

SPECIAL MEETING OF THE BOARD OF DIRECTORS

IDYLLWILD WATER DISTRICT

September 27, 2017 - 6:00 P.M.

AGENDA

CALL TO ORDER:

ROLL CALL:

PUBLIC COMMENTS:

Any person may address the Board at this time upon any subject not identified on this Agenda but within the jurisdiction of the District. Please note that for items not listed on the agenda, the Brown Act imposes limitations on what the Board may do at this time. The Board may not take action on the item at this meeting. As to matters on the Agenda, persons will be given an opportunity to address the Board when the matter is considered. If you wish to speak during public comment, please fill out a "Speaker Request Form" and give it to the Board Secretary. When the Board President calls your name, please immediately step to the podium and begin by giving your name and address for the record. Each speaker will be given four (4) minutes to address the Board.

1. CONSENT CALENDAR:

Consent Calendar items are expected to be routine and non-controversial, to be acted upon by the Board at one time without discussion. If any Board member, staff member, or interested person requests that an item be removed from the Consent Calendar, it shall be removed so that it may be acted upon separately.

A. MINUTES – August 16, 2017

B. FINANCIAL REPORTS APRIL 2017

1. Income statement for the Second month ending August 2017
2. District warrants for August 2017.

Check #	14265 - 14323	= \$	154,476.43
Gross Payroll		= \$	53,339.00
Federal/State PR taxes		= \$	9,339.00
LAIF Transfers		= \$	0.00
Transfers/charges		= \$	163.62

C. OPERATIONS REPORT FOR THE SECOND MONTH – AUGUST 2017

2. **FLOW MONITORING FOR LILY CREEK AND FOSTER LAKE**– The Board will consider awarding a design contract to Krieger & Stewart for DSOD compliance.

3. **ACQUISITION OF A SKID STEER LOADER AND ACCESSORIES** – The Board will consider purchase of a CATERPILLAR INC. Model: 262D Skid Steer Loader and accessories.
4. **GENERAL MANAGER JOB DESCRIPTION** - The Board will initiate a review of the job description for General Manager.
5. **WWTP EVALUATION** – The Board will review the West Yost report and provide direction to Staff.
6. **COLLECTION SYSTEM MAINTENANCE** – The board will consider award of a contract to clean and video inspect the Idyllwild Wastewater Collection System.
7. **ACWA REGIONAL ELECTION** – The Board will consider its vote for the ACWA Regional Election.

REPORTS FROM COMMITTEES:

DIRECTORS COMMENTS :

GENERAL MANAGER'S COMMENTS:

ADJOURNMENT:

To the next Board meeting is a Special Meeting scheduled for October 25, 2017 at 6:00 p.m., to be held at the Idyllwild Water District Boardroom, 25945 Hwy. 243, Idyllwild, CA.

Please remember during Public Comments:

- Comments should be limited to 4 minutes or less
- Comments should be directed to the Board as a whole and not directed to individual Board members.

Americans with Disabilities Act: In compliance with the ADA, if you need special assistance to participate in a District meeting or other services offered by this District, please contact the District office @ 951-659-2143 or email: admin@idyllwildwater.com. Upon request, the agenda and documents in the agenda packet can be made available in appropriate alternative formats to persons with a disability. Notification of at least 48 hours prior to the meeting or time when services are needed will assist the District staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting.

**MINUTES OF THE REGULAR MEETING
OF THE BOARD OF DIRECTORS
IDYLLWILD WATER DISTRICT**

The Board of Directors of the Idyllwild Water District met in regular session on August 16, 2017, in the Idyllwild Water District Board Room.

CALL TO ORDER:

The meeting was called to order by President Schelly at 6:00 p.m.

ROLL CALL:

Directors present: President Charles Schelly, Geoffrey Caine, Steve Kunkle and Peter Szabadi. Interim General Manager Jack Hoagland, Chief Financial Officer Hosny Shouman and Board Secretary Erica Gonzales were also present.

General public present: (6)

PUBLIC COMMENT:

STEVE THOMPSON – Concerned about the varying Water Base Rates for varying sized water meters. Has a 1” Water Meter and does not feel he should pay more than a customer with a 5/8” Water Meter. Wanted to know what it will take to have the rate structure changed.

ITEM #1- CONSENT CALENDAR:

MINUTES – July 10, 2017
July 19, 2017

FINANCIAL REPORTS JULY 2017

- A. Income statement for the First month ending July 2017
- B. District warrants for July 2017.
 - Check # 14227 - 14264 = \$ 250,221.03
 - Gross Payroll = \$ 50,285.47
 - Federal/State PR taxes = \$ 17,105.32
 - LAIF Transfers = \$ 0.00
 - Transfers/charges = \$ 138.55

OPERATIONS REPORT AND GRAPHS FOR THE TENTH MONTH ENDING JUNE, 2017.

No mainline leaks were reported in July and there was 1 unmetered leak. Foster Lake's level was at 16 feet 7 inches at the end of July. There was 0.02" of precipitation in July and there has been 0.02" of precipitation for the fiscal year to date. The static water levels at the Foster Lake Wells were 1' below ground level, and the downtown well #23 is currently pumping at 217' and the downtown well #24 is static at 18' below ground level respectively. Production for July was 1,453,331 cubic feet. July's unaccounted for water was 8.58% of water production. Fiscal year to date unaccounted for water average is 8.58% of water production.

COMMENT:

PRESIDENT SCHELLY – On Water and Sewer Operating expenses, Medical insurance was very high.

HOSNY SHOUMAN – This is for two months, July and August, because of fiscal year end. Had to hold July payment so there was no overlap.

DIRECTOR SZABADI – Why is the actual revenue so much lower than budgeted?

HOSNY SHOUMAN – We went to "No Stage" therefore the rates in higher tiers were lower.

JACK HOAGLAND – New rate structure will not be reflected until August billing because effective July 1, 2017 so not billed until beginning of August.

DIRECTOR KUNKLE – Would like a print out and summary of charges for Tyler Technologies and California Computer Options.

HOSNY SHOUMAN – Wanted to point out the Non-Operating Revenue. The income has nothing to do with operations, from Capacity Fees on new water meters.

DIRECTOR KUNKLE – Handed out template that he would like used for Operations Report. He would like more information included in the Operations Report.

DIRECTOR SZABADI – Inquired about terms and levels of wells and Foster Lake.

DIRECTOR CAINE – Inquired about where the Water Loss is coming from.

DIRECTOR KUNKLE – Inquired about the flows for the WWTP.

JACK HOAGLAND – Probably a typo.

Corrected Average Daily Flow for the WWTP in July is 114,555 gpd and the correct Average Weekend Flow in July is 118,507 gpd.

A MOTION was made by Director Szabadi to approve the Consent Calendar and Director Kunkle seconded. The vote was as follows:

AYES	NAYS	ABSTAIN	ABSENT
Peter Szabadi Steve Kunkle Geoffrey Caine Charles Schelly			

Consent Calendar was approved.

ITEM 2 – Consider Filling a Vacancy on the Board of Directors

Recommendation

Appoint a qualified candidate to fill the current vacancy on the Board of Directors.

Background

As a result of the resignation of Victor Sirkin, the Idyllwild Water District Board of Directors has a vacancy.

State law provides the District with several options for filling the vacancies:

- The remaining Board members may appoint qualified applicants to the position;
- The Board can call a special election to fill the positions; or
- The Board can default to the Board of Supervisors of Riverside County to appoint a qualified applicant to the position.

The Board, at its July 16, 2017 Regular Meeting, chose to appoint a qualified candidate as the most expeditious and fiscally prudent option.

The appointed board member will be required to stand for election at the next regularly scheduled election in August 2019 if they desire to continue on the Board.

Two residents have submitted letters of interest for the vacant position:

Catherine Dearing

Susan Nash

Each interested resident had a 3-minute opportunity to address the Board of Directors at the meeting prior to the Board decision process.

COMMENT:

CATHERINE DEARING – Very interested in repairing and maintaining infrastructure. Disappointed in non-action from previous management.

SUE NASH – Wants to make sure that Idyllwild Water District Board is compliant with the law and would work hard to make sure Idyllwild Water District Board stays compliant with the law.

DIRECTOR CAINE – Asked various questions to the candidates about past experience and how they feel they would work with people of differing opinions.

A MOTION was made by Director Szabadi to appoint Catherine Dearing to fill the current Board vacancy and Director Caine seconded. The vote was as follows:

AYES	NAYS	ABSTAIN	ABSENT
Peter Szabadi			
Geoffrey Caine			
Steve Kunkle			
Charles Schelly			

Motion approved.

Catherine Dearing was sworn in by Board Secretary Erica Gonzales.

ITEM 3 – Elect a Vice President of the Board of Directors

Recommendation

Staff recommends the Board of Directors elect a Vice President.

Background

Because of the resignation of Victor Sirkin, the Idyllwild Water District Board of Directors has a vacancy at the position of Vice President.

The Board of Directors will select one of its members to serve as the Vice President of the Board.

DISCUSSION:

None.

A MOTION was made by Director Caine to elect Director Szabadi to Vice President of the Board and Director Kunkle seconded. The vote was as follows:

AYES	NAYS	ABSTAIN	ABSENT
Geoffrey Caine Steve Kunkle Catherine Dearing Charles Schelly		Peter Szabadi	

Motion approved.

ITEM 4 – Consider an Amendment to the Employment Agreement of the Interim General Manager

Recommendation

Staff recommends the Board of Directors approve an amendment to the Employment Agreement with the Interim General Manager.

Background

The Board of Directors of the Idyllwild Water District entered an agreement with the Interim General Manager in December 2016 for 120 hours a month of work. As a number of projects have moved forward and the staff has become more stable, the Interim General Manager recommends that the time commitment be reduced to 90 hours per month with a reduction in the compensation to \$7,000 per month (from \$8,800) and personal time off to 10 hours per month (15 days per year) from 13.3 hours per month (20 days per year).

This action coupled with beginning exploration of succession options will start the transition process and save the District money.

DISCUSSION:

VICE PRESIDENT SZABADI – Wanted to confirm that there would be no extra compensation if more than the 90 hours per month were worked.

DIRECTOR KUNKLE – Wanted to clarify that the Amendment has already been implemented. Wanted to know if there could be any negotiation. Would like the search to begin for permanent General Manager.

A MOTION was made by Director Szabadi to approve the Amendment to the Employment Agreement with the Interim General Manager and Director Dearing seconded. The vote was as follows:

AYES	NAYS	ABSTAIN	ABSENT
Peter Szabadi	Steve Kunkle		
Catherine Dearing			
Geoffrey Caine			
Charles Schelly			

President Schelly created a Personnel Committee to begin work on the search for a Permanent General Manager. Director Kunkle, President Schelly and Jack Hoagland comprise the Personnel Committee.

ITEM 5 – Field Operations Supervisor

Recommendation: That the Idyllwild Water District Board of Directors consider approval of the attached Job Description and a Salary Range of \$33.70/hr. to \$46.71/hr.

Background: The District has been unable to recruit a Chief Sewer Operator for several years and has contracted with the Specialized Utility Services Program of California Rural Water Association to fulfill the requirements of the State/Regional Water Quality Control Board. The current fee is over \$12,000 per month for the service.

Staff used a recruiting service (Project Partners) to assist the District in identifying potential candidates and although successful, the Board of Directors failed to approve this item at the July 10, 2017 Special Meeting and the candidate is no longer available. In order to streamline the District organizational structure a position has been resurrected from past District operations to oversee all field operations to be called Field Operations Supervisor. A job description is attached.

The salary range is internally consistent within Idyllwild Water District (equivalent to an annual range of \$70,096 to \$97,162).

Consistent with State Regulations the salary range requires approval at a regular meeting.

By establishing this position and salary range, the District will be in a position to make an immediate offer upon identification of a viable candidate.

DISCUSSION:

VICE PRESIDENT SZABADI – Clarified that there would be a cost savings from the contractors SUSP, Inc. Would like to add a financial incentive in the form of moving expenses over a period of time.

JACK HOAGLAND – A financial incentive would be a great recruiting tool but should not be put into the Job Description.

DIRECTOR KUNKLE – Believes this Job Description is a good starting point. Thinks there is too much emphasis on Waste Water. We should wait until we have a permanent General Manager to continue this process.

DIRECTOR CAINE – Having the new GM have a hand in hiring new employees is a good idea except for the time constraints. Also should make sure that they have the skills to perform more work in house.

MARGE MUIR – Should look on the mountain for employees and look at the talent and resources locally for staffing needs.

President Schelly referred this item to the Personnel Committee.

ITEM 6 – Wastewater Rules & Regulations- Recreational Vehicles’ Use of the Sewer System

Recommendation

Staff recommends the Board of Directors discuss the issue and provide guidance to staff.

Background

The Policy Committee referred this issue to the full Board of Directors as it was grappling with RV use of the sewer. Several scenarios were considered and no consensus was reached regarding the extent of control that should be exerted on RV use of the sewer.

The Committee thought that the entire Board of Directors should express their views in an effort to reach a consensus.

DISCUSSION:

JACK HOAGLAND – Suggested adding language stating that non- permanent structures may not use Sewer system.

MARGE MUIR – The trailer parks would be considered non- permanent because you can move the structures, not on permanent foundations.

JACK HOAGLAND – We can leave the language out since it has not been a problem in the past. This was the last issue before bringing the final draft of the Waste Water Rules and Regulations to the Board.

ITEM 7 – Consider the Issue of Majority of a Minimum Quorum

Recommendation

Staff recommends the Board of Directors Discuss the issue as requested by Director Caine.

Background

The Board of Directors of the Idyllwild Water District has discussed this issue at prior meetings. Material provided by the District's General Counsel is attached for the Board's reference.

Director Caine requested that the issue be revisited.

DISCUSSION:

DIRECTOR CAINE – Would like to ask Legal Counsel if the Board could vote to make two a majority in the event of two vacancies on the Board because of historical events.

VICE PRESIDENT SZABADI – From experience, lawyers tend to be conservative, so their opinion would be to make sure that Idyllwild Water District would not be subject to legal action. Has no objection to asking Legal Counsel.

DIRECTOR'S COMMENTS:

None

GENERAL MANAGER’S COMMENTS:

JACK HOAGLAND – Water Rights have all been transferred to Aleshire & Wynder, hoping to have something back from State Water Resources Control Board by the end of this year. Certificate of Transparency has been delayed due to Board resignations. New Sewer pumps scheduled for delivery in mid- September. Have installed 6 new water meters. Received new Operating Permit Amendment for Tollgate Tank and Operating Permit for Oakwood Well. Completed paper work to remove “recycling” from Waste Discharge Requirements with the SWRCB and have almost completed paperwork to submit a request for a quote from CalPERS.

VICE PRESIDENT SZABADI – If Waste Water Requirements reduced, do we have people that can run the WWTP now?

JACK HOAGLAND – Not at this time, would still need a Grade III but it would reduce testing requirements and save on laboratory costs.

DIRECTOR KUNKLE – Would like a report on capacity of Oakwood Well.

JACK HOAGLAND – In order to accommodate Directors’ schedule, would like to request the next Regular Board Meeting be cancelled and schedule a Special Meeting on September 27, 2017 for monthly items. Would also like to cancel Regular Board Meeting on October 18 and schedule a Special Meeting for October 25, 2017 for monthly items.

ADJOURNMENT:

A MOTION was made by Director Caine to ADJOURN the meeting and Vice President Szabadi seconded. The vote was as follows:

AYES	NAYS	ABSTAIN	ABSENT
Geoffrey Caine			
Peter Szabadi			
Catherine Dearing			
Steve Kunkle			
Charles Schelly			

The Regular Meeting was ADJOURNED at 8:03 pm.

IDYLLWILD WATER DISTRICT

IDYLLWILD WATER DISTRICT

BY: _____
DR. CHARLES SCHELLY-
BOARD PRESIDENT

BY: _____
ERICA GONZALES-
BOARD SECRETARY

**IDYLLWILD WATER DISTRICT
WATER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING AUGUST 31, 2017**

CONDENSED CATEGORY	FOR THE MONTH OF		AUGUST	2017
	ACTUAL	BUDGET	VARIANCE	%
OPERATING REVENUES:				
BASE-RESIDENTIAL/COMMERCIAL	50,614	52,000	-1,386	-2.67%
SALES-RESIDENTIAL/COMMERCIAL	71,551	73,000	-1,449	-1.99%
OTHER OPERATING REVENUE	2,210	4,000	-1,790	-44.75%
OTHER NON- OPERATING REVENUE*	16,995	20,000	-3,005	
TOTAL OPERATING REVENUES	141,369	149,000	-7,631	-5.12% *

*

OPERATING REVENUE BY CATEGORY	FOR THE MONTH OF		AUGUST	2017
	ACTUAL	BUDGET	F (U) VARIANCE	%
BASE RATE - RESIDENTIAL	43,550	43,550	0	0.00%
BASE RATE - COMMERCIAL	7,064	8,450	-1,386	-16.40%
SALES-RESIDENTIAL	36,290	38,000	-1,710	-4.50%
SALES-COMMERCIAL	35,260	35,000	260	0.74%
SALES-SEWER	0	0	0	0.00%
SALES-CONSTRUCTION/OTHER	0	0	0	0.00%
TRANSFER FEES	266	195	71	36.41%
TURN ON/OFF FEES	0	50	-50	-100.00%
LIEN & LIEN RELEASE FEES	0	0	0	0.00%
DELINQUENCY FEES	0	755	-755	-100.00%
WILL SERVE LETTER FEES	250	2,500	-2,250	-90.00%
OTHER MISCELLANEOUS	1,944	500	1,444	0.00%
INSTALLATION FEES	16,745	20,000	-3,255	-16.28%
CAPACITY FEES	0		0	0.00%
TOTAL OPERATING REVENUES	141,369	149,000	-7,631	-5.12%

**IDYLLWILD WATER DISTRICT
 WATER FUND CONDENSED INCOME STATEMENT
 FOR FISCAL MONTH ENDING AUGUST 31, 2017**

FOR THE MONTH OF AUGUST 2017

CUBIC FEET OF SALES:	ACTUAL	BUDGET	VARIANCE	%
R1	672,900	735,000	-62,100	-8.45%
R2	23,040	46,000	-22,960	-49.91%
R3	107,370	134,000	-26,630	-19.87%
R4	179,016	75,000	104,016	138.69%
R5	13,600	22,000	-8,400	-38.18%
R6	142,860	205,000	-62,140	-30.31%
NC-WWTP	26,730	37,650		
TOTAL CUBIC FEET OF SALES	1,165,516	1,254,650	-78,214	-6.23%
NUMBER OF CUSTOMER BILLS:				
R1	1,537	1,534	3	0.20%
R2	30	30	0	0.00%
R3	50	45	5	11.11%
R4	13	13	0	0.00%
R5	4	5	-1	-20.00%
R6	2	2	0	0.00%
NC-WWTP	1	1	1	100.00%
S	10	10	0	0.00%
TOTAL NUMBER OF CUSTOMER BILLS	1,647	1,640	8	0.49%

* s : Sewer Only Account

**IDYLLWILD WATER DISTRICT
WATER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING AUGUST 31, 2017**

BY CATEGORY	FOR THE MONTH OF		AUGUST	2017
	ACTUAL	BUDGET	F (U) VARIANCE	%
WATER OPERATING EXPENSES:				
1- WAGES AND SALARIES EXPENSES	46,197	50,000	3,803	7.61%
2- RETIREMENT PLAN AND LIFE INSURANCE	5,155	6,667	1,512	22.67%
3 -MEDICAL INSURANCE	11,500	11,500	0	0.00%
4 -UNIFORM EXPENSES	186	438	252	57.53%
5 -WORKER'S COMP INSURANCE	0	1,042	1,042	100.00%
6 -RETIREMENT MEDICAL INSURANCE	0	2,000	2,000	100.00%
7 -BOARD REIMBURSEMENT	150	1,000	850	85.00%
8 -OFFICE SUPPLIES	503	1,500	997	66.46%
9 -OFFICE CLEANING SERVICE	210	280	70	25.00%
10 -POSTAGE AND MAILING FEE	1,460	2,000	540	27.01%
11 -TRAINING AND EDUCATION	0	604	604	100.00%
12 -TRAVELING , MILEAGE, MEALS REIMBURSEMENT	0	629	629	100.00%
13 -DUES ,FEES , SUBSCRIPTIONS	1,809	771	-1,038	-134.69%
14 -COMPUTER SERVICES	1,355	2,000	645	32.24%
15 -LEGAL SERVICES	13,896	2,500	-11,396	-455.86%
16 -UTILITIES - ELECTRICITY	6,725	8,292	1,567	18.89%
17 -UTILITIES - GAS& FUEL	680	717	37	5.12%
18 -UTILITIES - PROPANE	0	325	325	100.00%
19 -UTILITIES - TELEPHONE INTERNET	1,024	761	-263	-34.64%
20 -UTILITIES - WASTE MANAGEMENT FEE	365	184	-180	-97.97%
32 -AUTO AND PROPERTY INSURANCE	0	1,712	1,712	100.00%
21 -STATE-COUNTY WATER SYSTEM FEES	0	1,583	1,583	100.00%
22 -GENERAL PLANT SERVICES	4,147	5,000	853	17.05%
23 - VEHICLES REPAIRS AND MAINTENANCE	8	521	513	98.45%
24 -WATER ENGINEERING AND CONSULTING	0	875	875	100.00%
25 -LABORATORY SERVICES	1,130	1,042	-88	-8.48%
26 -WATER SECURITY SYSTEM	0	771	771	100.00%
27 -ADVERTISING AND PUBLISHING	18	542	524	96.68%
28 -PROPERTY TAX EXPENSES	0	233	233	100.00%
29- COMPENSATED TIME	0	1,833	1,833	100.00%
30 -BANK FEE CHARGE	164	78	-86	-110.69%
31 -WATER MAINTENCE AND SUPPLIES	850	1,042	192	18.40%
33 -ACCOUNTING AND AUDITING FEE	1,500	2,000	500	25.00%
TOTAL OPERATING EXPENSES:	99,032	110,439	11,407	10.33%
TOTAL INCOME AND (LOSS)	42,337	38,561		

**IDYLLWILD WATER DISTRICT
SEWER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING August 31 , 2017**

CONDENSED BY CATEGORY	FOR THE MONTH OF August , 2017			
	ACTUAL	BUDGET	F (U) VARIANCE	%
OPERATING REVENUES:				
BASE-RESIDENTIAL/COMMERCIAL	52,518	54,000	-1,482	-2.74%
OTHER OPERATING	75	25	50	200.00%
TOTAL OPERATING REVENUES	52,593	54,025	-1,432	-2.65%
OPERATING EXPENSES:				
1- WAGES AND SALARIES	12,128	15,000	2,872	19.15%
2- RETIREMENT AND LIFE INSURANCE	1,385	2,000	615	30.75%
3- MEDICAL INSURANCE	3,000	5,000	2,000	40.00%
4- UNIFORM EXPENSE	62	300	238	79.36%
5-WORKER'S COMPENSATION INSURANCE	0	145	145	100.00%
6- RETIREMENT MEDICAL INSURANCE	0	917	917	100.00%
7- BOARD REIMBURSEMENT	50	200	150	75.00%
8- OFFICE SUPPLIES	106	600	494	82.38%
9- OFFICE CLEANING SERVICES	70	150	80	53.33%
10- POSTAGE AND MAIL FEE	487	500	13	2.68%
11- EDUCATION AND TRAINING	0	500	500	100.00%
12- TRAVELING, MILAGE, MEAL REIMBURSEMENT	0	292	292	100.00%
13- DUE AND SUBSCRIPTION FEE	656	542	-114	-21.03%
14- COMPUTER SERVICES	452	1,000	548	54.83%
15- LEGAL SERVICES	4,632	500	-4,132	-826.43%
16- UTILITIES - ELECTRICITY	4,984	4,000	-984	-24.60%
17- UTILITIES - GAS & FUEL	0	437	437	100.00%
18- UTILITIES - PROPANE	0	25	25	100.00%
19- UTILITIES - TELEPHONE&INTERNET	331	292	-40	-13.59%
20- UTILITIES - WASTE MANAGEMENT FEE	122	125	3	2.78%
21- VEHICLES REPAIRS AND MAINTENANCE	3	500	497	99.46%
22- SEWER ENGINEERING SERVICES	15,440	16,000	560	3.50%
22- SEWER MAINTENANCE AND SUPPLIES	0	1,615	1,615	100.00%
23- GENERAL PLANT SERVICES	3,887	500	-3,387	-677.37%
24- SEWER PERMIT AND LICENSE(State Fee)	0	500	500	100.00%
25- MINOR EQUIPMENT AND SUPPLIES	0	42	42	100.00%
26- SEWER LEASE	0	250	250	100.00%
27- ADVERTISING AND PUBLISHING	6	125	119	95.20%
28- LABORATORY SERVICES	3,591	500	-3,091	-618.20%
29- GENERAL AUTO AND LIABILITY INSURANCE	0	570	570	100.00%
30- SECURITY SYSTEM (ADT)	0	208	208	100.00%
Total Expenses	51,390	53,333	1,943	3.64%
Total INCOME OR (LOSS)	1,203	692		

