

**STAFF REPORT
FIELD OPERATIONS
JUNE 2018**

TRANSMISSION & DISTRIBUTION

MAINTENANCE WORK.

- Crews have been taking care of leaks/maintenance issues.
- 13 Mainline leaks were repaired this month. 4 were leak detection leaks.
- 354 Firefly's were replaced this month.
- 3 service lines were repaired/replaced this month.
- 1 hydrant was repaired this month.
- 3 hydrants were installed this month.

PFD/PID JOINT PIPELINE PROJECTS

- Use hydrant surcharge funds to upgrade substandard mains.
- The Country Club project is now complete.
- Crestview/Crestwood project is in progress.

DEVELOPMENT PROJECTS

- None at this time.

CUSTOMER REIMBURSEMENT JOBS (by work order)

- New mod 35 install for 490 Boaz (Anderson development)
- 1524 Wagstaff Road downsize from 2" meter to 1" meter.

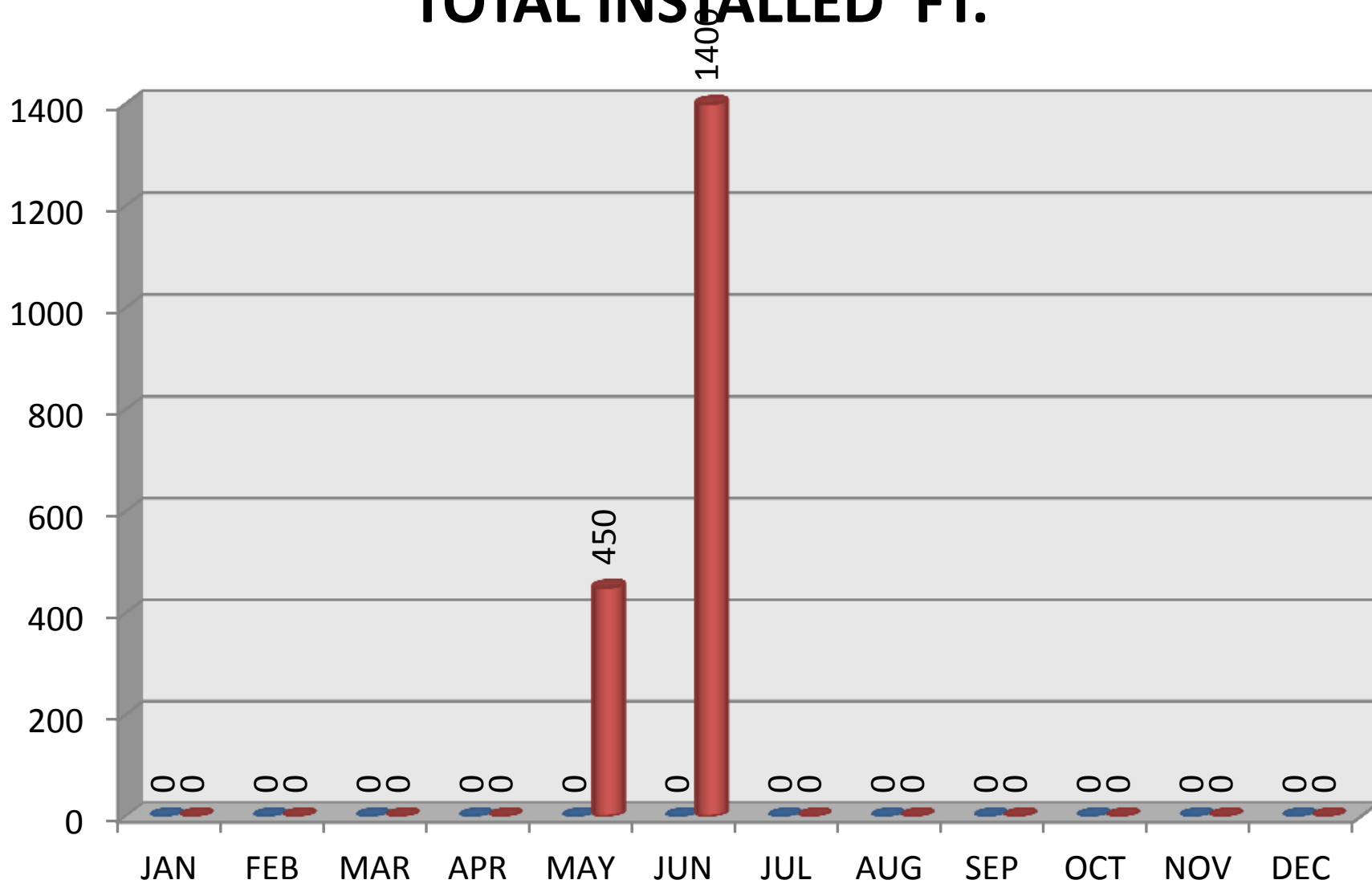
CRESTVIEW/CRESTWOOD PIPELINE PROJECT

- Project is in under way and going well.

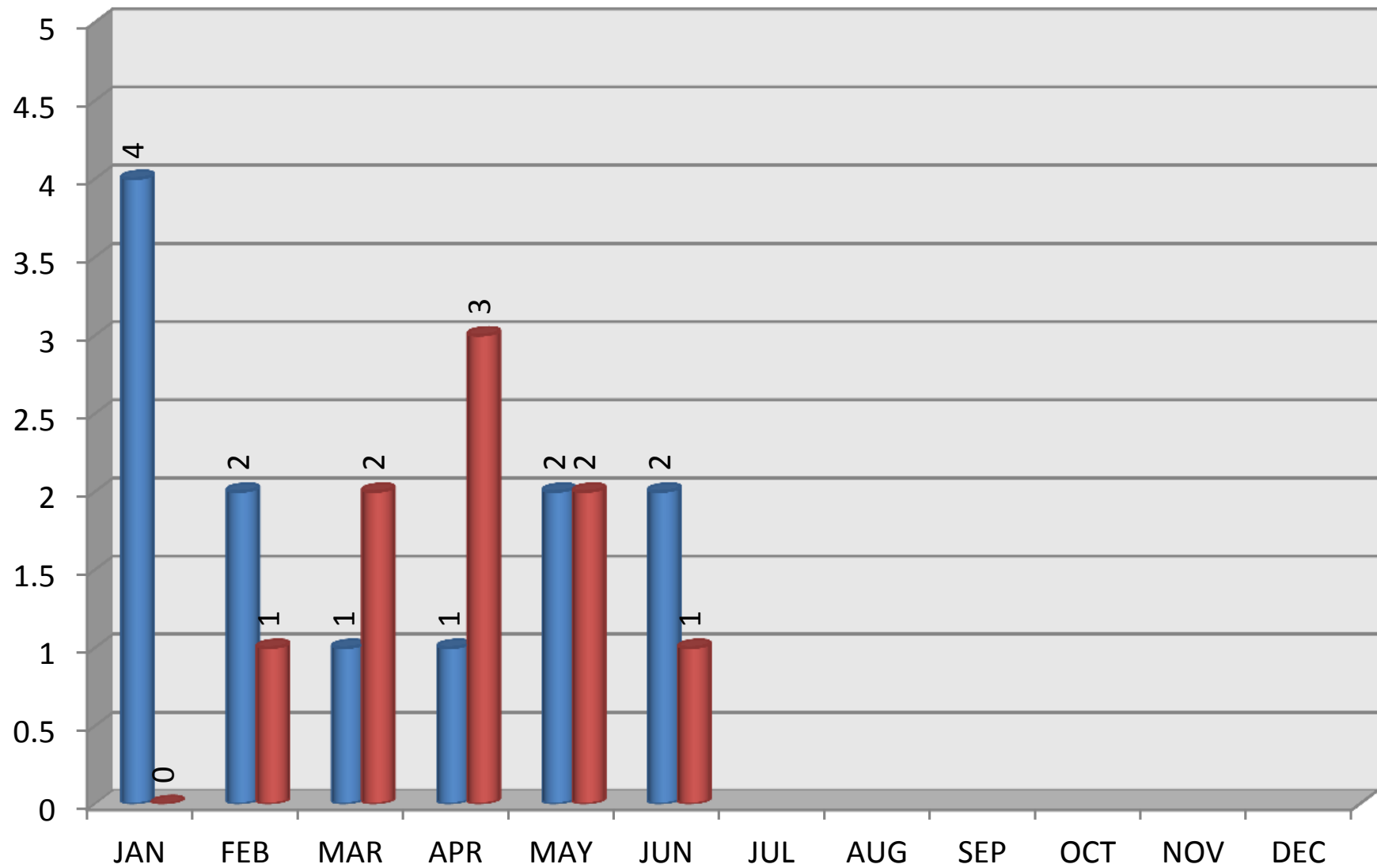
SUMMARY

- The pipeline crew started work on the Crestview/Crestwood project. The first 2 weeks involved lay out, pot-hole work, and installing a new valve to create a take-off point. Approximately 450 feet of pipe, multiple services, and 2 new hydrants were installed before the month of May was over. The month of June ended with approximately 1,400 feet of main installed, multiple services and 3 new hydrants. Currently, most of our employees are concentrating their efforts on this project.
- We spent some time assisting with the final touches for the grand opening of the garden this month. I might add that the garden looks really nice and it was nice to see a large attendance for this event on June 29th!
- Two temporary laborers are on board to assist with our current construction season and they are working out nicely.
- We are assisting the meter shop with the firefly replacements. Two of our utility workers are focusing on the change outs to insure our system is operating properly on a daily basis.
- We continue to take care of the daily needs of the District and maintenance issues providing excellent customer service.

