

CRESCENTA VALLEY WATER DISTRICT

**2700 Foothill Boulevard
La Crescenta, California**

**Agenda for the
Regular Meeting of the Board of Directors
of the Crescenta Valley Water District
to be held on February 7, 2017 at 7:00 p.m.**

Posted: February 3, 2017 at 3:00 p.m.

Any written materials distributed to the Board in connection with this agenda will be made available at the same time for public inspection at the District office located at the above address.

Call to Order and Determination of Quorum

Pledge of Allegiance

Adoption of Agenda

Public Comments

At this time the public shall have an opportunity to comment on any non-agenda item relevant to the subject matter jurisdiction of the Board. This opportunity is non-transferable and speakers are limited to one three (3) minute comment.

Foothill Municipal Water District Report

1. Report on activities at Foothill Municipal Water District.

Consent Calendar

1. Consideration and approval of the Minutes of the Regular Meeting on January 10, 2017.
2. Ratification of disbursements for December 2016.
3. Consideration to authorize the General Manager to purchase a new 2017 Ford 150 pick-up truck to replace Unit #1 at a total cost of \$32,167.70 and to declare Unit #1 as surplus property and direct the General Manager to dispose in a manner which best benefits the District.

Action Calendar

The public shall have an opportunity to comment on any action item as each item is considered by the Board prior to action being taken. This opportunity is non-transferable and speakers are limited to one two (2) minute comment.

1. **Discussion of Billing Alternatives** – Discussion and possible action of water use billing alternatives for high residential landscape irrigation needs.
2. **Water Conservation Alert** – Discussion and possible action regarding the current Water Conservation Alert status.
3. **Recycled Water Study** – Consideration and motion to receive and file report on feasibility to provide recycled water for irrigation needs.
4. **Strategic Planning** – Discussion regarding the Strategic Plan of the District.

Information Items

Written Communications to District/Board of Directors

Staff Reports

- **Secretary-Treasurer**
- **General Manager**
- **District Engineer**
- **Program Specialist**
- **Information Technology**

Attorney Report

Reports of Committees

- **Engineering Committee**
- **Finance Committee**
- **Employee Relations Committee**
- **Policy Committee**
- **Community Relations/Water Conservation Committee**
- **Emergency Planning Committee**

Director's Oral Reports

Report on issues, meetings, or activities attended by Directors.

Board Members' Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT REGULAR MEETING, BOARD OF DIRECTORS

January 10, 2017

Pursuant to the order of the Board of Directors of the Crescenta Valley Water District, made at the Regular Meeting of December 6, 2016, a Regular Meeting was held on January 10, 2017, at 7:00 p.m. at the District office at 2700 Foothill Blvd., La Crescenta, California, with President James D. Bodnar presiding.

At roll call, the following Directors and staff members were present:

Directors:	James D. Bodnar Michael L. Claessens Kerry D. Erickson Kenneth R. Putnam (Arrived late) Judy L. Tejeda
Attorney:	Thomas S. Bunn
General Manager:	Thomas A. Love
Secretary-Treasurer:	Ron L. Mitchell
District Engineer:	David S. Gould (Absent)
Others Present:	Wendy Holloway, Customer Accounts Supervisor Dennis Maxwell, Superintendent Brook Yared, Associate Engineer

PLEDGE OF ALLEGIANCE

President Bodnar opened the meeting by leading the Board and staff in reciting the Pledge of Allegiance.

ADOPTION OF AGENDA

It was moved by Director Tejeda, seconded by Director Erickson and carried by a 4-0 vote that the Agenda for the Regular Meeting of January 10, 2017 be adopted as presented.

PUBLIC COMMENT – None

FOOTHILL MUNICIPAL WATER DISTRICT REPORT – No Report

CONSENT CALENDAR

It was moved by Director Erickson, seconded by Director Tejeda and carried by a 4-0 vote to approve the Minutes of the Regular Board Meeting held on December 6, 2016 and to ratify the disbursements for November 2016 which consisted of:

Payment of demands against the Crescenta Valley Water District on or before November 30, 2016 the same having been approved by the General Manager, Thomas A. Love, and heretofore paid, be ratified and approved subject to audit, in the aggregate sum of Nine

Hundred Seventy Two Thousand Two Hundred Fifty Dollars and Fourteen cents (972,250.14), which is composed of the individual items set forth herein.

Director Putnam arrived 7:15 p.m.

ACTION CALENDAR

Board Governance – Director Bodnar discussed the Board Committee assignments and reminded the Board to do their Ethics Training. He discussed the Brown Act and emails that are sent to all Board members. He also discussed the procedures he will implement for the meetings and his goal to run them effectively.

Resolution No. 735 – Mr. Love reported that at the November 15, 2016 meeting, the Board discussed AB1535 which amended Election Code 10404 to allow special district elections to be consolidated with statewide general elections that are held in even numbered years and outlined the process the Board would need to follow in order to have District elections moved to the general election in November 2018. Staff contacted the Los Angeles Registrar-Recorder/County Clerk's office about making this change and was informed that the County's election software will be able to accommodate this change and provided instructions on how to complete the filing of the Resolution with the Board of Supervisors and the County Clerk. Staff asked legal counsel to write this Resolution that outlines the various dates and procedural requirements related to the new proposed election date.

Following discussion:

It was moved by Director Tejeda, seconded by Director Claessens and carried to adopt Resolution No. 735 requesting a change in the election date to even number years by the following roll call:

AYES:	Director Bodnar
AYES:	Director Claessens
AYES:	Director Erickson
AYES:	Director Putnam
AYES:	Director Tejeda
NOES:	None

Strategic Planning – Mr. Love reported that the next Workshop will be on January 17, 2017 at 6:00 p.m. He discussed the agenda and the mission statement for the District. Mr. Love said that he wants to focus on what the vision is for the District should be. He also provided summary notes from the previous workshop.

INFORMATION ITEMS – None.

WRITTEN COMMUNICATIONS TO DISTRICT – None.

REPORTS OF PERSONNEL

SECRETARY-TREASURER – Mr. Mitchell provided the Summary of Cash and Investment report which contained the following items:

Investment Portfolio Summary – as of January 6, 2017:

Cash Accounts	\$616,007
Great Pacific Securities	
Bond Debt Service Fund Acct	\$293,893
Local Agency Investment Fund	\$2,093,346
Transfer from MTBE Reserve	\$2,000,000
Federal Farm Credit (83)	\$499,970
Federal Farm Credit (87)	\$499,485
Federal Farm Credit (101)	\$1,156,410
US Treasury (103)	\$1,206,940

MTBE Contingency Funds

Local Agency Investment Fund	\$250,000
Great Pacific Securities	\$ 128
Transfer to Water Reserve	(\$2,000,000)
Federal Farm Credit (M-48)	\$508,315
Federal Farm Credit (M-49)	\$1,239,787
US Treasury (M-53)	\$936,330
US Treasury (M-54)	\$968,240
US Treasury (M-55)	\$936,330
US Treasury (M-56)	\$936,330
Federal Farm Credit (M-57)	\$930,270
Federal Farm Credit (M-58)	\$1,230,800
Federal Farm Credit (M-59) NEW	\$502,798

Fund Balances

Water	\$10,226,866.07
Wastewater	\$4,561,479.38

GENERAL MANAGER – Mr. Love reported that the rainfall to date is 9.07”, which is slightly over average. Local ground water conditions remain low limiting ground water production. He reported that Mt. Shasta, Oroville, and Folsom reservoirs are above average for storage. He also reported that there are three employee anniversaries this month, Joe Huerta – 31 years, Dave Spain 30 years, and David Rawlings – 5 years. As of January 6th the District has worked 941 days without a lost time accident.

DISTRICT ENGINEER

Water Production – For the period of December 1 through December 31, 2016, water production averaged 90.2 million gallons per day, which is **1.4% more** than the daily average production of the same period in 2015. This is **5.9% less** from the daily average production of the previous five years.

Rainfall: December 201 6	4.57”
Season-to-date:	6.67”

Administrative and Field Operations – Mr. Yared provided a memorandum and discussed the following:

Rainfall Update – 4.57” for December 2016. Final rainfall total for Rainfall Year 2016/17 is 6.67”.

Report on Engineering

CIP Projects – Ocean View Chlorination Project – Agreements – Working with FNWD & LADWP. Funding Agreement Extension submitted. Pipeline Projects – Pennsylvania – Mailing RFQ. Pickens Canyon Pipeline Replacement and Slope repair – Finalizing Plans January 2017. Contractor by January 31, 2017. Paschall Booster Station Upgrades – Staff is working on Request for Proposal. Oak Creek Reservoir Rehabilitation – Advertising for bids. Seismic Sensors & Valve Actuators at Dunsmore & Pickens Reservoir – Work started at Dunsmore Reservoir.

Nitrate Removal Treatment Facility at Well 2 Project – Consultant working on 90% Design – plans and specifications. Working on permit requirements from Glendale.

Crescent Valley County Park Stormwater Recharge Facility Study – No Report

ULARA – No Report

Water Meter Replacement Program – Weeks 169 ad 170 beginning January 10, 2017.

Report on Administrative and Field Operations:

Well Status – Well production capacity is down - averaging 1.51 MGD for December 2016.

Field Maintenance and Operations update for November 11 – November 30, 2016.

Water lateral leaks & repairs

- 5604 Freeman Ave.

Water Main Leaks – No Report

Reservoir Maintenance – Glendale Intertie Coupling. Edmund #1

Fire Hydrant Repair – No Report

Developer Job – Lincoln School Project

Booster Pump Maintenance – No Report

Sewer Maintenance – 3100 Block of Henrietta. 5100 Block of Daver. 3100 Block of Paraiso Way. 5100 Block of Parham. 4900 & 5100 Blocks of Pennsylvania. 3000 Block of Brookhill. 5000 Block of Cloud. 3000 Block of Orange.

PROGRAM SPECIALIST – Mr. Love reported that in December we exceeded the State mandate for conservation. The target is 18% and we achieved 22%. He discussed that on Wednesday, November 30, 2016, California state agencies released a draft plan for achieving long-term efficient water use as required by Governor Brown’s Executive Order B-37-16.

INFORMATION TECHNOLOGY – No Report

ATTORNEY – Mr. Bunn reported on two court cases. The first case was in the California Supreme Court on the Public Records Act and addressed the issue of whether or not attorney invoices are subject to the Public Records Act. It was decided that yes they are exempt for active litigation but not on amounts for concluded matters. The second case was on a provision of the PERS reform a couple of years ago. The issue was in regards to “air time”, which means to buy service credits without having performed the service. The firefighters sued, and the court of

appeals disagreed. Also, Mr. Bunn reported that last month Newhall County Water District and Castaic Lake Water agreed to combine into one agency.

REPORTS OF COMMITTEES

Engineering Committee – Director Claessens reported that the Committee will meet on January 25, 2017 at 9:00 a.m.

Finance Committee – Director Tejeda reported that the Committee will meet on January 26, 2017 at 8:00 a.m.

Employee Relations Committee – Director Putnam reported that the Committee had not met; however a meeting will be scheduled as needed.

Policy Committee – Director Bodnar reported that the Committee will meet on January 27, 2017 at 9:00 a.m.

Community Relations/Water Conservation Committee – Director Erickson reported that the Committee will meet on January 27, 2017 at 10:00 a.m.

Emergency Planning Committee – Director Bodnar reported that the Committee had not met; however a meeting will be scheduled as needed.

DIRECTORS ORAL REPORTS

Director Bodnar reported he attended the La Crescenta snow event at Two Strike Park. He also stated that he is very comfortable with the current water supply situation statewide.

Director Tejeda – No Report

Director Putnam – No report

Director Claessens – No report

Director Erickson reported he attended the La Crescenta snow event at Two Strike Park that was provided by the County. CVWD supplied water for the event and the County provided free gifts for the kids. He also spoke to our new Supervisor, Kathy Barger at the event.

CLOSED SESSION – No Closed Session

ADJOURNMENT

There being no other business to come before the Board at 8:00 p.m., it was moved by Director Claessens, seconded by Director Erickson that the meeting be adjourned to January 24, 2017 at 7:00 p.m.

APPROVED

James D. Bodnar
President

Ron L. Mitchell
Secretary-Treasurer

CASH DISBURSEMENTS LIST

DECEMBER 2016



<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
0	12/27	Southern California Edison Co.	Power purchased 12/2016	20,795.79	252.69
34864	12/6	ADS, LLC	Monthly monitoring 11/2016		1,010.00
34865	12/6	AES Water, Inc	E-976 Dunsmore & Pickens seismic valve controllers	65,298.20	
34866	12/6	Allen Pipeline, Inc.	Welding services on 6" fire hydrant	711.00	
34867	12/6	Anawalt Lumber & Materials Co.	Misc hardware 11/2016	558.98	28.00
34868	12/6	ARC	32 - Water atlases for engineering dept and crews	241.16	80.39
34869	12/6	Associated Soils Engineering	Testing soil for compaction	470.00	
34870	12/6	AVAYA Financial Services	Land line lease 11/2016	380.69	126.89
34871	12/6	Backflow Apparatus & Valve Co.	1 1/2 - 2" Backflow repair kit	71.02	
34872	12/6	BC Laboratories, Inc	Water analysis	1,982.40	
34873	12/6	BC Laboratories, Inc	Water analysis	1,116.45	
34874	12/6	California Water Environment	Collection Sys Maint Grade 2 renewal Raymond Dodge		83.00
34875	12/6	CalPERS	Contributions for 11/2016	20,052.56	12,659.83
34876	12/6	Choice Pest Control	Monthly service at Well 9 10/2016	53.00	
34877	12/6	City of Glendale - Permits	Excavation permits	1,800.00	
34878	12/6	City of Glendale Water & Power	Power purchased 11/2016	32,270.20	33.86
34879	12/6	City of LA Bureau Sanitation	Sewerage Facilities Charge		7,715.11
34880	12/6	Colonial Life & Accidents Ins.	Employee paid insurance 11/2016	183.61	
34881	12/6	Do-it Center	Misc hardware 11/2016	570.69	9.15
34882	12/6	Dunn-Edwards Corporation	Paint for office and plant	68.06	22.67
34883	12/6	E-Nor Innovations, Inc	Stop/slow traffic control paddles	59.97	19.99
34884	12/6	EmbroidMe	Safety duffle bags	347.44	115.81
34885	12/6	Eurofins Eaton Analytical Inc.	Water analysis	380.00	
34886	12/6	Foothill Car Wash, Lube & Oil	Oil change for Units #6, #33, #38, #46, #49	152.29	153.55
34887	12/6	Foothill Painting Company	Cost to paint Sycamore house	3,652.50	1,217.50
34888	12/6	Stephanie Gallardo	Refund Check	2.01	
34889	12/6	Global Equipment Company	6 - Plastic tool caddies	36.98	36.97
34890	12/6	Grainger	6 - Tool totes	66.88	66.88

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
34891	12/6	Harper & Associates Eng, Inc	E-970 services thorough 10/2016	7,980.00	
34892	12/6	Harrington Ind Plastics LLC	2" adapter & supplies for water testing lab	1,044.08	
34893	12/6	Home Depot Credit Services	Misc hardware 11/2016	256.31	132.70
34894	12/6	Just Tires, Inc.	Unit #44 - 4 new tires	553.35	184.45
34895	12/6	L.A. County Dept. Public Works	Excavation permits	2,004.00	
34896	12/6	LA County Tax Collector	Property Taxes 1st payment	6,382.60	2,127.53
34897	12/6	Lincoln Financial Group	Dental/Life/Disability insurance 12/2016	3,016.20	2,010.79
34898	12/6	Logan Supply Co. Inc	Metal Grinding wheel	44.51	44.51
34899	12/6	Matt-Chlor Inc	New chlorine pump and spare parts	650.91	
34900	12/6	Mimecast North America, Inc.	Email security 11/2016	150.00	50.00
34901	12/6	Stepan Nalbanitan	Refund Check	25.69	
34902	12/6	Neofunds by Neopost	Postage for machine	451.00	451.00
34903	12/6	New Image Landscaping	Monthly maintenance 11/2016	927.50	152.50
34904	12/6	O'Reilly Auto Parts	Misc supplies 11/2016	82.53	27.51
34905	12/6	Office Depot - Credit Plan	Misc supplies 11/2016	500.00	412.81
34906	12/6	Paper Cuts, Inc	Monthly paper shredding 11/2016	26.88	26.87
34907	12/6	Paveco Construction Inc	Cost to asphalt 3200 Foothill after removing 2 services	4,268.25	
34908	12/6	Max Pellegrini	Refund Check	41.58	
34909	12/6	William Powell	Refund Check	100.00	
34910	12/6	Powers Electric Products, Co.	Repair well sounders	424.60	
34911	12/6	Ready Refresh by Nestle	Distilled water	30.92	
34912	12/6	Red Wing Shoe Store	Safety boots - Dennis-Jaysen-David R -Dave S - Kellen	658.25	219.41
34913	12/6	Robert Brkich Const. Corp	M-933 progress payment No. 1	59,628.17	
34914	12/6	Royal Wholesale Electric	Enclosure and panel for transducer	228.37	
34915	12/6	Spectrum Business	Data Communication 11/2016 Office	1,723.46	574.48
34916	12/6	Spectrum Business	Data Communication 11/2016 Glenwood	2,277.39	759.11
34917	12/6	Staples Business Advantage	Misc supplies 11/2016	45.34	45.34
34918	12/6	Still Mor Automotive Inc.	Unit #34 - Replace alternator, radiator, and front brakes	2,092.81	697.60
34919	12/6	Sully-Miller Contracting Co.	6 Tons of cold mix	633.88	
34920	12/6	Systemated Business Products	Stationary and envelopes	554.97	554.96
34921	12/6	Judy Tejeda	ACWA/JPIA Conference - Reimbursement for hotel and mileage	272.07	90.69
34922	12/6	The Gas Company	Gas purchased 11/2016 Glenwood	35.98	12.00
34923	12/6	Trench Shoring Company	Steel plate for Community & Ramsdell	853.75	
34924	12/6	Underground Service Alert/SC	Underground notifications 11/2016	171.00	57.00

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
34925	12/6	Univar USA Inc	1457 gallons of liquid chlorine for Mills & Glenwood	2,441.44	
34926	12/6	UPS	Shipping charges	23.85	
34927	12/6	Ver Sales, Inc	Red round sling for lifting pipes and valves, etc.	48.93	48.92
34928	12/6	Vision Service Plan Co-(CA)	Group Vision for 12/2016	290.64	193.76
34929	12/6	Volvo Construction Equipment	2016 Doosan LSC Trailer mounted light tower	8,076.90	
34930	12/6	Vulcan Materials Company	Curshed aggregate base material	715.60	
34931	12/6	Waste Management - Sun Valley	Disposal service 12/2016 office & plant	781.70	260.56
34932	12/6	Wil-Power Battery &DC Special	Batteries for seismic equipment	587.29	
34933	12/6	XC2 Software, LLC	Backflow software renewal for 2017 to 2019	375.00	125.00
34934	12/6	Yale Chase Materials Inc	6 - Key's	26.71	8.90
34935	12/7	So Cal Water Utilities Assoc.	SCWUA luncheon - David,Tom,Ron,Mark,Joe,Brook,Pete,Pam,Christina and Cory	202.50	67.50
34936	12/7	Dennis A. Maxwell, Jr	Health Reimbursement	199.58	
34937	12/7	Lynne Sovich	Health Reimbursement	327.45	
34938	12/13	Airgas USA, LLC	Monthly cylinder rental 11/2016	196.20	196.20
34939	12/13	All American Landscape Co.	Monthly landscaping 12/2016	217.50	72.50
34940	12/13	AMEC Foster Wheeler Environment	E-957 Services through 09/30/2016	3,139.42	
34941	12/13	Ameripride Uniform Services, Inc	Uniform rentals 11/2016	703.49	234.50
34942	12/13	ARC	Monthly MPS billing 11/2016	821.52	273.84
34943	12/13	AT&T	Land line voice for office 12/2016	1,245.69	378.35
34944	12/13	BC Laboratories, Inc	Water analysis	1,319.90	
34945	12/13	Bonnors Equipment Rentals	Misc rentals for 11/2016	107.56	22.85
34946	12/13	California Water Environment	Membership renewal Rob Wood	129.00	43.00
34947	12/13	Contractor Compliance & Mont Inc.	E 956 Well 2 - Services for 10/2016	361.25	
34948	12/13	County Clerk of Los Angeles	Fee for CEQA notice E-972	75.00	
34949	12/13	Dataprose LLC	Postage & printing for Control 1-4 11/2016	1,467.65	1,467.65
34950	12/13	Dell Financial Services	Contract lease for 12/2016	1,143.05	381.01
34951	12/13	Empire Fleetwash, LLC	Cost to clean District vehicles	352.50	117.50
34952	12/13	Eurofins Eaton Analytical Inc.	Water analysis	176.00	
34953	12/13	Grainger	2 -Boot brushes	32.75	32.74
34954	12/13	Graybar Electric Co., Inc.	Enclosures for mixers at Edumund II and Dunsmore Reservoirs	2,421.93	196.66
34955	12/13	Great America Leasing Corp.	Kyocera copier lease 12/2016	217.46	217.46
34956	12/13	Gsolutionz Professional Services	Land line support 12/2016	150.63	50.21
34957	12/13	Hopkins Technical Products, Inc.	PH sensors	474.86	

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
34958	12/13	Lagerlof, Senecal, Gosney & Kr	Legal services 11/2016	2,804.00	1,250.00
34959	12/13	Dennis A. Maxwell, Jr	Reimbursement uniform shirts	482.38	127.27
34960	12/13	Miron Electric Construction Corp.	E-733CS-1 retention payment	3,267.15	
34961	12/13	Newegg, Inc.	USB external slim CD/DVD writer and keyboards	363.73	121.22
34962	12/13	Orchard Supply Hardware	Misc hardware 11/2016	917.95	318.92
34963	12/13	PMC Engineering LLC	MP-10 tube filters for reservoirs	236.09	
34964	12/13	Ramco	Misc crushed base for 11/2016	1,720.70	
34965	12/13	Robertson's	Slurry for 2935 Community Ave.	1,521.64	
34966	12/13	Shell	Gas purchased 11/2016	1,274.91	424.96
34967	12/13	Simpler Systems	Monthly maintenance 12/2016	375.00	125.00
34968	12/13	Star Brite Bldg. Maintenance Inc	Janitorial service 12/2016	618.75	206.25
34969	12/13	Sully-Miller Contracting Co.	Minimum load charge	639.43	
34970	12/13	Toro's Lawnmower & Garden	14" metal saw blades	69.87	
34971	12/13	UPS	Shipping charges	10.99	10.99
34972	12/13	Vulcan Materials Company	Crushed aggregate base material	1,147.84	
34973	12/13	Water Wise Consulting, Inc	Water audit for 2427 Los Amigos	175.00	
34974	12/13	Western Water Works	Valve cap sleeves, valve caps, adapters, and flanges	2,684.46	
34975	12/14	American Water Works Assoc.	Membership renewal for Raymond Dodge	105.00	
34976	12/14	St Water Resource Control Brd.	Grade D1 renewal for Jaysen Ortega	70.00	
34977	12/21	ACV Systems, LLC	Well 5 repairs & troubleshooting	600.00	
34978	12/21	ACWA Joint Powers Ins Authority	Group health insurance for 01/2017	34,176.50	22,223.21
34979	12/21	Aflac	Employee paid insurance 12/2016	1,337.53	
34980	12/21	Allen Pipeline, Inc.	Welding services for Well #5, Well #8, and Glendale intertie	2,409.55	
34981	12/21	AMEC Foster Wheeler Environment	M-903A - Service through 10/28/16	5,245.00	
34982	12/21	APTwater, LLC	E-956 - Well 2 engineering progress invoice	62,500.00	
34983	12/21	AT&T	PRI Usage 12/2016	29.65	9.88
34984	12/21	AT&T Mobility	Cell phone service 12/2016	932.82	310.94
34985	12/21	Backflow Apparatus & Valve Co.	Check seat & tool & kit for backflow devices	105.50	
34986	12/21	BC Laboratories, Inc	Water analysis	2,732.00	
34987	12/21	Belzona California Inc.	2 gallons of gray Belzona coating for pipes	661.84	
34988	12/21	Campbell's Automotive Service	Unit #27 - R & R radiator	1,023.38	341.12
34989	12/21	Capital One Commercial	Misc supplies	396.79	396.76
34990	12/21	Cargill, Inc - Salt Division	24.68 tons bulk solar salt for nitrate plant	3,171.12	
34991	12/21	Carus Corporation	30 gallons of water treatment chemical	999.50	