**IDYLLWILD WATER DISTRICT
SEWER FUND CONDENSED INCOME STATEMENT
FOR FISCAL MONTH ENDING AUGUST 31 , 2017**

FOR THE MONTH OF JULY , 2017

SEWER FUND OPERATING REVENUES

	ACTUAL	BUDGET	F (U) VARIANCE	%
BASE RATE-COMMERCIAL	35,573	33,918	1,655	4.88%
BASE RATE- RESIDENTIAL	16,945	17,202	-257	-1.49%
TRANSFER FEE	75	25	50	200.00%
FACILITY CHARGE FROM IAF	0	0	0	0.00%
INSPECTION FEE	0	0	0	0.00%
OTHER MISCE	0	0	0	0.00%
TOTAL OPERATING REVENUE	52,593	51,145	1,448	2.83%

EQUIVALENT DWELLING UNITS (E.D.U'S)

RESIDENTIAL	456	456	0.0	0.00%
COMMERCIAL	937	937	0.0	0.00%
TOTAL E.D.U'S	1,393	1,393	0.0	0.00%

**IDYLLWILD WATER DISTRICT
DISTRICT WARRANTS AND OTHER DISBURSEMENTS
FOR THE MONTH ENDED AUGUST 31, 2017**

DATE	CHECK NUMBER	PAYEE	DESCRIPTION	AMOUNT
8/1/2017	14265	Aleshire & Wynder	Legal Fees	8,690.53
8/1/2017	14266	California Computer Options	Monthly Computer Support Fee	695.00
8/1/2017	14267	Chase Card Services	Sewer Supplies \$132.90, Training for Tyler \$250.00 office supplies \$74.24, Board Meeting Snacks \$30.15	496.95
8/1/2017	14268	Cody Nyberg	Exam Fee for WW2	180.00
8/1/2017	14269	Comtronix Communications	3 Handheld Radios	1,321.31
8/1/2017	14270	County of Riverside	Inspection for Encroachment Permit	2,787.00
8/1/2017	14271	CR&R	Monthly Trash Fee	243.05
8/1/2017	14272	Forest Lumber	Supplies for Water and Sewer	144.63
8/1/2017	14273	Four Seasons Cleaning Service	Monthly Cleaning Service	280.00
8/1/2017	14274	Frontier Communications	Monthly Phone and Internet Charge for WWTP and Foster Lake	402.16
8/1/2017	14275	Harlod K Smith	Concrete for Slab	1,115.21
8/1/2017	14276	Hemet Valley Pipe and Supply	PVC Pipes for Sewer Line	76.56
8/1/2017	14277	Home Depot Credit Services	Supplies for Water and Sewer	194.05
8/1/2017	14278	Idyllwild Water District	To be Deposited at Hemet Bank for Payroll	46,000.00
8/1/2017	14279	InfoSend	Postage and Mailing for June and July	1,946.47
8/1/2017	14280	Ivan Jo	Exam Fee for WW2	240.00
8/1/2017	14281	Jeannine Olsen	Reimburse Cash Drawer for Office Supplies	60.94
8/1/2017	14282	SCE	Monthly Electricity Charge	11,040.13
8/1/2017	14283	Spectrum Business	Monthly Internet and Phone for Office	409.98
8/1/2017	14284	Tyler Puckett	D1 Certification Fee	50.00
8/1/2017	14285	USA Bluebook	Supplies for Water and Sewer	1,763.68
8/1/2017	14286	Verizon Wireless	Monthly Charge for On Call and GM cell phone	156.45
8/9/2017	14287	ACWA/JPIA	Medical Insurance for August and Sept	27,918.56
8/9/2017	14288	Al's Kubota Tractor	Chain	37.09
8/9/2017	14289	Burtronics Business Systems	Maintenance on Copier/Printer and Toner	25.36
8/9/2017	14290	California Computer Options	Computer Support	1,112.00
8/9/2017	14291	CR&R	Monthly Trash Fee	243.05
8/9/2017	14292	Dissinger Associates Plan	Retirement Plan Administration Fee	2,380.00
8/9/2017	14293	Idyllwild Town Crier	Ad for Vacant Board Seat	24.00
8/9/2017	14294	Mission Linen & Uniform Service	Monthly Laundering Fee	247.72
8/9/2017	14295	NAPA Auto Parts	Auto Parts	10.77
8/9/2017	14296	SUSP, Inc	Sewer Consulting Fee	12,580.00
8/9/2017	14297	Dig Alert	42 New Tickets and Monthly Database Fee	79.30
8/9/2017	14298	USA Bluebook	Supplies for Water and Sewer	1,300.37
8/9/2017	14299	West Yost Engineers	Consulting for WWTP	2,739.00
8/9/2017	14300	Babcock & Sons	Lab Fees for Water and Sewer	4,721.00
8/16/2017	14301	Aleshire & Wynder	Legal Fees	9,838.00
8/16/2017	14302	Central Communications	Monthly Answering Service	102.00
8/16/2017	14303	Charlene Lane	Refund for Installtion Fees from Deposit	150.00
8/16/2017	14304	Cindy Hinds	Refund for Installtion Fees from Deposit	315.00
8/16/2017	14305	Dillon Pulatie	Boot Allowance/Reimbursement	150.00
8/16/2017	14306	Engineering Resources of So. C	Preparations for Updated Sewer Records	120.90
8/16/2017	14307	Jeannine Olsen	Reimburse Cash Drawer for Office Supplies	107.94
8/16/2017	14308	Joyce Schilling	Refund for Installtion Fees from Deposit	250.00
8/16/2017	14309	VOID		
8/16/2017	14310	USA Bluebook	Supplies for Water and Sewer	132.18

8/16/2017	14311	Webb Associates	Preliminary Design Services	5,380.96
8/16/2017	14312	WWSD, LLC	Refund for Installtion Fees from Deposit	320.00
8/16/2017	14313	SCE	Monthly Electricity Charge	669.05
8/23/2017	14314	Allstate Benefits	Monthly Charge for Employee Life Insurance	473.77
8/23/2017	14315	Cindy Hinds	Refund for repair of Backflow device	220.18
8/23/2017	14316	Forshock	Repair Scada System	290.50
8/23/2017	14317	Harold K. Smith	Concrete for Slab	436.39
8/23/2017	14318	Inland Water Works Supply	Supplies for Water	414.84
8/23/2017	14319	Maximum Gas and Supplies	CO2 for Water	108.18
8/23/2017	14320	Staples Credit Plan	Office Supplies	397.59
8/23/2017	14321	T-Mobile	Monthly Charge for Solar Panels	29.99
8/23/2017	14322	Time Warner Cable	Telephone and Internet for Office	356.64
8/23/2017	14323	Tyler Technologies	Last Invoice for Conversion	2,500.00
TOTAL DISTRICT WARRANTS				\$154,476.43
OTHER DISBURSEMENTS:				
TOTAL PAYROLL				\$53,339.00
NET PAYROLL CHECKS-DIRECT DEPOSIT				\$44,000.00
FEDERAL PAYROLL TAXES-ELECTRONIC TRANSFERS				\$7,382.00
STATE PAYROLL TAXES-ELECTRONIC TRANSFERS				\$1,957.00
L.A.I.F. ELECTRONIC TRANSFERS				\$0.00
BANK SERVICE CHARGES AND FEES				\$163.62
TOTAL DISTRICT WARRANTS & OTHER DISBURSEMENTS				\$261,318.05

Operations Report for August 2017

Currently – No Stage

Production – August 1,247,812 C.F / 223 Avg GPM

Foster Lake level -13 ft.-

Water and Sewer installations - 6 Water installations

Leaks -10-

Mainline -2-/Unmetered -7/Metered –1

August Water Loss = 4.54% -- 6.66% Y.T.D.

Production

Drinking water storage- 3.28MG

14 wells available/10 utilized/ 3 full time/ 7 part time

Wastewater Treatment Plant

August 2017 -Average daily flow 92,194 gpd/Average weekend flow 101,250 gpd

August 2016 -Average daily flow 89,774 gpd/Average weekend flow 98,000 gpd

Precipitation

August 2017 – 0.09”/ Y.T.D. – 0.11” August 2016 – 0.0” / Y.T.D – 0.21”

Diversion – 114,900 C.F.-

STATIC WELL LEVELS

	August 2017	August 2016	August 2015
Foster Lake (Average 3 wells)	5’ Static	32’ Static	43’ Static
Well # 26 (Nature Center)	49’ Static	152’ Static	203’ Pumping
Well # 27 (Nature Center)	40.5’ Static	122’ Static	93’ Static
Well #28 (Rockdale)	124’ Static	142’ Static	144’ Static
Downtown Wells* #23 & #24	220’ Pumping 113’ Pumping	247’ Pumping 196’ Pumping	29’ Static
FV1A	10’ Static	392’ Pumping	393’ Pumping
FV2	292’ Pumping	295’ Pumping	266’ Pumping

*Downtown Wells Static level is an average for 2015. August 2016 and 2017 both well levels are included.

IDYLLWILD WATER DISTRICT
 MONTHLY WATER RE-CAP SUMMARY
 FOR THE MONTH OF: **August**

DATE: **9-11-17**

IN DISTRICT STORAGE SUPPLY	<u>189,855</u>	C.F.	}	<u>439,022 CF</u>
FOSTER LAKE STORAGE SUPPLY	<u>249,167</u>	C.F.		
				TOTAL STORAGE SUPPLY
INCREASE	_____	C.F.		
DECREASE	_____	C.F.		
SUPPLIES TO SYSTEM	<u>1,247,812</u>	C.F.		
I.W.D. FLUSHING	_____	C.F.		
FOSTER LAKE LEVEL	<u>13'</u>	MAXIMUM OF 18'		

STATIC GROUND WATER LEVELS:

F.L. AREA 3 FEET

F.V. AREA:

F.V.1A 10 FEET

F.V.#2 292 FEET

CREEK AREA #23=220 FEET #24= 113 Feet

WELL #26 49 FEET

WELL #27 40.5 FEET

STORAGE SUPPLIES(MAXIMUM OF 3.702 MILLION GALLONS) 88 %

MAINLINE LEAK REPAIRS 10,500 GAL

STRAWBERRY CREEK DIVERSION 114,900 C.F. 2.6 A.F.

FERN VALLEY 1A WELL 213,070 C.F. 4.9 A.F.

STRATTON WELL #23 DRAW 183,570 A.F.

OAKWOOD WELL DRAW(PRIVATE) _____ A.F.

WELL #26 (COUNTY OF RIVERSIDE) _____ A.F.

WELL #27 (COUNTY OF RIVERSIDE) _____ A.F.

COMMENTS:

	LEVEL	VOLUME
SOUTHRIDGE TANKS (3,509 CF/FOOT)	19.5	68,425CF
GOLDEN ROD TANK (891 CF/FOOT)	20.6	18,354CF
WILDWOOD TANK (919 CF/FOOT)	12.9	11,855CF
ROCKDALE TANK (2,718 CF/FOOT)	24.5	66,591CF
FOSTER LAKE TANKS (11,698 CF/FOOT)	21.3	249,167CF
SEWER PLANT USAGE		
DELANO TANK (1,337 CF/FOOT)	18.4	24,600CF
HYDRANT SALES IN CUBIC FEET		

IWD WELL PRODUCTION DATA

Month: AUGUST

Year 2017

Date 9-11-17

	Well Name	#	Acre Feet	Cubic Feet	PT/FT	Notes:
1	Horizontal	1	.74	32,130	PT	Bad BacT- Straight to Lake
2	Foster Lake	2	7.15	311,760	PT	
3	Foster Lake	4	1.7	74,128	FT	
4	Foster Lake	5				OFF
5	Foster Lake	8				OFF
6	Foster Lake	9				OFF
7	Foster Lake	10				OFF
8	Foster Lake	11				OFF
9	Foster Lake	12				OFF
10	Foster Lake	13	2.5	111,470	PT	F.L Wells Total
11	Foster Lake	15				OFF
12	Foster Lake	16				OFF
13	Nature Ctr	26				OFF
14	Nature Ctr	27				OFF
15	Stratton	23	4.2	183,570	PT	
16	Curtis	24	3.1	138,260	PT	
17	Donahoo	25				OFF
18	Golden Rod	-	.67	29,190	PT	
19	Fern Valley	1A	4.9	213,070	FT	High GA/Uranium
20	Fern Valley	2	4.5	195,435	FT	
21	Rockdale	28	1.17	51,317	PT	
22	Dutch Flats	1				OFF
23	Dutch Flats	2				OFF
24	Dutch Flats	3				OFF

Total Cubic Feet: 1,340,510 C.F.

Difference

Cedar Glen 4" Meter 436,970 C.F. 9.9 A.F.

In District Production 1,247,812 C.F.

Wells #13-#19 810,842 C.F. 18.6 A.F. Supplies to system

28.5
Total A.F.

223 GPM

Production Days 29

Min. 41,760

MONTHLY RE-CAP

(General Manager copy)

MONTH AUGUST YEAR 2017 DATE 9-11-17 INIT JJ

Production days 29

Avg. GPM production 223

Total number of sources available 14

Total number of sources used 10 Full Time 3 Part Time 7

Sources used, Well No's. 21, 2, 4, 13, 23, 24, Golden Rod, FV1A, FV2, 28

Total GPM available 250 (\pm) 15 GPM

Total supplies to system 1,247,812 CF 28.5 AF

Hydrant water sales _____ CF

Potable water in storage 3.28 MG (3.7 MG max) 88 %

Foster Lake level 13 Feet

Strawberry Creek diversion draw 2.6 AF

Fern Valley 1-A pumped to Lake _____ AF

Distribution system flushing including fire dept. use _____ CF

Static water levels:

Foster Lake area 5 ft

Fern Valley Area: F.V.1A 10 ft F.V. #2 292 ft

Creek area #23= 220 ft #24= 113 ft

Well #26 49 ft

Well #27 40.5 ft

Notes: _____

Memo

To: Board of Directors

From: Interim General Manager

Date: September 27, 2017

Subject: ITEM #2 - CONSIDER APPROVING A DESIGN CONTRACT TO KRIEGER & STEWART FOR DSOD COMPLIANCE

Recommendation

Authorize the General Manager to contract with Krieger & Stewart to design the repair of facilities to measure the flow of Lily Creek and levels of Foster Lake for compliance with State Water Resources Control Board regulations in the amount of \$35,000.

Background

On June 24, 2015, Governor Brown signed SB 88 which add reporting and measurement requirements to the regulations for surface water diverters (see attached Fact Sheet).

While Idyllwild Water District's Strawberry creek is in compliance with the new requirements, the diversion and storage of flow from Lily Creek in Foster Lake is not in compliance

As you can see from page two of the Fact Sheet, with a direct diversion of between 10 acre-feet and 100 acre-feet per year, our installation deadline is January 1, 2018.

Our plan is to replace the failed V-notch weir (see photo) and add measurement and recording capability as well as level and outflow measurement capability on Foster Lake.

Krieger & Stewart is a local engineering firm with expertise in stream flow measurement and has provided a proposal for designing the required facilities (attached). The fee for the design effort is \$35,000.

At this early stage, a tentative estimate of the construction cost is \$75,000.

Attachments



Fact Sheet

EMERGENCY REGULATION FOR MEASURING AND REPORTING ON THE DIVERSION OF WATER

Governor Edmund G. Brown Jr. signed Senate Bill (SB) 88 on June 24, 2015. Sections 15 through 18 of SB 88 add measurement and reporting requirements for a substantial number of diverters. The State Water Resources Control Board (State Water Board) adopted a regulation to implement the new law at its January 19, 2016 Board Meeting. The Office of Administrative Law approved this regulatory action on March 21, 2016.

The measurement requirements of the regulation apply to all water right holders who divert more than 10 acre-feet of water per year. The annual reporting requirements in the regulation apply to all statement holders as well as persons authorized to appropriate water under a permit, license, registration (small domestic, small irrigation, or livestock stockpond), or certificate for livestock stockpond use.

Information on the regulation, SB 88, and related documents are available at:

http://www.waterboards.ca.gov/waterrights/water_issues/programs/measurement_regulation/

If you have any questions or concerns, please contact the Division of Water Rights (Division) at:

Email Address: dwr-measurement@waterboards.ca.gov
Phone Number: (916) 341-5300

Key Provisions of Regulation

Annual Water Use Reporting Requirements for Water Right Holders

All water right holders shall report on their diversion and use of water annually, beginning with reports for the 2016 diversion season. Annual water use reports for permits, licenses, registrations and stock pond certificates must be filed by April 1 of each year starting April 1, 2017 for diversions made in 2016. The annual use reports for statements shall be filed prior to July 1 of each year. All reports will continue to document diversions during the prior calendar year. The filing dates are for the annual water use reports are summarized below:

DIVERSION/STORAGE PERIOD	WATER USE REPORT DEADLINES				
	PERMITS	LICENSES	STATEMENTS	REGISTRATIONS	CERTIFICATES
2015	JULY 1, 2016	JULY 1, 2016	JULY 1, 2016	VARIES	NOT REQUIRED
2016	APRIL 1, 2017	APRIL 1, 2017	JULY 1, 2017	APRIL 1, 2017	APRIL 1, 2017

Reporting Requirements for Water Right Holders During Times of Insufficient Supply

When the amount of water available in a surface water source is not sufficient to support the needs of existing water right holders and in-stream uses, the State Water Board may require monthly or more frequent reporting in the affected areas to provide the most accurate assessment of water demand. The State Water Board will notify diverters in affected areas when additional reporting is required.



Deadline for Complying with Measurement and Reporting Requirements

The regulation provides for a phased approach to compliance. The compliance deadlines, by volume of water diverted, are shown in the table below.

Required Accuracy for Measurement and Frequency for Monitoring

SB 88 set expectations for both the accuracy of measurement devices as well as the monitoring frequency of the device. The regulation links both device accuracy and monitoring frequency to the volume categories. Larger diversions and larger reservoirs or ponds have more stringent measurement and monitoring requirements and more stringent requirements for the installation and certification of measurement devices as described in the table below.

Type of Diversion (af = acre-feet)	Installation Deadline	Required Accuracy	Required Monitoring Frequency	Qualifications For Installation And Certification
Direct Diversion ≥ 1,000 af/year Storage ≥ 1000 af	January 1, 2017	10%	Hourly	Engineer/Contractor/Professional
Direct Diversion ≥ 100 af/year Storage ≥ 200 af	July 1, 2017	10%	Daily	Engineer/Contractor/Professional
Direct Diversion > 10 af/year Storage ≥ 50 af	January 1, 2018	15%	Weekly	Individual experienced with measurement and monitoring
Storage > 10 af	January 1, 2018	15%	Monthly	Individual experienced with measurement and monitoring

Measurement Methods

Diverters may propose a measurement method, in lieu of a measuring device, to comply with measurement and accuracy requirements under the regulation. Examples of measurement methods include:

- Multiple water right holders on a single surface supply can propose a collaborative measurement approach.
- A single water right holder with multiple points of diversion can propose a measurement method that may preclude the need to install a measurement device at each point of diversion.

Alternative Compliance

A water right holder may request an alternative compliance approach when strict compliance is not feasible, would be unreasonably expensive, would unreasonably affect public trust resources, or would result in the waste or unreasonable use of water.

The Division is preparing the forms to request alternative measurement or alternative compliance. All requests must be submitted on the Division's forms. Please note; persons subject to the regulation are not allowed to claim "not locally cost effective".

Certification of Water Measurement Device

The regulation requires that the accuracy of the water measurement device be certified every five years, in accordance with the table above. The regulation calls for an initial certification with the first water use report filed after the device has been installed.





August 30, 2017

000-358.1A

Jack Hoagland, General Manager
Idyllwild Water District
25945 Highway 243
Idyllwild, CA 92549

Subject: Engineering Services Proposal for
 Lily Creek Flow Measurement and
 Foster Lake Level Measurement

Dear Mr. Hoagland:

We appreciate the opportunity to submit our proposal for subject project. We have prepared the following project understanding, scope of services, and fee estimate for your consideration.

A. PROJECT UNDERSTANDING

We understand that Idyllwild Water District (IWD) has a permit to divert 40 Acre-Feet per year (AF/yr) from Lily Creek to storage in Foster Lake from October 1st through June 1st. Any flow that is diverted into Foster Lake between June 1st and October 1st must be released downstream from Foster Lake by opening a diversion valve. To comply with these permit conditions, it is necessary for IWD to be able to accurately measure both the quantity of water entering Foster Lake from Lily Creek and the quantity of water flowing out of Foster Lake during diversion. The State Water Resources Control Board is requiring the installation of functional flow-metering equipment by December 31, 2017.

The outflow from Foster Lake during diversion can be estimated by accurately measuring the water level in Foster Lake and multiplying it by the water surface area over the time of diversion. Water level is currently measured using a staff gauge along with IWD's previously-established relationship between water volume and depth. A recording electronic level sensor is desired.

The inflow to Foster Lake from Lily Creek requires installation of a gauging station. There is an existing plywood V-Notch weir located in Lily Creek, but it is in poor condition and is non-functional. Several years ago, electronic level sensors were installed in the two 36" culverts in Lily Creek where Lily Creek discharges into Foster Lake, but the system has reportedly never worked properly. Consequently, a completely new flow gauging station is required for Lily Creek, with instantaneous flow indication and totalization capabilities.

Our preliminary evaluation indicates that the most appropriate alternative for measuring stream flow in Lily Creek, in terms of a balance between accuracy and cost, would be a compound, sharp-crested weir with a 90° V-notch. A compound weir is a combination of two types of weirs—in this case, a horizontal sharp-crested weir with end contractions, with a 90° V-notch cut into the center. Low to average flows would be measured using the V-notch portion of the weir; and high flows, such as those resulting from thunderstorms and rapid snow melt, would be measured using the entire weir functioning as a modified horizontal weir. The stilling pool



Jack Hoagland, General Manager
August 30, 2017
Page 2

upstream of the weir would require regular maintenance to remove accumulated sediment, and would be designed to facilitate such maintenance. IWD's existing power service would be used.

Any outflow from the lake that is discharged over the spillway during periods of high flow should be subtracted from the inflow quantity measured at the Lily Creek flow gauging station. The spillway is not configured as a standard weir, so Foster Lake water level data will not be sufficient to determine discharge over the spillway. We will investigate alternatives for estimating flow over the spillway, including installation of a permanent velocity meter on the spillway crest.

B. SCOPE OF SERVICES

Our Scope of Services will consist of the following:

1. Project Meetings and Coordination
2. Site Reconnaissance, Site Survey, and Preparation of Base Map
3. Hydrological Analysis
4. Preliminary Design and Preparation of Technical Memorandum
5. Preparation of Construction Documents

Each of the components is described in the following paragraphs:

1. Project Meetings and Coordination

We will provide weekly email/telephone updates to IWD during performance of services, and anticipate two formal telephone conferences and two meetings in Idyllwild with IWD staff.

