

**LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT**

**MEMORANDUM**

**DATE:** NOVEMBER 13, 2018

**TO:** BOARD OF DIRECTORS  
Lake Arrowhead Community Services District

**FROM:**   
AIDA HERCULES-DODARO, District Engineer

  
CATHERINE CERRI, General Manager

**SUBJECT:** ENGINEER'S REPORT – CAPITAL IMPROVEMENT  
PROGRAM UPDATE 3<sup>RD</sup> QUARTER 2018

**A. RECOMMENDATION**

This is an information item only.

**B. REASON FOR RECOMMENDATION**

This is an information item only.

**C. BACKGROUND INFORMATION**

Attachment 1 contains Capital Improvement Program Water and Wastewater Report – 3<sup>rd</sup> Quarter 2018.

**D. FISCAL INFORMATION**

This is an information item only.

**E. ATTACHMENTS**

Attachment 1: Capital Improvement Program Project Update, Water and Wastewater Report – 3<sup>rd</sup> Quarter 2018

**Capital Improvement Program  
Project Update  
Water & Wastewater  
3<sup>rd</sup> Quarter 2018**

**Water**  
**3<sup>rd</sup> Quarter 2018**

## North Bay Intake Pump Station Improvements Project 072

**Scope:** Replacement of the existing pump station and intake facilities.

**Status:** The construction activities have been completed and the facilities were in operation until Bernina was shut down due to the tank coating project.

**Budget:** The funding for this project is provided by the Water Capital Improvement Fund 110. FY 16/17 and FY 17/18 included a total budget of \$4,000,000. It was anticipated that this project would be over budget partially due to the compressed construction schedule and other additional costs like inspection services, specialty materials testing and other contingencies. Preliminary cashflow projections for FY 16/17 were higher than anticipated and some water projects were delayed to have available funding for this project. District staff completed the negotiations with the contractor on the last two change orders. The total percentage on change orders went over the authorized 15% by 1.4%. There is an Action Item in the agenda for the Board to approve and appropriate additional funds in the amount of \$57,950.58, which represents the 1.4% over the originally appropriated funds. The table below shows a summary of the change orders. The Board may recall that during previous reports, it was mentioned that change orders 4 and 5 were actually part of the original contract, but were removed prior to the bid due to timing delays on the barge negotiations.

<b>CO Summary List</b>						
<i>North Bay Intakes Pump Station Replacement Project No. 072</i>						
<b>CO Number</b>	<b>Subject</b>	<b>CO Date</b>	<b>Amount</b>	<b>% of Contract</b>	<b>Additional Calendar Days</b>	<b>Status of CO</b>
1	Removal of 2 cedar trees	09/05/2017	\$10,518.95	0.3%	4	approved
2	HDPE pipe change	09/22/2017	\$14,368.77	0.4%	1	approved
3	Temporary Ramp @ HPOA beach area	10/23/2017	\$82,883.42	2.1%		approved
6	Underwater slope stabilization	02/12/2018	\$93,733.06	2.3%	4	approved
7	Rescheduled underwater pumps installation	06/21/2018	\$89,422.19	2.2%	10	approved
8	Electrical building and 20" WL relocation	06/21/2018	\$84,541.00	2.1%	20	
9	Time Extension & reconciling quantities	06/21/2018	(\$9,696.32)	-0.2%	94	
	Subtotal Change Orders		<b>\$365,771.07</b>	<b>9.1%</b>		
4*	ALA Barges and fees	10/27/2017	\$49,831.68	1.2%		approved
5*	Crane & barge related charges	10/27/2017	\$245,196.59	6.1%		approved
	Change Orders deferred from bid		<b>\$295,028.27</b>	<b>7.3%</b>		