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
34992	12/21	Centro Print Solutions	1099 Forms for year end reporting	30.28	30.27
34993	12/21	Choice Pest Control	Monthly service Well 9 12/2016	165.50	37.50
34994	12/21	City of Glendale Water & Power	Power purchased 12/2016	36,047.52	30.81
34995	12/21	Coastline Equipment Co.	Spray lubricant	11.43	3.81
34996	12/21	Crescenta Valley Tow Service	Cost to tow Unit #27 from Ocean View to Honolulu	206.20	68.74
34997	12/21	Dominguez General Engineering, Inc	Progress payment No. 2 for E-960 & E-961	123,793.37	
34998	12/21	Empire Fleetwash, LLC	Cost to wax Units #42 & #43	150.00	50.00
34999	12/21	Eurofins Eaton Analytical Inc.	Water analysis	540.00	
35000	12/21	First Choice	Coffee service plant & office	210.81	210.79
35001	12/21	Foothill Municipal Water	Purchased water for 11/2016	250,258.51	
35002	12/21	Grainger	Heavy duty kneeling pads for misc jobs	130.07	130.05
35003	12/21	John Robinson Consulting, Inc.	M-965 Grant assistant for 10/2016	5,400.00	
35004	12/21	LA Dept Water and Power	Power purchased 12/2016	46.79	
35005	12/21	Lagerlof, Senecal, Gosney & Kr	Public Water Agencies Group File #084200000	491.22	163.73
35006	12/21	Lance Allen Company, Inc	Cost for copies 09/15/16 to 12/14/16	794.35	794.34
35007	12/21	McMaster-Carr Supply Co	Cable stapler and staples	53.19	53.19
35008	12/21	Mimecast North America, Inc.	Email security 12/2016	150.00	50.00
35009	12/21	Miron Electric Construction Corp.	Replacement of existing soft starter for Encinal Booster	5,675.00	
35010	12/21	Northern Safety Co., Inc	Hard hats and misc safety supplies	177.46	59.14
35011	12/21	Pacific Surveys, LLC	Video survey of Well #9 and Well #16	2,660.00	
35012	12/21	Paveco Construction Inc	List 2016-17-05 paving in various locations	7,942.80	
35013	12/21	Sully-Miller Contracting Co.	8.28 tons of cold patch	822.88	
35014	12/21	Total Graphics	Cost to make & install vinyl signs for Units #42 & #50	150.00	50.00
35015	12/21	Univar USA Inc	1326 gallons of bleach at Mills & Glenwood	2,221.93	
35016	12/21	Vulcan Materials Company	Crushed aggregate base material	471.80	
35017	12/21	Wells Fargo Card Services	Gould: Safety & construction books; District logo shirts for D. Gould, T. Love, and M. Hass; American Groundwater Conf.-registration for Gould & Yared; food for safety luncheon	2,241.64	747.20
35018	12/21	Wells Fargo Card Services	Hass: Monthly recurring charges; parts for electric gates at plant; computer security software and misc hardware; supplies for Strategic Planning Workshop; cell phone cases	412.52	370.50
35019	12/21	Wells Fargo Card Services	Love: Board meeting dinner for 7 people	130.68	43.56

<u>Check#</u>	<u>Check Date</u>	<u>Payable To</u>	<u>Description</u>	<u>Water Amount</u>	<u>Wastewater Amount</u>
35020	12/21	Wells Fargo Card Services	Mitchell: ACWA Fall Conf - hotel and meals; advertisements for Accountant job opening; parts for Unit #42; materials for project at Glenwood	745.70	248.55
35021	12/21	Wells Fargo Card Services	Scott: Food for Strategic Planning Workshop #1; office supplies	207.92	71.15
35022	12/21	Wells Fargo Card Services	Putnam: ACWA Fall Conference - hotel	337.64	112.54
35023	12/21	Western Water Works	Brass elbows, bushings, valves, fire hydrants, couplings, corp stops, adapters	17,289.26	
Subtotals for Water and Wastewater				\$ 873,081.72	\$ 65,845.05
Total Disbursements for December 2016				\$ 938,926.77	

Payroll Report for December 2016

Directors	\$ 810.00
Office Regular Payroll	\$ 136,395.00
Office OT	\$ 409.00
Plant Regular Payroll	\$ 99,123.00
Plant OT & Standby	\$ 9,087.00
Employer Payroll Taxes	\$ 15,458.00
Payroll Service Charges	\$ 380.00
Total Payroll	\$ 261,662.00

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS STAFF REPORT

Consent Item No. 3

February 7, 2017

To: Honorable President and Members of the Board of Directors

From: Ron L. Mitchell – Secretary-Treasurer

Subject: **Purchase of New District Vehicle – Unit #51**

INFORMATION ITEM:

Purchase of New District Vehicle (Unit #51) – Consideration to authorize the General Manager to purchase a new 2017 Ford F-150 truck to replace Unit #1 at a total cost of \$32,167.70 and to declare Unit #1 as surplus property and direct the General Manager to dispose in a manner which best benefits the District.

BACKGROUND:

CVWD has 22 utility trucks, dump trucks, and/or specialty trucks within its fleet, which are utilized by personnel for various activities and which were purchased between 1995 and 2015. The District has seen an increase in vehicle maintenance costs for its older vehicles in the last few years. This is primarily due to the continued daily use of the utility trucks and the older trucks nearing the end of their useful life. One method to decrease the District's long term fleet maintenance costs would be to replace older vehicles, which thereby reduces future maintenance costs.

During the FY 16/17 budget process, staff identified Unit #1 and Unit #8 as being at the end of their useful life and \$85,000 was allocated for the replacement of these two trucks.

DISCUSSION:

Unit 1 - Ford F150: Unit #1 was purchased in 2003 and has been in the District's fleet for 13 years. Unit #1 is a Ford F-150 Supercab and currently has over 150,000 miles.

This vehicle had been used as the Superintendent's truck until the retirement of Larry Byers in 2015. Since that time, it has been used by various crew members, while other trucks have been in the shop for maintenance/repairs and by field crew members who are helping out with various facilities maintenance.

However, over the last three years, staff has seen an increase in repair costs totaling \$5,963 or an average of \$1,490 per year, to maintain Unit #1. At the present time, the engine is knocking and pinging when driving uphill and Unit #1 will probably require major engine work, which could cost up to \$5,000. Staff concluded that it did not make financial sense to repair Unit #1 since the value of the truck per the current Blue Book value is between \$2,300 and \$3,300, which is less than the repair cost.

At this time, staff determined that Unit #8 is in relatively good shape with respect to maintenance costs and could get another year of service before it would need to be replaced. The replacement of Unit #8 will be included in the FY 17/18 Budget.

Purchase of a Replacement Truck (Unit #51):

Staff requested quotes for the purchase of a new Ford F-150 4 x 2 utility truck (Unit #51) to replace Unit #1 from three (3) Ford dealerships within the Southern California area. Unit #51 will be assigned to the new Superintendent (Mr. Dennis Maxwell) and will include a supercrew cab with seating for four (4) people (the old Unit #1 could only seat 2 people), a 5.0L V8 engine, a 5.5 foot truck bed, with blue tooth compatibility, tailgate step, spray-in bed liner, and a towing package to tow the light duty trailers (i.e. arrow board, lights, etc.).

CVWD received quotes from the following dealerships, which are shown in the bid summary below:

Make	Model	Bid Item	Galpin Ford	Star Ford	Carmenita Truck Center
Ford	F-150	Base Price	\$ 27,286.93	\$ 27,466.00	\$ 28,227.00
		Tax (9%)	\$ 2,463.02	\$ 2,559.06	\$ 2,547.63
		Misc. Costs	\$ 117.75	\$ 117.75	119.50
		Total	\$ 29,867.70	\$ 30,142.81	\$ 30,894.13

Staff contacted these dealerships to get the approximate costs for taxes or any applicable fees for these vehicles and those are included in the bid summary. Galpin Ford of North Hills provided the lowest quote including tax and other fees for Unit #51.

Truck Modifications:

The new Unit #51 will also need safety light bars, two-way radio, tool boxes, and directional arrows installed after delivery at an additional cost of approximately \$2,300. Staff will try to use any existing equipment from Unit #1 to hopefully reduce this cost.

RECOMMENDATION:

Staff reviewed this purchase with the Engineering Committee on January 31, 2017 and it is their recommendation to approve the purchase of the replacement vehicle at a cost of \$29,867.70 plus modifications of approximately \$2,300.00 for a total cost of \$32,167.70. Also, to declare Unit #1 as surplus property and direct the General Manager to dispose of it in a manner which best benefits the District.

FUNDING AVAILABILITY:

The replacement of Units #1 and #8 are included in the FY 2016/17 budget. There are sufficient funds available in the following account for purchase of the replacement truck as shown below:

Account Description	Amount
FY 16/17 Water and Wastewater Capital Outlay - Equipment	\$ 85,000.00
Total District Cost for Replacement of Unit #1 with Unit #51	\$ (32,167.70)
Amount Remaining in FY 16/17 - Capital Outlay - Equipment	\$ 52,832.30

Prepared by:

Submitted by:

Ron L. Mitchell
Secretary-Treasurer

Thomas A. Love
General Manager

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Agenda Item No. 1

February 7, 2017

To: Honorable President and Members of the Board of Directors
From: Thomas A. Love. – General Manager
Subject: Discussion of water use billing alternatives for high residential landscape irrigation needs

AGENDA ITEM:

Water Use Billing Alternatives – Discussion and possible action on alternative water service and billing for single family residential properties with high landscape irrigation needs.

BACKGROUND:

The Board has requested staff evaluate procedures and requirements to provide adjustments to the tiered rate structures for large, single family residential lots to account for the water demands required for landscape maintenance. This topic was previously evaluated by staff and presented to the Policy Committee and Board in late 2014 and again in April 2016. The alternatives previously presented were either not practical, had high implementation and administrative costs or might not have been in compliance with Proposition 218. Therefore these alternatives were not adopted.

DISCUSSION:

Staff has continued to evaluate alternatives and have identified an opportunity to allow residential customers to apply for a separate irrigation meter which is provided for in the District's current Rules and Regulations. However, the installation cost of the separate irrigation meter, which is paid by the customer, is too high for most customers to recover the cost from savings on their water bills. In order to reduce the separate irrigation meter installation cost staff has revised the meter installation design standard that requires a separate service lateral from the distribution pipeline. The revised design standard allows two meters on a single service lateral that eliminates construction of a separate service lateral in the street. The estimated installation cost for the original and revised design is shown below. These estimated costs represent the maximum installation cost including District equipment and labor. The actual cost could be less depending on specific site conditions. The design drawings and detailed cost estimates are attached.

- Service installation with separate service lateral - \$9,500 (maximum estimated cost)
- Service installation using existing service lateral - \$6,700 (maximum estimated cost)

The lower installation cost may still be prohibitive for most customers. Staff continues to evaluate ways to reduce this cost to the customer. The District may also consider an amortization payment schedule which would allow the customer to use monthly water cost savings to pay for the installation cost.

Prepared and Submitted by:



Thomas A. Love
General Manager

Description:						
Option 1 - New 1" Irrigation Meter with New Service Lateral						
Est. By: <u>B.Jones</u>		Date: <u>01/26/17</u>				
Checked By: _____		Date: _____				
MATERIALS	Material Cost			Installation Cost		
	Quantity	Unit Price	Total Price	Unit Price	Batch	Total Price
1" Water Meter Sensus iPerl	1.00	\$240.00	\$240.00			
Meter Box - 5 1/4 polymer	1.00	\$126.66	\$126.66			
Meter lid - 5 1/4 polymer	1.00	\$13.00	\$13.00			
1" Meter Coupling short	1.00	\$6.97	\$6.97			
1" Blk Weld Coupling	1.00	\$1.87	\$1.87			
1" Angle Stop Instatite	1.00	\$138.00	\$138.00			
1" Corp Stop	1.00	\$35.31	\$35.31			
1" Plastic Pipe PE	20.00	\$3.64	\$72.80			
1" Ball Valve	1.00	\$86.69	\$86.69			
	0.00	\$0.00	\$0.00			
Welder (4hrs)	4.00	\$500.00	\$2,000.00			
Paveco (Concrete)	16.00	\$17.50	\$280.00			
Paveco (Asphalt)	60.00	\$10.25	\$615.00			
Materials Total			\$3,616.30			\$0.00
EQUIPMENT	Hours	Unit Price	Total	Hours	Unit Price	Total
Pickup Truck (Unit # 44)	0	\$30.00	\$0.00			
Utility Truck (Unit # 2)	8	\$50.00	\$400.00			
Dump Truck (Unit 47)	0	\$50.00	\$0.00			
Dump Truck II (Unit 18 & 25)	11	\$60.00	\$660.00			
Back Hoe (Unit 19)	8	\$75.00	\$600.00			
Compact Excavator	8	\$65.00	\$520.00			
Boom Truck (Unit 16)	0	\$41.00	\$0.00			
Wheel Loader (Unit 15)	4	\$41.00	\$164.00			
District Trench Plate Rental	1	\$132.00	\$132.00			
Spoils/Backfill	1	\$375.00	\$375.00			
Rental Plates	0	\$500.00	\$0.00			
Equipment Total			\$2,851.00			\$0.00
LABOR	Hours	Unit Price	Total	Hours	Unit Price	Total
Utility Worker I	8	\$40.00	\$320.00			
Utility Worker II	19	\$45.00	\$855.00			
Supervisor	4	\$63.00	\$252.00			
Utility Worker I - OT	0	\$60.00				
Utility Worker II - OT	0	\$67.50				
Crew Leader - OT	0	\$94.50				
Supervision - OT	0	\$94.50				
Contractor Invoice						
Labor Total			\$1,427.00	0		\$0.00
ENGINEERING	Hours	Unit Price	Total	Hours	Unit Price	Total
District Engineer	1.0	\$70.00	\$70.00			
Engineering	2.0	\$110.00	\$220.00			
Permits/Printing	1.0	\$850.00	\$850.00			
Misc.	1.0	\$465.70	\$465.70			
Engineering Total			\$1,605.70			\$0.00
SUMMARY						
Materials	\$3,616.30					\$0.00
Equipment	\$2,851.00					\$0.00
Labor	\$1,427.00					\$0.00
Engineering	\$1,605.70					\$0.00
Total	\$9,500.00					\$0.00
Customer's Deposit	\$9,500.00	Amount Refund/(Owed)				\$9,500.00

Approved By: _____

Date: _____

David Gould, P.E.

District Engineer

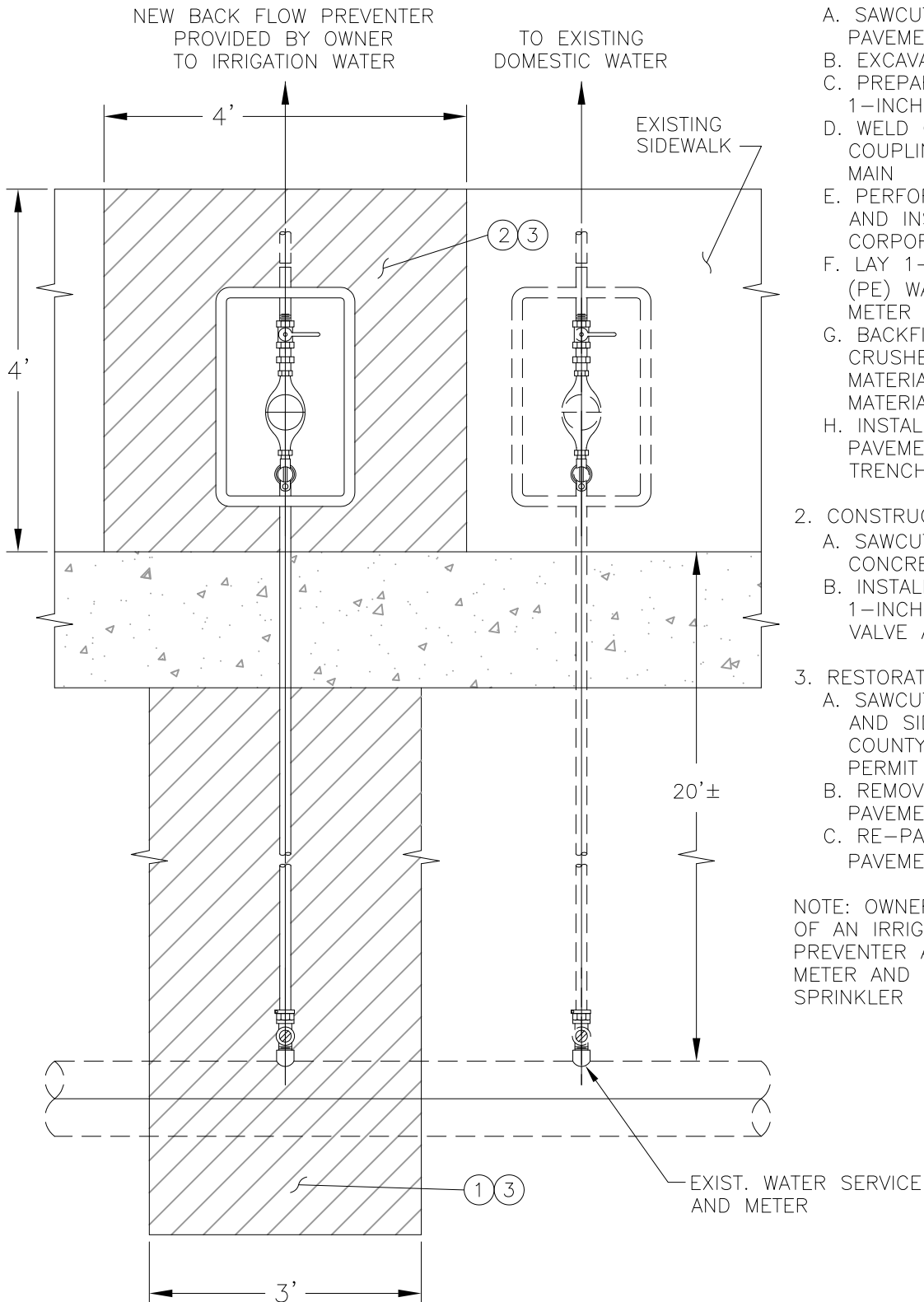
The total amount shown is an estimate of material, equipment and labor for new installation.

The Owner will be either invoiced or reimbursed for the actual total amount of work completed by District.

NOTES:

1. CONSTRUCTION IN STREET
 - A. SAWCUT/BREAKOUT EXIST. PAVEMENT
 - B. EXCAVATE NEW TRENCH
 - C. PREPARE WATER MAIN FOR 1-INCH WELD COUPLING
 - D. WELD ON NEW 1-INCH WELD COUPLING ONTO EXIST. WATER MAIN
 - E. PERFORM A 1-INCH HOT-TAP AND INSTALL 1-INCH CORPORATION STOP VALVE
 - F. LAY 1-INCH POLYETHYLENE (PE) WATER SERVICE TO NEW METER LOCATION
 - G. BACKFILL TRENCH WITH CRUSHED AGGREGATE BASE MATERIAL AND COMPACT MATERIAL
 - H. INSTALL TEMPORARY AC PAVEMENT OVER TOP OF TRENCH
2. CONSTRUCTION IN SIDEWALK
 - A. SAWCUT/BREAKOUT EXISTING CONCRETE SIDEWALK
 - B. INSTALL ANGLE METER STOP, 1-INCH METER, 1-INCH BALL VALVE AND METER BOX
3. RESTORATION
 - A. SAWCUT EDGES OF TRENCH AND SIDEWALK AREA PER LA COUNTY OR CITY OF GLENDALE PERMIT STANDARDS
 - B. REMOVE TEMPORARY AC PAVEMENT
 - C. RE-PAVE WITH PERMANENT AC PAVEMENT AND/OR CONCRETE

NOTE: OWNER REQUIRED INSTALLATION OF AN IRRIGATION BACKFLOW PREVENTER ASSEMBLY AFTER THE METER AND BEFORE THE FIRST SPRINKLER



CRESCENTA VALLEY WATER DISTRICT

DRAWN: JAH
DATE: 1/26

REV.
—

1" IRRIGATION METER INSTALLATION (OPTION 1)

DWG. NO.
—

Description:						
Option 2 - New 1" Irrigation Meter Using Existing Service Lateral						
Est. By: B.Jones		Date: 01/26/17				
Checked By: _____		Date: _____				
MATERIALS	Material Cost			Installation Cost		
	Quantity	Unit Price	Total Price	Unit Price	Batch	Total Price
1" Water Meter Sensus iPerl	2.00	\$240.00	\$480.00			
Meter Box - 5 1/4 polymer	2.00	\$126.66	\$253.32			
Meter lid - 5 1/4 polymer	2.00	\$13.00	\$26.00			
1" Meter Coupling short	2.00	\$6.97	\$13.94			
1" Angle Stop Instatite	2.00	\$138.00	\$276.00			
1" U Branch	1.00	\$60.00	\$60.00			
1" Plastic Pipe PE	4.00	\$3.64	\$14.56			
1" Ball Valve	2.00	\$86.69	\$173.38			
	0.00	\$0.00	\$0.00			
Paveco (Concrete)	16.00	\$17.50	\$280.00			
Paveco (Asphalt)	16.00	\$10.25	\$164.00			
Materials Total			\$1,741.20			\$0.00
EQUIPMENT	Hours	Unit Price	Total	Hours	Unit Price	Total
Pickup Truck (Unit # 44)	0	\$30.00	\$0.00			
Utility Truck (Unit # 2)	6	\$50.00	\$300.00			
Dump Truck (Unit 47)	0	\$50.00	\$0.00			
Dump Truck II (Unit 18 & 25)	8	\$60.00	\$480.00			
Back Hoe (Unit 19)	6	\$75.00	\$450.00			
Compact Excavator	6	\$65.00	\$390.00			
Boom Truck (Unit 16)	0	\$41.00	\$0.00			
Wheel Loader (Unit 15)	2	\$41.00	\$82.00			
District Trench Plate Rental	1	\$132.00	\$132.00			
Spoils/Backfill	1	\$375.00	\$375.00			
Rental Plates	0	\$500.00	\$0.00			
Equipment Total			\$2,209.00			\$0.00
LABOR	Hours	Unit Price	Total	Hours	Unit Price	Total
Utility Worker I	6	\$40.00	\$240.00			
Utility Worker II	12	\$45.00	\$540.00			
Supervisor	3	\$63.00	\$189.00			
Utility Worker I - OT	0	\$60.00				
Utility Worker II - OT	0	\$67.50				
Crew Leader - OT	0	\$94.50				
Supervision - OT	0	\$94.50				
Contractor Invoice						
Labor Total			\$969.00	0		\$0.00
ENGINEERING	Hours	Unit Price	Total	Hours	Unit Price	Total
District Engineer	1.0	\$70.00	\$70.00			
Engineering	2.0	\$110.00	\$220.00			
Permits/Printing	1.0	\$850.00	\$850.00			
Misc.	1.0	\$640.80	\$640.80			
Engineering Total			\$1,780.80			\$0.00
SUMMARY						
Materials	\$1,741.20					\$0.00
Equipment	\$2,209.00					\$0.00
Labor	\$969.00					\$0.00
Engineering	\$1,780.80					\$0.00
Total	\$6,700.00					\$0.00
Customer's Deposit	\$6,700.00	Amount Refund/(Owed)				\$6,700.00

