



**Contents**

1. Personnel Report – *Eric Shay* ..... 1

2. Crestline Sanitation District Sewage Outfall Line Spills and Requested Repair – *Jehiel Cass P.E.* ..... 1

3. Rosamond Community Services District Wastewater Treatment Plant Upgrade Status – *Jehiel Cass P.E.* 3

4. City of Bishop and Eastern Sierra Inspection Audits – *John Morales & Ghasem Pour-ghasemi* ..... 4

*State and Regional*

1. Personnel Report – *Eric Shay*

**New Hires** – None

**Vacancies** – We are currently recruiting for the following positions:

- Water Resource Control Engineer (2 positions), Wastewater & Agricultural Operations Unit, Victorville. These positions provide regulatory oversight of projects involving discharges to groundwater or surface waters and projects intended to restore and/or enhance water quality in the Waste Discharge Requirements (WDRs), National Pollutant Discharge Elimination System (NPDES), and Site Cleanup Programs. The previous incumbents were Cephas Hurr and Mike Coony (pending retirement).
- Water Resource Control Engineer, North Basin Regulatory Unit, South Lake Tahoe. This position is the office’s primary contact for domestic wastewater treatment facilities and domestic wastewater issues north of Conway summit, in addition to being responsible for several industrial discharges. The position involves conducting field inspections, interacting with County health offices, reviewing design reports, determining compliance permits, and writing WDRs and NPDES Permits. The previous incumbent was Rob Tucker.

**Departures** – None

*South Lahontan Region*

2. Crestline Sanitation District Sewage Outfall Line Repairs

– *Jehiel Cass P.E.*

Crestline Sanitation District (District) is in the San Bernardino Mountains of San Bernardino County. Secondary treated, disinfected effluent from four treatment plants (Houston Creek,

Seely Creek, Pilot Rock Cal-Fire Conservation Camp, and Cleghorn-Silverwood State Recreation Area) are delivered through a common outfall pipeline to the Las Flores Ranch located south of Hesperia. The combined outfall design flow is 1.0 million gallons per day, with an average daily flow of about 0.65 million gallons disposed as recycled water to pasture irrigation. The outfall pipeline follows CA Highway 138 around the backside of Silverwood Reservoir, a major water supply source for Southern California and part of the CA State Water Project system. A prohibition was established in the 1975 *Water Quality Control Plan for the Lahontan Region* (Basin Plan) for discharges in the Lake Silverwood watershed.

Two similar spill events occurred near the same location that were caused by failure of the outfall pipeline, as described below and shown on Figure 1. Neither of the spills actually reached Silverwood Reservoir, but were contained in the ephemeral wash and percolated into the ground.

Date	Estimated Volume (gallons)	Probable Cause
November 5, 2014	230,000	Pipe shear rupture
October 11, 2017	213,674	Fissure on pipe bottom

The District’s 11 mile, 44-year old outfall pipeline was installed in 1971, when Silverwood Reservoir was completed. There is a 1,300-foot elevation drop from the Houston Creek wastewater treatment plant to the Las Flores Ranch pasture outfall location. The outfall pipeline is constructed of asbestos cement and has a 75 to 100-year life expectancy. In 2015, the outfall pipeline condition was thoroughly inspected and found to be in good to excellent condition.

After the October 11, 2017 spill event that occurred due to breaks in the pipeline from fill settlement or other ground movement, Water Board staff requested that the District conduct a geotechnical evaluation of the slope stability in the vicinity of the two breaks. The geotechnical report provided by the District’s consultant, dated February 26, 2018, concludes that it would be “prudent to assume that another situation that requires repair may be anticipated...” Apparently, there is continued stress placed on the outfall pipeline at this location from soil movement of the CA Highway 138 soil fill that may result in additional failure.

The District provided a March 26, 2018, letter proposing the following two actions.

1. Increase emergency storage capacity at the Seely Creek wastewater treatment plant by 100,000 gallons, and
2. Procure and store materials onsite for replacing a segment of the pipeline should a future break occur.