2. Site Reconnaissance, Site Survey and Preparation of Base Map

We performed detailed field reconnaissance and a control and field topographic survey of the site on August 7, 2017. We will use the data obtained thereby to prepare a fully-featured topographic base map for project design purposes.

3. Hydrological Analysis

We will perform a hydrological analysis using the Riverside County Flood Control Hydrology Manual to estimate the design flow range for the Lily Creek flow gauging station.



Jack Hoagland, General Manager
August 30, 2017
Page 3

4. Preliminary Design and Preparation of Technical Memorandum

- We will summarize the design criteria for the project, including estimated Lily Creek discharge range and range of water levels in Foster Lake.
- We will evaluate several alternative weir structure design configurations, and level sensor types for the Lily Creek flow gauging station.
- We will evaluate alternative level sensor types for the Foster Lake level sensor. We anticipate installation of the level sensor in approximately the same location as the existing staff gauge.
- We will evaluate alternatives for measuring discharge over the Foster Lake spillway.
- We will provide recommendations for the preferred project alternative, including the Lily Creek flow gauging station, the Foster Lake level sensor, and the Foster Lake spillway flow measurement system.
- We will prepare a site layout drawing for the preferred project alternative.
- We will compile the above information in a draft Technical Memorandum for Client review.
- We will incorporate IWD staff's comments into a final Technical Memorandum for IWD's records.

5. Preparation of Construction Documents for Lily Creek Flow Gauging Station

- We will design the Lily Creek flow gauging station based on the design criteria contained in the Technical Memorandum.
- We will prepare Construction Documents (plans and specifications) for construction of project facilities based on the design criteria contained in the Technical Memorandum. Construction Documents will be suitable for construction by IWD's own forces or a sole-sourced local contractor, but will not be suitable for competitive bidding.
- We will prepare a complete set of 24" x 36" construction drawings on standard IWD title block, including general, civil, mechanical, structural, and electrical elements. We anticipate the construction drawings will consist of approximately six (6) sheets.
- We will provide 50%, 90%, and Final documents to Client.
- We will hold a review conference by telephone with IWD staff after transmittal of the 90% documents.
- We will incorporate review comments from the 90% design submittal into the Final Construction Drawings and Specifications.



Jack Hoagland, General Manager
August 30, 2017
Page 4

- We will prepare a technical manual including manufacturer's information for sensors and control systems, and information on operation, maintenance, and calibration of all equipment.

C. FEE ESTIMATE

Our estimated fee to provide the engineering services for subject project as described above is \$35,000, as itemized on **Table 1**, attached. A copy of our 2017 Fee Schedule is also attached, and our fee estimate is based on the rates specified therein. Our estimated fee for the construction portion of our proposal is based on our experience with similar projects; however, all projects are unique, and not all design challenges can be anticipated in advance. If at any time during design, we determine that our man-hours are substantially deviating from the assumptions made during preparation of our fee estimate, we will immediately notify District staff, so that appropriate action can be taken.

Our proposal has been prepared based on the following assumptions:

- IWD will either use its own forces or a sole-sourced local contractor to construct this project. Therefore, this proposal does not include bid-phase services or construction phase services. If requested, we will submit a separate proposal for bid-phase and/or construction-phase services.
- CEQA compliance will be handled by others. Our understanding is that CEQA requirements will be met using a Notice of Exemption, as the project will be deemed to consist of repair of existing facilities. This proposal does not include CEQA-related services.
- Environmental permitting will be handled by others. This proposal does not include environmental permitting services.
- Level and velocity sensors will be provided with onsite data-loggers with provisions for downloading data onto portable devices. Any connection to telemetry will be provided by others.
- IWD will work with a local electrician to extend 120V power service to the electrical equipment.



Jack Hoagland, General Manager
August 30, 2017
Page 5

Again, we appreciate the opportunity to submit our proposal for providing engineering services to Idyllwild Water District and we are available to discuss our proposal with you at your convenience.

If you have any questions or require additional information, please call.

Sincerely,

KRIEGER & STEWART

A handwritten signature in blue ink that reads "Charles A. Krieger". The signature is fluid and cursive, with the first name "Charles" being the most prominent.

Charles A. Krieger

DFS/amm
000-358P1-PRO

Attachments: Table 1 - Estimated Fees for Engineering Services
2017 Fee Schedule

TABLE 1
IDYLLWILD WATER DISTRICT
LILY CREEK FLOW MEASUREMENT AND FOSTER LAKE LEVEL MEASUREMENT
ESTIMATED FEES FOR ENGINEERING SERVICES

COMPONENT	PRINCIPAL IN CHARGE ⁽¹⁾		PROJECT MANAGER ⁽²⁾		PROJECT ENGINEER/ SENIOR SURVEYOR ⁽³⁾		2-MAN SURVEY CREW ⁽⁴⁾		CADD SERVICES/ SENIOR TECHNICIAN ⁽⁵⁾		CLERICAL ⁽⁶⁾		OUTSIDE SERVICES	TOTAL
	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	\$	\$
1. PROJECT MEETINGS AND COORDINATION	4	872	8	1,552	8	1,448								3,872
2. SITE RECONNAISSANCE, SITE SURVEY, AND PREPARATION OF BASE MAP	1	218	2	388	12	2,172	8	2,304						5,082
3. HYDROLOGICAL ANALYSIS	1	218	1	194	22	3,982								4,394
4. PRELIMINARY DESIGN AND PREPARATION OF TECHNICAL MEMORANDUM	4	872	20	3,880	12	2,172			8	1,112	4	388		8,424
5. PREPARATION OF CONSTRUCTION DOCUMENTS	4	872	12	2,328	28	5,068			20	2,780	16	1,552		12,600
SUBTOTAL:	14	3,052	43	8,342	82	14,842	8	2,304	28	3,892	20	1,940	0	34,372
														REIMBURSABLES @ 3% (KRIEGER & STEWART FEES ONLY): 1,031
														ENGINEERING SERVICES TOTAL: \$36,403
														ENGINEERING SERVICES TOTAL (ROUNDED): \$35,000

2017 BILLING RATES

⁽¹⁾ PRINCIPAL	Ⓔ	\$218 /Hr
⁽²⁾ PROJECT MANAGER	Ⓔ	\$194 /Hr
⁽³⁾ SENIOR ENGINEER/ SENIOR SURVEYOR	Ⓔ	\$181 /Hr
⁽⁴⁾ 2-MAN SURVEY CREW	Ⓔ	\$288 /Hr
⁽⁵⁾ SENIOR TECHNICIAN	Ⓔ	\$139 /Hr
⁽⁶⁾ CLERICAL	Ⓔ	\$97 /Hr





**FEE SCHEDULE
2017**

CLASSIFICATION	RATES \$/Hr.
Consulting, Design, Construction, Engineering, Environmental, Commissioning, and Surveying Services (Office)	
Consultant	286.00
Principal III	263.00
Principal II	242.00
Principal I	218.00
Senior III	206.00
Senior II	194.00
Senior I	181.00
Associate III	175.00
Associate II	170.00
Associate I	164.00
Staff III	158.00
Staff II	139.00
Staff I	121.00
Technician III	104.00
Technician II	99.00
Technician I	94.00
Forensic Services	
Principal Expert:	
Testimony, Deposition, and Trial	443.00
Investigation and Preparation	330.00
Associate Expert:	
Testimony, Deposition, and Trial	381.00
Investigation and Preparation	278.00
Computer Aided Design Services	
Operator III	139.00
Operator II	133.00
Operator I	124.00
Surveying Services (Field)	
2 Man Crew with Standard Equipment and Survey Truck	288.00
1 Man Crew with Standard Equipment and Survey Truck	221.00
3rd Man on Crew	132.00
Construction Services (Field)	
Engineer	157.00
Inspector	
Regular Time	121.00
Overtime	
Weekdays (8 hours to 12 hours)	146.00
Weekdays (More than 12 hours)	176.00
Saturday (12 hours or less)	146.00
Saturday (More than 12 hours)	176.00
Sunday and Holiday (Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and the Day After, Christmas Day)	176.00



**FEE SCHEDULE
2017
(continued)**

CLASSIFICATION	RATES \$/Hr.
Support Services	
Secretary IV	97.00
Secretary III	93.00
Secretary II	83.00
Secretary I	75.00
Utility Clerk II	69.00
Utility Clerk I	68.00
Outside Services	
Special Consultants and Purchased Services	Cost + 15%
Reimbursable Expenses	
Vehicle Mileage	0.72 \$/Mile
Travel and Subsistence, including Air Fare, Ground Fare, and Vehicle Parking	Cost
Specialized Rental Equipment	Cost
Copies, Delivery, Postage, Prints, Telephone, and Sundry Charges	Cost

The above rates are subject to change on or about January 1 each year due to salary and cost increases, except for Construction Inspector and Survey Crew rates which are also subject to change if California Department of Industrial Relations issues new prevailing wage determinations during the course of the year. A gasoline surcharge may be included in response to increased prices; no such surcharge will be included on project invoices without prior notification.

TERMS OF PAYMENT:

Unless charge accommodations have been established beforehand, all accounts shall be prepaid. For accounts having charge accommodations, payment in full shall be made within 30 days of date of invoice. Any amount unpaid within said 30 days will be assessed a service charge of 1-1/2% per month (18% annual percentage rate), with a minimum charge of \$1.00. Accounts with a past due balance of 30 days or more are subject, without notice, to credit discontinuance and mechanic's lien or stop notice. If it becomes necessary for Krieger & Stewart to initiate legal proceedings for the collection of any balance due, the action shall be brought and tried in the Judicial Districts wherein Krieger & Stewart offices are located. Client agrees that the court may award reasonable attorney's fees and costs of suit to the prevailing party.

2017-FEES (12/12/2016)

Memo

To: Board of Directors

From: Interim General Manager

Date: September 27, 2017

Subject: ITEM #3 - CONSIDER ACQUISITION OF A SKID-STEER LOADER AND ACCESSORIES

Recommendation

Authorize the General Manager to purchase a Caterpillar 262D skid-steer tractor and accessories from Quinn/Cat for \$83,000.

Background

Based on numbers from an unknown source the District budgeted \$40,000 for a skid steer loader.

When outfitted with the two accessories that make the unit most efficient for the District, the final price is \$82,585.18 (See attached quote). Since this is substantially more than the budget, staff investigated acquisition of a used model (see attached used equipment quote) at \$82,672.70. The Government Discount on the new unit actually results in a net lower price than the used unit, which is not eligible for the discount.

The vigorous construction climate has driven the price of used equipment up and made high quality newer units very rare and expensive.

The new equipment will replace a Case 580C S/N 8969962 backhoe/loader (the trade-in) and offer additional mechanical assistance for the staff especially the cold planer for excavation of service lines for installation and repair (a recent repair on Tollgate required 27 man-hours due to the more than 12-inch thickness of the paving). The skid steer is also a much smaller piece of equipment which will allow access to more areas in the District.

Attachments



Quote 121720-01

August 14, 2017

IDYLLWILD WATER DISTRICT
P O BOX 397
IDYLLWILD
California
92549-0397

Attention: Jack



Dear Sir,

We would like to thank you for your interest in our company and our products, and are pleased to quote the following for your consideration.

CATERPILLAR INC. Model: 262D Skid Steer Loader

STOCK NUMBER: NS0008405

We wish to thank you for the opportunity of quoting on your equipment needs. This quotation is valid for 30 days, after which time we reserve the right to re-quote. If there are any questions, please do not hesitate to contact me.

Sincerely,

Jose Farias
Machine Sales Representative

CATERPILLAR INC. Model: 262D Skid Steer Loader

STANDARD EQUIPMENT

POWERTRAIN

- Cat C3.3B Diesel Engine
 - Gross Horsepower per SAE J1349
74.3 hp (55.4 kW) @ 2400 RPM
 - EPA Tier 4f and EU Stage IIIB
Certified with Aftertreatment
 - Electric Fuel Priming Pump
 - Glow plugs Starting Aid
 - Liquid Cooled, Direct Injection
- Air Cleaner, Dual Element, Radial Seal
- S-O-S Sampling Valve, Hydraulic Oil

- Filter, Cartridge Type, Hydraulic
- Filters, Cartridge Type, Fuel
and Water Separator
- Radiator / Hydraulic Oil
Cooler (side-by-side)
- Spring Applied, Hydraulically Released,
Parking Brakes
- Hydrostatic Transmission
- Four Wheel Chain Drive

HYDRAULICS

- Standard Flow Auxiliary Hydraulics with
Continuous Flow
- CONTROLS:

- Electro/Hydraulic Implement Control, RH
- Electro/Hydraulic Hydrostatic
Transmission Control, LH

ELECTRICAL

- 12 Volt Electrical System
- 80 Ampere Alternator
- Ignition Key Start / Stop / Aux Switch
- Lights:- Gauge Backlighting
 - Two Rear Tail Lights
 - Two Rear Halogen Working Lights

- Two Adjustable Front
Halogen Lights
- Dome Light
- Backup Alarm
- Heavy Duty Battery, 880 CCA
- Electrical Outlet, Beacon

OPERATOR ENVIRONMENT

- Gauges :
 - Fuel Level
 - Hour Meter
- Operator Warning System Indicators:
 - Air Filter Restriction
 - Alternator Output
 - Armrest Raised / Operator
Out of Seat
 - Engine Coolant Temperature
 - Engine Oil Pressure
 - Glow Plug Activation
 - Hydraulic Filter Restriction
 - Hydraulic Oil Temperature
 - Park Brake Engages
 - Regeneration- Engine Emissions

- Ergonomic Contoured Armrest
- Adjustable Joystick Controls
- Control Interlock System, when Operator
Leaves Seat or Armrest Raised :
 - Hydraulic System Disables
 - Hydrostatic Transmission Disables
 - Parking Brake Engages
- ROPS Cab, Open, Tilt Up
- Anti-theft Security System w/6-button
keypad
- FOPS, Level I
- Top and Rear Windows
- Floormat
- Interior Rear View Mirror
- 12V Electric Socket

Storage compartment with netting
Adjustable Vinyl Seat

Horn
Hand (Dial) Throttle, Electronic

FRAMES

Lift Linkage, Vertical Path
Chassis, One Piece Welded
Machine Tie Down Points (4)

Belly Pan Cleanout
Support, Lift Arm
Rear Bumper, Welded

OTHER STANDARD EQUIPMENT

Engine Enclosure - Lockable
Extended Life Antifreeze (-37C, -34F)
Coupler, Mechanical
Hydraulic Oil Level Sight Gauge
Radiator Coolant Level Sight Gauge
Radiator Expansion Bottle
Cat Tough Guard Hose
Heavy Duty Flat Faced Quick Disconnects
with Integrated Pressure Release

Split D-Ring to Route Work Tool Hoses
Along Side of Left Lift Arm
Variable Speed Hydraulic Cooling Fan
Per SAE J818-2007 and EN 474-3:2006 and
ISO 14397-1:2007
Rated Operating Capacity:
- 2700 lb
- 1225 kg

MACHINE SPECIFICATIONS

Description	Reference No	List Amount
262D SSL TIER 4 FINAL HRC	345-5262	\$50,280.00
INSTRUCTIONS, ANSI, USA	388-8147	
FILM, SELF LEVEL, ANSI	435-9238	
SEAT,AIR SUSPENSION,VINYL,HEAT	345-6349	\$790.00
DISPLAY, ADVANCED, LCD, CAMERA	416-9265	\$1,400.00
BATTERY, HEAVY DUTY, 850 CCA	492-6088	
LIGHTS, HALOGEN	495-1672	
SEAT BELT, 3"	258-4096	\$143.00
FAN, COOLING, DEMAND	486-6957	
TIRES, 12/16.5 CAT 10PR	185-8666	\$429.00
SERIALIZED TECHNICAL MEDIA KIT	421-8926	
RETURN TO DIG/WRKTL POSITIONER	345-5234	\$291.00
COUNTERWEIGHT,MACHINE,EXTERNAL	345-5148	\$1,040.00
TWO SPEED WITH RIDE CONTROL	345-4929	\$3,140.00
FILM, RIDE CONTROL, ANSI	422-3445	
CONVERSION ARRANGEMENT	421-0340	
PRODUCT LINK, CELLULAR PL240	441-4818	
ROPS, ENCLOSED WITH A/C (C3)	345-4919	\$4,955.00
DOOR, CAB, POLYCARBONATE	345-6260	\$217.00
PACKAGE, PERFORMANCE, (H3) – HIGH FLOW PUMP	468-0737	\$4,575.00
QUICK COUPLER, HYDRAULIC	515-8591	\$1,005.00
RADIO READY	345-6175	\$156.00
CONTROL, ISO, PROP, WT	485-0415	\$890.00
MACHINE ATTACHMENTS		
BUCKET-GP, BOCE 72"	279-5373	\$1,708.00
18" COLD PLANER, PC305B	424-7130	\$19,444.00
KIT, WATER SPRINKLER	231-2590	\$203.00
TRENCHER, T6B, MAN. 6" COMBO	261-8559	\$5,764.00
FORKS, 48" PALLET W/ CARRIAGE	353-1697	\$1,143.00
TANK, WATER	482-5132	\$1,838.00
BROOM, UTILITY, BU118, BOCE	493-2259	\$5,375.00
KIT, WATER SPRINKLER	256-9335	\$235.00
TY CUSHION TIRES - TREAD	TY-1216	\$2,441.00

Sell Price	\$107,462.00
CAT GOVERNMENTAL DISCOUNT	(\$23,392.22)
Net Balance Due	\$84,069.78
CA SALES TAX (7.75%)	\$6,515.41
After Tax Balance	\$90,585.18
Trade-in: Case 580C S/N 8969962 - as inspected	(\$8,000.00)
Grand Total	\$82,585.18

WARRANTY

Standard Warranty: 12 Months Full Machine

PREMIER WARRANTY 36 Months / 1500 Hours

F.O.B./TERMS

Riverside Machine

FINANCING

Finance terms and conditions subject to credit approval by Caterpillar Financial Services Inc.(CFSC). Payment amounts, down payments, and terms are estimates only, final amounts must be determined by CFSC.

ADDITIONAL CONSIDERATIONS

Accepted by _____ on _____

Signature



Quote USED MACHINE

September 8, 2017

IDYLLWILD WATER DISTRICT
P O BOX 397
IDYLLWILD
California
92549-0397

Attention: Jack

Dear Sir,

We would like to thank you for your interest in our company and our products, and are pleased to quote the following for your consideration.

CATERPILLAR INC. Model: 262D Skid Steer Loader

Year: 2015 **Stock #:** CCU000275 **Serial #:** DTB03164 **SMU/Hrs:** 1249

We wish to thank you for the opportunity of quoting on your equipment needs. This quotation is valid for 30 days, after which time we reserve the right to re-quote. If there are any questions, please do not hesitate to contact me.

Sincerely,

Jose Farias
Machine Sales Representative

MACHINE SPECIFICATIONS

MODEL #: 262D
 Year #: 2015
 Stock #: CCU000275
 Serial #: DTB03164
 SMU/Hrs: 1249

\$46,000.00

▪ EROPS	▪ AIR CONDITIONER
▪ HEATER	▪ RIDE CONTROL
▪ BUCKET	▪ COUPLER, HYDRAULIC
▪ 2 SPEED TRAVEL	▪ CE PLATE
▪ LIGHTING	▪ AM FM RADIO
▪ ELECTRIC COUPLER	▪ TIRES, 12X16.5 10PR CAT
▪ 262D SSL TIER 4 HRC	▪ HEATER, ENG, 120V
▪ BELT, SEAT, 2"	▪ CAB, (A/C), (C3)
▪ QUICK COUPLER, ELE	▪ CTWT, MACH, EXT
▪ TWO SPEED W/CONTROL	▪ CONVERSION ARRANGEMENT
▪ PKG, PERFORMANCE (H3)	▪ DOOR, CAB, POLY
▪ RADIO, AM/FM, CD, BL	▪ BATTERY, XHD, 1000
▪ SEAT, AIR SUSP, VIN	▪ ENGINE S/N 8FC0488
▪ DISPLAY, LCD CAMERA	
▪ EIN # LE8X94	

MACHINE ATTACHMENTS

Description	Reference No	List Amount
MACHINE ATTACHMENTS		
BUCKET-GP, BOCE 72"	279-5373	\$1,708.00
18" COLD PLANER, PC305B	424-7130	\$19,444.00
KIT, WATER SPRINKLER	231-2590	\$203.00
TRENCHER, T6B, MAN. 6" COMBO	261-8559	\$5,764.00
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TANK, WATER	482-5132	\$1,838.00
BROOM, UTILITY, BU118, BOCE	493-2259	\$5,375.00
KIT, WATER SPRINKLER	256-9335	\$235.00
TY CUSHION TIRES - TREAD	TY-1216	\$2,441.00

Net Balance Due	\$84,151.00
CA SALES TAX (7.75%)	\$6,521.70
After Tax Balance	\$90,672.70
Trade-in: Case 580C S/N 8969962 - as inspected	(\$8,000.00)
Grand Total	\$82,672.70

WARRANTY

Standard Warranty: 12MO/ 1000 Powertrain & Hydraulic

F.O.B/TERMS

Riverside Machine

FINANCING

Finance terms and conditions subject to credit approval by Caterpillar Financial Services Inc.(CFSC). Payment amounts, down payments, and terms are estimates only, final amounts must be determined by CFSC.

ADDITIONAL CONSIDERATIONS

Accepted by _____ on _____

Signature

Memo

To: Board of Directors

From: Interim General Manager

Date: September 27, 2017

Subject: ITEM #4 – CONSIDER THE GENERAL MANAGER JOB DESCRIPTION

Recommendation

That the Board of Directors consider the General Manager job description.

Background

The Board of Directors has determined that the General Manager job description requires review. The review committee submits the attached draft for Board discussion.

Attachments

IDYLLWILD WATER DISTRICT
JOB DESCRIPTION
POSITION: GENERAL MANAGER

DEFINITION

-Under policy direction of the Board of Directors, is chief executive of the District; is responsible for all district activities, including design, construction, finance, operations and maintenance.

-Under policy direction, plans, organizes, and provides direction and oversight for all District functions and activities; provides guidance and district evaluation to the Board of Directors and staff; encourages and facilitates provision of services to District customers; fosters cooperative working relationships with intergovernmental and regulatory agencies and various public and private groups; pursues appropriate avenues of economic and community development; and performs related work as required.

CLASS CHARACTERISTICS

-The General Manager serves as the Chief Executive Officer of the District, is accountable to the Board of Directors.

-The GM is responsible for enforcement of all District ordinances, policies, procedures, and the conduct of all financial activities and the efficient and economical performance of the District's operations.

FLSA: EXEMPT

QUALIFICATIONS

Knowledge of:

1. Administrative principles and practices, including goal setting, program development, implementation and evaluation, budget development and administration, and supervision of staff, either directly or through subordinate levels of supervision.
2. Principles, practices, and procedures of public administration.
3. Functions, services, and funding sources of a municipal government.
4. Functions, authority, responsibilities, and limitations of an elected Board of Directors.
5. Applicable Federal and State laws, codes, ordinances, and regulations.
6. Principles and practices of budget development, administration, and accountability.
7. Current social, political, and economic trends affecting the District and its service provision.
8. Record keeping principles and procedures.
9. Modern office practices, methods, and computer equipment.
10. Computer applications related to the work.
11. English usage, grammar, spelling, vocabulary, and punctuation.

12. Techniques for effectively representing the District in contacts with government agencies, community groups, and various business, professional, regulatory, and legislative organizations.
13. Techniques for dealing effectively with the public, vendors, contractors, and District staff, in person and over the telephone.
14. Techniques for providing a high level of customer service to the public and District staff, in person and over the telephone.

EDUCATION AND EXPERIENCE

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

- Equivalent to graduation from a four-year college or university with major coursework in business or public administration, engineering, finance, public policy, management, or a related field.
- Several years of increasingly responsible experience involving the operation and maintenance of water treatment facilities and water distribution systems including four (4) years of management experience in a public agency setting.
- Possession of an appropriate degree or experience in working with an elected Board or Council is desirable. As are certificates for water distribution, water treatment and wastewater.
- A Valid California class C driver's license with satisfactory driving record may be required.