Approved By: _____

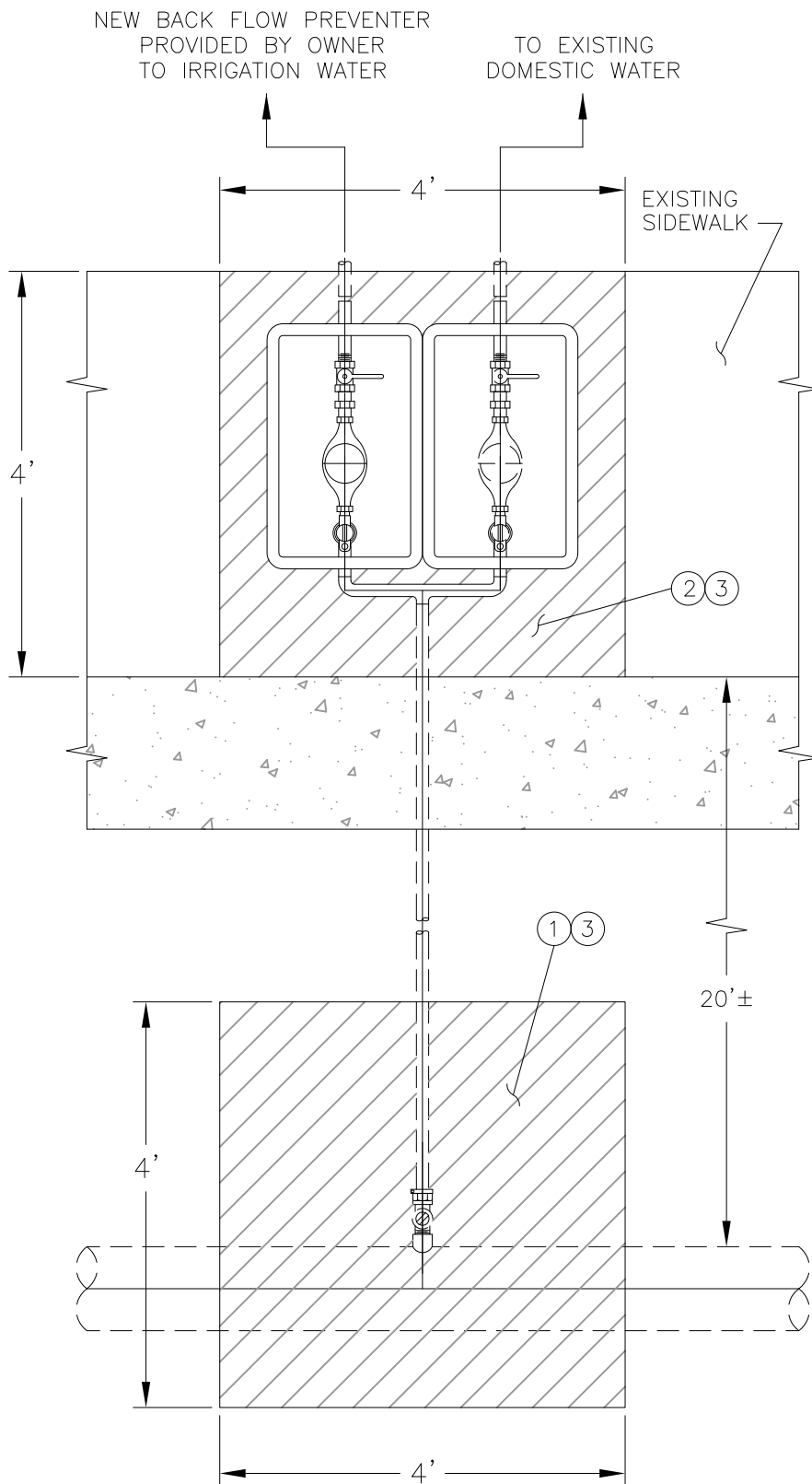
Date: _____

David Gould, P.E.

District Engineer

The total amount shown is an estimate of material, equipment and labor for new installation.

The Owner will be either invoiced or reimbursed for the actual total amount of work completed by District.



NOTES:

1. CONSTRUCTION IN STREET
 - A. SAWCUT/BREAKOUT EXIST. PAVEMENT OVER EXIST. 1-INCH CORPORATION STOP VALVE
 - B. EXCAVATE 4'X4' TRENCH AND TURN OFF SERVICE
 - C. BACKFILL TRENCH WITH CRUSHED AGGREGATE BASE MATERIAL AND COMPACT MATERIAL
 - D. INSTALL TEMPORARY AC PAVEMENT OVER TOP OF TRENCH
2. CONSTRUCTION IN SIDEWALK
 - A. SAWCUT/BREAKOUT EXISTING CONCRETE SIDEWALK
 - B. CUT THE EXIST. 1-INCH POLYETHYLENE (PE) WATER SERVICE AND INSTALL NEW "U-BRANCH" TO DEVIDE THE WATER BETWEEN THE EXIST. DOMESTIC WATER METER AND THE NEW IRRIGATION METER
3. RESTORATION
 - A. SAWCUT EDGES OF TRENCH AND SIDEWALK AREA PER LA COUNTY OR CITY OF GLENDALE PERMIT STANDARDS
 - B. REMOVE TEMPORARY AC PAVEMENT
 - C. RE-PAVE WITH PERMANENT AC PAVEMENT AND/OR CONCRETE

NOTE: OWNER REQUIRED INSTALLATION OF AN IRRIGATION BACKFLOW PREVENTER ASSEMBLY AFTER THE METER AND BEFORE THE FIRST SPRINKLER

CRESCENTA VALLEY WATER DISTRICT

DRAWN: JAH
DATE: 1/26

REV.
—

1" IRRIGATION METER INSTALLATION (OPTION 2)

DWG. NO.
—

CRESCENTA VALLEY WATER DISTRICT

COMMUNITY RELATIONS WATER CONSERVATION - STAFF REPORT

Action Item No. 2
February 7, 2017

To: Community Relations and Water Conservation Committee
From: Christy Joana Scott
Subject: Water Conservation Alert Status

DISCUSSION ITEM: Water Conservation Alert Status

BACKGROUND:

Following Governor Brown's issuance of the first executive order with mandatory restrictions and the State Water Board's (State) mandatory water reduction requirements, the District moved to "Orange Water Conservation Alert" on April 21, 2015. The District's "Orange alert" restricted outdoor watering to 2 days per week, Tuesday and Saturday. In May 2016, following a tremendous conservation effort by the community, improvements to available water supplies and reduction in the State mandated water conservation target, the District relaxed the water conservation alert from "Orange to Yellow" which increased outdoor watering from 2-days per week to 3-days per week. A copy of the water conservation alert system (an excerpt from Appendix G of the Rules and Regulations) is included for your review as Attachment A.

CURRENT REGULATORY CONDITIONS:

In the current State Emergency Water Conservation Regulations, there is a self-certification conservation alternative. This option allowed individual water suppliers to "certify" that the level of available water is sufficient to meet demands assuming an additional three years of drought. The demand was specified to be the average demands of the 2013/2014 calendar years. Should there be a calculated shortage, for example if the water agency predicts that there would be a 10% shortage in water supply at the end of the three years, then the conservation target for that agency would become 10%. Under this compliance option, the District self-certified at a "0%" conservation target.

On Wednesday, November 30, 2016, California State agencies released a draft plan for achieving long-term efficient water use as required by Governor Brown's Executive Order B-37-16.

Proposed as a collaborative effort between five state agencies – the Department of Water Resources, the State Water Resources Control Board, the California Public Utilities Commission, the California Department of Food and Agriculture, and the California Energy Commission, collectively referred to as the "EO Agencies", this plan represents a shift from statewide mandates to conservation standards based on local conditions to achieve the four objectives contained in the executive order.

1. Using Water More Wisely
2. Eliminating Water Waste
3. Strengthening Local Drought Resilience
4. Improving Agricultural Water Use Efficiency and Drought Planning

The State held a public hearing on January 18, 2017. During that workshop, it was State staff's recommendation to extend the Emergency Water Conservation Regulations. Several conservation compliance options were discussed including the continuation of the self-certification option. Public comments were all in favor of discontinuing the Emergency Regulation. A decision on the outcome of the Water Emergency Water

Conservation Regulations is expected at the State's February 8th Board Meeting, although the State's staff recommendation that was released on February 2nd indicates an extension of 270 days.

DISCUSSION:

There have been questions from the Board as to the District's current water conservation Alert. The District is currently in a "Yellow Alert" which limits outdoor watering to three days per week, Tuesday, Thursday and Saturday. The next lower alert would be the "Green Alert" which is defined as Voluntary with outdoor watering allowed on even and odd days based on the customer's address. Whereas if your address ends in an odd number then you would water on dates ending in an odd number.

A brief survey of the surrounding agencies, all which are part of the Water Efficiency Team "WET Group", is included as Attachment B. The original members of the WET Group, Burbank, Glendale, and CVWD are all consistent with the 3-day a week watering, Tuesday, Thursday, and Saturday. Valley also later adopted the same alert system to reinforce the efforts of a unified message. None of the agencies currently allows more than 3-days per week of outdoor watering.

Discussion between the WET Group Agencies has indicated that movement towards a lesser alert will not be considered until sometime in the Spring, as outdoor watering during the winter season should not exceed 3-days per week. This will also allow for the State Board's final decision on the revised Emergency Water Conservation Regulations.

The District's own groundwater supply is still at record historical lows. Even with the corresponding low demands thanks to a tremendous effort by the community, the District has found it necessary to purchase an increased percentage of imported water supplied from FMWD. Should demands increase, imported water supplies up to 2305 AF per water year may be purchased from FMWD without amending the self-certification "Stress Test" submitted to the State.

For reference, the 2015/2016 water year recorded imported water supplies at 1,711 AF. So imported water purchases would have to exceed approximately 35% or 594 AF. To date, 4-months into the water year, The District has increased the amount of purchased imported water by 83 AF over last year, an approximate 15% increase. Until such time that the groundwater basin recovers, the amount of purchased water will increase proportionately with demand increases.

Under Resolution 682, the General Manager has the authority to change the District's Water Conservation level. Changing the water conservation alert will most likely not generate any significant revenue until outdoor water demands increase with the warmer months. Staff would appreciate the Boards input on this matter.

Prepared by:



Christy Joana Scott

Submitted by:



Thomas A. Love
General Manager

Attachment A: Water Conservation Alert System

Attachment B: WET Group agencies allowed Watering Days

WATER CONSERVATION ALERT SYSTEM

When a water conservation alert system is implemented by direction of the General Manager, the following measures to reduce water consumption will be required for all water users within CVWD.

- a. Color Code **“Blue”** is defined as the Normal Water Conservation Alert, Foothill Municipal Water District can meet all Member Agency demands. Standard water conservation applies as defined in Appendix G of the Rules and Regulations.
- b. Color Code **“Green”** is defined as an Increased Voluntary Conservation Alert, some supplies have been impacted and customers should increase efforts to conserve by following strict water conservation practices indoors and limiting outdoor water use to odd or even days, based on ending number of customer address.
- c. Color Code **“Yellow”** is defined as an Extraordinary Conservation Alert, when Metropolitan Water District of Southern California is pulling water from most of its storage programs to meet demands. Extraordinary conservation is called for from customers. Customers are requested to minimize indoor water use and water outdoors no more than three (3) days per week. Outdoor irrigation will be permitted only on Tuesday, Thursday, and Saturday.
- d. Color Code **“Orange”** is defined as a Rationing Conservation Alert, when Metropolitan Water District of Southern California has implemented its allocation plan to its member agencies. Customers are requested to minimize indoor water use and severely limit outdoor water use as follows:
 1. Residential and commercial landscape irrigation is limited to no more than two (2) days per week on Tuesday and Saturday.
 2. Exemption: Public use areas owned and/or operated by School Districts are exempt from watering days, and public use areas greater than 4,000 square feet are exempt from watering days so long as best management practices are applied by all.
 3. The filling, refilling or adding of water to indoor and outdoor pools, wading pools, or spas is prohibited. Exemptions: Commercial Repairs mandated by the Federal Virginia Graeme Baker Act, or adding water for the prevention of equipment failure is permissible, however, the District strongly urges that a cover be used to prevent evaporation and thereby reducing the frequency of refilling..
 4. The use of water to clean, maintain, fill, or refill decorative fountains or similar structures is prohibited. Exemptions: Adding water for the prevention of equipment failure is permissible.
 5. Vehicle washing is restricted to the use of a hand-held bucket and quick rinses using a hose with a positive shut-off nozzle.
 6. Fix leaks within 48 hours.
- e. Color Code **“Red”** is defined as a Critical Water Conservation Alert, when water supplies are only available for health and safety needs. Customers are required to minimize indoor water use and curtail all outdoor water use. Fix any leaks within 24 hours.

Notification of the Water Conservation Alert System status on any given day shall be visibly posted at the exterior of the District’s Administration Office (2700 Foothill Blvd., La Crescenta) and other accessible locations throughout the District service area where allowed. At least one direct mailing shall be made to all water customer accounts, with notification and explanation of the alert system.

Current Watering Limitations					
	One Day	Two Day	3-Day	Other	Comments
FMWD		X			Recommends 2 days Nov-Mar
Valley			X		Tuesday, Thursday, Saturday
Lincoln		X			Follow FMWD
LCID		X			Odd (Tues/Thu) Even (Wed/Sat)
Burbank			X		Tuesday, Thursday, Saturday
Glendale			X		Tuesday, Thursday, Saturday
Pasadena	X				Saturday Only -(November -March)
So Pasadena			X		Odd (Tu-Thu-Sat) Even (M-W-F)
CVWD			X		Tuesday, Thursday, Saturday

CRESCENTA VALLEY WATER DISTRICT BOARD OF DIRECTORS - STAFF REPORT

Item No.3

February 7, 2017

To: Honorable President and Members of the Board of Directors

From: Thomas A. Love

Subject: Recycled Water Feasibility Study

ACTION ITEM:

1. **Recycled Water Feasibility Evaluation** – Receive and File the Final Technical Memorandum – Recycled Water Project Feasibility Evaluation.

BACKGROUND:

Recycled water (treated and disinfected wastewater) has been used to supplement water supplies in California and other western states for many decades. Since the late 1980's several large scale recycled water projects have been completed in southern California utilizing new federal, state and local grant funding and rebates. Recycled water is currently used for irrigation at parks, schools, golf courses and other landscape irrigation, industrial cooling and processes and groundwater recharge.

CVWD has previously evaluated projects to deliver recycled water to irrigation customers served by the District and neighboring water Districts. In 2004 a recycled water feasibility study, prepared by Bookman Edmonston Consultants, was conducted which included a regional recycled water distribution system which included irrigation customer demands served by CVWD and Valley Water Company. In 2015 the District prepared a draft concept report evaluating recycled water service to Two-Strike Park including an on-site treatment plant. Both these reports concluded that the cost of developing recycled water service would be substantially higher than the cost to purchase imported water from Foothill Municipal Water District (FMWD).

Following the Board's review of the Two-Strike Park concept report the Board directed staff to evaluate a larger scale recycled water project.

DISCUSSION:

Recycled water re-evaluation: District staff reviewed the earlier reports and studies and recognized that additional recycled water demand would be necessary to improve the financial feasibility. Staff updated the recycled water demands used in the 2004 feasibility study and expanded the project scope to include customers in the Los Angeles Department of Water and Power (LADWP) service area west of La Crescenta and additional customer demands served by CVWD increasing the projected annual recycled water demand to 850 acre-feet. A conceptual distribution system consisting of pipelines, pump stations and reservoirs was identified and capital and operating costs estimated. The recycled water would be supplied from the City of Glendale recycled water system. Three additional project alternatives were similarly evaluated: CVWD and LADWP project (Valley Water Company customers excluded); a CVWD only alternative and; an alternative which included only CVWD customers with additional demand included for groundwater recharge.

Staff retained the services of John Robinson Consulting, Inc. (JRC) to conduct a peer review of the work done by CVWD staff and summarizing the findings in a Technical Memorandum (Final Draft attached).

Summary of findings: The evaluation included the use of grant funding (50% of capital cost) and the maximum Local Resources Program (LRP) rebate from Metropolitan Water District.

The following table summarizes the evaluation of the four recycled water project alternatives:

Project	Average Annual Demand (AFY)	Capital Cost*	Annual Unit Cost (\$/AF, Net of Grants)
Regional Project CVWD, LADWP, GWP and VWC	849	\$18,400,000	\$2,190
CVWD and LADWP Project	339	\$11,660,000	\$2,891
CVWD RW Customers only Project	175	\$9,690,000	\$4,017
CVWD RW Customers Only and Groundwater Recharge	475	\$9,760,000*	\$2,117

* Does not include cost for advanced treatment which may be required for groundwater recharge

The annual unit costs are compared to the cost of purchasing imported water which is \$1,124 in 2017 (MWD Treated Tier 1 rate plus FMWD pumping cost).

Significant cost factors: The most significant cost component is the purchase of recycled water from the City of Glendale at \$1,200 per acre-foot. Staff has discussed this cost with Glendale Water and Power staff. This cost includes Glendale's operations, maintenance and pumping costs and also includes capital recovery for their distribution system. The other significant cost factors are amortized capital and long term system maintenance cost.

Future Considerations: Most recycled water projects in Southern California have been developed based on the economic feasibility of creating new water supply or reducing wastewater disposal or both. Currently development of a recycled water project is not the most economical means of addressing water supply and wastewater disposal issues for the District. However, future conditions may be conducive to re-evaluate a recycled water project. Staff will continue to monitor regulatory and water supply conditions. In addition, staff will keep abreast of neighboring agencies recycled water planning activities to identify future opportunities.

RECOMMENDATION:

Staff recommends that the Board receive and file the Final Recycled Water Project Feasibility Evaluation and direct staff to finalize the report and present to the Board.

Prepared and Submitted by:



Thomas A. Love, P.E.
General Manager

DRAFT FINAL Technical Memorandum

Subject: Recycled Water Project Feasibility Evaluation

Prepared for: Thomas Love, Crescenta Valley Water District

Prepared by: John Robinson, John Robinson Consulting, Inc.

Date: December 30, 2016

cc: David Gould, CVWD

BACKGROUND

This Technical Memorandum (TM) prepared by John Robinson Consulting, Inc. (JRC) re-evaluates the means and feasibility to provide recycled water within the Crescenta Valley Water District (CVWD). This TM utilized the April 22, 2004 Recycled Water Feasibility Study which was developed by Bookman-Edmonston, A Division of GEI Consultants, Inc., 2015 spreadsheets prepared by CVWD staff based on the 2004 Recycled Water Feasibility Study, the 2015 City of Glendale Water Master Plan update which included updates to their priorities for the recycled water system into CVWD's service area, the March 2015 Two Strike Park Recycled Water Satellite Facility Concept Report, and the 2015 CVWD Urban Water Management Plan.

Recycled Water Study Area

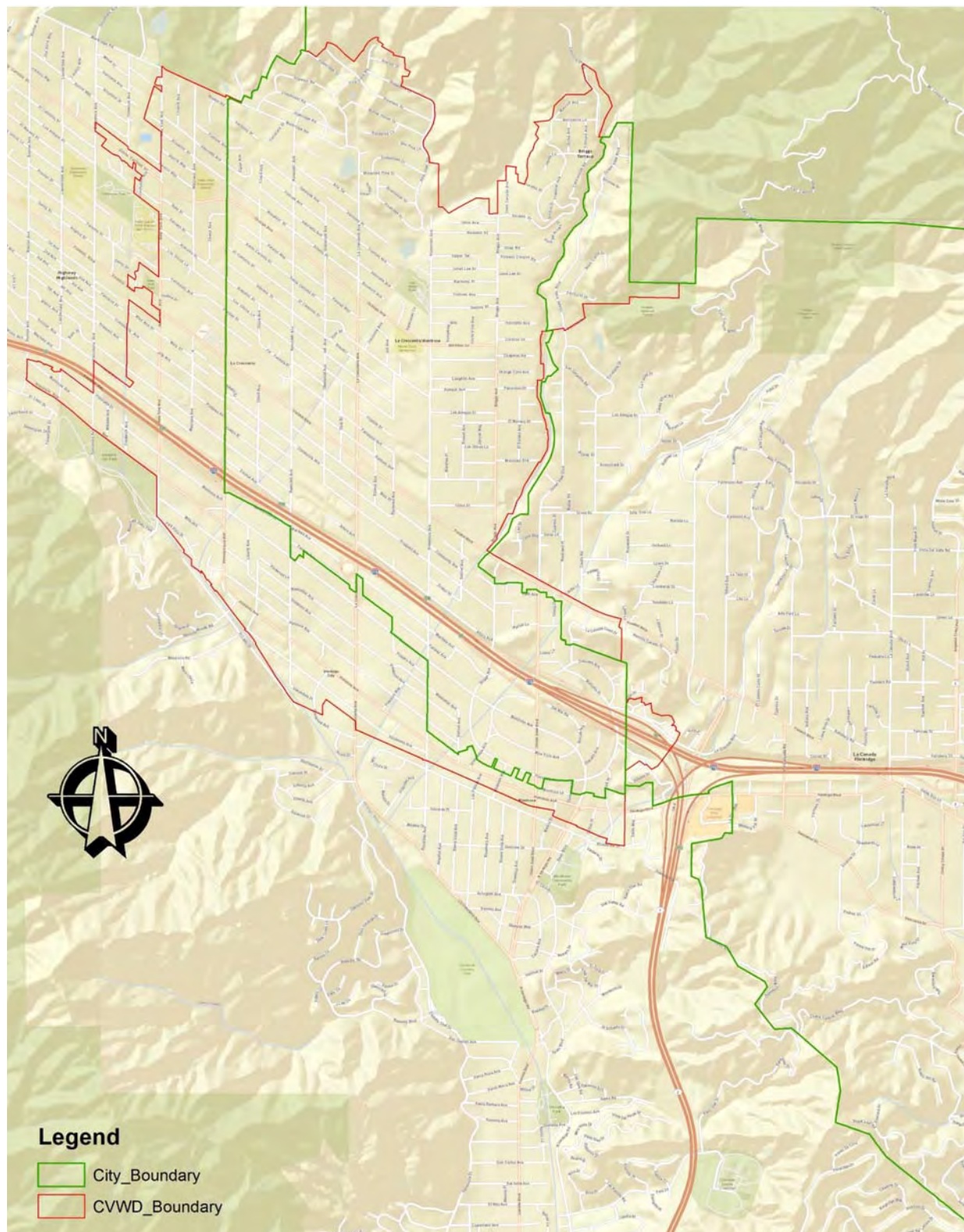
CVWD's service area is located in the Crescenta Valley area of Los Angeles County in the foothills of the San Gabriel Mountains, between the San Fernando and San Gabriel valleys. CVWD provides water distribution and sewage collection within its four-square mile service area boundaries to the unincorporated communities of La Crescenta, Montrose, and Verdugo City as well as a small portion of the City of Glendale and City of La Cañada-Flintridge. The service area ranges in elevation from approximately 1,200 feet to almost 3,000 feet above sea level due to its location next to the San Gabriel Mountains and sloping terrain. Figure 1 shows a map of CVWD's service boundaries.

CVWD currently provides water to over 8,000 accounts representing a population of 32,385. Customer growth is steady although the Crescenta Valley area is nearly built-out. Residential growth is occurring through increased housing density in the multiple-unit zoned areas (primarily Montrose) as well as limited in-fill housing developments on random parcels in La Crescenta.

CVWD's water sources are 12 local groundwater wells, with an average depth of 200 feet, one mountain tunnel (gravity fed), and imported water supply through three separate Foothill Municipal Water District (FMWD) connections and an emergency inter-tie system with the City of Glendale. On a long-term basis, approximately 60 percent of CVWD's annual water demand is met by the local groundwater supply and 40 percent by imported water. This ratio does change depending on the water supply

conditions, weather, and demand. CVWD operates 11 separate water pressure zones served by 14 pumping stations and 17 storage reservoirs totaling 17.5 million gallons.

