

**STAFF REPORT
FIELD OPERATIONS
DECEMBER 2017**

TRANSMISSION & DISTRIBUTION

MAINTENANCE WORK.

- Crews have been taking care of leaks/maintenance issues.
- 4 Mainline leaks were repaired this month.
- 329 Firefly's were replaced this month.
- 1 hydrant was repaired.
- 1 hydrant was replaced.
- 1 service line was repaired this month.

PFD/PID JOINT PIPELINE PROJECTS

- Use hydrant surcharge funds to upgrade substandard mains.
- The Country Club project is now complete.

DEVELOPMENT PROJECTS

- None at this time.

CUSTOMER REIMBURSEMENT JOBS (by work order)

- New mod 35 install @ 5601 Butte View (new service)
- New mod 35 install on Wall Lane (new service)

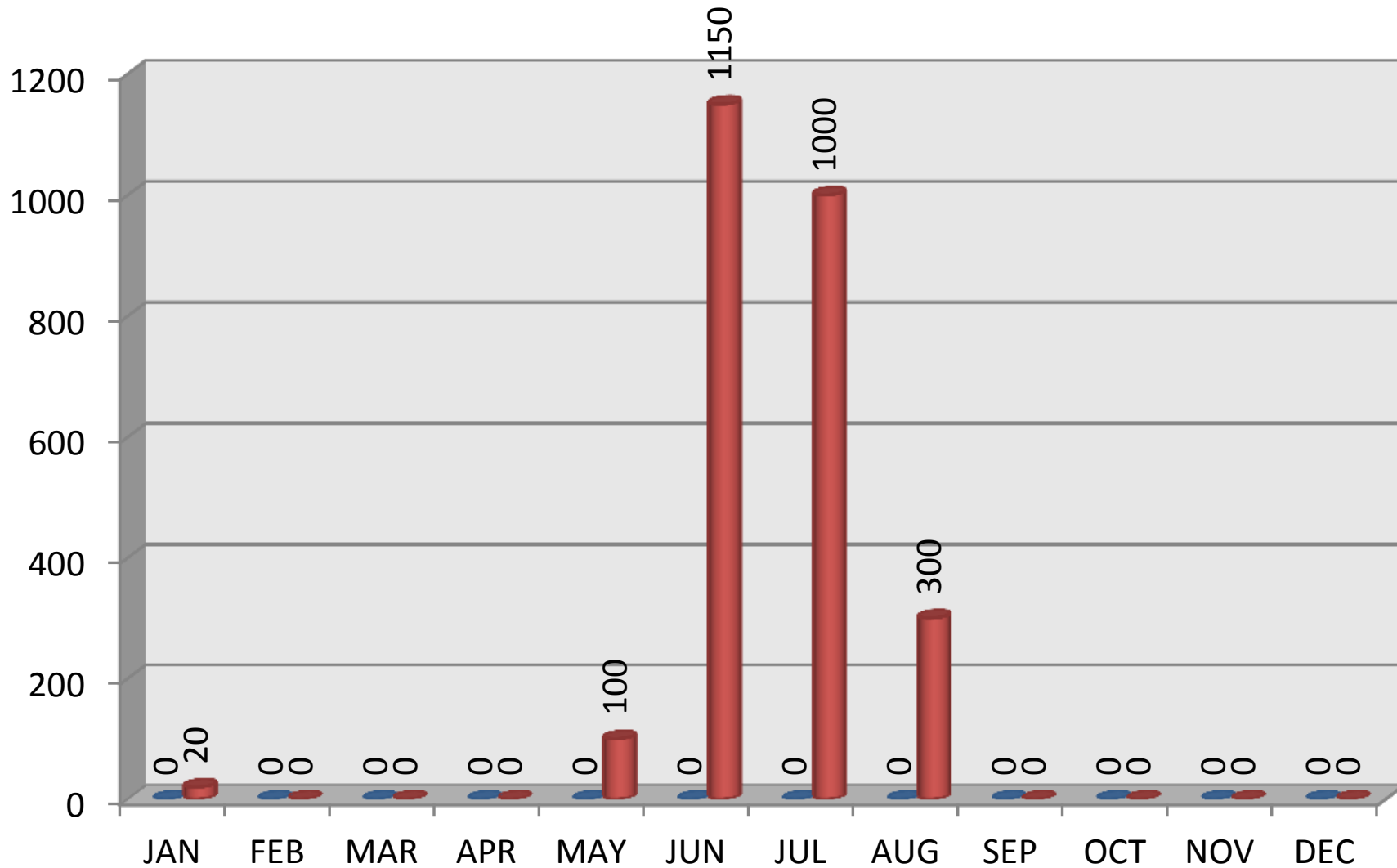
PEARSON ROAD PIPELINE PROJECT

- Project now complete.