ESSENTIAL FUNCTIONS – Essential responsibilities and duties may include, but are not limited to:

1. Assume full management responsibility for all District services and activities including engineering, maintenance, purchasing and warehousing, water distribution, wastewater operations and hydroelectric; and administer policies and procedures.
2. Manage the development and implementation of District goals, objectives, and priorities.
3. Establish, within District policy, appropriate service and staffing levels; monitor and evaluate the efficiency and effectiveness of service delivery methods and procedures; allocate resources accordingly.
4. Plan, direct and coordinate the District's work plan; assign projects and areas of responsibility; review and evaluate work methods and procedures; meet with staff to identify and resolve problems.
5. Assess and monitor work load, administrative and support systems and internal reporting relationships; identify opportunities for improvement; direct and implement approved changes.
6. Lead regular staff meetings.

7. Select, train, motivate and evaluate District personnel; provide or coordinate staff training; work with employees to correct deficiencies; implement discipline and termination procedures.
8. Oversee and participate in the development and administration of the District budget; approve the forecast of funds needed for staffing, equipment, materials, and supplies; approve expenditures and implement budgetary adjustments as appropriate and necessary.
9. Regular attendance at job site(s).
10. Explain, justify and defend District programs, policies and activities; negotiate and resolve sensitive and controversial issues.
11. Represent the District to other departments, elected officials and outside agencies; coordinate District activities with those of other departments and outside agencies and organizations.
12. Provide staff assistance to the Board of Directors; prepare and present staff reports and other necessary correspondence.
13. Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of water distribution and wastewater management.
14. Respond to and resolve difficult and sensitive citizen inquiries and complaints.
15. Perform related duties and responsibilities as required.

IWD reserves the rights to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

***This position may be eliminated, or the duties, qualifications and training required changed by the board of directors when in their judgment, it is considered necessary and proper for the efficient operation of the district.

To submit a resume for consideration, please email to
cschelly@idyllwildwater.com

Write the position you are applying for in the subject line. Position will be open until filled. Interviews will be limited to applicants the Board of Directors select.

PHYSICAL DEMANDS

-Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle and to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone.

-This is a sedentary office classification although standing in work areas, walking between work areas and visiting job sites in a mountain environment may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard, typewriter keyboard or calculator, and to operate standard office equipment.

-Positions in this classification bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information.

-Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 25 pounds.

ENVIRONMENTAL ELEMENTS

-Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances.

-Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures

Idyllwild Water District Mission Statement:

“To provide reliable water and sewer service in a safe, cost-effective and environmentally sound manner in accordance with the community needs.”

For over half a century the Idyllwild Water District (IWD) has maintained a safe water supply for domestic and commercial needs, as well as sewage collection and treatment facilities.

The Idyllwild Water District is an Independent Special District government agency formed under County Water District provisions of the State of California Water Codes. The District is governed by a locally elected five (5) member Board of Directors.

Idyllwild is a small alpine town in Southern California. The district supplies water to over 1600 residents and business owners. The sewer district serves over 700 of the water customers. The community, of over 3400, has a distinguished kinder -8th grade school and Idyllwild Arts a private high school dedicated to preparing local and international students for fine arts study. There are summer concerts, wine and art walks, galleries and tourists that visit our many inns and vacation homes during our pleasant summers and for the occasional snowy weekends in the winter. We are just 2 hours from the beach and major theme parks, and less than an hour from Palm Springs, championship golf, tennis and sparkling hot springs. Idyllwild is an ideal place to raise a family, work and a perfect spot for retirees.

Memo

To: Board of Directors

From: Interim General Manager

Date: September 27, 2017

Subject: ITEM #5 – REVIEW THE WASTEWATER TREATMENT PLANT EVALUATION REPORT

Recommendation

That the Board of Directors review and discuss the Wastewater Treatment Plant Evaluation Report prepared by West Yost Associates and direct staff to investigate financing options for the proposed improvements.

Background

The Technical Memorandum prepared by West Yost Associates is attached for the Board's review and information.

Staff will make a brief oral presentation at the Board meeting and will solicit direction from the Board of Directors regarding progress moving forward with developing a plan for financing and actual implementation of improvements.

Attachments



TECHNICAL MEMORANDUM

DATE: September 20, 2017 Project No.: 756-18-17-01
SENT VIA: EMAIL

TO: Mr. Jack Hoagland, District Manager

FROM: Tim Durbin, PE, RCE #75456

REVIEWED BY: Kathryn Gies, PE, RCE #65022

SUBJECT: Evaluation of Treatment Process Equipment Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant

This Technical Memorandum (TM) provides an evaluation of the treatment process equipment replacement costs for the Idyllwild Water District (District) Wastewater Treatment Plant (WWTP). The topics addressed are as follows:

- Project Overview
- Regulatory Requirements
- Current WWTP Performance
- Current Flow and Load Conditions
- Basis of Design
- WWTP Replacement Strategy
- Cost Estimate
- Small Community Wastewater Grant Fund
- Recommended Next Steps

PROJECT OVERVIEW

This section provides an overview of the existing facilities and the purpose of this project.

Existing Facilities

The WWTP was originally constructed in 1967. The treatment facilities consist of:

- Headworks, which includes a grinder and diversion for peak flows to the equalization tank;
- Equalization tank with surface aerators and pumped return;
- A single treatment unit that combines a reactor with anoxic and aerobic zones, a clarifier, and an aerobic digester;
- Pumps for return activated sludge and waste activated sludge;
- Centrifugal blowers for aeration of the aerobic reactor and aerobic digester; and
- An emergency backup power generator.

Undisinfected treated secondary effluent from the WWTP is discharged to ponds and spray irrigation system located within the nearby National Forest. Biosolids are discharged to sludge drying ponds. The dried sludge is periodically hauled to a composting facility that is operated by a third party.

Purpose of the Project

Over the years, the following modifications have been made to the WWTP:

- The WWTP was modified to promote nitrogen removal by the creation of anoxic and aerobic zone and modifying the sludge return pumping system.
- To avoid clogging of the digested sludge pumping system, the solids handling process was modified to eliminate the use of the aerobic digesters. Instead, undigested waste activated sludge from the secondary reactor is discharged directly from the treatment system to the sludge drying ponds.

The WWTP was not designed to have redundant treatment processes. Therefore, aside from brief periods when wastewater can be stored in the equalization tank, the facility must remain operational at all times. As a result, the District staff have limited ability to maintain the treatment facilities. Moreover, some of the facilities that are below the water level in the treatment basin cannot be accessed because the District does not have the ability to completely drain the basin that contains the treatment unit.

Nevertheless, even with the best maintenance program, the 40-year old facility would be considered beyond the end of its design useful life. Moreover, the WWTP has had several exceedances of permitted effluent limits, which indicates that the WWTP does not have the treatment capacity to keep up with current flows and load conditions. Therefore, a complete replacement of the main treatment unit at the WWTP is warranted.

To maintain operation of the treatment process during construction and provide redundancy for future maintenance activities, the District has requested that the project involve constructing a new treatment unit on the WWTP site while the existing treatment unit is still in service. After the new treatment unit has been put into service, the mechanical and electrical components of the existing unit would be demolished, leaving the existing concrete basin in place. At that time, the District would install a second redundant treatment unit in the existing basin.

The District has also requested that this evaluation include facilities for replacing the grinder located in the WWTP headworks.

REGULATORY REQUIREMENTS

This section addresses the current WWTP effluent limitations and the biosolids disposal requirements.

Effluent Limitations

The effluent limits for discharge of undisinfected secondary effluent are established by the Santa Ana Region of the California Regional Water Quality Control Board (RWQCB) and set forth in Order No. R8-2015-0028 (Order). The Order establishes the design flow for the existing WWTP at 250,000 gallons per day (gpd) and includes the effluent water quality limits summarized in Table 1.

Table 1. Current Land Discharge Effluent Limits						
Parameter	Units	Monthly Average	Weekly Average	Monthly Percent Removal Average	12-Month Flow-Weighted Average	pH Range
5-Day Biochemical Oxygen Demand @ 20°C	mg/L	30	45	85%	N/A	N/A
Total Suspended Solids	mg/L	30	45	85%	N/A	N/A
Total Dissolved Solids	mg/L	N/A	N/A	N/A	350	N/A
Total Inorganic Nitrogen	mg/L	N/A	N/A	N/A	10	N/A
pH		N/A	N/A	N/A	N/A	6 – 9

The parameters of principal concern for the design of the new treatment unit are the wastewater flow and the concentrations of total suspended solids (TSS), 5-day biochemical oxygen demand (BOD), and total inorganic nitrogen (TIN).

Biosolids Disposal Requirements

Title 40 of the Code of Federal Regulations, Part 503 (40 CFR Part 503) establishes the regulatory requirements for biosolids disposal, where these requirements are contingent on the method of disposal. If the solids are stored in the sludge disposal ponds for more than a two-year period, the sludge disposal ponds would be classified as a “surface disposal site” under 40 CFR Part 503. For placement of the solids on the surface disposal site, Class B pathogen and vector reduction requirements must be met unless the site is covered with soil or similar material at the end of each operating day.

In addition to the Class B pathogen and vector attraction reductions, 40 CFR Part 503 requires the following for biosolids discharged to a surface disposal site:

- Routine monitoring of concentrations of arsenic, chromium, and nickel to confirm these metals are below ceiling concentrations specified in the federal regulations.
- Stormwater runoff from the active site must be contained for up to a 24-hour, 25-year storm event.

For biosolids provided to a composting facility, the District must provide “notice and necessary information,” which is not further defined in the 40 CFR Part 503. However, available guidance from the U.S. Environmental Protection Agency indicates that this information must include representative metals and nutrient concentrations, as well as information to clarify what level of pathogen and vector attraction reductions have been achieved for the biosolids. Specific pathogen and vector attraction reductions do not necessarily need to be achieved prior to providing to the compost facility, but the District would need to specify what, if any, measures have been taken. In addition, available information suggests that most composting facilities expect that at least Class B pathogen reduction has been met prior to delivery to the compost facility.

There are various ways to meet the Class B pathogen reduction requirements. These include achieving fecal coliform levels below a specified threshold or treating the biosolids by one of five “Processes to Significantly Reduce Pathogens” defined in the federal regulations or an equivalent process. The five processes are aerobic digestion, air drying, anaerobic digestion, composting, and lime stabilization. Vector attraction reduction can also be achieved through one of several options, including covering of the site with soil at the end of each operating day or aerobic digestion of biosolids before disposal on the site.

CURRENT WWTP PERFORMANCE

This section summarizes the current performance of the WWTP for BOD, TSS and Nitrogen with respect to the effluent limitations described above.

Available Data

The District provided West Yost Associates with the following data:

- Monthly monitoring reports filed with the RWQCB from January 2014 through February 2017;
- Daily and weekly data in Microsoft Excel format from January 1, 2016 through May 31, 2017;
- Daily flow meter readings from December 2016 through February 2017; and
- Influent flow circular charts for select high-flow days from December 23, 2016 to February 28, 2017.

These data were compiled in Microsoft Excel and were used to evaluate the performance of the existing WWTP, as well as establish design flows and load assumptions for the new treatment unit. If the District decides to move forward with the project described herein, additional data review will be needed to confirm the basis of design.

BOD and TSS

Figure 1 shows the average monthly effluent concentrations of BOD and TSS as reported on the monthly monitoring reports that the District files with the RWQCB. These data indicate the following with respect to effluent limit compliance:

- The WWTP met the effluent limits of 30 mg/L for BOD and TSS for the first two and a half years of data.
- In July 2016, the average monthly effluent BOD concentration more than doubled to 49 mg/L, with the effluent TSS concentration making a less pronounced increase.
- After a return to normal in late 2016, the average monthly effluent BOD and TSS concentrations spiked again in January and February 2017. These high effluent concentrations are almost certainly linked to the increases in flows seen during this period.
- The available data suggest that the existing WWTP does not have the capacity to treat the high flows/load conditions that have occurred in the last year.

Figure 2 shows the monthly average percent reduction in BOD and TSS. The data show that the existing WWTP was able to reliably meet the 85 percent removal requirement for TSS and BOD, until January and February 2017. Again, it is inferred from this data that the poor performance is related to the high flowrates into the WWTP.

The weekly TSS concentration data from 2016 and 2017 are the focus of Figure 3. These data show in more detail the loss of TSS removal capacity experienced in the first few months of 2017. Even though the influent TSS concentrations decreased significantly during this time, the effluent TSS concentrations increased and the removal efficiency dropped below 50 percent. Figure 4 shows the weekly BOD concentration data for the same time period. Again, BOD removal performance suffered in early 2017, even as the influent BOD concentrations decreased.

Figure 5 shows the daily flow data for 2016 and 2017 with the weekly BOD and TSS removal efficiencies overlaid. This figure clearly shows that, as flows increased, the existing WWTP lost the ability to reliably remove both TSS and BOD.

Nitrogen

Effluent ammonia, nitrate, and TIN composite samples are available for the period from January 2016 through May 2017, as shown on Figure 6. The following information can be derived from this figure:

- Similar to the BOD and TSS data, the WWTP was performing adequately with respect to nitrogen removal until July 2016.
- Starting in July 2016, the effluent TIN was mostly ammonia, which means the reactor was not converting ammonia to nitrate.
- For the months where nitrification is occurring, the WWTP is also adequately removing nitrate. Therefore, denitrification does not appear to be a concern for this facility. It is likely that the reactor conditions (relatively low dissolved oxygen [DO] and high Mixed Liquor Suspended Solids [MLSS]) provide for simultaneous nitrification/denitrification.
- The 12-month flow-weighted average TIN was calculated for the November 2016 through May 2017 period. These values indicate an exceedance of the 10 mg/L effluent limitation in two of the calculated values.

CURRENT FLOW AND LOAD CONDITIONS

This section addresses the existing flow and load conditions for the WWTP. The topics addressed are: current flows, current BOD and TSS concentrations, and current BOD and TSS loads.

Current Flows

The average monthly WWTP influent flowrate from January 2014 through February 2017 is shown on Figure 7. These data come from the monthly monitoring reports that the District files with the RWQCB. The following information can be observed from this figure:

- The first three years of the period of record were below average rainfall during the winter months, and the data show a fairly stable monthly average flowrate for most of the year, in the range 75,000 to 90,000 gpd.
- Each July in this period of record the monthly average flowrate spikes to over 100,00 gpd, but in August flows return to the typical range.
- In January and February 2017, which was a historically wet winter, the monthly average flowrate increased to over 150,000 gpd.
- Based on the monthly average flow data reported between January 2014 through February 2017, the average flowrate into the WWTP is calculated as 88,300 gpd.

The daily influent flow data between January 1, 2016 and May 31, 2017 are shown on Figure 8. The following information can be observed from the data provided on this figure:

- These data exhibit significant variability, with higher flows occurring during weekend periods.
- Most of the data for 2016 fall in the range 75,000 to 100,000 gpd, with periodic spikes over 125,000 gpd.
- Like the monthly average data, an increase in flows for the month of July can be seen in the daily data.
- Beginning at the end of December 2016, the daily influent flows increased rapidly, and from about mid-January through mid-March the average flowrate was about 150,000 gpd.
- Using daily flow data collected January 2016 and May 2017, the average influent flowrate into the WWTP is calculated as 101,000 gpd.

The daily influent flow data are summarized, by month, in Table 2.

Table 2. Influent Flows, January 2016 – May 2017

Month	Minimum Daily Flow, gpd	Average Daily Flow, gpd	Maximum Daily Flow, gpd
January 2016	64,000	89,806	119,000
February 2016	73,000	88,778	113,000
March 2016	64,573	85,055	120,468
April 2016	75,903	90,510	112,697
May 2016	74,583	92,495	120,992
June 2016	68,084	85,842	108,826
July 2016	79,000	101,325	141,132
August 2016	67,000	89,774	122,000
September 2016 ^(a)	11,920 ^(a)	85,517	151,940 ^(a)
October 2016	67,000	86,613	147,000
November 2016	64,000	79,700	102,000
December 2016	63,044	83,264	111,362
January 2017	78,984	126,999	202,587
February 2017	123,792	151,432	238,756
March 2017	110,248	142,080	182,616
April 2017	108,176	124,666	161,711
May 2017	84,948	110,887	136,380
Overall Values	63,000	101,000	238,800

^(a) The minimum reported flowrate (11,920 gpd) was on September 10, 2016, and the maximum reported flowrate for the month (151,940 gpd) was on September 11, 2016. Given the unlikelihood of the flowrate increasing by a factor of 12.5 over a single day, it is suspected that these reported results are erroneous.

Current BOD and TSS Concentrations

The average monthly influent concentrations of BOD and TSS are shown on Figure 9. These data also were provided in the monthly monitoring reports. The following information can be observed from this figures:

- Influent concentrations of TSS and BOD generally track with each other, with TSS concentration slightly lower than BOD concentrations.
- From January 2014 through February 2017, the influent BOD was typically in the range 300 to 400 mg/L, with an average of 330 mg/L.
- From July 2015 through February 2017, the influent TSS was typically in the range 250 to 350 mg/L, with an average of 270 mg/L.
- In January and February 2017, the average monthly influent concentrations dropped off significantly. This decrease coincided with the flow increases that occurred at the same time.

Current BOD and TSS Loads

Monthly average BOD and TSS loads were calculated by multiplying the average monthly BOD and TSS concentrations by the average monthly flowrates. Figure 10 shows the calculated monthly average influent loads from January 2014 through February 2017. Figure 11 shows the weekly average BOD and TSS loads, which were calculated using BOD and TSS weekly sampling data collected in 2016 and 2017 and the average flowrate reported for the week that the samples were collected. The following information can be observed from these figures:

- The TSS and BOD loads tend to track each other.
- From January 2014 through February 2017, the average monthly influent BOD load was typically in the range 200 to 300 lbs/day, with an average of 240 lbs/day.
- From January 2016 through May 2017, the average weekly influent BOD load was typically in the range 150 to 300 lbs/day, with an average of 220 lbs/day
- From July 2015 through February 2017, the influent TSS load was typically in the range 150 to 300 lbs/day, with an average of 200 lbs/day.
- From January 2016 through May 2017, the average weekly influent TSS load was typically in the range 100 to 250 lbs/day, with an average of 130 lbs/day
- The BOD and TSS loads are higher between May and December than during the coldest winter months (January through March), and with both averaging periods there is a clear peak each July. This pattern is a benefit to the District, because treatment is less efficient during the cold, winter months.
- The BOD and TSS loads into the WWTP do not drop off like the influent concentrations do in the first few months of 2017. This trend confirms that the increase in flow observed during this period was due to collection system influent and infiltration, and not due to a sudden increase in wastewater discharged to the collection system.

BASIS OF DESIGN

This section summarizes the design flows and loads for the WWTP. Discussions with District staff indicate that the flows and loads are not expected to significantly increase. Therefore, current flows and loads are used as the design basis. In addition, as noted previously, the analysis presented herein is based on limited data and additional evaluation of the WWTP influent flow and load conditions (including an assessment of potential for increased flows to the WWTP) is needed to develop a basis of design that can reliably be used for design purposes.

Design Flows

Based on the monthly average flow data, the annual average flowrate (AAF) design flow for the WWTP is assumed to be 88,300 gpd. Based on the daily flow data available, the maximum monthly flowrate (MMF) is assumed to be 151,000 gpd, and the peak day flowrate (PDF) is assumed to be 239,000 gpd. Peak hour wet weather flowrate (PHWWF), estimated from circular charts provided by the District, is assumed to be 325,000 gpd. These design flowrates are summarized in Table 3.

Table 3. Basis of Design Flows			
Parameter	Units	Value	Reference
AAF	gpd	88,300	January 2014 – February 2017
MMF	gpd	151,000	February 2017
PDF	gpd	239,000	February 27, 2017
PHWWF	gpd	325,000	February 27, 2017

Design Concentrations and Loads

Table 4 summarizes the TSS and BOD data that serve as the basis of design for the new treatment unit. Influent nitrogen concentrations are not regularly monitored or reported, so a typical value of 50 mg/L as N was assumed for the influent TIN concentration.

Table 4. Basis of Design BOD and TSS Influent Concentrations and Loads			
Parameter	Units	Value	Reference
BOD Concentrations			
Annual Average BOD Concentration	mg/L	330	January 2014 – February 2017
Maximum Monthly BOD Concentration	mg/L	460	June 2015
Maximum Day BOD Concentration	mg/L	490	December 28, 2016
TSS Concentrations			
Annual Average TSS Concentration	mg/L	270	January 2014 – February 2017
Maximum Monthly TSS Concentration	mg/L	420	September 2015
Maximum Day TSS Concentration	mg/L	390	October 20, 2016
BOD Loads			
Annual Average BOD Load	lbs/day	240	January 2014 – February 2017
Maximum Monthly BOD Load	lbs/day	330	July 2015
Maximum Day BOD Load	lbs/day	410	December 28, 2016
TSS Loads			
Annual Average TSS Load	lbs/day	200	January 2014 – February 2017
Maximum Monthly TSS Load	lbs/day	320	July 2015
Maximum Day TSS Load	lbs/day	280	July 21, 2016
Nitrogen Concentration			
TIN Concentration	mg/L as N	50	Assumed Value

Design Temperatures

Temperature is an important parameter for biological process design. Table 5 presents the design temperatures assumed for this effort.

Table 5. Design Temperature Conditions		
Parameter	Units	Value
Maximum Summer Wastewater Temperature ^(a)	°C	22.5
Maximum Day Summer Air Temperature	°C	38.0
Minimum Winter Wastewater Temperature ^(a)	°C	10.5
Minimum Day Winter Air Temperature	°C	-17.0
^(a) Value provided by District contract operations staff.		

Tank Dimensions

The design concept re-uses the existing tank for one of the treatment units, and the new treatment unit should have the same diameter and depth as the existing tank. We considered re-purposing the existing equalization tank for the second treatment unit, but that tank has a significantly smaller diameter and depth and would not be able to reliably provide the desired level of treatment. Table 6 lists the basic dimension of the existing treatment tank, which are assumed to be applicable to the second tank that would be constructed.

Table 6. Treatment Tank Dimensions		
Parameter	Units	Value
Tank Inside Diameter	feet	44.25
Top of Concrete Walls Elevation	feet	5,058.00
Finished Floor Elevation	feet	5,041.42
Design Freeboard	inches	16

Other Design Parameters

A number of assumptions have been made about the nature of the wastewater, the biological communities in the mixed liquor, and the treatment and digestion processes. The design calculations were based on the guidelines set forth for biological nitrogen removal and aerobic digestion in the 4th edition of *Wastewater Engineering Treatment and Reuse* by Metcalf and Eddy, Inc. (2003). This text is an industry standard and is the source for most of the assumed design parameters listed in Table 7. Due to the complex nature of these calculations and the focus of this TM on developing a cost estimate for the new treatment facilities (rather than a detailed process model), these parameters are presented here without further discussion.