Figure 1 – CVWD's Service Boundaries



Scope of Work

The scope of work for the Technical Memorandum included the following:

Recycled Water Title 22 System - Investigate the potential of a Title 22 recycled water distribution system to be connected to the City of Glendale's recycled water distribution system which is supplied by the Los Angeles-Glendale Water Recycling Plant. Based on that point of connection, investigate options to supply CVWD with Title 22 recycled water including:

- Regional Project involving CVWD, City of Glendale, Los Angeles Department of Water & Power, and Valley Water District customers
- Project involving CVWD and Los Angeles Department of Water & Power
- Project involving CVWD potential recycled water customers only
- Supplying CVWD recycled water customers as well as a groundwater recharge option

Economic Feasibility Evaluation Key Assumptions – An economic evaluation of each of the options listed above was completed using the following key assumptions:

- Capital costs based on recent construction cost including design, project management and contingencies.
- Grant funding at 50% of total capital cost, plus MWD LRP funding.
- Amortization of balance of capital costs over 30 years at a 4% interest rate.
- Recycled water purchase cost - \$1,200 per acre-foot based on the City of Glendale's recycled water retail rate escalated at 3% annually. This rate includes Glendale's pumping, operations and capital costs.
- Power cost based on current electricity rates escalated at 5% per year.
- Operations and Maintenance cost at 2.5% of total capital cost annually, escalated at 3% per year.
- Avoided cost of imported water at \$1,068 per acre-foot (2015 rate) including FMWD power cost escalated at 5% per year. FMWD fixed cost are not included.

Recycled Water Scalping/Satellite Facilities – JRC did not investigate any future scalping/satellite recycled water facilities within CVWD's service area since this effort was already conducted with a Concept Report dated March 2015 with a Membrane Bioreactor and ultraviolet treatment facility to be located at Two Strike Park.

Task 1.0 Recycled Water Title 22 System – Market and Distribution

As discussed, an assessment of the potential market for recycled water within CVWD's service area was completed in 2004 as part of a recycled water master plan for CVWD but due to the age of the document the District is looking to re-evaluate and assess the current recycled water market. The potential recycled water customer base is the same, demands have been updated, and the overall infrastructure alignment has not changed but has been re-evaluated.

Table 1 summarizes the potential recycled water market in 2016 which is for all future recycled water demands. Figure 2 shows the potential recycled water pump stations and pipelines to support these

potential recycled water customer demands within the local agencies including CVWD, Los Angeles Department of Water & Power (LADWP), and Valley Water Company (VWC).

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Table 1 - Summary of Recycled Water Demands

Project	Agencies	Number of Customers	Average Annual Demand (AFY)
Regional Project	CVWD, LADWP GWP and VWC	Approx. 11	849
CVWD and LADWP Project	CVWD and LADWP	Approx. 9	339
CVWD RW Customer only Project	CVWD	Approx. 10	175
CVWD RW Customer Only and Groundwater Recharge	CVWD with Recharge	Approx. 10	475

Google Maps **FIGURE 2 - Crescenta Valley Water District - Recycled Water Project Re-Evaluation**



2.0 Recycled Water Availability

The proposed recycled water source is the City of Glendale (Glendale) recycled water system. This system distributes water for the Los Angeles-Glendale Water Recycling Plant. Glendale just recently completed an update to their 2015 Water Master Plan which included an update to the section on their recycled water distribution system. The recycled water system is owned by Glendale and the overall water supply availability to the system is approximately 10,000 acre feet per year with 50% of the flow (5,000 acre- feet per year) available to the City of Los Angeles and Glendale, respectively.

The closest connection point to the Glendale system is along the 16-inch Verdugo Canyon Pipeline in the vicinity of La Crescenta Avenue and Verdugo Road. This pipeline is supplied by the 300,000-gallon Freeway reservoir which is supplied by the Fern Lane Pump Station. In conversations with Glendale staff there are no plans to expand the recycled water system to the northwest portions of Glendale specifically a La Crescenta Pipeline Project which had been discussed in the past as a potential pipeline extension. The Glendale recycled water retail rate would be \$2.58 per HCF or approximately \$1,100 per acre-feet. Glendale recommended that \$1,200 per acre-feet be utilized for the economic analysis for this recycled water re-evaluation as Glendale is moving forward with a rate study and are recommending an increase to their potable and recycled water rates.

3.0 Conceptual Recycled Water Projects

Meetings were held with CVWD staff to discuss and define the potential recycled water customers and potential recycled water alignment in CVWD's service area and to further develop conceptual collaborative projects with neighboring agencies including Los Angeles Department of Water & Power and Valley Water Company. The following projects were identified in those meeting discussions.

3.1 Regional Project

The Regional Project proposes a system which would replace the potable water irrigation connections as outlined in the 2004 report with recycled water and those customers are in three (3) different water purveyor service areas (CVWD, LADWP, and VWC). Figure 1 shows this alternative. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch serving CVWD and supplying some customers in LADWP including Caltrans and Verdugo Hills Golf course and an east branch serving Valley Water Company and a north branch serving CVWD customers near Rosemont Avenue. The west branch pipeline would be installed in Montrose Avenue and the east branch would follow Foothill Boulevard. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and minimum operational storage capacity of 500,000 gallons has been assumed.

Table 3-1 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum Local Resource Project (LRP) Funding from Metropolitan Water District of Southern California (MWD) at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water customer conversion- this project cost is \$2,190 per AF and therefore not financially feasible. A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Crescenta Valley Water District — Recycled Water Project Re-Evaluation
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Table 3-1
Capital and Operation and Maintenance Costs and Economic Evaluation
Regional Project

Financing Term	30 years								
Interest Rate	4%								
Recycled Water Purchase	\$ 1,200 per AF								
Deliveries	849 AFY								
	Annual								
	Cost	\$/AF	Sensitivity						
Amortized Capital	\$532,304	\$627	1		\$627				
Power	\$ 107,177	\$126	1		\$126				
Maintenance	\$ 460,231	\$542	1		\$542				
Recycled Water Purchase	\$ 1,019,280	\$ 1,200	1		\$1,200				
			0						
SUBTOTAL		\$2,495			\$2,495				
MWD LRP Funding	(\$259,067)	(\$305)			(\$305)				
TOTAL		\$2,190			\$2,190				
		\$6.72	per gallon						
Avoided FMWD Purchase	\$ 1,124								
Future Cost									
CPI	3%								
FMWD	5%								
Power	5%								
GWP	3%								
							Net	Avoided FMWD	Net Incremental
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Cost/AF	Cost	Cost
1	2017	\$627	\$126	\$542	\$ 1,200	(\$305)	\$2,190	\$ 1,124	\$1,066
2	2018	\$627	\$ 132	\$ 558	\$ 1,236	\$ (305)	\$ 2,248	\$ 1,180	\$1,068
3	2019	\$627	\$ 139	\$ 575	\$ 1,273	\$ (305)	\$ 2,309	\$ 1,239	\$1,069
4	2020	\$627	\$ 146	\$ 592	\$ 1,311	\$ (305)	\$ 2,371	\$ 1,301	\$1,070
5	2021	\$627	\$ 153	\$ 610	\$ 1,351	\$ (305)	\$ 2,436	\$ 1,366	\$1,069
6	2022	\$627	\$ 161	\$ 628	\$ 1,391	\$ (305)	\$ 2,502	\$ 1,435	\$1,067
7	2023	\$627	\$ 169	\$ 647	\$ 1,433	\$ (305)	\$ 2,571	\$ 1,506	\$1,064
8	2024	\$627	\$ 178	\$ 666	\$ 1,476	\$ (305)	\$ 2,641	\$ 1,582	\$1,060
9	2025	\$627	\$ 186	\$ 686	\$ 1,520	\$ (305)	\$ 2,715	\$ 1,661	\$1,054
10	2026	\$627	\$ 196	\$ 707	\$ 1,566	\$ (305)	\$ 2,790	\$ 1,744	\$1,046
11	2027	\$627	\$ 206	\$ 728	\$ 1,613	\$ (305)	\$ 2,868	\$ 1,831	\$1,037
12	2028	\$627	\$ 216	\$ 750	\$ 1,661	\$ (305)	\$ 2,949	\$ 1,922	\$1,026
13	2029	\$627	\$ 227	\$ 773	\$ 1,711	\$ (305)	\$ 3,032	\$ 2,019	\$1,013
14	2030	\$627	\$ 238	\$ 796	\$ 1,762	\$ (305)	\$ 3,118	\$ 2,119	\$998
15	2031	\$627	\$ 250	\$ 820	\$ 1,815	\$ (305)	\$ 3,206	\$ 2,225	\$981
16	2032	\$627	\$ 262	\$ 844	\$ 1,870	\$ (305)	\$ 3,298	\$ 2,337	\$961
17	2033	\$627	\$ 275	\$ 869	\$ 1,926	\$ (305)	\$ 3,392	\$ 2,454	\$939
18	2034	\$627	\$ 289	\$ 896	\$ 1,983	\$ (305)	\$ 3,490	\$ 2,576	\$914
19	2035	\$627	\$ 304	\$ 922	\$ 2,043	\$ (305)	\$ 3,591	\$ 2,705	\$886
20	2036	\$627	\$ 319	\$ 950	\$ 2,104	\$ (305)	\$ 3,695	\$ 2,840	\$855
21	2037	\$627	\$ 335	\$ 979	\$ 2,167	\$ (305)	\$ 3,802	\$ 2,982	\$820
22	2038	\$627	\$ 352	\$ 1,008	\$ 2,232	\$ (305)	\$ 3,914	\$ 3,131	\$782
23	2039	\$627	\$ 369	\$ 1,038	\$ 2,299	\$ (305)	\$ 4,028	\$ 3,288	\$740
24	2040	\$627	\$ 388	\$ 1,069	\$ 2,368	\$ (305)	\$ 4,147	\$ 3,452	\$695
25	2041	\$627	\$ 407	\$ 1,101	\$ 2,439	\$ (305)	\$ 4,269	\$ 3,625	\$644
26	2042	\$627	\$ 427	\$ 1,134	\$ 2,513	\$ (305)	\$ 4,396	\$ 3,806	\$590
27	2043	\$627	\$ 449	\$ 1,169	\$ 2,588	\$ (305)	\$ 4,527	\$ 3,997	\$530
28	2044	\$627	\$ 471	\$ 1,204	\$ 2,666	\$ (305)	\$ 4,662	\$ 4,196	\$465
29	2045	\$627	\$ 495	\$ 1,240	\$ 2,746	\$ (305)	\$ 4,802	\$ 4,406	\$395
30	2046	\$627	\$ 519	\$ 1,277	\$ 2,828	\$ (305)	\$ 4,946	\$ 4,627	\$319

3.2 CVWD and LADWP Project

The CVWD and LADWP Project propose a system which would replace the CVWD and LADWP potable water irrigation connections as outlined in the 2004 report with recycled water. Figure 2 shows this alternative and is supported by Appendix A. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch serving CVWD and supplying some customers in LADWP including Caltrans and Verdugo Hills Golf course and a north branch serving CVWD customers near Rosemont Avenue. The west branch pipeline would be installed in Montrose Avenue. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and storage capacity of approximately 4-hour peak flow or 500,000 gallons has been assumed.

Table 3-2 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum LRP Funding from MWD at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water conversion- this project cost is \$2,891 and therefore not financially feasible.

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance. and specific project summaries are in Appendix A.

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Table 3-2

Financing Term		30 years							
Interest Rate		4%							
Recycled Water Purchase Rate	\$	1,200 per AF							
Deliveries		339 AFY							
	Annual								
	Cost	\$/AF	Sensitivity						
Amortized Capital	\$337,134	\$993	1		\$993				
Power	\$ 48,866	\$144	1		\$144				
Maintenance	\$ 291,487	\$859	1		\$859				
Recycled Water Purchase	\$ 407,280	\$ 1,200	1		\$1,200				
			0		Increase RW Demand (Recharge)				
SUBTOTAL		\$3,196			\$3,196				
MWD LRP Funding	(\$103,517)	(\$305)			(\$305)				
TOTAL		\$2,891			\$2,891				
		\$8.87	per gallon						
Avoided FMWD Purchase		\$ 1,124							
Future Cost									
CPI	3%								
FMWD	5%								
Power	5%								
GWP	3%								
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Net Cost/AF	Avoided FMWD Cost	Net Incremental Cost
1	2017	\$993	\$144	\$859	\$ 1,200	(\$305)	\$2,891	\$ 1,124	\$1,767
2	2018	\$993	\$ 151	\$ 885	\$ 1,236	(305)	\$ 2,960	\$ 1,180	\$1,780
3	2019	\$993	\$ 159	\$ 911	\$ 1,273	(305)	\$ 3,031	\$ 1,239	\$1,792
4	2020	\$993	\$ 167	\$ 938	\$ 1,311	(305)	\$ 3,105	\$ 1,301	\$1,804
5	2021	\$993	\$ 175	\$ 967	\$ 1,351	(305)	\$ 3,181	\$ 1,366	\$1,814
6	2022	\$993	\$ 184	\$ 996	\$ 1,391	(305)	\$ 3,259	\$ 1,435	\$1,824
7	2023	\$993	\$ 193	\$ 1,025	\$ 1,433	(305)	\$ 3,340	\$ 1,506	\$1,833
8	2024	\$993	\$ 203	\$ 1,056	\$ 1,476	(305)	\$ 3,423	\$ 1,582	\$1,841
9	2025	\$993	\$ 213	\$ 1,088	\$ 1,520	(305)	\$ 3,509	\$ 1,661	\$1,848
10	2026	\$993	\$ 223	\$ 1,121	\$ 1,566	(305)	\$ 3,598	\$ 1,744	\$1,854
11	2027	\$993	\$ 235	\$ 1,154	\$ 1,613	(305)	\$ 3,690	\$ 1,831	\$1,859
12	2028	\$993	\$ 246	\$ 1,189	\$ 1,661	(305)	\$ 3,784	\$ 1,922	\$1,862
13	2029	\$993	\$ 259	\$ 1,224	\$ 1,711	(305)	\$ 3,882	\$ 2,019	\$1,864
14	2030	\$993	\$ 271	\$ 1,261	\$ 1,762	(305)	\$ 3,983	\$ 2,119	\$1,864
15	2031	\$993	\$ 285	\$ 1,299	\$ 1,815	(305)	\$ 4,088	\$ 2,225	\$1,862
16	2032	\$993	\$ 299	\$ 1,338	\$ 1,870	(305)	\$ 4,195	\$ 2,337	\$1,859
17	2033	\$993	\$ 314	\$ 1,378	\$ 1,926	(305)	\$ 4,306	\$ 2,454	\$1,853
18	2034	\$993	\$ 330	\$ 1,420	\$ 1,983	(305)	\$ 4,421	\$ 2,576	\$1,845
19	2035	\$993	\$ 346	\$ 1,462	\$ 2,043	(305)	\$ 4,540	\$ 2,705	\$1,835
20	2036	\$993	\$ 364	\$ 1,506	\$ 2,104	(305)	\$ 4,662	\$ 2,840	\$1,822
21	2037	\$993	\$ 382	\$ 1,551	\$ 2,167	(305)	\$ 4,789	\$ 2,982	\$1,807
22	2038	\$993	\$ 401	\$ 1,598	\$ 2,232	(305)	\$ 4,919	\$ 3,131	\$1,788
23	2039	\$993	\$ 421	\$ 1,646	\$ 2,299	(305)	\$ 5,054	\$ 3,288	\$1,766
24	2040	\$993	\$ 442	\$ 1,695	\$ 2,368	(305)	\$ 5,194	\$ 3,452	\$1,741
25	2041	\$993	\$ 464	\$ 1,746	\$ 2,439	(305)	\$ 5,338	\$ 3,625	\$1,713
26	2042	\$993	\$ 488	\$ 1,798	\$ 2,513	(305)	\$ 5,487	\$ 3,806	\$1,680
27	2043	\$993	\$ 512	\$ 1,852	\$ 2,588	(305)	\$ 5,640	\$ 3,997	\$1,644
28	2044	\$993	\$ 538	\$ 1,908	\$ 2,666	(305)	\$ 5,799	\$ 4,196	\$1,603
29	2045	\$993	\$ 564	\$ 1,965	\$ 2,746	(305)	\$ 5,963	\$ 4,406	\$1,557</

3.3 CVWD Potential Recycled Water Customer Project only

The CVWD potential recycled water customer project proposes a system which would replace the only the CVWD potable water irrigation connections as outlined in the 2004 report with recycled water. Figure 2 shows this alternative and is supported by Appendix A. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch in Montrose Avenue serving Crescenta Valley Park and a north branch serving CVWD customers near Rosemont Avenue. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and minimum operational storage capacity of 500,000 gallons has been assumed.

Table 3-3 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum LRP Funding from MWD at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water conversion- this project cost is \$4,017 and therefore not financially feasible.

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Crescenta Valley Water District — Recycled Water Project Re-Evaluation
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Table 3-3
Capital and Operation and Maintenance Costs and Economic Evaluation
CVWD Potential Recycled Water Customers Project only

Financing Term	30 years								
Interest Rate	4%								
Recycled Water Purchase Rate	\$ 1,200 per AF								
Deliveries	175 AFY								
	Annual								
	Cost	\$/AF	Sensitivity						
Amortized Capital	\$280,143	\$1,601	1		\$1,601				
Power	\$ 23,921	\$137	1		\$137				
Maintenance	\$ 242,212	\$1,384	1		\$1,384				
Recycled Water Purchase	\$ 210,000	\$ 1,200	1		\$1,200				
			0					Increase RW Demand (Recharge)	
SUBTOTAL		\$4,322			\$4,322				
MWD LRP Funding	(\$53,375)	(\$305)			(\$305)				
TOTAL		\$4,017			\$4,017				
		\$12.33	per gallon						
Avoided FMWD Purchase		\$ 1,124							
Future Cost									
	CPI 3%								
	FMWD 5%								
	Power 5%								
	GWP 3%								
							Net	Avoided FMWD	Net Incremental
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Cost/AF	Cost	Cost
1	2017	\$1,601	\$137	\$1,384	\$ 1,200	(\$305)	\$4,017	\$ 1,124	\$2,893
2	2018	\$1,601	\$ 144	\$ 1,426	\$ 1,236	\$ (305)	\$ 4,101	\$ 1,180	\$2,921
3	2019	\$1,601	\$ 151	\$ 1,468	\$ 1,273	\$ (305)	\$ 4,188	\$ 1,239	\$2,949
4	2020	\$1,601	\$ 158	\$ 1,512	\$ 1,311	\$ (305)	\$ 4,278	\$ 1,301	\$2,977
5	2021	\$1,601	\$ 166	\$ 1,558	\$ 1,351	\$ (305)	\$ 4,370	\$ 1,366	\$3,004
6	2022	\$1,601	\$ 174	\$ 1,605	\$ 1,391	\$ (305)	\$ 4,466	\$ 1,435	\$3,031
7	2023	\$1,601	\$ 183	\$ 1,653	\$ 1,433	\$ (305)	\$ 4,565	\$ 1,506	\$3,058
8	2024	\$1,601	\$ 192	\$ 1,702	\$ 1,476	\$ (305)	\$ 4,666	\$ 1,582	\$3,085
9	2025	\$1,601	\$ 202	\$ 1,753	\$ 1,520	\$ (305)	\$ 4,771	\$ 1,661	\$3,111
10	2026	\$1,601	\$ 212	\$ 1,806	\$ 1,566	\$ (305)	\$ 4,879	\$ 1,744	\$3,136
11	2027	\$1,601	\$ 223	\$ 1,860	\$ 1,613	\$ (305)	\$ 4,991	\$ 1,831	\$3,160
12	2028	\$1,601	\$ 234	\$ 1,916	\$ 1,661	\$ (305)	\$ 5,107	\$ 1,922	\$3,184
13	2029	\$1,601	\$ 245	\$ 1,973	\$ 1,711	\$ (305)	\$ 5,226	\$ 2,019	\$3,207
14	2030	\$1,601	\$ 258	\$ 2,033	\$ 1,762	\$ (305)	\$ 5,348	\$ 2,119	\$3,229
15	2031	\$1,601	\$ 271	\$ 2,094	\$ 1,815	\$ (305)	\$ 5,475	\$ 2,225	\$3,250
16	2032	\$1,601	\$ 284	\$ 2,156	\$ 1,870	\$ (305)	\$ 5,606	\$ 2,337	\$3,269
17	2033	\$1,601	\$ 298	\$ 2,221	\$ 1,926	\$ (305)	\$ 5,741	\$ 2,454	\$3,287
18	2034	\$1,601	\$ 313	\$ 2,288	\$ 1,983	\$ (305)	\$ 5,880	\$ 2,576	\$3,304
19	2035	\$1,601	\$ 329	\$ 2,356	\$ 2,043	\$ (305)	\$ 6,024	\$ 2,705	\$3,319
20	2036	\$1,601	\$ 345	\$ 2,427	\$ 2,104	\$ (305)	\$ 6,172	\$ 2,840	\$3,332
21	2037	\$1,601	\$ 363	\$ 2,500	\$ 2,167	\$ (305)	\$ 6,326	\$ 2,982	\$3,343
22	2038	\$1,601	\$ 381	\$ 2,575	\$ 2,232	\$ (305)	\$ 6,484	\$ 3,131	\$3,352
23	2039	\$1,601	\$ 400	\$ 2,652	\$ 2,299	\$ (305)	\$ 6,647	\$ 3,288	\$3,359
24	2040	\$1,601	\$ 420	\$ 2,732	\$ 2,368	\$ (305)	\$ 6,816	\$ 3,452	\$3,363
25	2041	\$1,601	\$ 441	\$ 2,814	\$ 2,439	\$ (305)	\$ 6,990	\$ 3,625	\$3,365
26	2042	\$1,601	\$ 463	\$ 2,898	\$ 2,513	\$ (305)	\$ 7,169	\$ 3,806	\$3,363
27	2043	\$1,601	\$ 486	\$ 2,985	\$ 2,588	\$ (305)	\$ 7,355	\$ 3,997	\$3,358
28	2044	\$1,601	\$ 510	\$ 3,074	\$ 2,666	\$ (305)	\$ 7,546	\$ 4,196	\$3,350
29	2045	\$1,601	\$ 536	\$ 3,167	\$ 2,746	\$ (305)	\$ 7,744	\$ 4,406	\$3,338
30	2046	\$1,601	\$ 563	\$ 3,262	\$ 2,828	\$ (305)	\$ 7,948	\$ 4,627	\$3,321

3.4 CVWD Potential Recycled Water Customer Project with Groundwater Recharge

The CVWD potential recycled water customer project with groundwater recharge proposes a system which would replace only the potable water irrigation connections served by CVWD as outlined in the 2004 report by CVWD customers with recycled water plus groundwater recharge facilities at Two Strike Park as outlined in the March 2015 Report and recycled water recharge utilizing the proposed storm water recharge facilities at Crescenta Valley Park. Figure 2 shows this alternative and is supported by Appendix A. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch in Montrose Avenue serving Crescenta Valley Park and a north branch serving CVWD customers near Rosemont Avenue. Groundwater recharge facilities would be constructed at Two Strike and Crescenta Valley Parks. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and storage capacity of approximately 4-hour peak flow or 500,000 gallons has been assumed.

Due to the recently approved Title 22 Groundwater Recharge regulations the existing recycled water purchased from Glendale would require additional treatment prior to groundwater recharge. The Regional Water Quality Control Board (RWQCB) – Los Angeles office last permit for a Title 22 groundwater recharge project without additional advanced treatment was in 1994 for the Water Replenishment District expansion of additional Title 22 recycled water at the Montebello Forebay project.

Additional Advanced Oxidation Process (AOPs) process would likely be required to further remove additional organic parameters not degradable by means of biologic processes at the Los Angeles-Glendale Water Recycling Plant. The use of ultraviolet (UV) treatment as an AOP is acceptable by the State Water Resource Control Board Division of Drinking Water in combination with soil aquifer treatment (SAT) in order to comply with the approved Title 22 Groundwater Recharge regulations. Although this additional treatment may be required the costs of the additional treatment have not been included in the economic evaluation for this alternative.

