

KINNELOA IRRIGATION DISTRICT

Regular Meeting – Board of Directors
1999 Kinclair Drive, Pasadena, CA 91107
Tuesday, January 15, 2019
3:00 P.M.

AGENDA

1. **CALL TO ORDER – 3:00 P.M.**
 - a. Declaration of a quorum
 - b. Review of agenda
2. **PUBLIC COMMENT –** Comments from the Public regarding items on the Agenda or other items within the jurisdiction of the District
In compliance with the Brown Act, the Board cannot discuss or act on items not on the Agenda. However, Board Members or District Staff may acknowledge Public comments, briefly respond to statements or questions posed by the Public, ask a question for clarification, or request Staff to place item on a future Agenda (Government Code section §54954.2)
3. **STATUS UPDATE ON PROPOSED DOYNE ROAD HOME CONSTRUCTION –** Presented by Larry Lachner, Dynamo Constructors Inc., on behalf of the property owner
Recommended Action: Receive information from Mr. Lachner and hear his responses to any questions from the Board or Staff regarding the project
4. **REVIEW OF MINUTES –** December 18, 2018 minutes
Recommended Action: Review and approve motion to file
5. **REVIEW OF FINANCIAL REPORTS –** December 31, 2018 financial reports
Recommended Action: Review and approve motion to file
6. **GENERAL MANAGER'S REPORT –** Information item presented by General Manager
Recommended Action: General Manager to summarize the report and respond to questions
7. **MANAGEMENT REPORT FOR 2017-2018 –** Information item presented by General Manager
Recommended Action: General Manager to summarize the report and respond to questions
8. **CAPITAL IMPROVEMENT AND MAINTENANCE PROJECTS –** Presentation by General Manager of the revised list of projects on the planning horizon and completed projects
Recommended Action: Discuss revised project list and approve priority projects
9. **REVIEW OF FIRE HYDRANT FLOW DATA –** Board and Staff discussion
10. **REVIEW OF KINNELOA IRRIGATION DISTRICT RETIREMENT BENEFITS –**
Board and Staff discussion
11. **CLOSED SESSION – PUBLIC EMPLOYEE PERFORMANCE EVALUATION – Government Code §54957(b)(1):** Title: General Manager

KINNELOA IRRIGATION DISTRICT

Regular Meeting – Board of Directors
1999 Kinclair Drive, Pasadena, CA 91107
Tuesday, January 15, 2019
3:00 P.M.

AGENDA

12. OPEN SESSION – REPORT ON CLOSED SESSION

13. DIRECTOR REPORTS AND/OR COMMENTS – In accordance with Government Code §54954.2

Directors may make brief announcements or brief reports on their own activities. Directors may ask a question for clarification, provide a reference to staff or other resources for information, request staff to report back to the Directors at a subsequent meeting, or act to direct staff to place a matter of business on a future agenda.

14. CALENDAR – February 19, 2019

March 19, 2019

April 16, 2019

15. ADJOURNMENT

In compliance with the Americans with Disabilities Act, if you are a disabled person and need a disability-related modification or accommodation to participate in this meeting, please contact the District office 48 hours prior to the meeting at 626-797-6295. Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt a minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Material related to an item on this agenda submitted after distribution of the agenda packet is available for public review at the District office or online at the District's website <https://kinneloairrigationdistrict.info>.

KINNELOA IRRIGATION DISTRICT
Regular Meeting – Board of Directors
1999 Kinclair Drive, Pasadena, CA 91107
Tuesday, December 18, 2018
3:00 p.m.
Minutes

DIRECTORS PRESENT: Tim Eldridge, Frank Griffith, Gerrie Kilburn, Bill Opel

DIRECTORS ABSENT: Gordon Johnson

STAFF PRESENT: Melvin Matthews, General Manager/Acting Board Secretary; Donna Eggehorn, Administrative Assistant; Chris Burt, Sr. Facilities Operator

1. CALL TO ORDER: Chair Frank Griffith called the meeting to order at 3:02 p.m. A quorum of Board Members was present. The Agenda was reviewed, and no changes were requested.

2. PUBLIC COMMENT: Present were Linda Szerdahelyi-resident, Karl Bowman-resident, Don Murphy-resident. No one requested to speak at this time.

3. PUBLIC HEARING REGARDING PROPOSED 2019 WATER RATES: The Chair opened the hearing at 3:04 p.m. No members of the public wished to speak. The General Manager stated that a notice regarding the meeting and proposed rates was sent to all customers and owners as required by Proposition 218. No letters and no phone calls were received. The Chair closed the hearing at 3:05 p.m.

4. WATER RATES – RESOLUTION 2018-12-18: The Chair opened the discussion. No additional questions nor remarks were made. The Chair called for a motion from the Board regarding the adoption of the 2019 water rates and approval of Resolution 2018-12-18. Motioned/seconded/carried-(Opel/Eldridge) approved by a vote of 4/0/0/1 (Aye-Eldridge, Griffith, Kilburn, Opel/Nay-0/Abstain-0/Absent-Johnson)

5. REVIEW OF MINUTES: The minutes of November 20, 2018 were reviewed. Motioned/seconded/carried-(Kilburn/Eldridge) and approved by a vote of 3/0/1/1 Ayes-Eldridge, Griffith, Kilburn/Noes-0/Abstain-Opel/Absent-Johnson

6. REVIEW OF FINANCIAL REPORTS: Director/Treasurer Opel reviewed the financial reports for November 30, 2018, highlighting that the District had increased water sales as compared to the budget, that operations and maintenance expenses were lower than the budget this month and that the net increase in cash was higher than the budgeted amount. Motioned/seconded/carried-(Eldridge/Kilburn) and approved by a vote of 4/0/0/1 Ayes-Eldridge, Griffith, Kilburn, Opel/Noes-0/Abstain-0/Absent-Johnson

7. GENERAL MANAGER’S REPORT: The General Manager and Board reviewed the report and highlighted the follow items and answered questions from the Directors:

KID Rules and Regulations - Continued project to revise and update this document
Public Water Agency Group (PWAG) – General Manager Matthews is on the team preparing for the formalization of the structure of PWAG as a mutual-benefit non-profit corporation.

KINNELOA IRRIGATION DISTRICT
Regular Meeting – Board of Directors
Tuesday, December 18, 2018
Minutes

Automated Meter Reading – Continued with the analysis of the best path forward using new technologies to collect data now that Badger has officially announced the discontinuance of current Badger meter endpoint which is used by the KID to collect water meter readings.

Annual Report – General Manager Matthews completed the report which will be presented at a future meeting.

8. POSITIONING OF A DISASTER PREPAREDNESS CONTAINER ON DISTRICT PROPERTY: Don Murphy, President of the Kinneloa Canyon Association presented an update and a detailed plan on the positioning of a disaster preparedness container at the Eucalyptus Reservoir. Discussion ensued with the Board, General Manager Matthews and Don Murphy on the contents and aesthetics of the container. The Board expressed general approval of the project and directed the Kinneloa Canyon Association to prepare a draft agreement listing details of the contents, the responsibilities of the association, landscaping etc. and to present the draft agreement at a future Board meeting.

9. CAPITAL IMPROVEMENT AND MAINTENANCE PROJECTS: The General Manager presented a revised list of projects on the planning horizon and completed projects. The Board discussed several projects including maintenance of the facility driveway. Director Opel had questions regarding the fire flow testing of each hydrant and Director Griffith read the minutes from May 15, 2018 regarding the issue “That the Board directs the General Manager to report back on potential value and alternate costs regarding fire flow tests after a period of time with recommendations by the end of the calendar year”. The General Manager stated that he will prepare a memo listing all data on Fire Flow content and present it to the Board at the next meeting. The Board also requested a review of employee retirement benefits to be presented at the next Board meeting.

10. ELECTION OF KINNELOA IRRIGATION DISTRICT BOARD OFFICERS FOR YEAR 2019:

Nominations for the office of Chair for the year 2019 were opened.

Motioned/seconded/carried-(Kilburn/Eldridge) and approved by a vote of 4/0/0/1

“That Director Johnson serve as Chair for the year 2019.”

(Aye-Eldridge, Griffith, Kilburn, Opel/Nay-0/Abstain-0/Absent-Johnson)

Nominations for the office of Secretary for the year 2019 were opened.

Motioned/seconded/carried-(Opel/Kilburn) and approved by a vote of 4/0/0/1

“That Director Eldridge serve as Secretary for the year 2019.”

(Aye- Eldridge, Griffith, Kilburn, Opel/Nay-0/Abstain-0/Absent-Johnson)

KINNELOA IRRIGATION DISTRICT
Regular Meeting – Board of Directors
Tuesday, December 18, 2018
Minutes

Nominations for the office Treasurer for the year 2019 were opened.
Motioned/seconded/carried-(Eldridge/Kilburn) and approved by a vote of 3/0/1/1
“That Director Opel serve as Treasurer for the year 2019.”
(Aye-Eldridge, Griffith, Kilburn, Opel/Nay-0/Abstain-0/Absent-Johnson)

Directors Eldridge, Kilburn, and Opel thanked Chair Griffith for his one-year tenure as Chair.

11. DIRECTOR REPORTS AND/OR COMMENTS: Director Kilburn asked if the County of Los Angeles catch basin had released water after a recent rainstorm. Sr. Facility Operator Chris Burt said the storm was not strong enough and most of the water most likely soaked into the ground.

12. CALENDAR: The next regular meeting will be at 3:00 p.m. on Tuesday, January 15, 2019.

10. ADJOURNMENT: The meeting was adjourned at 4:13 p.m.

Prepared by:

Donna Eggehorn, Administrative Assistant

Reviewed and submitted by:

Acting Secretary to the Board

Kinneloa Irrigation District
Income Statement for the Twelve Months Ending December 31, 2018

	Current Month Actual	Current Month Budget	Current Month Variance	Year to Date Actual	Year to Date Budget	Year to Date Variance
Revenues						
4000 Water Sales	96,139.82	104,000.00	(7,860.18)	1,595,939.20	1,400,000.00	195,939.20
4015 Wholesale Water Sales	38,377.15	18,750.00	19,627.15	92,049.25	75,000.00	17,049.25
4020 Service/Installation Charges	367.01	833.37	(466.36)	19,449.48	10,000.00	9,449.48
4035 Interest-Reserve Fund	2,373.29	833.37	1,539.92	25,858.04	10,000.00	15,858.04
4070 Misc. Income	0.00	0.00	0.00	10,844.53	0.00	10,844.53
Total Revenues	137,257.27	124,416.74	12,840.53	1,744,140.50	1,495,000.00	249,140.50
Expenses						
5000 Leased Water Rights	0.00	0.00	0.00	63,135.00	63,135.00	0.00
5005 Electricity	14,925.59	10,000.00	4,925.59	127,199.07	120,000.00	7,199.07
5010 Maintenance/Repair Supplies	3,978.73	2,083.37	1,895.36	33,403.04	25,000.00	8,403.04
5011 Material and Labor for Install	0.00	833.37	(833.37)	1,480.77	10,000.00	(8,519.23)
5012 Safety Equipment	33.30	133.37	(100.07)	362.46	1,600.00	(1,237.54)
5015 Operations Labor	15,105.42	15,616.63	(511.21)	168,868.83	187,400.00	(18,531.17)
5016 Operations OT	879.05	666.63	212.42	8,123.32	8,000.00	123.32
5020 Stand-by Compensation	600.00	912.50	(312.50)	7,350.00	10,950.00	(3,600.00)
5022 Training/Certification	0.00	133.37	(133.37)	850.00	1,600.00	(750.00)
5025 Water Treatment/Analysis	1,528.61	1,833.37	(304.76)	22,540.17	22,000.00	540.17
5030 Maintenance/Repair Contractors	7,269.05	10,416.63	(3,147.58)	114,815.85	125,000.00	(10,184.15)
5034 Equipment Maintenance	0.00	833.37	(833.37)	9,001.91	10,000.00	(998.09)
5035 Vehicle Maintenance	0.00	833.37	(833.37)	8,218.97	10,000.00	(1,781.03)
5036 Fuel	788.00	1,250.00	(462.00)	11,711.64	15,000.00	(3,288.36)
5040 Equipment Rental	0.00	500.00	(500.00)	0.00	500.00	(500.00)
5045 Insurance-Workers Compensatio	0.00	0.00	0.00	9,544.57	12,000.00	(2,455.43)
5046 Insurance-Liability	1,211.17	1,333.37	(122.20)	14,285.01	16,000.00	(1,714.99)
5048 Insurance-Property	144.50	208.37	(63.87)	1,766.53	2,500.00	(733.47)
5049 Insurance-Medical	6,743.76	6,375.00	368.76	77,370.20	76,500.00	870.20
6000 Engineering Services	0.00	3,958.37	(3,958.37)	4,770.00	47,500.00	(42,730.00)
6005 Watermaster Services	880.83	1,000.00	(119.17)	10,740.48	12,000.00	(1,259.52)
6015 Administrative Salary	11,489.02	11,666.63	(177.61)	134,291.48	140,000.00	(5,708.52)
6017 Administrative Travel	33.41	250.00	(216.59)	1,399.33	3,000.00	(1,600.67)
6020 Board Compensation	400.00	466.63	(66.63)	5,000.00	5,600.00	(600.00)
6021 Administrative & Board Expens	0.00	83.37	(83.37)	0.00	1,000.00	(1,000.00)
6022 Board of Directors Election	0.00	12,400.00	(12,400.00)	81.28	12,500.00	(12,418.72)
6024 Customer/Public Info. Prog.	0.00	166.63	(166.63)	1,688.06	2,000.00	(311.94)
6025 PERS - KID	2,466.71	2,062.50	404.21	27,756.27	24,750.00	3,006.27
6030 Social Security - KID	2,007.26	2,145.87	(138.61)	24,807.39	25,750.00	(942.61)
6031 Medicare - KID	505.02	516.63	(11.61)	5,837.31	6,200.00	(362.69)
6035 Office/Computer Supplies	642.62	583.37	59.25	6,406.21	7,000.00	(593.79)
6036 Postage/Delivery	250.00	416.63	(166.63)	2,883.46	5,000.00	(2,116.54)
6040 Professional Dues	863.66	1,000.00	(136.34)	10,644.00	12,000.00	(1,356.00)
6045 Legal Services	3,105.00	1,250.00	1,855.00	8,425.29	15,000.00	(6,574.71)
6050 Telephone	362.12	375.00	(12.88)	4,275.69	4,500.00	(224.31)
6051 Mobile Telephone	108.32	125.00	(16.68)	919.93	1,500.00	(580.07)

Kinneloa Irrigation District
Income Statement for the Twelve Months Ending December 31, 2018

	Current Month Actual	Current Month Budget	Current Month Variance	Year to Date Actual	Year to Date Budget	Year to Date Variance
6052 Pagers	40.01	41.63	(1.62)	340.46	500.00	(159.54)
6053 Internet Service	59.99	83.37	(23.38)	1,204.96	1,000.00	204.96
6059 Computer Software Maintenance	0.00	750.00	(750.00)	14,832.25	9,000.00	5,832.25
6061 Office Equipment Maintenance	0.00	83.37	(83.37)	0.00	1,000.00	(1,000.00)
6065 Accounting Services	0.00	0.00	0.00	6,750.00	7,000.00	(250.00)
6070 Office & Accounting Labor	7,056.00	8,045.87	(989.87)	88,379.02	96,550.00	(8,170.98)
6075 Professional/Contract Services	2,123.63	1,916.63	207.00	28,996.19	23,000.00	5,996.19
6080 Administrative Fees	708.72	741.63	(32.91)	8,470.07	8,900.00	(429.93)
6081 Permits/Fees	293.00	1,250.00	(957.00)	7,307.92	15,000.00	(7,692.08)
6086 Taxes - Sales	0.00	0.00	0.00	84.00	500.00	(416.00)
6088 Interest Expense	0.00	0.00	0.00	71,289.66	71,348.00	(58.34)
6120 Bank Service Charges	569.67	541.63	28.04	6,545.70	6,500.00	45.70
Total Expenses	87,172.17	105,883.48	(18,711.31)	1,164,153.75	1,282,783.00	(118,629.25)
Net Income	50,085.10	18,533.26	31,551.84	579,986.75	212,217.00	367,769.75
Other Expenditures						
1511 WaterTreatment Plant	0.00	0.00	0.00	1,990.22	6,000.00	(4,009.78)
1512 Water Meters	706.28	0.00	706.28	16,157.83	4,500.00	11,657.83
1513 Electrical/Electronic Equip.	0.00	5,000.00	(5,000.00)	0.00	5,000.00	(5,000.00)
1514 Computer/Office Equipment	0.00	0.00	0.00	8,034.65	5,000.00	3,034.65
1515 Vehicles & Portable Equipment	0.00	40,000.00	(40,000.00)	0.00	40,000.00	(40,000.00)
1516 Water Company Facilities	0.00	10,000.00	(10,000.00)	0.00	10,000.00	(10,000.00)
1517 KID Office	0.00	0.00	0.00	538.44	0.00	538.44
1527 SCADA Equipment	0.00	0.00	0.00	29,852.82	11,000.00	18,852.82
1530 Tools	0.00	0.00	0.00	1,483.98	0.00	1,483.98
2400 Installment Purchase Agreement	0.00	0.00	0.00	128,912.30	128,854.00	58.30
Total Other Expenditures	706.28	55,000.00	(54,293.72)	186,970.24	210,354.00	(23,383.76)
Total Increase or (Drawdown)	49,378.82	(36,466.74)	85,845.56	393,016.51	1,863.00	391,153.51

