

**STAFF REPORT
FIELD OPERATIONS
APRIL 2018**

TRANSMISSION & DISTRIBUTION

MAINTENANCE WORK.

- Crews have been taking care of leaks/maintenance issues.
- 8 Mainline leaks were repaired this month.
18 additional leaks found through leak detection were also repaired this month.
- 493 Firefly's were replaced this month.
- 4 service lines were repaired/replaced this month.
- 1 hydrant was repaired this month.
- Leak detection continued 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 beginning stages.

DEVELOPMENT PROJECTS

- None at this time.

CUSTOMER REIMBURSEMENT JOBS (by work order)

- New mod 35 install for South. Libby @ NB Lane.
- New mod 35 install for 6475 Cornerstone Ct.
- New mod 35 install for 6479 Cornerstone Ct.

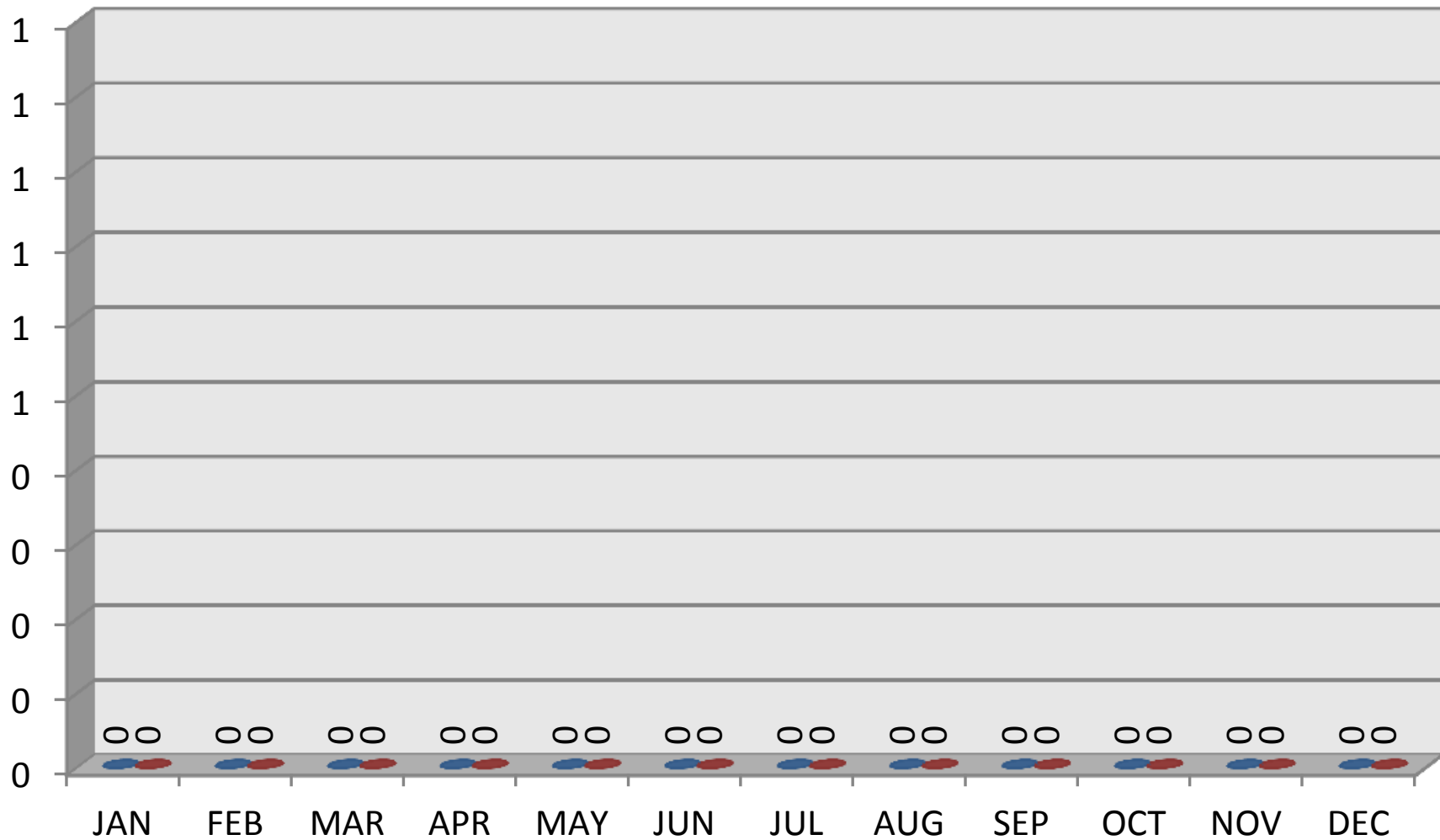
CRESTVIEW/CRESTWOOD PIPELINE PROJECT

- Project is in beginning stages. Pot-hole work is under way.