In order to prevent a future outfall line break at this location, Water Board staff requested the District to submit plans to complete a soil stabilization analysis report, provide recommendations to buttress the embankment and stabilize this location, and to conduct soil movement monitoring. These actions will enable the District to be pro-active in preventing such breaks and protecting water quality.

We recognize the District may need to work with other agencies including the US Forest Service, Caltrans District 8, Silverwood Lake State Recreation Area, California Department of Fish and Wildlife, and the California Department of Water Resources operating the State Water Project.



Location of two sewage spills from Crestline Sanitation District sewage outfall pipeline.

### 3. Rosamond Community Services District Wastewater Treatment Plant Upgrade Status

– Jehiel Cass

In November 2015, the Water Board adopted revised waste discharge requirements for the Rosamond Community Services District (District) wastewater treatment plant. Board Order R6V-2015-0069 (Board Order) included the following time schedules to upgrade the treatment plant processes to address nitrate and total dissolved solids groundwater pollution caused by leaking oxidation ponds.

Schedule Date	Task
11/05/2016	Submit a Feasibility Study of proposed and preferred alternatives.
11/05/2017	Submit a report of the District's selected alternative.
04/05/2018	Submit an Initial Study to satisfy the California Environmental Quality Act for the selected alternative.
11/05/2018	Submit a Technical Report of design drawings and specification. Submit a revised Report of Waste Discharge.
04/05/2019	Begin construction and submit a Status Report of project activities.
11/05/2020	Complete construction and submit a Status Report of project activities.
04/05/2021	Submit a Technical Report with As-Built construction plans.

The District's Feasibility Study of alternatives report was submitted late (and in two parts) after the Executive Officer issued a Notice of Violation. The District considered the following alternatives:

- Upgrade the existing oxidation ponds with clay liners,
- Upgrade the existing oxidation ponds with flexible membrane liners,
- Upgrade the existing oxidation ponds with grout/gunite liners,
- Modify the existing oxidation ponds to a constructed wetlands treatment system, and
- Disposal of effluent to crops by irrigation.

The District's Selected Alternative report, submitted late on February 28, 2018, recommended a constructed wetlands system. Water Board staff commented that the report lacked much specificity, and there were many design and monitoring details missing that would be necessary to create a successful constructed wetlands system.

The District has retained Kennedy/Jenks Consultants who hosted an expert consultant workshop in early April 2018 at the District's office in Rosamond CA, that included Dr. George Tchobanoglous from the University of California at Davis. Dr. Tchobanoglous is one of the nation's recognized experts in wastewater treatment.

Subsequently, Water Board staff met with District staff on April 18, 2018, and the District informed us it intends to modify its preferred project. It is likely the District will expand its existing moth-balled 0.5 million gallon per day (mgd) tertiary treatment plant to just over 1.0 mgd, accommodating the average wastewater treatment plant flow from the Rosamond community of about 1.2 mgd. This is expected to achieve an average effluent total nitrogen of less than 10 milligrams per liter (mg/L), ensuring that the nitrate (as nitrogen) drinking water standard is met for these discharges. Effluent disposal would be either to onsite percolation ponds or to an adjacent 80-acre parcel that would be converted to irrigated farm land for fodder crop production. Water Board staff indicated the District should consider whether lined storage ponds are needed to contain effluent produced during the winter to maximize water available for crops during the summer growing season.

The District has also missed the April 5, 2018 deadline contained in the Board Order to submit an Initial Study to satisfy the California Environmental Quality Act (CEQA). The District told Water Board staff it has begun biological studies on the 80-acre parcel to evaluate species present, in part to satisfy CEQA, but has not completed the Initial Study as required. As required, the District has been notified regarding the failures to meet the scheduled submittal dates, and these violations have been entered into the California Integrated Water Quality Systems (CIWQS) database.

By November 5, 2018, the District is required to submit a technical report with design drawings, specifications, and construction plans for completing a project by November 2020. The District stated its intent to strive to meet this deadline. Water Board staff will continue working with the District to complete the wastewater plant upgrade project and monitoring for compliance with the Board Order.