Kinneloa Irrigation District
Balance Sheet as of December 31, 2018

ASSETS

Current Assets

1010	Checking-Wells Fargo Bank	\$ 776,920.77
1012	Reserve Fund-LAIF	122,547.67
1014	Reserve Fund-CalTRUST	1,163,766.81
1015	Unrealized Gain(Loss)-CalTRUST	12,607.83
1016	Accrued Interest-LAIF	1,151.22
1100	Accts. Receivable-Water Sales	50,041.17
1101	Accts. Receiv.-Service Charges	263.84
1190	Allowance for Bad Debts	(771.48)
1200	Inventory	20,000.00
1340	Accrued Water Sales	151,368.28
1350	Prepaid Insurance	9,720.48
1360	Prepaid Expenses	21,444.82

Total Current Assets

2,329,061.41

Property and Equipment

1501	Water Rights	52,060.41
1503	Land Sites	96,700.08
1504	Water Mains	3,584,517.77
1505	Water Tunnels	729,074.60
1506	K-3 Well	89,543.06
1507	Improvement District #1	602,778.12
1508	Mountain Property	6,620.00
1509	Wilcox Well/Wilcox Booster	94,030.98
1510	Interconnections	14,203.27
1511	WaterTreatment Plant	187,388.28
1512	Water Meters	104,486.33
1513	Electrical/Electronic Equip.	256,918.72
1514	Computer/Office Equipment	75,205.63
1515	Vehicles & Portable Equipment	242,548.91
1516	Water Company Facilities	70,422.20
1517	KID Office	54,741.36
1518	Shaw Ranch	280,789.92
1519	Dove Creek Project	487,383.87
1520	Glen Reservoir/Booster	24,190.86
1521	Kinneloa Ridge Project	690,492.58
1522	Eucalyptus Booster Station	532,342.43
1526	Vosburg Booster	1,647,215.66
1527	SCADA Equipment	307,897.92
1528	Tanks and Reservoirs	119,491.90
1529	Holly Tanks	181,113.76
1530	Tools	8,295.55
1600	Accum. Depreciation	(4,587,390.02)

Total Property and Equipment

5,953,064.15

Other Assets

1901	PERS-Deferred Outflows	21,181.00
------	------------------------	-----------

Total Assets

\$ 8,303,306.56

Kinneloa Irrigation District
Balance Sheet as of December 31, 2018

LIABILITIES AND CAPITAL

Current Liabilities

2000	Accounts Payable	\$ 30,488.90	
2272	Job Deposits	900.00	
2275	Deposits-Water Customers	255.02	
2290	Accrued Vacation	14,380.60	
	Total Current Liabilities		46,024.52

Long-Term Liabilities

2400	Installment Purchase Agreement	1,868,477.35	
2801	PERS- Net Liability	320,500.74	
2901	PERS- Deferred Inflows	83,822.00	
	Total Long-Term Liabilities		2,272,800.09
	Total Liabilities		2,318,824.61

Capital

3040	Fund Balance	5,404,495.20	
	Net Income	579,986.75	
	Total Capital		5,984,481.95
	Total Liabilities & Capital		\$ 8,303,306.56

Kinneloa Irrigation District
Statement of Cash Flow
For the Twelve Months Ended December 31, 2018

	Current Month	Year to Date
Cash Flows from Operating Activities		
Net Income	\$ 50,085.10	\$ 579,986.75
<i>Adjustments to reconcile net income to net cash provided by operating activities</i>		
1100 Accts. Receivable-Water Sales	(10,821.24)	(17,126.92)
1101 Accts. Receiv.-Service Charges	0.00	(263.84)
1340 Accrued Water Sales	18,643.37	39,172.65
1350 Prepaid Insurance	1,355.67	(216.46)
1360 Prepaid Expenses	(1,484.51)	748.50
2000 Accounts Payable	3,197.89	4,564.76
2272 Job Deposits	0.00	900.00
	10,891.18	27,778.69
Total Adjustments	10,891.18	27,778.69
Net Cash Provided by Operations	60,976.28	607,765.44
 Cash Flows from Investing Activities		
<i>Used for</i>		
1511 WaterTreatment Plant	0.00	(1,993.64)
1512 Water Meters	(706.28)	(16,157.83)
1514 Computer/Office Equipment	0.00	(8,034.65)
1517 KID Office	0.00	(538.44)
1527 SCADA Equipment	0.00	(29,852.82)
1530 Tools	0.00	(1,483.98)
	(706.28)	(58,061.36)
Net Cash Used in Investing	(706.28)	(58,061.36)
 Cash Flows from Financing Activities		
<i>Proceeds from</i>		
<i>Used for</i>		
2400 Installment Purchase Agreement	0.00	(128,912.30)
2801 PERS- Net Liability	(1,132.38)	(11,419.26)
	(1,132.38)	(140,331.56)
Net Cash Used in Financing	(1,132.38)	(140,331.56)
Net Increase (Decrease) in Cash	\$ 59,137.62	\$ 409,372.52
 Summary		
Cash Balance at End of Period	\$ 2,076,994.30	\$ 2,076,994.30
Cash Balance at Beg. of Period	(2,017,856.68)	(1,667,618.36)
Net Increase (Decrease) in Cash	\$ 59,137.62	\$ 409,375.94

Kinneloa Irrigation District
Check Register
For the Period from December 1, 2018 to December 31, 2018

Date	Check #	Payee	Amount	Description
12/15/18	EFT3704	Joel D. Bundy	1,296.68	salary
12/15/18	EFT3705	Christopher A. Burt	2,115.84	salary
12/15/18	EFT3706	Donna V. Eggehorn	1,266.65	salary
12/15/18	EFT3707	Brian L. Fry	1,774.67	salary
12/15/18	EFT3708	Melvin L. Matthews	3,982.72	salary
12/15/18	EFT3709	Juan R. Tello	1,266.65	salary
12/15/18	EFT3710	Automatic Data Processing, Inc.	93.42	ADP processing fee
12/15/18	EFT3711	Christopher A. Burt	150.00	salary
12/15/18	EFT3712	Automatic Data Processing, Inc.	4,327.61	payroll processing and employee withholdings
12/17/18	EFT3713	Automatic Data Processing, Inc.	112.28	ADP processing fee
12/17/18	EFT3714	American Messaging Services	40.01	pager service and replacement pager
12/17/18	EFT3715	Arco Gaspro Plus	788.00	truck fuel
12/17/18	EFT3716	Athens Services	196.07	trash pickup
12/17/18	EFT3717	CA Public Employees Ret. Sys.	4,843.09	KID and employee portion
12/17/18	EFT3718	Century Business Solutions	212.67	credit card discount fees
12/17/18	EFT3719	Pasadena Municipal Services	1,378.67	Wilcox well power
12/17/18	EFT3720	Southern California Edison Co.	8,151.39	Electricity for 11 sites + sites from Sept & Oct bill
12/17/18	EFT3721	Charter Communications	347.11	internet/phone
12/17/18	EFT3722	Umpqua Bank	1,926.68	credit card payment - see attached detail
12/17/18	EFT3723	VeriCheck, Inc.	43.69	echeck processing fees
12/17/18	EFT3724	CA Public Employees Ret. Sys.	1,132.38	unfunded liability-monthly payment
12/17/18	EFT3725	Century Business Solutions	15.00	Ebiz charge monthly fee
12/17/18	8973	ACWA/JPIA	7,443.98	KID and employee portion health benefits
12/17/18	8974	AmeriPride Services	66.51	shop rag service
12/17/18	8975	BrightView Landscape Services	1,490.00	landscape maintenance
12/17/18	8976	Byrd Industrial Electronics	1,283.31	Sage radio failure/repair SCADA added programs
12/17/18	8977	Consolidated Electrical Distributo	328.50	lighting for Vosburg warehouse
12/17/18	8978	Donna Eggehorn	20.66	mileage reimbursement
12/17/18	8979	Eurofins Eaton Analytical, Inc.	105.60	water sample analysis
12/17/18	8980	Foothill Municipal Water District	80.00	Ad sponsorship for T. Payne Found. Garden Tour
12/17/18	8981	Melvin L. Matthews	55.37	mileage reimbursement
12/17/18	8982	McMaster Carr	3,276.37	Storage & maintenance/repair supplies
12/17/18	8983	Perry Thomas Construction Co.	6,416.41	Street patching, Clarmeya main repair
12/17/18	8984	Red Supply	35.48	maintenance supplies
12/17/18	8985	Ultimate Cleaning Solutions, Inc.	75.00	janitorial service
12/17/18	8986	Underground Service Alert	64.45	digalert
12/17/18	8987	Utility Service Co., Inc.	4,877.18	tank maintenance agreements
12/17/18	8988	Western Water Works	186.43	4 inch repair clamp/7.5 inches long
12/17/18	8989	Foothill Municipal Water District	708.72	administrative fee
12/17/18	8990	McMaster Carr	969.62	Storage & maintenance/repair supplies

Kinneloa Irrigation District
Check Register
For the Period from December 1, 2018 to December 31, 2018

Date	Check #	Payee	Amount	Description
12/17/18	8991	Perry Thomas Construction Co.	2,288.82	Clarmeya main and OGR service leak repairs
12/17/18	8992	Western Water Works	1,388.02	Cla-Val replacement pilot valve
12/31/18	EFT3726	Joel D. Bundy	1,418.77	salary
12/31/18	EFT3727	Christopher A. Burt	2,994.50	salary
12/31/18	EFT3728	Donna V. Eggehorn	1,379.88	salary
12/31/18	EFT3729	Timothy J. Eldridge	92.35	salary
12/31/18	EFT3730	Brian L. Fry	1,988.58	salary
12/31/18	EFT3731	Francis J. Griffith	92.35	salary
12/31/18	EFT3732	Gerrie G. Kilburn	92.35	salary
12/31/18	EFT3733	Melvin L. Matthews	3,852.47	salary
12/31/18	EFT3734	Arthur W. Opel	92.35	salary
12/31/18	EFT3735	Juan R. Tello	1,379.88	salary
12/31/18	EFT3736	Automatic Data Processing, Inc.	92.41	ADP processing fee
12/31/18	EFT3737	Christopher A. Burt	150.00	salary
12/31/18	EFT3738	Automatic Data Processing, Inc.	5,395.87	payroll processing and employee withholdings
Total			<u>85,643.47</u>	

**Credit Card Detail Umpqua Bank
NOVEMBER 2018**

(Expenses incurred/billed in November and due/paid in December)

Acct. No.	Account Description	Additional Description	MLM	CAB	BLF	JDB	TOTAL
1514	Computer/Office Equip.						
1517	KID Office						
1530	Tools						
5010	Maintenance Supplies	blocks for Glen Resv; blocks for Glen Chlorinator		\$10.84	\$25.30		\$36.14
5012	Safety Equipment	work shirts				\$33.30	\$33.30
5022	Training/Certification						
5025	Water Treatment/Analysis	acid; salt crystals		\$30.09	\$52.49	\$774.84	\$857.42
5034	Equipment Maintenance						
5035	Vehicle Maintenance						
5036	Fuel						
6017	Adm. Travel						
6021	Adm. & Bd. Exp.						
6035	Office/Computer Supplies	ink cartridges; pens, statement paper, calendar, cups	\$554.81			\$87.81	\$642.62
6036	Postage/Delivery	stamps				\$250.00	\$250.00
6040	Professional Dues						
6050	Telephone	answering service	\$75.00				\$75.00
6051	Mobile Phone	phone case for Chris		\$32.20			\$32.20
6053	Internet Service						
6059	Computer/Software Maint.						
6061	Office Equipment Maint.						
6075	Outside Services						
6081	Permits/Fees						
TOTAL			\$629.81	\$73.13	\$77.79	\$1,145.95	\$1,926.68

General Manager's Report for the Board of Directors Meeting on January 15, 2019

I. Customer Account Information and Internet Usage

A. Delinquent Accounts –

- 18 accounts received past-due notice
- 18 accounts received late charges in the total amount of \$267.01
- 6 accounts received door hanger shut off notice
- 1 account was shut off for non-payment
- 1 account remains shut off for non-payment

B. Aged Receivables –

Month	Current	30 days	60 days	90 days or greater	Total
January	\$41,770.80	\$1,293.38	\$233.37	\$496.86	\$43,794.41
February	\$33,167.69	\$6,413.90	\$269.88	\$230.23	\$40,081.70
March	\$30,908.94	\$2,238.94	\$399.31	\$0.11	\$33,547.30
April	\$25,192.32	\$2,508.02	\$225.08	\$0.00	\$27,925.42
May	\$27,495.43	\$1,856.40	\$45.80	\$0.00	\$29,397.63
June	\$30,129.15	\$1,697.59	\$170.81	\$0.00	\$31,997.55
July	\$34,464.51	\$2,400.95	\$79.26	\$124.90	\$37,069.62
August	\$34,844.21	\$969.39	\$78.10	\$184.82	\$36,076.52
September	\$55,385.63	\$1,993.97	\$129.61	\$143.47	\$57,652.68
October	\$65,266.80	\$2,451.15	\$138.55	\$0.00	\$67,856.50
November	\$36,606.55	\$2,537.56	\$75.82	\$0.00	\$39,219.93
December	\$44,972.18	\$5,043.59	\$25.40	\$0.00	\$50,041.17

C. Internet Usage –

Month	Users	Page Views	Online Payments	Online Amount
January	145	413	60	\$17,554.59
February	173	631	62	\$12,719.98
March	175	592	84	\$16,947.45
April	211	534	51	\$9,282.52
May	146	482	60	\$14,244.39
June	203	469	53	\$13,053.28
July	147	350	59	\$13,409.95
August	227	595	60	\$17,688.78
September	161	397	63	\$18,216.22
October	241	558	65	\$18,862.58
November	173	376	63	\$15,364.46
December	209	422	63	\$13,812.03
Year to Date	2,211	5,819	743	\$181,156.23

II. General Manager's Projects and Activities

A. **Fire Hydrant Project** – I compiled the information for this agenda item.

B. **Employee Benefits** – I prepared information for discussion on this agenda item.

C. Activities/Meetings/Webinars/Conferences

Subject or Organization	Location	Start	End	Purpose/Notes/Action/Benefit
Staff Meetings	Office	Mondays 9:00 AM	Mondays 10:00 AM	<ul style="list-style-type: none"> • Tasks for the week • Projects -- current and future • Safety topic • Customer service update • Operations update • GM update
RBMB	Azusa	Tue 12/4/18 12:00 PM	Tue 12/4/18 2:00 PM	<ul style="list-style-type: none"> • Pasadena Subarea replenishment alternatives
EFCN	Webinar	Thu 12/6/18 10:00 AM	Thu 12/6/18 12:00 PM	<ul style="list-style-type: none"> • Using Rebates to Reduce Water System Energy Costs
PWAG	Pasadena	Mon 12/10/18 10:00 AM	Mon 12/10/18 11:00 AM	<ul style="list-style-type: none"> • Incorporation task force meeting
FMWD	La Cañada	Wed 12/12/18 10:00 AM	Wed 12/12/18 11:00 AM	<ul style="list-style-type: none"> • Managers Meeting • Presentation on FirstNet mobile system for first responders
FMWD	La Cañada	Mon 12/17/2018 3:00 PM	Mon 12/17/2018 5:00 PM	<ul style="list-style-type: none"> • Regular board meeting
KID Board Meeting	Office	Tue 12/18/2018 3:00 PM	Tue 12/18/2018 5:00 PM	<ul style="list-style-type: none"> • Regular board meeting • Public hearing

III. System and Facility Activities and Incident Reports

A. Water Leak/Water Waste/Water Quality/Customer Contact

Location	Type	Date	Description
Clarmeya lane	Water Leak	12/13/2018	Customer requested leak check. No leak was observed by Brian/Juan upon test in field.