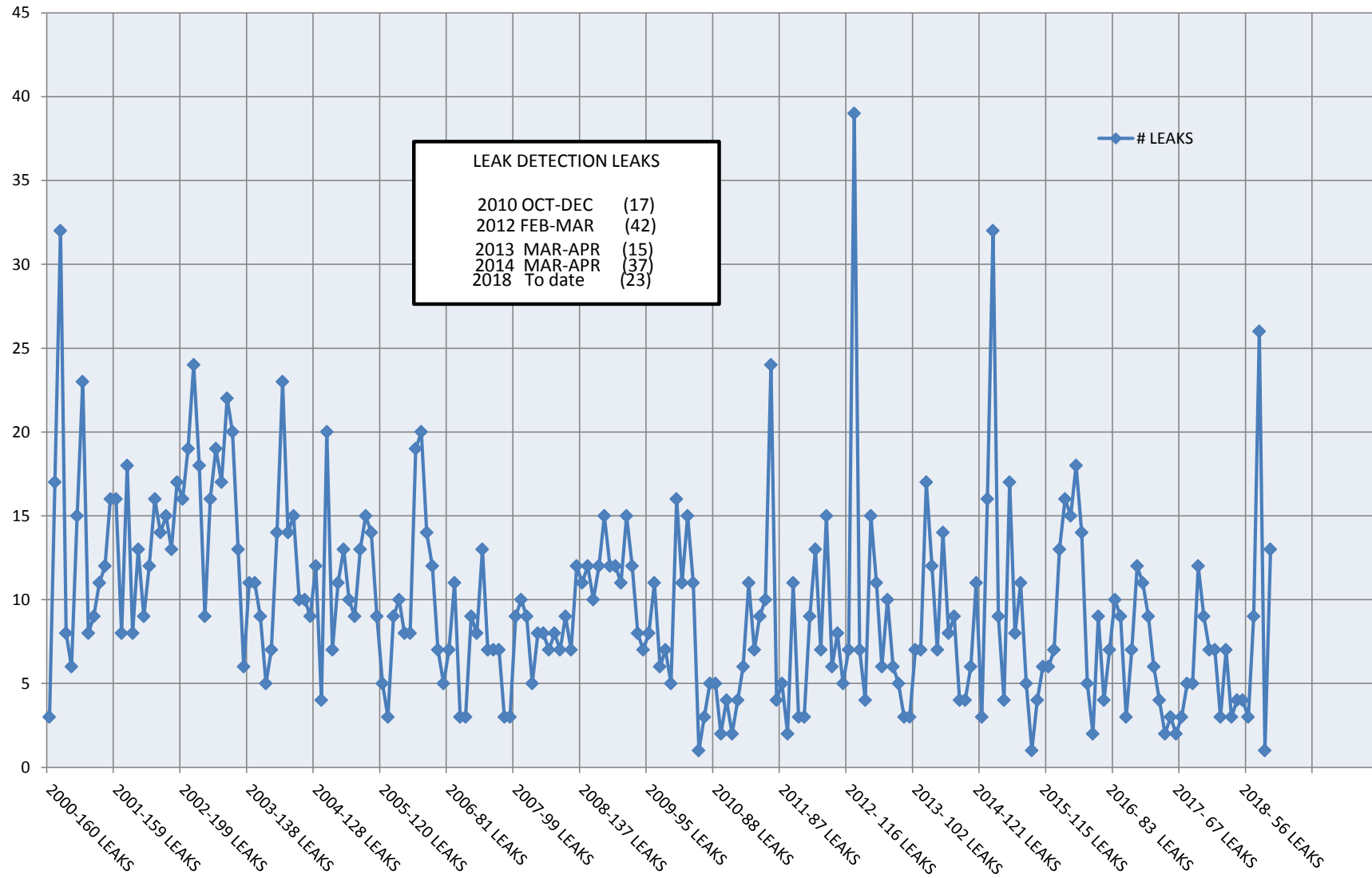
MONTHLY PIPE INSTALLATION 2018, TOTAL INSTALLED FT.