Table 7. Physical and Chemical Process Design Parameters				
Parameter	Symbol	Units	Summer Value	Winter Value
Biological Nitrogen Removal Process Design Parameters				
Average Atmospheric Pressure	P_{atm}	psia	12.20	12.20
Mixed Liquor Suspended Solids Concentration	[MLSS]	mg/L	3,000	3,000
Minimum Solids Retention Time	SRT	days	5	8
Volatile Fraction of MLSS			75%	75%
RAS/WAS Solids Concentration		mg/L	9,000	9,000
Aerobic Channel Dissolved Oxygen Concentration	[DO] _{aer}	mg/L	2.0	2.0
Anoxic Channel Dissolved Oxygen Concentration	[DO] _{anox}	mg/L	0	0
Biomass Yield for BOD	Y_{BOD}		0.60	0.60
Biomass Yield for Nitrogen	Y_N		0.12	0.12
Endogenous Decay Coefficient at 20°C	k_d	day ⁻¹	0.10	0.10
Endogenous Decay Coefficient for Nitrogen at 20°C	k_{dN}	day ⁻¹	0.08	0.08
Temperature Activity Coefficient	θ		1.024	1.024
Cell Debris Fraction	f_d		0.15	0.15
Aeration α Factor for BOD Removal	α_{BOD}		0.50	0.50
Aeration α Factor for Nitrogen Removal	α_N		0.65	0.65
Aeration β Factor for BOD Removal	β_{BOD}		0.95	0.95
Aeration β Factor for Nitrogen Removal	β_N		0.95	0.95
Design Maximum Clarifier Overflow Rate, MMF ^(a)		gpd/sf	500	500
Design Maximum Clarifier Overflow Rate, PDF ^(a)		gpd/sf	750	750
Design Maximum Clarifier Solids Loading Rate, Annual Average ^(a)		lbs/day/sf	20	20
Design Maximum Clarifier Overflow Rate, Peak Day ^(a)		lbs/day/sf	30	30
Aerobic Digester Design Parameters				
Digester Solids Retention Time	SRT_{Dig}	days	40	60
Endogenous Decay Coefficient at 20°C	k_d	day ⁻¹	0.10	0.10
Volatile Fraction of Digester Solids			75%	75%
Digester Suspended Solids Concentration		mg/L	6,300	6,300
Design Volatile Suspended Solids Loading Rate		lbs/1,000 ft ³	15	15
Volatile Solids Reduction			40%	40%
Unit Oxygen Demand		lbs O ₂ /lb VSS	2.3	2.3
Aeration α Factor for Aerobic Digestion	α_{Dig}		0.85	0.85
Aeration β Factor for Aerobic Digestion	β_{Dig}		0.95	0.95
Temperature Activity Coefficient	θ		1.024	1.024
^(a) These design parameters assume that only one of the treatment units is in service.				

WWTP REPLACEMENT STRATEGY

This section presents the facilities replacement strategy developed for purposes of this analysis. The specific topics addressed include:

- Conceptual Design Approach
- Facilities Overview
- Phasing Plan

Conceptual Design Approach

The purpose of this conceptual design effort was to develop a reasonable approach for replacing the existing treatment unit and constructing a new, parallel unit. The analysis did not attempt to identify the most optimum strategy, nor did it include a rigorous assessment of potentially viable options. Nevertheless, the approach presented is reasonable and appropriate given the site constraints and desires expressed by the District.

Several package treatment options were considered for this conceptual design, including sequencing batch reactors and single-sludge systems, but the options were limited by the desire to re-use the existing basin. The cost benefit of re-using the existing basin is estimated to be approximately \$250,000 in terms of construction cost, and that number does not include cost savings associated with a shorter construction time. That level of cost savings justifies restricting the options to those which can fit in the existing basin. Based on this approach, the package treatment system assumed for this analysis is a ClearFlo Continuous Loop Reactor (CLR) from ClearStream Environmental.

In evaluating the sizing requirement for the facility, it became clear that the existing basin would not be large enough for the aerobic digester to be located inside the treatment unit basin (which is the current configuration). The cold winter temperatures require that the aerobic digester be sized to provide a 60-day solids retention time (SRT), which results in a digester with a volume of 140,000 gallons assuming no decant/thickening of the solids. With a separate aerobic digester, the biological reactor and clarifier can be sized to accommodate peak flow conditions without influent flow equalization. The cost of the aerobic digester would be partially offset by not having to build a new EQ tank.

In addition to the treatment units and aerobic digester, this conceptual design includes replacement of the existing grinder with an inclined screen at the headworks. Grinders reduce the size of solid material in the raw wastewater but do not remove the solids from the flow. The solids that pass through a grinder can accumulate in downstream tanks and cause increased wear on pumps and other equipment. Screens remove solid materials from the wastewater, rather than simply grinding the solids into smaller pieces. For this reason, an inclined screening system has been identified as a better strategy for upgrading the headworks facility.

Finally, this design concept and cost estimate do not include improvements to the existing emergency standby generator. However, the need for such a facility should be considered under further design efforts.

Facilities Overview

This section provides an overview of, and summarizes the major design assumptions for, the ClearFlo CLR system, the aerobic digester, and the included screen. Figure 12 shows the proposed site layout with the two treatment units and the aerobic digester. As shown, the digester is assumed to be located to the east of the existing EQ tank.

ClearFlo CLR

The ClearFlo CLR is configured like the existing treatment system, with the anoxic and aerobic reactors wrapped around a clarifier, in a circular “bullseye” configuration. The outer channel is the anoxic zone, and the inner channel is the aerobic zone, with the clarifier in the center.

Raw wastewater and nitrate-rich mixed liquor recycled from the aerobic reactor enter the outer channel, where very low DO concentrations promote denitrification. The mixed liquor then flows to the aerobic zone, where BOD is consumed and ammonia is converted to nitrate. From the aerobic zone the mixed liquor flows to the clarifier.

Two external dry-pit submersible pumps handle the return activated sludge (RAS) and waste activated sludge (WAS) duties. These pumps would be configured in a duty/standby fashion, where each pump would be capable of either returning activated sludge to the reactor or wasting to the new aerobic digester.

One advantage of the ClearFlo CLR is the use of jet aeration in lieu of mechanical blowers. Four submersible jet motive pumps would be located in the aerobic channel. These pumps aerate the mixed liquor by drawing air into the pumped liquid stream. The pumps also recirculate nitrified mixed liquor from the aerobic channel out to the anoxic channel, which provides for denitrification. In this way, each pump serve three functions: mixing in the aerobic and anoxic channels, aeration of the aerobic zone, and internal mixed liquor return for enhanced nitrogen removal. These pumps would be the only mechanical equipment located in the channels – so diffusers, surface aerators, mixers, and mixed liquor recycle pumps would not be needed. Additionally, no blowers would be required. The pumps can be pulled from the channel and serviced without having to dewater the basin or take the treatment unit out of service. Jet aeration also eliminates mist and spray from the treatment unit, which reduces the potential for odors. A fifth jet motive pump would also be provided with each CLR as a shelf spare.

The CLR configuration proposed by the manufacturer is provided as Attachment A. The CLR system comes complete with the jet motive pumps, RAS/WAS pumps, the clarifier mechanism and bridge, all in-basin piping and valves, and a NEMA 4X stainless steel control panel. External piping and electrical is not included. The design parameters used to size the CLR system are summarized in Table 8.

Table 8. ClearFlo CLR System Design Parameters		
Parameter	Units	Value
SRT, Summer Conditions	days	11.7
SRT, Winter Conditions	days	10.2
Sludge Production, Summer Conditions	gpd	4,340
Sludge Production, Winter Conditions	gpd	4,980
Anoxic Reactor		
Outer Diameter	ft-in	44'-3"
Inner Diameter	ft-in	35'-11"
Sidewater Depth	ft-in	15'-3"
Anoxic Reactor Volume	gal	60,000
Hydraulic Residence Time, AAF ^(a)	hr	9.5
Hydraulic Residence Time, PDF ^(a)	hr	6.0
Aerobic Reactor		
Outer Diameter	ft-in	34'-7"
Inner Diameter	ft-in	21'-8"
Sidewater Depth	ft-in	15'-3"
Aerobic Reactor Volume	gal	73,500
Hydraulic Residence Time, AAF ^(a)	hr	11.7
Hydraulic Residence Time, PDF ^(a)	hr	7.4
Jet Motive Pumps		
Number of Pumps per Basin		5 (4 Duty + 1 Shelf Spare)
Pump Flowrate	gpm	489
Pump Motor	hp	10
Clarifier		
Clarifier Diameter	ft-in	20'-4"
Clarifier Sidewater Depth	ft-in	13'-0"
Clarifier Drive Mechanism Motor	hp	1/2
Clarifier Overflow Rate, AAF ^(a)	gpd/sf	465
Clarifier Overflow Rate, PDF ^(a)	gpd/sf	736
Clarifier Overflow Rate, PHWWF ^(a)	gpd/sf	1,000
Clarifier Solids Loading Rate, Annual Average ^(a)	lbs/day/sf	17
Clarifier Overflow Rate, Peak Day ^(a)	lbs/day/sf	28
RAS/WAS Pumps		
Number of Pumps per Basin		2 (1 Duty + 1 Standby)
Pump Flowrate	gpm	150
Pump Motor	hp	5
^(a) These design parameters assume that only one of the treatment units is in service.		

Aerobic Digester

The aerobic digester is assumed to be a square concrete tank with the same top of concrete and finished floor elevations as the existing treatment basin. A square configuration was chosen due to the lower cost of construction relative to a circular basin. The digester is also designed with jet aeration by ClearStream Environmental, including a single 25-hp submersible jet motive pump and jet aeration header.

A decanter is included in the design to allow for periodic batch thickening of the digester solids. Thickening digester solids by decanting is an operational strategy that is common with digester design to increase the SRT in the digester, thus reducing the size of the digester unit. However, as a conservative measure for purposes of developing the concepts presented herein, the digester was sized assuming no solids thickening would occur.

Attachment B includes a drawing of the aerobic digester, as proposed by the manufacturer. Not shown in this drawing are the metal stairs and elevated walkway that would be required to access the top of the tank to adjust the air control valves or to pull the jet aeration pump. The design parameters used to size the aerobic digester are shown in Table 9.

Table 9. Aerobic Digester Design Parameters		
Parameter	Units	Value
SRT, Summer Conditions	days	40
SRT, Winter Conditions	days	60
Digester Basin		
Digester Length	ft-in	35'-0"
Digester Width	ft-in	35'-0"
Digester Sidewater Depth	ft-in	15'-3"
Digester Volume	gal	140,000
Jet Motive Pumps		
Number of Pumps		1
Pump Flowrate	gpm	1,455
Pump Motor	hp	25

Inclined Screen

A mechanical micro strainer, manufactured by Lakeside Equipment Corporation, that provides integrated screening and screenings washing/compaction in a single unit has been assumed for the headworks improvements. This approach is more economical than providing separate screening and washing/compacting units and takes up the least amount of space. With this unit, the operating deck is located at ground surface, which makes the upper portions of the screen and washer/compactor easily accessible for maintenance and repair. In addition, the screen would have the capability to pivot the screen out of the channel, though this would require disconnection of intermediate supports and a lifting means such as a crane or boom truck. Installation of an inclined screen would also require minor modifications to the headworks channel.

The screen cleaning cycle would be controlled by a high-level float switch located upstream of the screen. When the upstream level reaches the high-level switch, the screen would be cleaned and solids pushed into the washer/compactor. This operation would continue operating for a specified time period that would be operator-adjustable through the programmable logic controller. A second, high-high level float switch would be located upstream of the screen. When the upstream level reaches the high-high level switch, wastewater would begin to overflow to the screen bypass channel, and an alarm would be generated.

Attachment C includes a drawing of the micro strainer assembly provided from Lakeside Equipment Corporation. The design parameters for the inclined screen are given in Table 10.

Table 10. Inclined Screen and Washer/Compactor Design Parameters		
Parameter	Units	Value
Screen		
Screen Width	in	12
Angle of Inclination	degrees	45
Maximum Upstream Water Depth	in	12
Screen Type		Circular Perforations
Screen Perforation Diameter	in	1/2
Control		Upstream Level
Washer/Compactor		
Minimum Screening Capacity at PHF	ft ³ /hr	1.5
Screenings Discharge Height Above Deck	ft	5
Minimum Compacted Solids Concentration		30%

Phasing Plan

The conceptual design developed for the new WWTP would be implemented in two phases. In Phase 1, the new ClearFlo CLR treatment unit would be constructed on the site of the existing EQ tank while the existing treatment unit stays in service. Throughout construction flow equalization would be provided by two rental Baker tanks. Phase 1 would include the following major components:

- Demolition of the existing EQ basin;
- Construction of a new treatment unit, consisting of a biological reactor, and a clarifier;
- Construction of an aerobic activated sludge digester to the east of the existing EQ tank. This digester would be sized to accommodate both treatment units; and
- Demolition of the existing grinder, modifications to the headworks channel, and installation of the inclined screen.

After completion of Phase 1, the WWTP would switch over from the existing treatment unit to the new facility, and then Phase 2 construction can begin. Phase 2 consists of the following:

- Demolition of the mechanical components of the existing treatment unit;
- Demolition of the existing blowers;
- Rehabilitation of the concrete surfaces inside the existing treatment tank;
- Construction of new interior walls within the existing tank; and
- Installation of the equipment for the second treatment unit inside the rehabilitated tank.

COST ESTIMATE

This section presents the engineer's option of probable construction cost estimate and an estimate of annual operating costs of the new facilities.

Engineer's Opinion of Probable Construction Cost

A detailed cost estimate was developed for replacement of the Idyllwild Water District WWTP. The major components of this cost estimate are the new ClearFlo CLR treatment unit, retrofitting the existing treatment basin for a second ClearFlo CLR treatment unit, a new aerobic digester, and a new mechanical screening facility at the headworks. Table 11 summarizes the cost estimate. A detailed cost estimate is included in Attachment D.

Table 11. Estimated Construction Cost for Idyllwild WWTP Replacement	
Item	Estimated Cost
Headworks Screen and Washer/Compactor	\$154,000
New Treatment Unit	\$798,900
Retrofit Treatment Unit	\$599,000
Aerobic Digester	\$296,900
Subtotal	\$1,848,800
Conceptual-Level Design Contingency – 30%	\$554,700
General Conditions, Taxes, Bonds, & Insurance – 12%	\$221,900
Contractor Overhead and Profit – 10%	\$184,900
Engineer’s Opinion of Probable Construction Cost	\$2,810,300
Construction Contingency – 10%	\$281,100
Engineering Design, Construction Management, and Legal and Administration Costs – 30%	\$843,100
Total Project Cost	\$3,934,500

Operating Cost Estimate

Estimated annual electrical power costs for the Idyllwild WWTP are shown in Table 12. This estimate is based on an assumed power cost of \$0.12/kWh.

Table 12. Estimated Annual Power Costs for Idyllwild WWTP	
Item	Estimated Annual Power Cost, dollars
Headworks Screen and Washer/Compactor (1)	500
Treatment Units Jet Motive Pumps (8)	52,300
RAS/WAS Pumps (2)	7,400
Aerobic Digester Jet Motive Pump (1)	11,200
Miscellaneous Power Requirements	3,600
Total Estimated Annual Power Costs	\$75,000

SMALL COMMUNITY GRANT FUND

This project could potentially be eligible for grant funding through the Small Community Grant Fund program, which is administered by the Division of Financial Assistance (DFA) through California’s Clean Water State Revolving Fund (CWSRF) system. The Small Community Grant program provides up to \$500,000 of grant funding for project planning, and up to a total of \$6,000,000 for combined planning, design and construction costs. This section addresses the eligibility criteria and application requirements for this program.

Eligibility Criteria

To be eligible for grant funding, the service area population must be less than 20,000, which is the case for the District. In addition, grant funding eligibility depends on the median household income (MHI) within the community/service area, as well as the wastewater rates as a percent of MHI. Funding priority is also given to severely disadvantaged communities, which are defined as communities with a MHI less than 60 percent of the statewide MHI. Affordability criteria and the eligible construction grant amounts are presented in Table 13.

Table 13. Small Community Construction Grant Funding Amounts and Community Criteria				
Affordability Criteria			Grant Amount	
Population	Community MHI	Wastewater Rates as a Percentage of MHI	Percentage of Total Project Cost	Maximum
< 20,000	Any	≥ 4.0 percent	50 percent	\$6.0 million
	<u>Disadvantaged:</u> MHI < 80 percent of Statewide MHI	≥ 1.5 percent	75 percent	
	<u>Severely Disadvantaged:</u> MHI < 60 percent of Statewide MHI	N/A	100 percent	

Any small disadvantaged community (regardless of wastewater rates) may receive 100 percent of eligible planning costs as a grant, not to exceed \$500,000. However, the planning grant disbursements will reduce the maximum design/construction grant amount.

Finally, for small disadvantaged communities with wastewater rates at least 2 percent of community MHI, the grant percentage may be increased to as high as 100 percent if the community’s credit review shows inadequate revenues to afford repayment of the remaining project costs. In addition, DFA has discretion to increase the grant percentage to as high as 100 percent if the community’s unemployment rate is at least two percent higher than the statewide average, or if declining population trends or low population densities impact the community’s ability to afford financing.

The 2017, the statewide MHI is reported at 61,818. Therefore, the disadvantaged community 80 percent threshold is \$49,454, and the severely disadvantaged community MHI is \$37,091. A review of recent Census information data indicates that the MHI in the Idyllwild-Pine Cove Census-Designated Place (CDP) is \$61,162. Therefore, this information suggests that the District would not be considered a disadvantaged community. However, because the District's service area does not likely encompass the entire area of the Idyllwild-Pine Cove CDP, the Census MHI may not appropriately define the characteristics of the service area. If this is the case, the District could complete an income survey within the service area to define the MHI.

Finally, there is approximately \$31 million in funds currently available through the Small Community Grant program, and discussions with DFA staff indicate that there are currently more projects that have submitted initial applications than there is funding available. However, all applicants must submit a complete application that meets the CWSRF Policy to receive financing and eligible projects are funded in the order that applications are completed and approved. It is also not uncommon for projects to get stalled or cancelled after the initial application is submitted. Therefore, it is still possible for the District to get funding if the project moves forward quickly and efficiently, and the application process is expedited.

Application Requirements

Applications for the Small Community Grant are processed by CWSRF staff and utilize the same application and approval process. The application for construction grants includes four primary parts: the general package, technical package, environmental package, and financial package. Major elements required for each of these packages are described below.

General Package

- Capital Improvement/Asset Management Plan
- Maps showing environmental resources which will be protected by implementation of the project
- Descriptions of how the project promotes resource conservation

Technical Package

- **Project Report** – Includes a description of the project area, wastewater characteristics, existing facilities, water quality, and treatment objectives. The Project Report must also include an alternatives analysis that includes a comparison of life cycle costs, climate change considerations, and water and energy efficiency for each alternative. Regional/consolidation alternatives as well as a no action alternative must be included as part of the report.
- **Fiscal Sustainability Plan** – The Fiscal Sustainability Plan must include, at a minimum an inventory of critical assets; an evaluation of the condition and performance of assets; certification that water and energy conservation efforts will be implemented as part of the plan; and maintenance, repair, and replacement plans. The Fiscal Sustainability Plan itself, as well as certification that the Plan is being implemented, must be submitted to CWSRF.

- **Water Conservation Program** – All communities receiving CWSRF funding must demonstrate that they meet the water conservation requirements of the State Water Code (Section 10631).
- **Climate Change Worksheet** – Identification and description of climate change vulnerabilities, adaptations, and mitigation measures for the project are required.
- **Certifications** – Several certifications are required from the Water District, including:
 - General Plan Compliance Certification
 - Certification for Compliance with Water Metering
 - Certification for Cost and Effectiveness and Water and Energy Conservation and Efficiency
 - RWQCB Requirements

Environmental Package

- California Environmental Quality Act (CEQA) Documentation
- Environmental Alternatives Analysis (if not including in CEQA documentation) that considers the same alternatives addressed in the Technical Package
- Supporting documents for Federal cross-cutter consultations (National Historic Preservation Act, Clean Air Act, Endangered Species Act, etc.)

Financial Package

- Audited financial statements for three years
- Budgets and projections for two years
- Resolutions required for any CWSRF financing
- Tax questionnaire

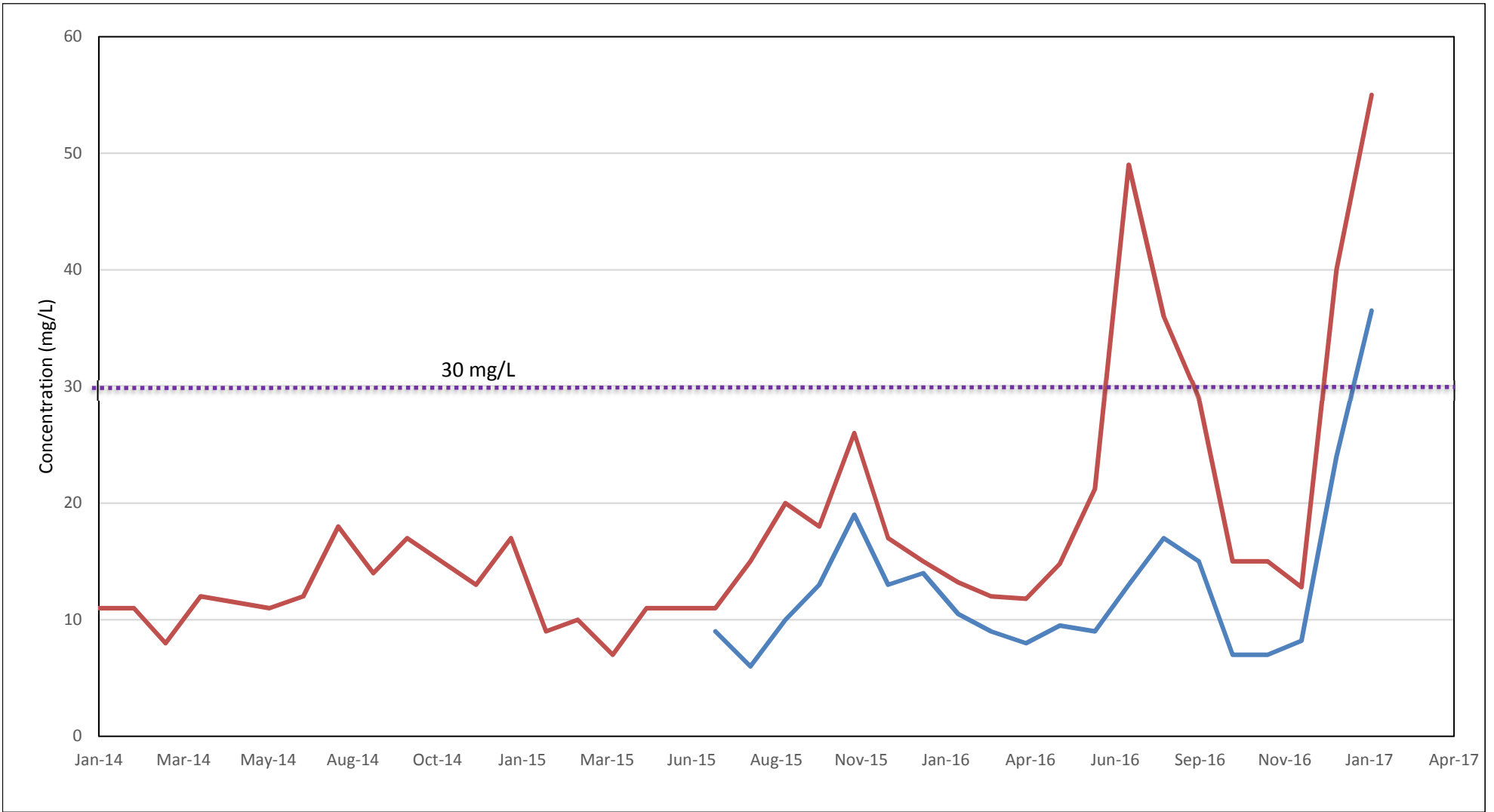
The District has recently applied for recycled water funding through the CWSRF program, and is thus familiar with the construction grant documentation requirements and expectations. In addition, some of the required documents listed above are likely be available from this previous process. The application for planning grants is less onerous, and the same process as is the recycled water planning grant that is offered through the CWSRF program. However, as previously noted, the District must be considered a disadvantaged community to qualify for the planning grant.

RECOMMENDED NEXT STEPS

As discussed previously, the findings presented in this TM should be considered preliminary and additional investigation is needed to confirm the project requirements and costs. The next step in this regard would be to complete a more comprehensive Preliminary Design Report, which would include:

- further evaluation of the design flow and loading conditions,
- confirmation of desired community buildout WWTP capacity,
- further assessment of individual component redundancy/reliability expectations and needs,
- consideration of alternative technologies (as appropriate),
- consideration of opportunities/savings associated with reusing existing equipment like RAS pumps and blowers, and
- advancement of the conceptual design approach and further refinement of the opinion of probable construction costs described herein.

