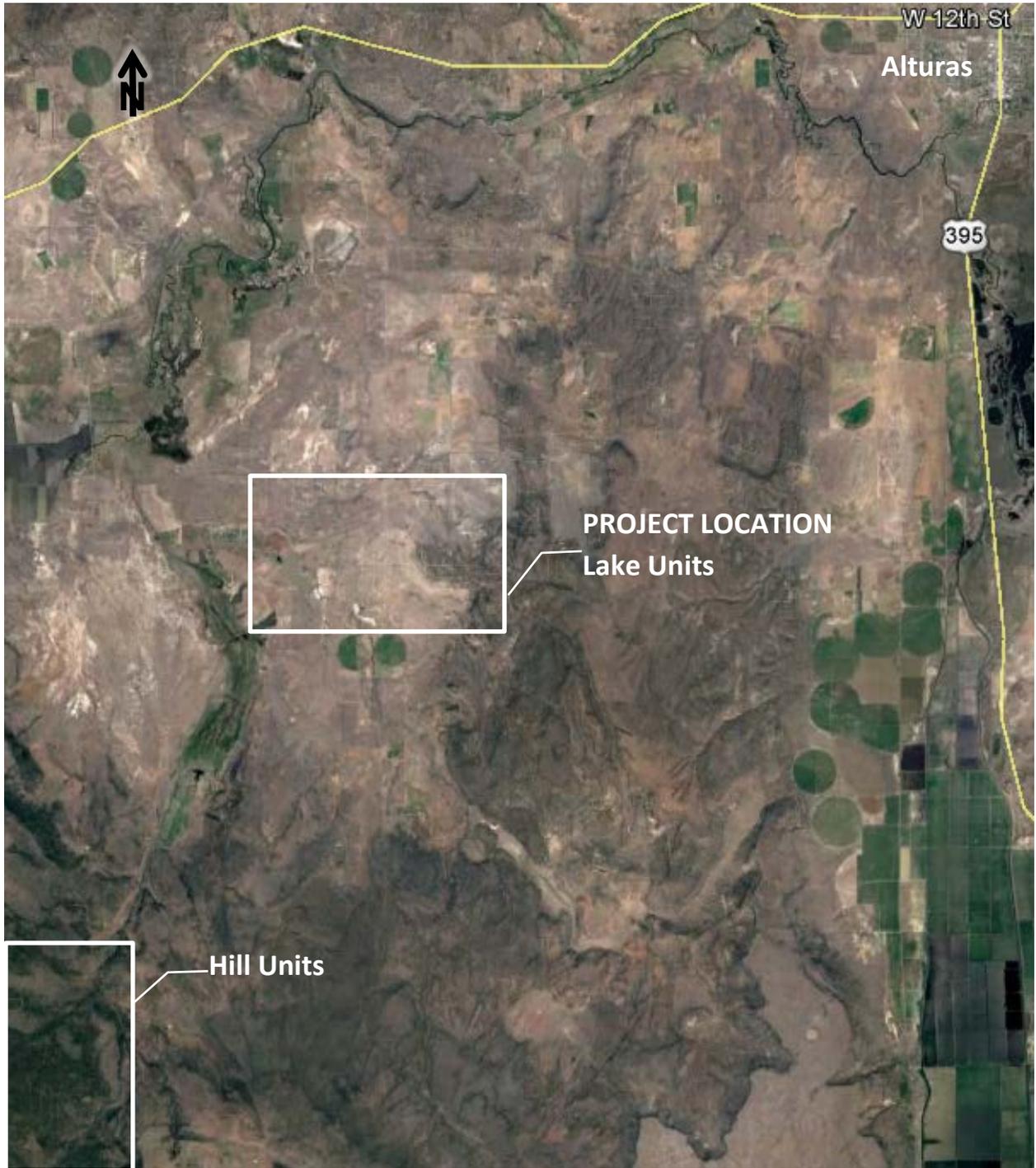
PAMELA C. CREEDON, Executive Officer

3-20-2018

---

DATE

**LOCATION MAP**



DRAWING REFERENCE:  
GOOGLE EARTH  
MAP DATA: © 2016 GOOGLE  
NO SCALE

LOCATION MAP  
CALIFORNIA PINES COMMUNITY SERVICES DISTRICT  
MODOC COUNTY

**FACILITY MAP**



DRAWING REFERENCE:  
GOOGLE EARTH  
MAP DATA: © 2016 GOOGLE  
NO SCALE

FACILITY MAP  
CALIFORNIA PINES COMMUNITY SERVICES DISTRICT  
MODOC COUNTY