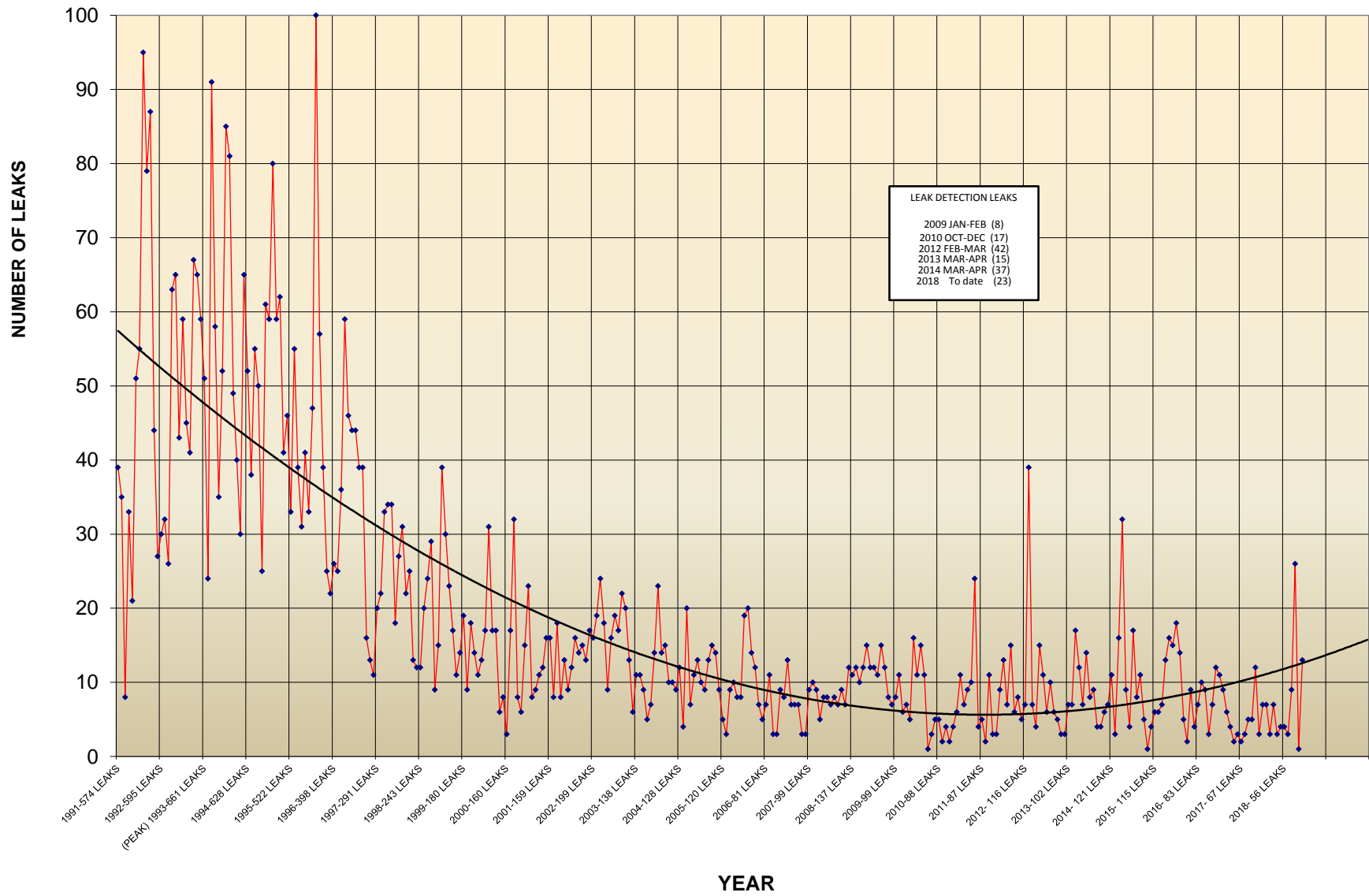
2018 METER WORK: 12 REPLACED; 9 NEW



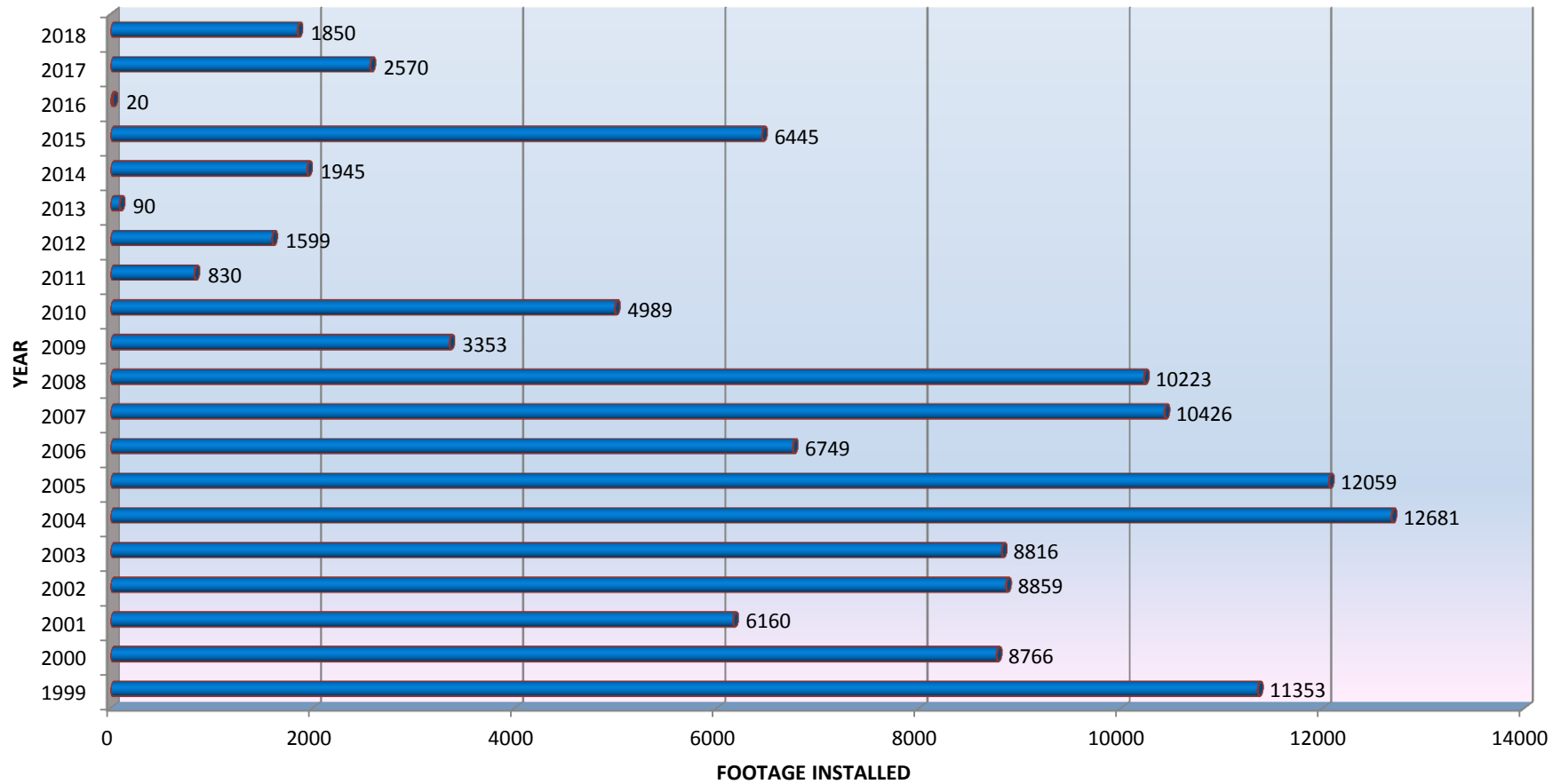
MAINLINE LEAKS



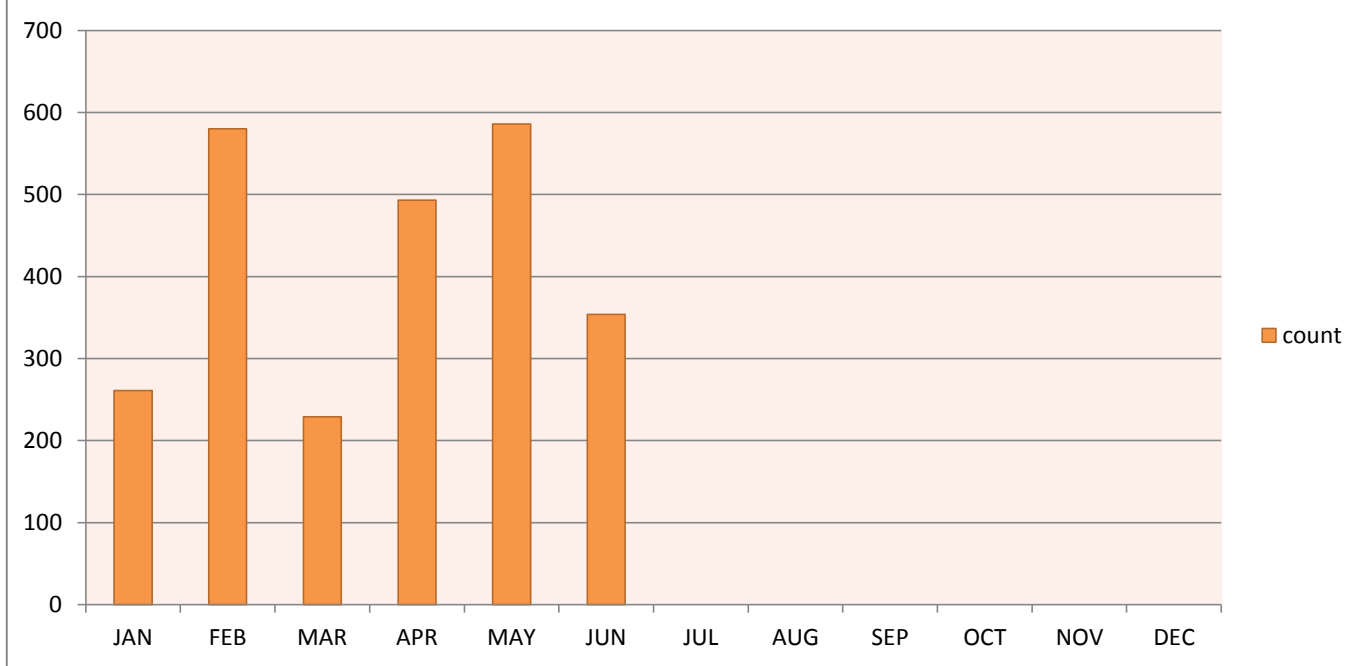
MONTHLY LEAK HISTORY 1991 TO PRESENT



PIPELINE INSTALLATION HISTORY



FIREFLY REPLACEMENTS 2018



TYPE PIPE	FEET	MILES	%
Asbestos Cement	91375	17.31	10.0%
Ductile Iron	2191	0.41	0.2%
C-900 PVC 4" to 12"	281308	53.28	30.9%
Cast Iron	1780	0.34	0.2%
Cement Mortar Lined	175060	33.16	19.2%
Galvanized 1.5"- 2"	13568	2.57	1.5%
PVC 1"-2"	38482	7.29	4.2%
Steel 4"-12"	300665	56.94	33.0%
C-905 14" & greater	6288	1.19	0.7%
TOTAL PIPE	910717	172.48	100.0%
Adjustments are made in January of each year			

TREATMENT - STAFF REPORT
June 2018

SUPPLY & QUALITY:

(See Attached Graphs)	June 2018	June 2017	June 6 yr. Avg.
Monthly Production (Million Gallons - MG)	199.8	182.6	201.1
	Range	Average	
Plant Production (MGD)	4.7 – 10.5	6.7	
Raw Water Turbidity (NTU)	0.35 – 0.67	0.45	
Treated Water Turbidity (NTU)	0.04 – 0.05	0.04	
Treated Water Chlorine (ppm)	0.78 – 1.39	1.02	

WATER TREATMENT:

- **Plant Production and Water Quality:** 1. average production increased to **6.7 MGD** from **4.5 MGD** last month; 2. Paradise Lake was primary source of raw water for treatment. The raw water turbidity was lower compared to last month due to decreased runoff; 3. Magalia Reservoir filled to near 2200 feet, release opened to 10% until the level is back to 2197 feet; 4. Del Oro started daily pumping of their water delivered to Paradise Lake; and 5. Plant operating with all three clarifiers.
- **Monthly Residential Water Conservation:** **28%** reduction comparing production in June 2018 – **199.8 MG** to June 2013 – **276.2MG**. 216 gallons per day per capita (GPCD).
- **Emergency Response Planning (ERP):** Signed up to participate in a FEMA Emergency Management Institute Dam Safety Table Top Exercise on July 18th.
- **Plant & Distribution Operations:** 1. County Hazardous Materials Business Plan Inspection at plant - no violations cited (**inspection report attached**); 2. Meeting with Corpro rescheduled to 7-19-18 to discuss cathodic protection systems assessment for the 2.5 mile 42-inch transmission pipeline and the treatment plant; 3. Failure of magnetic production flow meter electronics; sent electronic unit out for repair; reinstalled an operational **Photos attached**; 4. Ordered repair and spare screens and evaluated security fence concepts for the Magalia Bypass Diversion Structure; 5. Recent PG&E power outages caused unique disruptions to plant operations; and 6. Sheriff's Dept. work crews cleaned vegetation, etc. around the water storage tanks.
- **Annual Compliance Reports & Events:** 1. Made plans for the distribution of the Annual Consumer Confidence (water quality) Report **See www.PIDCCR**;
- **Reservoir "B" Replacement; A Zone Pipeline & Pump Station:** **1. See attached Progress Report – May 2018**; 2. Finalizing plans and specifications and CEQA documents; 3. Addressing SRF loan issues as they come up; 4. District legal counsel helped staff evaluate options of unusual right of way/easement acquisition for the construction of the Zone A transmission pipeline; and 5. Waterworks/Stantec is completing the additional Alternatives Analysis CEQA document.
- **Rehabilitation of C Tank and Cathodic Protection Improvements:** Harper and staff are working on finalizing the Bid documents with new General and Supplementary Conditions. Project bidding is planned for early summer.
- **NPDES Permit Renewal Assistance:** The Regional Board did not have any comments regarding the "Method of Compliance Workplan". **See attached Progress Report – May 2018**. Received a list of water quality sampling requirements for permit renewal; to be sampled at the proposed new RSW-001 location specified in the Workplan. **See attached water quality sampling lists**.
- **NPDES Permit for Discharge to Magalia Reservoir:** No violation this month. The last DCBM violation was October 6, 2016.
- **Process Water Recycle Project:**
RFP Pond Alternative Design: Consideration of a project is dependent on outcome of NPDES permit renewal.
SRF Construction Loan Application: Pending completion of design and CEQA; full design cost recovery is contingent on the construction of a project.
- **CalOES/FEMA Grant:** Information requests were provided to CalOES/FEMA; still waiting for a reply from CalOES.
- **Drinking Water and NPDES Reports and Maintenance:** 1. Completed monthly sampling and reports; and 2. Miscellaneous repairs to aging equipment and routine instrument calibrations.