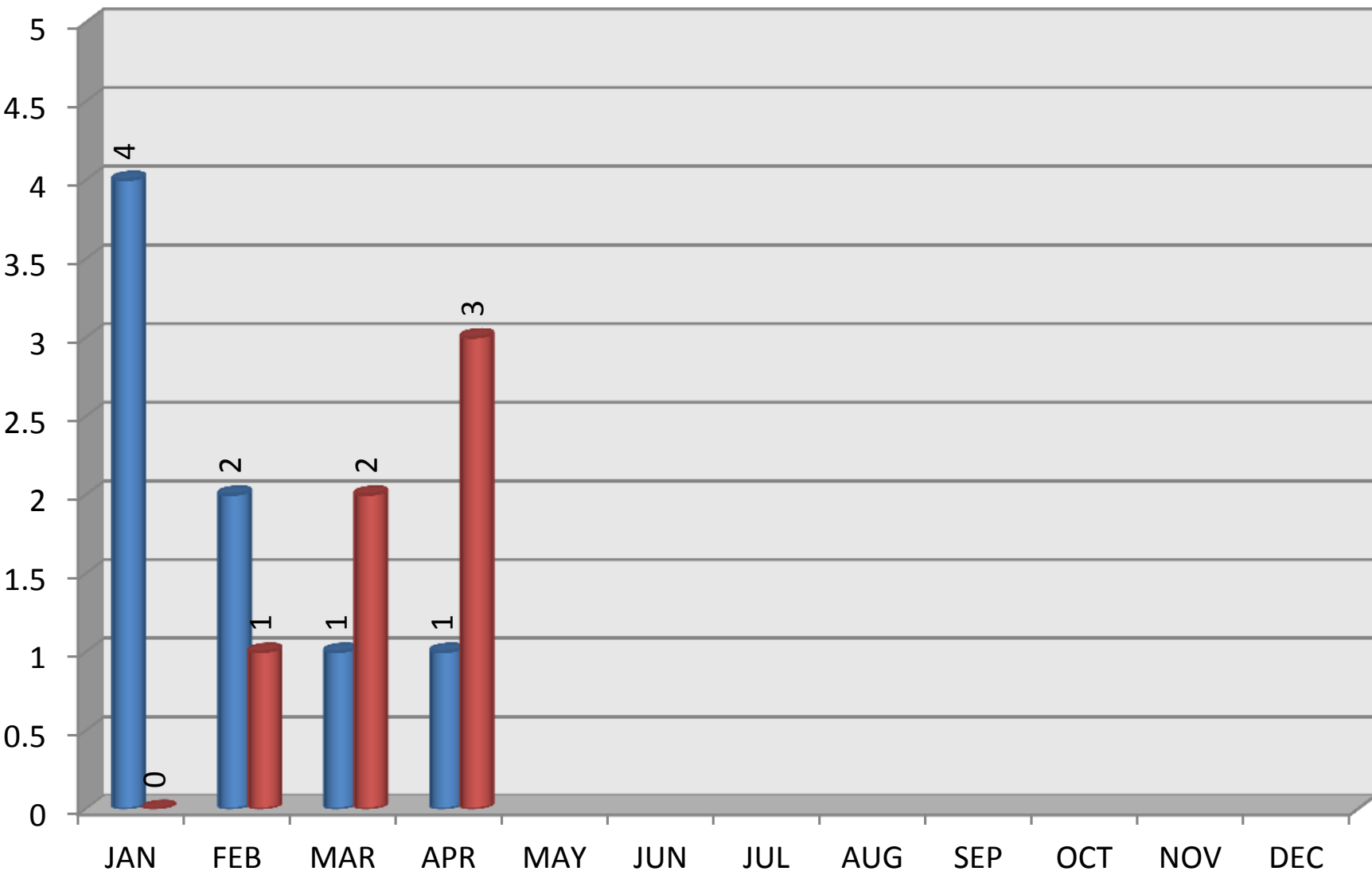
SUMMARY

- Kids Fishing Day was a success and many thanks to all who were able to help out with this event! Lots of fish and smiling faces.
- Our 3 new Utility Workers have obtained their Class A Licenses. Pete Grout has once again done a great job preparing our drivers.
- 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 started our leak detection process in late March. 19 leaks have been found and repaired to date. None of these leaks were what we consider BIG leaks, (1/2 – 2 gallons per minute for the most part), but leaks and water-loss never the less. The new leak detection equipment is working well and we will continue with this effort as time allows. We will be most aggressive with the leak detection efforts in late fall and through the winter months once done with construction season. Our primary focus and efforts for the next 4-5 months will be on the Crestview/Crestwood project.
- We continue to take care of the daily needs of the District and maintenance issues providing excellent customer service.

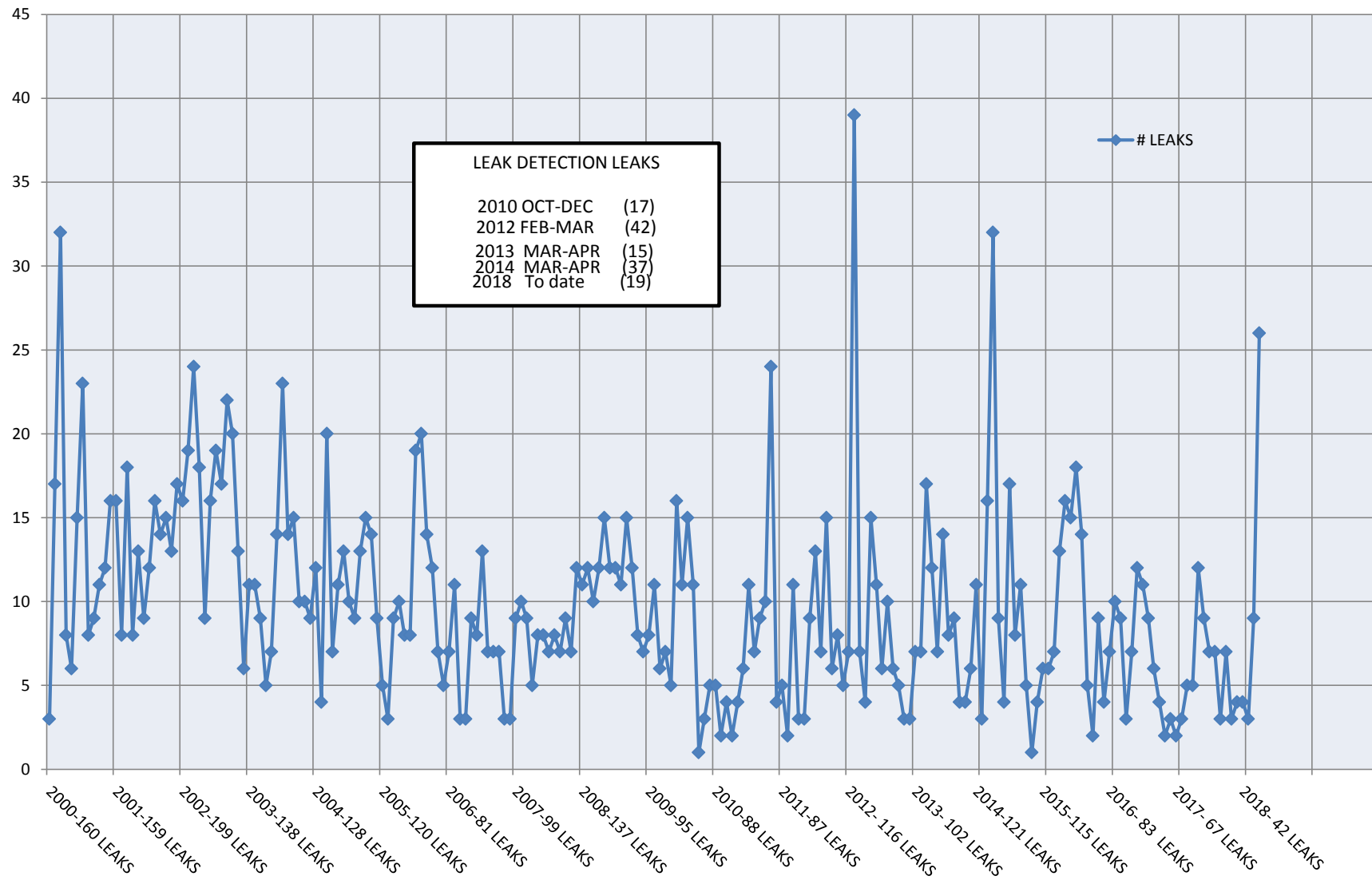
MONTHLY PIPE INSTALLATION 2018, TOTAL INSTALLED FT.