If grant funding under the Small Community Grant Program is desired, the District should meet with DFA staff to review the project elements, discuss the required application components, and confirm eligibility. If following this meeting it is confirmed that funding through the CWSRF program is the desired approach, then additional planning analysis to consider different alternatives to the project described herein will also be necessary. As noted above, the District may qualify for grant funding to cover some of the costs associated with this added planning effort.



— Average Effluent BOD — Average Effluent TSS

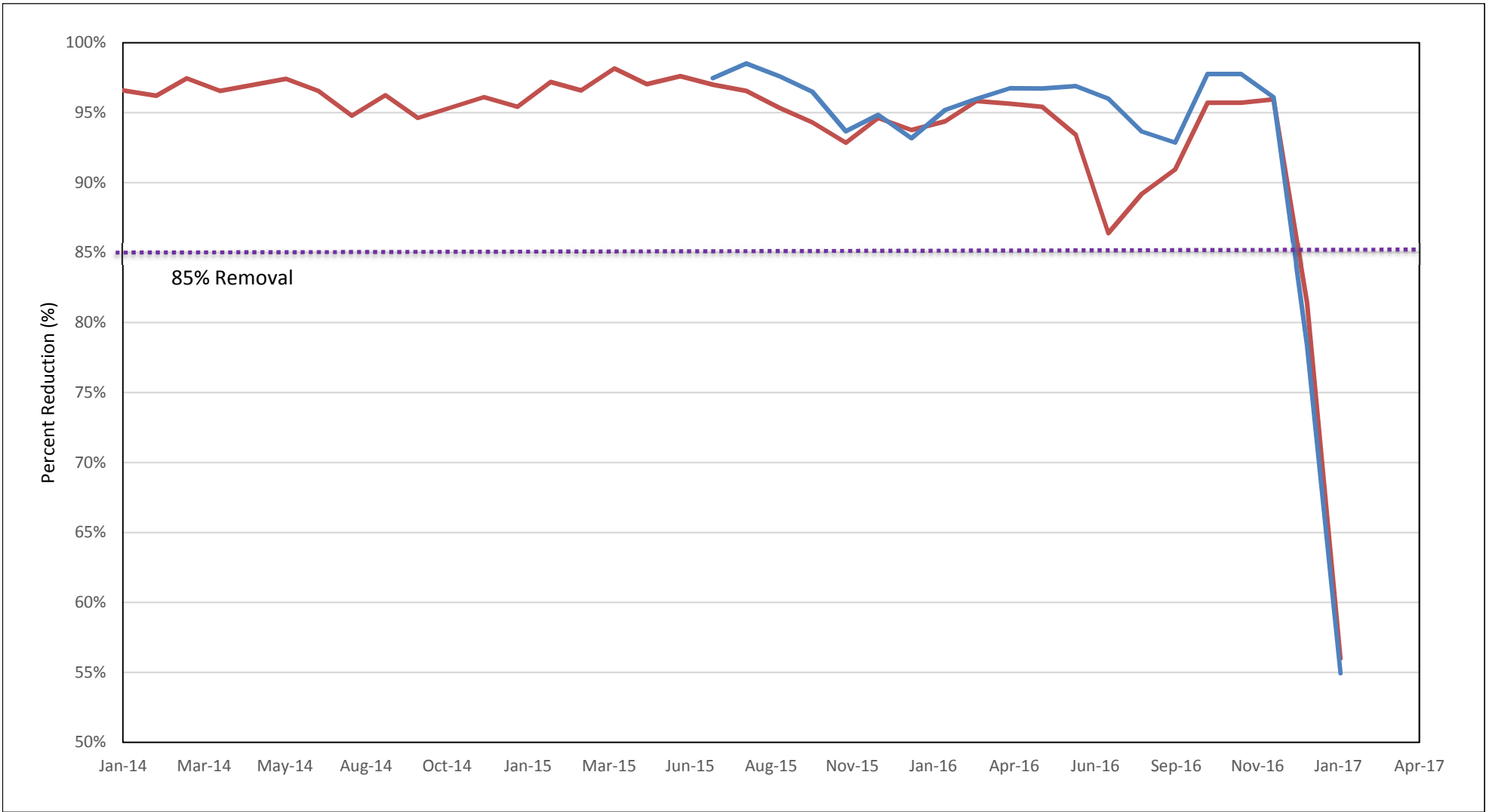
Notes:

- 1. TSS reporting began July 2015



Figure 1
Average Monthly Effluent BOD and TSS Concentrations

Evaluation of Replacement Costs for the
 Idyllwild Water District Wastewater
 Treatment Plant



— BOD Removal

— TSS Removal

Notes:

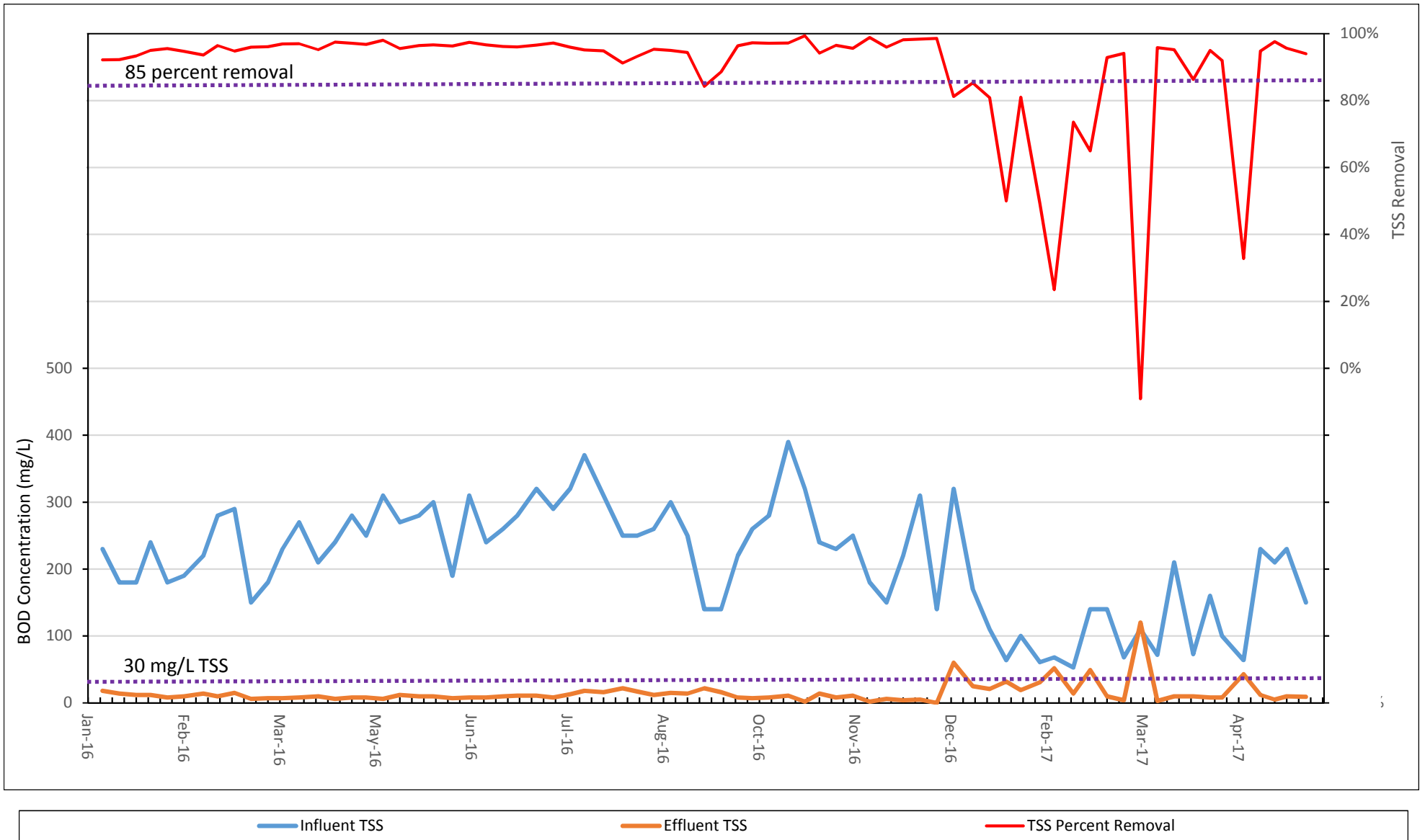
- 1. TSS monitoring began July of 2015



Figure 2

Reduction of TSS and BOD

Evaluation of Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant



Notes:

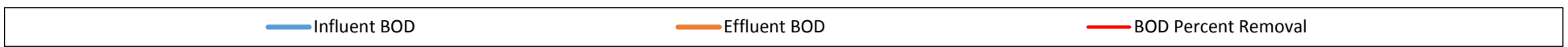
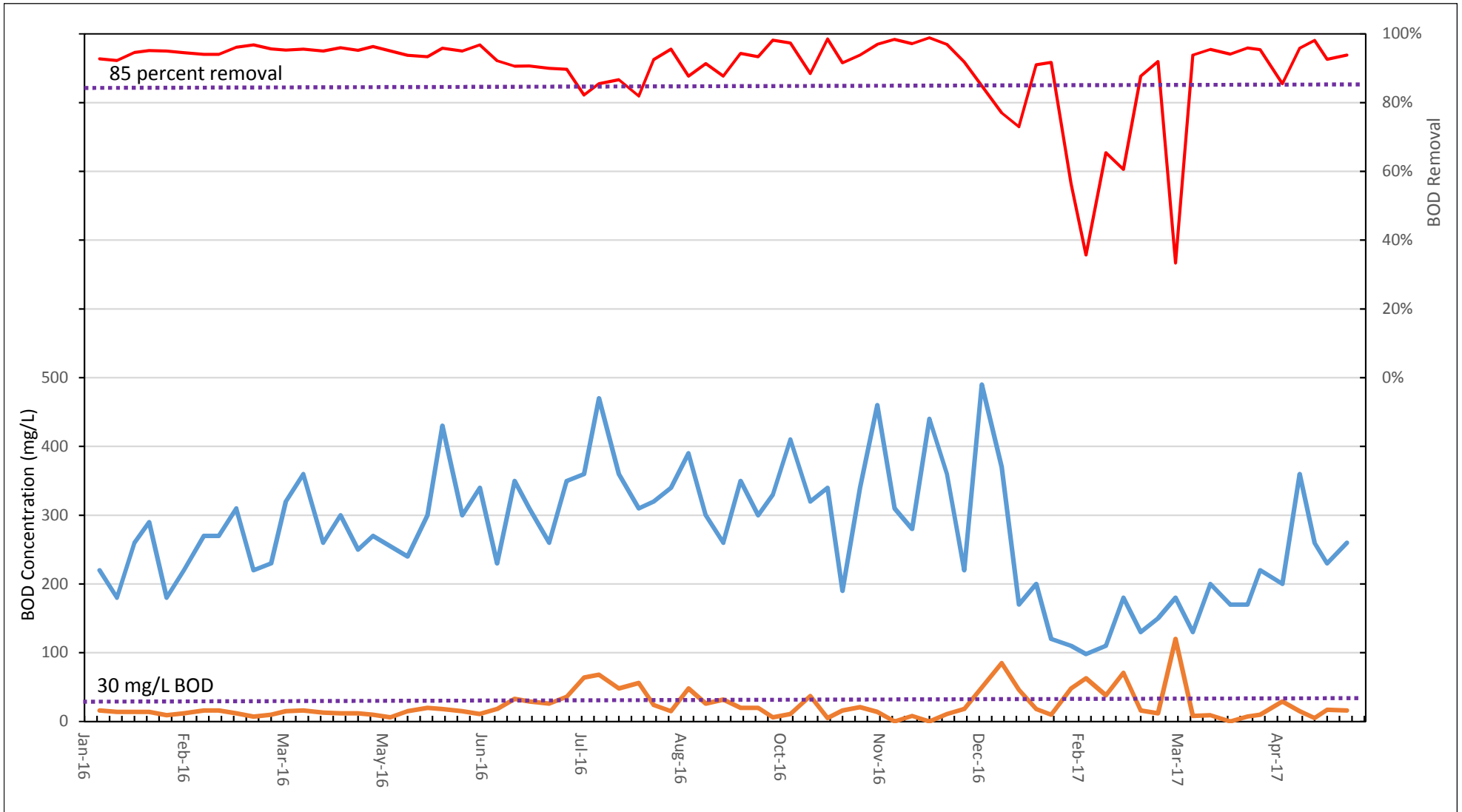
1. Influent samples are weekly grab samples.
2. Effluent samples are weekly composite samples.



Figure 3

Weekly TSS Sampling Data

Evaluation of Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant



- Notes:
1. Influent samples are grab samples.
 2. Effluent samples are weekly composites.



Figure 4
Weekly BOD Sampling Data
 Evaluation of Replacement Costs for the
 Idyllwild Water District Wastewater
 Treatment Plant

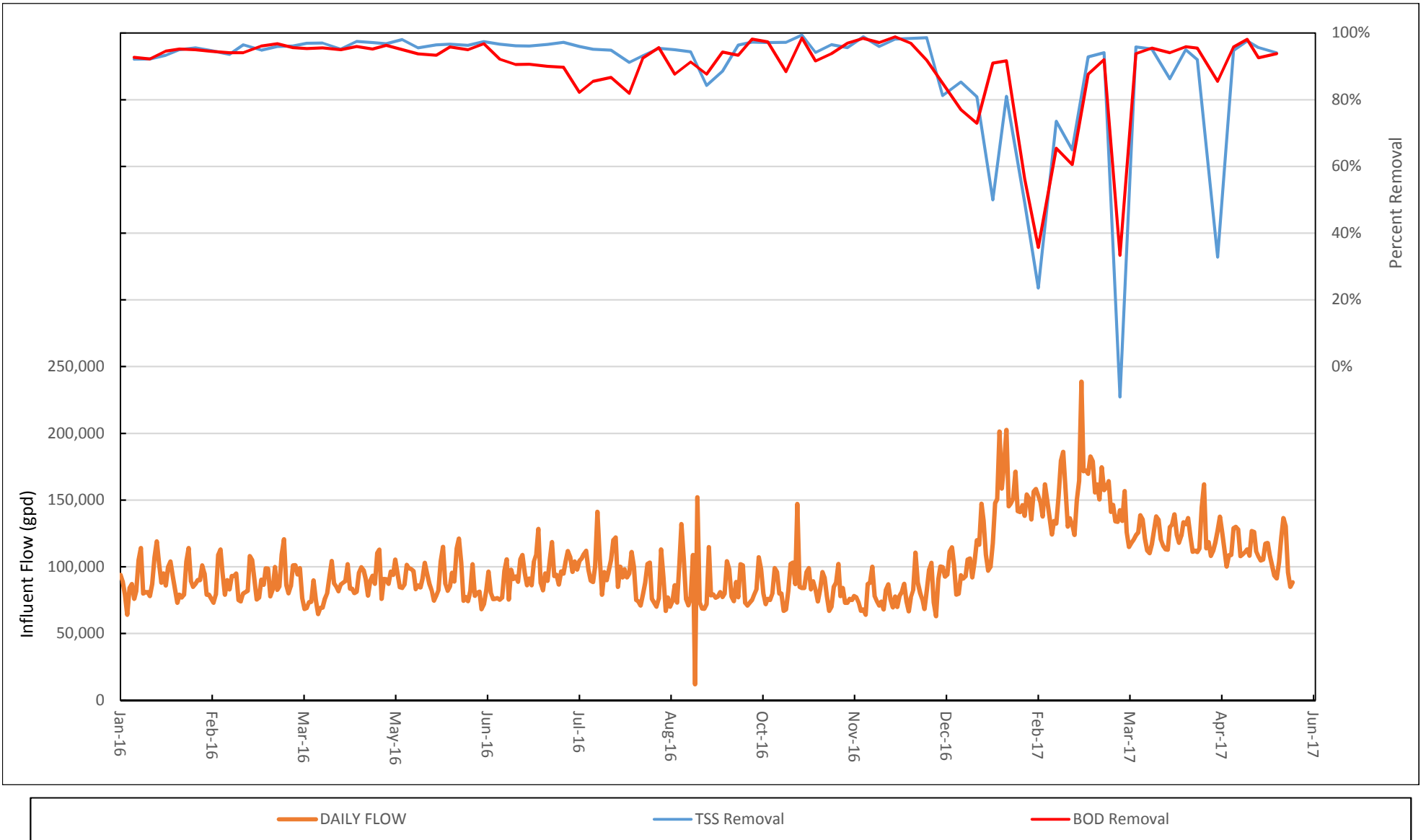


Figure 5

Influent Flow and Removal of TSS and BOD

Evaluation of Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant

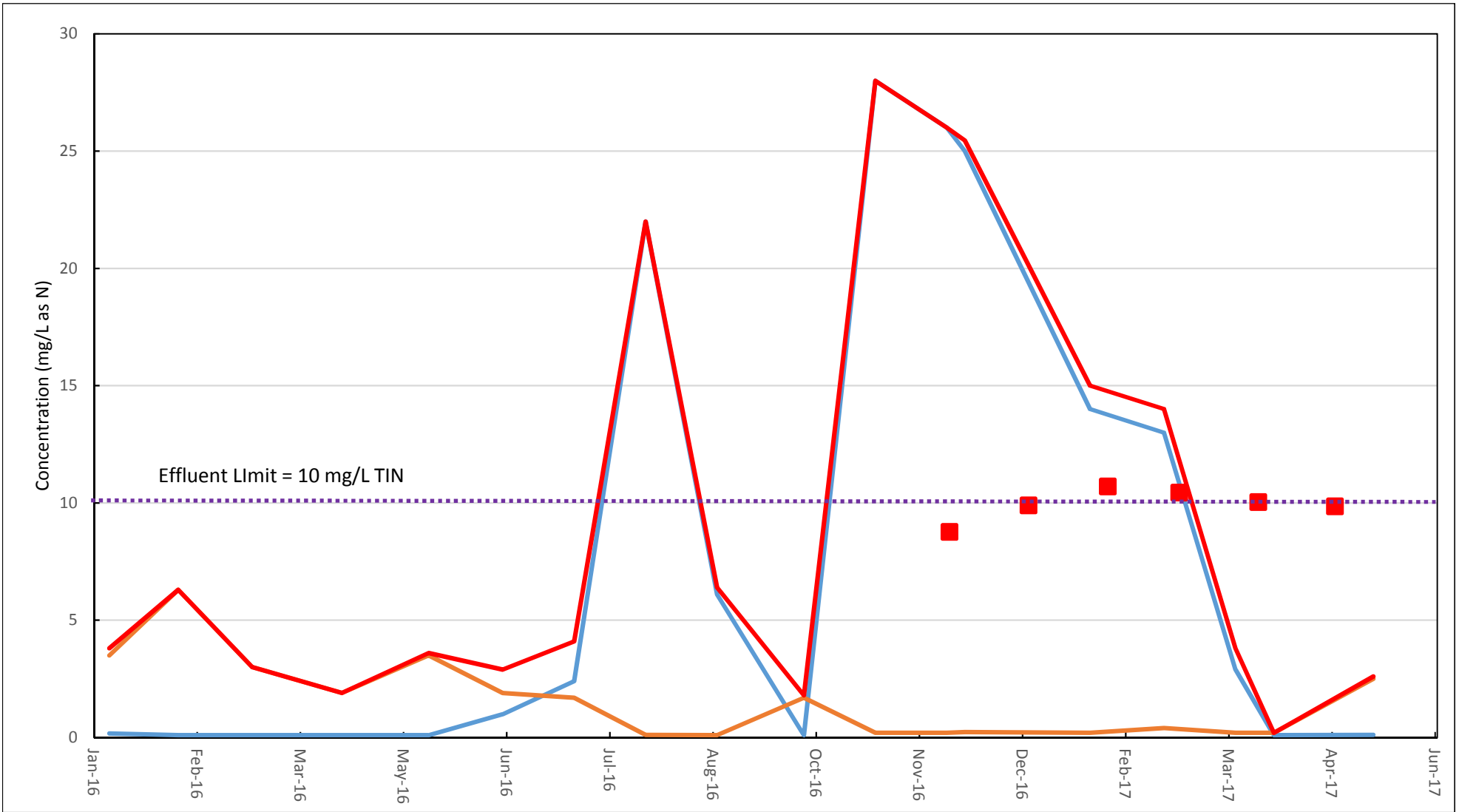


Figure 6

Effluent Nitrogen Concentrations

Evaluation of Replacement Costs for the
Idyllwild Water District Wastewater
Treatment Plant