RECREATION:

- **Lake Activities:** 1. See attached Parking & Boating Permit Sales Chart & Table; 2. Camper was reported near the diversion structure, and was asked to leave by lake patrol; 3. Received two more bear proof recycling containers from the County Recycling program - preparation of mounting locations with a concrete pad is underway. The Lake Committee concurred with staff regarding the location of a new ADA picnic table between the ADA parking and ADA restroom; obtained three bids and placed order; installation in August. **See photos of proposed location.**
- **Boat Launch Ramp No. 1 Parking Improvements:** The Lake Committee requested a concept plan be prepared to facilitate discussion at the next regular meeting.
- **DBW North Lake Boat Launch Grant Termination:** Staff mailed Resolution and Notice of Intent letter to DBW to terminate the grant funding agreement.

WATERSHED - SOURCE of SUPPLY: Monthly Rainfall = 0.0" during 0 days; Greatest Rain Day = 0."

Paradise Lake Levels (feet)	2018 June 30 @ - 2.6'	2018 May 31 @ + 0.0'	2017 June 30 @ - 0.9'
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- **CalFire Service Crews:** No work this month; crews are tired up with CalFire priorities and difficult to schedule.
- **Paradise Ridge Fire Safe Council:** **See attached letter** from Tom Smith, Forest Pest Management Specialist regarding the health of pine trees in the town.
- **Prescribed Burning for Shaded Fuel Maintenance:** Consider arranging a presentation to the Board this summer regarding prescribed "control" burn technology.



CUPA - OFFICIAL INSPECTION REPORT
Notice of Violation and / or Notice to Comply
Hazardous Materials Business Plan (HMBP) Program Inspection

Division of Environmental Health
202 Mira Loma Dr
Oroville, CA 95965

T: 530-538-7281
F: 530-538-5339

buttecounty.net/publichealth Page 1 of 1

DAOJLWFKV

Facility Name	: PARADISE IRRIGATION DISTRICT	Facility ID	: FA0002812	Inspection Type: Regular Inspection Inspection Date: 6/28/2018
Site Address	: 13888 PINE NEEDLE Dr	Record ID	: PR0002706	
Owner	: PARADISE IRRIGATION DISTRICT	CERS ID	: 10276561	
Owner Phone	:	Program	: 4232 B2 - RANGE 2 - 5,500 - 55,000 GALLONS	

Inspection Violations

No violations cited.

Overall Inspection Comments

- ☐ If checked, complete the "Return to Compliance Self-Certification" form to BCEH CUPA by the comply-by date listed above, along with any other required documentation.

Consent to perform the inspection, review documents, copy documents, take photos or collect samples provided by Jim Passanisi at 9:45 AM on 6/28/2018. No photographs, copied documents or samples were obtained during this inspection.

Last full review/submission on 9/5/2017. Reviews of your HMBP are due annually and consist of facility information section, Inventory section and Emergency Plan section. All must be submitted to be considered a full review.

Training is conducted throughout the year.

Any items checked are in violation. A reinspection may occur at anytime to verify compliance. Non-compliance could result in reinspection fees, permit revocation and/or administrative/civil/criminal penalties. Any time granted for correction of the violation(s) does not preclude any enforcement action by this Department or other agencies.

Consent Given by
Jim Passanisi

DAN HOLOCHWOST

Inspector Name

Magnetic Flow Meter for Plant Production



Electronic Component Failure of the Flow Meter



Paradise Irrigation District Reservoir "B" Replacement and Zone A Transmission Main Project Monthly Progress Report – May 2018

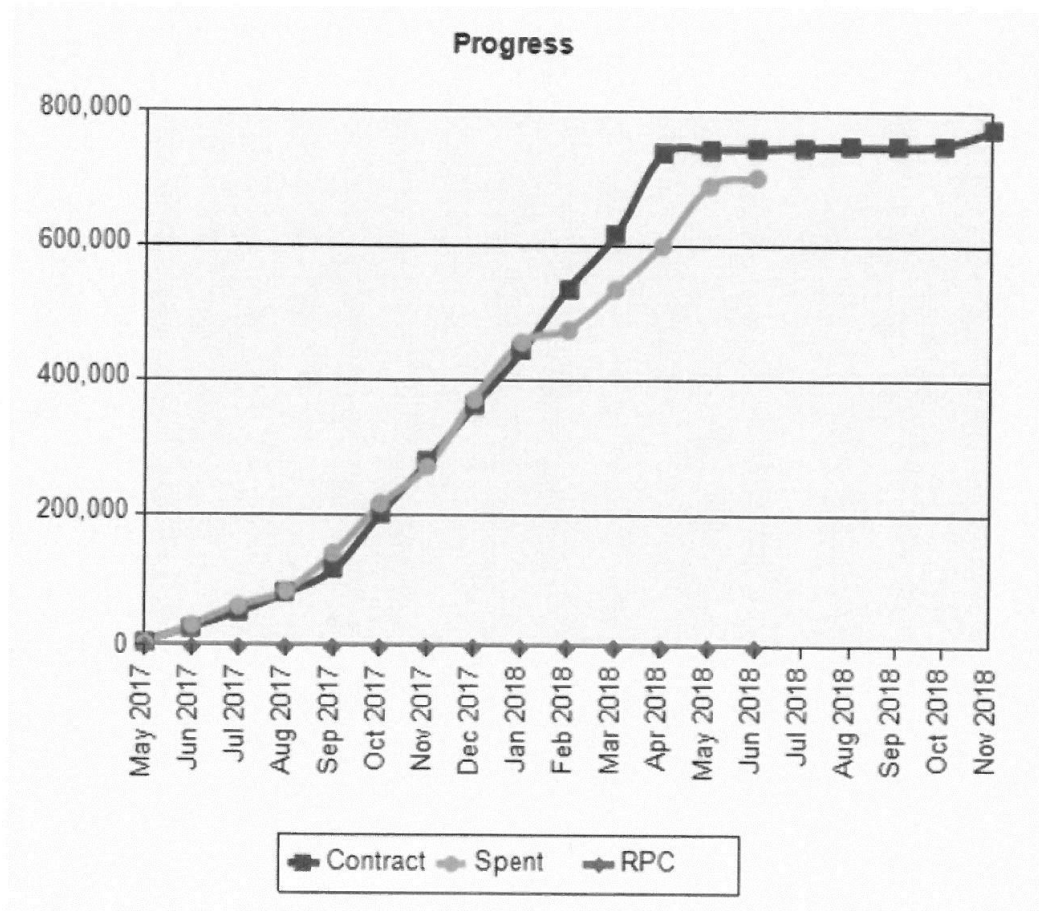
Date: June 11, 2018
 Prepared by: Sami Kader

Summary of Work Performed to Date

Subtask	Work Performed	Work Planned Next Month
1 Project Management	<ul style="list-style-type: none"> Continued to Manage Subconsultants and Resources Continued to Provide Continuous Quality Control Continued to Monitor and Manage Budget and Schedule 	<ul style="list-style-type: none"> Continue to Manage Subconsultants and Resources Continue to Provide Continuous Quality Control Continue to Monitor and Manage Budget and Schedule
2 Conceptual Engineering	<ul style="list-style-type: none"> Task Complete 	<ul style="list-style-type: none"> Task Complete
3 Preliminary Engineering	<ul style="list-style-type: none"> Preliminary Design Report Complete Geotechnical Report Complete Environmental Documents to SWRCB for review 	<ul style="list-style-type: none"> Final Environmental Document Processing with SWRCB
3A Zone A PS and Transmission Main Preliminary Engineering	<ul style="list-style-type: none"> Preliminary Design Report Complete Surge Analysis Complete Survey Complete Environmental Studies Ongoing 	<ul style="list-style-type: none"> Complete Environmental Studies
4.1 60% Design	<ul style="list-style-type: none"> 60% Design Complete 60% Design Review Meeting Completed 	<ul style="list-style-type: none"> Task Complete
4.1A Zone A PS and Transmission Main 60% Design	<ul style="list-style-type: none"> 60% Design Complete 60% Design Review Meeting Completed 	<ul style="list-style-type: none"> Task Complete
4.2 90% Design	<ul style="list-style-type: none"> Work 90% complete 	<ul style="list-style-type: none"> Task Complete
4.2A Zone A PS and Transmission Main 90% Design	<ul style="list-style-type: none"> Work 90% complete 	<ul style="list-style-type: none"> Task Complete
4.3 Bid Documents	<ul style="list-style-type: none"> Task not started 	<ul style="list-style-type: none"> Comment adjudication from the 90% review is in progress
4.3A Zone A PS and Transmission Main Bid Documents	<ul style="list-style-type: none"> Task not started 	
4.4 Engineering Assistance During Bidding	<ul style="list-style-type: none"> Task not started 	<ul style="list-style-type: none"> Task not started

Budget

The current budget performance is shown in the invoice summary on the attached invoice. Project is within budget on all tasks. Task completion matches budget expenditures on all tasks. No budget overruns are anticipated. The following s-curve (from our project accounting system) shows current budget performance relative to contract.



Schedule

As indicated by the S-curve, project spending pace in May picked up to be slightly ahead of the planned spending rate and nearly caught the project up to the planned spending curve. The project is still somewhat slightly behind schedule, per the agreed to schedule at the Preliminary Design Report stage of the project, as follows:

Subtask	Planned Completion Date	Current Completion
1 Project Management	Ongoing	Ongoing
2 Conceptual Engineering	August 2017	Complete
3 Preliminary Engineering	November 2017 (PDR) April 2018 (CEQA)	PDR Complete, Environmental Studies Ongoing
3A Zone A PS and Transmission Main Preliminary Engineering	November 2017 (PDR) April 2018 (CEQA)	PDR Complete, Environmental Studies Ongoing
4.1 60% Design	February 2018	Complete
4.1A Zone A PS and Transmission Main 60% Design	February 2018	Complete
4.2 90% Design	April 2018	Complete
4.2A Zone A PS and Transmission Main 90% Design	April 2018	Complete
4.3 Bid Documents	May 2018	In Progress
4.3A Zone A PS and Transmission Main Bid Documents	May 2018	In Progress
4.4 Engineering Assistance During Bidding	November 2018	Not started

We are on schedule to bid the project in the fall of 2018. The completion of the Bid Documents is not the current critical path to the project being ready to bid. CEQA and authority to construct the pipeline in Skyway are the two critical items.