Total COs = \$ **660,799.34** **16.4%**

Original Contract = 4,018,991.76

Board authorized 15% = 602,848.76

Additional funding = \$ 57,950.58 1.4%

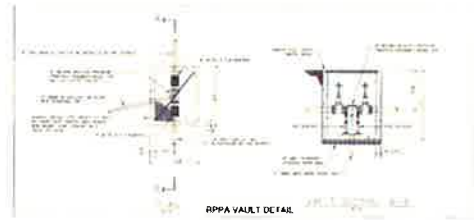
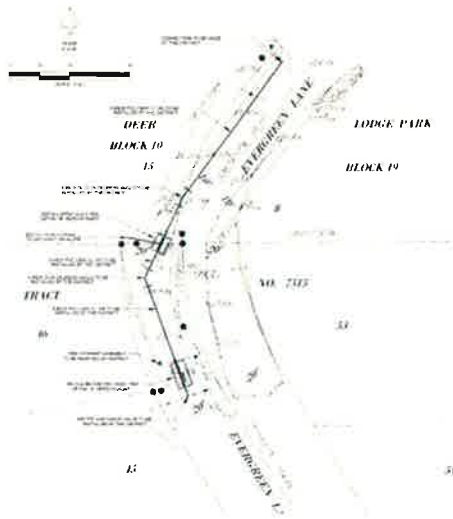
\*COs 4 & 5 were part of the original bid but were deferred due to delays in pricing. All other COs total 9.1%.

## DLP-LACSD Emergency Interconnection Project 164

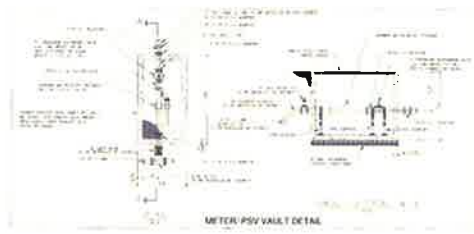
**Scope:** Construction of approximately 220' on Evergreen Lane between Tract 7515 and Deer Lodge Park (DLP). The interconnection of these two water systems has been proposed in case an emergency occurs within the DLP water system which could interrupt the water supply for customers in that area.

**Status:** The plans and specifications were advertised for bids which were opened on 8/23/18. The lowest bid received for the "construction" of this project was \$98,530, which is higher than the \$87,000 budgeted for the entire project for FY 18/19. Staff is recommending rejecting all bids by Board action under Action Items. According to public works law, agencies have up to 90 calendar days to award a contract. The 90 day deadline expires on 11/23/18. District staff will rework the specifications to take it back out to bid.

**Budget:** Funds in the amount of \$87,000 are provided by the Deer Lodge Park Capital Improvement Fund 320 and it has been budgeted for FY 18/19.



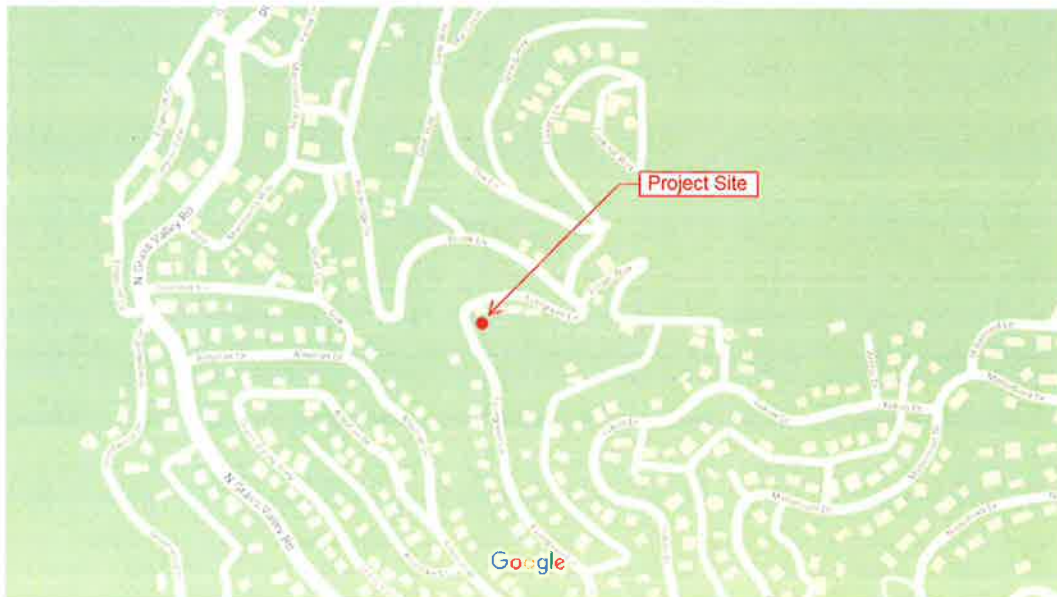
DETAIL "B"