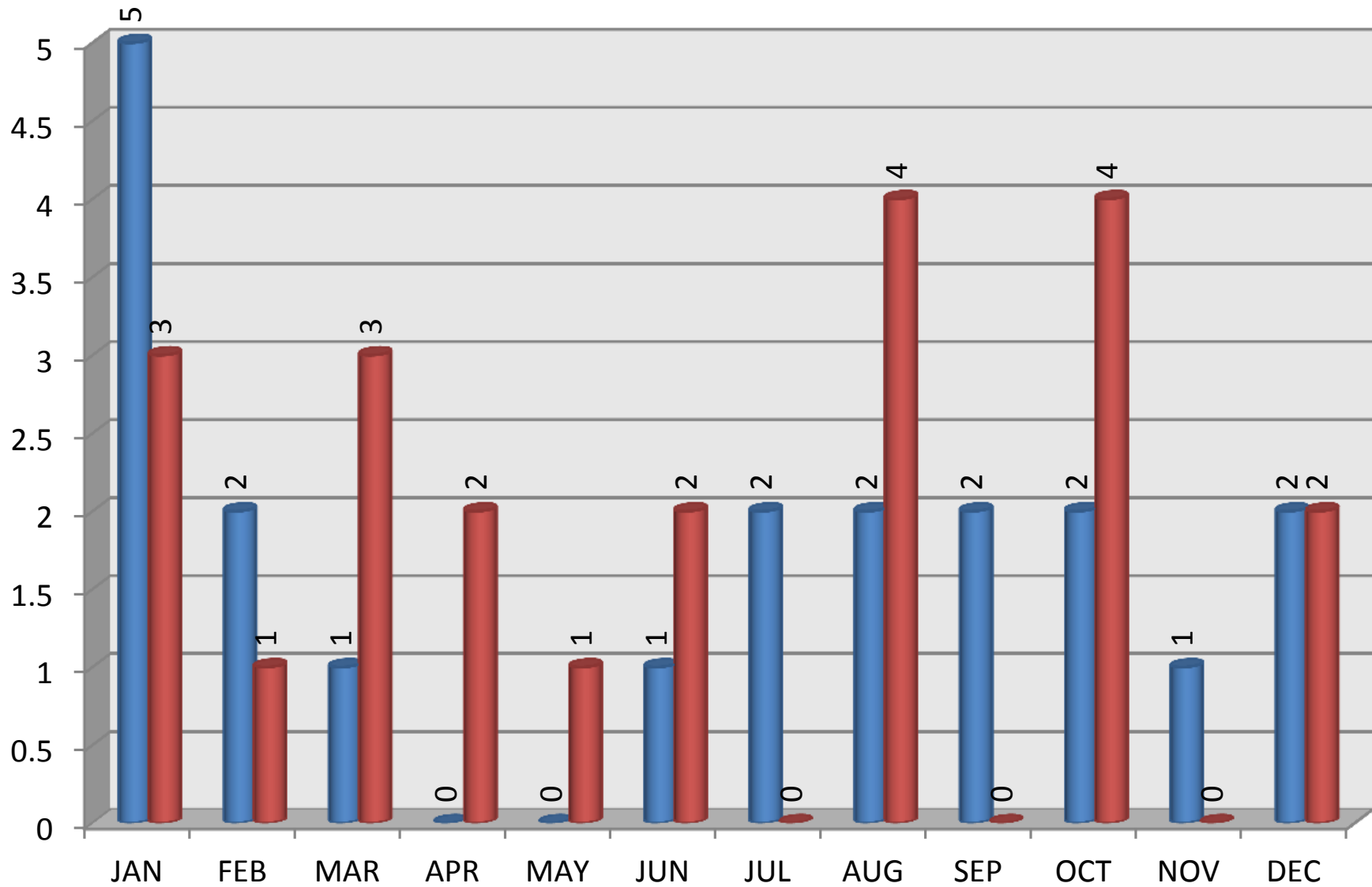
SUMMARY

- We are in the beginning stages of plans/lay out for the Crestview/Crestwood pipeline project. Old 4" and 2" steel pipe currently feed this entire neighborhood. The majority of these mains are in the backyards of several homes with minimal fire protection/flow. Approximately 3,000 feet of 8" C-900 will be installed. 6 residential hydrants will be placed throughout, along with new service lines. 12 customers currently have meters in their back yards, which will be relocated in front of the residence. This project will be beneficial to all for a multitude of reasons.
- We are in the process of bringing 3 new Utility Workers on board. Our new teammates will be starting this month.
- We are assisting the meter shop with the firefly replacements. 2-4 of our utility workers are teaming up with the change outs to ensure our system is operating properly on a daily basis.
- We have been working on our valve program, locating missing and or covered valve cans. Exposing them, exercising, and taking R.P's (reference points for mapping) when necessary.
- We continue to take care of the daily needs of the District and maintenance issues providing excellent customer service.

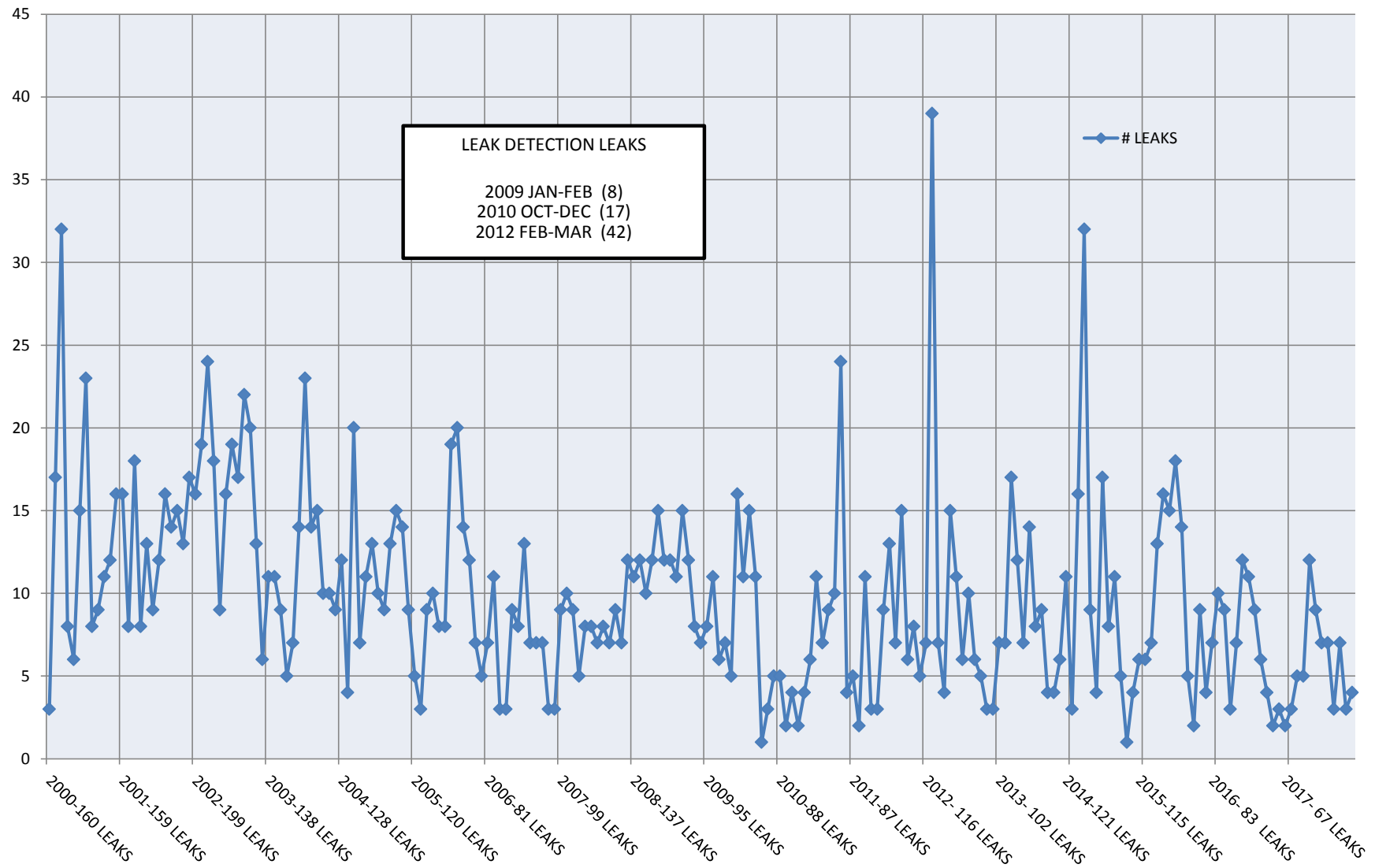
MONTHLY PIPE INSTALLATION 2017, TOTAL INSTALLED FT.