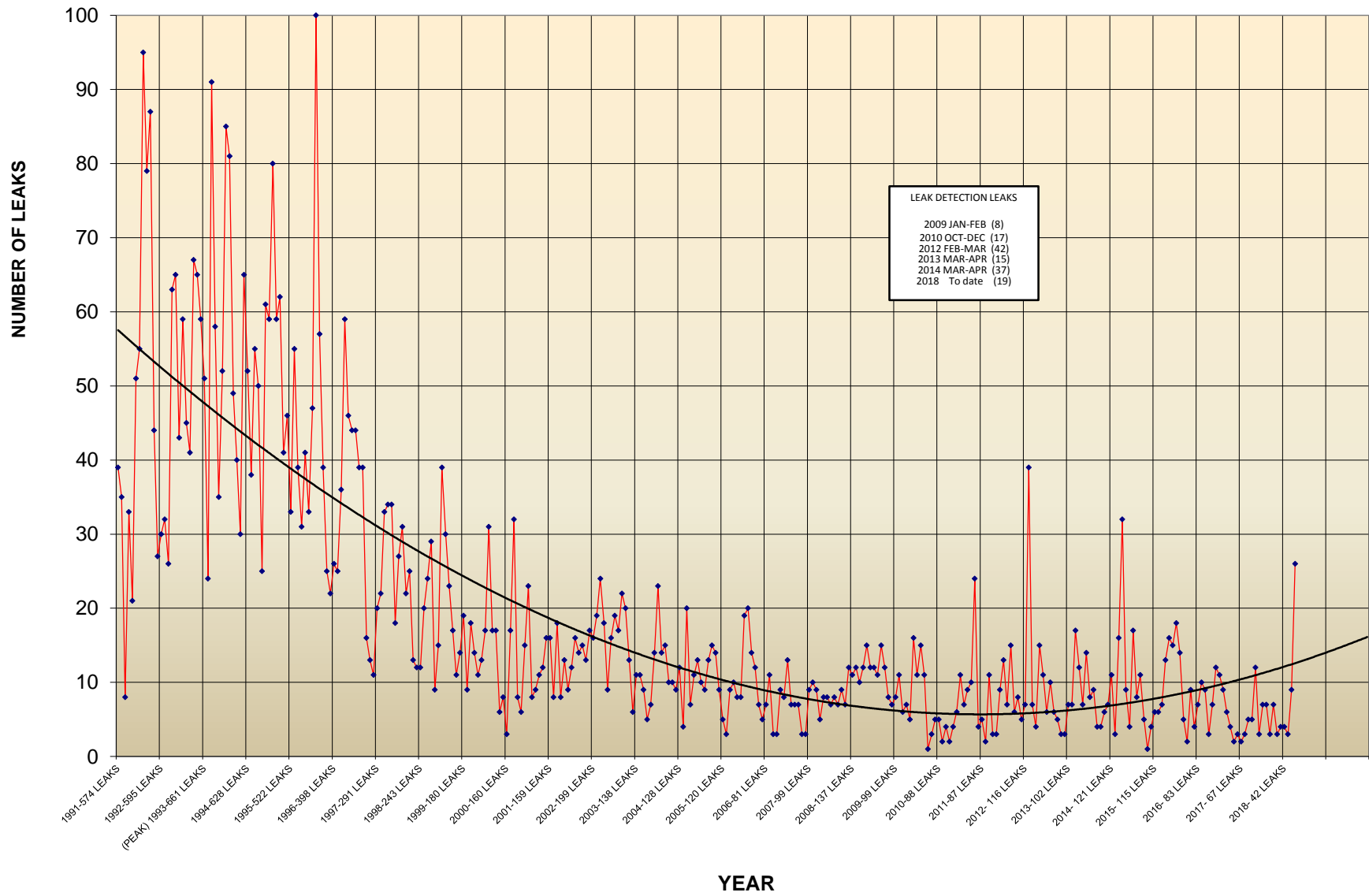
2018 METER WORK: 8 REPLACED; 6 NEW



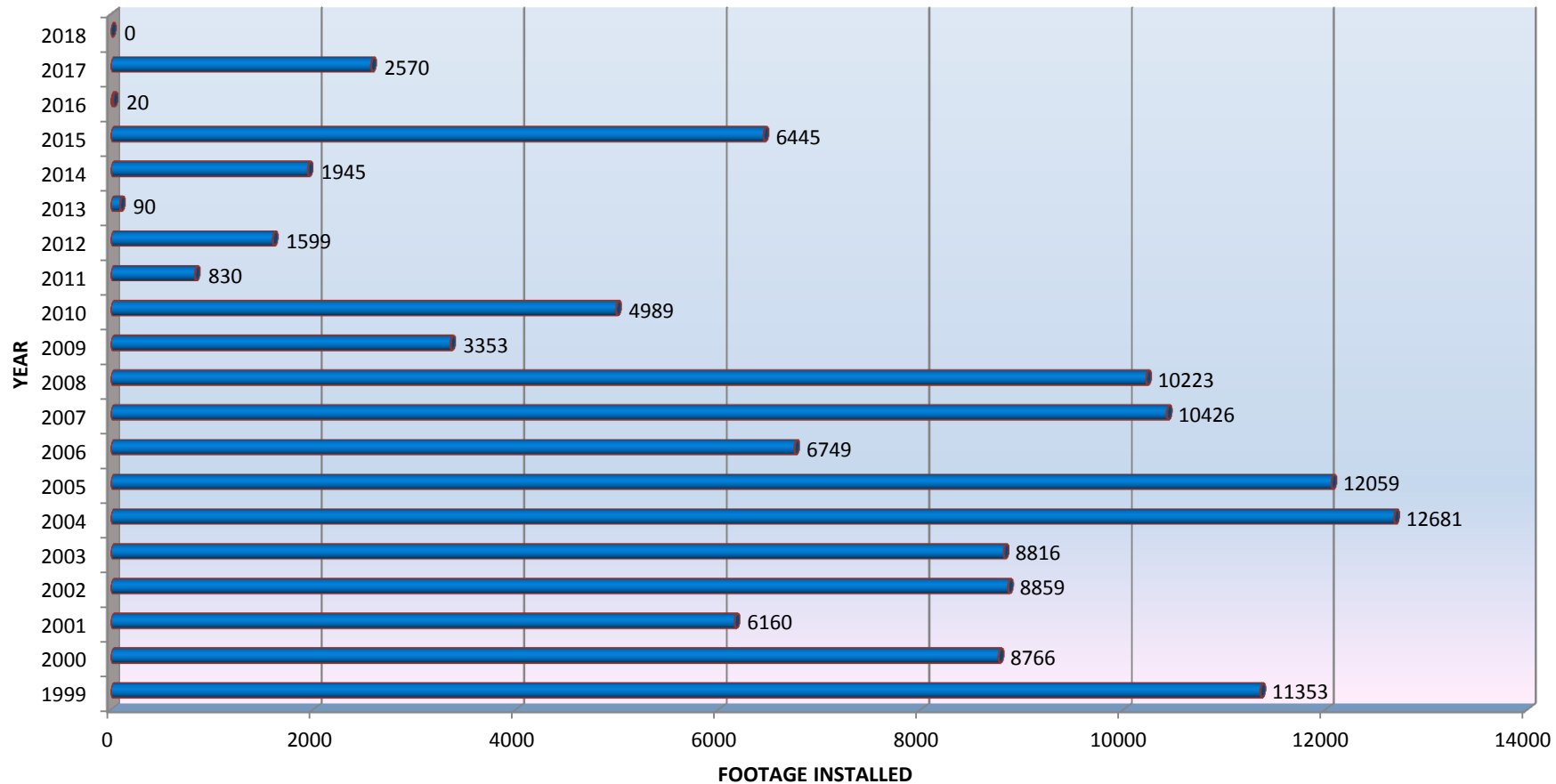
MAINLINE LEAKS



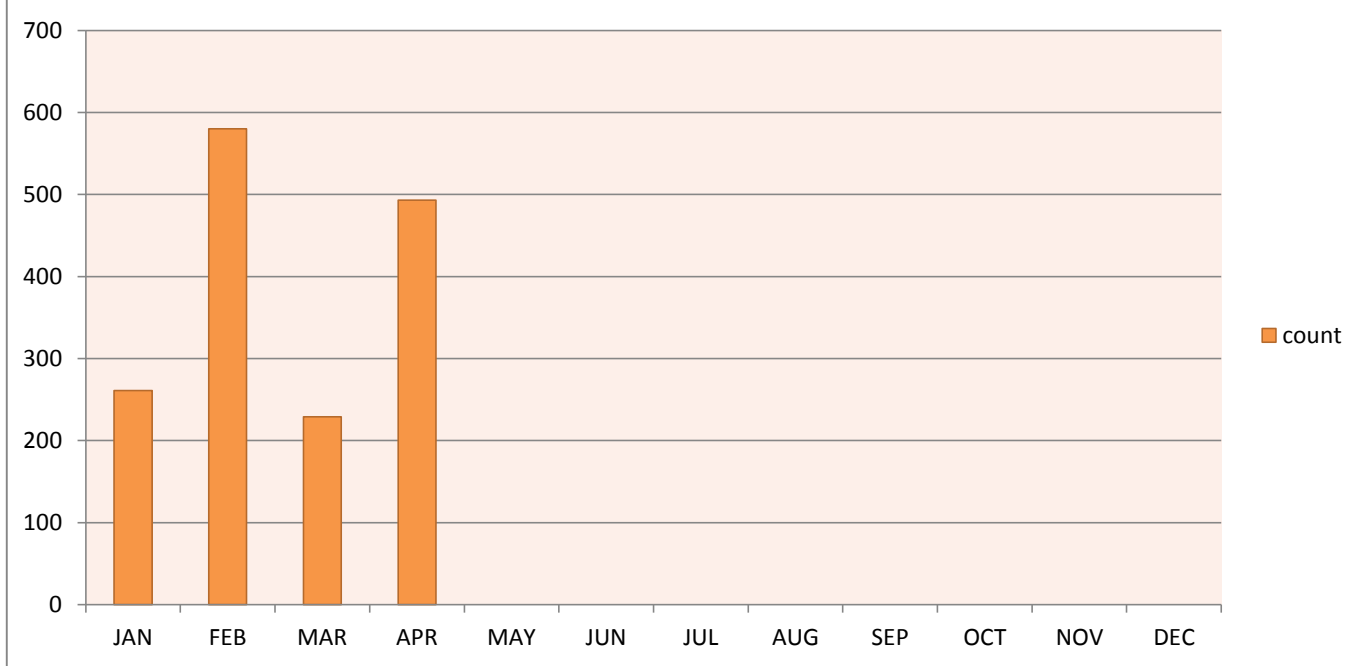
MONTHLY LEAK HISTORY 1991 TO PRESENT



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
April 2018

SUPPLY & QUALITY:

(See Attached Graphs)	April 2018	April 2017	April 6 yr. Avg.
Monthly Production (Million Gallons - MG)	76.5	62.7	97.2
	Range	Average	
Plant Production (MGD)	1.8 – 3.7	2.6	
Raw Water Turbidity (NTU)	0.92 – 2.48	1.86	
Treated Water Turbidity (NTU)	0.04 – 0.05	0.04	
Treated Water Chlorine (ppm)	0.84 – 1.18	1.00	

WATER TREATMENT:

- **Plant Production and Water Quality:** Average production increased to **2.6 MGD** from **2.2 MGD** last month. Paradise Lake was the primary source of raw water for treatment during the month. The raw water turbidity decreased some following the recent rains.
- **Monthly Residential Water Conservation:** **47%** reduction comparing production in April 2018 – **76.5 MG** to April 2013 – **145.1 MG**.
- **Emergency Response Planning (ERP):** Updated site plan for the County's Hazardous Materials Business Plan; working on the Table Top Exercise After-Action list of items including the following: 1. digitizing the ERP into a searchable format; 2. contact information; 3. list of beverage companies that can distribute large quantities of bottled water; 4. list of local suppliers that have emergency supplies; 5. updating the Emergency Action Plans (EAPs) with the CalOES/DSOD template for Paradise and Magalia Dams; and 6. researching options for truck radio improvements.
- **Plant & Distribution Operations:** 1. SANCO polymer coagulant testing submitted their results; 2. Installed quarterly corrosion coupons in distribution system at eight locations; 3. measured orthophosphate and zinc residuals in the distribution system (**See attachments**); 4. FY 2018/2019 departmental budget preparation for Treatment, Security & Recreation, and Source of Supply, and 5. Ken Capra, senior plant operator provided a detailed tour of plant to Director Sulik.
- **PGE Energy Conservation Assessment:** Received treatment plant's evaluation of the building and grounds lighting energy reduction (\$6,000 per year savings) retrofit with LED technology, with a rebate determination and return on investment of 1.86 years. Retrofit is more cost effective if staff does the work in house; District cost is \$11,000 if contractor does the work versus \$3,000 for materials with staff doing the work. Retrofit started with in-house resources.