Potential Work Scope, Schedule and Budget Changes

- Obtaining an encroachment permit from Butte County for the pipeline alignment continues to be a potential schedule issue for getting this project out to bid and constructed.
- Pushing CEQA through the approval process is also a critical path item.
- No other potential schedule scope, schedule or budget issues have been identified.



WATERWORKS ENGINEERS

Water Works Engineers

7500 North Dobson Rd., Suite 200
Scottsdale, AZ 85256
480-661-1742

Paradise Irrigation District
Kevin Phillips
6332 Clark Rd.
Paradise, CA 95969

Invoice number 8765
Date 06/14/2018

Project **17-041 Paradise Irrigation District
Reservoir B Replacement Project**

Paradise Irrigation District Job No. 17-02
Budget Account No. 01-30-623001
Professional Services Through May 31, 2018

Invoice Summary

Description	Current Billed	Prior Billed	Total Billed	Contract Amount	Percent Complete
SUBTASK 1 - PROJECT MANAGEMENT	3,562.77	18,128.76	21,691.53	25,872.00	83.84
SUBTASK 2 - CONCEPTUAL ENGINEERING	0.00	59,107.30	59,107.30	59,121.00	99.98
SUBTASK 3 - PRELIMINARY ENGINEERING	292.71	121,134.89	121,427.60	122,768.00	98.91
SUBTASK 3A - ZONE A PS AND TRANSMISSION MAIN PRELIMINARY ENGINEERING	0.00	83,445.14	83,445.14	83,089.00	100.43
SUBTASK 4.1 - 60% DESIGN	0.00	118,413.00	118,413.00	118,388.00	100.02
SUBTASK 4.1A - ZONE A PS AND TRANSMISSION MAIN 60% DESIGN	0.00	65,320.81	65,320.81	65,342.00	99.97
SUBTASK 4.2 - 90% DESIGN	14,084.48	84,190.68	98,275.16	98,292.00	99.98
SUBTASK 4.2A - ZONE A PS AND TRANSMISSION MAIN 90% DESIGN	9,144.38	49,482.33	58,626.71	58,614.00	100.02
SUBTASK 4.3 - BID DOCUMENTS	35,349.64	0.00	35,349.64	68,772.00	51.40
SUBTASK 4.3A - ZONE A PS AND TRANSMISSION MAIN BID DOCUMENTS	27,177.17	0.00	27,177.17	51,366.00	52.91
SUBTASK 5 - ENGINEERING ASSISTANCE DURING BIDDING	0.00	0.00	0.00	22,340.00	0.00
ADJUSTMENT FOR MISSING RECEIPT ON INV. 7868	0.00	-11.82	-11.82	0.00	0.00
ADJUSTMENT FOR MISSING RECEIPT ON INV. 8015	0.00	-19.80	-19.80	0.00	0.00
Total	89,611.15	599,191.29	688,802.44	773,964.00	89.00

Invoice number 8765

Invoice date 06/14/2018

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Paradise Irrigation District Backwash Waste NPDES Permit Renewal Monthly Progress Report – May 2018

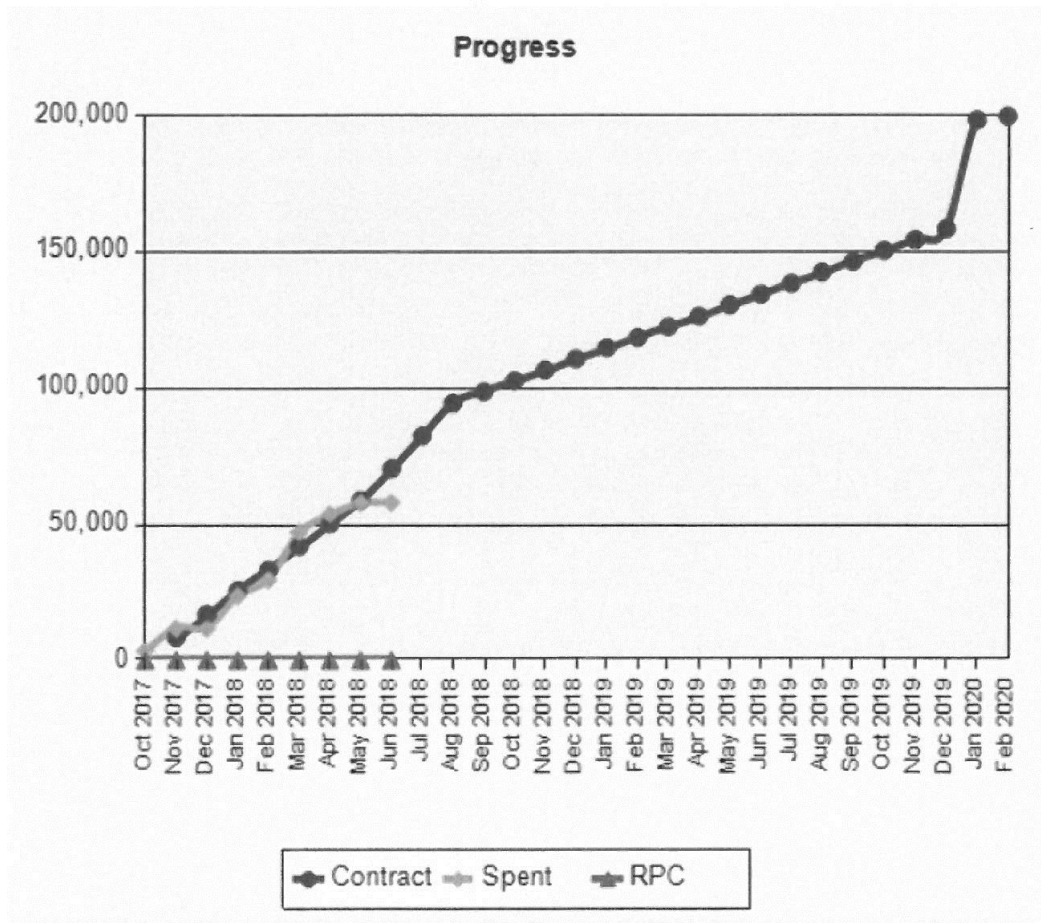
Date: June 11, 2018
Prepared by: Sami Kader

Summary of Work Performed to Date

Subtask	Work Performed	Work Planned Next Month
1 Project Management	<ul style="list-style-type: none">Continued to Manage SubconsultantContinued to Provide Continuous Quality ControlContinued to Monitor and Manage Budget and Schedule	<ul style="list-style-type: none">Continue to Manage SubconsultantContinue to Provide Continuous Quality ControlContinue to Monitor and Manage Budget and Schedule
2 (HOLD)	<ul style="list-style-type: none">No work	<ul style="list-style-type: none">No work
3 Mixing Zone Study	<ul style="list-style-type: none">Responded to Regional Board concerns and requests for additional data and analysis	<ul style="list-style-type: none">Respond as needed to Regional Board concerns and requests for additional data and analysis
4 NPDES Permit Renewal Support	<ul style="list-style-type: none">Worked with Regional Board to support NPDES Permit Renewal	<ul style="list-style-type: none">Continue to work with Regional Board to support NPDES Permit Renewal

Budget

The current budget performance is shown in the invoice summary on the attached invoice. Project is within budget. No budget overruns are anticipated. The following s-curve (from our project accounting system) shows current budget performance relative to contract. The project is tracking well with anticipated spending rates. Note that the jump in the planned contract amount at the end of the schedule period is due to Task 2 being on hold. The Task 2 budget has been placed at the end of the contract for the purposes of tracking.



Schedule

The project is on schedule, per the agreed to schedule at the Preliminary Design Report stage of the project, as follows:

Subtask	Planned Completion Date	Current Completion
1 Project Management	Ongoing	Ongoing
2 (HOLD)	n/a	n/a
3 Mixing Zone Study	September 2018	90%
4 NPDES Permit Renewal Support	December 2019	20%

Potential Work Scope, Schedule and Budget Changes

- No schedule scope, schedule or budget issues have been identified.



WATERWORKS ENGINEERS

Water Works Engineers

7500 North Dobson Rd., Suite 200
Scottsdale, AZ 85256
480-661-1742

Paradise Irrigation District
Kevin Phillips
6332 Clark Rd.
Paradise, CA 95969

Invoice number 8809
Date 06/01/2018

Project **17-071 Paradise Irrigation District
Backwash Waste NPDES Permit
Renewal**

Paradise Irrigation District Job No. 17-02
Budget Account No. 01-30-623001
Professional Services Through May 31, 2018

Invoice Summary

Description	Current Billed	Prior Billed	Total Billed	Contract Amount	Percent Complete
SUBTASK 1 - PROJECT MANAGEMENT	489.44	7,072.67	7,562.11	15,704.00	48.15
SUBTASK 2 - (HOLD)	0.00	0.00	0.00	40,650.00	0.00
SUBTASK 3 - MIXING ZONE STUDY	0.00	39,425.53	39,425.53	78,484.00	50.23
SUBTASK 4 - NPDES PERMIT RENEWAL SUPPORT	3,819.75	6,960.26	10,780.01	64,718.00	16.66
Total	4,309.19	53,458.46	57,767.65	199,556.00	28.95

Invoice number 8809

Invoice date 06/01/2018

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Jim Passanisi

From: Collins, Michael@Waterboards <Michael.Collins@Waterboards.ca.gov>
Sent: Friday, June 15, 2018 12:50 PM
To: Jim Passanisi
Subject: Modified screening requirements for upcoming permit

Hi Jim

On 26 April 2017, the Central Valley Water Quality Control Board (Central Valley Water Board) and Paradise Irrigation District discussed modifying the screening requirements for the upcoming permit. Based on a review of the previous sampling data, Central Valley Water Board is requiring that the following constituents be screened for the upcoming permit:

- Biochemical Oxygen Demand (BOD)
- Total Suspended Solids (TSS)
- Dissolved Oxygen (DO)
- Hardness
- pH
- Temperature
- Electrical Conductivity (EC)
- Total Dissolved Solids (TDS)
- Unionized Ammonia Nitrogen, Total (as N)
- Total Residual Chlorine
- CTR Priority Pollutants

Due to the age of the previous screenings, no CTR priority pollutants could be eliminated from the screening process. However, no toxicity testing will be required, which should bring down the cost significantly.