Table 3-4 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum LRP Funding from Metropolitan Water District at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water conversion- this project cost is \$2,117 and therefore not financially feasible.

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Crescenta Valley Water District — Recycled Water Project Re-Evaluation
DRAFT FINAL Technical Memorandum

Table 3-4
Capital and Operation and Maintenance Costs and Economic Evaluation
CVWD Potential Recycled Water Customers Project with Groundwater Recharge

Financing Term	30 years								
Interest Rate	4%								
Recycled Water Purchase Rate	\$ 1,200 per AF								
Deliveries	475 AFY								
	Annual								
	Cost	\$/AF	Sensitivity						
Amortized Capital (excluding retri	\$282,310	\$594	1		\$594				
Power	\$ 54,243	\$114	1		\$114				
Maintenance	\$ 244,086	\$514	1		\$514				
Recycled Water Purchase	\$ 570,000	\$ 1,200	1		\$1,200				
			0			Increase RW Demand (Recharge)			
SUBTOTAL		\$2,422			\$2,422	GWP @ \$450 75% Grant			
MWD LRP Funding	(\$144,875)	(\$305)			(\$305)				
TOTAL		\$2,117			\$2,117	\$ 1,202	\$ 1,156		
		\$6.50	per gallon						
Avoided FMWD Purchase		\$ 1,124							
Future Cost									
	CPI 3%								
	FMWD 5%								
	Power 5%								
	GWP 3%								
						Net	Avoided FMWD	Net Incremental	
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Cost/AF	Cost	Cost
1	2017	\$594	\$114	\$514	\$ 1,200	(\$305)	\$2,117	\$ 1,124	\$993
2	2018	\$594	\$ 120	\$ 529	\$ 1,236	\$ (305)	\$ 2,175	\$ 1,180	\$994
3	2019	\$594	\$ 126	\$ 545	\$ 1,273	\$ (305)	\$ 2,233	\$ 1,239	\$994
4	2020	\$594	\$ 132	\$ 562	\$ 1,311	\$ (305)	\$ 2,294	\$ 1,301	\$993
5	2021	\$594	\$ 139	\$ 578	\$ 1,351	\$ (305)	\$ 2,357	\$ 1,366	\$991
6	2022	\$594	\$ 146	\$ 596	\$ 1,391	\$ (305)	\$ 2,422	\$ 1,435	\$987
7	2023	\$594	\$ 153	\$ 614	\$ 1,433	\$ (305)	\$ 2,489	\$ 1,506	\$983
8	2024	\$594	\$ 161	\$ 632	\$ 1,476	\$ (305)	\$ 2,558	\$ 1,582	\$976
9	2025	\$594	\$ 169	\$ 651	\$ 1,520	\$ (305)	\$ 2,629	\$ 1,661	\$968
10	2026	\$594	\$ 177	\$ 670	\$ 1,566	\$ (305)	\$ 2,703	\$ 1,744	\$959
11	2027	\$594	\$ 186	\$ 691	\$ 1,613	\$ (305)	\$ 2,779	\$ 1,831	\$948
12	2028	\$594	\$ 195	\$ 711	\$ 1,661	\$ (305)	\$ 2,857	\$ 1,922	\$935
13	2029	\$594	\$ 205	\$ 733	\$ 1,711	\$ (305)	\$ 2,938	\$ 2,019	\$919
14	2030	\$594	\$ 215	\$ 755	\$ 1,762	\$ (305)	\$ 3,022	\$ 2,119	\$902
15	2031	\$594	\$ 226	\$ 777	\$ 1,815	\$ (305)	\$ 3,108	\$ 2,225	\$882
16	2032	\$594	\$ 237	\$ 801	\$ 1,870	\$ (305)	\$ 3,197	\$ 2,337	\$860
17	2033	\$594	\$ 249	\$ 825	\$ 1,926	\$ (305)	\$ 3,289	\$ 2,454	\$835
18	2034	\$594	\$ 262	\$ 849	\$ 1,983	\$ (305)	\$ 3,384	\$ 2,576	\$808
19	2035	\$594	\$ 275	\$ 875	\$ 2,043	\$ (305)	\$ 3,482	\$ 2,705	\$777
20	2036	\$594	\$ 289	\$ 901	\$ 2,104	\$ (305)	\$ 3,583	\$ 2,840	\$743
21	2037	\$594	\$ 303	\$ 928	\$ 2,167	\$ (305)	\$ 3,688	\$ 2,982	\$705
22	2038	\$594	\$ 318	\$ 956	\$ 2,232	\$ (305)	\$ 3,796	\$ 3,131	\$664
23	2039	\$594	\$ 334	\$ 985	\$ 2,299	\$ (305)	\$ 3,907	\$ 3,288	\$619
24	2040	\$594	\$ 351	\$ 1,014	\$ 2,368	\$ (305)	\$ 4,023	\$ 3,452	\$570
25	2041	\$594	\$ 368	\$ 1,045	\$ 2,439	\$ (305)	\$ 4,142	\$ 3,625	\$517
26	2042	\$594	\$ 387	\$ 1,076	\$ 2,513	\$ (305)	\$ 4,264	\$ 3,806	\$458
27	2043	\$594	\$ 406	\$ 1,108	\$ 2,588	\$ (305)	\$ 4,391	\$ 3,997	\$395
28	2044	\$594	\$ 426	\$ 1,141	\$ 2,666	\$ (305)	\$ 4,523	\$ 4,196	\$326
29	2045	\$594	\$ 448	\$ 1,176	\$ 2,746	\$ (305)	\$ 4,658	\$ 4,406	\$252
30	2046	\$594	\$ 470	\$ 1,211	\$ 2,828	\$ (305)	\$ 4,798	\$ 4,627	\$172

4.0 Conclusion

There are several factors affecting the unit cost of recycled water in these four alternatives: 1) Total recycled water demand; 2) Capital cost of infrastructure; 3) Energy and annual operations and maintenance cost; 4) Cost of recycled water supply from Glendale; and 5) Grant funding and other subsidies.

Each of the four alternatives evaluated include reasonably aggressive estimates of recycled water demand the largest of which is 850 acre feet per year which would be considered a very small recycled water project. This, combined with the extensive distribution pipelines required to serve this demand, results in high recycled water unit cost.

Energy cost is not a significant cost factor and is offset by reduced potable water pumping. Estimated annual operations and maintenance cost represent 25% to 35% of the recycled water unit cost.

The retail price for recycled water from Glendale is estimated at \$1,200 based on discussions with Glendale Water and Power staff. This represents over 50% of the recycled water unit cost.

Grant funding of 50% of the capital costs and MWD subsidies for retrofit on operations cost have been included in the economic evaluations. These subsidies reduce the recycled water unit cost by about 45%.

All four recycled water project options have resulting recycled water unit costs ranging from \$2,117 per acre-foot to \$4,017 per acre-foot as outlined in Table 3-1 through Table 3-4.

Appendix A

Potential Recycled Water Customer Demands
Capital Costs
(Pipelines, Pump Stations, Storage, RW Retrofits),
Operations and Maintenance
and
Summary
for
Regional Project
CVWD and LCID Project
CVWD RW Customer Only Project
CVWD RW Customer Only and Groundwater
Recharge Project

**CRESCENTA VALLEY WATER DISTRICT
RECYCLED WATER PROJECT RE-EVALUATION
CUSTOMER DEMANDS**

CVWD Recycled Water Demands								On-Site Retrofit		
Caltrans	2004 Report	2014	2013	2012	2011	Avg (highlighted)	AF			
1 N/E Corner Ocean View	45.4	8243	16335	15662	6656	11724	36.0 Low			
2 E/Side Rosemont	39.2	4008	6032	7552	63	5864	18.0			
3 S/Side Encinal (Pennsylvania)	32.4	4769	4577	0	0	4673	14.3			
4 W/Side New York	11.9	1931	421	678	518	1931	5.9			
5 S/Side La Granada (2 Fwy)	12.3	2730	2594	2123	1106	2482	7.6			
Ramsdell (2015)	0						0.0			
La Crescenta (2015)	0						0.0			
Total Caltrans		141.2					81.9		\$ 75,000	\$ 916
Parks		2014	2013	2012	2011	Avg (highlighted)	AF			
CV Park Total	32.7	3943	6473	3914	4591	4730	14.5 Low - Use 30		\$ 75,000	\$ 5,166
1 CV Park Dunsmore (1.5")		1469	1464	553	0					
CV Park Dunsmore (2")		346	655	267	573					
2 CV Park Honolulu		1139	2446	1826	2082					
3 CV Park New York		989	1908	1268	1936					
4 Two Strike Park	23.6	4477	3741	6295	8583	5774	17.7 Low		\$ 25,000	
5 Pickens Canyon Park	0	58	137	168	165	132	0.4		\$ 25,000	Added since using demand
Total Parks		56.3					32.6		\$ 100,000	\$ 3,063
Schools		2014	2013	2012	2011	Avg (highlighted)	AF			
CV High (2 meters)	0	5381	4195	5170	5360	5027	15.4		\$ 50,000	
Rosemont Jr. High	0	7312	8345	1434	5493	7050	21.6		\$ 35,000	
Mt. Ave School	0	3191	2563	2934	2395	2771	8.5		\$ 25,000	
Monte Vista School	0	972	1008	878	1240	1025	3.1		\$ 25,000	
Total Schools		0					48.7		\$ 135,000	\$ 2,771
CVWD Total		197.5					163.2 AFY		\$ 310,000	\$ 1,899 Use \$1,900/AF
		92.6	2014 All Irrig. Meters Total excludes schools				137.1			
VWC		319					319 AFY			
LCID		191					191 AFY			
LADWP/GWP North West										
Verdugo Hills GC	19.87 Acres	3 AFY/Acre					59.6		\$ 75,000	\$ 1,258
Clark Magnet		Estimated (similar to Rosemont Jr.)					21.6		\$ 35,000	
Dunsmore Park		Estimated (similar to Two Strike Park)					17.7		\$ 25,000	
Caltrans		Estimated (80% of CVWD Caltrans demand)					65.5		\$ 15,000	
Total LADWP/GWP							164.5 AFY		\$ 150,000	
Total Potential RW Irrigation Demand							837.7 AFY			

Key Assumptions to be validated

Demands (High or Low) (Verdugo Hills GC remaining life?)
Capital Cost
GWP RW Cost
O&M Cost
Reservoir Site
Retrofit Costs

Fatal Flaws

Verdugo Basin Groundwater Production- Judgement, well production capacity
Recharge Permitting without Advanced Treatment at LAG
GWP RW Purchase Agreement
Interagency Agreements - LADWP, GWP, FMWD, LCID, LC City, VWC

Regional Project

Economic Evaluation		30 years							
Financing Term									
Interest Rate		4%							
Recycled Water Purchase Rate		\$ 1,200 per AF							
Deliveries		849 AFY							
Annual Cost		\$/AF		Sensitivity					
Amortized Capital		\$532,304	\$627	1		\$627			
Power		\$ 107,177	\$126	1		\$126			
Maintenance		\$ 460,231	\$542	1		\$542			
Recycled Water Purchase		\$ 1,019,280	\$ 1,200	1		\$1,200			
				0					
SUBTOTAL			\$2,495			\$2,495			
MWD LRP Funding		(\$259,067)	(\$305)			(\$305)			
TOTAL			\$2,190			\$2,190			
			\$6.72	per gallon					
Avoided FMWD Purchase		\$ 1,124							
Future Cost									
CPI		3%							
FMWD		5%							
Power		5%							
GWP		3%							
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Net Cost/AF	Avoided FMWD Cost	Net Incremental Cost
1	2017	\$627	\$126	\$542	\$ 1,200	(\$305)	\$2,190	\$ 1,124	\$1,066
2	2018	\$627	\$ 132	\$ 558	\$ 1,236	(\$ 305)	\$ 2,248	\$ 1,180	\$1,068
3	2019	\$627	\$ 139	\$ 575	\$ 1,273	(\$ 305)	\$ 2,309	\$ 1,239	\$1,069
4	2020	\$627	\$ 146	\$ 592	\$ 1,311	(\$ 305)	\$ 2,371	\$ 1,301	\$1,070
5	2021	\$627	\$ 153	\$ 610	\$ 1,351	(\$ 305)	\$ 2,436	\$ 1,366	\$1,089
6	2022	\$627	\$ 161	\$ 628	\$ 1,391	(\$ 305)	\$ 2,502	\$ 1,435	\$1,067
7	2023	\$627	\$ 169	\$ 647	\$ 1,433	(\$ 305)	\$ 2,571	\$ 1,506	\$1,064
8	2024	\$627	\$ 178	\$ 666	\$ 1,476	(\$ 305)	\$ 2,641	\$ 1,582	\$1,060
9	2025	\$627	\$ 186	\$ 686	\$ 1,520	(\$ 305)	\$ 2,715	\$ 1,661	\$1,054
10	2026	\$627	\$ 196	\$ 707	\$ 1,566	(\$ 305)	\$ 2,790	\$ 1,744	\$1,046
11	2027	\$627	\$ 206	\$ 728	\$ 1,613	(\$ 305)	\$ 2,868	\$ 1,831	\$1,037
12	2028	\$627	\$ 216	\$ 750	\$ 1,661	(\$ 305)	\$ 2,949	\$ 1,922	\$1,026
13	2029	\$627	\$ 227	\$ 773	\$ 1,711	(\$ 305)	\$ 3,032	\$ 2,019	\$1,013
14	2030	\$627	\$ 238	\$ 796	\$ 1,762	(\$ 305)	\$ 3,118	\$ 2,119	\$998
15	2031	\$627	\$ 250	\$ 820	\$ 1,815	(\$ 305)	\$ 3,206	\$ 2,225	\$981
16	2032	\$627	\$ 262	\$ 844	\$ 1,870	(\$ 305)	\$ 3,298	\$ 2,337	\$961
17	2033	\$627	\$ 275	\$ 869	\$ 1,926	(\$ 305)	\$ 3,392	\$ 2,454	\$939
18	2034	\$627	\$ 289	\$ 896	\$ 1,983	(\$ 305)	\$ 3,490	\$ 2,576	\$914
19	2035	\$627	\$ 304	\$ 922	\$ 2,043	(\$ 305)	\$ 3,591	\$ 2,705	\$886
20	2036	\$627	\$ 319	\$ 950	\$ 2,104	(\$ 305)	\$ 3,695	\$ 2,840	\$855
21	2037	\$627	\$ 335	\$ 979	\$ 2,167	(\$ 305)	\$ 3,802	\$ 2,982	\$820
22	2038	\$627	\$ 352	\$ 1,008	\$ 2,232	(\$ 305)	\$ 3,914	\$ 3,131	\$782
23	2039	\$627	\$ 369	\$ 1,038	\$ 2,299	(\$ 305)	\$ 4,028	\$ 3,288	\$740
24	2040	\$627	\$ 388	\$ 1,069	\$ 2,368	(\$ 305)	\$ 4,147	\$ 3,452	\$695
25	2041	\$627	\$ 407	\$ 1,101	\$ 2,439	(\$ 305)	\$ 4,269	\$ 3,625	\$644
26	2042	\$627	\$ 427	\$ 1,134	\$ 2,513	(\$ 305)	\$ 4,396	\$ 3,806	\$590
27	2043	\$627	\$ 449	\$ 1,169	\$ 2,588	(\$ 305)	\$ 4,527	\$ 3,997	\$530
28	2044	\$627	\$ 471	\$ 1,204	\$ 2,666	(\$ 305)	\$ 4,662	\$ 4,196	\$465
29	2045	\$627	\$ 495	\$ 1,240	\$ 2,746	(\$ 305)	\$ 4,802	\$ 4,406	\$395
30	2046	\$627	\$ 519	\$ 1,277	\$ 2,828	(\$ 305)	\$ 4,946	\$ 4,627	\$319

Pipelines		Cutomers	Pipe Length	Demand				Segment Flow (AFY)	Avg CFS	Peak CFS PF=	GPM	Pipe Size V (FPS)=	Nominal Pipe Size	Cost per Segment Foot	Segment Cost	\$/AF	
				Caltrans	Park/GC	School	Total										
Backbone Pipeline																	
NW-1	La Crescenta Ave/Rosemont	Rosemont/Montrose	3980					339.4	0.94		7	2947	24.5	24	375	\$ 1,485,000	\$ 4,375
NW-1	Rosemont/Montrose	Honolulu/Dunsmore		8501	38.2	30	68.2	232.6	0.64		6.6		20.3	16	285	\$ 2,422,728	\$ 10,416
NW-2	Honolulu/Dunsmore	Honolulu/La Tuna Can		4805	65.5	77.3	21.6	164.4	0.45		3.2	1427	17.1	16	285	\$ 1,369,368	\$ 8,329
E-1	Rosemont/Verdugo	Oakgrove/LCHS	5000		43.6		43.6	43.6	0.12		0.8	379	8.8	10	235	\$ 1,175,000	\$ 26,950
															\$ 6,452,096		
Laterals																	
CV-1	Montrose/Rosemont	Rosemont/Country side	4670				21.6	63.2	0.17		1.2	549	10.6	10	235	\$ 1,097,450	\$ 17,365
CV-2	Rosemont/Rosemont	Rosemont/Francis	2612		17.7			17.7	0.05		0.3	154	5.6	8	235	\$ 613,820	\$ 34,679
CV-3	Rosemont/Prospect	Prospect/Glenwood	2675			15.4		15.4	0.04		0.3	134	5.2	8	235	\$ 628,625	\$ 40,820
CV-4	Rosemont/Fairmont	El Sereno/Mt. Ave. School	2621			8.5		8.5	0.02		0.2	74	3.9	4	235	\$ 615,935	\$ 72,463
CV-5	Misc Caltrans	Caltrans	4000		20 Avg			20	0.06		0.4	174	6.0	8	235	\$ 940,000	\$ 47,000
															\$ 3,895,830		
													Total		\$ 10,347,926		

Pump Stations																			
Criteria																			
Glendale HGL		1410																	
CWD Zone 4 HGL		1783	373 HGL difference																
Min Pressure		80																	
Efficiency		75%																	
High Elevations																			
Required HGL																			
Verdugo Hill GC		1720	1905 Verdugo Hills is going to have to increase pressure																
Two Strike Park		1865																	
CV High School		1570	1755											Unit		\$/HP	Total		Total Capital
				Peak Flow		HP	kW	kWh/AF	AFY	Annual kWh/yr		LS	Civil						
Flow																			
PS-1	Glendale Connection	1783	6.6	373	370	276	510.01	339	173098		1	\$	200,000	\$	400	\$	148,133	\$	348,133
PS-2	Verdugo GC	1905	3.2	122	59	44	166.81	164	27424		1	\$	150,000	\$	400	\$	23,469	\$	173,469
PS-3	Two Strike/Rosemont	2050	0.9	267	37	28	365.07	48	17451		1	\$	150,000	\$	400	\$	14,934	\$	164,934
Total																	\$	686,535	

Reservoir(s)				
Criteria	4 hour storage			
	\$ 1.25	per Gallon	500,000 MG	\$ 625,000
Excluding Land Acquisition Cost				

On-Site Retrofits	AF 339.4	S/AF \$ 1,900	\$	644,850
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Summary					
Pipelines				\$	10,347,926
Pump Stations				\$	686,535
Reservoirs				\$	625,000
				\$	11,659,461
			Sub Total Distribution Sys.		
Grant Funding Distribution System			50%	\$	(5,829,731)
			Total Distribution System	\$	5,829,731
Retrofits				\$	644,860
MWD Retrofit Funding	339.4	\$	975	\$	(330,915)
Total Capital Cost				\$	11,973,406

Economic Evaluation		30 Years							
Financing Term		4%							
Interest Rate		1,200 per AF							
Recycled Water Purchase Rate		339 AFY							
Deliveries									
Annual									
Cost		\$/AF		Sensitivity					
Amortized Capital	\$337,134	\$993	1	5993					
Power	\$48,866	\$144	1	\$144					
Maintenance	\$291,487	\$859	1	\$859					
Recycled Water Purchase	\$407,280	\$1,200	1	\$1,200					
			0				Increase RW Demand (Recharge)		
SUBTOTAL		\$1,196		\$1,196					
MWD LRP Funding	(\$103,517)	(\$305)		(\$305)					
TOTAL		\$2,891		\$2,891					
		58.87	per gallon						
Avoided FMWD Purchase	\$1,124								
Future Cost									
CPI	3%								
FMWD	5%								
Power	5%								
GWP	3%								
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Net Cost/AF	Avoided FMWD Cost	Net Incremental Cost
1	2017	\$993	\$144	\$859	\$1,200	(\$305)	\$2,891	\$	\$1,767
2	2018	\$993	\$151	\$885	\$1,236	\$	(\$305)	\$2,960	\$1,780
3	2019	\$993	\$159	\$911	\$1,273	\$	(\$305)	\$3,031	\$1,792
4	2020	\$993	\$167	\$938	\$1,311	\$	(\$305)	\$3,105	\$1,804
5	2021	\$993	\$175	\$967	\$1,351	\$	(\$305)	\$3,181	\$1,814
6	2022	\$993	\$184	\$996	\$1,391	\$	(\$305)	\$3,259	\$1,824
7	2023	\$993	\$193	\$1,025	\$1,433	\$	(\$305)	\$3,340	\$1,833
8	2024	\$993	\$203	\$1,056	\$1,476	\$	(\$305)	\$3,423	\$1,841
9	2025	\$993	\$213	\$1,088	\$1,520	\$	(\$305)	\$3,509	\$1,848
10	2026	\$993	\$223	\$1,121	\$1,566	\$	(\$305)	\$3,598	\$1,854
11	2027	\$993	\$235	\$1,154	\$1,613	\$	(\$305)	\$3,690	\$1,859
12	2028	\$993	\$246	\$1,189	\$1,661	\$	(\$305)	\$3,784	\$1,862
13	2029	\$993	\$259	\$1,224	\$1,711	\$	(\$305)	\$3,882	\$1,864
14	2030	\$993	\$271	\$1,261	\$1,762	\$	(\$305)	\$3,983	\$1,864
15	2031	\$993	\$285	\$1,299	\$1,815	\$	(\$305)	\$4,088	\$1,862
16	2032	\$993	\$299	\$1,338	\$1,870	\$	(\$305)	\$4,195	\$1,859
17	2033	\$993	\$314	\$1,378	\$1,926	\$	(\$305)	\$4,306	\$1,853
18	2034	\$993	\$330	\$1,420	\$1,983	\$	(\$305)	\$4,421	\$1,845
19	2035	\$993	\$346	\$1,462	\$2,043	\$	(\$305)	\$4,540	\$1,835
20	2036	\$993	\$364	\$1,506	\$2,104	\$	(\$305)	\$4,662	\$1,822
21	2037	\$993	\$382	\$1,551	\$2,167	\$	(\$305)	\$4,789	\$1,807
22	2038	\$993	\$401	\$1,598	\$2,232	\$	(\$305)	\$4,919	\$1,788
23	2039	\$993	\$421	\$1,646	\$2,299	\$	(\$305)	\$5,054	\$1,766
24	2040	\$993	\$442	\$1,695	\$2,368	\$	(\$305)	\$5,194	\$1,741
25	2041	\$993	\$464	\$1,746	\$2,439	\$	(\$305)	\$5,338	\$1,713
26	2042	\$993	\$488	\$1,798	\$2,513	\$	(\$305)	\$5,487	\$1,680
27	2043	\$993	\$512	\$1,852	\$2,588	\$	(\$305)	\$5,640	\$1,644
28	2044	\$993	\$538	\$1,908	\$2,666	\$	(\$305)	\$5,799	\$1,603
29	2045	\$993	\$564	\$1,965	\$2,746	\$	(\$305)	\$5,963	\$1,557
30	2046	\$993	\$593	\$2,024	\$2,828	\$	(\$305)	\$6,133	\$1,506