- **Reservoir "B" Replacement; A Zone Pipeline & Pump Station:** 1. Waterworks is nearing completion of 90% design phase scheduled for May/June. A meeting is scheduled May 10th to go over the submittal; 2. Easement condemnation is underway for the A Zone Pipeline along Skyway; 3. \$12M SRF Construction Loan Application preparation is nearing completion; 4. Environmental documents prepared by Stantec are in the administrative draft stage; 5. Stantec provided a CEQA/NEPA step-by-step table for clarification of the overall process (**See Attachment**); 6. SRF recently required a CEQA-plus (NEPA) Environmental Alternatives Analysis due to federal funding. A meeting is scheduled with SRF on May 10th to discuss the scope of work. Staff will request scope and cost for this additional work.
- **Rehabilitation of C Tank and Cathodic Protection:** Harper and District staff are working on Bid documents. Project bidding is planned for mid-summer. District counsel is working on a new set of General Provisions specific to the District.
- **NPDES Permit Renewal Assistance:** **See attached** April 26th meeting minutes with the Regional Board regarding the mixing zone and dilution credit evaluation memo, and other aspects of the permit.
- **NPDES Permit for Discharge to Magalia Reservoir:** No violation this month.
- **Process Water Recycle Project:**
RFP Pond Alternative Design: Consideration of project is dependent on outcome of NPDES permit renewal.
Engineering & CEQA: Work Suspended.
SRF Construction Loan Application: Pending completion of design and CEQA; full design cost recovery in contingent on construction of a project.
SRF Planning and Design Loan Application: Application requirements mostly complete.

- **CalOES/FEMA Grant:** Information requests were provided to CalOES/FEMA, and waiting for favorable communication from CalOES.
- **Drinking Water and NPDES Reports:** Completed monthly sampling and reports. Kicked off the preparation of the annual Consumer Confidence Report, and the annual DDW Electronic Annual Report.
- Miscellaneous repairs to aging equipment and routine instrument calibrations.

RECREATION:

- **Lake Activities:** See attached Parking & Boating Permit Sales Chart & Table.
- **DBW North Lake Boat Launch Grant Project:** DBW provided response to District's concerns. Internal review is underway.
- **Kids Fishing Day:** Another successful event; new photo booth worked well with two board members assisting. **See attached** financial summary report.
- **Annual Trout Purchase:** Trout delivered Sunday afternoon April 22nd.

WATERSHED - SOURCE of SUPPLY: Monthly Rainfall = 8.81" during 10 days; Greatest Rain Day = 5.42"

Paradise Lake Levels (feet)	2018 April 30 @ + 0.1	2018 Mar. 31 @ + 0.2	2017 April. 30 @ + 0.4'
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- **CalFire Service Crews:** Homeless camp areas ready for clearing. Trying to schedule CalFire work crews.
- **Paradise Ridge Fire Safe Council:** Discussed homeless camp plans for shaded fuel removal; attended Butte County FSC meeting and comments of prescribed burning planning.
- **Little Butte Creek Phase II Shaded Fuel Project:** Project completed.
- **Prescribed Burning for Shaded Fuel Maintenance:** Considering having a presentation at a Board meeting this summer regarding the technology.