DETAIL "A"



EVERGREEN LANE



## Spyglass Slope Stabilization, Project 179

**Scope:** Prepare a feasibility study for the repair and stabilization of the eroded slope at the Spyglass tank site. Several alternatives will be analyzed to give the District the most complete and available information to make the best-informed decision. The alternatives are as follows:

- Repair and stabilize the slope. Several methods were requested.
- Repair and replace the slope and construct a 300,000-gal pre-stressed concrete tank partially-buried into the repaired slope. The new reservoir could double as a gravity-retaining wall and may allow the site to be regraded for a more stable slope similar to the 3.12 MG Mittry Tank which was partially buried into the slope for increased capacity.
- Repair and replace the slope and construct a 500,000-gal pre-stressed concrete tank partially-buried into the repaired slope. This alternative has been requested as a supplemental information to assist the District with a cost-benefit ratio analysis related to the increase of water capacity for that area.
- A separate cost opinion has been requested for the consultant to estimate the value added by replacing the steel tank in the future. Consultant shall prepare a present-day value analysis of the cost of constructing a 300,000-gallon steel tank 10 years in the future and subsequent coating of the tank every 10 years over a 50-year life cycle. The present value of future costs will be added to the current costs for the retaining wall alternatives.

**Status:** Staff sent request for proposals (RFPs) to several engineering companies on 6/28/18. Two proposal were received on of 8/2/18, and the Board awarded the engineering contract to Albert A. Webb Associates on 8/28/18. On 9/20/18, District staff met with the engineering company to kick off the project.

**Budget:** FY 18/19 budget includes \$1,035,000 for the feasibility, design and construction phases.

*Notice the erosion under the concrete v-ditch*



## **Bernina Tanks #1 & #2 Coating, Project 183**

**Scope:** Remove the exterior coating of both tanks, repair any damaged areas exposed during coating removal and recoat the exterior of the tanks including exposed pipes and appurtenances. Drain Tank #1 to remove existing seismic bracing rods and replace them with new ones according to current seismic code, sandblast applicable roof areas to weld the roof to the underlying girders/rafters, recoat/spot repair around welds and bolts used to secure seismic retrofits. Disinfect Tank #1 and appurtenant piping according to State Health Department standards.

**Status:** On 7/12/18, District staff opened 3 bids for this project, on 7/24/18 the Board awarded the contract and construction activities started on 8/28/18. On 9/18/18, the contractor started welding the roof to the rafters. This operation was stopped after observing the damage on the 1<sup>st</sup> of 5 rafters welded to the roof. The general consensus was that there was not enough steel to do the welding as specified. A steel thickness scanning test was done and the results came back with a steel roof that has lost 50% of its load capacity. It was calculated by a structural engineer that a typical roof load for a steel roof of this type is 20 pounds per square foot (psf); however, the roof load for Bernina Tank 1 is at 10 psf. The roof was evaluated and it was determined to be safe for a few years more as long as certain procedures are followed when equipment needs to be brought to the roof. District staff is assessing the situation but an option is already on the table to get the project moving and put Bernina back online while a roof replacement is planned for the next budget.

**Budget:** Funding in the amount of \$384,200 is provided by the Water Capital Improvement Fund (110). This project has been budgeted for Fiscal Year (FY) 18/19.

*Welding view from the inside*



*Welding view from the roof*





## Water Stations Paving-Seal Coating, Project 184

**Scope:** Remove asphalt pavement at Amador, Banff and Potomac tanks' access roads and construct new asphalt pavement.

**Status:** Staff advertised this project for bids on 7/9/18, opened bids on 8/9/18, the Board awarded the construction contract on 8/28/18, and construction activities started on 10/16/18. The project is nearly complete.

**Budget:** The budget for FY 18/19 and FY 19/20 includes \$63,000 per year for a total of \$126,000 for this project under the Water Capital Improvement Fund 110.