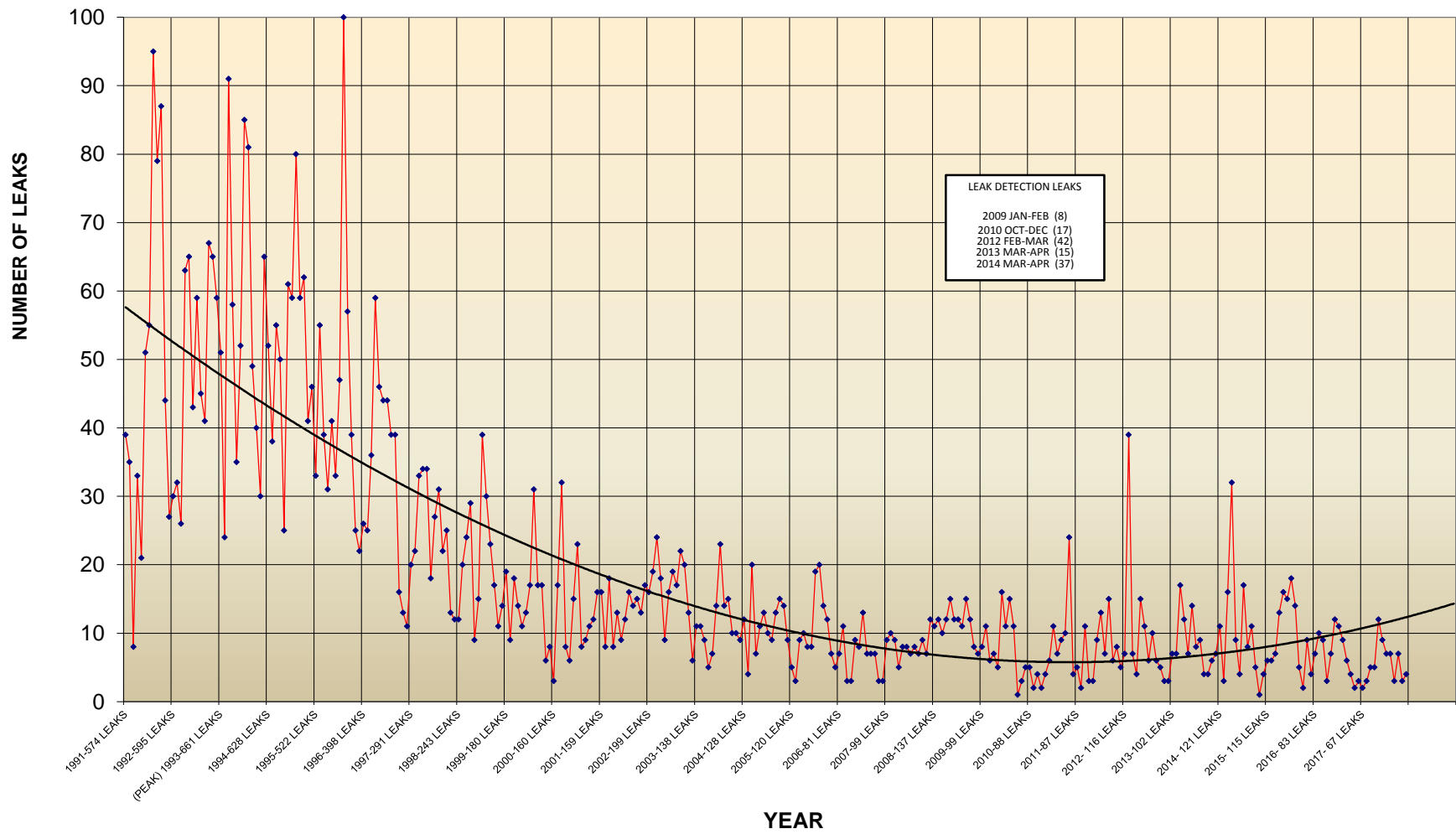
2017 METER WORK: 20 REPLACED; 22 NEW



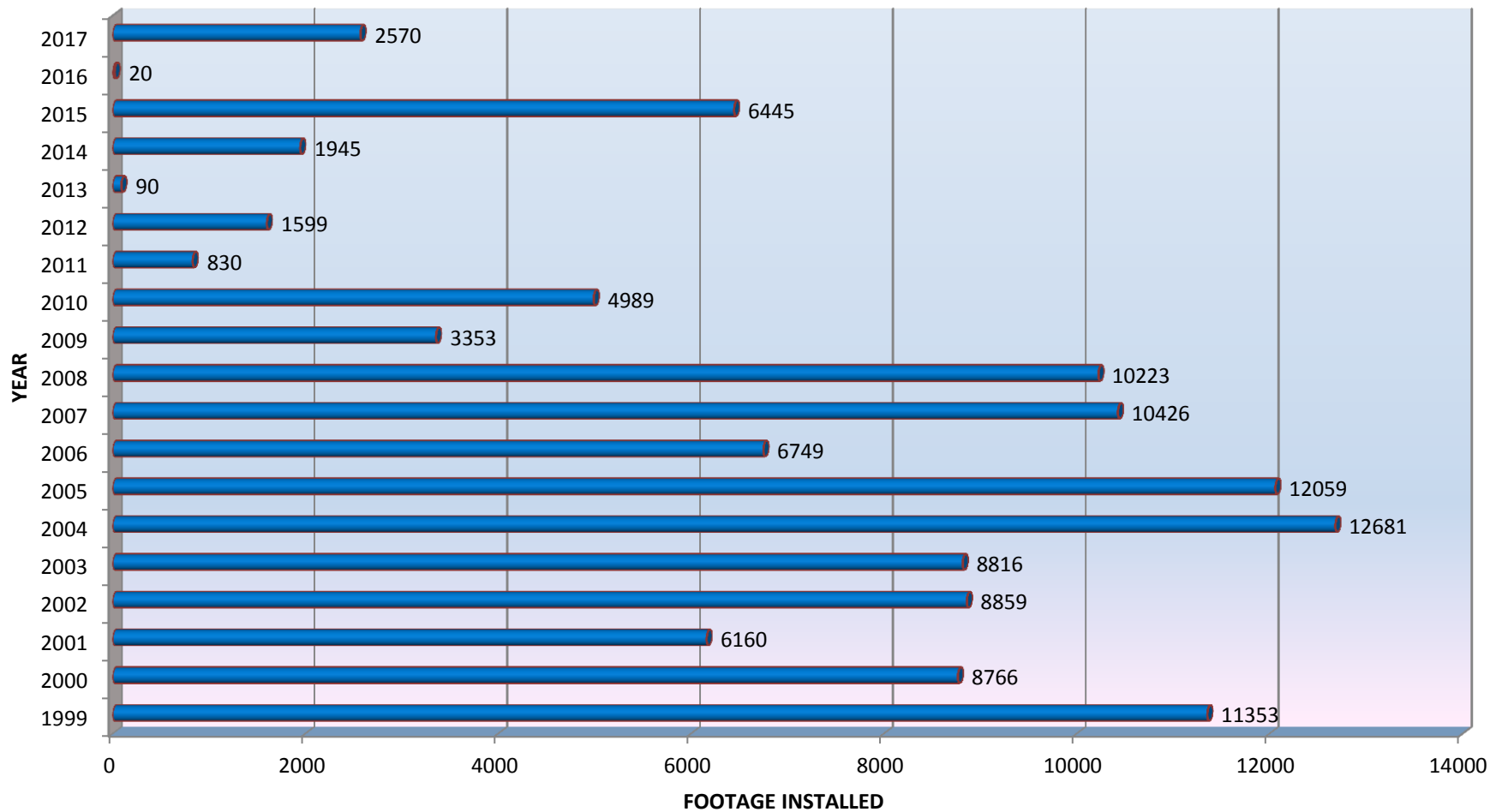
MAINLINE LEAKS



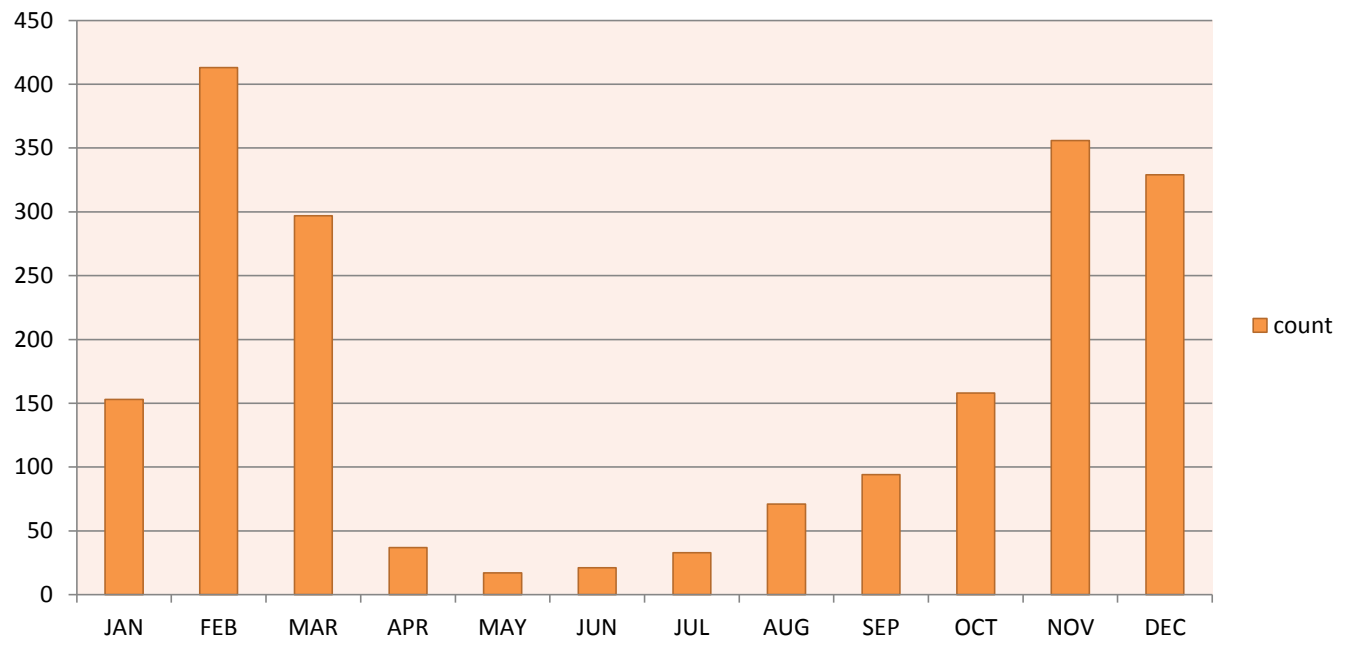
MONTHLY LEAK HISTORY 1991 TO PRESENT



PIPELINE INSTALLATION HISTORY



FIREFLY REPLACEMENTS 2017



TYPE PIPE	FEET	MILES	%
Asbestos Cement	91375	17.31	10.1%
Ductile Iron	2191	0.41	0.2%
C-900 PVC 4" to 12"	273458	51.79	30.1%
Cast Iron	1780	0.34	0.2%
Cement Mortar Lined	175060	33.16	19.3%
Galvanized 1.5"- 2"	13568	2.57	1.5%
PVC 1"-2"	38482	7.29	4.2%
Steel 4"-12"	305735	57.90	33.7%
C-905 14" & greater	6288	1.19	0.7%
TOTAL PIPE	907937	171.96	100.0%
Adjustments are made in January of each year			

TREATMENT - STAFF REPORT
December 2017

SUPPLY & QUALITY:

(See Attached Graphs)	Dec. 2017	Dec. 2016	Dec. 5 yr. Avg.
Monthly Production (Million Gallons - MG)	95.6	88.7	91.8
	Range		Average
Plant Production (MGD)	2.1 – 3.6		3.1
Raw Water Turbidity (NTU)	0.63 – 1.01		0.79
Treated Water Turbidity (NTU)	0.01 – 0.05		0.04
Treated Water Chlorine (ppm)	0.95 – 1.45		1.14

WATER TREATMENT:

- **Plant Production and Water Quality:** Average production increased to **3.1 MGD** from **2.9 MGD** last month. Magalia Reservoir is raw water source for treatment to conserve water in Paradise Lake. Chlorine residual is higher than usual due to a higher and fluctuating demand in the reservoir as compared to Paradise Lake. There has not been any significant taste and odor concerns or complaints received in the office.
- **New MCL 1,2,3-Trichloropropane:** Maximum Contaminant Level (MCL) effective December 14, 2017. Water systems must initiate quarterly monitoring beginning January 2018 for all sources. **See attachment.**
- **Monthly Residential Water Conservation:** **7%** reduction comparing production in December 2017 – **95.6 MG** to December 2013 – **102.3 MG**.
- **Plant & Distribution Operations:** **Photos attached** regarding problematic tree removal at Plant near Creek Crossing Pipeline that may create erosion due to damming of spill flows and/or damage to the pipeline.
- **Reservoir “B” Replacement:** 60% design in progress; scheduled for staff review in February 2018.
- **Rehabilitation of Tanks C D & E:** Condition assessment completed December 6th. HAE shall “rank” the tanks from worst to best, and bid the worst tank in 2018.
- **NPDES Permit Renewal Assistance:** Work is underway by Waterworks and Larry Walker. Amended TSO and NPDES Order adopted by the Regional Board.
- **NPDES Permit for Discharge to Magalia Reservoir:** No violation.
- **Process Water Recycle Project:**
RFP Pond Alternative Design: Consideration of solicitation depending on NPDES permit renewal.
Engineering: Work Suspended.
CEQA: Work suspended on the Lamella Alternative.