Please contact me if you have any questions.

~Thanks Mike

Michael Collins
Water Resource Control Engineer
NPDES Unit

Cal EPA - Water Quality Control Board
Central Valley Region
364 Knollcrest Drive, Suite 205
Redding, CA 96002
Office: 530.224.4785
<http://www.waterboards.ca.gov/centralvalley/>

CTR #	Constituent	CAS Number	Suggested Test Methods
VOLATILE ORGANICS			
17	Acrolein	107028	EPA 8260B
18	Acrylonitrile	107131	EPA 8260B
19	Benzene	71432	EPA 8260B
20	Bromoform	75252	EPA 8260B
21	Carbon tetrachloride	56235	EPA 8260B
22	Chlorobenzene (mono chlorobenzene)	108907	EPA 8260B
23	Dibromochloromethane	124481	EPA 8260B
24	Chloroethane	75003	EPA 8260B
25	2- Chloroethyl vinyl ether	110758	EPA 8260B
26	Chloroform	67663	EPA 8260B
27	Dichlorobromomethane	75274	EPA 8260B
28	1,1-Dichloroethane	75343	EPA 8260B
29	1,2-Dichloroethane	107062	EPA 8260B
30	1,1-Dichloroethene	75354	EPA 8260B
31	1,2-Dichloropropane	78875	EPA 8260B
32	1,3-Dichloropropene	542756	EPA 8260B
33	Ethylbenzene	100414	EPA 8260B
34	Bromomethane	74839	EPA 8260B
35	Chloromethane	74873	EPA 8260B
36	Dichloromethane	75092	EPA 8260B
37	1,1,2,2-Tetrachloroethane	79345	EPA 8260B
38	Tetrachloroethene	127184	EPA 8260B
39	Toluene	108883	EPA 8260B
40	trans-1,2-Dichloroethylene	156605	EPA 8260B
41	1,1,1-Trichloroethane	71556	EPA 8260B
42	1,1,2-Trichloroethane	79005	EPA 8260B
43	Trichloroethene	79016	EPA 8260B
44	Vinyl chloride	75014	EPA 8260B
75	1,2-Dichlorobenzene	95501	EPA 8260B
76	1,3-Dichlorobenzene	541731	EPA 8260B
77	1,4-Dichlorobenzene	106467	EPA 8260B
88	Hexachlorobenzene	118741	EPA 8260B
89	Hexachlorobutadiene	87683	EPA 8260B
91	Hexachloroethane	67721	EPA 8260B
94	Naphthalene	91203	EPA 8260B
101	1,2,4-Trichlorobenzene	120821	EPA 8260B
SEMI-VOLATILE ORGANICS			
60	1,2-Benzanthracene	56553	EPA 8270C
85	1,2-Diphenylhydrazine	122667	EPA 8270C
45	2-Chlorophenol	95578	EPA 8270C
46	2,4-Dichlorophenol	120832	EPA 8270C
47	2,4-Dimethylphenol	105679	EPA 8270C

49	2,4-Dinitrophenol	51285	EPA 8270C
82	2,4-Dinitrotoluene	121142	EPA 8270C
55	2,4,6-Trichlorophenol	88062	EPA 8270C
83	2,6-Dinitrotoluene	606202	EPA 8270C
50	2-Nitrophenol	25154557	EPA 8270C
71	2-Chloronaphthalene	91587	EPA 8270C
78	3,3'-Dichlorobenzidine	91941	EPA 8270C
62	3,4-Benzofluoranthene	205992	EPA 8270C
52	4-Chloro-3-methylphenol	59507	EPA 8270C
48	4,6-Dinitro-2-methylphenol	534521	EPA 8270C
51	4-Nitrophenol	100027	EPA 8270C
69	4-Bromophenyl phenyl ether	101553	EPA 8270C
72	4-Chlorophenyl phenyl ether	7005723	EPA 8270C
56	Acenaphthene	83329	EPA 8270C
57	Acenaphthylene	208968	EPA 8270C
58	Anthracene	120127	EPA 8270C
59	Benzidine	92875	EPA 8270C
61	Benzo(a)pyrene (3,4-Benzopyrene)	50328	EPA 8270C
63	Benzo(g,h,i)perylene	191242	EPA 8270C
64	Benzo(k)fluoranthene	207089	EPA 8270C
65	Bis(2-chloroethoxy) methane	111911	EPA 8270C
66	Bis(2-chloroethyl) ether	111444	EPA 8270C
67	Bis(2-chloroisopropyl) ether	39638329	EPA 8270C
68	Bis(2-ethylhexyl) phthalate	117817	EPA 8270C
70	Butyl benzyl phthalate	85687	EPA 8270C
73	Chrysene	218019	EPA 8270C
81	Di-n-butylphthalate	84742	EPA 8270C
84	Di-n-octylphthalate	117840	EPA 8270C
74	Dibenzo(a,h)-anthracene	53703	EPA 8270C
79	Diethyl phthalate	84662	EPA 8270C
80	Dimethyl phthalate	131113	EPA 8270C
86	Fluoranthene	206440	EPA 8270C
87	Fluorene	86737	EPA 8270C
90	Hexachlorocyclopentadiene	77474	EPA 8270C
92	Indeno(1,2,3-c,d)pyrene	193395	EPA 8270C
93	Isophorone	78591	EPA 8270C
98	N-Nitrosodiphenylamine	86306	EPA 8270C
96	N-Nitrosodimethylamine	62759	EPA 8270C
97	N-Nitrosodi-n-propylamine	621647	EPA 8270C
95	Nitrobenzene	98953	EPA 8270C
53	Pentachlorophenol	87865	EPA 8270C
99	Phenanthrene	85018	EPA 8270C
54	Phenol	108952	EPA 8270C
100	Pyrene	129000	EPA 8270C
INORGANICS			

1	Antimony	7440360	EPA 6020/200.8
2	Arsenic	7440382	EPA 1632
15	Asbestos	1332214	EPA/600/R-93/116(PCM)
3	Beryllium	7440417	EPA 6020/200.8
4	Cadmium	7440439	EPA 1638/200.8
5a	Chromium (total)	7440473	EPA 6020/200.8
5b	Chromium (VI)	18540299	EPA 7199/1636
6	Copper	7440508	EPA 6020/200.8
14	Cyanide	57125	EPA 9012A
7	Lead	7439921	EPA 1638
8	Mercury	7439976	EPA 1669/1631
9	Nickel	7440020	EPA 6020/200.8
10	Selenium	7782492	EPA 6020/200.8
11	Silver	7440224	EPA 6020/200.8
12	Thallium	7440280	EPA 6020/200.8
13	Zinc	7440666	EPA 6020/200.8
PESTICIDES - PCBs			
110	4,4'-DDD	72548	EPA 8081A
109	4,4'-DDE	72559	EPA 8081A
108	4,4'-DDT	50293	EPA 8081A
112	alpha-Endosulfan	959988	EPA 8081A
103	alpha-Hexachlorocyclohexane (BHC)	319846	EPA 8081A
102	Aldrin	309002	EPA 8081A
113	beta-Endosulfan	33213659	EPA 8081A
104	beta-Hexachlorocyclohexane	319857	EPA 8081A
107	Chlordane	57749	EPA 8081A
106	delta-Hexachlorocyclohexane	319868	EPA 8081A
111	Dieldrin	60571	EPA 8081A
114	Endosulfan sulfate	1031078	EPA 8081A
115	Endrin	72208	EPA 8081A
116	Endrin Aldehyde	7421934	EPA 8081A
117	Heptachlor	76448	EPA 8081A
118	Heptachlor Epoxide	1024573	EPA 8081A
105	Lindane (gamma-Hexachlorocyclohexane)	58899	EPA 8081A
119	PCB-1016	12674112	EPA 8082
120	PCB-1221	11104282	EPA 8082
121	PCB-1232	11141165	EPA 8082
122	PCB-1242	53469219	EPA 8082
123	PCB-1248	12672296	EPA 8082
124	PCB-1254	11097691	EPA 8082
125	PCB-1260	11096825	EPA 8082
126	Toxaphene	8001352	EPA 8081A

16	2,3,7,8-TCDD (Dioxin)	1746016	EPA 8290 (HRGC) MS
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**Proposed Location for the New ADA Concrete Picnic Table
(Recyclables Container will be Relocated)**



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

P.O. Box 944246
SACRAMENTO, CA 94244-2460
(916) 653-7772
Website: www.fire.ca.gov



June 1, 2018

Dave Derby
BTU Forester II
California Department of Forestry and Fire Protection
176 Nelson Avenue
Oroville, CA 95965

Dear Dave,

It was a pleasure to come up to the Town of Paradise yesterday to look at the issues affecting the ponderosa pines in the area. I do admit that the trees looked very bad in the area so I understand why people have been concerned particularly after we have gone through such a serious epidemic of pine bark beetles in recent years. I just wanted to send a note reviewing what we found.