B. Facilities Improvement, Maintenance and Repair Projects

1. Glen Reservoir chlorinator system replacement project
2. Generator testing and maintenance
3. Operator training
4. Meter and transmitter maintenance and replacement
5. Water samples
6. Fuel generators and add storage preservative to drums
7. Lubricate all locks, door hinges
8. Weed clearance and tree trimming at facilities
9. Vehicle and equipment maintenance and testing

C. Water Samples and Test Results

Sample Date	Source or Distribution	Lab	Description	# of tests	Results*	Maximum Contaminant Level* (MCL)
01/09/18	Source	Weck	Title 22 fluoride	3	1.1-2.8 ppm	3ppm
01/09/18	Source	Weck	Title 22 nitrate	2	<MCL	10ppm
01/09/18	Source	Weck	Title 22 fluoride	2	1.6-2 ppm	3ppm
01/09/18	Source	Weck	Title 22 1,2,3 TCP	4	ND	80ppb
01/09/18	Source	Weck	Title 22 Gross Alpha	1	<MCL	15 pCi/L
01/10/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
01/10/18	Distribution	Clinical	fluoride	6	1.2-1.5 ppm	3ppm
01/10/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
01/23/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
01/31/18	Distribution	Eurofins	coliform, e. coli	16	ND or A	1 positive sample
02/01/18	Distribution	Eurofins	coliform, e. coli	16	ND or A	1 positive sample
02/06/18	Distribution	Clinical	color, odor, turbidity	6	<MCL	15 units, 3 units, 5 units
02/06/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
02/08/18	Distribution	Eurofins	coliform, e. coli	16	ND or A	1 positive sample
02/09/18	Distribution	Eurofins	coliform, e. coli	16	ND or A	1 positive sample
02/20/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
03/06/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
03/07/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
03/20/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
04/03/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
04/03/18	Distribution	Clinical	fluoride	6	1.2-1.6 ppm	3ppm
04/03/18	Both	Eurofins	coliform, e. coli	80	ND or A	1 positive sample
04/17/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
04/17/18	Source	Weck	Title 22 VOC	340	ND or A	1 positive sample
04/17/18	Source	Weck	Title 22 fluoride	5	1.2-2.8	3ppm
04/17/18	Source	Weck	Title 22 nitrate	5	0.68-4.5	10ppm
05/01/18	Distribution	Eurofins	coliform, e. coli	16	ND or A	1 positive sample
05/02/18	Distribution	Eurofins	coliform, e. coli	16	ND or A	1 positive sample
05/08/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
05/09/18	Distribution	Clinical	color, odor, turbidity	6	<MCL	15 units, 3 units, 5 units
05/22/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
06/05/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
06/06/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
06/19/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
07/10/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
07/10/18	Distribution	Clinical	fluoride	6	1.2-1.6 ppm	3ppm
07/10/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
07/24/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
08/21/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
08/27/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
08/27/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
09/04/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
09/05/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
09/18/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
09/25/18	Both	Eurofins	coliform, e. coli	8	ND or A	1 positive sample
10/02/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
10/02/18	Distribution	Clinical	fluoride	6	1.2-1.5 ppm	3ppm
10/02/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
10/16/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
11/05/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
11/06/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
11/09/18	Both	Eurofins	coliform, e. coli	8	ND or A	1 positive sample
11/19/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample
12/03/18	Distribution	Clinical	color, odor, turbidity	18	<MCL	15 units, 3 units, 5 units
12/03/18	Both	Eurofins	coliform, e. coli	72	ND or A	1 positive sample
12/17/18	Both	Eurofins	coliform, e. coli	64	ND or A	1 positive sample

Total Tests

2314

*ppm = parts-per-million, ppb = parts-per-billion, pCi/L = picocuries per liter, <MCL = less than Maximum Contaminant Level, ND = not detected, A = Absence

IV. Water Supply Summary as of November 2018 for the Watermaster Year July 2018 through June 2019

Raymond Basin Groundwater (Acre Feet)		Kinneloa Irrigation District Water Tunnels (Acre Feet)	
Water Rights	516	Eucalyptus	4
Prior Year Carryover	52	Far Mesa	3
Less Temporary 30% Reduction in Water Rights	-155	Delores	0
Leases/Exchanges		House	0
Prior Year Spreading	65	Holly High/Low	3
Short Term Storage	145		
Current Year Spreading	0		
Total Allowable Extractions	623		
Less Water Extracted YTD This Watermaster Year	-398	Current Tunnel Monthly Production	10
Remaining Allowable Groundwater Extractions through June 2019	225	Remaining Estimated Tunnel Production through June 2019	70
Total Available Water Supply (Remaining Allowable Groundwater + Remaining Estimated Tunnel Production through June 2019)		295 Acre Feet	
Less Remaining Forecasted Retail Water Sales through June 2019		302 Acre Feet	

**Surplus Water through June 2019* -7 Acre Feet
(The KID will lease 207 Acre Feet before end of Watermaster year)**

* This is the forecasted surplus water available for sale in the current year and/or carryover to the next Watermaster year which starts on July 1 subject to the carryover limits established by the Raymond Basin Management Board. Regarding the available surplus water, we will generally maximize the carryover to the next year and deliver the balance of the forecasted surplus water (if any) to the City of Pasadena. In the 2017-2018 year, 87 Acre-Feet were sold to the City, 52 Acre-Feet were carried over to 2018-2019 and 145 Acre-Feet were put into our short-term storage account. Although we may lease additional pumping rights from another agency with surplus pumping rights, this is not considered a guaranteed source of supply since it is subject to negotiation. In addition to the available water, the KID has 790 Acre Feet in a long-term storage account. Additions to long-term storage are no longer permitted but withdrawals can be made at any time to supplement allowable extractions. However, since long-term storage is considered by KID staff to be an emergency supply we do not plan to use or sell this water now.

MANAGEMENT REPORT FOR 2017-2018



12/18/2018

Kinneloa Irrigation District

Prepared by Melvin L. Matthews, General Manager

MANAGEMENT REPORT FOR 2017-2018

SUMMARY OF PRODUCTION SOURCES, CUSTOMER SALES, RAINFALL, POWER COSTS, LONG AND SHORT-TERM STORAGE AND ACTIVITIES AND INITIATIVES FOR THE YEAR OF 2017- 2018, JULY THROUGH JUNE

Production

The Kinneloa Irrigation District (KID) produced 822.1 acre-feet from our wells and tunnels during this period as shown in Figure 1B. 734.9 acre-feet was produced for our retail customers and 87.2 acre-feet was produced for delivery to the City of Pasadena. Water production for our retail customers was 17.3% greater than the 626.5 acre-feet produced for retail customers last year. Figures 1A & 1B include data for all production sources from 1994-1995 through 2017-2018 as well as for surface water and ground water which is diverted from our system for which we receive a spreading credit. Figure 2 shows total production from the KID wells and tunnels. This year our wells produced approximately 85% of the water and the tunnels produced 15% of the water. Tunnel production level is dependent on rainfall in the current and previous years and has ranged from a high of 530.1 acre-feet in 2005-2006 to a low of 112.4 acre-feet in 2015-2016. The tunnel production for 2017-2018 was significantly below the 24-year average of 246.5 acre-feet. Figure 3 is a pie chart showing the percentage of total production by source.

Sales

Total sales to retail customers were 628.4 acre-feet as shown in Figure 4. The average monthly sales of water during the year from 1994-1995 to 2017-2018 are shown in Figure 5. Peak sales are usually in the July through October period and minimum sales usually occur in December through March period. Weather conditions in a year can cause these periods to shift and can drastically affect the total sales for the year. The rainfall this year was below the average rainfall and it is uncertain whether the six-year drought has ended. Figure 6 shows an analysis of the distribution of monthly water usage per customer for the month of June in the five years from 2012 to 2018. June was chosen for this analysis because it represents average monthly water usage for the year. The data shows the percentage of our customers with usage of 10 units or less per month in June 2018 was 23.4% as compared to 21.8% in June 2017; usage between 11 and 50 units per month in June 2018 was 46.9% as compared to 42.8% in June 2017; usage between 51 and 100 units per month in June 2018 was 23.2% as compared to 25.1% in June 2017; usage more than 100 units per month in June 2018 was 6.4% as compared to 10.3% in June 2017. Each unit is equivalent to one hundred cubic feet (CCF) or 748 gallons. This usage pattern has been relatively constant over the past seven years but this year there was a greater percentage of customers in the two lower ranges of usage.

Water Use Efficiency

The KID has extensively promoted measures to increase water use efficiency over the past twelve years and has participated in rebate programs to provide incentives to our customers to reduce water usage. Although the usage was up substantially in 2017-2018 as compared to 2016-2017, the data indicates a 26% decrease in usage as compared to the base year of 2006-2007

when water use efficiency became a mandate from the State and a priority for the KID. The 2017-2018 usage is 9% lower than the 24-year average of 690.5 acre-feet. However, it is too soon to know whether there has been permanent reduction in water usage due to state regulations, our water conservation program or the extensive media coverage during the drought and the current media encouraging water use efficiency. A comparison of total water sales for January 2013 through June 2018 is shown in Figure 7. The percentage reduction for the calendar year of 2017 as compared to 2013 was 16%.

Non-Revenue Water Use and Water Loss

The difference between the water produced and water sold (which is the water loss for the system) was 106.5 acre-feet or 14.5% as shown in Figure 1B. The loss is attributed to system leaks, main flushing for water quality purposes, fire flow tests, unmetered water used for various other purposes, normal operational procedures at KID facilities and water meter inaccuracies. This loss is greater than the 24-year average of 77.6 acre-feet or 10.2%. A water loss of less than 10% is excellent by industry standards. The reason for the increase as compared to 2016-2017 was not attributed to any specific cause.

Rainfall

Rainfall for 2017-2018 was 10.3 inches as shown in Figures 1B and Figure 8 as compared to 24.1 inches in the previous year and the 24-year average of 20.8 inches. Whether this is an indication of the continuation of the previous six-year drought is uncertain. Nevertheless, it will take multiple years of above-average rainfall before there is a significant recovery of tunnel production and spreading credits. The KID continues to lease additional pumping rights from other agencies to offset this decline and to meet customer demand, but this supplemental production source is not guaranteed and an increase in water-use efficiency may be needed to offset the loss of available water for production.

Power Cost

Figure 9 shows the total cost and the power cost per acre-foot of total production for 2017-2018. Since most of our power consumption is for pumping, it is also an approximate indirect measure of production efficiency. However, it should be noted that this indicator does not consider the percentage of well production vs. tunnel production nor does it consider rising electricity rates. In years of high tunnel production, less water is pumped from our wells saving us considerable power cost.

Although electricity rates have increased over the years, we have been able to mitigate most of the increases by participating in various time-of-use and interruptible power programs that restrict our use of power to non-peak hours in exchange for lower rates. We have also installed higher-efficiency motors when equipment has been replaced. The net effect has been to stabilize our power costs. The 2017-2018 cost was \$143 per acre-foot of total production as compared to \$173 per acre-foot for the previous year and the 24-year average of \$111 per acre-foot. Even though we will continue to take advantage of cost-reduction programs, it will be more difficult to maintain our current cost especially considering the announced rate increases and the mandated switch to more “green” power in the years ahead.

Long-Term Storage

The Raymond Basin Management Board (RBMB) established a long-term storage program to cover situations such as prolonged drought or unusually high demand that might lead to over

pumping of our water rights in the current year. This program is the equivalent of a savings account for surplus water. The KID activated our long-term storage account for the first time in 2004-2005 by adding 327 acre-feet of surplus water as shown in Figure 1A. The following year we added additional storage to bring the account to 848 acre-feet. Some of this storage was used in 2006-2007 to support our water sales to the City of Pasadena so the remaining storage at the end of 2006-2007 was 729 acre-feet. The net addition to our long-term storage in 2007-2008 was 69 acre-feet and the total was 798 acre-feet at the end of that year. Due to declining water levels in the Raymond Basin, the RBMB voted to suspend the program and freeze the total at the end of the 2008-2009 year.

The result of the additions and withdrawals, as shown in Figure 10, is that we still have 790 acre-feet in the account that may be used to offset any shortages in the future. We will not be able to add any surplus to the account unless the RBMB changes the policy. Our current plan is to use this water only if we are unable to lease temporary pumping rights at a reasonable cost or unable to acquire additional pumping rights from another Raymond Basin member. This additional water in storage is especially important to the KID considering that the RBMB has implemented a 30% reduction of our adjudicated pumping rights to address declining water levels in the basin. The RBMB will continue to monitor basin pumping levels to see if stabilization can be achieved without the injection of imported water or other recovery efforts. The Board could also approve elimination of the long-term storage program and KID could lose the ability to pump the 790 acre-feet in our account.

Short-Term Storage

The RBMB established a short-term storage program in 2016 for the Pasadena subarea for agencies with carryover rights of less than 300 acre-feet to allow operational flexibility and allow for better planning and utilization of leases, management of decreed rights and maximize beneficial use of spreading credits. The maximum amount of water is limited to 300 acre-feet and must be used within the time specified by the RBMB rules. The KID had 191 acre-feet in our account in 2017-2018 and this will be the first water pumped in 2018-2019 Watermaster year. If the combined balance of the 10% carryover rights and short-term storage exceeds 300 acre-feet on June 30th, the excess amount is deducted from short-term storage and lost for future pumping.

Production Issues

Figure 1B shows that the Wilcox Well only produced 2.7 acre-feet of water in 2017-2018 as compared with 272.4 acre-feet in the peak year of 1999-2000. The declining level in the Raymond Basin aquifer at this facility has caused a 50% reduction in the available operational flow rate from this well because the output needs to be restricted to prevent entrainment of air and damage to the pump. This operational necessity is inefficient from a power standpoint and relegates this well to emergency and supplemental supply uses only. This also means that the lost production is shifted to the K-3 Well which accounted for 85% of our total annual production in 2017-2018. A continued decline in basin levels could also affect the K-3 Well in future years and our increased dependence on a single production source diminishes production reliability.

The declining production from the KID's tunnels has also become a significant issue. Tunnel water is not counted in our adjudicated pumping rights and is our only source of low-cost supplemental water. Multiple years of above-average rainfall will be needed to increase the contribution to our total production from the current 15% to the more typical 25-50%. Nevertheless, continued maintenance of our tunnel sources is a high priority.

Supply Issues

The court-ordered adjudication of pumping rights in the Raymond Basin no longer matches the natural replenishment rate. The voluntary 30% pumping reduction in the Pasadena subarea has helped to reduce the rate of decline in the basin level, but the RBMB has not yet developed an external replenishment source. Therefore, additional water resources, conservation measures and reduced pumping are being considered to stabilize the basin level.

All water agencies in the area except for the KID purchase imported supplemental water from the Metropolitan Water District of Southern California (MWD) or through its wholesale distributor, Foothill Municipal Water District (FMWD). The KID has not needed to purchase imported water because our local tunnel water, adjudicated pumping rights, spreading credit and available leases have been enough to meet customer demand. However, our independence from imported water is not assured unless we are able to continue to lease or purchase unused pumping rights from other water agencies in the area. We will also continue to rely on our interconnections with the City of Pasadena for a water supply during system emergencies or for planned facility maintenance purposes, but that water must be returned to Pasadena as soon as possible after an event or purchased at the retail rate. The KID will continue to work with the FMWD to develop a long-term plan for supplemental water in case our ground water pumping rights are permanently reduced and leased or purchased pumping rights are no longer available. Since there is no pipeline from MWD or FMWD to the KID, a new connection would be needed, or an arrangement made with an adjacent water agency to wheel FMWD/MWD water through its pipelines to the KID. FMWD is the only source of supplemental water currently available to the KID.

Capital Improvement and Maintenance Projects

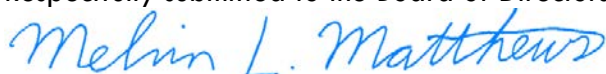
The KID continues to perform projects identified in the ***Water Master Plan for the Kinneloa Irrigation District*** and other planning documents to improve the District's emergency preparedness and operational performance. Fourteen major pipeline projects remain to be completed at the estimated cost of \$3,000,000. Although increased fire-flow capacity is the primary objective of these projects, other benefits include replacement of older portions of the distribution system that have reached the end of their useful life cycles. In addition, approximately \$1,000,000 in facility improvements and equipment are on the planning horizon.