SRF Loan Construction Application: Pending completion of design and CEQA for construction, and full design cost recovery during construction of a project.
SRF Loan Planning and Design Application: SRF indicated District would receive \$500,000 for “Green Project Reserve” principal forgiveness for planning & design cost recovery, and requested a response regarding how the funds would be used.
- **CalOES/FEMA Grant:** All information requests provided to CalOES/FEMA.
- **Drinking Water and NPDES Reports:** Completed monthly sampling and reports.
- Miscellaneous repairs to aging equipment and routine instrument calibrations.

RECREATION:

- **Lake Activities:** See attached Parking & Boating Permit Sales Chart & Table. **Photos attached** regarding a new boom line barrier at the north end of the lake restricting boat access.
- **DBW North Lake Boat Launch Grant Project:** DBW’s response to District’s concerns came in the form of Agreement Amendment No. 2. Also, **see attachment** regarding DBW approval for routine lake closures.
- **BC Fish & Game Commission Grant:** Staff presentation in January and award in February regarding the grant application request for \$3,000 to purchase catchable trout for stocking lake prior to Kids Fishing Day in April.

WATERSHED - SOURCE of SUPPLY: Monthly Rainfall = 0.70 inches; Greatest Rain Day = 0.64 inches

Paradise Lake Levels (feet)	2017 Dec. 31 @ - 8.2'	2017 Nov. 30 @ - 9.0'	2016 Dec. 31 @ +0.4'
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- **CalFire Service Crews:** Continue vegetation removal around treatment plant and along Little Butte Creek.
- **Paradise Ridge Fire Safe Council:** Reported on shaded fuel removal work at the plant and along the creek.
- **Little Butte Creek Phase II Shaded Fuel Project:** Project restarted.

State Adoption of 1,2,3-Trichloropropane (1,2,3-TCP) Maximum Contaminant Level (MCL)



State Water Resources Control Board Division of Drinking Water

December 29, 2017

To: Community and Nontransient-Noncommunity Water Systems in California

Re: **STATE ADOPTION OF 1,2,3-TRICHLOROPROPANE MCL**

The purpose of this letter is to alert you to the new regulation adopted by the State Water Resources Control Board's Division of Drinking Water (DDW) establishing a maximum contaminant level (MCL), monitoring frequencies, and other requirements for 1,2,3-Trichloropropane (1,2,3-TCP). These regulations were filed with the Secretary of State and became effective on December 14, 2017. The establishment of this MCL is a key milestone in addressing a major drinking water issue in California.

Information in this letter is intended as an overview. You are encouraged to read the text of the new regulations and to review information on our web pages (listed below).