*Amador Tank Site*



*Potomac Tank Site*



*Banff Tank Site*





**Wastewater**  
**3<sup>rd</sup> Quarter 2018**

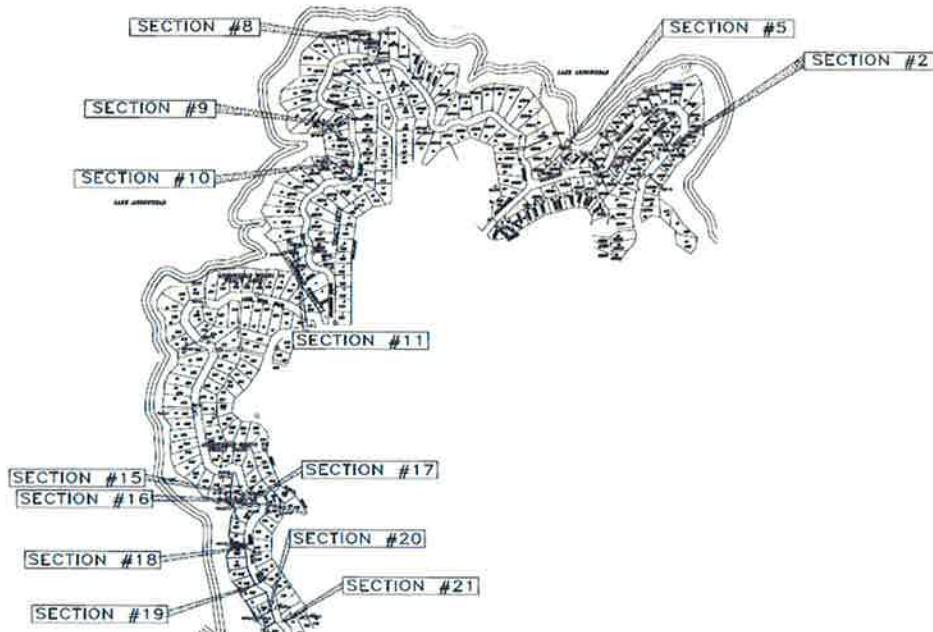


## Palisades Sewer Rehabilitation/Sliplining Phase 2, Project 163

**Scope:** Slipline approximately 2,300' of existing 6" sewerlines, rehabilitate 11 MHs and construct 6 new ones.

**Status:** This project was advertised for bids on 5/21/18 with a bid opening scheduled for 6/25/18; however, the District did not receive any bids. The project was advertised for a second time and bids were opened on 7/16/18. The Board awarded the construction contract on 7/24/18, and construction activities started on 10/29/18.

**Budget:** FY 18/19 Budget allotted \$1,100,000 for sewer rehabilitation from the Wastewater Capital Improvement Fund 210. This project qualifies towards reducing I&I in compliance with our current CDO.



## Palisades Sewer Rehabilitation/Replacement Phase 2, Project 163A

**Scope:** Install approximately 780' of 8" PVC sewer pipe, construct 9 new manholes and install fittings for sewer laterals.

**Status:** The Board awarded the construction contract on 6/26/18, and construction activities started on 7/17/18. This project is nearly complete with only paving operations to be finalized.

**Budget:** FY 18/19 Budget includes \$750,000 in the Wastewater Capital Improvement Fund 210 for sewer replacement within this area. This project qualifies towards reducing I&I in compliance with our current CDO.



## **Field Operations Facility Offsite Sewer Project 172**

**Scope:** Install approximately 2,000' of 8" sewer pipe and construct 18 MHs.

**Status:** The plans and specifications were advertised for bids on 7/31/18, bids were opened on 9/12/18, and the Board awarded the construction contract on 10/9/18. Clearing operations on the slope will start the week of November 5<sup>th</sup>.

**Budget:** FY 18/19 Budget includes \$460,000 for this project and funding will be provided by the Wastewater Capital Improvement Fund 210.