ORTHOPHOSPHATE RESIDUALS (mg/l) IN THE DISTRIBUTION SYSTEM WITH CARUS 3190 ZOP

Initial ZOP dose was 1.0 mg/l

ZOP dose as of 2-17-2017 is 0.8 mg/l

LOCATIONS

Date	FW3 WTP	Dean & Subke	Tank A	#2 Pump	8439 Montna	6345 Oak	1640 Young	Tank C	5678 Sawmill	858 Central Park	Oliver & Sunset	Tank D	247 S. Libby	Valley View & Wagon Wheel	2221 DeMille	Tank E	Redbud & Pinewood	3936 Neal	Natures Way & Old Clark	Foster & Wirth	3284 Neal	AVG.
Zone	TP	A	A	B	B	B	B	C	C	C	C	D	D	D	D	E	E	F	F	G	G	
10/24/2016	1.36	1.27	0.83	1.39	1.38	1.33	1.16	1.21	1.33	1.53	1.28	0.97	0.99	1.09	0.89	1.07	0.90	0.79	0.74	0.81	0.79	1.10
11/1/2016	1.42	1.32	1.24	1.44	1.47	1.56	1.46	1.48	1.37	1.41	1.51	1.38	1.31	1.25	1.19	1.35	1.28	1.21	1.11	1.17	1.16	1.34
11/8/2016	1.31	1.18	1.36	1.26	1.51	1.50	1.24	1.45	1.25	1.55	1.37	1.27	1.43	1.31	1.11	1.26	1.36	1.22	1.20	1.15	1.26	1.31
12/14/2016		1.30	1.42	1.35	1.62			1.37			1.33	0.88			1.28	1.26	1.21	1.24	1.41	1.25	1.27	1.30
2/7/2017	1.41		1.18		1.10			1.12			1.11	1.03		1.16		1.10	1.16	1.08			1.12	1.14
3/14/2017	1.03	0.92		1.19			1.06		1.07	1.10		1.12	1.10		1.15				1.10	1.12		1.09
4/3/2018	1.58		1.07		1.23	1.20		1.17			1.16			1.37		0.89	1.10	1.02			1.11	1.17
4/11/2018	1.55		1.06		1.06			1.13			1.12			1.05		1.15	1.07	1.13			1.15	1.15
4/24/2018	1.56	0.98		1.01		1.02	1.05		1.15	1.23		1.20	0.95		1.05				0.87	0.96		1.09
5/1/2018	1.49	0.96		1.07		1.09	1.09		1.12	1.08		1.08	0.99		1.10				1.17	0.93		1.10

ZINC RESIDUALS IN THE DISTRIBUTION SYSTEM WITH CARUS 3190 ZOP

Initial ZOP dose was 1.0 mg/l

ZOP dose as of 2-17-2017 is 0.8 mg/l

LOCATIONS

Date	FW3 WTP	Dean & Subke	Tank A	#2 Pump	8439 Montna	6345 Oak	1640 Young	Tank C	5678 Sawmill	858 Central Park	Oliver & Sunset	Tank D	247 S. Libby	Valley View & Wagon Wheel	2221 DeMille	Tank E	Redbud & Pinewood	3936 Neal	Natures way & Old Clark	Foster & Wirth	3284 Neal	AVG.
Zone	TP	A	A	B	B	B	B	C	C	C	C	D	D	D	D	E	E	F	F	G	G	
10/24/2016	0.48	0.37	0.26	0.48	0.42	0.46	0.41	0.44	0.43	0.44	0.42	0.34	0.32	0.30	0.26	0.33	0.30	0.25	0.23	0.24	0.24	0.35
11/1/2016	0.49	0.45	0.46	0.58	0.56	0.53	0.52	0.58	0.47	0.55	0.58	0.53	0.42	0.37	0.28	0.49	0.49	0.35	0.30	0.30	0.36	0.46
11/8/2016	0.49	0.42	0.44	0.49	0.54	0.52	0.48	0.53	0.45	0.50	0.49	0.46	0.41	0.43	0.30	0.45	0.46	0.34	0.34	0.33	0.35	0.44
12/14/2016		0.52	0.48	0.48	0.59			0.51			0.50	0.33			0.38	0.46	0.46	0.45	0.38	0.41	0.37	0.45
2/7/2017	0.56		0.46		0.44			0.43			0.46	0.38		0.39		0.39	0.39	0.38			0.37	0.42
3/14/2017	0.42	0.38		0.39			0.34		0.34	0.37		0.39	0.33		0.29				0.31	0.29		0.35
4/3/2018	0.58		0.44		0.48			0.41			0.39			0.41		0.44	0.43	0.36			0.35	0.43
4/11/2018	0.56		0.34		0.41			0.40			0.42			0.39		0.39	0.44	0.40			0.43	0.42
4/24/2018	0.50	0.47		0.32		0.49	0.49		0.45	0.40		0.49	0.44		0.40				0.44	0.48		0.45
5/1/2018		0.45		0.32		0.46	0.41		0.38	0.38		0.45	0.43		0.26				0.40	0.47		0.40

CEQA/NEPA Process Table for the Paradise Irrigation District Zone A Pump Station, Transmission Main, and Reservoir B Replacement Project
(as of April 18, 2018)

Action	Responsible Party	Status/Comments	Anticipated Date of Completion
The following actions have or will be conducted in sequential order:			
1. Public Agency Determination of CEQA Documentation Format	PID - determination	An Initial Study/Mitigated Negative Declaration (IS/MND) shall be prepared for the proposed project	—
2. Administrative Draft IS/MND	Stantec – preparation PID – review/comment WWE – review/comment SWRCB – review/comment?	Administrative Draft IS/MND has been completed and is currently under review by WWE. Draft document was reviewed by PID and comments have been addressed by Stantec. PID to determine if SWRCB wants to review draft IS/MND prior to issuance of public draft.	WWE anticipates providing comments to Stantec by COB on 4/27/2018. Stantec will address WWE and any comments received from SWRCB comments and create a Public Draft document suitable for public scoping.
3. Alternatives Analysis	PID/SWRCB – determination of need Preparer – TBD	PID is working with SWRCB to determine if an Alternatives Analysis (may be a simple table format) will be required as part of the NEPA compliance. Funding administered by SWRCB is subject to federal EPA requirements – the alternatives analysis requirement is a recent federal order.	If required, preparer will need to be determined. This task is outside of Stantec's SOW. (For a recent similar project, SWRCB elected to prepare the alternatives analysis itself.)
4. Public Draft IS/MND	Stantec – preparation of Public Draft and Notice of Availability (NOA) WWE/PID – post NOA in public location and coordinate publication in a local newspaper	Stantec will print 15 hardcopies of the Public Draft IS/MND and Notice of Intent (NOI), and one copy of the Notice of Completion for submittal to State Clearinghouse. In addition, Stantec will provide hardcopies to PID for public scoping availability.	Allow one (1) week for delivery to State Clearinghouse before public scoping period begins

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Paradise Irrigation District Improvements Project
April 18, 2018

Action	Responsible Party	Status/Comments	Anticipated Date of Completion
	PID – available for public contact		
5. Public Scoping Period	PID – Gather public comments	During the public review period, PID will collect all comments received and provide to Stantec upon completion of the 30-day scoping period.	Thirty (30) calendar day public scoping period to begin at a pre-determined date.
6. Final IS/MND	Stantec – Preparation WWE – Provide technical assistance to Stantec, as necessary, to respond to comments	Stantec will compile and number substantive comments, and draft responses to comments or revise the IS/MND as necessary, with technical support from WWE. If comments do not warrant recirculation of the IS/MND, the final IS/MND will be created. If comments require significant project revisions, recirculation of the IS/MND is required, similar to the steps described above beginning with the Public Draft action (Action 4).	Stantec anticipates completion of Final IS/MND (if recirculation is not necessary) within two (2) weeks of receipt of all public comments and any technical assistance from WWE.
7. Adoption of Notice of Determination (NOD)	PID	PID will formally adopt the NOD upon completion of the final IS/MND	Adoption of the NOD typically occurs at the board meeting immediately following completion of the final IS/MND.
8. File NOD with Office of Planning and Research	PID	PID to file NOD as required.	Must file within five (5) days and post the NOD for thirty (30) days, and send a copy to anyone who has requested notice.
9. File NOD with County Clerk	PID	PID to file NOD as required.	Must file within five (5) days and post the NOD for thirty (30) days, and send a copy to anyone who has requested notice.