#### **4. City of Bishop and Eastern Sierra Inspection Audits – John Morales & Ghasem Pour-ghasemi**

On April 25 and 26, 2018, Water Board staff from the Victorville office (John Morales and Ghasem Pour-Ghasemi) performed a compliance inspection audit of the sanitary sewer collection systems for the City of Bishop (City) and the Eastern Sierra Community Service District (District). The purpose of the audit was to evaluate the City's and District's compliance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems specified in the

State Water Resources Control Board General Order No. 2006-0003-DWQ. Staff are completing one or two audits per year to ensure dischargers understand the importance of protecting public health and water quality from raw sewage spills or leaks.

Staff from the South Lake Tahoe office (Basin Planning Unit) joined the Victorville office staff because that unit is evaluating the Bishop Creek Watershed for potential impairment listing on the Federal Clean Water Act, Section 303(d) list for pathogens.

The inspection audits were divided into three parts. Part one consisted of the pre-field inspection conference, where staff performed an in-depth review of City records and conducted an interview with the City's key personnel. Points discussed were: 1) staff resources and training, 2) service calls and emergency responses, 3) collection system maintenance, 4) closed circuit television video inspection program, 5) root intrusion program, 6) fats, oils, and grease program, 7) sanitary sewer overflow preparation and notification procedures, and 8) budget, service fees, and capital improvement plans.

Part two consisted of a field inspection, where key locations of the sewer collection system were inspected, such as: 1) lift stations, 2) automatic system controls to alert personnel of any sewer system emergency, 3) siphons and stream crossings, 4) main trunk line replacement due to root intrusions, and 5) grease interceptors from food establishments.

The last part of the inspection consisted of a post-field inspection wrap-up, where Water Board staff summarized findings of concern and expressed gratitude for the time taken to show staff the operations and maintenance of the City's and the District's sanitary sewer collection system.

The following is a summary of the inspection findings for the City and the District.

### **City of Bishop Inspection Summary**

The City currently serves a population of 3,879 residents and operates with an annual budget of \$381,000. The sewer collection system contains 16.5 miles of gravity-fed pipeline that is, on the average, 70 years old.

The City has actively worked to eliminate all possibilities of having any sanitary sewer overflows through the use of regular evaluations and maintenance activities, including the use of industry tools and technology such as "Smart" covers on manholes that detect and alert staff if and when water rises in manholes.

The City's sewer system has adequate capacity for current and future flows. One pending capital improvement is the initiation of a pipeline improvement canal crossing project that will replace the existing clay pipeline with a new and larger plastic pipeline that will connect one manhole to another across the canal.

The City operates its sanitary sewer system satisfactorily without any reference to a Sewer System Management Plan (SSMP). However, it is essential to maintain the City's current expertise on operating and maintaining the sewer collection system for future generations to come by the preparation and implementation of a SSMP. Board Order No. 2006-0003-DWQ requires that each enrollee develop and implement a system-specific SSMP to ensure that sanitary sewer overflows are prevented with adequate and appropriate facilities, source control measures, and operation and maintenance of the sanitary sewer system. The City has not yet developed a SSMP, as required. However, the City is in the process of developing the SSMP.



A copy of the SSMP must be publicly available at the City's office and/or available on the internet and approved by the City's governing board.



Photo showing concrete encased clay pipe submerged in water at a canal crossing. Bishop is looking to replace this 15-inch clay pipeline with a new 18-inch plastic pipeline.