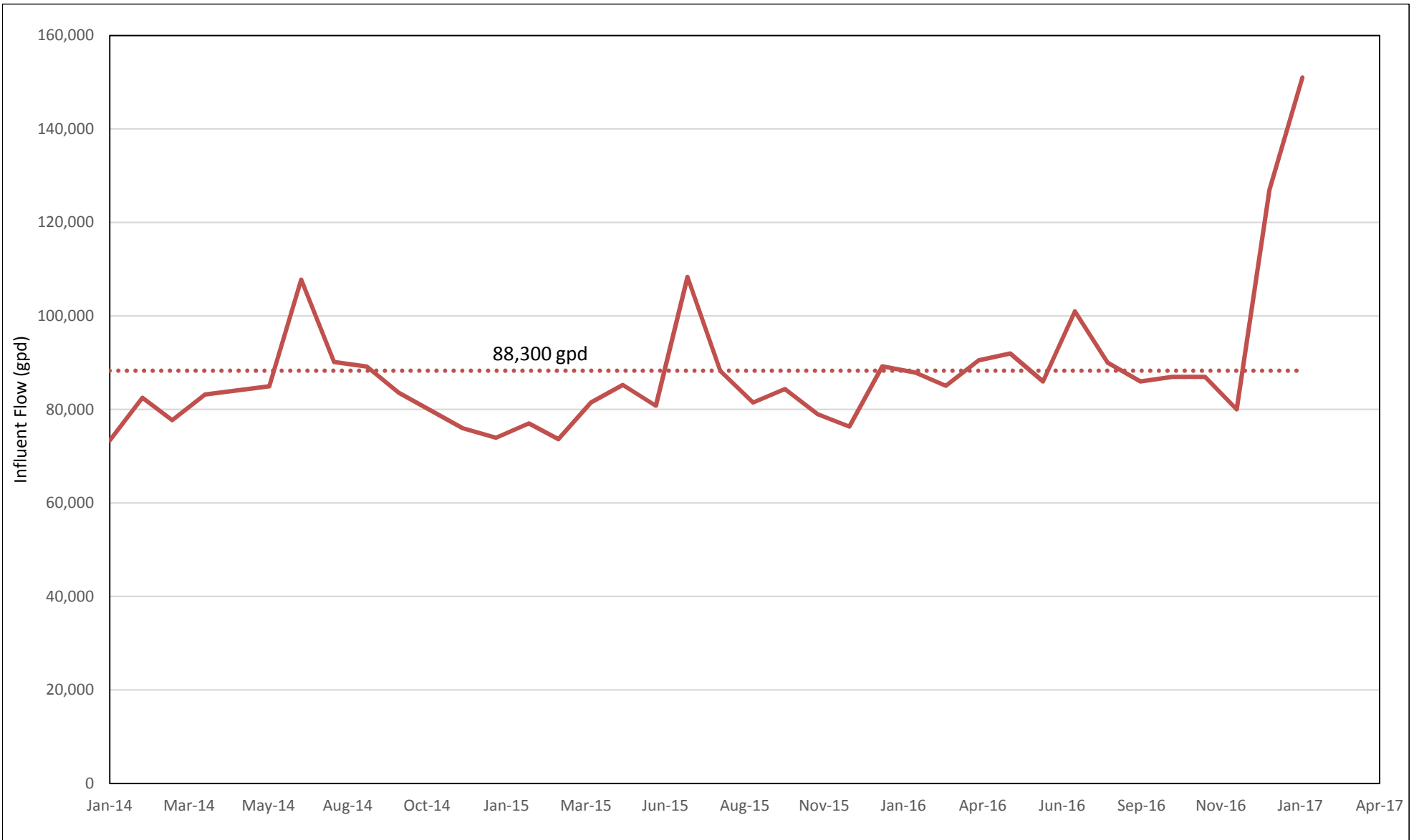


Figure 7

Monthly Average Influent Flow

Evaluation of Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant

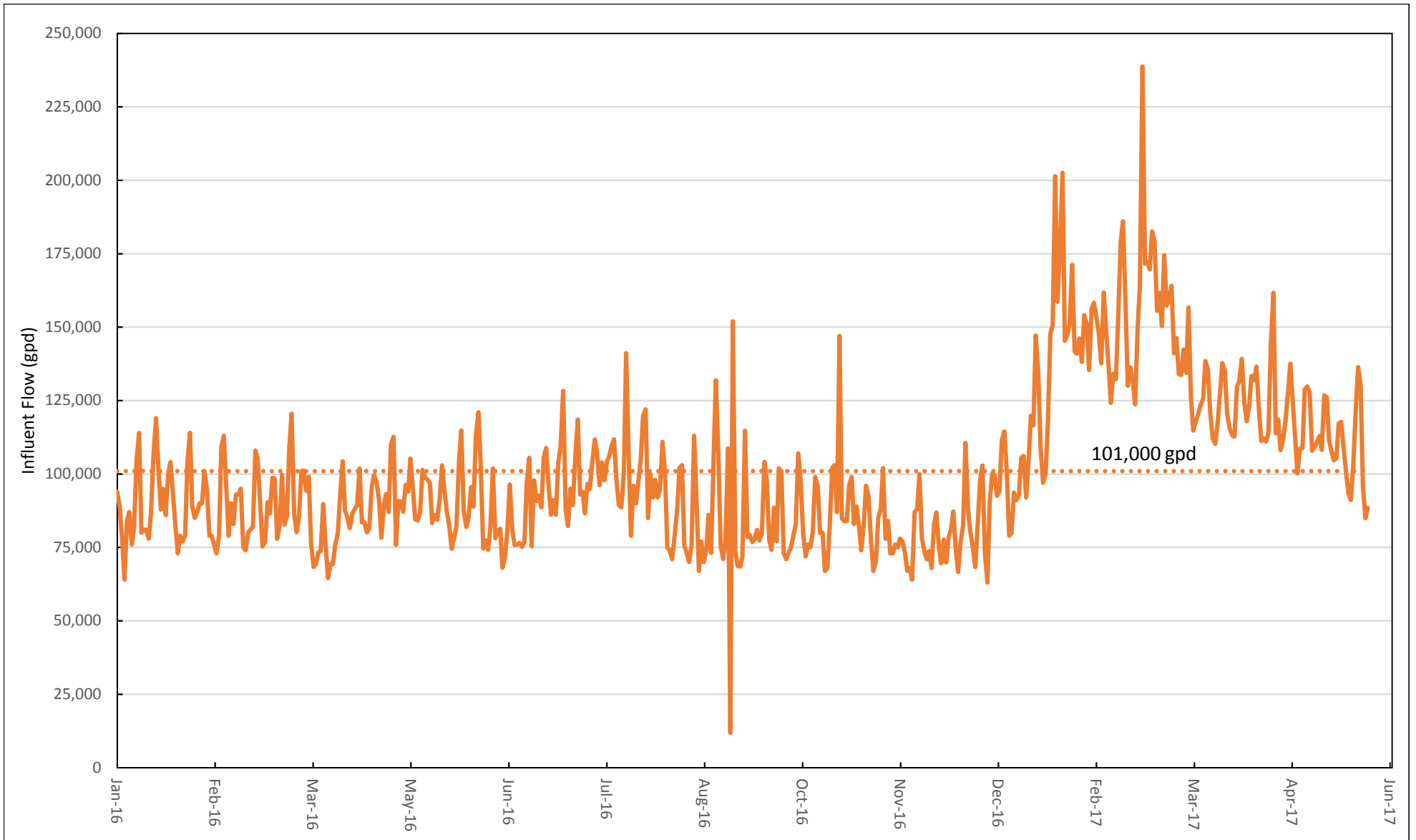
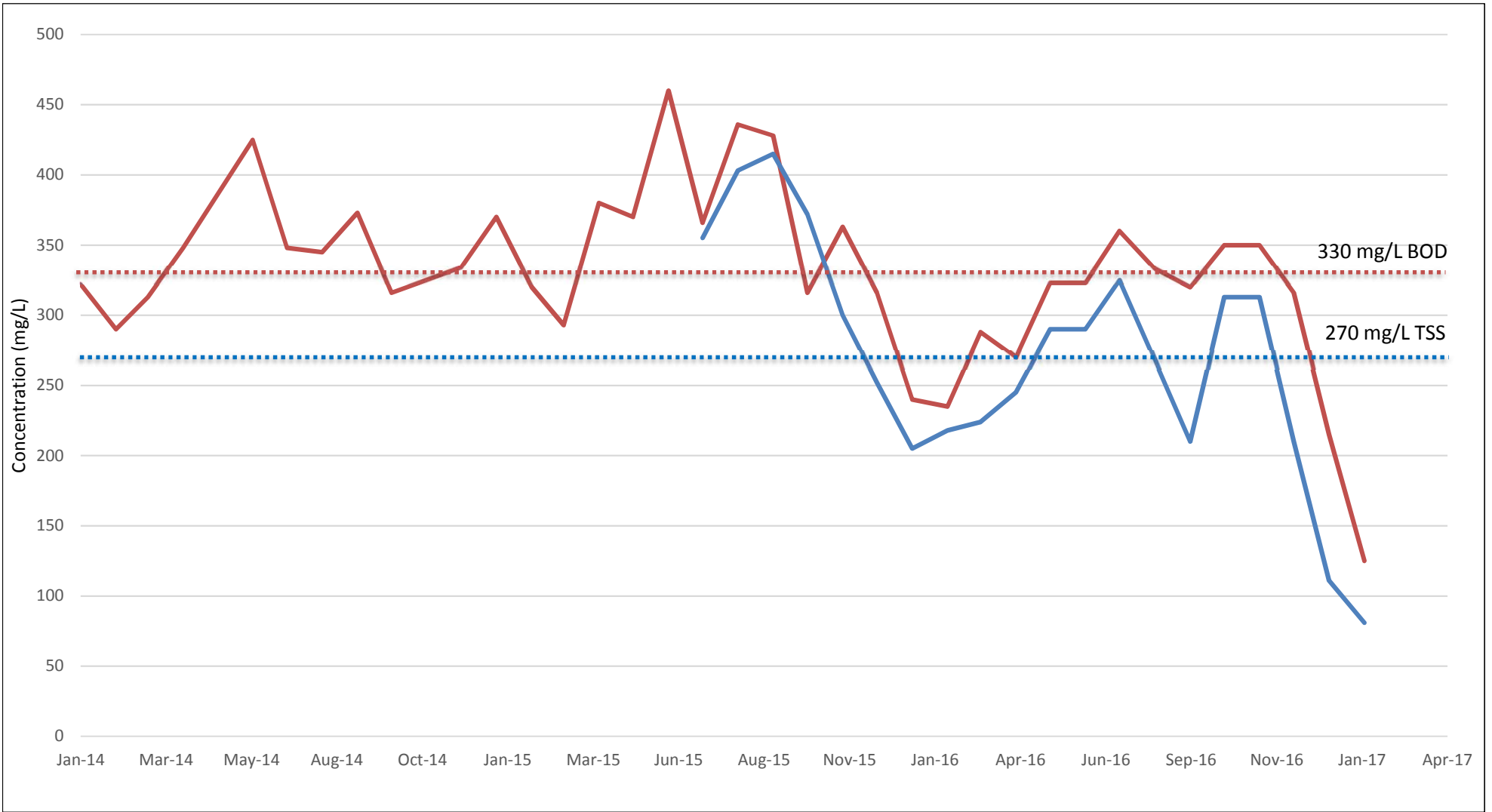


Figure 8

Daily Influent Flow

Evaluation of Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant



Notes:

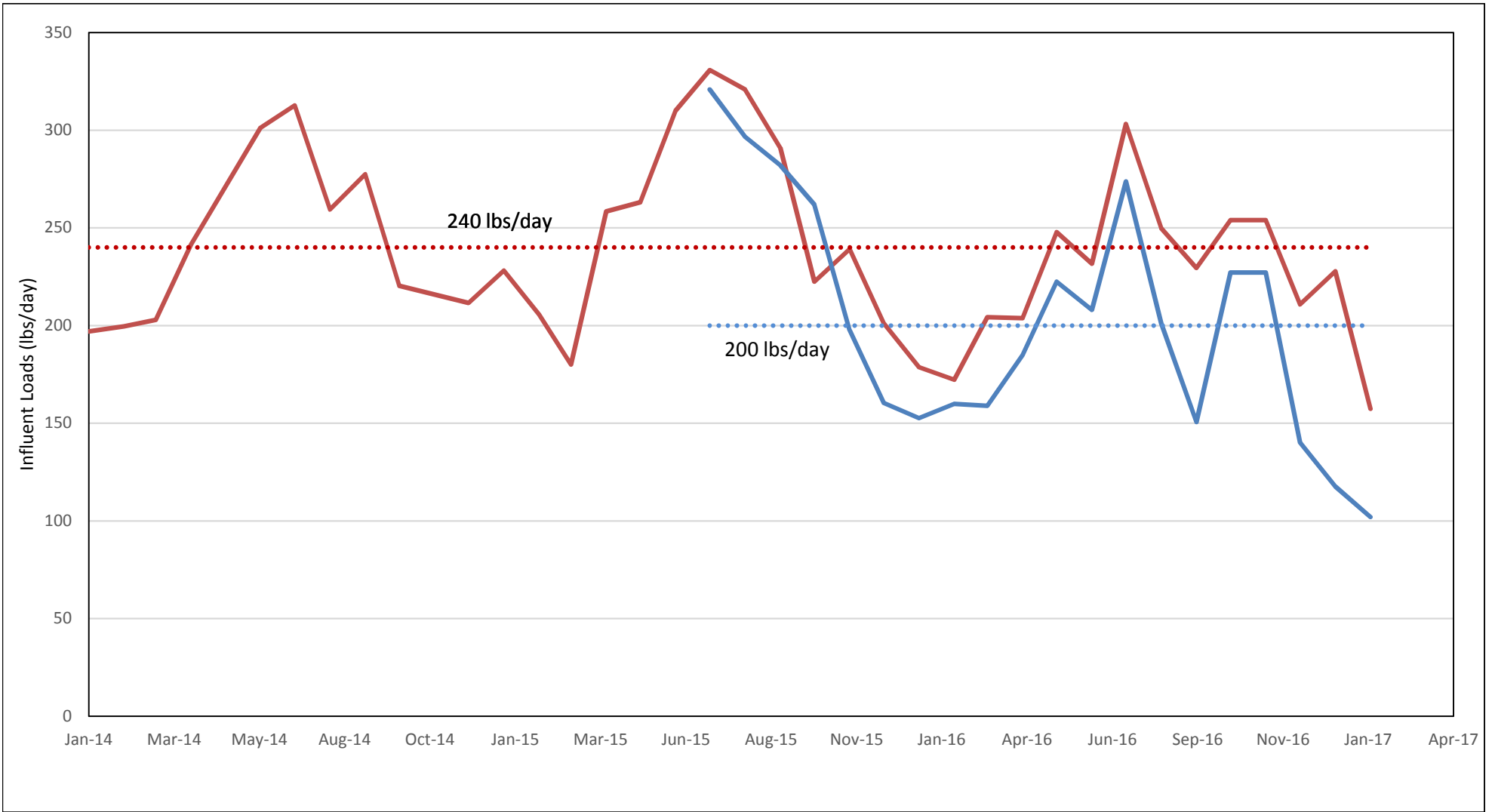
1. TSS reporting began July 2015



Figure 9

Average Monthly Influent BOD and TSS Concentrations

Evaluation of Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant



— BOD

— TSS

..... Average BOD

..... Average TSS

Notes:

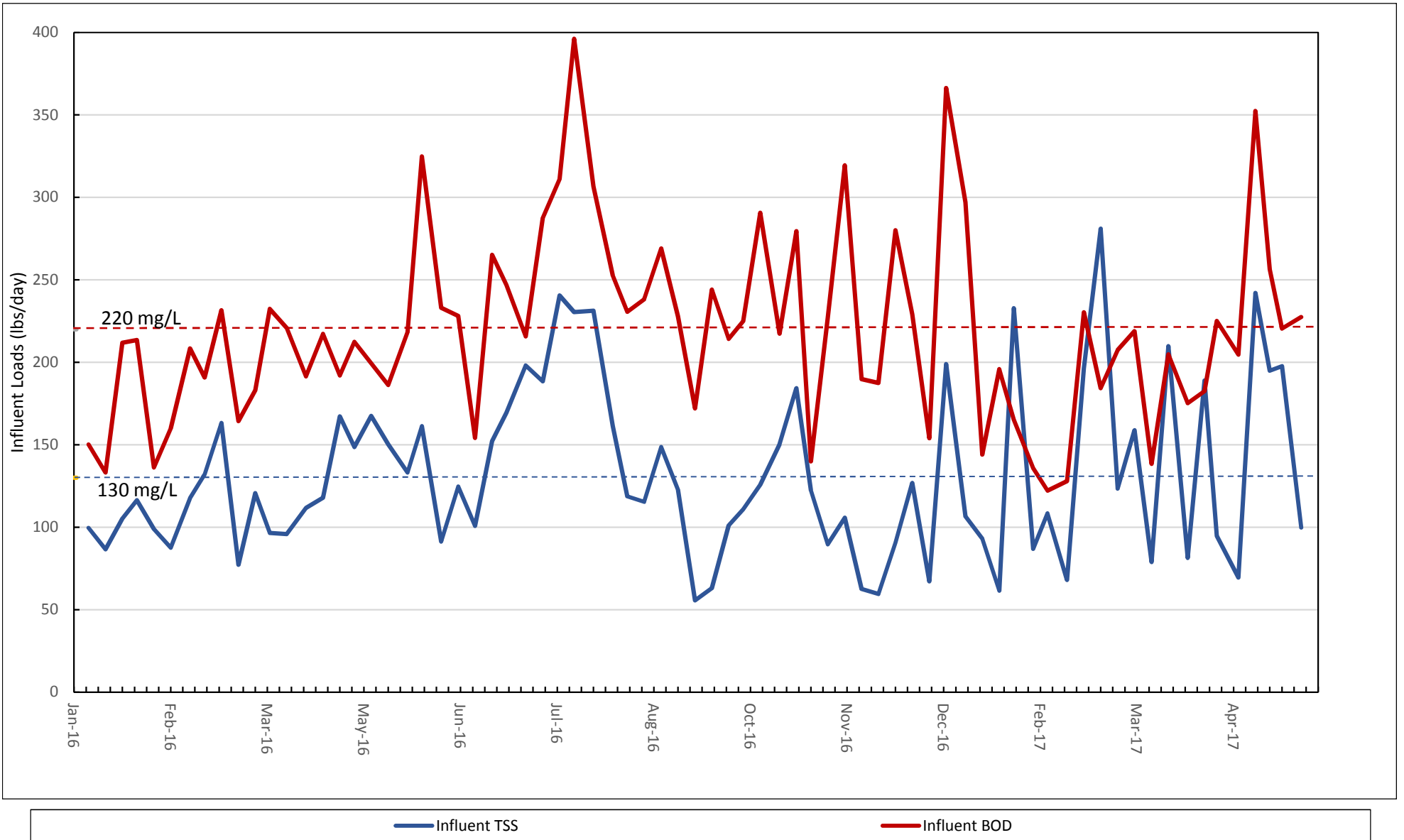
1. Influent TSS reporting began July 2015



Figure 10

Monthly Average Influent BOD and TSS Loads

Evaluation of Replacement Costs for the Idyllwild Water District Wastewater Treatment Plant



Notes:

1. Loads calculated based on weekly grab samples.



Figure 11

**Weekly Average
BOD and TSS Loads**

Evaluation of Replacement Costs for the
Idyllwild Water District Wastewater
Treatment Plant

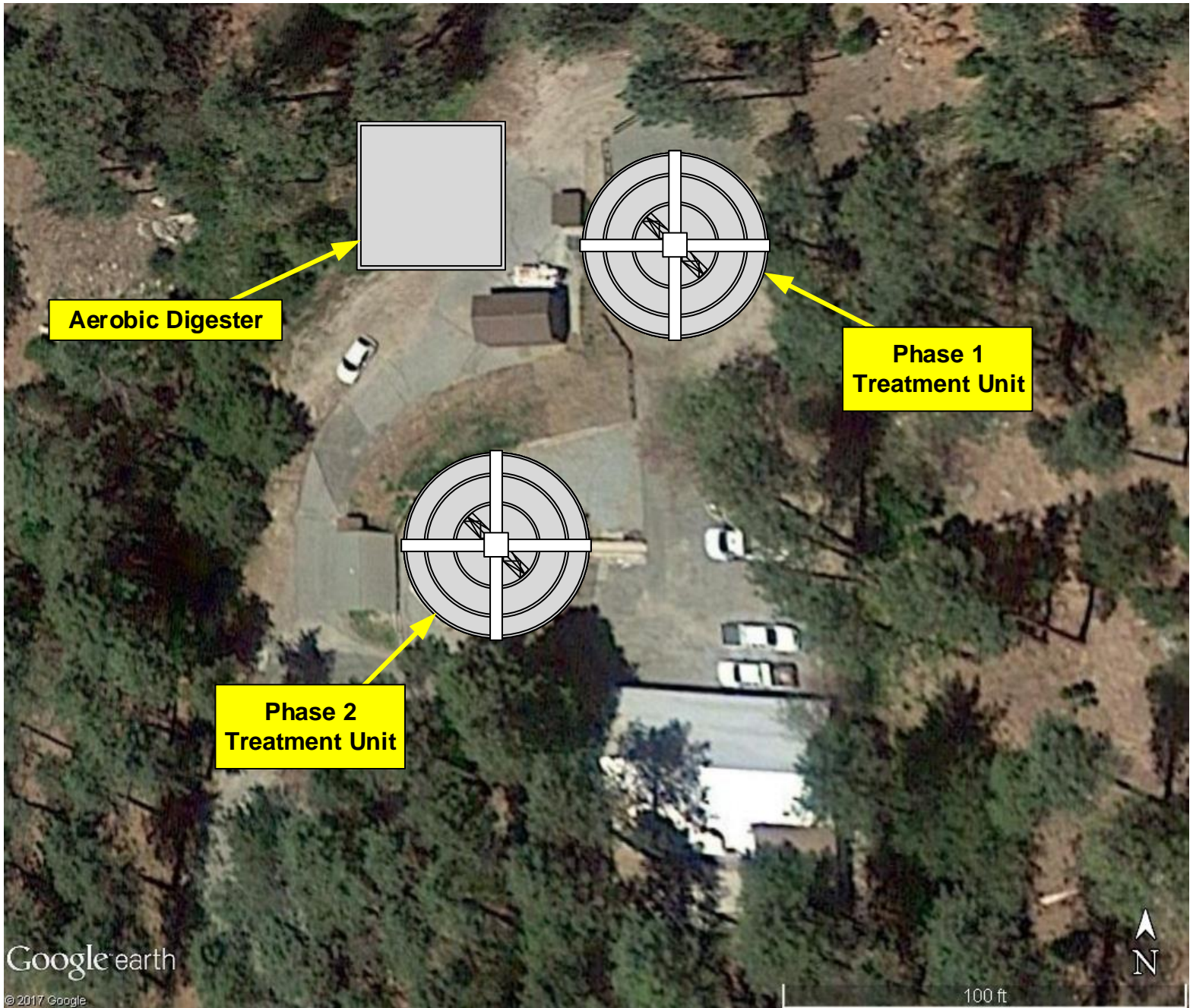


Figure 12

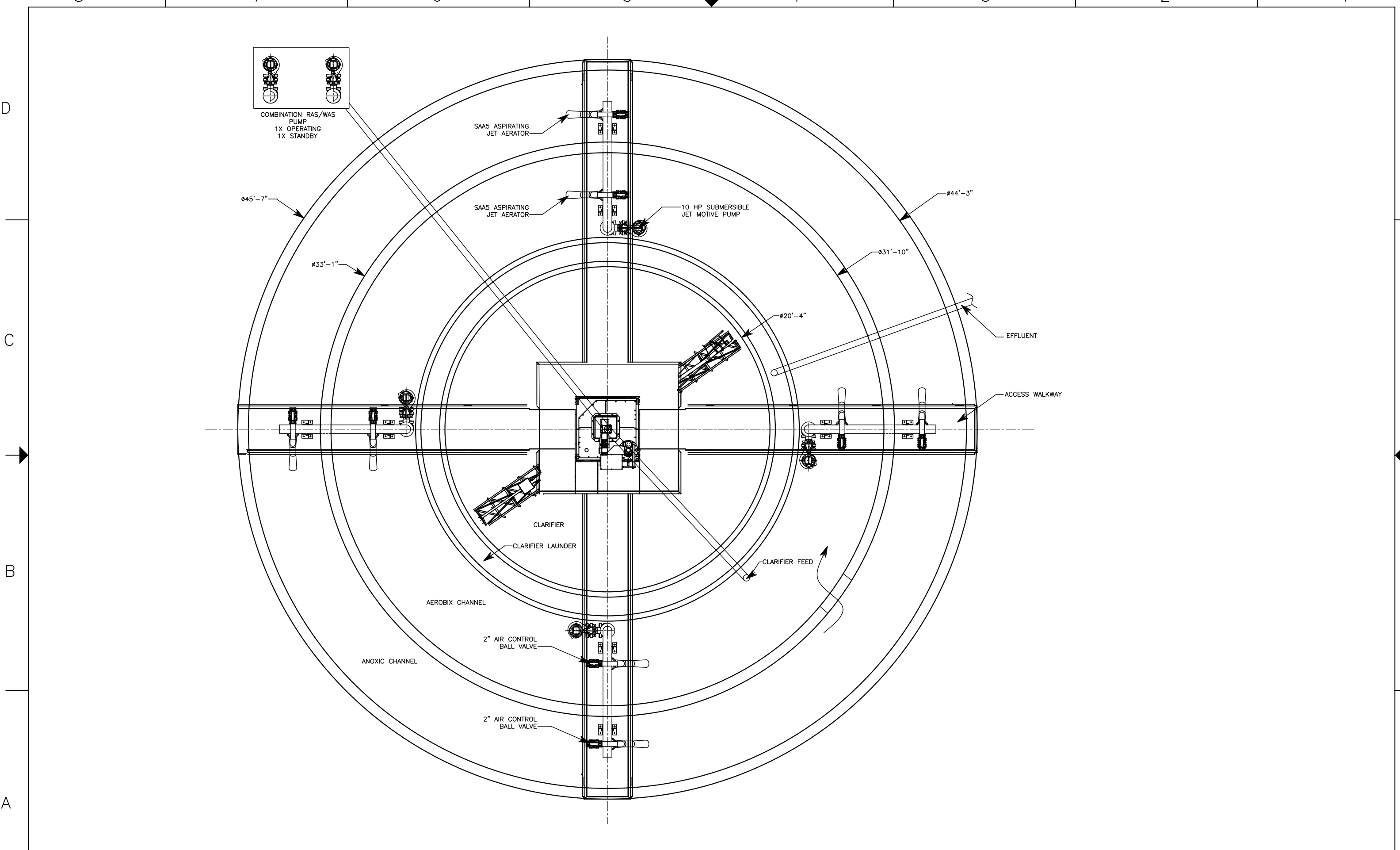
**WWTP Replacement
Construction Phase 1 and
Phase 2 Improvements**