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Paradise Irrigation District Improvements Project
April 18, 2018

Memorandum

DATE: May 1, 2018

TO: Jim Passanisi, Paradise Irrigation District

COPY TO: _____

Betsy Elzufon

1480 Drew Avenue
Davis, CA 95618
530.753.6400
530.753.7030 fax
betsye@LWA.com

SUBJECT: **Mixing Zone Study Review & NPDES Permit Renewal Meeting Summary – April 26, 2017**

Purpose of Meeting: Discuss the results of PID's modeling memo as a justification for dilution and to discuss other aspects of the Permit Renewal.

Participants

Jim Passanisi, PID	Sami Kader, WWE
Bill Taylor, PID	Sheila Magladry, WWE
Neil Essila, PID	Jeremy Pagan, RWQCB
Kevin Phillips, PID	Mike Collins, RWQCB
Betsy Elzufon, LWA	Bryan Smith (partial), RWQCB

Meeting Summary

1. Mixing Zone Study

- a. Mixing zone study was presented to RWQCB with the intent that the modeling conducted is adequate to demonstrate that dilution is available and meets the requirements of the SIP and that a dye tracer study would not be necessary. The mixing zone study was reviewed.
- b. Regional Board staff noted that assumption that background level of DBCM is non-detect is of concern.
 - i. There are a couple of detections at the current sample location. Current sample location is very close to discharge point
 - ii. All agreed that more sampling is needed.

- iii. PID staff indicated that more sampling is being done with low level testing further upstream
- iv. Sample location (near Furhaven Creek, after the confluence) was presented.
- v. Sampling began in April 2018. Sampling is to be done weekly for 2 months, then monthly thereafter.
- vi. Because DBCM is a CTR regulated constituent, this sample data, showing no background DBCM will be critical to demonstrating assimilative capacity is available
- c. Regional board is not ready at this time to commit to not require a dye/tracer study
 - i. A dye/tracer study may or may not be required with the permit renewal
 - ii. Discrete confirmation sampling for Aluminum may be a good approach to confirming the modeling results

2. Other Permit Renewal Topics

- d. Priority pollutant samples were taken in 2011 and 2013. PID asked about the need for a new priority pollutant sample update. The test is expensive (\$20k), so additional sampling requirements should not be made lightly. RWQCB will get back to PID on the need for an additional priority pollutant sample. It may be possible to reduce the required constituents to keep the cost down some.
- e. Groundwater feasibility study was required in the last permit. It was not done. This is not required by RWQCB now, but may be continued into the next permit. This will be evaluated in permit development, but the case may be made that all of the groundwater which may be impacted ends up in the lake.
- f. Pond freeboard requirements are not currently being met. This will have to be remedied. The next permit cycle will require the 2' of freeboard and runoff control, similar to the current permit.

3. Next Steps

- a. Method of Compliance Work Plan (due June 22 – sooner is better) should include the following:
 - i. Give a brief narrative of where water is drawn from at the WTP, and how often backwash is discharged.
 - ii. R1 sampling plan for background DBCM levels. Should include Al
 - iii. Confirmation sampling plan for Al (both dissolved and total) in mixing zone. Include sample point as close to WTP intake as possible.
 - iv. Case for not groundwater monitoring wells and the plan to substantiate case
- b. The general approach of complying with NDPES requirements through mixing zone is acceptable to the RWQCB. The mixing zone has to be confirmed through

the sampling discussed in the meeting and the permit still needs to be researched and written, but the basic concept is acceptable.

- c. RWQCB will move forward with the permit renewal process
 - i. April 2019 adoption is planned
 - ii. Work will begin immediately
 - iii. Initial draft permit in approximately Feb 2019

Paradise Irrigation District

2018 Kids Fishing Day Financial Summary

Saturday April 21, 2018

Type	Revenue; Grant/Allocation; Donations Save-a-Can/Buy-a-Fish Fund	Amount	Sources
District Funds	Annual Trout Purchase for Lake Stocking	8,000	Save Can - Buy Fish Fund
Revenue @ Event	Snack Bars and Mobile ATV sales	865	Food Sales
Grant: Trout Purchase	2018 BC Fish & Game Grant for catchable trout	2,500	\$3,000 for 2019
State: Trout Allocation	2,000 lbs. for event; 6,000 lbs total catchable fish	0	State Fish & Wildlife
Fish Purchase Donation	Pre-Event Cash	252	Persons
Fish Purchase Donation	Pre-Event Cash	350	Businesses
Fish Purchase Donation	Annual Recyclables (May 2017 - April 2018)	554	NRWS & COVE
Fish Purchase Donation	Sunday "Day on Lake" Fishing (5 tickets @ \$250 each)	1,500	Day-on-Lake - 15 Max.
Raffle Tickets	Pre-Season "Day on Lake" Raffle (ticket @ \$5 each)	65	Day-on-Lake Boat Fishing
Raffle Tickets	Bike (donated) Raffle (ticket @ \$5 each)	125	Linda Williams
Raffle Tickets	Shotgun (donated) Raffle (ticket @ \$10 each): Net Revenue	1,015	Fins, Furs & Feathers (FFF)
Raffle Tickets	Kayak (donated) Raffle (ticket @ \$5 each)	470	Cedar Creek
Raffle Prize Donation	Reels (10)	0	The O'Brien's (\$110)
Raffle Prize Donation	Rods, Rells & Tackle Boxes	0	Don's Saw & Mower
Food Donation	Donuts (4 dozen + 4 dozen)	0	Dolly O + Passanisi (\$50)
Food Donation	Nacho Cheese, Chili	0	Greg Dobbs
Food Donation	Hot Dogs (6 cases: 360 dogs)	0	Los Placeras Meat
Event Donation	Shotgun; Bait and Tackle	0	FFF Sports
TOTAL REVENUE & DONATIONS:		15,696	

Type	District Expenses (Budget Code 01-00-622132)	Costs	Source
Trout (Desert Springs)	Catchable Trout (\$3.90/lb; 640 lbs; 350 fish)	2,496	Grant BC F&G C
Annual Allocation	Catchable Trout (2,000 lbs; Est. 4,000 fish)	0	State Fish & Wildlife
Trout (Desert Springs)	Trophy Trout (2.5-4 lbs @ \$4.50/lb; 1775 lbs; 540 fish)	7,987	Save Can - Buy Fish Fund
1st, 2nd, 3rd Prizes	Largest Fish Caught - FFF Gift Certificates	175	\$100; \$50; \$25
Supplies	Propane; No Smoking Signs	17	ACE Hardware
Food	Food Items (buns, chips, foil, napkins, candy, water, cups, etc.)	482	Costco
Food	Paper Bowls; Pitcher	20	Walmart
Food	Food Items (stirrers, sugar, creamer)	57	Food Maxx
Food	Hot Dogs (4 cases: 240 dogs)	176	Placeres Meat
Advertising	PUSD, etc.	0	Public Outreach
Raffle Prizes	Fishing Rods (30) & Bait & Tackle	286	FFF Sports
USFS Permit Appl. Fee	Special Use Permit	62.63	USFS Event Permit
USFS 3% Event Charge	On total event revenue less application fee	80.35	USFS Event Permit
TOTAL EXPENSES:		11,838	Volunteer Labor Excluded

ESTIMATED PROFIT/(LOSS):	3,858
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Notes:

Approximate number of children: 370; Total attendees: 600

Largest Trout Caught: 5 lb. 9 oz.