First I did not see any obvious indications of pine bark beetles. The population of western pine bark beetle that attacks ponderosa pine has rapidly decreased in the past two years with the return of normal rainfall conditions. Bark beetles tend to be very opportunistic with outbreaks related to stress conditions, especially extended droughts. The populations of the beetles are still high so it is best to be aware of any beetle activity, particularly if we go back into drought conditions.

Several of the trees were suffering from diplodia blight caused by the fungus *Sphaeropsis sapinea*. It causes groups of needles at the tips of branches to wilt, turn grey but remain in the tree. Some trees can look terrible year after year but I have been following several trees now for 20 years and they are still standing. Oddly enough they survived the beetle epidemic while healthy looking trees around them died. There is some diplodia blight in the area but that was not the main problem.

The main issue around Paradise is needle cast of pines. Needle cast occurs occasionally when weather conditions are suitable for the causal fungus *Lophodermium ponderosae*. The actual infection happened last spring on last year's needles but does not show up until the following spring. Needles will dieback to the point of infection and the tree will often look brown to the point where people will think that it is dead. However, when we look at the branch tips there will be new green needles starting to emerge. These are not affected by the disease and within a few weeks to a month the trees will completely green up and look healthy again. Late spring rains may cause infection of these new needles but any symptoms will not show up until next year.

CONSERVATION IS WISE-KEEP CALIFORNIA GREEN AND GOLDEN

PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT WWW.CA.GOV.

Needle cast is a disease that normally does not negatively impact the host tree. Trees will look terrible and people will be tempted to cut them down but if they just wait a few weeks the trees will look good again. Just give the trees some time.

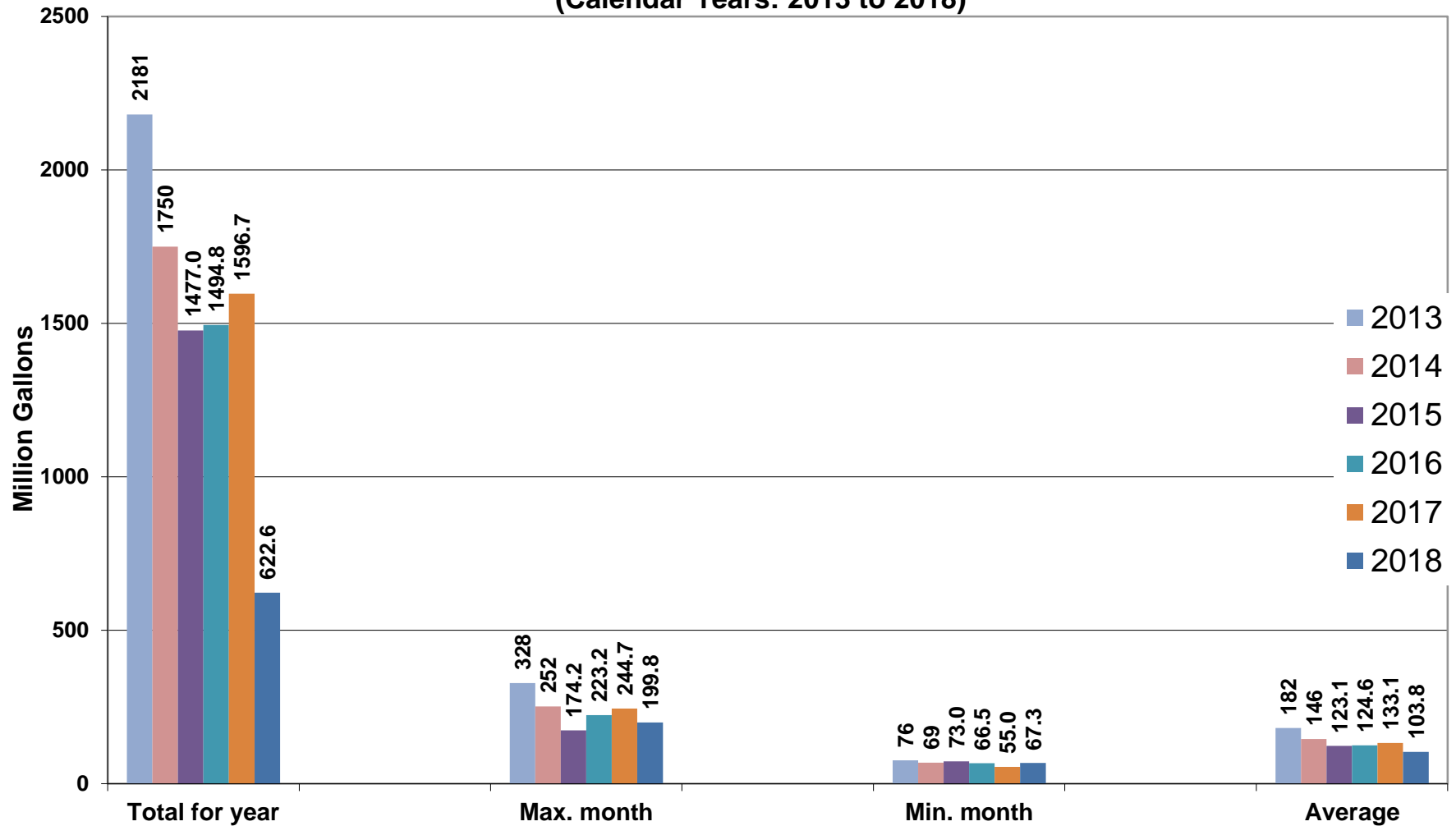
I do have to say that there are too many trees around the Town of Paradise. The forests in the area appear to be overstocked and could use some careful thinning. Such thinning would make the remaining trees more resilient and better able to fight off future bark beetle attacks since each remaining individual will not be in as much competition for water nutrients and growing space. Also, thinned stands would be better for wildfire control and healthier overall.

Let me know if you have any questions or if I may be of any further assistance.

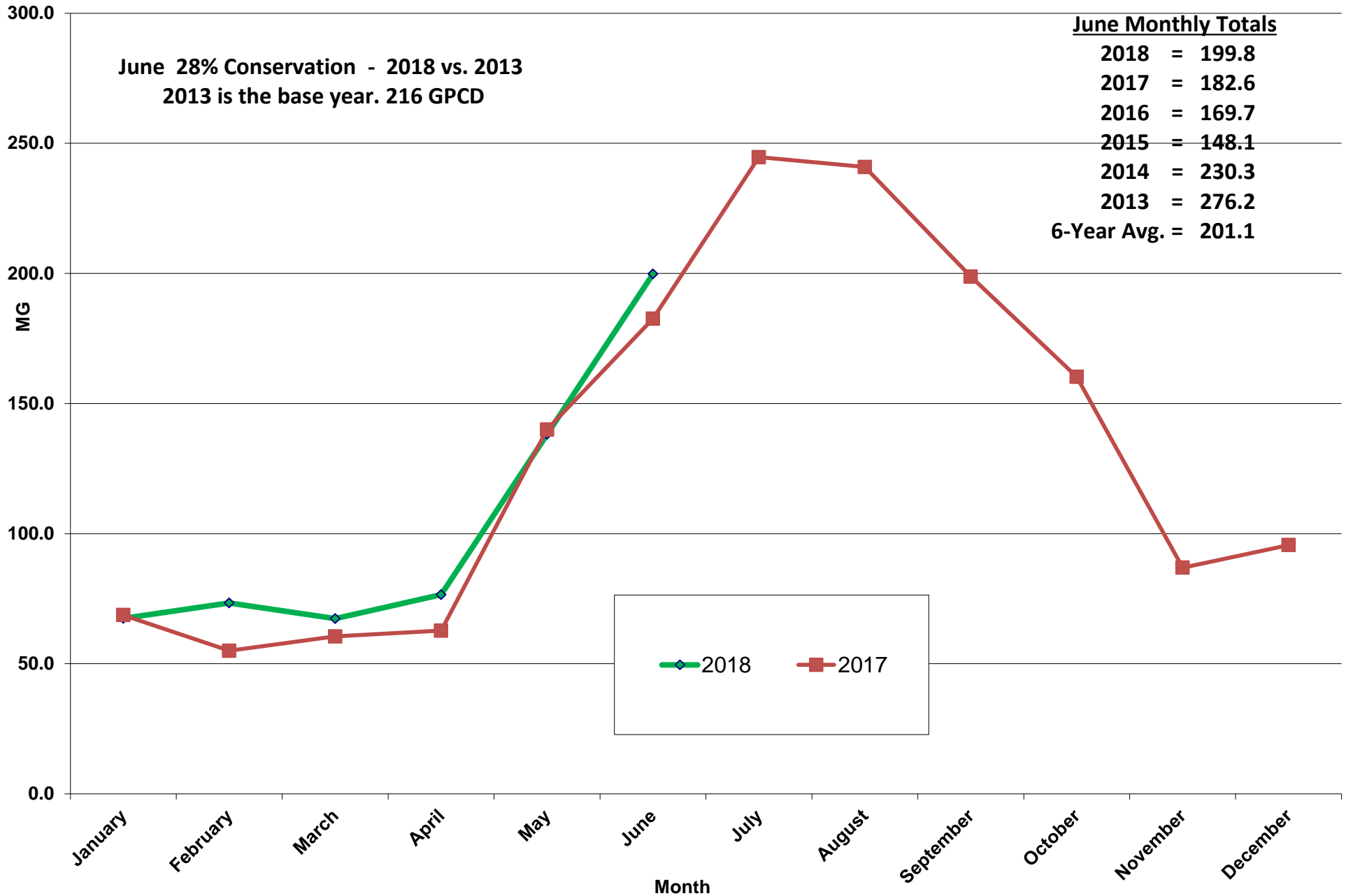
Take care,

Tom Smith
Forest Pest Management Specialist
California Department of Forestry and Fire Protection
1416 9th Street
P.O. Box 944246
Sacramento, CA 94244-2460
916-599-6882
tom.smith@fire.ca.gov