DDW Web Pages Related to 1,2,3-TCP

1. Drinking Water Program main web page for 1,2,3-TCP:
https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/123TCP.shtml
2. Drinking Water Program web page on the regulations established for 1,2,3-TCP:
https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/SBDDW-17-001_123TCP_MCL.html

Effect of New Regulations

The new regulations include the following:

1. The establishment of an MCL for 1,2,3-TCP of 0.000005 mg/L (5 parts per trillion (ppt)), and a Detection Level for Purposes of Reporting (DLR) of 5 ppt (Title 22, California Code of Regulations (22 Cal Code Regs.) § 64444 and § 64445.1).
2. Community and Nontransient-Noncommunity Water Systems (Water Systems) are required to monitor their sources for 1,2,3-TCP, comply with the 1,2,3-TCP MCL, and report all sampling results to DDW.
3. Water Systems may be allowed to use groundwater monitoring data meeting specific criteria and collected prior to the establishment of a new organic chemical MCL to satisfy some of the initial monitoring requirements for that MCL, if approved by DDW (22 Cal Code Regs. § 64445).
4. Granular Activated Carbon (GAC) has been identified as the Best Available Technology (BAT) for 1,2,3-TCP removal (22 Cal Code Regs. § 64447.4).
5. Water Systems that violate the 1,2,3-TCP MCL are required to use specific public notification (health effects) language (22 Cal Code Regs. § 64465).
6. Water Systems that detect 1,2,3-TCP must use specific Consumer Confidence Report language (22 Cal Code Regs. § 64481).

FELICIA MARCUS, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov



Necessary Actions by Community and Nontransient-Noncommunity Water Systems

The following provides additional detail on monitoring, reporting, and required actions in the event of a 1,2,3-TCP detection:

1. Water Systems must conduct initial monitoring in the quarter beginning in January, 2018 (i.e., January, February, and March). Initial monitoring consists of four calendar quarters of sampling for each source.
2. Results from groundwater samples collected during 2016 and 2017 may be used to satisfy initial monitoring requirements based on a written request from the Water System and approval by DDW. Up to three quarters may be substituted (22 Cal Code Regs. § 64445(i)).
3. Each individual source must be sampled. Composite samples are not allowed for 1,2,3-TCP since the DLR and the MCL are the same value (22 Cal Code Regs. § 64445(c)).
4. In the event of a detection of 1,2,3-TCP above the MCL, the Water System must contact the regulatory agency (i.e., DDW or Local Primacy Agency (LPA)) within 48 hours and conduct follow-up sampling as specified in regulation (22 Cal Code Regs. § 64445.1(c)(5)).
5. Existing regulations allow a Water System to request a waiver from the requirement to collect a complete set of four initial calendar quarters of monitoring. Requests for monitoring waivers must be made in writing to the DDW District Office or LPA. Unless you have obtained a waiver from the DDW District Office or LPA, initial monitoring will need to be conducted (22 Cal Code Regs. § 64445(d)).
6. Only laboratory methods meeting the DLR of 5 ppt will be accepted for compliance purposes. At this time, SRL 524M is the only laboratory method with a reporting level that is equal to or less than the DLR. The laboratory performing the analysis must be accredited by the Environmental Laboratory Accreditation Program. Please refer to the following link:
https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/123-tcp/srl524m-tcp.pdf
7. Samples are to be collected following standard sampling procedure for organic chemicals, which includes:
 - Collecting samples as close as possible to the wellhead (for groundwater sources) or intake (for surface water sources) prior to chlorination or other treatment, and
 - Allowing groundwater sources to run for least 15 minutes prior to collection (22 Cal Code Regs. § 64445).

The DDW District Office or Local Primacy Agency is available to answer additional questions that you may have.

Sincerely,



Darrin Polhemus, Deputy Director
Division of Drinking Water
State Water Resources Control Board

**Problematic tree removal at the Plant
that may create a short-term dam condition during high spill flows
and/or damage to the pipeline**



Department of Boating and Waterways
Approval Letter (12-21-17) Regarding Maintenance Closing Schedule for Paradise Lake



State of California • Natural Resources Agency

DEPARTMENT OF PARKS AND RECREATION

Division of Boating and Waterways

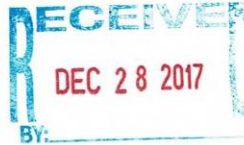
One Capitol Mall, Suite 500

Sacramento, California 95814

Telephone: (916) 327-1779 / Fax: (916) 327-1770

Edmund G. Brown Jr., *Governor*

Lisa Ann L. Mangat, *Director*



DEC 21 2017

Mr. Jim Passanisi
Paradise Irrigation District
6332 Clark Road
Paradise, CA 95969

Paradise Lake Boat Launching Facility, Grant No. (C4123010) #1083, Facility Maintenance Closing Response

Dear Mr. Passanisi:

The Department of Parks and Recreation, Division of Boating and Waterways (DBW) has approved your request dated November 9, 2017, regarding the Paradise Irrigation District's (PID) notification that Paradise Lake is regularly closed for maintenance.

The letter states PID closes Paradise Lake to public access every Wednesday for general maintenance, and also closes from the Monday prior to Kid's Fishing Day through the following Sunday in preparation for the event.

DBW appreciates your investment in improving California's boating access. If you have any questions, please contact me at (916)327-1817 or by email at leo.lamattina@parks.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Leo LaMattina".