**FIELD OPERATIONS FACILITY OFFSITE SEWER (172)**

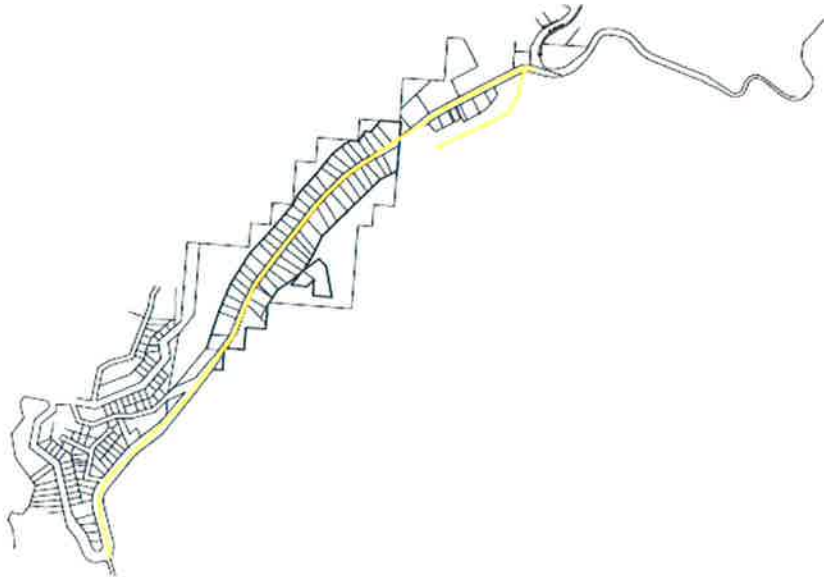




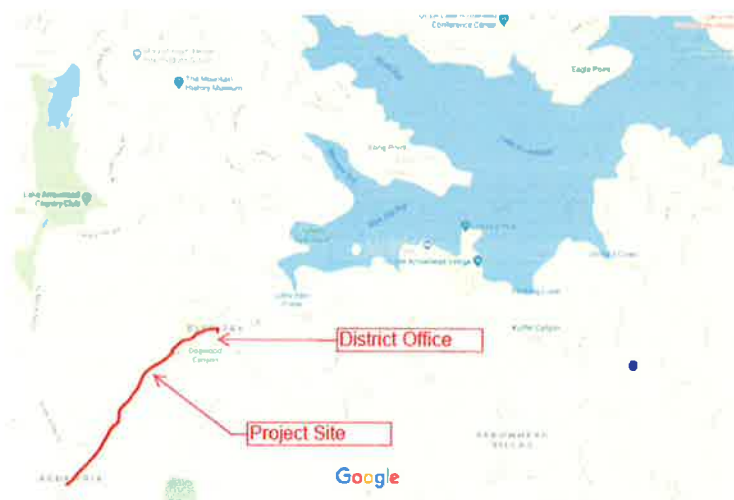
## Agua Fria / Blue Jay Sliplining Project 176

- Scope:** Slipline approximately 5,300' of existing 8" trunk sewer main, construct or rehabilitate 33 MHs as determined in the field and reconnect sewer service laterals to the lined trunk sewer main located mostly on Hwy 189, between Agua Fria and the District's office in Blue Jay.
- Status:** The Board awarded the construction contract on 5/8/18, and construction activities started on 8/28/18. This project is complete and will be recommended to the Board for acceptance when all appropriate paperwork is provided to the District.
- Budget:** FY 18/19 Budget includes \$760,000 for this project and the funding will be provided by the Wastewater Capital Improvement Fund (220). This project qualifies towards reducing I&I in compliance with our current CDO