Major maintenance and upgrade projects included repairs and improvements to our Supervisory Control and Data Acquisition (SCADA) System, upgrades to our automated meter reading equipment and software and replacement of our principal data computer that is used for our customer information and billing system.

Administrative Activities

The primary objectives of the General Manager beyond the general and financial management of the KID were to fill two vacant administrative positions and to develop a staff management plan and to prepare an organizational structure to effectively manage and provide continuity in future years. The office is now fully staffed and written procedures have been prepared for major office and customer service functions. The vacant field position has also been filled and this employee is being trained to assume full operational responsibilities soon.

Respectfully submitted to the Board of Directors,



Melvin L. Matthews, General Manager

Figure 1A

Data for Watermaster Year (July through June) 1994-1995 to 2008-2009

Production in Acre-Feet																
Source	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	
Wilcox Well	93.2	119.6	170.2	165.4	209.6	272.4	216.9	203.7	213.7	148.9	60.2	37.2	70.2	5.6	5.6	
K-3 Well	285.3	238.3	263.8	330.9	567.3	562.5	425.2	514.3	457.1	551.0	319.3	423.5	860.1	543.9	611.2	
Total Well	378.5	357.9	434.0	496.3	776.9	834.9	642.1	718.0	670.8	699.9	379.5	460.7	930.3	549.5	616.7	
Hi-Low Tunnel	71.3	217.0	177.2	146.6	143.1	132.6	111.1	86.0	57.6	59.8	125.6	171.9	131.0	107.6	89.2	
House Tunnel	37.8	43.9	35.4	33.1	41.1	31.5	26.2	21.5	16.7	12.7	12.6	44.9	26.5	20.6	12.8	
Eucalyptus Tunnel	56.5	64.9	62.6	58.7	62.4	54.0	44.3	38.6	29.5	41.5	50.0	50.4	44.6	43.2	39.1	
Delores Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	126.5	223.3	83.6	63.7	40.2	
Far Mesa Tunnel	73.6	69.1	67.7	68.3	78.9	74.1	56.7	52.0	47.7	45.6	68.2	39.6	13.1	48.6	42.9	
Total Tunnel	239.2	394.9	342.9	306.7	325.5	292.2	238.3	198.1	151.5	162.0	382.9	530.1	298.8	283.7	224.2	
Total Production	617.7	752.8	776.9	803.0	1102.4	1127.1	880.4	916.1	822.3	861.9	762.5	990.8	1229.0	833.2	840.9	
Deliveries from Pasadena	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.5	0.0	0.0	18.8	0.0	0.0	1.5	
Deliveries to Pasadena	0.0	0.0	0.0	-139.5	-325.8	-222.9	-64.1	-87.3	-61.7	0.0	0.0	-160.6	-321.8	0.0	-42.4	
Net Import/Export	0.0	0.0	0.0	-139.5	-325.8	-222.9	-64.1	-87.3	-30.2	0.0	0.0	-141.8	-321.8	0.0	-40.9	
Total Production for Retail Customers	617.7	752.8	776.9	663.5	776.6	904.2	816.3	828.8	792.1	861.9	762.5	849.0	907.2	833.2	800.0	
Diversions in Acre-Feet																
Source	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	
Hi-Low Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	
House Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	25.6	0.0	0.0	0.0	4.2	
Kinneloa Canyon	140.7	50.2	54.3	56.8	48.6	52.1	33.4	28.9	12.2	9.5	31.2	40.4	45.4	27.2	21.4	
Eucalyptus Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	
Brown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.9	16.7	0.0	0.0	0.0	
Eaton Wash Sub Total	140.7	50.2	54.3	56.8	48.6	52.1	33.4	28.9	38.0	9.5	81.7	57.2	45.4	27.2	25.6	
Delores Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.4	31.1	21.5	44.5	0.0	0.0	0.0	0.0	
Long Tunnel	35.8	37.2	39.2	39.2	38.9	37.7	38.1	38.0	36.0	35.3	46.8	44.7	37.4	36.0	34.3	
Far Mesa Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	30.2	42.5	0.0	0.0	
Glen Wash	429.3	396.3	262.5	321.3	359.1	174.8	156.7	52.7	26.7	28.1	933.9	161.4	74.0	56.7	59.0	
Tent Tunnel	5.1	5.5	5.4	5.3	5.8	3.4	2.4	2.3	2.1	2.0	3.2	3.5	2.9	2.5	2.1	
Pasadena Glen Sub Total	470.2	439.0	307.1	365.8	403.8	215.9	201.8	134.4	95.9	86.9	1028.5	239.8	156.7	95.2	95.4	
Sierra Madre Villa DB Outflow	-256.7	-32.8	-7.2	-33.7	0.0	0.0	0.0	0.0	0.0	0.0	-459.7	0.0	0.0	0.0	0.0	
Net Pasadena Glen Sub Total	213.5	406.2	299.9	332.1	403.8	215.9	201.8	134.4	95.9	86.9	568.8	239.8	156.7	95.2	95.4	
Total Diverted	354.2	456.4	354.2	388.9	452.4	268.0	235.2	163.3	133.9	96.4	650.5	297.0	202.1	122.4	121.0	
Other Data																
	1994-1995	1995-1996	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	
Rainfall (inches)	43.61	22.64	22.80	52.29	14.46	18.82	20.04	7.86	24.48	10.12	58.00	21.79	5.81	24.61	16.10	
Water Sales (Acre-Feet)	584.3	668.8	679.9	600.4	666.3	782.9	710.9	739.1	717.7	772.6	672.6	785.8	847.3	754.1	729.7	
Water Loss (Acre-Feet)	33.4	84.0	97.0	63.1	110.3	121.3	105.4	89.7	74.4	89.3	89.8	63.2	59.9	79.0	70.3	
Water Loss (%)	5.4	11.2	12.5	9.5	14.2	13.4	12.9	10.8	9.4	10.4	11.8	7.4	6.6	9.5	8.8	
RMBM Storage Account (Acre-Feet)											326.9	847.9	728.6	797.9	790.0	
Power (\$)	71,086	55,137	68,132	57,193	86,488	97,064	77,780	111,676	111,062	100,410	87,537	82,476	112,924	89,011	92,204	
Power (\$ per AF of Total Production)	115	73	88	71	78	86	88	122	135	116	115	83	92	107	110	

Figure 1B

Data for Watermaster Year (July through June) 2009-2010 to 2017-2018

Production in Acre-Feet										24 Year
Source	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average
Wilcox Well	7.3	7.1	9.5	57.6	11.5	8.7	8.3	5.1	2.7	87.9
K-3 Well	610.6	580.2	708.0	584.2	676.6	574.2	574.4	556.9	706.7	521.9
Total Well	617.8	587.3	717.5	641.9	688.0	582.9	582.7	562.0	709.4	609.8
Hi-Low Tunnel	80.1	98.8	94.3	53.5	36.2	40.2	36.7	40.9	33.5	97.6
House Tunnel	13.8	14.5	15.7	14.3	10.2	0.6	0.0	0.0	0.0	20.3
Eucalyptus Tunnel	37.4	39.8	40.5	40.7	41.5	40.0	39.4	39.0	48.1	46.1
Delores Tunnel	44.8	98.5	57.7	17.4	22.9	11.0	5.1	11.7	2.3	33.8
Far Mesa Tunnel	38.9	41.2	41.2	39.3	38.6	35.9	31.3	28.5	28.8	48.7
Total Tunnel	215.0	292.8	249.3	165.2	149.4	127.6	112.4	120.0	112.7	246.5
Total Production	832.9	880.0	966.8	807.0	837.4	710.5	695.2	682.0	822.1	856.3
Deliveries from Pasadena	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Deliveries to Pasadena	-105.1	-217.4	-239.0	-47.8	0.0	-9.0	-86.4	-55.5	-87.2	-94.7
Net Import/Export	-105.1	-217.4	-237.8	-47.8	0.0	-9.0	-86.4	-55.5	-87.2	-92.5
Total Production for Retail Customers	727.8	662.7	729.1	759.3	837.4	701.5	608.8	626.5	734.9	763.8
Diversions in Acre-Feet										24 Year
Source	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average
Hi-Low Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
House Tunnel	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.4
Kinneloa Canyon	21.2	37.8	37.8	35.6	27.7	30.4	30.6	33.0	16.8	38.5
Eucalyptus Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Brown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
Eaton Wash Sub Total	21.2	37.8	37.8	35.6	27.7	30.7	30.6	33.0	16.8	42.5
Delores Tunnel	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	5.8
Long Tunnel	33.8	39.8	38.4	34.4	29.9	28.5	27.7	33.9	32.7	36.4
Far Mesa Tunnel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
Glen Wash	45.1	188.0	88.7	89.2	73.1	55.6	52.5	60.5	30.0	174.0
Tent Tunnel	2.0	1.8	2.8	2.3	2.3	2.3	2.3	2.3	2.3	3.1
Pasadena Glen Sub Total	80.8	229.6	129.9	125.9	105.3	88.1	82.4	96.8	65.0	222.5
Sierra Madre Villa DB Outflow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-32.9
Net Pasadena Glen Sub Total	80.8	229.6	129.9	125.9	105.3	88.1	82.4	96.8	65.0	189.6
Total Diverted	102.1	267.4	167.7	161.4	133.0	118.8	113.0	129.7	81.8	232.1
Other Data										24 Year
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	Average
Rainfall (inches)	23.6	31.3	11.8	8.3	5.2	8.2	12.3	24.1	10.3	20.8
Water Sales (Acre-Feet)	771.0	590.8	654.9	696.2	805.1	642.7	502.6	568.8	628.4	690.5
Water Loss (Acre-Feet)	61.9	71.8	74.2	63.1	32.4	58.8	106.1	57.7	106.5	77.6
Water Loss (%)	8.5	10.8	10.2	8.3	3.9	8.4	17.4	9.2	14.5	10.2
RBMB Storage Account (Acre-Feet)	790.0	790.0	790.0	790.0	790.0	790.0	790.0	790.0	790.0	757.2
Power (\$)	92,700	92,700	93,964	105,248	113,611	114,917	103,595	117,767	117,767	93852.1
Power (\$ per AF of Total Production)	111	105	97	130	136	162	149	173	143	111.9