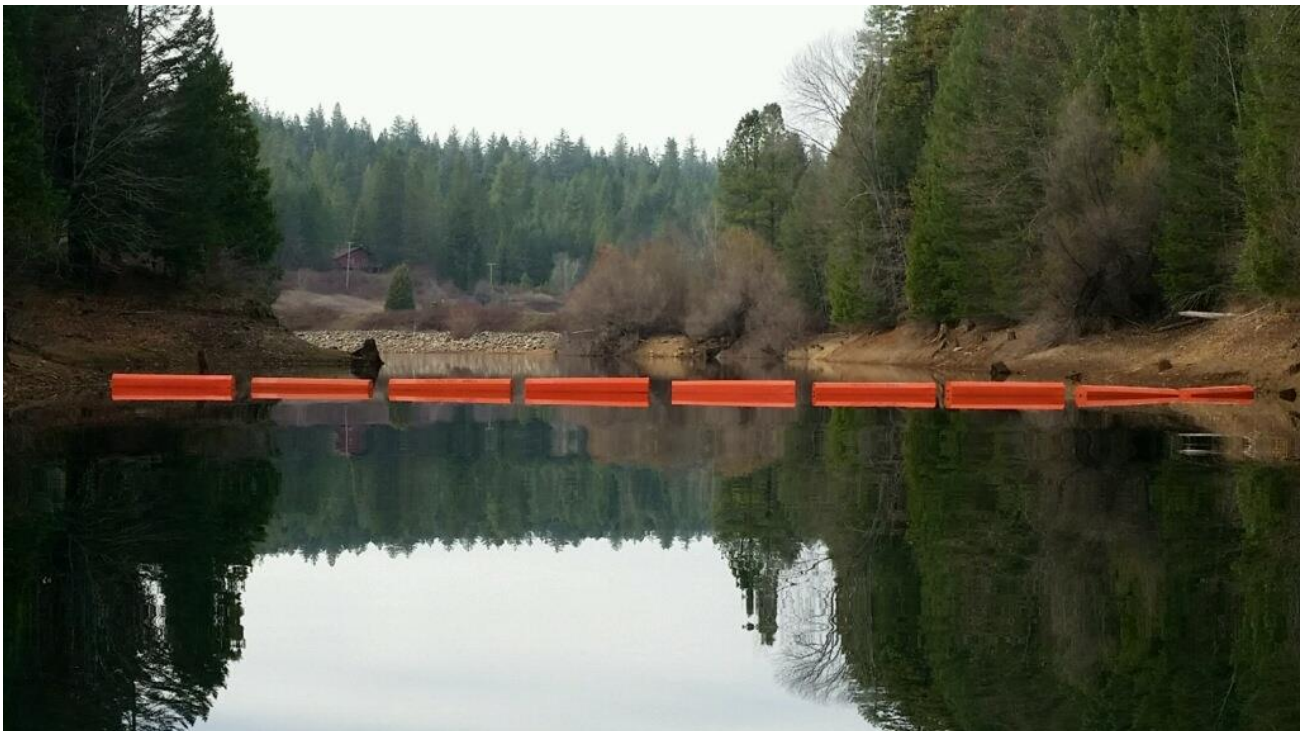
Leo LaMattina
Project Manager

New Boom Barrier at the North End of Paradise Lake Restricting Boat Access

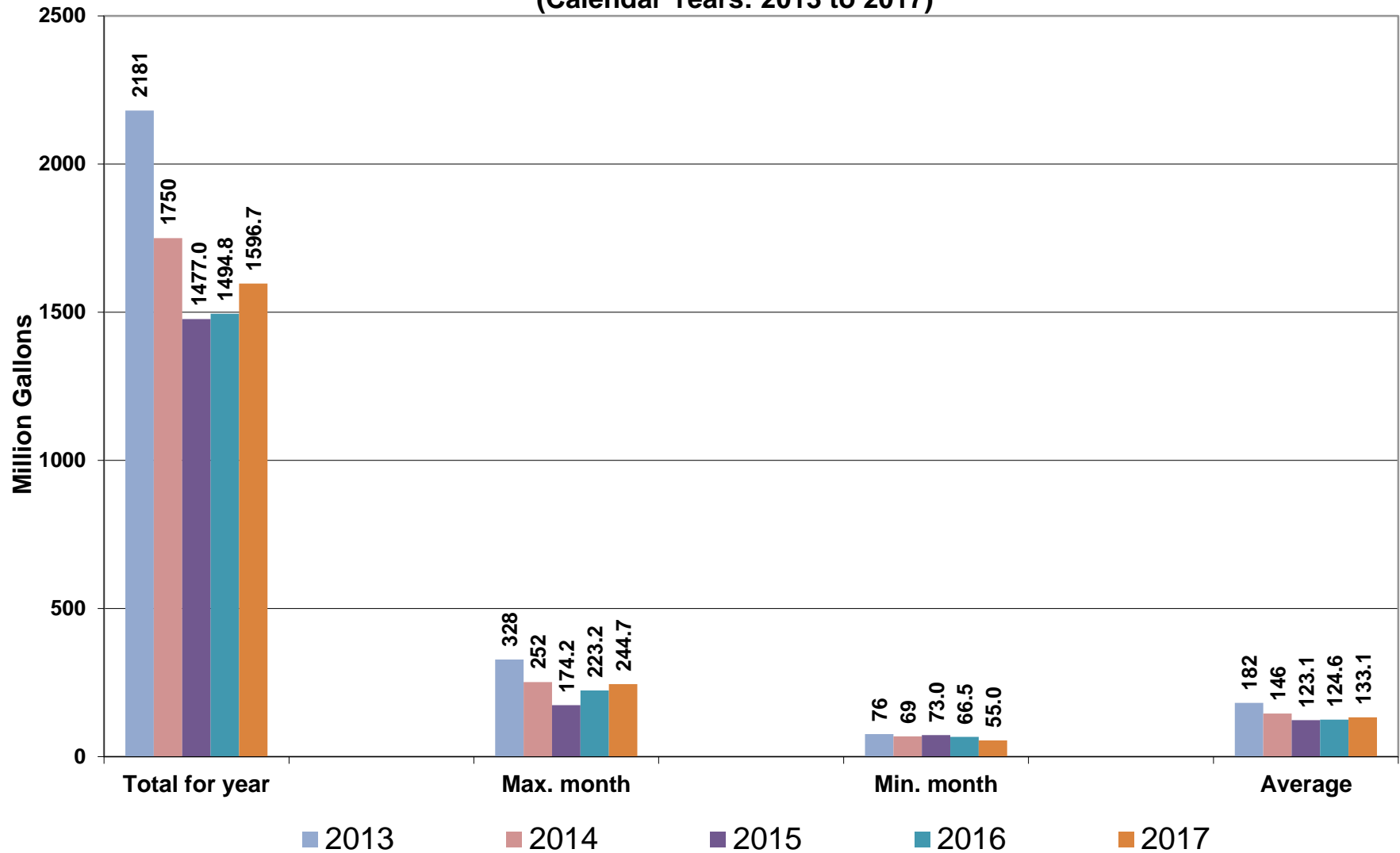
BEFORE



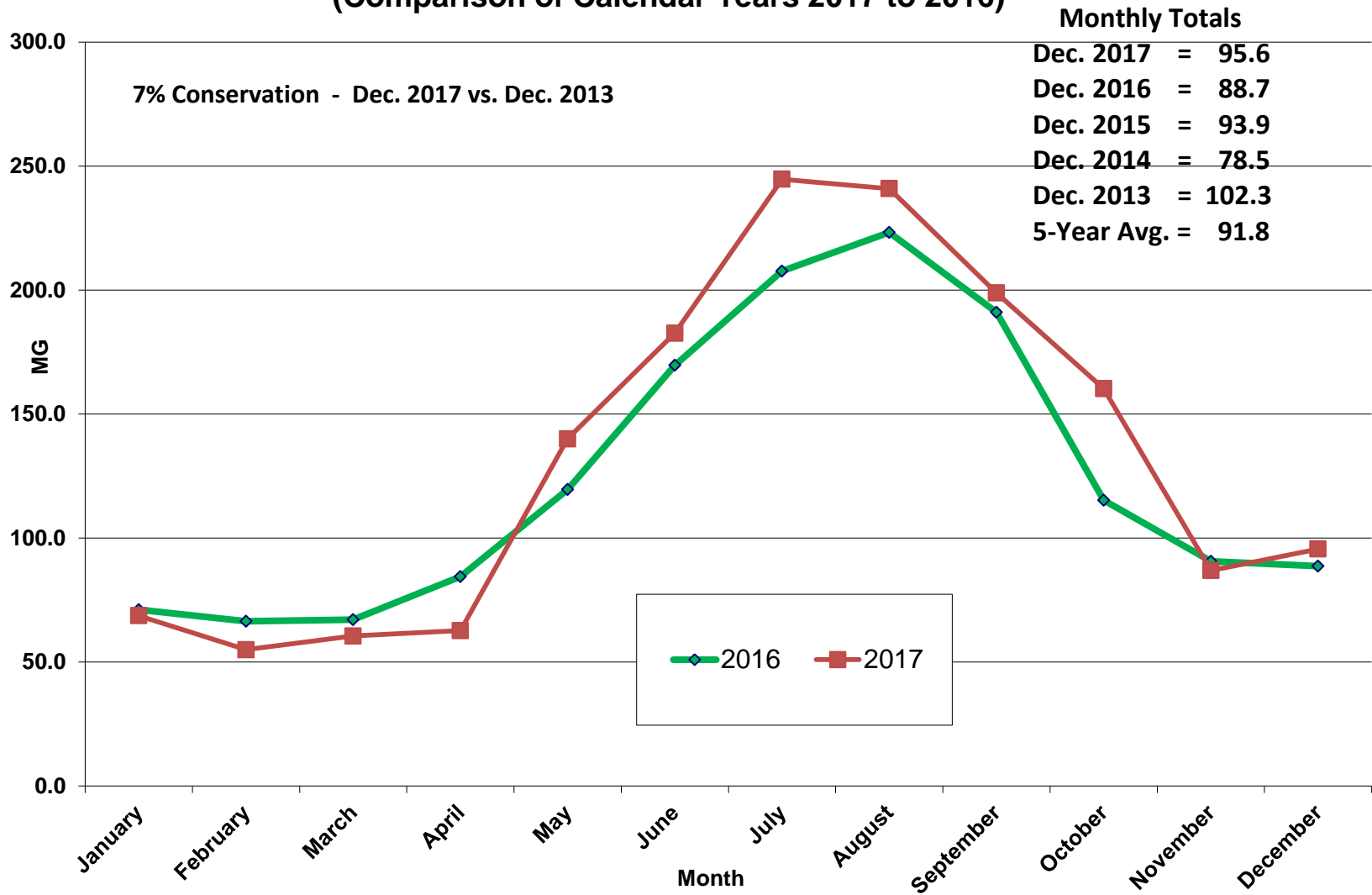
AFTER



**Water Treatment Plant Annual Production Comparisons
Total; Monthly Max. & Min, and Average
(Calendar Years: 2013 to 2017)**