### AGUA FRIA/ BLUE JAY SLIP LINING



### STATE HIGHWAY 189

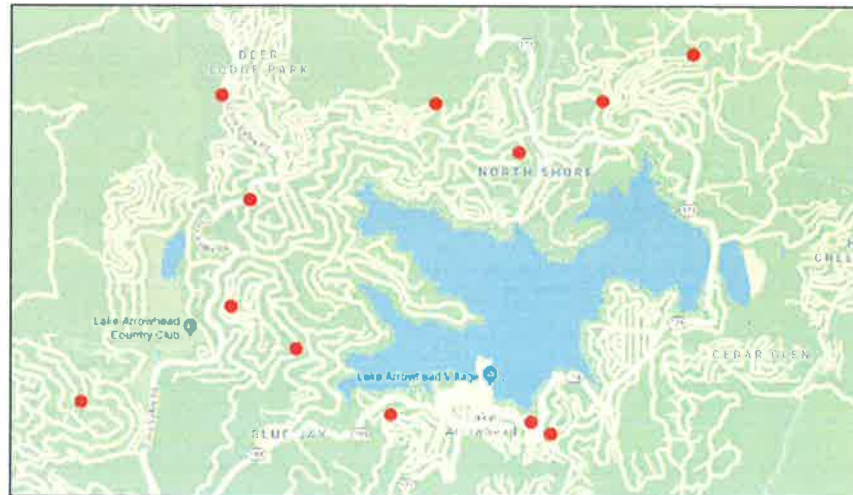


## Inflow & Infiltration Manhole Rehabilitation 2018, Project 181

**Scope:** Rehabilitate 12 manholes including shelf, barrel walls, channel repair and water stopping grout injection to reduce infiltration as much as possible. The figure below shows the locations of the manholes to be rehabilitated.

**Status:** The plans and specifications were advertised for bids on 8/13/18, bids were opened on 9/11/18, the Board awarded the contract on 10/9/18, and construction activities started on 10/29/18. This project is 70% complete.

**Budget:** FY 18/19 Budget includes \$150,000 for this project. The funding is provided by the Wastewater Capital Improvement Fund 210 and qualifies towards reducing our Inflow and Infiltration (I&I) in compliance with our current Cease and Desist Order No. R6V-2013-0022 (CDO) through the State Water Quality Control Board.



● MANHOLE LOCATIONS

*View of epoxy coating*

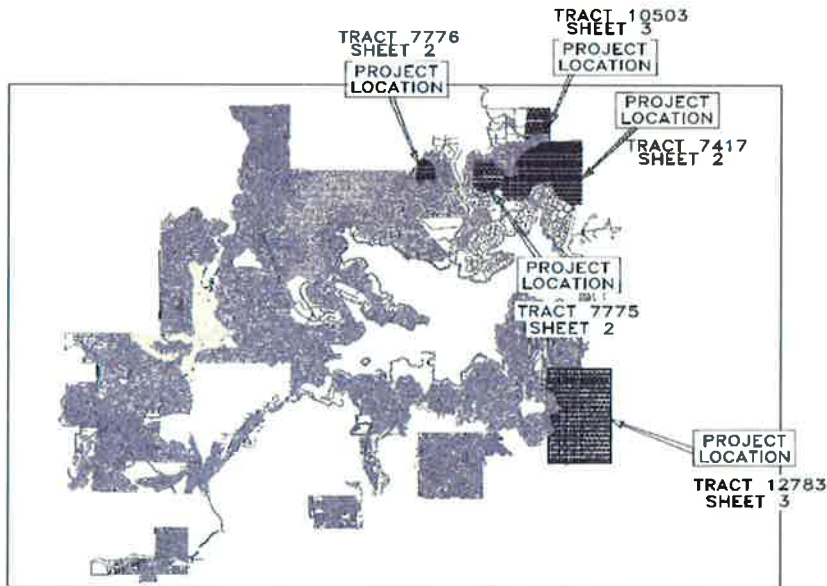


## Tract 7417 Manhole Rehabilitation 2018 Project 182

**Scope:** Rehabilitate approximately 183 manholes (MHs) and 17 cleanouts (COs) by raising them to grade. The 200 MHs and COs are spread mostly on the easterly side of the District with a high concentration of MH rehabilitation occurring within Tract 7417. The figure below shows how the project is spread within the District boundary.

**Status:** This project was advertised for bids on 7/2/18, bids were opened on 7/16/18, the Board awarded the construction contract on 7/24/18, and construction activities started on 9/17/18. This project is complete and will be recommended to the Board for acceptance when all appropriate paperwork is provided to the District.

**Budget:** FY 18/19 Budget includes \$260,000 for this project and the funding is provided by the Wastewater Capital Improvement Fund 210. This project qualifies towards reducing our Inflow and Infiltration (I&I) in compliance with our current Cease and Desist Order No. R6V-2013-0022 (CDO) through the State Water Quality Control Board.