Figure 2
Total Production
July through June

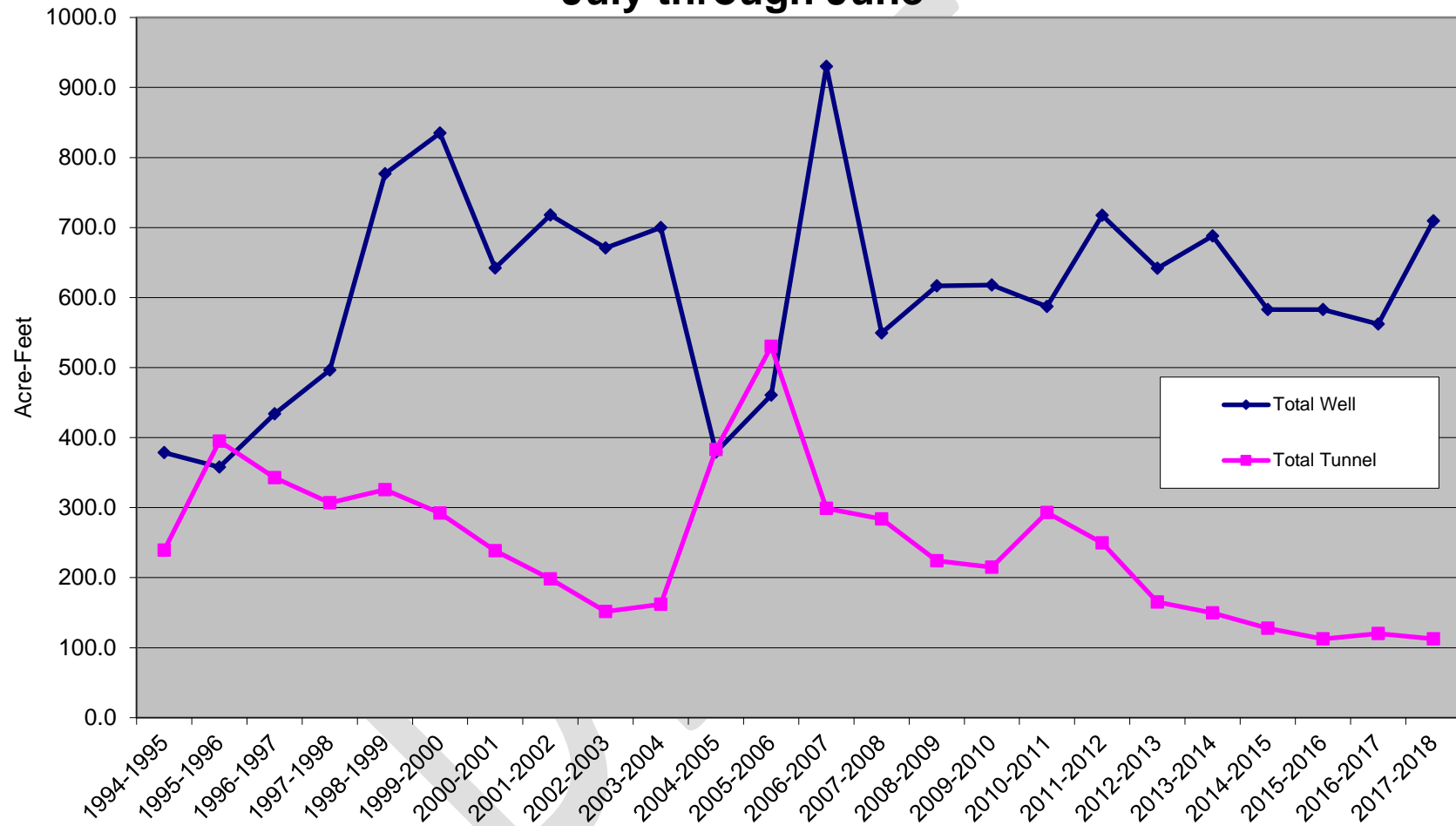


Figure 3
2017-2018 Production Sources
July through June

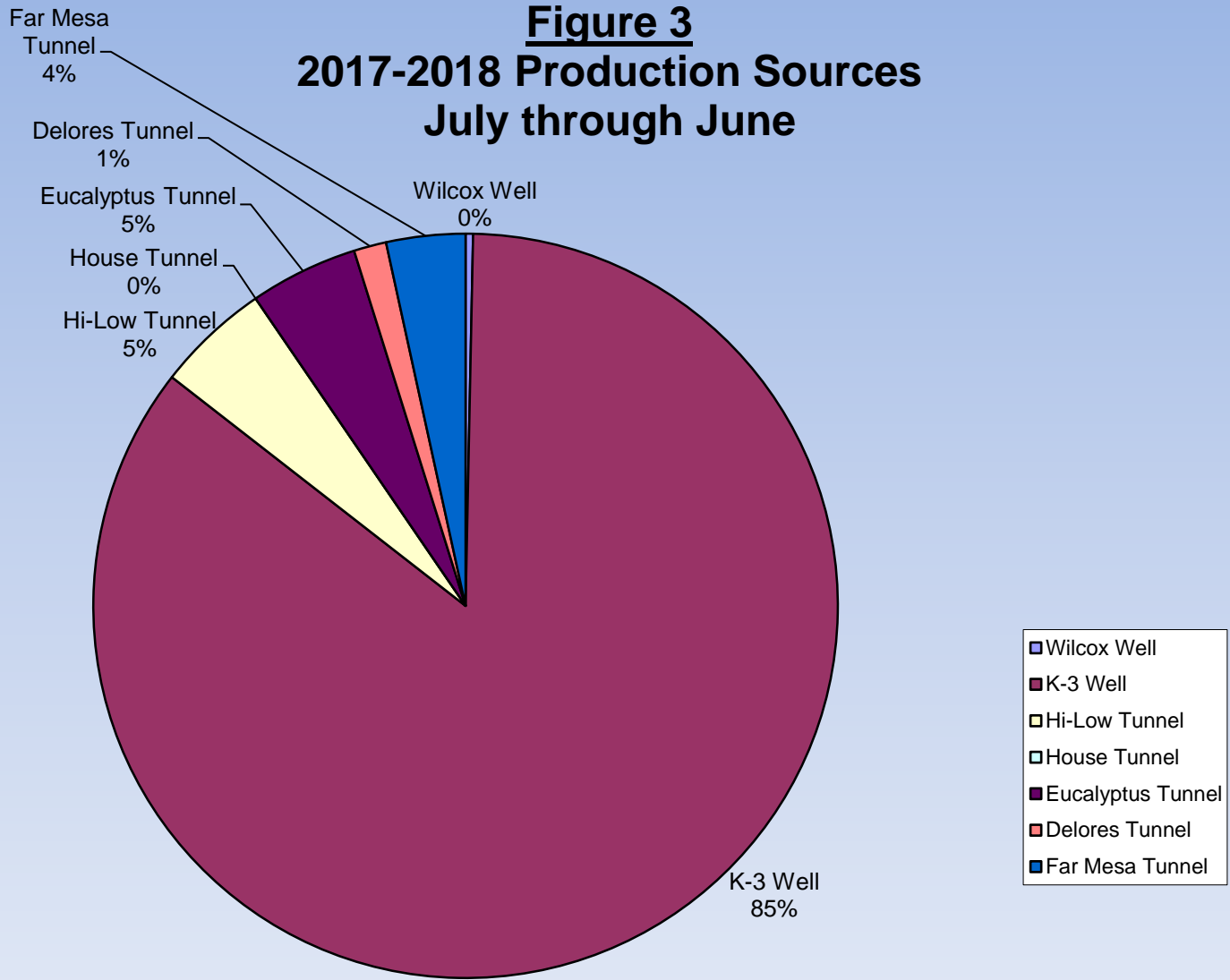
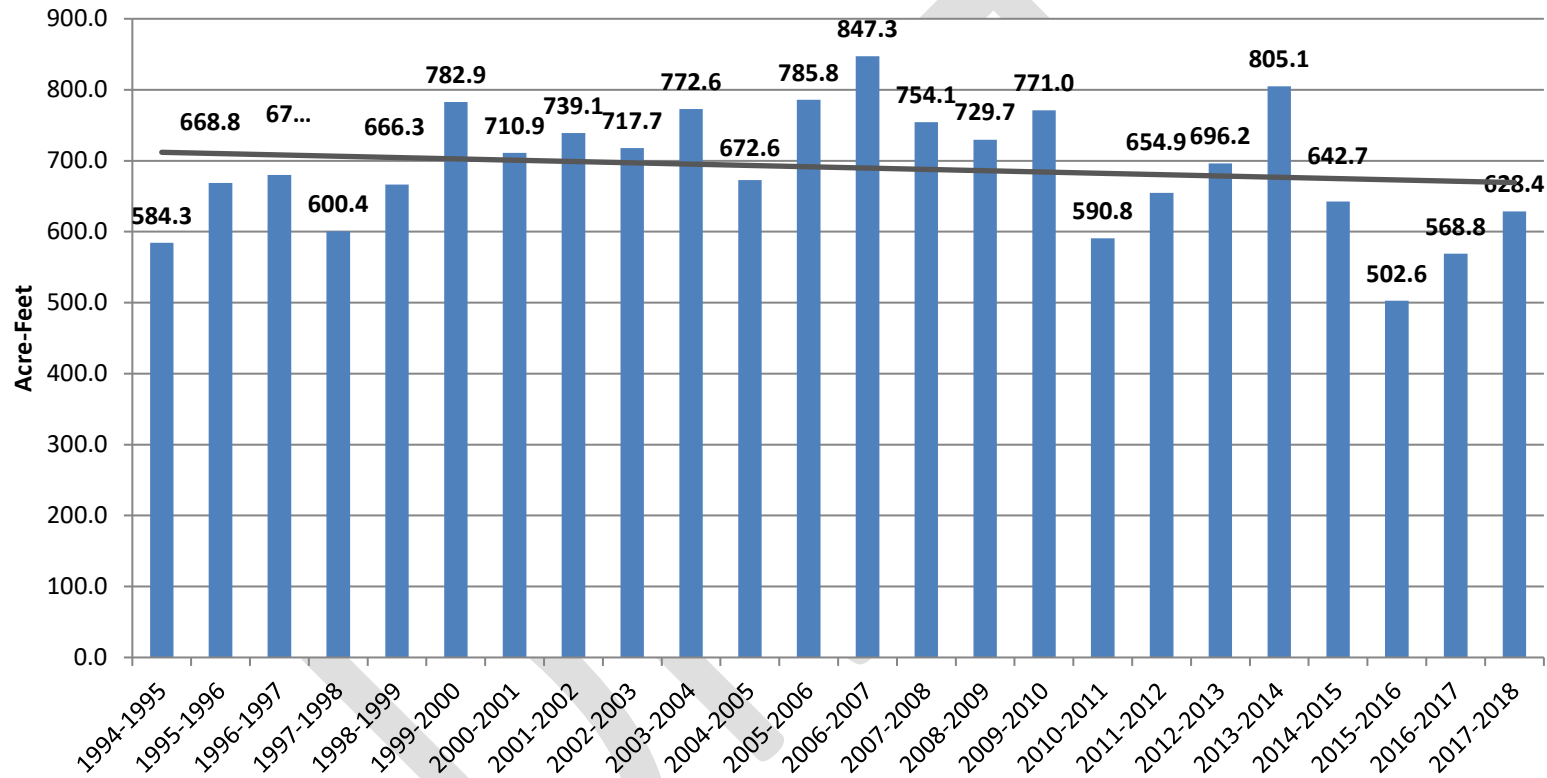


Figure 4
Annual Water Sales
July through June



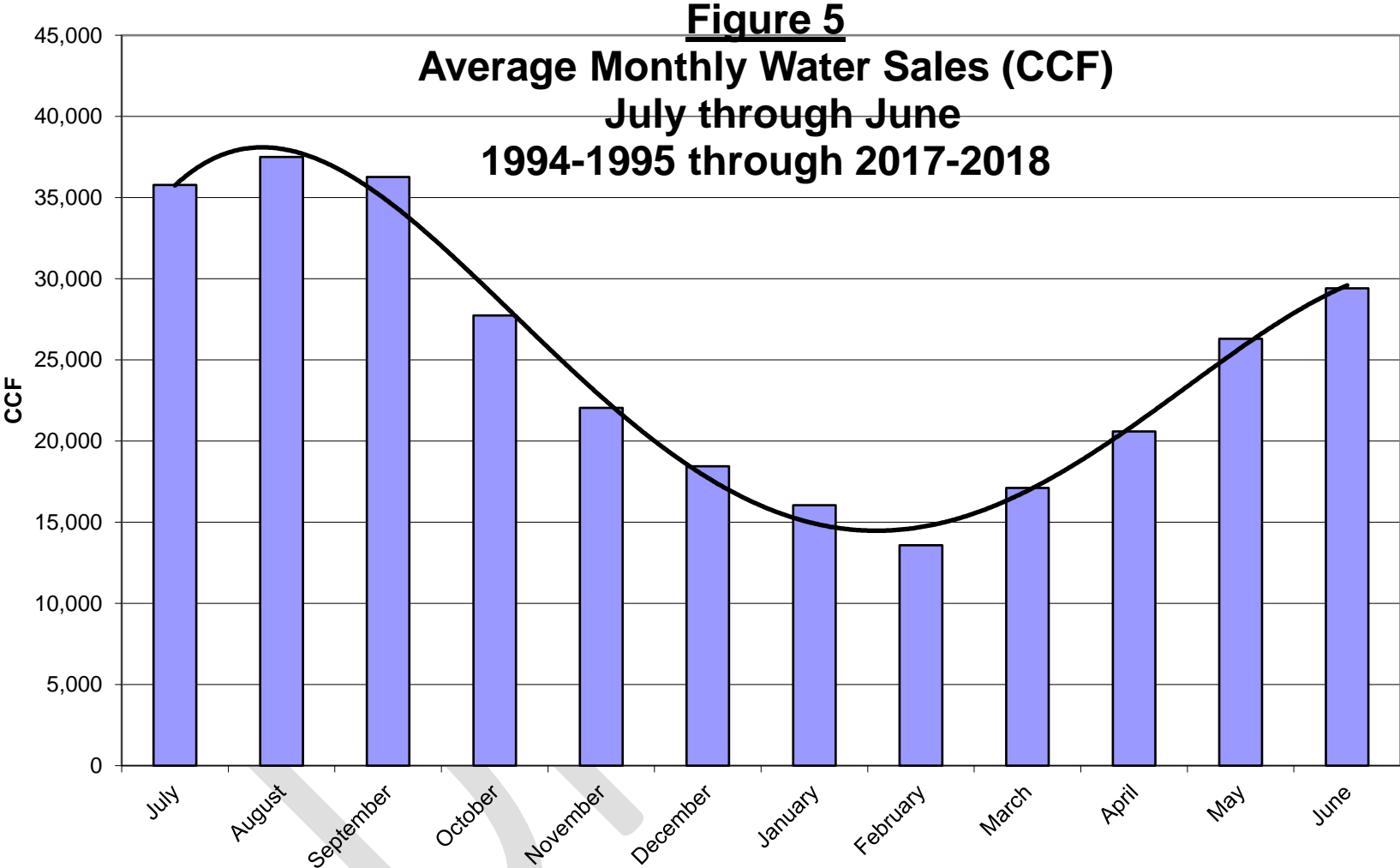


Figure 6
Water Usage per Customer

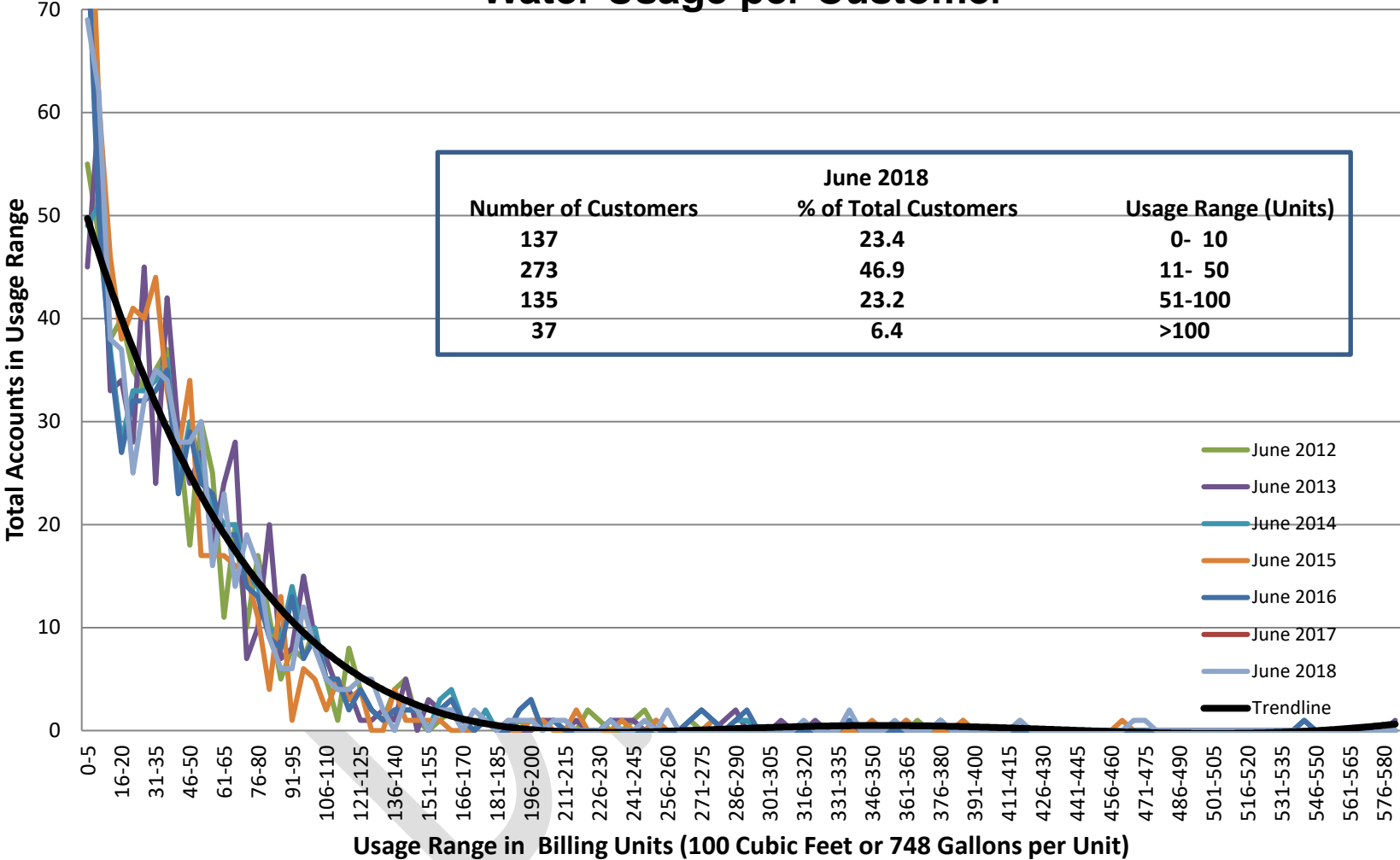
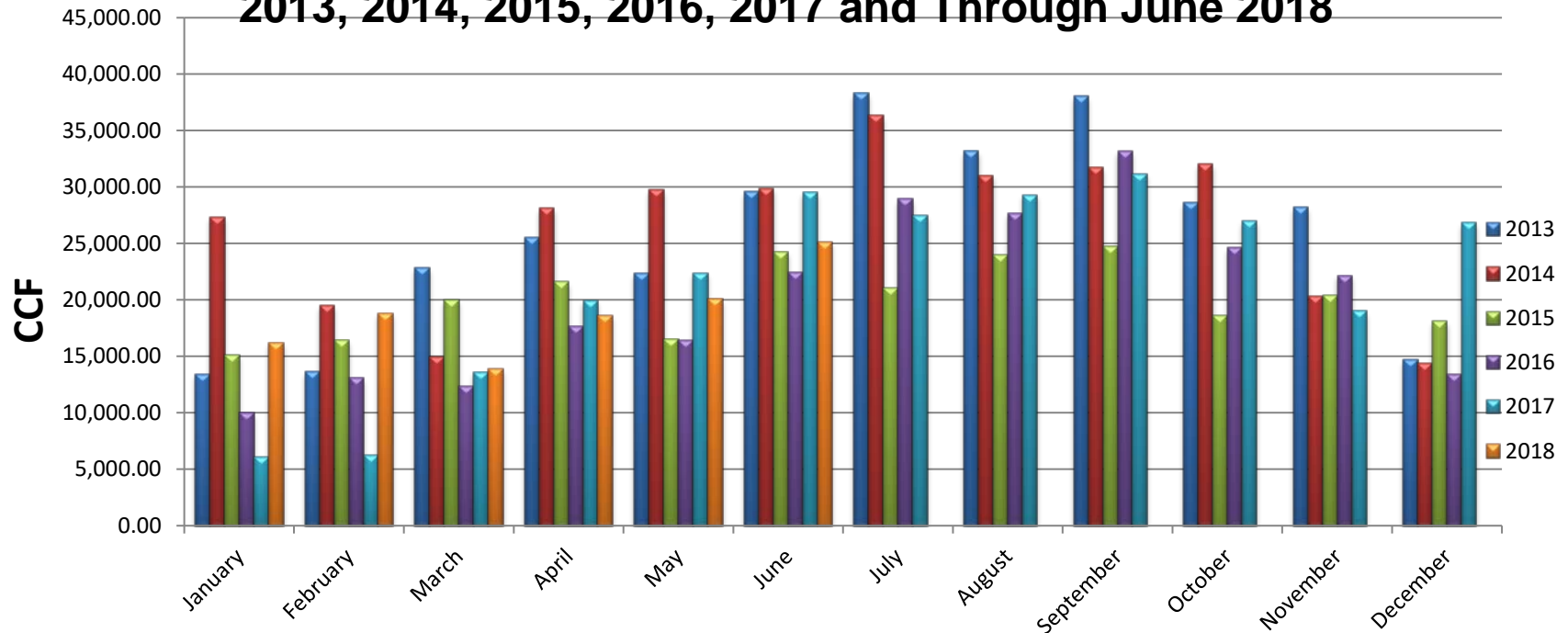


Figure 7
Total Monthly Water Sales
2013, 2014, 2015, 2016, 2017 and Through June 2018