**Monthly Treatment Plant Production (Million Gallons - MG)
(Comparison of Calendar Years 2017 to 2016)**

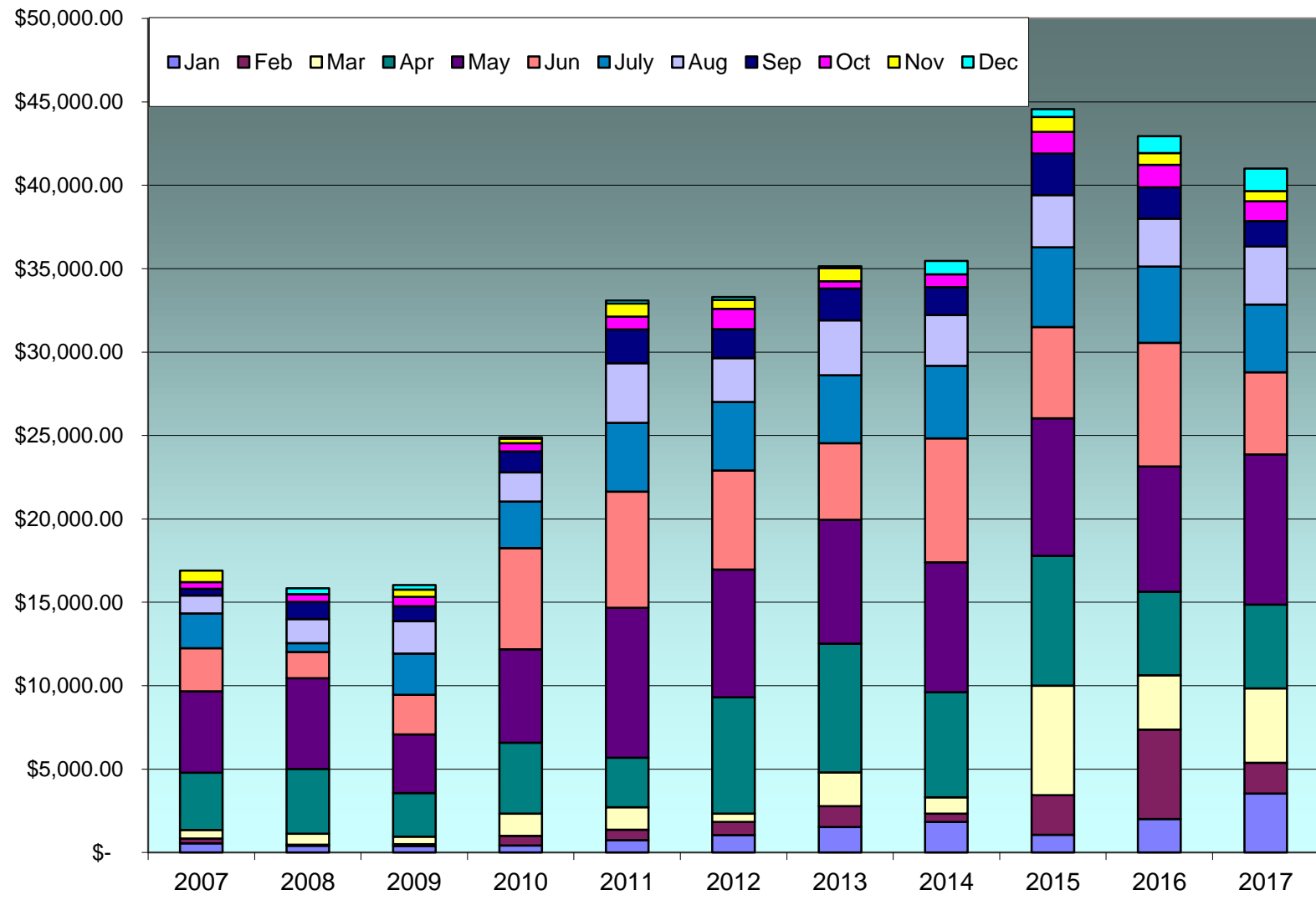


Water Treatment Plant Annual Production Figures and 5 Year Averages (2013 - 2017)
(Million Gallons)

Note: 2013 is the conservation comparison year

	Years								5 Year Average					
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2013-2017
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	83.2
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	67.9
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	82.7
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	101.3
May	181.5	243.9	259.3	275	221	140.8	146	214.7	241.6	175.6	136.5	119.6	140.0	162.7
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	201.4
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	241.2
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	233.3
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	194.8
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	144.4
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	95.2
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	91.8
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5 Year Avg.
Total for year	2492	2668	2630	2683	2315	2083	1926	2153	2181	1750	1477.0	1494.8	1596.7	1699.8
Max. month	412	429	385	364	351	344	308	331	328	252	174.2	223.2	244.7	241.2
Min. month	101	105	107	112	88	79	85	79	76	69	73.0	66.5	55.0	67.9
Average	208	222	219	224	193	174	161	179	182	146	123.1	124.6	133.1	141.7

PID Lake Permit Comparison From 2007- 2017



Paradise Irrigation District
Lake Permit Sales
January -December 2017

	Recreation				Boating				Total
	Annual		Daily		Season		Daily		
January	64	\$ 965.00	158	\$ 472.71	49	\$ 1,960.00	13	\$ 133.00	\$ 3,530.71
February	28	\$ 420.00	88	\$ 263.05	28	\$ 1,100.00	7	\$ 70.00	\$ 1,853.05
March	31	\$ 465.00	342	\$ 1,026.43	67	\$ 2,660.00	30	\$ 300.00	\$ 4,451.43
April	34	\$ 505.00	280	\$ 840.94	86	\$ 3,420.00	26	\$ 255.00	\$ 5,020.94
May	49	\$ 730.00	602	\$ 1,806.13	134	\$ 5,360.00	112	\$ 1,115.00	\$ 9,011.13
June	37	\$ 552.15	351	\$ 1,052.15	59	\$ 2,340.00	97	\$ 970.00	\$ 4,914.30
July	16	\$ 235.00	417	\$ 1,249.54	44	\$ 1,760.00	82	\$ 820.00	\$ 4,064.54
August	21	\$ 310.00	373	\$ 1,118.14	17	\$ 660.00	140	\$ 1,395.00	\$ 3,483.14
September	2	\$ 30.00	251	\$ 752.49	2	\$ 80.00	66	\$ 655.00	\$ 1,517.49
October	2	\$ 30.00	203	\$ 608.69	3	\$ 120.00	44	\$ 435.00	\$ 1,193.69
November	2	\$ 30.00	125	\$ 374.93	5	\$ 200.00	0	\$ -	\$ 604.93
December	19	\$ 285.00	75	\$ 225.87	20	\$ 800.00	5	\$ 50.00	\$ 1,360.87
Totals	304	\$ 4,557.15	3,264	\$ 9,791.07	512	\$ 20,460.00	620	\$ 6,198.00	\$ 41,006.22

ENGINEERING REPORT

December 2017

Activities This Month

This month engineering staff prepared and submitted the annual reports on the Proposition 50 grant funded main replacement projects. Staff continued work on the condition assessments for the spillways at Magalia Dam and Paradise Dam. Staff also continued efforts in support of the Town of Paradise Almond Street/Gap Complex and Ponderosa Safe Routes to School projects.