CRESCENTA VALLEY WATER DISTRICT
RECYCLED WATER PROJECT RE-EVALUATION
CVWD RECYCLED WATER CUSTOMERS ONLY

CVWD Only																							
Pipelines																							
		Customers	Pipe Length	Demand				Segment Flow (AFY)	Avg CFS	Peak CFS PF=	GPM	Pipe Size V (FPS)=	Nominal Pipe Size	Cost per Foot	Segment Cost								
				Caltrans	Park/GC	School	Total																
Backbone Pipeline				3960				175	0.48	3.4	7	1519	17.6	16	285	\$ 1,128,600	\$ 6,449						
N - 1	La Crescenta Ave/Rosemont	Rosemont/Montrose		8501	38.2	30	68.2	68.2	0.19	1.3	592	11.0	16	285	\$ 2,422,728	\$ 35,524							
NW - 1	Rosemont/Montrose	Honolulu/Dunsmore			65.5	77.3	21.6	0	0.00	0.0	0	0.0	16	285	\$ -								
NW - 2	Honolulu/Dunsmore	Honolulu/La Tuna Can																					
E - 1	Rosemont/Verdugo	Oakgrove/LCHS		5000	43.6		43.6	43.6	0.12	0.8	379	8.8	10	235	\$ 1,175,000	\$ 26,950							
																\$ 4,726,328							
Laterals																							
CV-1	Montrose/Rosemont	Rosemont/Country side		4670			21.6	63.2	0.17	1.2	549	10.6	10	235	\$ 1,097,450	\$ 17,365							
CV-2	Montrose/Rosemont	Rosemont/Francis		2612		17.7		17.7	0.05	0.3	154	5.6	8	235	\$ 613,820	\$ 34,679							
CV-3	Rosemont/Prospect	Prospect/Glenwood		2675			15.4	15.4	0.04	0.3	134	5.2	8	235	\$ 628,625	\$ 40,820							
CV-4	Rosemont/Fairmount	El Sereno/Mt. Ave. School		2621			8.5	8.5	0.02	0.2	74	3.9	4	235	\$ 615,935	\$ 72,463							
CV-5	Misc Caltrans Laterals	Caltrans		4000		20 Avg		20	0.06	0.4	174	6.0	8	235	\$ 940,000	\$ 47,000							
																\$ 3,895,830							
															Total	\$ 8,622,158							
Pump Stations																							
Criteria		1410																					
Glendale HGL		1783	373 HGL difference																				
CVWD Zone 4 HGL		80																					
Min Pressure		75%																					
Efficiency																							
High Elevations		Required HGL																					
Verdugo Hill GC		1720	1905	Verdugo Hills is going to have to increase pressure																			
Two Strike Park		1865	2050																				
CV High School		1570	1755																				
				Peak Flow				kWh/AF		AFY		Annual kWh/yr		Unit	LS	Civil	\$/HP	Electrical	Total Capital				
				Flow	Head	HP	KW																
PS-1	Glendale Connection	1783	3.4	373	191	142	510.01	175	89252	1	\$	200,000	\$	400	\$	76,379		\$	276,379				
PS-2	Verdugo GC	1905	0.0	122	0	0	#DIV/0!	0	#DIV/0!	1	\$	-	\$	400	\$	-		\$	-				
PS-3	Two Strike/Rosemont	2050	0.9	267	37	28	365.07	48	17451	1	\$	150,000	\$	400	\$	14,934		\$	164,934				
															Total	\$ 441,313							
Reservoir(s)																							
Criteria		4 hour storage																					
		\$	1.25	per Gallon	500,000	MG														\$	625,000		
		Excluding Land Acquisition Cost																					
On-Site Retrofits																							
								AF	\$/AF											\$	332,500		
								175	\$ 1,900														
Summary																							
Pipelines																\$ 8,622,158							
Pump Stations																\$ 441,313							
Reservoirs																\$ 625,000							
																\$ 9,688,471							
Grant Funding Distribution System																Sub Total Distribution Sys.	50%	\$ (4,844,236)					
																Total Distribution System		\$ 4,844,236					
Retrofits																\$ 332,500							
MWD Retrofit Funding																175	\$ 975	\$ (170,625)					
Total Capital Cost																\$ 9,850,346							
Economic Evaluation																							
Financing Term		30 years																					
Interest Rate		4%																					
Recycled Water Purchase Rate		\$	1,200	per AF																			
Deliveries		175 AFY																					
		Annual Cost	\$/AF	Sensitivity																			
Amortized Capital		\$280,143	\$1,601	1	\$1,601																		
Power		\$ 23,921	\$137	1	\$137																		
Maintenance		\$ 242,212	\$1,384	1	\$1,384																		
Recycled Water Purchase		\$ 210,000	\$ 1,200	1	\$1,200																		
				0		Increase RW Demand (Recharge)																	
SUBTOTAL					\$4,322				\$4,322														
MWD LRP Funding					(\$53,375)				(\$305)														
TOTAL					\$4,017				\$4,017														
					\$12.33				per gallon														
Avoided FMWD Purchase					\$ 1,124																		
Future Cost																							
		CPI	3%																				
		FMWD	5%																				
		Power	5%																				
		GWp	3%																				
Funding Year		Year	Capital	Power	Maint.	RW	MWD LRP	Net Cost/AF	Avoided FMWD Cost	Net Incremental Cost													
1		2017	\$1,601	\$137	\$1,384	\$ 1,200	(\$305)	\$4,017	\$	1,124	\$2,893												
2		2018	\$1,601	\$ 144	\$ 1,426	\$ 1,236	\$ (305)	\$ 4,101	\$	1,180	\$2,921												
3		2019	\$1,601	\$ 151	\$ 1,468	\$ 1,273	\$ (305)	\$ 4,188	\$	1,239	\$2,949												
4		2020	\$1,601	\$ 158	\$ 1,512	\$ 1,311	\$ (305)	\$ 4,278	\$	1,301	\$2,977												
5		2021	\$1,601	\$ 166	\$ 1,558	\$ 1,351	\$ (305)	\$ 4,370	\$	1,366	\$3,004												
6		2022	\$1,601	\$ 174	\$ 1,605	\$ 1,391	\$ (305)	\$ 4,466	\$	1,435	\$3,031												
7		2023	\$1,601	\$ 183	\$ 1,653	\$ 1,433	\$ (305)	\$ 4,565	\$	1,506	\$3,058												
8		2024	\$1,601	\$ 192	\$ 1,702	\$ 1,476	\$ (305)	\$ 4,666	\$	1,582	\$3,085												
9		2025	\$1,601	\$ 202	\$ 1,753	\$ 1,520	\$ (305)	\$ 4,771	\$	1,661	\$3,111												
10		2026	\$1,601	\$ 212	\$ 1,806	\$ 1,566	\$ (305)	\$ 4,879	\$	1,744	\$3,136												
11		2027	\$1,601	\$ 223	\$ 1,860	\$ 1,613	\$ (305)	\$ 4,991	\$	1,831	\$3,160												
12		2028	\$1,601	\$ 234	\$ 1,916	\$ 1,661	\$ (305)	\$ 5,107	\$	1,922	\$3,184												
13		2029	\$1,601	\$ 245	\$ 1,973	\$ 1,711	\$ (305)	\$ 5,226	\$	2,019	\$3,207												
14		2030	\$1,601	\$ 258	\$ 2,033	\$ 1,762	\$ (305)	\$ 5,348	\$	2,119	\$3,229												
15		2031	\$1,601	\$ 271	\$ 2,094	\$ 1,815	\$ (305)	\$ 5,475	\$	2,225	\$3,250												
16		2032	\$1,601	\$ 284	\$ 2,156	\$ 1,870	\$ (305)	\$ 5,606	\$	2,337	\$3,269												
17		2033	\$1,601	\$ 298	\$ 2,221	\$ 1,926	\$ (305)	\$ 5,741	\$	2,454	\$3,287												
18		2034	\$1,601	\$ 313	\$ 2,288	\$ 1,983	\$ (305)	\$ 5,880	\$	2,576	\$3,304												
19		2035	\$1,601	\$ 329	\$ 2,356	\$ 2,043	\$ (305)	\$ 6,024	\$	2,705	\$3,319												
20		2036	\$1,601	\$ 345	\$ 2,427	\$ 2,104	\$ (305)	\$ 6,172	\$	2,840	\$3,332												
21		2037	\$1,601	\$ 363	\$ 2,500	\$ 2,167	\$ (305)	\$ 6,326	\$	2,982	\$3,343												
22		2038	\$1,601	\$ 381	\$ 2,575	\$ 2,232	\$ (305)	\$ 6,484	\$	3,131	\$3,352												
23		2039	\$1,601	\$ 400	\$ 2,652	\$ 2,299	\$ (305)	\$ 6,647	\$	3,288	\$3,359												
24		2040	\$1,601	\$ 420	\$ 2,732	\$ 2,368	\$ (305)	\$ 6,816	\$	3,452	\$3,363												
25		2041	\$1,601	\$ 441	\$ 2,814	\$ 2,439	\$ (305)	\$ 6,990	\$	3,625	\$3,365												
26		2042	\$1,601	\$ 463	\$ 2,898	\$ 2,513	\$ (305)	\$ 7,169	\$	3,806	\$3,363												
27		2043	\$1,601	\$ 486	\$ 2,985	\$ 2,588	\$ (305)	\$ 7,355	\$	3,997	\$3,358												
28		2044	\$1,601	\$ 510	\$ 3,074	\$ 2,666	\$ (305)	\$ 7,546	\$	4,196	\$3,350												
29		2045	\$1,601	\$ 536	\$ 3,167	\$ 2,746	\$ (305)	\$ 7,744	\$	4,406	\$3,338												
30		2046	\$1,601	\$ 563	\$ 3,262	\$ 2,828	\$ (305)	\$ 7,948	\$	4,627	\$3,321												

CVWD with Recharge

[illegible]

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Item No. 4
February 7, 2017

To: Honorable President and Members of the Board of Directors
From: Thomas A. Love, General Manager
Subject: Strategic Planning Goals and Objectives

ACTION ITEM:

1. **Strategic Planning Goals and Objectives** – Review and discussion of strategic planning goals and objectives.

BACKGROUND:

On October 20th, 2015 the Board and General Manager identified development of an updated strategic plan as an objective to be completed in 2016. The Board discussed the strategic planning process on June 7, 2016 and provided direction to initiate the strategic planning process.

Leadership staff participated in three workshops on August 30th, October 7th and October 12th, 2016. The Leadership Team has reviewed the District's Mission Statement and conducted an analysis of strengths, weaknesses, opportunities and threats (SWOT analysis) including ranking by importance. The Leadership team also discussed a value statement (how we conduct business) and vision statement.

On December 2nd, 2016 the Board of Directors participated in a strategic planning workshop (Workshop No. 1) and discussed the District's Mission Statement and conducted a SWOT analysis. On January 17, 2017 the Board of Directors participated in a second strategic planning workshop (Workshop No. 2) and discussed the future vision for the District and created the following vision statement:

"To provide water and wastewater services effectively and communicate the value of these services to the customers and community."

The Board also conducted additional evaluation and ranking of the list of "areas for improvement" which were identified at Workshop No. 1

Summary notes of Workshops No. 1 and 2 are attached.

DISCUSSION:

Staff has developed, for review and Board discussion, the following preliminary strategic planning goals and objectives which are intended to address the areas for improvement identified by the Board.

Prepared & Submitted by:



Thomas A. Love, P.E.
General Manager

**Crescenta Valley Water District
Strategic Planning 2016
Board Workshop No. 1
December 2, 2016 9:00 a.m.
Summary Notes**

Attendees:

Directors; Kerry Erickson, James Bodnar, Judy Tejada, Mike Claessens.

Legal Counsel; Tom Bunn

Staff; Tom Love, Ron Mitchel, Christy Scott, Dennis Maxwell, David Gould, Mark Hass.

FMWD Director; Kathy Ross.

Introduction/Objectives:

Tom Love provided an overview of the strategic planning process, definition of strategic planning, purpose and reasons for strategic planning, keys to success, roles and expectations, and ground rules for the discussion.

Mission Statement review:

The district's mission statement was discussed in detail. Several descriptors were suggested for inclusion in the mission statement including:

Safe	Reliable	Affordable
Dependable	Quality	Environmental
Economic	Cost Effective	

The following mission statement represents the general consensus from the discussion:

"The mission of the Crescenta Valley Water District is to provide quality, water and wastewater, services to its customers (in the Crescenta Valley community) in a dependable and economically responsible manner."

Additional mission statement modifications will be discussed at a future workshop.

SWOT Analysis:

Strengths:

The group identified the following internal strengths of the district.

Good customer service

Redundant water supplies

Engaged Board

Proactive and innovative staff

Respect of the community

Utilizes mutual aid with neighboring agencies

Reliable sewer collection system

Long range financial planning

Ten year capital improvement plan	Effective use of grant funding
Effective water conservation programs	Transparent governance
Strong management staff	Community emergency preparedness
In house equipment and resources	Environmentally conscientious
Sustainable revenues	Engaged with FMWD
Effective risk management	Community outreach effort
Have a local water supply	Infrastructure redundancy
Hold financial reserves	Technical adaptiveness
Good water quality	Leadership in the Foothill water community
Professional presentation to customers and community (field personnel)	
Dedicated and knowledgeable employees	
District staff and board are “open” to the community	

Weaknesses:

The group identified the following weaknesses which are listed in order of the importance which was determined by consensus:

<u>Weakness</u>	<u>Importance</u>
Aging infrastructure (pipes, wells, water quality)	11
Workforce planning (aging workforce, loss of inst. Knowledge)	10
Governance (Board roles and responsibilities)	8
Lack of emergency planning	7
Lack of long term water supply planning	6
Ineffective internal communication	4
Low employee morale	4
Cost containment and customer perception	4
Workers compensation & liability claims	3
Limited grant funding	2
Ineffective public outreach	1
Lack of clear Board direction	0

Next Steps:

Future strategic planning discussion items:

- Visioning
- Re-evaluation of prioritization of weaknesses
- Goals and objectives
- Mission Statement
- Value Statement

Future Board strategic planning workshops will be scheduled on Tuesday evenings when regular Board meetings are not scheduled.

**Crescenta Valley Water District
Strategic Planning Board Workshop # 2
January 17, 2017 6:00 p.m.
Summary Notes**

Attendees:

Directors: Kerry Erickson, James Bodnar, Judy Tejada, Mike Claessens, Ken Putnam.

Legal Counsel: Tom Bunn

Staff: Tom Love, Ron Mitchell, Christy Scott, Dennis Maxwell, David Gould, Mark Hass.

Introduction/Objectives:

Tom Love provided an overview of the workshop agenda and objectives.

Mission statement review:

The Board discussed the draft mission statement which was developed at the December 2nd 2016 workshop. Following discussion the Board reached consensus on the following DRAFT mission statement:

“The mission of the Crescenta Valley Water District is to provide quality water and wastewater services to the Crescenta Valley community in a dependable and economically responsible manner.”

Workshop #1 review:

Tom Love provided a summary of the issues discussed at the first strategic planning workshop held on December 2nd 2016. The Board reviewed the Workshop #1 discussion items, including the importance ranking of the identified areas for improvement (weaknesses). President Bodnar polled the Board for each member’s individual ranking. The following are the results of the Board’s importance ranking (higher number indicating greater importance):

<u>Areas for Improvement:</u>	<u>Importance</u>
Replacement of aging infrastructure (pipes, wells, water quality)	5
Workforce planning (aging workforce, loss of inst. Knowledge)	4
Emergency planning	4
Cost containment and customer perception	4
Workers compensation & liability claims	3
Public outreach	1
Governance (Board roles and responsibilities)	Not Ranked (NR)
Long term water supply planning	NR
Effective internal communication	NR
Low employee morale	NR
Limited grant funding	NR
Lack of clear Board direction	NR

Vision Statement:

The Board discussed the District vision; the desired description of the District in three to five years. Following discussion, the Board reached consensus on the following DRAFT vision statement:

“To provide water and wastewater services effectively and communicate the value of these services to the customers and community.”

Next Steps:

Future strategic planning discussion items:

Focus Areas

Goals and objectives

Value Statement

Future Board strategic planning discussions will be conducted during regular Board meetings.

Additional workshops will be scheduled if needed.

Crescenta Valley Water District

2017 Strategic Plan

Goals and Objectives

Goal: Maintain proactive asset management/replacement program

Objectives:	By Who:	When:	Status:	Comments:
Update ten year CIP, present to Board for approval.	District Engineer	6/20/17 and annually	On Target	
Evaluate CIP funding options, present to Board for consideration.	GM	6/20/2017	On Target	Evaluate pay-go, debt, SRF low interest loans
Update asset inventory with age, condition, remaining useful life.	District Engineer	10/31/2017	On Target	
Develop Asset Management Plan.	District Engineer	4/15/2018	Not Started	
Develop maintenance management plan/system.	Superintendent	4/15/2018	Not Started	

Goal: Maintain Organizational Effectiveness

Objectives:	By Who:	When:	Status:	Comments:
Conduct staffing needs assessment.	GM/Managers	4/15/2017	Not Started	
Evaluate organizational structure.	GM	5/1/2017	Not Started	
Continuation and enhancement of sound risk management and safety practices and programs.	Managers	On going	On Target	
Develop mechanisms to retain institutional knowledge.	GM	5/30/2017	Not Started	
Develop and implement cross training program.	GM/Managers	12/1/16 and ongoing	On Target	
Develop employee retention plan.	GM	5/30/2017	Not Started	

Crescenta Valley Water District

2017 Strategic Plan

Goals and Objectives

Goal: Be Prepared for Emergency Response

Objectives:	By Who:	When:	Status:	Comments:
Update emergency response plan.	Program Specialist	4/15/2017	On Target	
Implement emergency response training.	Program Specialist	4/15/17 and ongoing	On Target	
Formalize mutual aid procedures with emergency response partners.	GM	4/15/2017	On Target	CV Ready, GWP, VWC, FMWD, LCID, CERT, etc.

Goal: Achieve Financial Stability

Objectives:	By Who:	When:	Status:	Comments:
Update ten year budget forecast and financial model, present to Board for annual budget approval.	CFO	6/20/2017 and annually	On Target	
Identify and implement prudent cost containment measures.	Managers	6/20/2017 and ongoing	On Target	
Identify and pursue grant and State low interest loan funding for CIP projects.	GM/District Engineer	6/20/2017 and ongoing	On Target	\$1.1M grant revenue expected in FY 2017.

Goal: Improve Effective Public Outreach and Customer Service

Objectives:	By Who:	When:	Status:	Comments:
Identify and implement additional public outreach mechanisms.	GM/ Program Specialist	4/15/17 and ongoing	On Target	Service clubs, social media, print media, CVTC, website, bill inserts.
Maintain relevant, timely and effective messaging.	GM/ Program Specialist	4/15/17 and ongoing	On Target	Water supply status, conservation performance, infrastructure investments, financial management.
Develop and implement mechanisms to measure public outreach effectiveness and customer perception (satisfaction).	GM/ Program Specialist	7/4/17 and ongoing	On Target	Incorporate findings into future public outreach efforts.

**Crescenta Valley Water District
2017 Strategic Plan
Goals and Objectives**

Goal: Enhance Effective Governance

Objectives:	By Who:	When:	Status:	Comments:
Adopt and implement strategic plan.	GM/ Board	4/15/2017 and ongoing	On Target	
Evaluate and implement Board committee structure and improvements to effective committee review process.	Board Executive Committee and GM	4/15/17 and ongoing	On Target	
Maintain and disseminate Board meeting and agenda item calendary.	GM	2/14/17 and ongoing	On Target	

Thomas Love

From: Thomas Love
Sent: Wednesday, January 11, 2017 4:46 PM
Subject: FW: Rainfall

To: Board of Directors, Tom Bunn,

FYI.

From: Joe Huerta
Sent: Wednesday, January 11, 2017 3:54 PM
To: Ron Mitchell
Cc: Brook Yared; Bryan Jones; Christina Olmedo; Christy Scott; Cory Whitman; Dave Spain; David Gould; Dennis Maxwell; Lynne Sovich; Mark Hass; Pam Leddy; Roy Spaulding; Thomas Love; Wendy Holloway; Raymond Dodge; peter hilke; Darlene Telles; Natalie Bellissimo
Subject: Rainfall

Rainfall for January 11, 2017, was 2.14 inches, season total is 11.21 inches. October – January Historical Average is 10.53 inches.

Joe Huerta

Sr. Engineering Technician
Crescenta Valley Water District
(818) 248-3925

Thomas Love

From: Thomas Love
Sent: Friday, January 13, 2017 10:09 AM
Subject: Rainfall Update

To: Board, Tom Bunn.

January 12th rainfall total at office: 1.80 inches, season total to date: 13.01.

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

Thomas Love

From: Thomas Love
Sent: Wednesday, January 18, 2017 2:13 PM
Subject: Board Meeting Calendar

To: Board, Legal Counsel

Directors the updated Board meeting calendar is below. The February 14th strategic planning workshop is canceled.

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

Date		Meeting	Time	Loca
Board and Committee Meetings				
1/10/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
1/17/2017	Tuesday	Strategic Planning Wksp.	6:00 p.m.	Board Room
1/24/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
1/25/2017	Wednesday	Engineering Committee (KP, MC)	9:00 a.m.	Board Room
1/26/2017	Thursday	Finance Committee (JB, JT)	8:00 a.m.	Board Room
1/27/2017	Friday	Policy Committee (JB, KE)	9:00 a.m.	Board Room
1/27/2017	Friday	Community/Conserv. Cmmte. (KE, MC)	10:00 a.m.	Board Room
2/7/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
Tentative 2/14/2017	Tuesday	Strategic Planning Wksp.	Cancelled	Board Room
2/21/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
3/7/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
3/21/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
4/4/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
4/18/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
5/2/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
5/16/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
6/6/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
6/13/2017	Tuesday	Special Board Meeting - Public Hearing	7:00 p.m.	Board Room
6/20/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
7/4/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
7/18/2017	Tuesday	Board Meeting	7:00 p.m.	Board Room
Community Events (*District Participation)				
* 1/12/2017	Thursday	Chamber Installation Luncheon		TBD
1/19/2017	Thursday	CV Town Council	7:00 p.m.	LC Library
2/16/2017	Thursday	CV Town Council	7:00 p.m.	LC Library
3/16/2017	Thursday	CV Town Council	7:00 p.m.	LC Library
3/19/2017	Saturday	Day at the Races (fundraiser w/Sheriff Support Group)		Santa Anita
3/15/2017	Wednesday	Smart-A-Thon	11:30 a.m.	Verdugo Hil
* 4/1/2017	Saturday	Foothills Relay for Life (generator)		Clark Magn
4/20/2017	Thursday	CV Town Council	7:00 p.m.	LC Library
* 4/22/2017	Saturday	GWP/CVWD CA Friendly Landscape Clas	9:00 a.m.	TBD
* 4/29/2017	Saturday	Home Town Fair (Booth/generator)	10:00 a.m.	CV County f
* 5/1/2017	Monday	Taste of Montrose (generator)		
* 5/6/2017	Saturday	GWP/CVWD CA Friendly Landscape Clas	9:00 a.m.	TBD
5/18/2017	Thursday	CV Town Council	7:00 p.m.	LC Library
* 5/20/2017	Saturday	GWP/CVWD CA Friendly Landscape Clas	9:00 a.m.	TBD
* 5/20/2017	Saturday	Prom Plus (water)		LA Canada Y
* 5/29/2017	Monday	Memorial Day Service (Chairs)	8:00 a.m.	Montrose/t
6/15/2017	Thursday	CV Town Council	7:00 p.m.	LC Library
* 6/10/2017	Saturday	GWP/CVWD CA Friendly Landscape Clas	9:00 a.m.	TBD
* 7/4/2017		CV Fire Works (generator)		
Conferences, Workshops and Seminars				
3/8/2017	Wednesday	ACWA Legislative Symposium	9:00 a.m.-4:30 p.m.	Sacramentc
5/9 to 5/12/17	Tues.- Friday	ACWA Spring Conference		Monterey

Thomas Love

From: Thomas Love
Sent: Wednesday, January 18, 2017 3:15 PM
Subject: Strategic Planning - Mission, Vision, Summary Notes
Attachments: Board workshop#2 summary notes 01-17-17.docx

To: Directors, Legal Counsel.