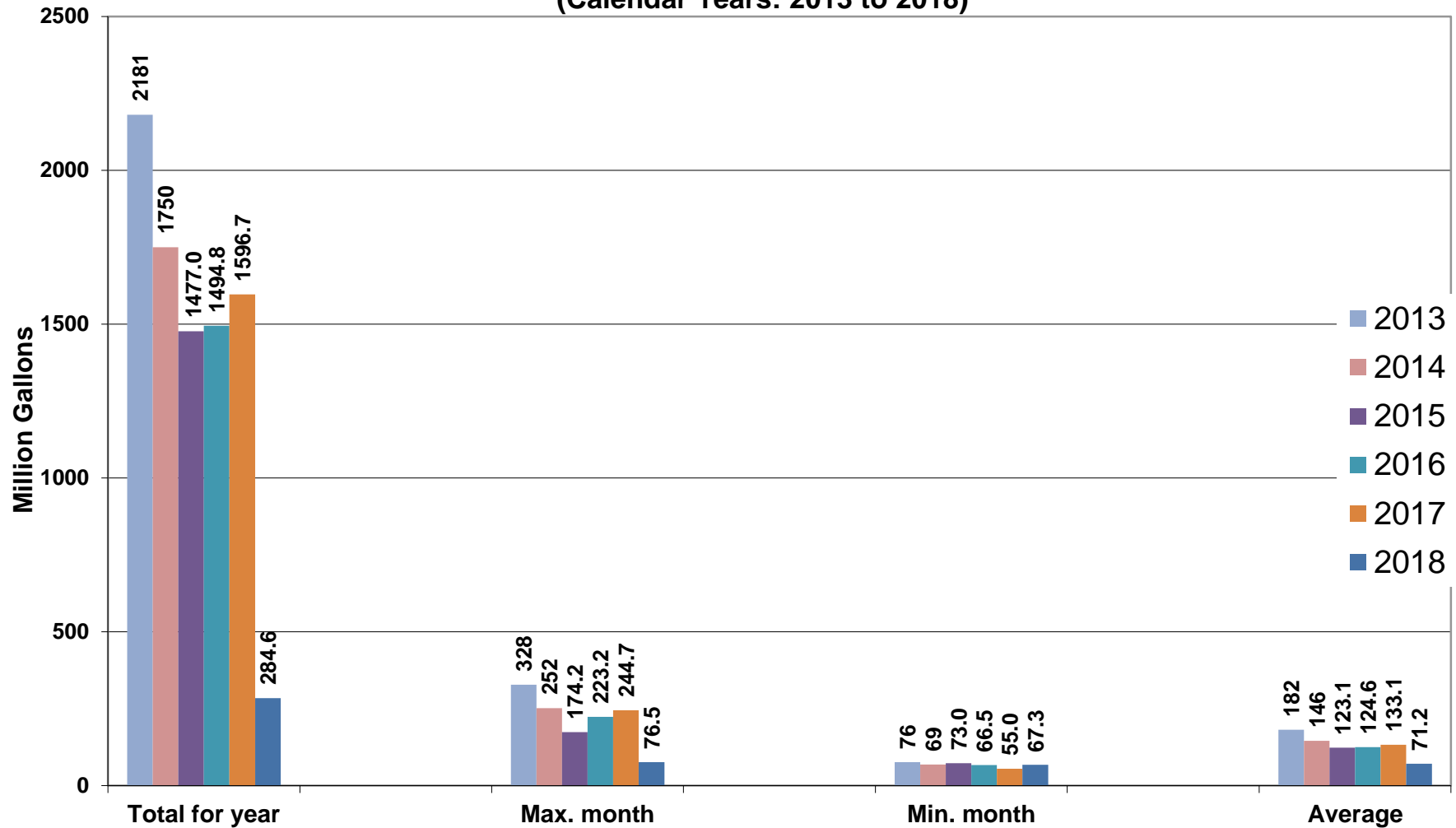
Event-Day Volunteers: Paradise High JV Baseball (15); Keith Noble; Chuck Giles; Linda Williams; & Shawn Wilson

PID Staff Volunteers: 15

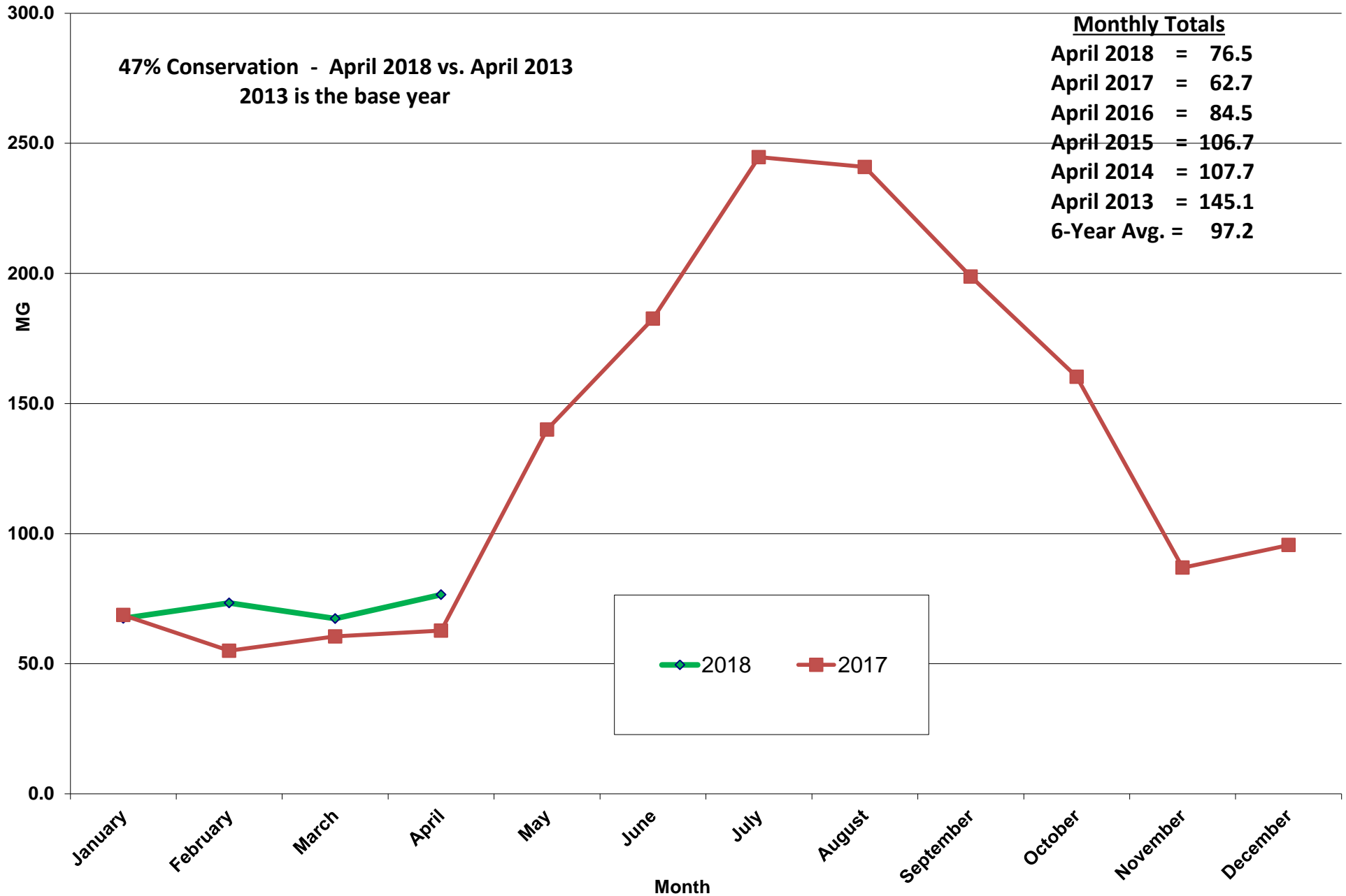
Apperances by: USFS "Smokey Bear" ; BCFSC "Wildfire Ready Raccoon"