Monthly Unit Sales and Conservation Percentage as Compared to the Previous Year

	2013	2014	%	2015	%	2016	%	2017	%	2018	%	2018 to 2013 Percentage
January	13,433.84	27,346.09	103.6%	15,139.14	-44.6%	9,976.03	-34.1%	6,087.44	-39.0%	16,209.81	166.3%	20.7%
February	13,647.60	19,531.19	43.1%	16,426.97	-15.9%	13,087.06	-20.3%	6,260.89	-52.2%	18,825.09	200.7%	37.9%
March	22,864.75	14,992.66	-34.4%	20,017.80	33.5%	12,329.17	-38.4%	13,607.67	10.4%	13,905.15	2.2%	-39.2%
April	25,580.22	28,144.68	10.0%	21,618.07	-23.2%	17,691.97	-18.2%	19,985.39	13.0%	18,676.28	-6.6%	-27.0%
May	22,344.18	29,731.87	33.1%	16,540.07	-44.4%	16,451.27	-0.5%	22,399.45	36.2%	20,065.74	-10.4%	-10.2%
June	29,605.73	29,878.35	0.9%	24,248.07	-18.8%	22,444.33	-7.4%	29,548.21	31.7%	25,095.13	-15.1%	-15.2%
July	38,314.11	36,366.62	-5.1%	21,045.33	-42.1%	28,938.82	37.5%	27,507.42	-4.9%			
August	33,199.17	31,022.84	-6.6%	24,001.09	-22.6%	27,685.37	15.4%	29,322.57	5.9%			
September	38,084.37	31,754.34	-16.6%	24,753.39	-22.0%	33,175.96	34.0%	31,192.59	-6.0%			
October	28,679.52	32,084.57	11.9%	18,597.68	-42.0%	24,632.13	32.4%	27,026.88	9.7%			
November	28,223.52	20,371.82	-27.8%	20,412.15	0.2%	22,153.05	8.5%	19,043.64	-14.0%			
December	14,695.84	14,383.35	-2.1%	18,124.47	26.0%	13,392.46	-26.1%	26,845.02	100.4%			
Total	308,672.85	315,608.38	2.2%	240,924.23	-23.7%	241,957.62	0.4%	258,827.17	7.0%	112,777.20		

Figure 8 Rainfall July through June

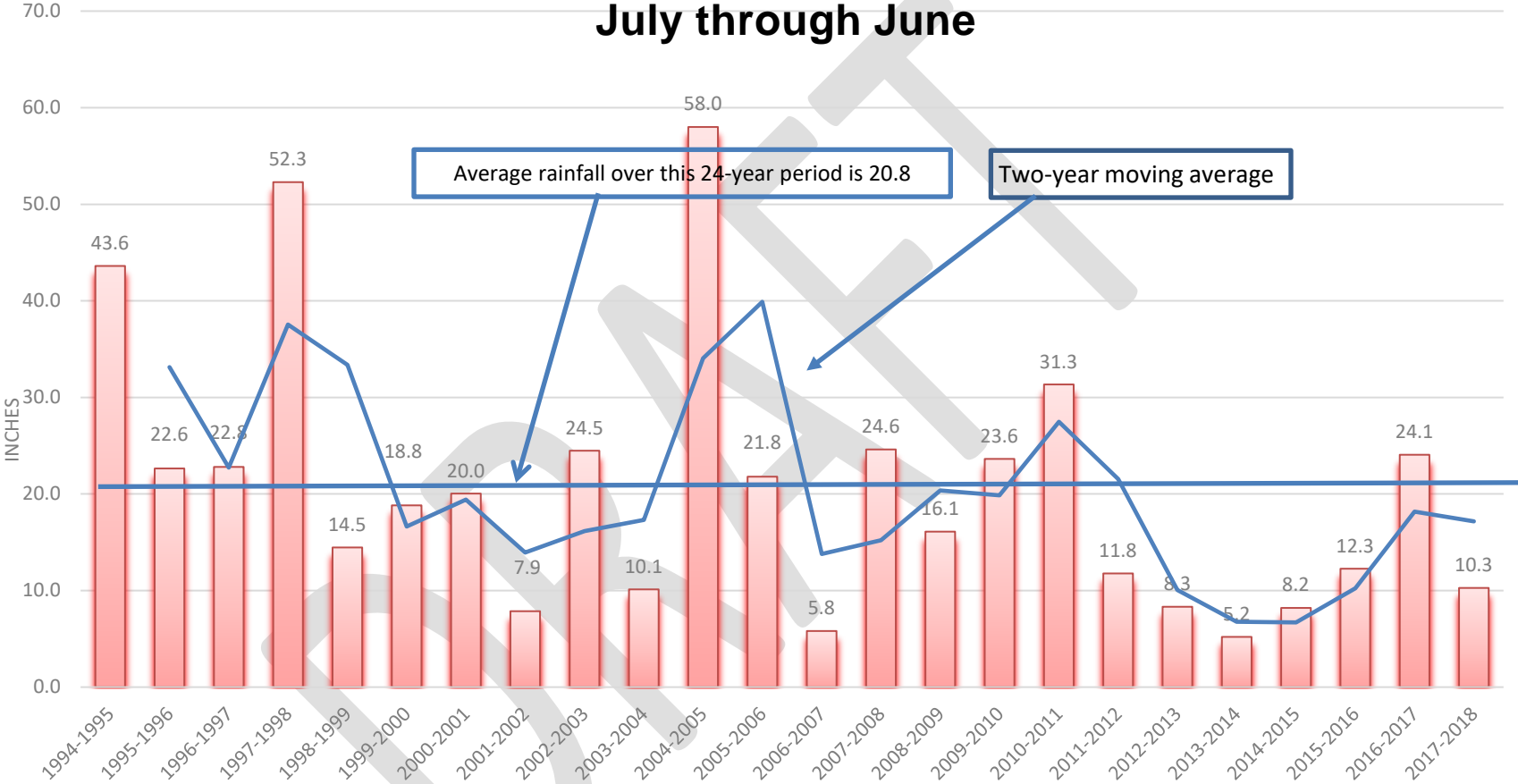


Figure 9
Power Cost in Dollars per Acre-Foot of
Total Production

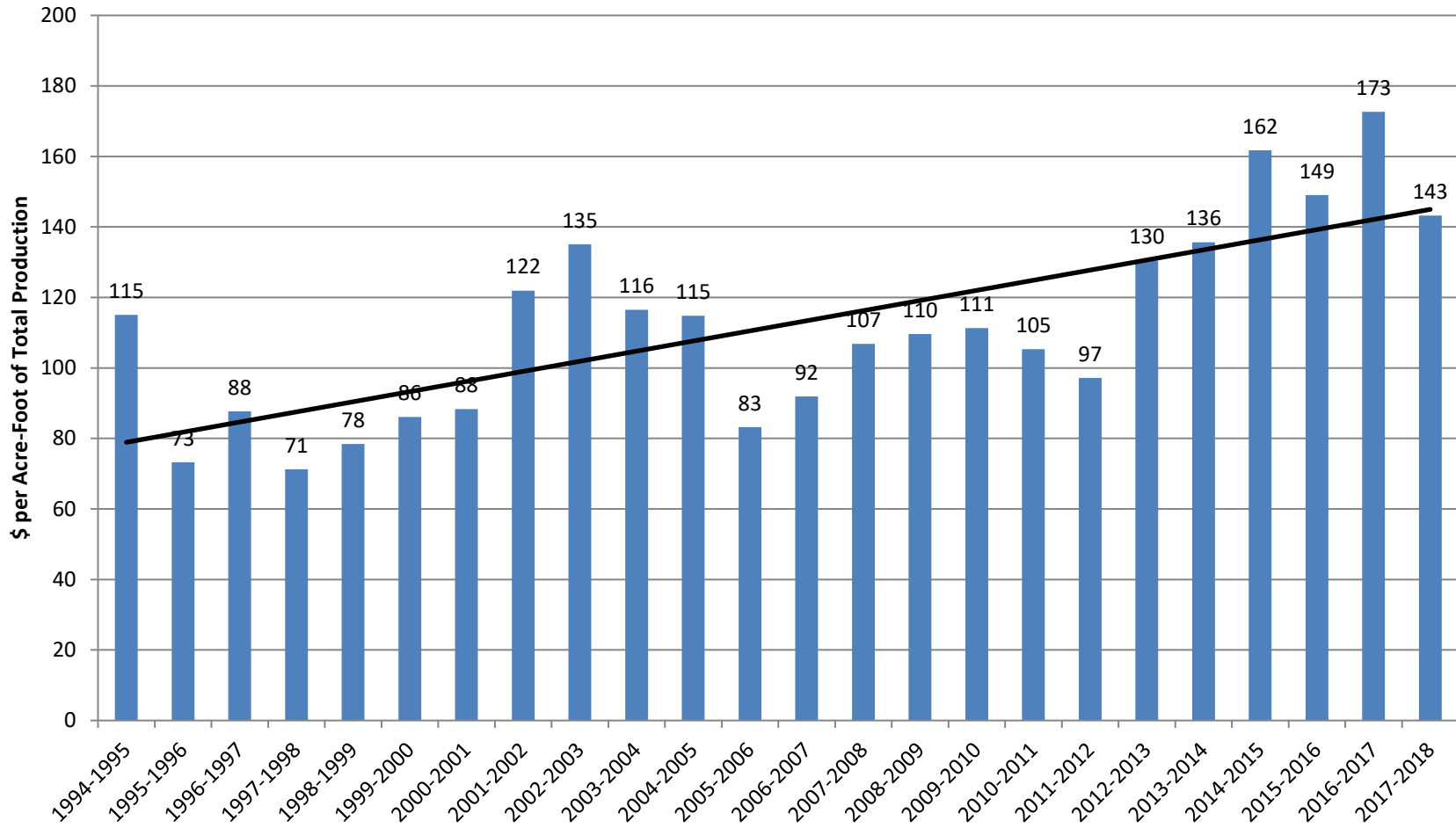
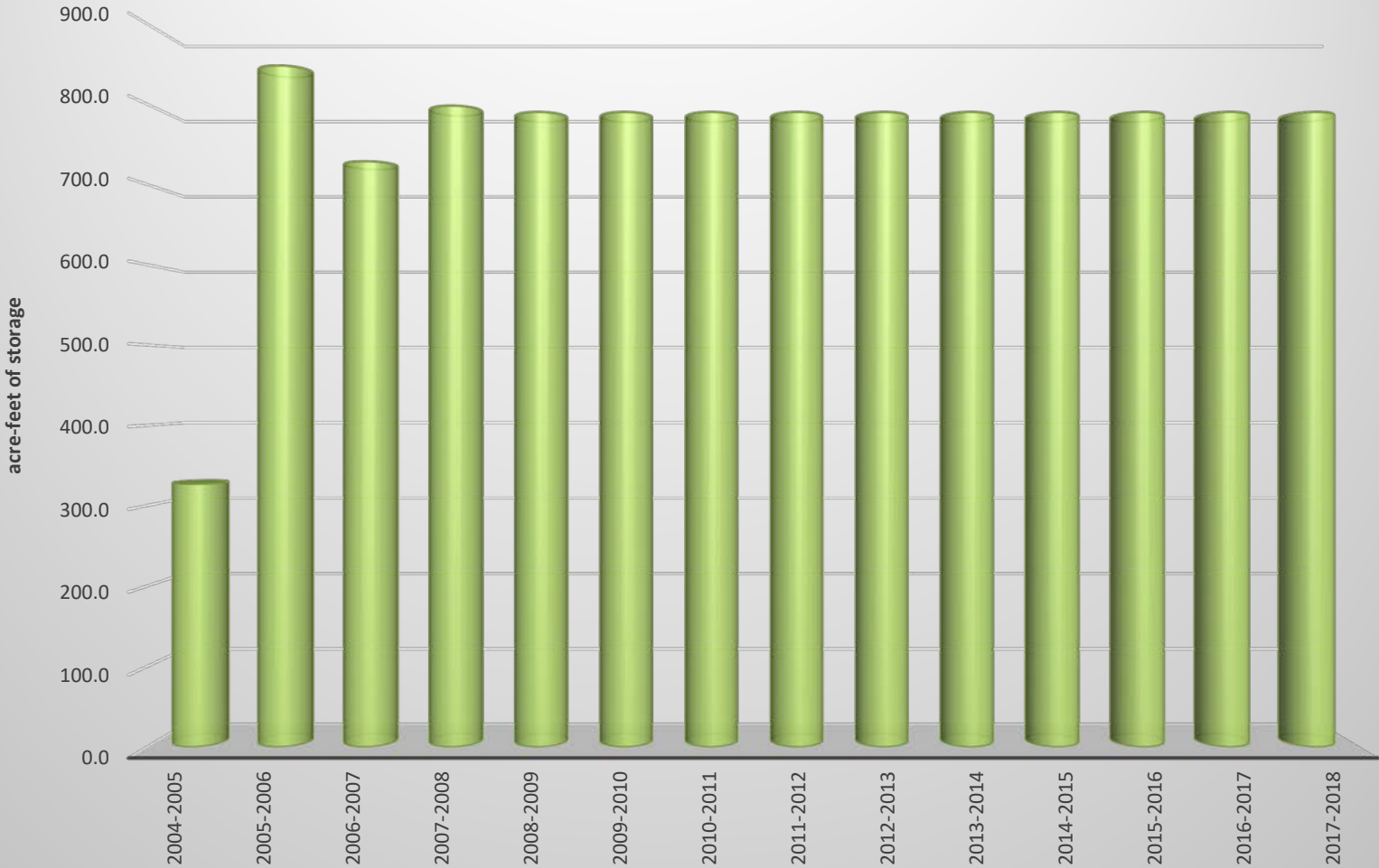


Figure 10
Long Term Storage



Kinneloa Irrigation District Capital Improvement and Maintenance Projects

Project Number	Project Name	Project Description	Estimated Cost	Estimated Completion	Actual Completion	Actual Cost
Revised January 15, 2019						
148	Holly Tanks	Site improvements including: wall, pipe repl., burial, paving and storm drain	750,000			
147	K-3 Well	Repair concrete floor and vault walls; waterproof floor	10,000			
146	Sage Tanks	Repair and waterproof concrete floor	7,500			
145	Reservoir Inspection	Video inspection of concrete reservoirs (every 5-6 years)	10,000			
144	Pump & Motor Maint.	Future - next 7 years - Sage Boosters B1 and B2, K-3 Well, and Wilcox Well	100,000			
143	Water Main Replacement	Various projects identified in Water System Master Plan	2,955,000			
142	Water Meter Replacement	Annual replacement of old meters and radio endpoints	10,000			
141	Holly Tanks	Remove dirt behind Holly-East	4,125			
140	Facility Maintenance	Annual facility painting program	10,000			
139	Facility Maintenance	Annual maintenance of facility driveways (see below for specific project)	10,000			
138	Holly Booster Sta.-Repurpose	Remove pumps, install 4" Cla-val, fittings, valve, meter; reprogram SCADA	20,000			
137	Tank Maintenance	Steel tank maintenance (annually per agreement with Utility Services Co.)	55,890			
136	Reservoir Inspection	Inspection and cleanout of Eucalyptus and Wilcox Reservoirs	5,000			
135	Vosburg Warehouse	Install additional shelving, add anti-slip covers to stairs and other safety items	15,000			
134	Water Treatment	Replace Eucalyptus Cl ₂ building and chlorination equipment	7,500			
133	Transfer Valve	Install solar panel, battery and charger for utility power backup	7,000			
132	Facility Maintenance	Remove/replace and widen Office driveway and expand parking area	30,000			
131	Brown Reservoir	Repair leaks due to cracked concrete that is causing root penetration	15,340			
130	Vehicle Replacement	Replace 1996 Chevrolet and 1999 Ford pickups with new pickups and accessory equipment	90,000			
129	Wilcox Reservoir	Replace 50 hp booster (motor and pump) and sandblast and paint pump stand	52,000			
128	SCADA Radios	Replace 17 obsolete radios at all sites and install radio diagnostic program	43,000			
127	AMA Water Meter Test	Advanced Meter Analytics (Hardware/software for cellular data collection test)	5,000			
TOTAL Recommended Projects for 2019 (Subject to available cash reserves, manpower and management resources)			269,840			
TOTAL Projects on the Planning Horizon			4,212,355			
Future Projects ↑ (Not in priority order)						

Previous Projects ↓ (Includes projects in progress)						
Project Number	Project Name	Project Description	Estimated Cost	Estimated Completion	Actual Completion	Actual Cost
126	Water Treatment	Replace Uniclor units at Glen and Eucalyptus sites	12,000	6/30/2018		
125	Computer Equipment	Purchase Customer Service Computer/Repurpose old computer for operations staff	800	2/1/2018	2/1/2018	794
124	Customer Internet Portal	Upgrade "My Account" customer portal with new features including usage history	5,995	5/1/2018	5/31/2018	5,995
123	Computer Equipment	Replace Customer Billing System Server and Transfer Software	1,400	12/31/2018	1/16/2018	1,367
122	Computer Equipment	Replace obsolete handheld computer and software used for meter reading	12,574	6/30/2018	6/30/2018	12,574
121	SCADA - HMI computer	Upgrade Wonderware; convert SCADA Alarm to Win 911, upgrade reports	30,000	6/30/2017	6/19/2018	29,853
120	High/Low Pressure Tunnel	Repair Flowmeter located at Holly Tanks	4,556	12/31/2017	11/3/2017	4,556
119	Delores Tunnel	Replace/Repair damaged line	7,000	12/31/2017	1/17/2017	5,216
118	Far Mesa Tunnel	Replace area drainpipe, replace valves	15,000	12/31/2017	10/18/2017	25,597
117	Paving Maintenance	Barhite Street (old service trench line)	3,000	6/20/2017	6/20/2017	3,000