**Water Treatment Plant Annual Production Comparisons
Total; Monthly Max. & Min, and Average
(Calendar Years: 2013 to 2018)**



Monthly Treatment Plant Production (Million Gallons - MG) (Comparison of Calendar Years 2018 to 2017)

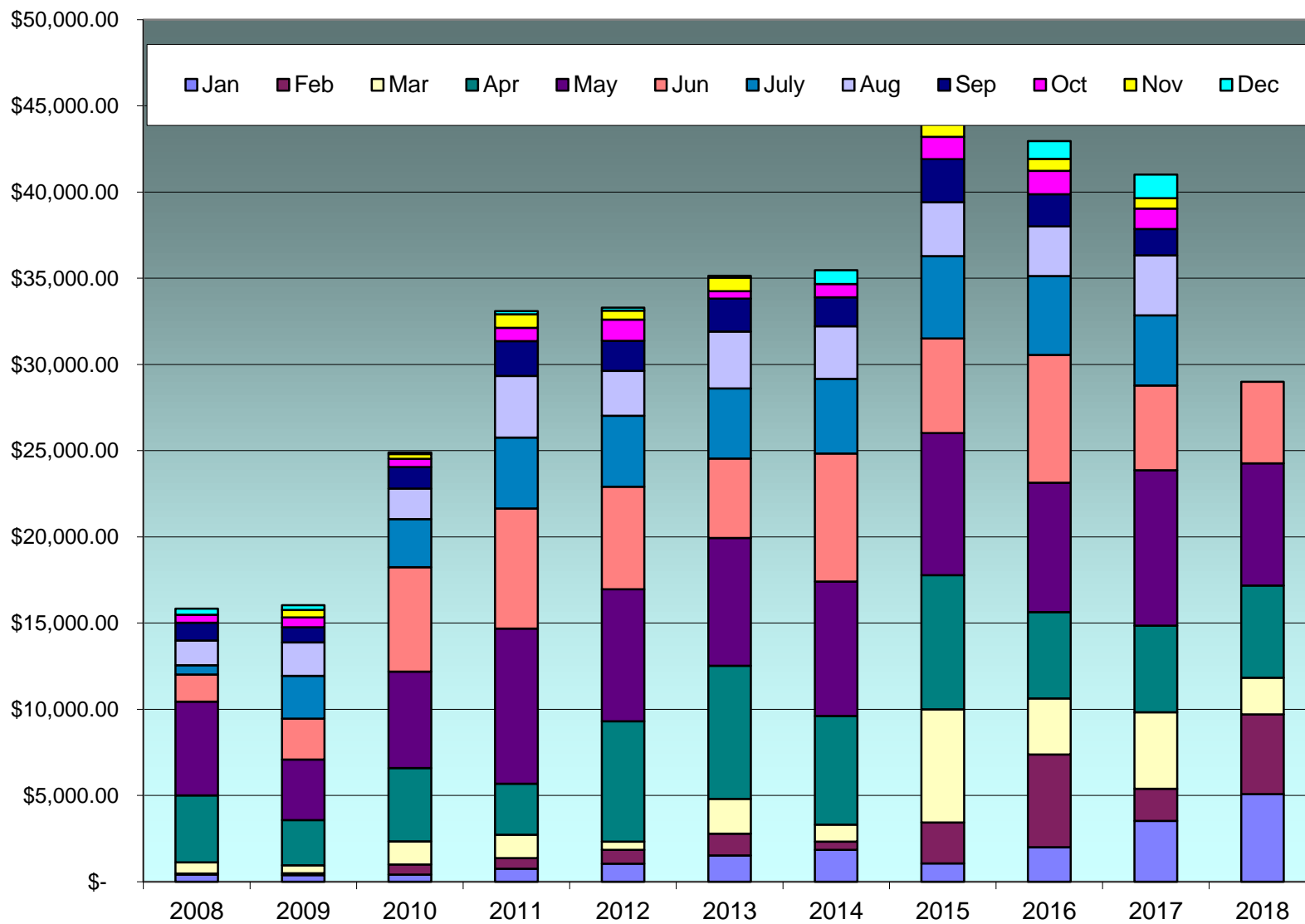


Water Treatment Plant Annual Production Figures and 5 Year Averages (2013 - 2018)
(Million Gallons)

Note: 2013 is the conservation comparison/base year

	Years														6-Year Average
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2013-2018
January	113.2	113.7	130.8	116.1	105	91.4	91.6	105.2	82.5	111.2	82.3	71.1	68.7	67.4	80.5
February	101	104.7	106.9	112.3	88.4	79.2	85.2	85.3	76.1	68.8	73.0	66.5	55.0	73.4	68.8
March	129.3	110.7	150.2	147	108.9	100.2	84.6	79.3	101.6	85.8	98.7	67.1	60.5	67.3	80.2
April	132	112.5	172	205.9	170.5	96.9	99.8	94.2	145.1	107.7	106.7	84.5	62.7	76.5	97.2
May	181.5	243.9	259.3	275	221	140.8	146	214.7	241.6	175.6	136.5	119.6	140.0	138.2	158.6
June	250.7	328.5	336.4	321.6	256.7	239.7	183.3	262.7	276.2	230.3	148.1	169.7	182.6	199.8	201.1
July	393.2	428.9	384.6	360.5	350.6	344.4	283.3	325.5	327.5	252.1	174.2	207.6	244.7		
August	412.3	391.5	379.6	363.8	338.6	332.4	307.6	331.2	309.9	220.7	171.8	223.2	240.9		
September	312.1	338.4	295.3	317.5	281.4	271.3	280.3	283.7	230.1	196.3	157.9	191.0	198.8		
October	234.9	253.2	156.9	218.1	178.1	185.1	152.2	198.7	170.7	137.3	138.3	115.2	160.3		
November	117.8	128.7	142	124.7	114.2	95.8	107.3	91.7	117.4	85.4	95.6	90.6	86.9		
December	114.3	112.9	115.5	120.7	101.7	105.3	105.1	81.2	102.3	78.5	93.9	88.7	95.6		
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	5 Year Avg.
Total for year	2492	2668	2630	2683	2315	2083	1926	2153	2181	1750	1477.0	1494.8	1596.7	622.6	686.4
Max. month	412	429	385	364	351	344	308	331	328	252	174.2	223.2	244.7	199.8	201.1
Min. month	101	105	107	112	88	79	85	79	76	69	73.0	66.5	55.0	67.3	68.8
Average	208	222	219	224	193	174	161	179	182	146	123.1	124.6	133.1	103.8	114.4

PID Lake Permit Comparison From 2008- 2018



Paradise Irrigation District
Lake Permit Sales
January -December 2018

	Recreation				Boating				Total
	Annual		Daily		Season		Daily		
January	62	\$ 935.00	269	\$ 808.30	71	\$ 2,840.00	50	\$ 500.00	\$ 5,083.30
February	69	\$ 1,035.00	206	\$ 619.00	65	\$ 2,580.00	38	\$ 380.00	\$ 4,614.00
March	22	\$ 335.00	198	\$ 594.16	26	\$ 1,020.00	18	\$ 180.00	\$ 2,129.16
April	54	\$ 805.00	152	\$ 456.00	96	\$ 3,820.00	27	\$ 265.01	\$ 5,346.01
May	36	\$ 535.00	571	\$ 1,712.42	106	\$ 4,220.00	63	\$ 625.00	\$ 7,092.42
June	34	\$ 565.00	272	\$ 815.03	64	\$ 3,000.00	38	\$ 345.00	\$ 4,725.03
July	0		0		0		0		\$ -
August	0		0		0		0		\$ -
September	0		0		0		0		\$ -
October	0		0		0		0		\$ -
November	0		0		0		0		\$ -
December	0		0		0		0		\$ -
Totals	277	\$ 4,210.00	1,669	\$ 5,004.91	426	\$ 17,480.00	233	\$ 2,295.01	\$ 28,989.92

ENGINEERING REPORT

June 2018

Activities This Month

This month engineering staff submitted the annual dam surveillance reports to the state Division of Safety of Dams (DSOD). Staff worked on a Request for Proposals for engineering analysis of the Magalia Dam outlet pipe anchors. This is a task that the District was directed to do by DSOD.

Engineering staff continued working with the District's consultant on inundation studies for its two dams and the preparation of updated inundation maps. Staff also continued work on the condition assessments for the spillways at Magalia Dam and Paradise Dam.

Engineering staff continued efforts in support of the Town of Paradise Almond Street/Gap Closure project, the Maxwell Drive Safe Routes to School project, and the Cypress Curve Realignment project. Staff assisted the public with issues involving District fee title ownership and easements on River View Drive, Brill Road, and near Skyway at the "junction box".

Engineering staff worked on preparing the 2017 Water Loss Audit mandated under SB555 and participated in the independent validation interview. Staff continued work on the Reservoir B expansion project. Staff also continued work on the NPDES permit renewal and water recycling project.

Engineering staff reviewed cross-connection control and metering issues as they apply to the Del Oro Water Company interties. Staff assembled documentation for a public records act request regarding the District's water rights permit applications.

Summary of Development Review and Other Activities

Water Service Requirements Review Requests	7
New/revised projects reviewed in Project Evaluation Committee (TOP)	1
Review and direction of miscellaneous ongoing projects	4
Meter Sizing Audits (total to date)	61
Meter Size Reductions (total to date)	38

Non-Revenue Water
Production Minus Metered Sales
12 Month Cumulative Time Intervals