Directors, thank you for a very productive strategic planning session yesterday. Attached are the summary notes. Below are the DRAFT Mission and Vision statements. Please let me know if you have any questions or would like to discuss.

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

CVWD Mission

“The mission of the Crescenta Valley Water District is to provide quality water and wastewater services to the Crescenta Valley community in a dependable and economically responsible manner.”

CVWD Vision

“To provide water and wastewater services effectively and communicate the value of these services to the customers and community.”

**Crescenta Valley Water District
Strategic Planning Board Workshop # 2
January 17, 2017 6:00 p.m.
Summary Notes**

Attendees:

Directors: Kerry Erickson, James Bodnar, Judy Tejeda, Mike Claessens, Ken Putnam.

Legal Counsel: Tom Bunn

Staff: Tom Love, Ron Mitchell, Christy Scott, Dennis Maxwell, David Gould, Mark Hass.

Introduction/Objectives:

Tom Love provided an overview of the workshop agenda and objectives.

Mission statement review:

The Board discussed the draft mission statement which was developed at the December 2nd 2016 workshop. Following discussion the Board reached consensus on the following DRAFT mission statement:

"The mission of the Crescenta Valley Water District is to provide quality water and wastewater services to the Crescenta Valley community in a dependable and economically responsible manner."

Workshop #1 review:

Tom Love provided a summary of the issues discussed at the first strategic planning workshop held on December 2nd 2016. The Board reviewed the Workshop #1 discussion items, including the importance ranking of the identified areas for improvement (weaknesses). President Bodnar polled the Board for each member's individual ranking. The following are the results of the Board's importance ranking (higher number indicating greater importance):

<u>Areas for Improvement:</u>	<u>Importance</u>
Replacement of aging infrastructure (pipes, wells, water quality)	5
Workforce planning (aging workforce, loss of inst. Knowledge)	4
Emergency planning	4
Cost containment and customer perception	4
Workers compensation & liability claims	3
Public outreach	1
Governance (Board roles and responsibilities)	Not Ranked (NR)
Long term water supply planning	NR
Effective internal communication	NR
Low employee morale	NR
Limited grant funding	NR
Lack of clear Board direction	NR

Vision Statement:

The Board discussed the District vision; the desired description of the District in three to five years. Following discussion, the Board reached consensus on the following DRAFT vision statement:

"To provide water and wastewater services effectively and communicate the value of these services to the customers and community."

Next Steps:

Future strategic planning discussion items:

Focus Areas

Goals and objectives

Value Statement

Future Board strategic planning discussions will be conducted during regular Board meetings. Additional workshops will be scheduled if needed.

Thomas Love

From: Thomas Love
Sent: Friday, January 20, 2017 10:38 AM
Subject: Meeting Cancellation - January 24th Board Meeting

To: Board Members, Legal Counsel.

Directors, we have moved all of the planned action items to the committee meetings which are scheduled next week. Therefore there are no urgent action items for next week's regular Board meeting and the meeting will be canceled.

I had considered a strategic planning discussion for next Tuesday, but have not had sufficient time to prepare for a substantive discussion.

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

Thomas Love

From: Thomas Love
Sent: Tuesday, January 24, 2017 6:27 AM
Subject: FW: Rainfall

To: Board of Directors, Legal Counsel.

Weekend Rainfall Totals:
Friday January 20th 1.90 inches
Saturday-Sunday January 2.29 inches
Monday 0.15 inches

Thomas A. Love, P.E.
General Manager
Crescenta Valley Water District
818-248-3925 (office)
626-825-3678 (cell)

From: Joe Huerta
Sent: Monday, January 23, 2017 4:01 PM
To: Ron Mitchell
Cc: Brook Yared; Bryan Jones; Christina Olmedo; Christy Scott; Cory Whitman; Dave Spain; David Gould; Dennis Maxwell; Lynne Sovich; Mark Hass; Pam Leddy; Roy Spaulding; Thomas Love; Wendy Holloway; Raymond Dodge; peter hilke; Darlene Telles; Natalie Bellissimo
Subject: Rainfall

Rainfall for January 23, 2017 (Monday), was 0.15 inches, season total is 18.38 inches.

Joe Huerta
Sr. Engineering Technician
Crescenta Valley Water District
(818) 248-3925

**CRESCENTA VALLEY WATER DISTRICT
INVESTMENT PORTFOLIO SUMMARY
February 3, 2017**

INVESTMENT TYPE	ACCT/CUSIP I.D. NO.	PURCHASE DATE	*FACE VALUE	INVESTMENT COST	% OF TOTAL	**MARKET VALUE	MATURITY DATE	DATE CALLABLE	EARNED TO DATE	YIELD TO MATURITY
GENERAL FUNDS										
GENERAL FUND-SWEEP ACCOUNT	0631-525246		\$ 492,764	\$ 492,764	3.12%	\$ 492,764	none	n/a	\$ 188	0.02%
GREAT PACIFIC SECURITIES	GPC-804452		\$ -	\$ -	0.00%	\$ -	none	n/a	\$ 5	0.02%
BOND DEBT SERVICE FUND	6948-331525		\$ 293,908	\$ 293,908	1.86%	\$ 293,908	none	n/a	\$ 70	0.06%
LOCAL AGENCY INVESTMENT FUND	90-19-007		\$ 2,093,346	\$ 2,093,346	13.24%	\$ 2,093,346	none	n/a	\$ 12,473	0.60%
TRANSFER FROM MTBE RESERVE			\$ 2,000,000	\$ 2,000,000	12.65%	\$ 2,000,000				Sep 2016
FEDERAL FARM CREDIT (83)	3133EAY28	10/9/2012	\$ 500,000	\$ 502,885	3.18%	\$ 500,015	9/21/2017	n/a	\$ 2,092	0.71%
FEDERAL FARM CREDIT (87)	3133EC4Y7	11/19/2012	\$ 500,000	\$ 500,000	3.16%	\$ 499,425	11/27/2017	n/a	\$ 2,344	0.93%
FEDERAL FARM CREDIT (101)	31331VY26	6/14/2016	\$ 1,000,000	\$ 1,211,530	7.66%	\$ 1,149,970	8/16/2021	n/a	\$ 27,726	1.26%
FEDERAL FARM CREDIT (103)	31331VQG4	8/2/2016	\$ 1,000,000	\$ 1,287,830	8.15%	\$ 1,191,990	2/6/2026	n/a	\$ 21,512	1.88%
			\$ 7,880,018	\$ 8,382,263		\$ 8,221,418			\$ 66,410	
CONSTRUCTION FUNDS										
COPS RESERVE FUND	108614000		\$ 617,247	\$ 617,247	3.90%	\$ 617,247	none	n/a	\$ 372	0.02%
			\$ 617,247	\$ 617,247		\$ 617,247			\$ 372	
MTBE CONTINGENCY FUNDS										
LOCAL AGENCY INVESTMENT FUND	90-19-007		\$ 250,000	\$ 250,000	1.58%	\$ 250,000	none	n/a	\$ -	0.60%
GREAT PACIFIC SECURITIES	GPC-003670		\$ 7,726	\$ 7,726	0.05%	\$ 7,726	none	n/a	\$ -	0.02%
TRANSFER TO WATER RESERVE			\$ (2,000,000)	\$ (2,000,000)	-12.65%	\$ (2,000,000)				Sep 2016
FEDERAL FARM CREDIT (M-48)	3133ED4U3	5/11/2016	\$ 500,000	\$ 518,915	3.28%	\$ 507,380	10/11/2019	n/a	\$ 5,356	0.99%
FEDERAL FARM CREDIT (M-49)	3133EA5N4	5/11/2016	\$ 1,250,000	\$ 1,260,763	7.98%	\$ 1,238,362	10/22/2019	n/a	\$ 7,877	0.99%
US TREASURY (M-53)	912828R36	7/12/2016	\$ 1,000,000	\$ 1,013,212	6.41%	\$ 932,500	5/15/2026	n/a	\$ 7,658	1.48%
US TREASURY (M-54)	912828S76	8/5/2016	\$ 1,000,000	\$ 1,002,175	6.34%	\$ 966,640	7/31/2021	n/a	\$ 4,562	1.08%
US TREASURY (M-55)	912828R36	8/25/2016	\$ 1,000,000	\$ 1,004,930	6.36%	\$ 932,500	5/15/2026	n/a	\$ 5,699	1.57%
US TREASURY (M-56)	912828R36	10/4/2016	\$ 1,000,000	\$ 997,540	6.31%	\$ 932,500	5/15/2026	n/a	\$ 3,978	1.65%
FEDERAL FARM CREDIT (M-57)	3133EGWX9	10/5/2016	\$ 1,000,000	\$ 987,148	6.24%	\$ 914,250	4/6/2026	n/a	\$ 4,338	1.96%
FEDERAL FARM CREDIT (M-58)	31331VWN2	11/9/2016	\$ 1,000,000	\$ 1,266,700	8.01%	\$ 1,215,430	4/13/2026	n/a	\$ 7,693	2.24%
US TREASURY (M-60) NEW	912828V72	1/25/2017	\$ 500,000	\$ 497,985	3.15%	\$ 497,985	1/31/2022	n/a	\$ -	1.96%
			\$ 6,507,726	\$ 6,807,094		\$ 6,395,273			\$ 47,160	
TOTAL INVESTMENTS			\$ 15,004,991	\$ 15,806,604		\$ 15,233,938			\$ 113,942	
CASH- PAYROLL ACCOUNT	0948-024724		\$ 436	\$ 436	0.00%	\$ 436				
TOTAL CASH AND INVESTMENTS			\$ 15,005,427	\$ 15,807,040	100%	\$ 15,234,374			\$ 113,942	1.00%
						\$ (572,665)	***Unrealized Gain/(Loss) on Investments			

Yield on investments including LAIF but not cash accounts	1.33%
Yield on investments not including LAIF or cash accounts	1.44%

I certify that this report accurately reflects all pooled investments and is in compliance with California Government Code Sections 5922 & 53601 as amended on 1/1/97; are currently in conformity with the investment policy as stated in Resolution No. 734 adopted on December 6, 2016.
As Treasurer of the Crescenta Valley Water District, I, Ron L. Mitchell hereby certify that sufficient investment liquidity and anticipated revenues are available to meet one year of estimated expenditures for the operations of Crescenta Valley Water District.

*Value at investment maturity date.

***Reported in compliance with GASB Standard No. 31, effective July 1, 1997, the "fair value" adjustment necessary between cost and market value.

	December 31, 2016	November 30, 2016	October 31, 2016
Water	\$ 10,300,841.04	\$ 10,226,866.07	\$ 10,737,673.36
Wastewater	\$ 4,675,951.62	\$ 4,561,479.38	\$ 4,600,534.52
	<u>\$ 14,976,792.66</u>	<u>\$ 14,788,345.45</u>	<u>\$ 15,338,207.88</u>

February 3, 2017
Date

Ron L. Mitchell, Secretary-Treasurer, CVWD

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

GM Report
February 7, 2017

To: Honorable President and Members of the Board of Directors
From: Thomas A. Love, General Manager
Subject: General Manager Report

General Manager Objectives

In November 2015 the Board identified objectives for the District and General Manager. The General Manager is also taking the lead on additional projects. The following is a summary of the progress and status for each objective or project.

Objective	Due Date	Status
Long-term strategic plan	December 31, 2016 April 18, 2017	3 Leadership Staff Workshops completed. 2 nd Board Workshop scheduled for January 17 th
Complete Cost of Service Study for water and wastewater	June 30, 2016	Completed
Continued cost containment and improved financial reporting	On Going	2 nd quarter budget variance report to Board on February 7 th .
Develop a ten-year CIP	June 30, 2017	Draft ten-year CIP has been prepared by the District Engineer and presented to the Engineering Committee.
Develop staff succession plan	December 31, 2016 May 30, 2017	Included organizational and workforce planning in strategic planning process.
Project		
Recycled water evaluation	July 26, 2016 February 7, 2017	Consultant peer review completed. Present to Board on February 7th.
Solar energy evaluation	August 31, 2016 March 21, 2016	Request sent to solar vendors for evaluation of solar energy potential and cost for the District.
Main office building master plan	December 31, 2016 FY 2017/18	Potential inclusion in FY 2017/18 Budget.

Staffing

This month there is one employment anniversary: Roy Spalding, Plant Coordinator has been with the District 26 years.

As of February 3rd, the District has worked **969 days** without a lost time accident.

Prepared & Submitted by:



Thomas A. Love, P.E.
General Manager

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

February 7, 2017
Staff Report

To: Honorable President and Members of the Board of Directors
From: David S. Gould, P.E. – District Engineer
Subject: District Engineer – Staff Report

1. Water Production Report

- January 1 – 31 – Water production – 58%/42% split – 79.9 MG for the time period
Average use – 2.3% less than 2015 and 25.3% less than 5-yr average

2. Rainfall Update

- 11.71" for January 2017
- Rainfall total for Rainfall Year 2016/17 – 18.38"

3. Report on Engineering

- **CIP Projects**

- o Ocean View Chloramination Project
 - Agreements – Working with FMWD & LADWP
 - Funding Agreement Extension to May 2017
- o Pipeline Projects
 - 4200 – 4400 Blocks of Pennsylvania – Bid Opening – February 15, 2017
- o Pickens Canyon Pipeline Replacement and Slope Repair
 - Awarded Contract to E & R Construction for \$437,000
 - Meeting with Contractor on February 6, 2017 to discuss project schedule
- o Paschall Booster Station MCC and Piping Upgrades
 - Staff working on Request for Proposal
- o Oak Creek Reservoir Rehabilitation
 - Project deferred due to lack of bidders to FY 17/18
- o Seismic Sensors & Valve Actuators at Dunsmore & Pickens Reservoir
 - Dunsmore Reservoir – Complete
 - Pickens Reservoir – to be completed by March 2017

- **Nitrate Removal Treatment Facility at Well 2 Project**

- Consultant working on 90% Design - plans and specifications
- Met with Glendale Building & Safety, Public Works and Water & Power on Permits
- Preparing RFQ to pre-order Electrical Motor Control Center and Pre-Fabricated Buildings

- **Crescenta Valley County Park Stormwater Recharge Facility Study**

- No Report

- **ULARA**

- No Report

- **Water Meter Replacement Program**

- Field crews replacing water meters in Zones 8 & 9
- Replaced 124 meters replaced to date

4. **Report on Administrative and Field Operations**

- **Wells - Status**

- Well production capacity - averaging 1.62 MGD for January 2017

5. **Field Maintenance & Operations –January 1 – January 31, 2017**

- **Water Lateral Leaks & Repairs**

4715 La Crescenta Ave.	4845 La Crescenta Ave.	2854 Sanborn	5637 Ocean View
5360 Ocean View	2917 Sycamore	2326 Jayma Lan	

- **Fire Hydrant Repair**

- No Report

- **Developer Job**

- Completed installation of new fire hydrant, fire service and 2-inch meter service for Lincoln Elementary School

- **Water Main Leaks**

- No Report

- **Booster Pump Maintenance**

- No Report

- **Reservoir Maintenance**

- Glendale Intertie Coupling
- Edmund #1

- **Sewer Maintenance**

3000- 3100 Blocks of Santa Carlotta	4900 Block of Cloud	3100 Block of Paraiso
5100 Block of Parham	4900 & 5100 Blocks of Pennsylvania	3000 Block of Brookhill
5000 Block of Cloud	3000 Block of Orange	

CRESCENTA VALLEY WATER DISTRICT

WATER PRODUCTION REPORT

January 1 - January 31, 2017

Well Production:	35,110,261	Gals		
GWP Production:	10,125,000	Gals		
Gravity Production:	1,470,000	Gals	% GW	58%
Purchased Water:				
FMWD:	33,178,288	Gals		
City of Glendale:	0	Gals	% Import	42%
TOTAL:	79,883,549	Gals		
	245.15	ac-ft		
Glenwood Nitrate Water				
Reclamation Plant:*	6,525,000		*Included in Well Production	

WATER DEMAND COMPARISON

Time Period	Average Daily Usage (gals)	Current Period Change
January 1, 2017 - January 31, 2017	2,495,759	
January 1, 2016 - January 31, 2016	2,553,823	-2.3%
5-yr Average - January 2012 - 2016	3,341,347	-25.3%

RAINFALL: January 1 - January 31, 2017

11.71"

Season-To-Date:

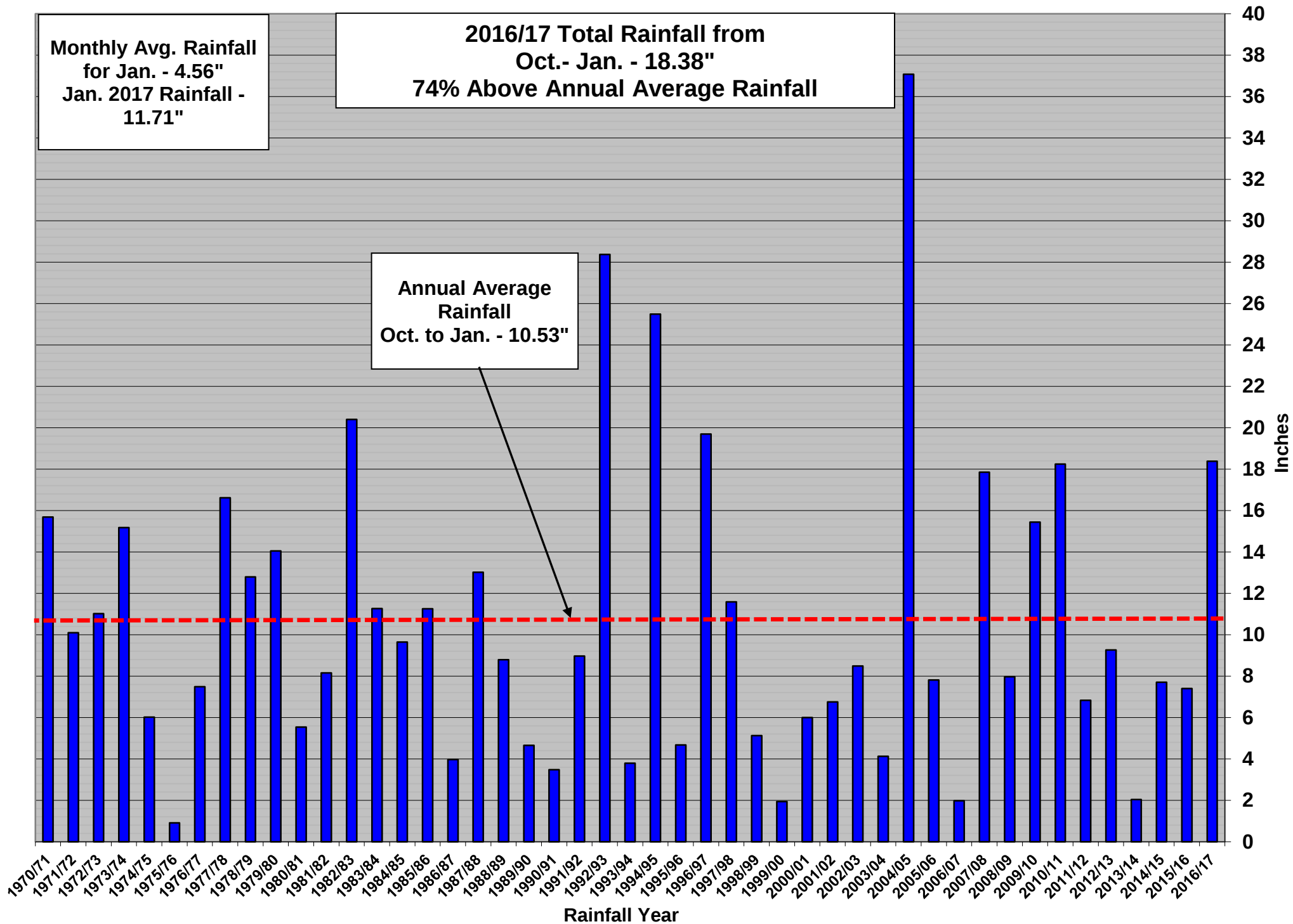
18.38"

2016/17 Fiscal Year Water Production			Groundwater Production Water Rights		GWP (Well 16) Water Production		Purchased Water Production Tier 2 Allocation	
Month	Actual Total Water Production (ac-ft)	Projected Total Water Production (ac-ft)	Month	Month	Month	Well Production (ac-ft)	Month	Imported Water Production (ac-ft)
July	379	315	October	123	January	31	January	102
August	383	345	November	120	February		February	
September	376	325	December	100	March		March	
October	354	315	January	112	April		April	
November	319	290	February		May		May	
December	277	250	March		June		June	
January	245	260	April		July		July	
February		285	May		August		August	
March		330	June		September		September	
April		325	July		October		October	
May		325	August		November		November	
June		335	September		December		December	
Total to Date	2,333	2,100	Total to Date	455	Total to Date	31	Total to Date	102
Projected	3,933	3,700	Water Rights	3,294			Tier 2	2,154
% of Projected	63.1%	56.8%	% of Rights	14%			% of Allocation	5%
Remaining	1,367	1,600	Remaining	2,839			Remaining	2,052

NOTE:

1) Blue Numbers = Estimated Water Production

Monthly Rainfall - 1970/71 - 2016/17 (Oct.- Jan.)



CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

February 7, 2017
Staff Report

To: Honorable President and Members of the Board of Directors
From: Christy J. Scott
Subject: Water Conservation Update

Monitoring Report Submitted to State for December 2016:

Production Numbers

➤ Total Water Production January 2017:	245 AF
➤ Total Water Production January 2013:	299 AF
➤ Monthly Percent Reduction:	18 %
➤ Residential Gallons per Capita per Day (R-GPCD) January 2017:	69

Compliance Reporting

➤ Days of Outdoor Irrigation Allowed:	3
➤ Number of Water Waste Complaints:	0
➤ Number of Follow-ups:	0
➤ Number of Warnings:	0
➤ Number of Penalties:	

The District is currently in Yellow Alert (3-days per week watering)

Regulatory:

The Emergency Water Conservation Regulation:

The State Water Resources Control Board (State) will meet on 02/08/17 to vote on the State's staff recommended 270-day extension of the current Urban Water Conservation Regulation which is set to expire on February 28th. The extension of this regulation will still allow for the self-certification "stress test" in which the District submitted a "0" percent conservation target. This extension will pose no significant regulatory changes to the District.

Making Conservation a California Way of Life

No significant changes have been announced to the draft legislation, which is a plan for achieving long-term efficient water use as required by Governors Brown's Executive Order B-37-16. Staff will continue to follow "Making Conservation a California Way of Life" and report to the Board, as updates are available.

Lead Testing for Schools

In an effort to safeguard California's drinking water quality, the State is requiring public water systems that serve K-12 schools to conduct lead sampling at school sites if the schools request it. The District currently serves water to ten schools which have K-12 students. Samples for each school site would cost approximately \$45.00 to send to a certified laboratory. The higher cost of this regulation is labor and the time needed to conduct the site survey, develop a sampling plan, and collect and report the samples.

The District's only current requirement is to submit a list of schools to the State by June 1, 2017. Staff will keep the Board informed which, if any schools formally request lead sampling.

2015 Urban Water Management Plan

The Department of Water Resources informed the District that they have reviewed the submitted 2015 Urban Water Management Plan and that the plan met the requirements of the California Water Code.

Event Calendar:

Theodore Payne Foundation – Native Plants and Hummingbirds – February 4, 2017 – 1:30 p.m. – 3:00 p.m.

Theodore Payne Foundation – Native Plant Horticulture – February 11, 2017 – 8:30 a.m. – 12:30 p.m.

Theodore Payne Foundation – Propagating CA Native Plants – February 11, 2017 – 9:00 a.m. – 12:00 p.m.

Theodore Payne Foundation – Native Plant Maintenance Basics – February 17, 2017 – 1:30 p.m. – 2:30 p.m.

Theodore Payne Foundation – Designing and Maintaining Beautiful Sustainable Gardens – February 25, 2017 –
2:00 p.m. – 3:30 p.m.