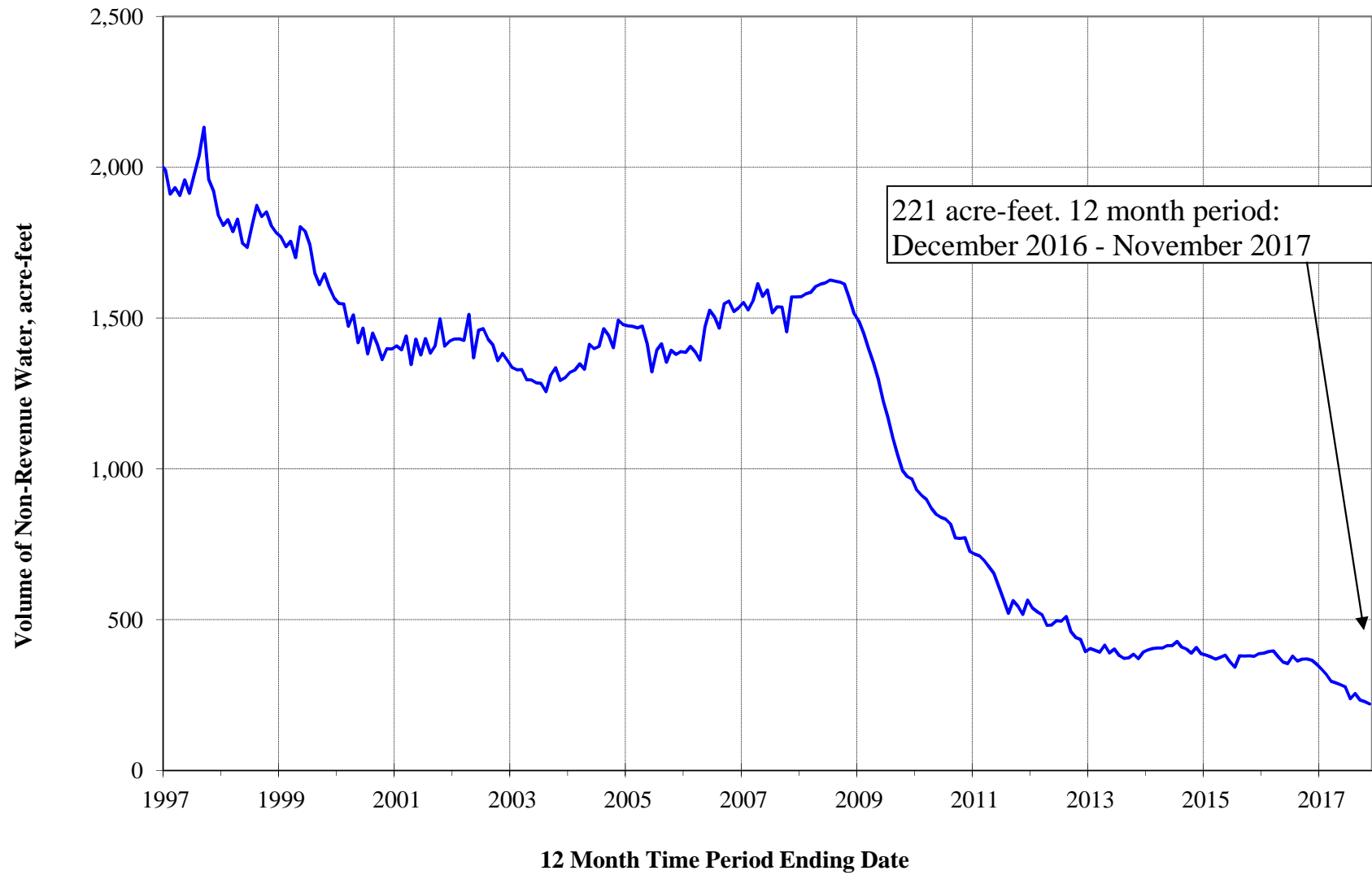
Engineering staff prepared capital project descriptions for inclusion on the PID website. Staff continued work on the water rights permitting effort including map revisions. Engineering staff also continued work on water rights measurement and reporting, including review of SCADA data suitability and investigation of an instrumentation upgrade for the water level measuring device at Magalia Reservoir.

Engineering staff continued work on the Reservoir B expansion project. Staff worked with a solar energy provider to investigate solar energy feasibility and to prepare two interconnection applications to 'grandfather' the existing Time-of-Use rate structure for 10 years. Staff worked on cross connection control issues at Paradise High School.

Summary of Development Review and Other Activities

Water Service Requirements Review Requests	0
New/revised projects reviewed in Project Evaluation Committee (TOP)	2
Review and direction of miscellaneous ongoing projects	4
Meter Sizing Audits (total to date)	60
Meter Size Reductions (total to date)	37

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



Information Technology Report

PID Website Enhancements

Our full website, PIDwater.com was launched on January 1st. Visitors can still get to the site by using paradiseirrigation.com and I purchased a google ad to highlight the site just in case search engines didn't catch up to the change. The ad will run through January and will not exceed a \$100.00 budget.

Top 10 Pages - Jan. 1 through Jan. 8, 2018


<input type="checkbox"/>	Page Title ?	Pageviews ? ↓
		1,797 % of Total: 100.00% (1,797)
<input type="checkbox"/>	1. Pidwater.com - Paradise Irrigation District - Water Utility for Paradise, California - Paradise Irrigation District	1,012 (56.32%)
<input type="checkbox"/>	2. Payment Options for Paradise Irrigation District - Paradise Irrigation District	128 (7.12%)
<input type="checkbox"/>	3. Search or browse PID documents - Paradise Irrigation District	81 (4.51%)
<input type="checkbox"/>	4. Search - Paradise Irrigation District	67 (3.73%)
<input type="checkbox"/>	5. PID Reservoir Levels: Paradise Lake and Magalia Reservoir - Paradise Irrigation District	45 (2.50%)
<input type="checkbox"/>	6. Contact PID - Paradise Irrigation District	43 (2.39%)
<input type="checkbox"/>	7. Backflow Prevention & Cross-Connection Control - Paradise Irrigation District	42 (2.34%)
<input type="checkbox"/>	8. PID Projects - Paradise Irrigation District	36 (2.00%)
<input type="checkbox"/>	9. Careers at PID - Paradise Irrigation District	29 (1.61%)
<input type="checkbox"/>	10. PID Water Rates - Paradise Irrigation District	26 (1.45%)

Annual Software Licensing

The time of year has come to renew our software and hardware support and licensing. Expect to see payments for these renewals into early spring of 2018.

Microsoft Products – I am doing an extensive review of our aging on-premise email server and Microsoft office suite subscriptions and will be coming to the board with pricing and a plan for moving these items to a more dependable environment.

December Regular Meeting on Facebook Live – Post Performance



Paradise Irrigation District

Watch PID's Regular Board Meeting from wherever you are on Facebook Livestream. The documents projected on the wall behind the board members may not "show" very well on the stream's imaging so please download the agenda and supporting documents here s...

03:23:34 · Was Live: 12/20/2017 · View Permalink

Performance for Your Post

← Audience and Engagement ▾

People Reached	543	>
Unique Viewers	78	>
Post Engagement	3	>
Video Engagement		>
Top Audience	--	>
Top Location	--	>

Mickey Rich
Information Systems Manager
January 2018