*Manhole raising and traffic control*

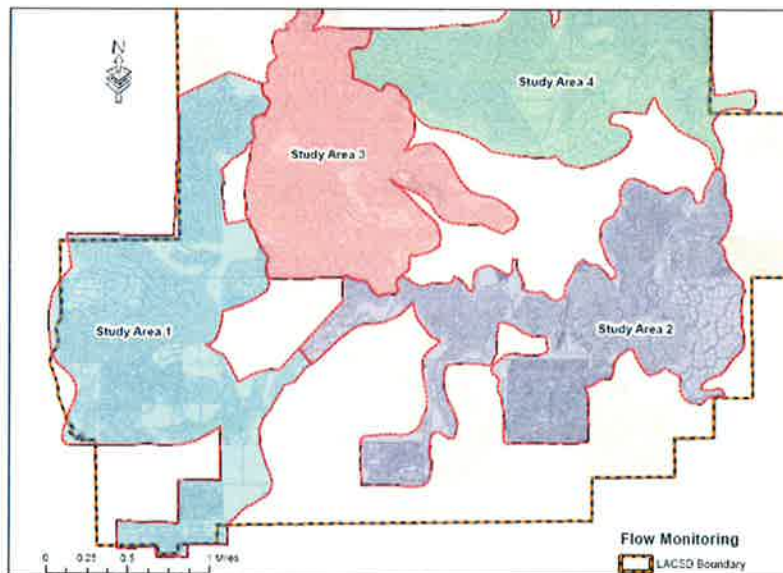


## Sewer Flow Monitoring Project

**Scope:** LACSD continues to monitor the sewer flow throughout identified basins within the District's boundary and reports the findings to Lahontan to comply with our current CDO No. R6V-2013-0022 issued by the California Regional Water Quality Control Board Lahontan Region (Lahontan) issued on March 13, 2013,

**Status:** The monitoring devices were installed at the end of October and are currently ready to record data for this incoming season.

**Budget:** This project is included in the FY 18/19 Budget, and the funding source is the Wastewater Operating Fund 200. The service agreement amount for the operation and maintenance of the sewer flow monitoring equipment for the 2<sup>nd</sup> year, 2014-15 period, was \$140,500. The agreement budgeted \$166,500 for the 3<sup>rd</sup> year and commencing with the 4<sup>th</sup> year of service, the contract amount would be increased or decreased by the applicable Consumer Price Index for the Los Angeles, Riverside Orange County area (CPI) to the cost of the prior year. The 5<sup>th</sup> contract for the 2017/2018 period was \$177,000. Staff is working on the contract for the 6<sup>th</sup> year (2018/2019) of the monitoring commitment.



## ENGINEERING BUDGET GOALS & INITIATIVES QUARTERLY STATUS UPDATE

FY 17/18 AND FY 18/19

GOALS & INITIATIVES	STATUS	COMMENTS
Complete Hesperia Solar Farm (142)	In mediation	Project denied by City Council on 1/16/18.
<i>Continue replacing/rehabilitating sewerlines</i>		
• Palisades Sewer Slip Lining Ph 2 (163)	Construction	30% complete.
• Palisades Sewer Replacement Ph 2 (163A)	Construction	95% completed.
• Agua Fria/Blue Jay Sliplining (176)	Construction	Completed.
• I&I MH Rehabilitation 2018 (181)	Construction	Over 70% complete.
• Tr 7417 MH Rehabilitation 2018 (182)	Construction	Completed.
Field Operation Facility Offsite <u>Sewer</u> (172)	Constructon	Starting construction activities.
<i>Support Ops &amp; Field Ops Departments</i>		
• Grass Valley Screen Replacement (139)	Construction	Manufacturing process.
<i>Support Ops &amp; Field Ops Departments</i>		
• DLP/LACSD Emergency Interconnection (164)	Bids opened	Rejecting bids.
<i>Support Ops &amp; Field Ops Departments</i>		
• Spyglass Slope Stabilization (179)	Feasibility Study	Commencing.
• Bernina Tanks #1 & 2 Coating (183)	Construction	On hold.
• Water Stations Paving & Coating (184)	Construction	95% complete.
<i>Researching sustainable water resource</i>		
• Willow Creek Hillside Ponds	Preliminary Studies	Bureau is preparing for Ph 3 after geophysics survey results.
Continue GIS development	Contract	Surveyor contracted. Scope revision & contract preparation complete.
Update LACSD Specifications and Standard Drawings	Draft	Draft under revision.