Kinneloa Irrigation District Capital Improvement and Maintenance Projects

Project Number	Project Name	Project Description	Estimated Cost	Estimated Completion	Actual Completion	Actual Cost
116	Paving Maintenance	Villa Heights Road (portion in East Tank/West Tank project area)	32,200	1/15/2017	6/20/2017	32,200
115	Water Main Replacement	Sierra Madre Villa Avenue/Barhite Street Pipeline Project (KID portion)	184,245	7/26/2017	6/20/2017	184,245
114	SCADA HMI/Touch Panels	Upgrade Touch Panels - Vosburg Bst. Upgrade and Trending	4,000	12/31/2017	7/1/2017	8,027
113	SCADA HMI/Touch Panels	East Tank /West Tank pumping and Flo-loc operations	5,000	12/31/2016	1/6/2017	7,296
112	SCADA Maint. and Upgrades	SCADA pack replace with SCADA pack 32 at 4 locations	9,000	12/31/2017	1/26/2017	15,212
111	East-West Pipeline	Construction cost	831,000	12/31/2016	4/30/2017	820,741
110	K-3 Well	Install air conditioner on VFD cabinet with disconnect switch and T-stat	7,000	12/31/2016	1/10/2017	6,695
109	Tank Maintenance	Steel tank maintenance (annually per agreement with Utility Services Co.)	52,273	12/31/2017	12/31/2017	52,707
108	Tank Maintenance	Steel tank maintenance (annually per agreement with Utility Services Co.)	49,141	12/31/2016	9/31/2016	49,141
107	Sage Tank	Purchase 72 KVA backup generator & cables for Sage Reservoir	20,000	3/31/2015	7/15/2016	20,465
106	East Tank	Clear dirt from back wall	17,000	12/31/2016	6/13/2016	14,474
105	SCADA Maint./Upgrades	Fairpoint interconnect, Vosburg pump station and other locations	12,000	3/31/2015	12/31/2015	10,722
104	Valve Replacement	Fire hydrant valve and isolation valve on E. Vosburg St.	13,200	3/31/2015	2/4/2015	15,156
103	Valve Replacement	8" mainline valve at Kinneloa Canyon Rd. and Brambling Lane	5,100	3/31/2015	2/19/2015	6,340
102	K-3 Well Cl2 Building	Install drain along edge of pad to prevent washout onto customer's property	4,700	12/31/2014	2/4/2015	4,671
101	Vosburg Reservoir	Purchase 72 KVA backup generator & cables for Vosburg Reservoir	20,000	6/17/2015	6/12/2015	19,075
100	Vosburg Pump Station	Replacement pump station and building	1,179,996	6/17/2015	1/21/2016	1,440,117
99	Tank Maintenance	Steel tank maintenance (annually per agreement with Utility Services Co.)	46,316	12/31/2015	12/31/2015	47,092
98	K-3 Well Cl2 Building	Install drain along edge of pad to prevent washout onto customer's property	4,700	12/31/2014	postponed	
97	Tank Maintenance	Steel tank maintenance (annually per agreement with Utility Services Co.)	46,316	12/31/2014	12/31/2014	47,092
96	Water Meters	Replacement or repair of production or customer meters	5,000	12/31/2014	10/31/2014	14,415
95	Tools	Valve and pipeline locating equipment	3,000	12/31/2014	10/31/2014	2,626
94	Computer/Office Equipment	Replacement of non-repairable or obsolete equipment	5,000	12/31/2014	10/31/2014	3,339
93	Facility Maintenance	Continuing facility maintenance and upgrades	12,000	12/31/2014	10/31/2014	16,286
92	Facility Electrical/Electronic	Incl. cell repeaters at 3 sites; Cl2 time clocks at 3 sites; arc flash compliance	25,000	12/31/2014	10/31/2014	13,496.81
91	Water Treatment	Replace programmable logic controller (PLC) for K-3 Cl2 generator	6,000	12/31/2014	10/31/2014	4,807.09
90	SCADA	Replace Sage touch screen; battery status at 6 sites; connect Wilcox AT switch	13,000	12/31/2014	10/31/2014	11,181.04
89	Wilcox Reservoir	Install automatic transfer switch and cleanup electrical panel	10,300	6/31/2014	10/31/2014	8,906.33
88	Valve Testing/Maintenance	Valve/hydrant testing and maintenance agreement - Utility Services Co.	30,000	3/31/2014	10/31/2014	26,290
87	East-West Pipeline	Engineering services - plans & specifications & bid package	25,000	12/31/2014	11/14/2014	39,605
86	Vosburg Pump Station	Engineering services - plans & specifications & bid package	25,000	12/31/2014	12/31/2014	57,568
85	Water Meters/Trans.	Meter and transponder upgrades for radio reading (final phase)	32,000	12/31/2013	8/7/2013	25,226
84	East-West Pipeline	Addendum report to determine segment 3 prior to P&S	20,000	6/30/2013	10/4/2013	21,450
83	Pump & Motor Maint.	Eucalyptus P-2 booster	30,205	3/31/2013	1/31/2013	32,054
82	SCADA Upgrades	Convert PCIC facility to radio-based telemetry system	13,000	6/30/2013	3/11/2013	11,467
81	Vosburg Pump Station	Engineering services to do preliminary design report	14,215	6/30/2012	10/7/2013	7,895
80	Wilcox Well	Replace water depth measuring tube	7,500	6/30/2013	3/22/2013	10,544
79	East-West Pipeline	Final draft of preliminary design report	5,556	7/31/2012	7/31/2012	3,556
78	Cl2 Analyzer Upgrade	Add pH and temperature measurement at three additional sites	5,700	12/31/2012	postponed	0
77	Tank Maintenance	Tank maintenance provided by Utility Services Co. 2005-2013	495,226	per contract	12/31/2013	495,226

Kinneloa Irrigation District Capital Improvement and Maintenance Projects

Project Number	Project Name	Project Description	Estimated Cost	Estimated Completion	Actual Completion	Actual Cost
76	East Tank Pressure Zone	Valve replacement/additions and pipeline upgrade	17,098	6/30/2011	6/11/2011	17,098
75	K-3 Well VFD	Install Variable Frequency Motor Control	33,600	10/31/2011	11/29/2011	36,028
74	Windover/SMV Pipeline	Pipeline construction	544,300	6/30/2011	9/30/2011	671,612
73	Facility Electrical	On-going electrical work and upgrades at facilities	25,000	12/31/2011	12/1/2011	9,986
72	East-West Pipeline	Preliminary engineering and feasibility study/easements	15,000	12/31/2011	8/30/2011	9,444
71	K-3 Well	Lower pump and install flex motor coupling	15,000	3/31/2011	3/1/2011	12,615
70	SCADA Upgrades	On-going projects	15,000	12/31/2011	5/2/2011	7,604
69	Cl2 Analyzer Upgrade	Add pH and temperature measurement at three additional sites	5,700	12/31/2011	postponed	0
68	Pump & Motor Maint.	Pasadena Glen 25 hp	20,000	6/30/2011	2/1/2011	24,191
67	Pump & Motor Maint.	Wilcox Reservoir 75 hp	15,000	6/30/2010	3/31/2010	15,974
66	Pump & Motor Maint.	Eucalyptus P-1 booster	22,500	12/31/2010	7/14/2010	28,471
65	Cl2 Analyzer Upgrade	Add pH measurement at K-3 (Hi/Lo Tunnel postponed)	5,400	12/31/2010	5/11/2011	1,872
64	Wilcox Tree & Brush	Trim trees and clear brush for fire safety	7,500	6/30/2010	2/3/2010	2,186
63	Windover/SMV Pipeline	Plans and Specifications for replacement pipeline	25,000	12/30/2010	9/30/2010	17,074
62	Water Meters w/trans.	120 meter registers and transponders	21,000	12/31/2010	9/30/2010	33,799
61	SCADA Upgrades	SCADA upgrades at Wilcox, Eucalyptus, Sage and Glen	15,000	12/31/2010	9/30/2010	3,845
60	Wilcox Res. Trans. Switch	Install generator transfer switch at Wilcox Reservoir	8,575	6/30/2010	postponed	0
59	Generator #3	250 KW portable generator for Wilcox Reservoir	45,000	6/30/2010	6/20/2010	40,964
58	Brown Flo-Loc	Install Flo-Loc at Brown Reservoir	15,000	6/30/2010	7/19/2010	14,818
57	Facility SCADA	Install intrusion alarms at additional facilities	10,000	12/31/2009	12/31/2009	10,931
56	Facility Electrical	Electrical work and upgrades at facilities	22,125	12/31/2009	12/31/2009	6,424
55	Water Meters w/trans.	Water meter replacement	20,000	12/31/2009	7/31/2009	20,148
54	Generator #2	50 KW portable generator for Office	20,000	3/31/2009	2/5/2009	19,594
53	Office Trans. Switch	Install generator transfer switch at Office	5,824	3/31/2009	4/21/2009	5,420
52	Facilities	Protective sealer for reservoir roofs/Facility maintenance	30,000	9/30/2009	8/31/2009	29,055
51	Mesa Pipeline Const.	Install replacement mains per Master Plan	568,500	6/30/2009	7/31/2009	401,538
50	Ranch Top Interconnect	Joint emergency interconnect project with Pasadena	10,000	7/31/2008	7/31/2008	0
49	Fairpoint Interconnect	Joint emergency interconnect project with Pasadena	50,000	6/30/2008	6/9/2008	50,367
48	Generator #1	50 KW portable generator for Glen Reservoir	20,000	8/31/2008	6/9/2008	19,257
47	Truck Replacement	Replace '89 truck with 1 ton with service body and lift gate	50,000	8/31/2008	9/16/2008	46,362
46	Brown SCADA	Install SCADA at Brown Reservoir	12,000	6/30/2008	6/9/2008	12,434
45	SCADA Software	Upgrade SCADA software to current version	15,000	6/30/2008	6/9/2008	14,753
44	Glen Transfer Switch	Install generator transfer switch at Glen Reservoir	8,065	3/31/2008	6/24/2008	10,665
43	Brown SCADA	Add solar power and SCADA to Brown Reservoir	12,000	6/30/2008	6/9/2008	12,434
42	Remote Meter Read	Purchase 60 transponders & registers	12,000	3/31/2008	2/18/2008	12,027
41	Fairpoint Interconnect	Joint emergency interconnect project with City of Pasadena	50,000	6/30/2008	6/9/2008	50,367
40	Villa Knolls Pipeline	Replace PVC main and 5 service connections	20,000	11/30/2008	11/17/2008	20,708
39	Truck Replacement	Replace '92 truck with 1 ton with service body	43,000	12/31/2008	12/16/2008	44,948
38	Holly Clortec	Replace Uniclор with Clortec and add SCADA alarms	13,000	3/31/2008	3/5/2008	13,845
37	Mesa Pipeline Eng.	Engineer replacement pipeline for Kinneloa Mesa	30,000	3/31/2008	11/18/2008	20,000

Kinneloa Irrigation District Capital Improvement and Maintenance Projects

Project Number	Project Name	Project Description	Estimated Cost	Estimated Completion	Actual Completion	Actual Cost
36	New York Main	K-3 to Wilcox Reservoir pipeline	178,570	12/31/2007	1/25/2008	142,399
35	Office Maintenance	Replace office roof	20,000	6/30/2007	5/8/2007	6,480
34	House Tunnel	Repair tunnel line	61,505	6/30/2007	3/31/2007	842
33	Hi/Low Pressure Tunnel	Repair tunnel line and tunnel entrance	220,491	6/30/2007	9/1/2007	911
32	Flo-Loc	Valve and electrical installation - Holly, East Eucalyptus, Vosburg	118,000	12/31/2007	7/27/2007	137,801
31	Facility Electrical	East Tank utility power project	20,000	6/30/2007	6/15/2007	18,188
30	Chlorine Analyzers	K-3, Wilcox and Eucalyptus installations	15,000	6/30/2007	6/21/2007	23,998
29	Tank and Reservoir Maint.	Tank and Reservoir maintenance	150,000	12/31/2006	12/31/2006	150,296
28	SCADA	SCADA upgrades	25,000	12/31/2006	12/31/2006	16,435
27	Pump Maintenance	Vosburg Booster repair	25,000	12/31/2006	12/31/2006	12,590
26	Facility Maintenance	Facility Maintenance	25,000	12/31/2006	12/31/2006	7,998
25	Electrical/Electronic Equip.	Electrical upgrades	25,000	12/31/2006	12/31/2006	18,595
24	Water Meters	Replacement meters	10,000	12/31/2006	12/31/2006	3,867
23	Water Treatment	Replace Cl2 generators at two locations	25,000	12/31/2006	12/31/2006	13,009
22	Tunnels	Repairs on House and High/Low Pressure Tunnel Lines	98,433	12/31/2006	12/31/2006	98,433
21	Mains	Mains	45,000	12/31/2006	12/31/2006	2,788
20	Tank and Reservoir Maint.	Tank and Reservoir maintenance	29,456	12/31/2005	12/31/2005	29,456
19	SCADA	SCADA upgrades	710	12/31/2005	12/31/2005	710
18	Computer/Office Equip.	Replacement server and software upgrades at multiple computers	2,708	12/31/2005	12/31/2005	2,708
17	Water Meters	Replacement meters	510	12/31/2005	12/31/2005	510
16	K-3 Well	K-3 well pump repair	58,595	12/31/2005	12/31/2005	58,595
15	Mains	Mains	12,933	12/31/2005	12/31/2005	12,933
14	Tank and Reservoir Maint.	Holly Tanks recoating and valve repair	145,000	12/31/2004	12/31/2004	180,804
13	Water Meters	Replacement meters	5,336	12/31/2004	12/31/2004	5,336
12	Mains	K-3 pipeline replacement	363,421	12/31/2004	12/31/2004	363,421
11	Tank and Reservoir Maint.	Tanks and Reservoirs - Holly Tanks	53,514	12/31/2003	12/31/2003	53,514
10	SCADA	SCADA upgrades	38,098	12/31/2003	12/31/2003	38,098
9	Pump Maintenance	Eucalyptus Booster	61,851	12/31/2003	12/31/2003	61,851
8	Water Treatment	Cl2 generator maintenance	23,828	12/31/2003	12/31/2003	23,828
7	Tunnels	Tunnel maintenance	30,180	12/31/2003	12/31/2003	30,180
6	Mains	K-3 pipeline replacement	131,433	12/31/2003	12/31/2003	131,433
5	Mains	K-3 pipeline replacement	33,555	12/31/2002	12/31/2002	33,555
4	Tank and Reservoir Maint.	Tanks and Reservoirs	5,171	12/31/2002	12/31/2002	5,171
3	SCADA	SCADA upgrades	53,905	12/31/2002	12/31/2002	53,905
2	Pump Maintenance	Eucalyptus Booster	1,500	12/31/2002	12/31/2002	1,500
1	Electrical/Electronic Equip.	Electrical upgrades	5,900	12/31/2002	12/31/2002	5,900
TOTAL Estimated Cost and Actual Cost - Previous Projects and Projects in Progress			7,430,004			7,213,252

Item 8 - Page 4



Memo

Date: January 2, 2019
To: Board of Directors
From: Mel Matthews
Subject: Fire Hydrant Data
Recommended Action: Review and Discussion

Background

The KID has 114 fire hydrants in its distribution system. All hydrants are tested periodically to ensure that they will operate properly upon demand. 66 of these hydrants have been tested for fire flow capacity at least once as shown in the attached report. Although 48 hydrants have not been tested for fire flow capacity, many of the untested hydrants are adjacent to hydrants that have been tested and the results would be similar.

Fire flow tests are currently performed by Terry Kerger of Civiltec Engineering at the request of customers when required by the County of Los Angeles Fire Department as part of the building permit process. His charge is \$900 per test to perform the test, calculate the theoretical flow using the pitot tube method and produce the official test report. Multiple tests performed on the same day would be discounted. Water that is discharged during the test is wasted. If multiple customers are benefitted by the test results on a single hydrant, the cost is split between the customers. If a recent test has already been performed on a hydrant and there have been no hydraulic changes to the system such as pipeline replacements, I fill out the County form and provide it to customer for an administrative fee and a physical test is not performed.