### **Eastern Sierra Community Service District Inspection Summary**

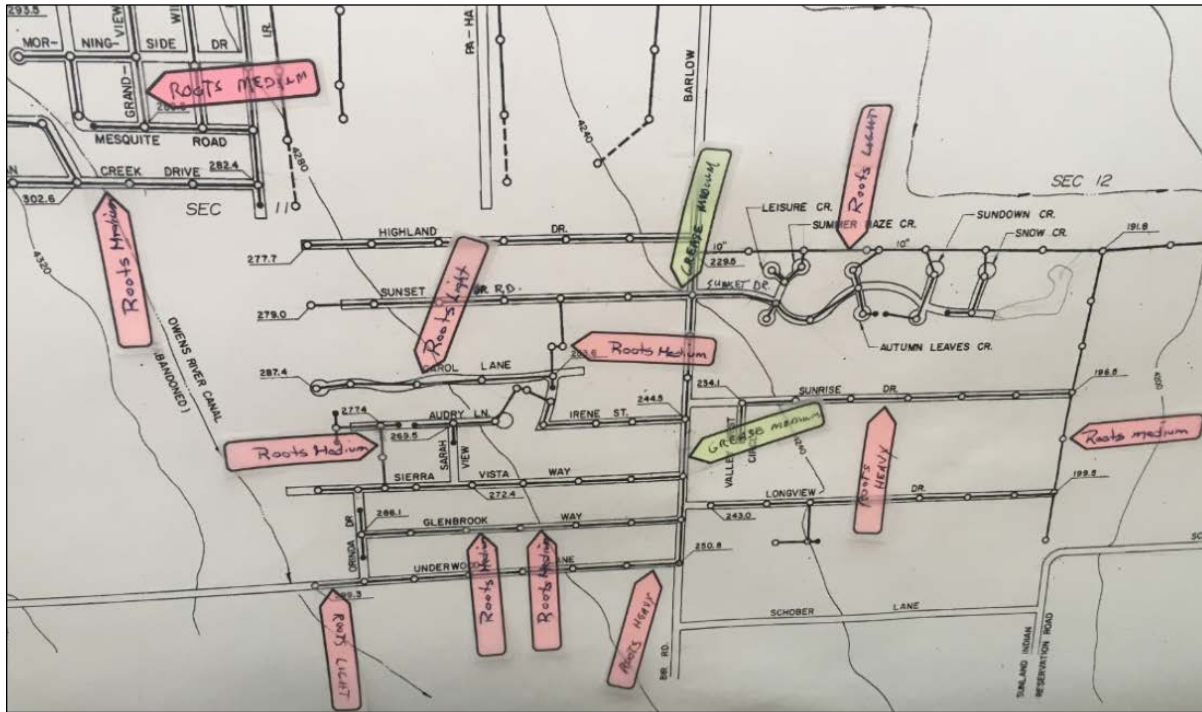
The District has 2,592 connected customers with a total population of 6,303 plus one connection to the Bishop Paiute Tribe Reservation. The wastewater treatment capacity is 850,000 gallons per day and an average flow from Bishop Paiute Tribe into the collection system (system) of approximately 210,000 gallons per day. The system has 516 manholes and mostly clay pipes ranging from 8- to 36-inches in diameter. Most of the system was constructed in 1978. The system crosses beneath nine stream locations. The system also has two pump stations, one at South Valley View and the other one at Brockman. There has been no sewer overflow since 2008. The District has only 70 vacant lots for expansion.

The District has a program in place to visually inspect five miles of line per year using closed-circuit television video (CCTV). They have inspected 95 percent of the system using CCTV.

There are five restaurants and one school connected to the system. However, the District does not have an inspection plan in place to inspect their grease-trap facilities. The District has a SSMP, but it needs to be updated.

The District charges a flat rate of \$21 per resident. The rate will go up to \$23 per resident starting July 2018. The District also has cash in hand of \$1,348,254 for equipment and capital replacement, \$667,587 for expansion, and \$559,817 for operation and maintenance. The District has a large problem with inflow and infiltration because the water table in the area is high. Inflow and infiltration after rain events and during snow melts account for 30 percent of the system's flow. The District believes that most inflow and infiltration is caused by the older clay pipes and manholes. Therefore, in 2017, it allocated \$100,000 to repair and refurbish 100 manholes. Between June 2017 and February 2018, the District repaired or refurbished 35 manholes with seepage issues. This resulted in reduction of 125,000 gallons per day of inflow into the system during and after rain events/snow melts.

The major issue with the District's system is tree roots growing into sewer lines and, therefore, causing pipe blockage. But CCTV helped identify problem areas so that cleaning could occur before any spills happened.



Picture showing a portion of the ESCSD sewer collection system with some of the problem areas shown. The arrows indicate the area and the cause (roots in red and grease in green). This area is located on the south to southwest side of the collection system that is generally west of the City of Bishop.