Evaluation of Replacement Costs
for the Idyllwild Water District
Wastewater Treatment Plant



ATTACHMENT A

Manufacturer Proposed CLR Configuration




Checked by: GRC
 Revision Date: -----

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SIZE: D	DRAWN BY: GRC	DWG NO. DITCH-01	REVISED: 0
SCALE: 3/8" = 1'-0"	DATE: 07/31/17	SHEET 1 OF 1	

IDYLLWILD, CA WATER DISTRICT NO. 1
 WWTP UPGRADE

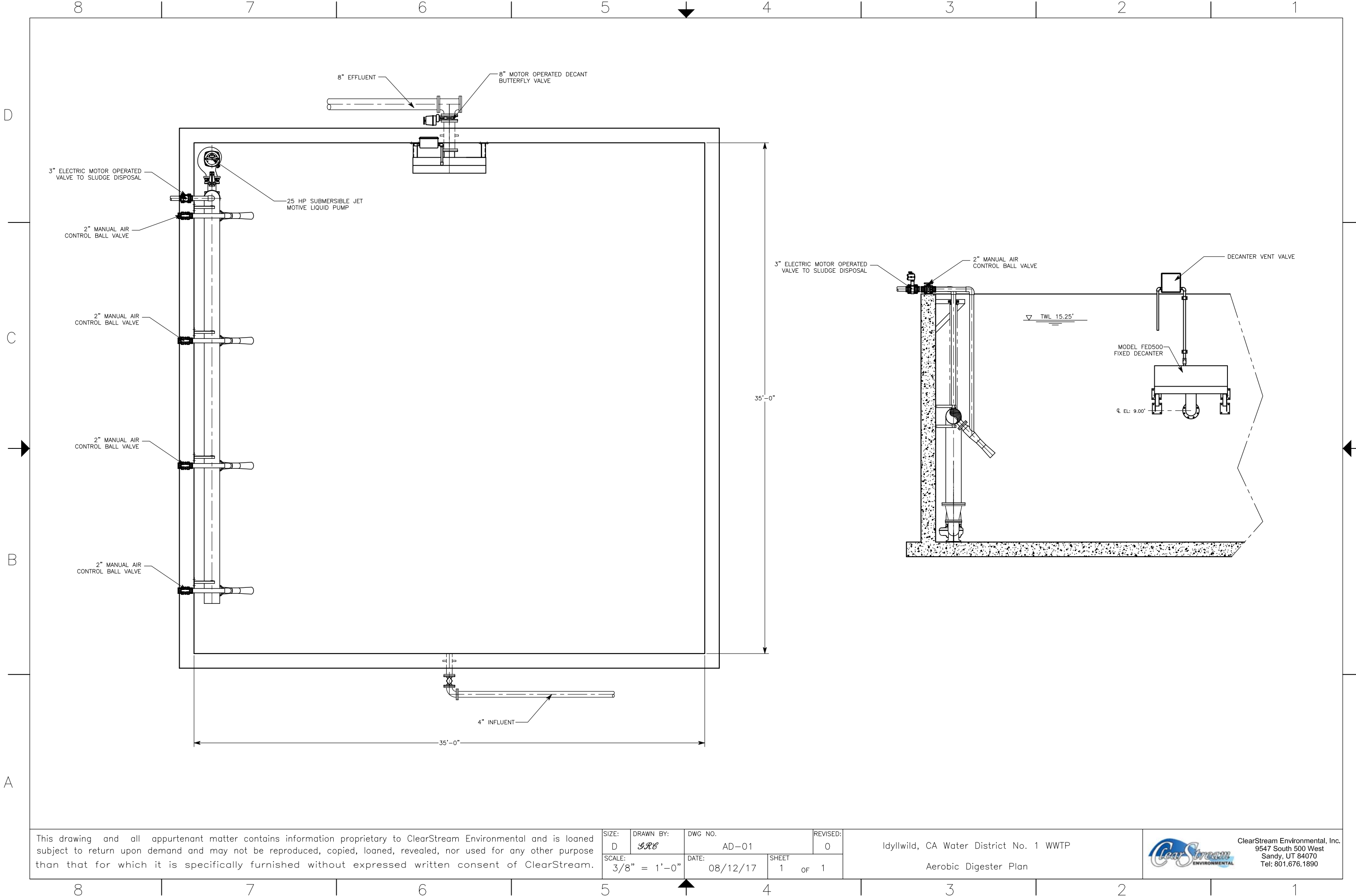


ClearStream Environmental, Inc.
 9547 South 500 West
 Sandy, UT 84070
 Tel: 801.676.1890

ATTACHMENT B

Manufacturer Proposed Drawings of Aerobic Digester

Revision Date: 08/12/17
Checked by: GRC



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SIZE: D	DRAWN BY: <i>GRC</i>	DWG NO. AD-01	REVISED: 0
SCALE: 3/8" = 1'-0"	DATE: 08/12/17	SHEET 1 OF 1	

Idyllwild, CA Water District No. 1 WWTP
Aerobic Digester Plan

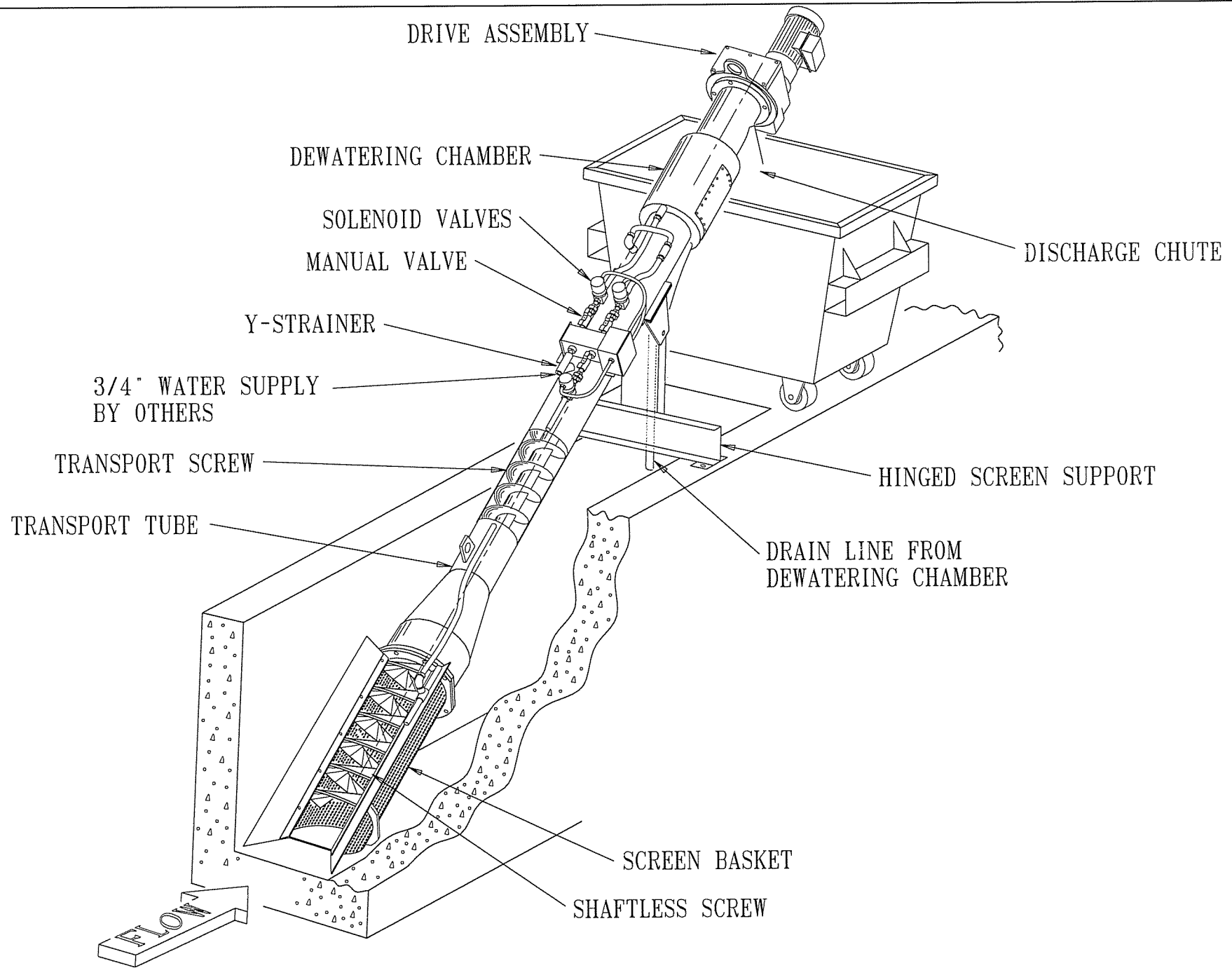


ClearStream Environmental, Inc.
9547 South 500 West
Sandy, UT 84070
Tel: 801.676.1890

8 7 6 5 4 3 2 1

ATTACHMENT C

Drawings of Micro Strainer Assembly



REVISIONS REVISED	6-6-00	SNYDER	LAKESIDE EQUIPMENT CORPORATION	DR. SNYDER	DATE 8-23-92	MICRO STRAINER ASSEMBLY	DWG. NO.	REV.
				CHKD. LAL	FILE NO. 250		A-46279-S	C

ATTACHMENT D
Detailed Cost Estimate



Project Number: 756-18-17-01
 Owner: Idyllwild Water District
 Project: WWTP Replacement Cost Estimate
 Computed By: Tim Durbin
 Date: 8/14/2017
 Checked By:
 Date:

Cost Estimate

Item	Quantity	Unit	Unit Cost	Installation Cost Factor	Total Cost
Division 1 - General Requirements					
Mobilization	1	LS	\$ 11,000	1.0 \$	11,000
Division 2 - Sitework					
Site Preparation and Grading	1	LS	\$ 22,500	1.0 \$	22,500
EQ Tank Wall Demolition	1715	SF	\$ 1.04	1.2 \$	2,100
EQ Tank Slab Demolition	1521	SF	\$ 3.04	1.0 \$	4,600
Blower Demolition	1	LS	\$ 2,000	1.0 \$	2,000
Miscellaneous Demolition	1	LS	\$ 1,400	1.0 \$	1,400
Concrete Disposal	99	CY	\$ 20.00	1.3 \$	2,600
Site Restoration	1	LS	\$ 5,000	1.0 \$	5,000
Division 3 - Concrete					
New Treatment Unit Tank Walls	130	CY	\$ 1,013	1.5 \$	197,500
New Treatment Unit Tank Slab	93	CY	\$ 800	1.0 \$	74,400
Rehabilitation of Concrete in Existing Tank	3,843	SF	\$ 3.50	1.3 \$	17,500
New Walls in Existing Tank	72	CY	\$ 1,013	1.5 \$	109,400
New Aerobic Digester Walls	59	CY	\$ 1,013	1.0 \$	59,800
New Aerobic Digester Slab	53	CY	\$ 800	1.0 \$	42,400
Precast Concrete Vaults	2	EA	\$ 3,250	1.4 \$	9,100
Concrete Improvements at Headworks	1	LS	\$ 10,000	1.0 \$	10,000
Division 5 - Metals					
Pipe Supports	1	LS	\$ 3,000	1.0 \$	3,000
Anchors	1	LS	\$ 800	1.0 \$	800
Metal Stairs at Aerobic Digester	29	risers	\$ 550	1.0 \$	16,000
Aluminum Walkway at Aerobic Digester	108	SF	\$ 21.72	1.5 \$	3,500
Handrail at Aerobic Digester	78	LF	\$ 115	1.5 \$	13,500
Structural Improvements at Headworks	1	LS	\$ 3,000	1.0 \$	3,000
Division 8 - Doors and Windows					
Hatches with Fall Protection for Concrete Vaults	2	EA	\$ 3,000	1.2 \$	7,200
Division 9 - Finishes					
Painting	1	LS	\$ 7,700	1.0 \$	7,700
Division 10 - Specialties					
Signs	1	LS	\$ 300	1.0 \$	300
Division 11 - Equipment					
Equipment Package for Phase 1 Treatment Unit	1	LS	\$ 288,950	1.35 \$	390,100
Equipment Package for Aerobic Digester	1	LS	\$ 79,000	1.35 \$	106,700
Equipment Package for Phase 2 Treatment Unit	1	LS	\$ 267,850	1.35 \$	361,600
Inclined Screen	1	EA	\$ 83,000	1.35 \$	112,100



Project Number: 756-18-17-01
 Owner: Idyllwild Water District
 Project: WWTP Replacement Cost Estimate
 Computed By: Tim Durbin
 Date: 8/14/2017
 Checked By:
 Date:

Cost Estimate

Item	Quantity	Unit	Unit Cost	Installation Cost Factor	Total Cost
Division 13 - Special Construction					
Rental of 2 Baker Tanks for EQ During Construction	9	months	\$ 700	1.25	\$ 7,900
Rental of 2 Submersible Pumps for Temporary EQ	9	months	\$ 100	1.50	\$ 1,400
Division 15 - Mechanical					
Mechanical Cost Multiplier (% of Div 11 Costs)				10%	\$ 97,100
Division 16 - Electrical and Instrumentation					
Electrical Cost Multiplier (% of Div 11 Costs)				10%	\$ 97,100
Instrumentation Cost Multiplier (% of Div 11 Costs)				5%	\$ 48,500
Subtotal, General					\$ 11,000
Subtotal, Sitework					\$ 40,200
Subtotal, Concrete					\$ 520,100
Subtotal, Metals					\$ 39,800
Subtotal, Doors and Windows					\$ 7,200
Subtotal, Finishes					\$ 7,700
Subtotal, Specialties					\$ 300
Subtotal, Equipment					\$ 970,500
Subtotal, Special Construction					\$ 9,300
Subtotal, Mechanical					\$ 97,100
Subtotal, Electrical and Instrumentation					\$ 145,600
SUBTOTAL - Materials, Labor, and Equipment					\$ 1,848,800
Conceptual-Level Design Contingency			30%		\$ 554,700
General Conditions, Taxes, Bonds, & Insurance			12%		\$ 221,900
Contractor Overhead & Profit			10%		\$ 184,900
ENGINEER'S PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST					\$ 2,810,300
Construction Contingency			10%		\$ 281,100
Engineering Design, Construction Management, ESDC, and Legal and Admin Costs			30%		\$ 843,100
TOTAL PROJECT COST					\$ 3,934,500

Memo

To: Board of Directors

From: Interim General Manager

Date: September 27, 2017

Subject: ITEM #6 - CONSIDER CLEANING AND INSPECTION VIDEO OF THE WASTEWATER COLLECTION SYSTEM

Recommendation

Authorize the General Manager to engage Houston-Harris to clean and video inspect the Idyllwild Water District wastewater collection system for a fee of \$137,400.

Background

The wastewater collection system has not been cleaned in as much as 20-years. While some video has been performed in very limited specific areas, as the system nears the 50-year old mark the time is appropriate for an evaluation of the complete system condition.

For the FY 2017-18 Budget the District budgeted \$135,000 for the cleaning and video inspection of the collection system. Despite several attempts to solicit proposals from other vendors that perform these services, Houston Harris of Grand Terrace is the only firm that has responded to a request for prices for the work.

It should be noted that the work proposed will not include the 26 Manholes and approximately 6,000 feet of sewer line in Highway 243. This work requires a CalTrans encroachment permit. While Staff is working with A-Cone Zone (professional Traffic control firm) to acquire the permit, the timing is unknown and the work has not been included in this proposed work. The proposed fee from Houston-Harris for the Highway 243 work is \$26,000 and will require about one week to complete. This item will be brought back to the Board for consideration upon acquisition of the CalTrans encroachment permit.

Attachments



**CCTV Inspection · NASSCO, PACP, MACP Certified Operators · Lateral Launch · Database Customization ·
 Data Conversion CIPP Point Repairs · Hydro-wash · Potholing · CA #884167 · DIR #100003580**

Estimate: This estimate is valid for 90 days

To:	Idyllwild Water District	Date:	09-13-17
Attn:	John Hoagland	From :	Steve Douros/Pamela Houston
Email/Fax:	jack@idyllwildwater.com	Email/Fax:	phouston@houstonandharris.com
Re:	Clean & Video Sewer System Budget Purposes – Revision #1	Pages:	2

Our **Prevailing Wage** estimate on the above noted project is as follows, when scheduling this project please reference this estimate to ensure you are charged the appropriate rate:

Scope of Work: Clean & CCTV Inspect approximately 60,000LF of assorted sized sewer lines. The project will take approximately 30 working days.

- Estimated total footage 60,000LF; approximately 30,000LF street access – 30,000LF easements
- Idyllwild Water District will provide maps with manhole numbers
- CCTV Inspect with WinCan Software
- Equipment storage provided at City's yard
- Water source & hydrant meter provided by the City
- City provided debris disposal container/s at City's Treatment Plant
- Clean to facilitate
- Most lines have not been cleaned in 10 to 12 years
- If a line/s should require more than four (4) passes with the cleaning nozzle, the district will be notified by the operator and upon approval will clean this segment at an hourly rate**

Cleaner	\$70,800.00
CCTV Inspect	\$66,600.00
Total	\$137,400.00 or 2.29/LF

The above price does not include Traffic Control; if required \$850.00/Day
 Cleaning Hourly Rate \$325.00/Hour

*As per **Prevailing Wage labor code #1771**, rates are based on Houston & Harris paying “Operating Engineer, Group 4” & “Laborer, Group 3”.

Used as defined:

Estimate: To calculate approximately (size, cost, etc.) **Quote:** To state a price **Bid:** To offer an amount as the price one will accept, or pay



21831 Barton Road · Grand Terrace · CA · 92313
 909-422-8990 · 909-422-0841 Fax
 houstonandharris.com

*First in quality
 First in service*

**CCTV Inspection · NASSCO, PACP, MACP Certified Operators · Lateral Launch · Database Customization ·
 Data Conversion CIPP Point Repairs · Hydro-wash · Potholing · CA #884167 · DIR #100003580**

Estimate: This estimate is valid for 90 days

To:	Idyllwild Water District	Date:	09-13-17
Attn:	John Hoagland	From :	Steve Douros/Pamela Houston
Email/Fax:	jack@idyllwildwater.com	Email/Fax:	phouston@houstonandharris.com
Re:	Clean & Video Sewer System Budget Purposes – Revision #1	Pages:	2

AGREEMENT TERMS AND CONDITIONS

By using our services on the above named project and signing this agreement the customer hereby agrees to the terms and conditions set forth below:

Houston & Harris PCS, Inc. will not be signatory to any PLA.

Rates are subject to change without notice.

Time Estimate is based on one (1) Move-In, Monday through Friday, during day shift unless otherwise stated, as well as the job site being ready upon our arrival, including but not limited to manholes raised and lines being clean if only a video truck is ordered. If the job should go over/under the estimated time, the customer will be charged for any worked hours over the four (4) hour minimum.

Overtime rate applies to all hours worked over an eight (8) hour on site time or eight (8) hour workday for the operator at a second job site. If additional Move-Ins should be required our four (4) hour minimum applies.

To establish an account, our "First Time Customer Policy" of a "Good Faith" C.O.D. will apply and will be due prior to the start of such service. If fuel surcharge and worked hours are less than the C.O.D. amount due at the time of service, excluding the 4-hour minimum, a refund will be issued for the difference. Account credit is at the sole discretion of management.

It is the **sole responsibility of the client to be in compliance with any State or Federal Prevailing Wage requirements**. The client must notify Houston & Harris PCS, Inc. at the time of scheduling of the correct status. It is also agreed that if the project is discovered to be Prevailing Wage after the fact, a change order will be issued and the client will be responsible for wages due, full amount of rate difference for work completed, legal fees, as well as all fines and penalties under California Labor Codes §1720, §1720.2, §1720.3, §1720.4, §1771, §1775, §1776, and §1813.

Estimate is based on standard deliverables consisting of Data DVD with printed hard copy reports. Reports are now offered in PDF format and placed on Inspection DVD. Various deliverable options are available upon request at an additional charge.

Any insurance forms requested outside of standard procedure will be charged at cost.

Past due invoices are subject to a one and one half percent (1½%) late charge. Houston & Harris PCS, Inc. reports all delinquent accounts to Dunn & Bradstreet. Account credit is at the sole discretion of the management.

I have read and agreed to the stated terms and conditions.

Signature

Printed Name

Date

Used as defined:

Estimate: To calculate approximately (size, cost, etc.) **Quote:** To state a price **Bid:** To offer an amount as the price one will accept, or pay

Memo

To: Board of Directors
From: Interim General Manager
Date: September 27, 2017
Subject: **ITEM #7 – ACWA REGIONAL ELECTION**

Recommendation

That the Board of Directors consider submitting a ballot for the ACWA Region 9 Election.

Background

The Association of California Water Agencies (ACWA) votes bi-annually for regional representatives. The election materials are attached.

Staff would recommend the “Slate” with the exception of substituting Steve Farrell for Phil Rosentrater. Director Farrell is from Crestline Village Water District which is a small water District and his voice would be valuable in a group that only has large agency representation.

Attachments

OFFICIAL
REGION 9 Board Ballot

2018-2019
TERM



**Please return completed ballot
by September 29, 2017**

E-mail: anaj@acwa.com
Mail: ACWA
910 K Street, Suite 100
Sacramento, CA 95814

General Voting Instructions:

1 You may either vote for the slate recommended by the Region 9 Nominating Committee or vote for individual region board members (please note rules & regulations for specific qualifications). Mark the appropriate box to indicate your decision.

2 Complete your agency information. The authorized representative is determined by your agency in accordance with your agency's policies and procedures.

Region 9 Rules & Regulations:

The chair and vice chair shall be elected, one from each area, and the positions shall be rotated between the Western and Arid areas of Region 9. For the 2018-2019 term the chair shall be from the Western area.

1

Nominating Committee's Recommended Slate

I concur with the Region 9 Nominating Committee's recommended slate below.

CHAIR:

- **Joseph J. Kuebler**, Director, Eastern Municipal Water District (Western)

VICE CHAIR:

- **G. Patrick O'Dowd**, Board Member, Coachella Valley Water District (Arid)

BOARD MEMBERS:

- **Luis Cetina**, Vice President, Cucamonga Valley Water District
- **Carl P. Coleman**, Board Secretary, Mojave Water Agency
- **James Morales Jr.**, Governing Board Member, East Valley Water District
- **Phil Rosentrater**, General Manager, Salton Sea Authority
- **Harvey R. Ryan**, Board Member, Elsinore Valley Municipal Water District

OR

Individual Board Candidate Nominations
(See Rules & Regulations before selecting)

I do not concur with the Region 9 Nominating Committee's recommended slate. I will vote for individual candidates below as indicated.

CANDIDATES FOR CHAIR: (CHOOSE ONE)

- Joseph J. Kuebler**, Board Member, Eastern Municipal Water District (Western)
- Harvey R. Ryan**, Board Member, Elsinore Valley Municipal Water District (Western)

CANDIDATES FOR VICE CHAIR: (CHOOSE ONE)

- G. Patrick O'Dowd**, Board Member, Coachella Valley Water District (Arid)
- Michael Wilson**, Board Vice President, Indio Water Authority (Arid)

CANDIDATES FOR BOARD MEMBERS: (MAX OF 5 CHOICES)

- David Castaldo**, Director, San Geronio Pass Water Agency
- Luis Cetina**, Vice President, Cucamonga Valley Water District
- Carl P. Coleman**, Board Secretary, Mojave Water Agency
- Steven Farrell**, Director, Crestline Village Water District
- Joseph J. Kuebler**, Board Member, Eastern Municipal Water District
- James Morales Jr.**, Chairman of the Board, East Valley Water District
- G. Patrick O'Dowd**, Board Member, Coachella Valley Water District
- Phil Rosentrater**, General Manager, Salton Sea Authority
- Harvey R. Ryan**, Board Member, Elsinore Valley Municipal Water District
- Michael Wilson**, Board Vice President, Indio Water Authority

2

AGENCY NAME

AUTHORIZED REPRESENTATIVE DATE