Discussion

The alternative to physical testing is to calculate the expected flow at an untested hydrant based on hydraulic modelling using existing test data, pipe sizes and types between the storage source and the hydrant, friction loss due to elbows and other fittings. This is the method that is used when designing pipeline improvement projects identified in the ***Water Master Plan for the Kinneloa Irrigation District***. Originally in 1953, the KID's minimum fire flow standard was 750 gallons per minute (gpm) for 2 hours. This means that a fire truck could pump 750 gpm for up to 2 hours for a fire and all other homes in the same pressure zone would have enough residual pressure for basic domestic needs. Then in 1973 the Improvement District No. 1 (formerly Mira Loma Mutual Water Company) was designed for an average fire flow of 1,000 gpm with 20 pounds per square inch (psi) residual. However, average means not every fire hydrant would meet that standard. Currently, the County of Los Angeles Fire Department has a standard of 1,250 gpm to be pumped

for 2 hours. Today, in 2018, approximately 20% of the current system does not meet the current standard for fire flow and/or fire hydrant separation. The estimated cost to complete the remaining pipeline projects to meet the current standard is approximately \$3M. However, the County may require an even greater flow for large structures and/or other mitigating measures such as sprinklers, wider driveways, turn-arounds or upgraded or additional fire hydrants near the structure.

It is important to know that the KID system (and those of other agencies) is only designed to provide adequate fire-fighting protection for single structure fires, not for wildfires. This capability is a combination of available storage, flowrate and the ability to replenish the water through pumping. The KID has spent over \$7M for improvement projects since 2002 to address all three of these components. These improvements are also valuable if another wildfire occurs in our service area.

Summary and Conclusion

Additional fire flow data can be obtained either through physical testing or hydraulic calculations or a combination of the two. Terry Kerger estimates that the cost to update the hydraulic model to incorporate the completed pipeline projects to be about \$5,450. Physical testing of selected hydrants would add another \$7,200 to \$10,000 depending on the time needed to test the hydrants. I recommend that we proceed to update the hydraulic model that was the basis of the original **Water Master Plan**. If we have an updated hydraulic model, we could just ask the model for the flow at all the hydrants. If the results are consistent with the existing physical test results, we would have the confidence to predict the flow at most of the non-tested hydrants and reduce the number of required physical tests to those requested (and paid for) by the customer.

Regarding the remaining 14 pipeline projects, the recommended priority order presented in the 2018 revision of the **Water Master Plan** was determined based on balancing the cost of the projects with the general benefit to the District and its customers and minimizing the water rate impact. However, all the pipeline projects address improved emergency preparedness and the Board can review the projects, determine the priority order and the corresponding impact on water rates to complete them in a reasonable timeframe.

Zone 1

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
1 Eucalyptus Reservoir									
	E-01	9	6x4x2.5	1840 Kinneloa Canyon Rd	8"				
						10/7/2002	37	1300	
						6/24/2014	30	839	
	E-03	32	6x4x2.5	1727 Kinneloa Canyon Rd	8"				
						7/6/1981	60	1700	
						6/16/1997	57	1950	
						6/2/1999	62	1950	
						5/24/2005	60	1769	

Zone 2

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
2 Glen-Vosburg Reservoir									
	GV-01	56	4x2.5	1713 Pasadena Glen Rd	6"	8/8/1989		3000	
	GV-02	46	4x2.5	1617 Pasadena Glen Rd	6"	9/25/1990	35	293	
	GV-03	67	4x2.5	3487 Barhite St	6"	7/31/1998	94	1470	
						2/20/2007	98	1353	
	GV-04		6x4x2.5	3475 E Fairpoint St	6"	11/8/2000	40	466	
	GV-05	65	6x4x2.5	3265 Villa Highlands	8"	6/27/2002	62	620	
						12/3/2014	66	626	
						11/3/2015	140	2056	
	GV-10	43	6x4x2.5	1447 Edgecliff	6"	4/26/2006	92	1005	
	GV-12	53	4x2.5	1449 Edgecliff	6"	4/7/1988	92	1185	
	GV-13	39	6x4x2.5	1462 Villa Knolls	6"	4/18/1977	80	960	
						5/18/2016	78	405	
	GV-14		4x2.5	1262 Hartwood Pt	4"	5/9/2001	97	160	
	GV-16		4x2.5	1230	4"	11/7/2018	104	72	

Zone 3

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
3 Vosburg Reservoir									
	V-01		6x4x2.5	1909 Sierra Madre Villa	6"	12/29/1993	42	178	
	V-02		4x2.5	1797 Sierra Madre Villa Ave	8"	1/1/2002	62	950	
						1/21/2004	62	718	
	V-03		4x2.5	3336 Villa Mesa Rd	4"	11/1/2006	68	318	
						11/21/2006	68	318	
	V-04		6x4x2.5	3289 Vosburg	8"	3/7/2012	90	1618	
						1/25/2017	90	1618	
	V-06		6x4x2.5	3454 E Vosburg	8"	8/8/2000	79	1258	
						10/23/2018	80	2541	
	V-07		6x4x2.5	1856 Pasadena Glen Rd	6"	7/30/1997	68	1703	
						9/1/1999	68	1713	
						12/28/1999	68	1950	
	V-08		6x4x2.5	3545 Shaw Ranch Rd	8"	6/19/2003	63	1840	
	V-13		6x4x2.5	1601 Hastings Hts	8"	9/5/2013	120	2388	
	V-21	47	6x4x2.5	1746 Old Grove Rd	6"	9/12/1983		850	
						7/5/1995	80	3000	

Item 9 - Page 5

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
						6/23/2015	88	2740	
	V-22	60	6x4x2.5	1700 Old Grove Rd	6"	7/17/1989	112	1325	
	V-24	42	6x4x2.5	3355 Barhite St	6"	10/19/2004	95	1257	
						10/20/2016	98	2304	
	V-25	44	6x4x2.5	3303 Barhite St	6"	5/9/1995	109	1681	
						10/25/2007	105	1617	
						10/20/2010	103	1290	
	V-26	41	6x4x2.5	3259 Barhite	6"	12/29/2016	115	2213	
						6/29/2018	115	4050	
	V-28	67	6x4x2.5	3475 E Barhite	6"	7/15/2000	98	1535	
						5/15/2013	80	1156	
						5/23/2013	80	1025	
						6/29/2017	80	4415	
	V-28a		6x4x2.5	3475 E Barhite	10"	6/29/2017	80	4415	New V-28 as of 6/29/17
	V-29	35	6x4x2.5	3280 Fairpoint	6"	6/25/1976	120	800	
	V-30	34	6x4x2.5	3219 Fairpoint	8"	9/4/1987	130	1300	
						10/24/2002	135	1225	

Zone 4

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
4 Holly Reservoir									
	H-01	20	4x2.5	2043 Villa Heights Rd	8"				
						7/31/1996	45	1785	
						7/16/2003	46	1405	
						3/18/2005	63	1279	
						7/15/2005	44	2207	
						12/15/2015	44	2243	
						3/6/2018	44	2290	
	H-02	3	6x4x2.5	1890 Country Lane	8"				
						3/30/1994	70	1250	
						7/15/1996	79	1358	
						6/6/2001	80	2356	
						3/22/2004	80	2356	
						4/16/2009	75	2246	
						3/7/2018	44	2290	
	H-04	16	6x4x2.5	1890 Kinneloa Mesa Rd	6"				
						1/19/1994	20	1800	*Last form under Mesaloea tab in Fire Flow Reports folder
						3/16/1994	96	1250	
						10/1/2009	92	1788	
	H-05A	17	6x4x2.5	3170 Mesaloea Ln	4"				
						4/26/2005	92	1531	
						7/11/2005	90	988	
	H-05B		6x4x2.5	3170 E Mesaloea Lane	8"				
						1/19/2007	92	1531	
	H-06	19	6x4x2.5	3119 Meyerloa Ln	4"				
						10/10/1992	121	1398	

Item 9 - Page 7

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
						9/28/1998	120	1353	
						9/4/2002	120	1358	
						10/13/2009	92	1788	
	H-07	2	4x2.5	3015 Clarmeya Ln	6"				
						2/9/1993	121	1400	
						4/9/1998	121	1400	
						5/24/2000	132	1450	
						12/19/2007	130	1372	
						3/13/2013	125	1335	
	H-08	31	4x2.5	3085 E Clarmeya Ln	6"				
						8/4/2004	139	1165	
	H-08A		6x4x2.5	2985 Meyerloa Ln	8"				
						11/12/2014	112	1468	
						11/17/2014	112	1468	
	H-09A	15	6x4x2.5	1650 N Kinneloa Mesa Rd	6"				
						11/8/2000	143	1205	
	H-09B		6x4x2.5	2935 Lindaloe Ln	8"				
						9/19/2018	150	1402	
	H-10	4	6x4x2.5	1610 Kinneloa Mesa Rd	6"				
						5/3/2002	155	1296	
						1/25/2012	145	1341	
	H-11A	6	6x4x2.5	3127 Doyne Rd	8"				
						11/17/2014	137	1712	
						1/30/2015	144	1762	
	H-11B		6x4x2.5	3060 Doyne Rd	8"				
						11/12/2014	137	1712	
	H-12	29	6x4x2.5	2929 Larmona Dr	6"				
						1/12/1989	160	1015	

Item 9 - Page 8

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
						8/24/1999	150	1125	
						11/21/2006	153	1197	
	H-13	13	6x4x2.5	2292 Kinneloa Canyon Rd	6"				
							100	3164	Required Flow 1250 GPM Observed Flow 1030 Euc. Pumps must have been running
	H-14	12	4x2.5	2190 Kinneloa Canyon Rd	8"				
						11/11/1996	80	3000	
						11/16/1998	85	2156	
						11/20/1998	85	2084	
						9/10/2003	82	2258	
	H-15	1	4x2.5	2230 Brambling Ln	6"				
						11/16/1998	70	1545	
	H-17	10	4x2.5	2002 Kinneloa Canyon Rd	8"				
						9/24/1998	137	2596	
	H-20	27	6x4x2.5	2201 Kinclair Dr	8"				
						4/12/1977	80	1020	
						1/27/1994	90	1121	
	H-21	26	4x2.5	2135 Kinclair Dr	8"				
						11/3/1976	90	1020	
						5/13/1996	120	1337	
	H-22	24	6x4x2.5	2027 Kinclair Dr	8"				
						3/12/1977	150	1000	
						8/16/1996	145	1583	
	H-23	25	4x2.5	2105 Glen Springs	6"				
						6/4/1999	125	1441	
						2/28/2001	122	1784	
						7/15/2015	124	1745	
	H-24	7	6x4x2.5	1970 Kinclair Dr	6"				

Item 9 - Page 9

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
						2/14/2018	150	5488	
	H-25	14	6x4x2.5	1908 Kinneloa Canyon Rd	6"	6/24/2014	152	2973	
						6/24/2014	152	2973	
						6/25/2014	152	2973	
	H-26	62	6x4x2.5	1979 Sierra Madre Villa Ave	6"	8/14/1992	20	1139	
						7/9/2001	62	1480	
						3/9/2005	63	1279	

Zone 5

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
5 West Tank									
	W-01		6x4x2.5	2312 Kinclair Dr	12"				
						1/27/2003	90	4423	
						6/3/2004	90	4423	
						5/24/2005	115	4526	
						6/1/2005	115	4526	
						3/22/2007	48	3097	
						12/18/2009	115	4526	
						12/23/2009	115	4526	
	W-02		6x4x2.5	2320 Crystal Lane	8"				
						3/25/2003	95	5749	
						3/29/2018	86	4103	
	W-03		6x4x2.5	2352 Kinclair Dr	12"				
						9/20/2004	90	5181	
						5/28/2009	82	4677	
						3/29/2018	86	4103	
	W-04		6x4x2.5	2361 Kinclair Dr	12"				
						8/30/2005	67	3200	

Zone 6

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
6 East Tank									
	ET-01	23	4x2.5	2340 Villa Heights Rd	8"				
						9/21/1990	48	2052	
						6/24/2014	52	1692	
						2/16/2018	48	2839	
	ET-02	68	4x2.5	2131 Kinneloa Ranch Rd	6"				
						5/9/1978	70	1500	
	ET-03	70	6x4x2.5	2247 Villa Heights Rd	8"				
						12/11/2001	76	2467	
						12/15/2015	76	2588	
						3/29/2018	75	2891	
	ET-04		4x2.5	2224 Villa Heights Rd	8"				
						10/11/2005	80	2615	
	ET-06	75	6x4x2.5	2075 Villa Heights Rd	6"				
						1/10/1994	109	1250	
						4/12/1996	109	2318	
						6/29/2001	109	1900	
	ET-07	63	6x4x2.5	2000 Windover Rd	6"				
						2/2/1998	102	1325	
						6/18/2001	98	1050	
						11/29/2012	99	1046	
						12/12/2012	95	1346	
	ET-08	45	6x4x2.5	1900 Windover Rd	6"				
						12/12/2012	122	1472	
	ET-09	48	6x4x2.5	2153 Pasadena Glen Rd	6"				
						7/16/1996	98	1035	

Item 9 - Page 12

Pressure Zone	KID #	County #	Hydrant Size	Address	Main Size	Test Date	PSI	GPM	Comments
						8/8/2000	95	855	
	ET-10	38	6x4x2.5	2006 Pasadena Glen Rd	6"				
						7/5/1995	50	850	
						7/16/1996	126	1928	
						12/8/2000	68	1700	
						2/13/2003	130	1600	
						7/15/2005	125	1408	
						7/20/2012	116	1337	



Memo

Date: January 2, 2019
 To: Board of Directors
 From: Mel Matthews
 Subject: Kinneloa Irrigation District Employee Retirement Benefits
 Recommended Action: Review and Discussion

Background

The KID currently offers the following retirement benefits to full-time employees and contributes a share of the cost:

- California Public Employees Retirement System (CalPERS)
- Social Security

Most public agencies have at least two retirement programs. Some agencies participating in CalPERS chose to be exempt from Social Security taxes. Other agencies, either in place of or in addition to Social Security have a 403(b) plan which is a U.S. tax-advantaged retirement savings plan available for public organizations such as special districts. Typically, agencies match contributions to a 403(b) plan up to a maximum amount such as 10% of the employee's salary. The employer portion of the Social Security is 6.2% and is payable on all salaries up to a maximum of \$132,000 per year. The employee also contributes 6.2% so that the total "tax" is 12.4%.

Social Security is a defined benefits plan. There is no relationship between the money paid in and the benefits received. Current workers are paying for the benefits of those eligible for Social Security.

CalPERS is also a defined benefits plan although the worker's individual contributions are also tracked and belong to the employee. Our contract for "classic" employees (before 2013) is a payout of 2% of the last 3-year average compensation times the years of service at age 60. The "PEPRA" plan for new employees starting in January 2013 is for those who have not previously been a CalPERS participant. The benefit formula is the same except full benefits do not start until an age of 62. The contribution rates are similar for both plans but not identical. The employee rate is 7.00% for the classic plan and 6.25% for the PEPRA plan. The KID rate is 7.634% for the classic plan and 6.842% for the PEPRA plan. Rates are adjusted every 6 months.

Although not currently offered by the KID, a 403(b) is a defined contribution plan. It is a tax-deferred savings plan like a 401 (k) plan. The contributions by the employer and the employee are totally under the control of the employee and the employee and the employee decides on the various investment options.

Summary and Conclusion

The current KID retirement benefits have been in place for decades and long-term employees have already accrued benefits in both CalPERS and Social Security and are approaching retirement. It would be extremely difficult to withdraw from CalPERS or Social Security at this point and furthermore, this change would not be available on an individual basis.

CalPERS and other public employee pension plans are going to survive even though the trend in private industry and non-profits is to offer 401(k) and 403(b) plans rather than the traditional defined benefit plans of the past. CalPERS achieved an average rate of return on its investments of 8.6% in 2018 and continued good results will stabilize contribution rates in future years and reduce the unfunded liabilities.

The current KID retirement benefits are comparable to other agencies and in many cases, less generous. In addition to CalPERS, many other agencies offer 403(b) plans, deferred compensation plans, post-employment health benefits and even pay the employee's share of the CalPERS contributions. If the Board wants to move in the direction of a defined contribution plan, the first step would be to offer an optional 403(b) plan.