Press Release Coordination: Cedar Creek and Georgeanna Borrayo

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)

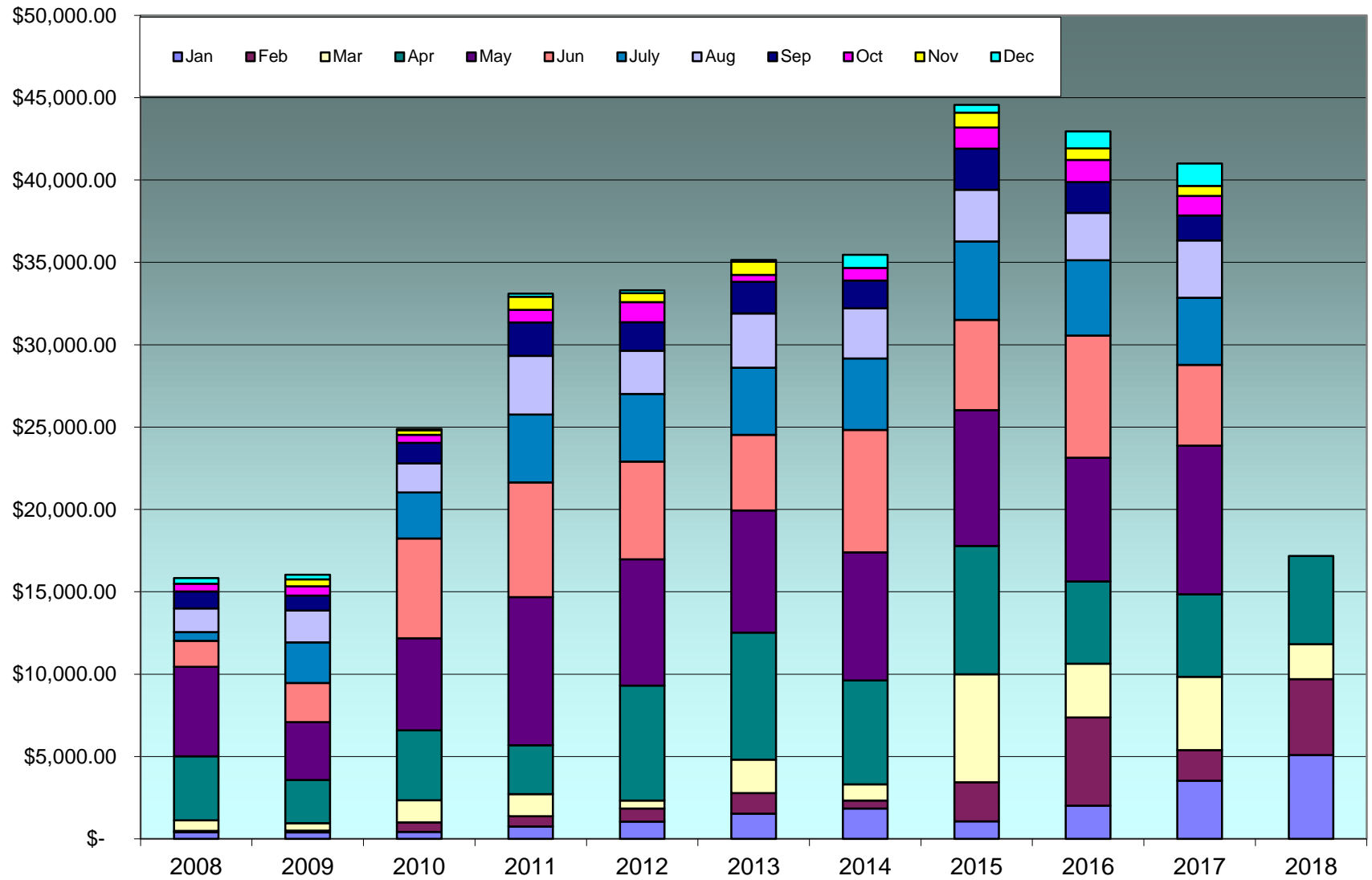


Water Treatment Plant Annual Production Figures and 5 Year Averages (2013 - 2018)
(Million Gallons)

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		
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		
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		
									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	284.6	326.7
Max. month	412	429	385	364	351	344	308	331	328	252	174.2	223.2	244.7	76.5	97.2
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	71.2	81.7

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	0		0		0		0		\$ -
June	0		0		0		0		\$ -
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	207	\$ 3,110.00	826	\$ 2,477.46	257	\$ 10,260.00	133	\$ 1,325.01	\$ 17,172.47

ENGINEERING REPORT

April 2018

Activities This Month

This month engineering staff began working with the District's consultant on inundation studies for its two dams and the preparation of updated inundation maps. Staff continued work on the condition assessments for the spillways at Magalia Dam and Paradise Dam. Engineering staff also prepared materials in support of the Emergency Action Plans for Paradise and Magalia dams.

Engineering staff continued efforts in support of the Town of Paradise Almond Street/Gap Closure project. Staff assisted the public with issues involving District fee title ownership and easement on River View Drive and Regnier Lane. Staff also provided engineering support for the main replacement project on Crestview Drive / Crestwood Drive.

Engineering staff continued work on the water rights measurement and reporting requirements with an investigation of a new level measuring instrument for Paradise Lake. Staff also provided support for the ongoing work involving water rights permitting and environmental studies.

Engineering staff continued work on the Reservoir B expansion project. Staff also continued work on the NPDES permit renewal and water recycling project. Staff provided support for pending and completed annexations to the District. Staff also continued work on the potential PG&E Miocene acquisition.

Summary of Development Review and Other Activities

Water Service Requirements Review Requests	9
New/revised projects reviewed in Project Evaluation Committee (TOP)	4
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