Theodore Payne Foundation – 3-Part CA Native Garden Design – March 4, March 25, & April 8, 2017 –
9:00 a.m. – 1:00 p.m. (and again on March 10, March 24, and April 8, 2017)

Theodore Payne Foundation – Propagating CA Native Plants – March 10, 2017 – 9:00 a.m. – 12:00 p.m.

Descanso Gardens – Tomatomania – Tomato Plant Sale – Members only – March 24-26 - 9:00 a.m. – 5:00 p.m.

Theodore Payne Foundation - Native Plant Garden Tour – April 1-2, 2017

Descanso Gardens – Mt. Sac Plant Sale – April 21-23, 2017 – 9:00 a.m. – 4:00 p.m.

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791



January 27, 2017

Christy Scott
Regulatory and Public Affairs Manager
Crescenta Valley Community Water District
2700 Foothill Boulevard
La Crescenta, California 91214

RE: Urban Water Management Plan Requirements Addressed

Dear Ms. Scott:

The Department of Water Resources (DWR) has reviewed the Crescenta Valley Community Water District's 2015 Urban Water Management Plan (UWMP) received on June 15, 2016. The California Water Code (CWC) directs DWR to report to the legislature once every five years on the status of submitted UWMPs. In meeting this legislative reporting requirement, DWR reviews all submitted UWMPs.

DWR's review of the Crescenta Valley Community Water District's 2015 plan has found that the UWMP addresses the requirements of the CWC. DWR's review of plans is limited to assessing whether suppliers have addressed the required legislative elements. In its review, DWR does not evaluate or analyze the supplier's UWMP data, projections, or water management strategies. This letter acknowledges that the Crescenta Valley Community Water District's 2015 UWMP addresses the CWC requirements. The results of the review will be provided to DWR's Financial Assistance Branch.

If you have any questions regarding the review of the UWMP or urban water management planning please call Gwen Huff at 916-651-9672.

Sincerely,

A handwritten signature in blue ink, appearing to read "V. Lake".

Vicki Lake
Unit Chief
Urban Water Use Efficiency
(916) 651-0740

Electronic cc:
Shahnawaz Ahmad

CRESCENTA VALLEY WATER DISTRICT

MEMORANDUM

DATE: January 31, 2017
TO: Engineering Committee
FROM: David S. Gould, District Engineer
SUBJECT: CVWD Engineering Committee Meeting No. 299

Following is a summary of Engineering Committee Meeting No. 299, held at 9:00 AM on January 16, 2017, at the CVWD main office, and was attended by the following:

Director Michael Claessens - Committee Chairperson	CVWD
Director Ken Putnam	CVWD
Tom Love – General Manager	CVWD
Brook Yared – Associate Engineer	CVWD
David S. Gould – District Engineer	CVWD

1. Status of Groundwater Well, Well Capacity, and Water Projection for FY 17/18

Mr. Yared & Mr. Gould discussed the status of the well levels through December 2016 and that the static and pumping levels for the majority of the wells have decreased due to lack of rainfall during the drought conditions over the last 5 years. Mr. Gould advised that staff is working on evaluation of each groundwater well to see if there are ways to improve water production.

Mr. Yared presented the well capacity chart showing the status of the daily groundwater production from 2013 to 2017. The chart showed that the well capacity has remained steady over the last few months at about 1.7 MGD.

Director Claessens requested that chart show the daily water production and the amount of imported water used daily to show the public the effects of low groundwater production.

Mr. Gould presented the preliminary water production estimates for FY 17/18 and for the next ten years. Mr. Gould indicated that staff estimated The FY 17/18 water production based on the following:

- Water production estimate for FY 17/18 is 4,200 ac-ft
- Slow recovery of groundwater production and reaching the limits of the total adjudicated water rights within the next 8 years
- The groundwater production includes the addition of Well 2 in FY 17/18 and beyond
- Imported water production will increase until FY 18/19 and the decrease in the following years
- The water production estimate shows
 - 7% to 10% annual increase over the 3 years
 - 2% to 4% annual increase over the following 2 years
 - Estimate 5,000 to 5,200 ac-ft/year from FY 22/23 to FY 26/27

Director Putnam expressed his concern that groundwater production could be a slower recovery than anticipated by staff. Mr. Putnam also expressed concerns about meeting the Governor's plan to reduce 20% of water demand by the year 2020 relative to revenue for the water budget and the District's CIP program. Staff indicated that they will adjust the later years (FY 23/24 to FY 26/27) to stay within CVWD's 2020 goal of 5,150 ac-ft/yr.

The Engineering Committee recommended that this be brought back to the Committee meeting in February for further discussion.

2. Discussion of Recycled Water Feasibility Study

Mr. Love discussed the Draft Technical Memorandum for a Recycled Water Project Feasibility Evaluation to bring recycled water into the District for irrigation purposes. Mr. Love discussed a number of options relative to the size of the recycled water system, number of customers who will be able to use recycled water, the cost of purchasing recycled water from Glendale, and partnering with other agencies such as Glendale, Los Angeles, FMWD, and Pasadena. Mr. Love concluded that at the present time, the costs per ac-ft for recycled water are greater than the cost of purchasing water from MWD.

Staff recommended that the report be received by the Committee and filed as the Final Draft Recycled Water Project Feasibility Evaluation after a presentation to the Board of Directors. In addition, staff will contact neighboring agencies on the status of their recycled water system and report back to the Committee.

Director Putnam indicated his concern about the future of providing recycled water relative to providing water for irrigation during times when there is a request to reduce water usage.

The Engineering Committee recommended that the report be filed and that staff contact neighboring agencies on the status of their recycled water system

3. Discussion of Purchase of New District Vehicle

Mr. Gould discussed the purchase of a new vehicle (Unit #51) to replace a 2003 Ford F-150 (Unit#1) which is at the end of its useful life. Mr. Gould provided information to the Committee about the condition of the current vehicle, the specifications for the new vehicle, and three (3) quotes provided by local Ford Dealers for the purchase of the new vehicle.

Staff recommended the purchase of the new vehicle from Galpin Ford for \$29,867.70, to declare Unit #1 as surplus property and direct the General Manager to dispose in a manner which best benefits the District.

The Engineering Committee agreed with staff's recommendation and requested that this be placed on the next Board Agenda.

4. Review of FY 16/17 CIP Budget, Project Schedule & Project Status

Mr. Gould discussed the FY 2016/17 CIP program and attached is a project update and the overall project schedule.

Mr. Gould gave an update on the Pickens Canyon Slope Repair and Pipeline Replacement Project, Well #2 Re-activation and Nitrate Treatment Plant Project, Pennsylvania Pipeline Project, Ocean View Chlorination Station Project, Crescenta Valley County Park Stormwater Feasibility Study, and the Oak Creek Reservoir Rehabilitation Project.

Director Putnam requested additional information be provided on the project schedule including the name of the consultants working on the project and the name of CVWD's project managers.

CRESCENTA VALLEY WATER DISTRICT

MEMORANDUM

DATE: January 31, 2017
TO: Engineering Committee
FROM: David S. Gould, District Engineer
SUBJECT: CVWD Engineering Committee Meeting No. 299

Following is a summary of Engineering Committee Meeting No. 299, held at 9:00 AM on January 16, 2017, at the CVWD main office, and was attended by the following:

Director Michael Claessens - Committee Chairperson	CVWD
Director Ken Putnam	CVWD
Tom Love – General Manager	CVWD
Brook Yared – Associate Engineer	CVWD
David S. Gould – District Engineer	CVWD

1. Status of Groundwater Well, Well Capacity, and Water Projection for FY 17/18

Mr. Yared & Mr. Gould discussed the status of the well levels through December 2016 and that the static and pumping levels for the majority of the wells have decreased due to lack of rainfall during the drought conditions over the last 5 years. Mr. Gould advised that staff is working on evaluation of each groundwater well to see if there are ways to improve water production.

Mr. Yared presented the well capacity chart showing the status of the daily groundwater production from 2013 to 2017. The chart showed that the well capacity has remained steady over the last few months at about 1.7 MGD.

Director Claessens requested that chart show the daily water production and the amount of imported water used daily to show the public the effects of low groundwater production.

Mr. Gould presented the preliminary water production estimates for FY 17/18 and for the next ten years. Mr. Gould indicated that staff estimated The FY 17/18 water production based on the following:

- Water production estimate for FY 17/18 is 4,200 ac-ft
- Slow recovery of groundwater production and reaching the limits of the total adjudicated water rights within the next 8 years
- The groundwater production includes the addition of Well 2 in FY 17/18 and beyond
- Imported water production will increase until FY 18/19 and the decrease in the following years
- The water production estimate shows
 - o 7% to 10% annual increase over the 3 years
 - o 2% to 4% annual increase over the following 2 years
 - o Estimate 5,000 to 5,200 ac-ft/year from FY 22/23 to FY 26/27

Director Putnam expressed his concern that groundwater production could be a slower recovery than anticipated by staff. Mr. Putnam also expressed concerns about meeting the Governor's plan to reduce 20% of water demand by the year 2020 relative to revenue for the water budget and the District's CIP program. Staff indicated that they will adjust the later years (FY 23/24 to FY 26/27) to stay within CVWD's 2020 goal of 5,150 ac-ft/yr.

The Engineering Committee recommended that this be brought back to the Committee meeting in February for further discussion.

2. Discussion of Recycled Water Feasibility Study

Mr. Love discussed the Draft Technical Memorandum for a Recycled Water Project Feasibility Evaluation to bring recycled water into the District for irrigation purposes. Mr. Love discussed a number of options relative to the size of the recycled water system, number of customers who will be able to use recycled water, the cost of purchasing recycled water from Glendale, and partnering with other agencies such as Glendale, Los Angeles, FMWD, and Pasadena. Mr. Love concluded that at the present time, the costs per ac-ft for recycled water are greater than the cost of purchasing water from MWD.

Staff recommended that the report be received by the Committee and filed as the Final Draft Recycled Water Project Feasibility Evaluation after a presentation to the Board of Directors. In addition, staff will contact neighboring agencies on the status of their recycled water system and report back to the Committee.

Director Putnam indicated his concern about the future of providing recycled water relative to providing water for irrigation during times when there is a request to reduce water usage.

The Engineering Committee recommended that the report be filed and that staff contact neighboring agencies on the status of their recycled water system

3. Discussion of Purchase of New District Vehicle

Mr. Gould discussed the purchase of a new vehicle (Unit #51) to replace a 2003 Ford F-150 (Unit#1) which is at the end of its useful life. Mr. Gould provided information to the Committee about the condition of the current vehicle, the specifications for the new vehicle, and three (3) quotes provided by local Ford Dealers for the purchase of the new vehicle.

Staff recommended the purchase of the new vehicle from Galpin Ford for \$29,867.70, to declare Unit #1 as surplus property and direct the General Manager to dispose in a manner which best benefits the District.

The Engineering Committee agreed with staff's recommendation and requested that this be placed on the next Board Agenda.

4. Review of FY 16/17 CIP Budget, Project Schedule & Project Status

Mr. Gould discussed the FY 2016/17 CIP program and attached is a project update and the overall project schedule.

Mr. Gould gave an update on the Pickens Canyon Slope Repair and Pipeline Replacement Project, Well #2 Re-activation and Nitrate Treatment Plant Project, Pennsylvania Pipeline Project, Ocean View Chlorination Station Project, Crescenta Valley County Park Stormwater Feasibility Study, and the Oak Creek Reservoir Rehabilitation Project.

Director Putnam requested additional information be provided on the project schedule including the name of the consultants working on the project and the name of CVWD's project managers.

CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

Agenda for the Meeting of the Engineering Committee
of the Crescenta Valley Water District

To be held on

January 31, 2017 at 9:00 AM

Posted January 27, 2017 at 10:00 am

Call to Order

Adoption of Agenda

Information Items

1. Status of Groundwater Wells and Well Capacity
 - Water Production Projections for FY 17/18
2. Discussion of Recycled Water Feasibility Study
3. Discussion of Purchase of New District Vehicle
4. FY 16/17 CIP - Project Status & Project Schedule:
 - Pickens Canyon Slope Repair and Pipeline Replacement Project
 - Well #2 Re-activation and Nitrate Treatment Plant Project
 - Pennsylvania Pipeline Project
 - LADWP – Emergency Supply Water Interconnection
 - Oak Creek Reservoir Rehabilitation Project

Public Comments

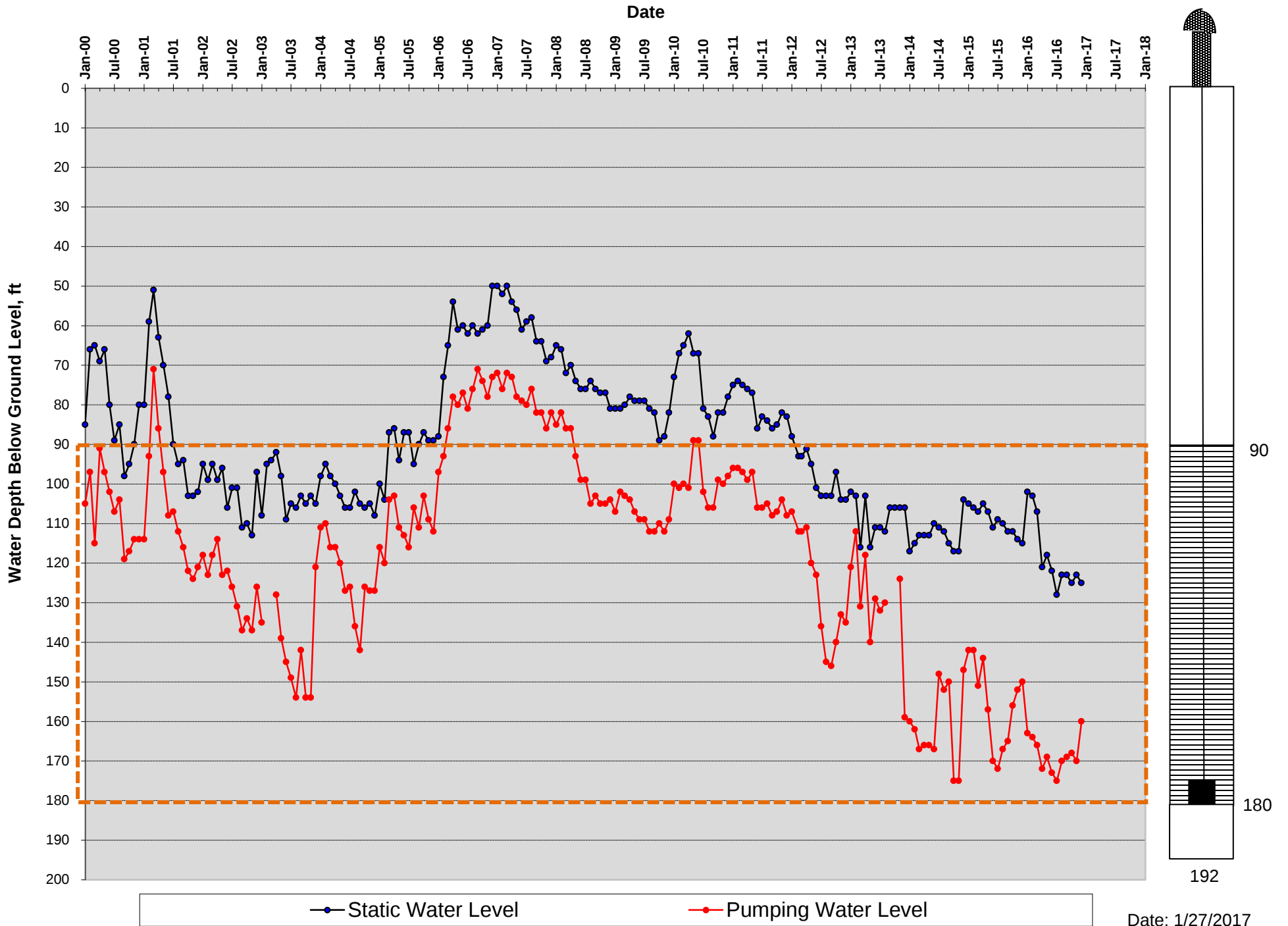
At this time, members of the public shall have an opportunity to address the Committee on items of interest that are within the subject matter jurisdiction of this Committee. This opportunity is non-transferable and speakers are limited to three (3) minutes each.

Committee Member's Request for Future Agenda Items

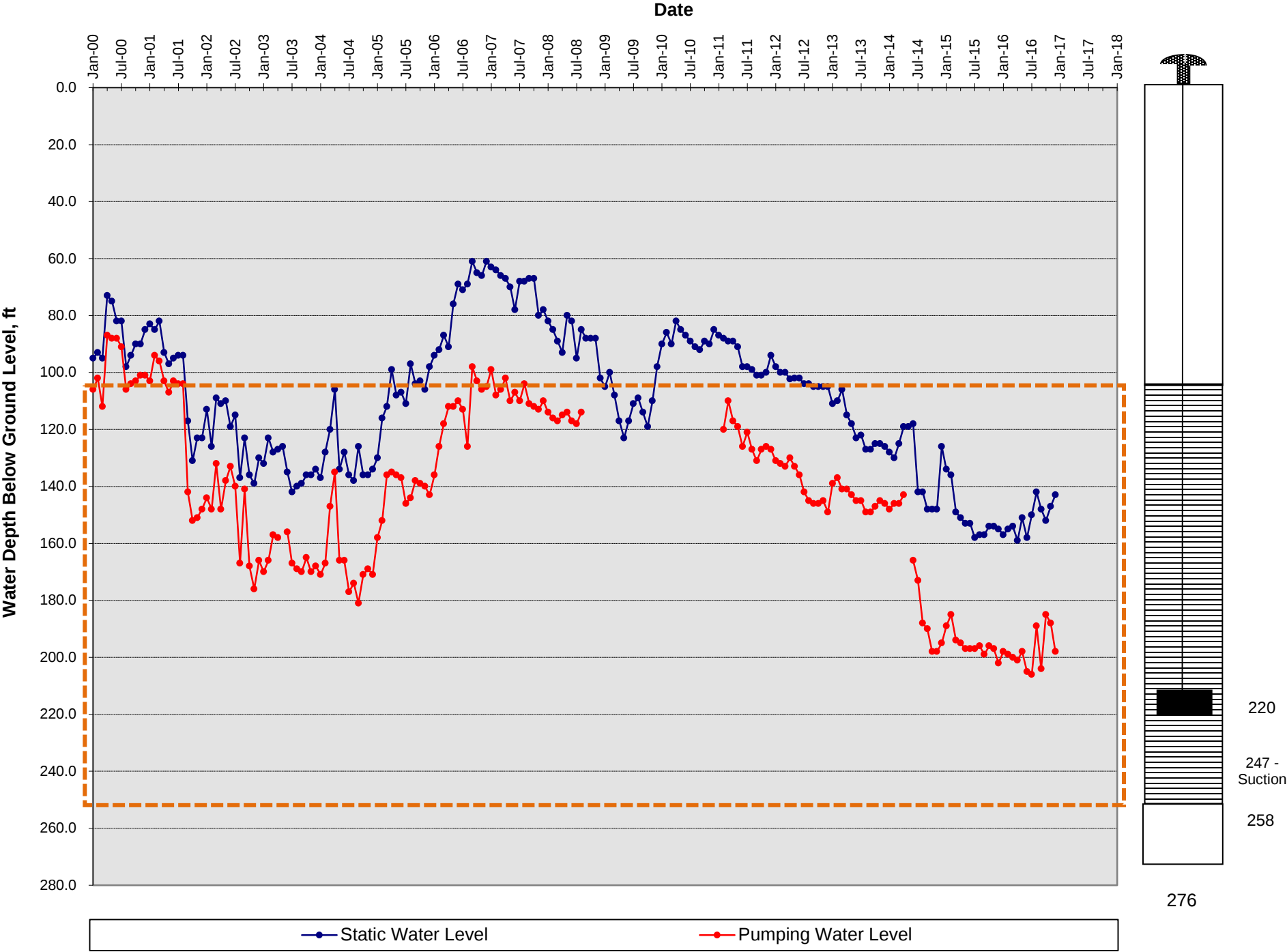
Next Engineering Committee Meeting – February 17, 2017

Adjournment

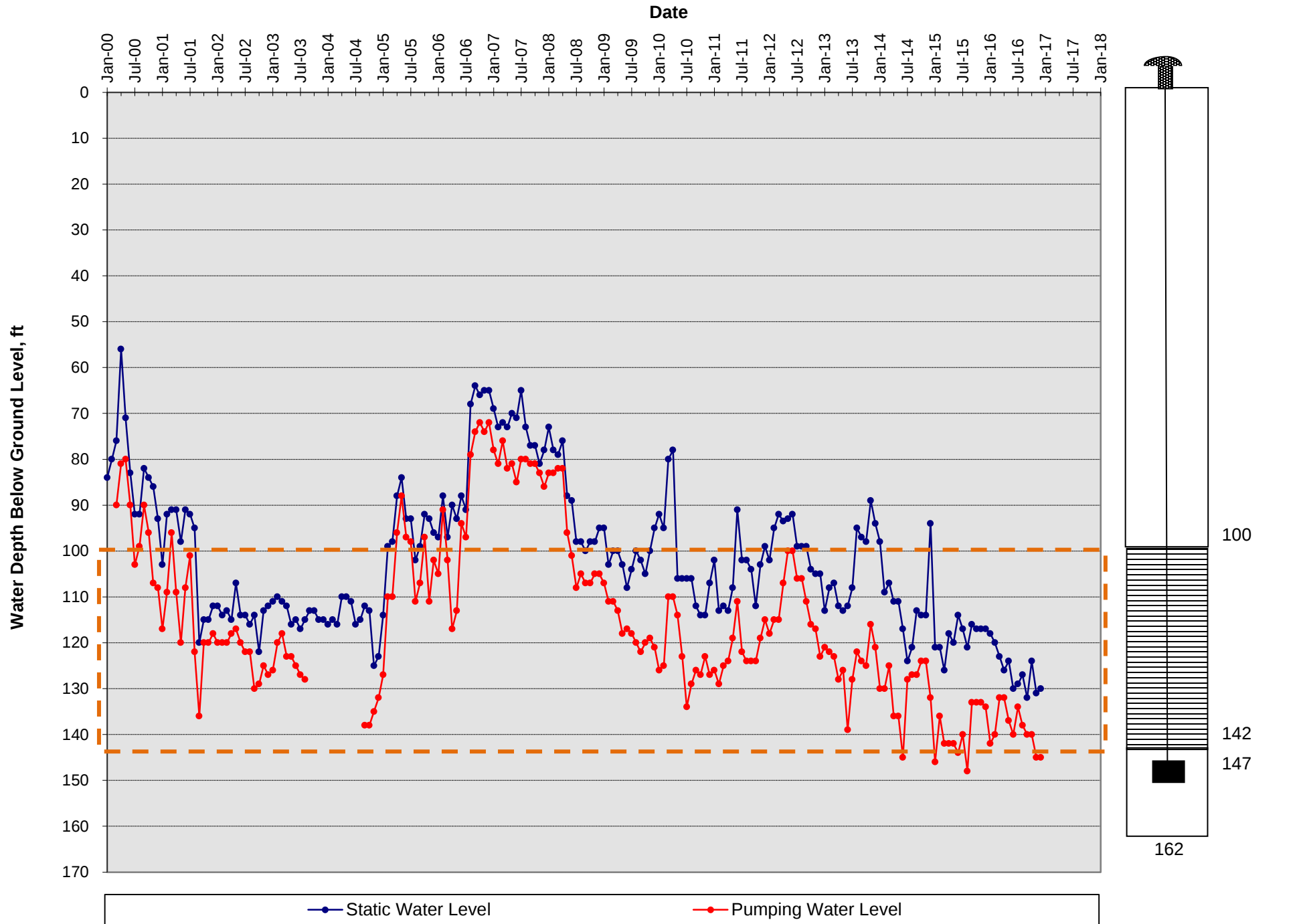
Well 1: 2000 - 2016 - Static and Pumping Levels



Well 5: 2000 - 2016 - Static and Pumping Levels

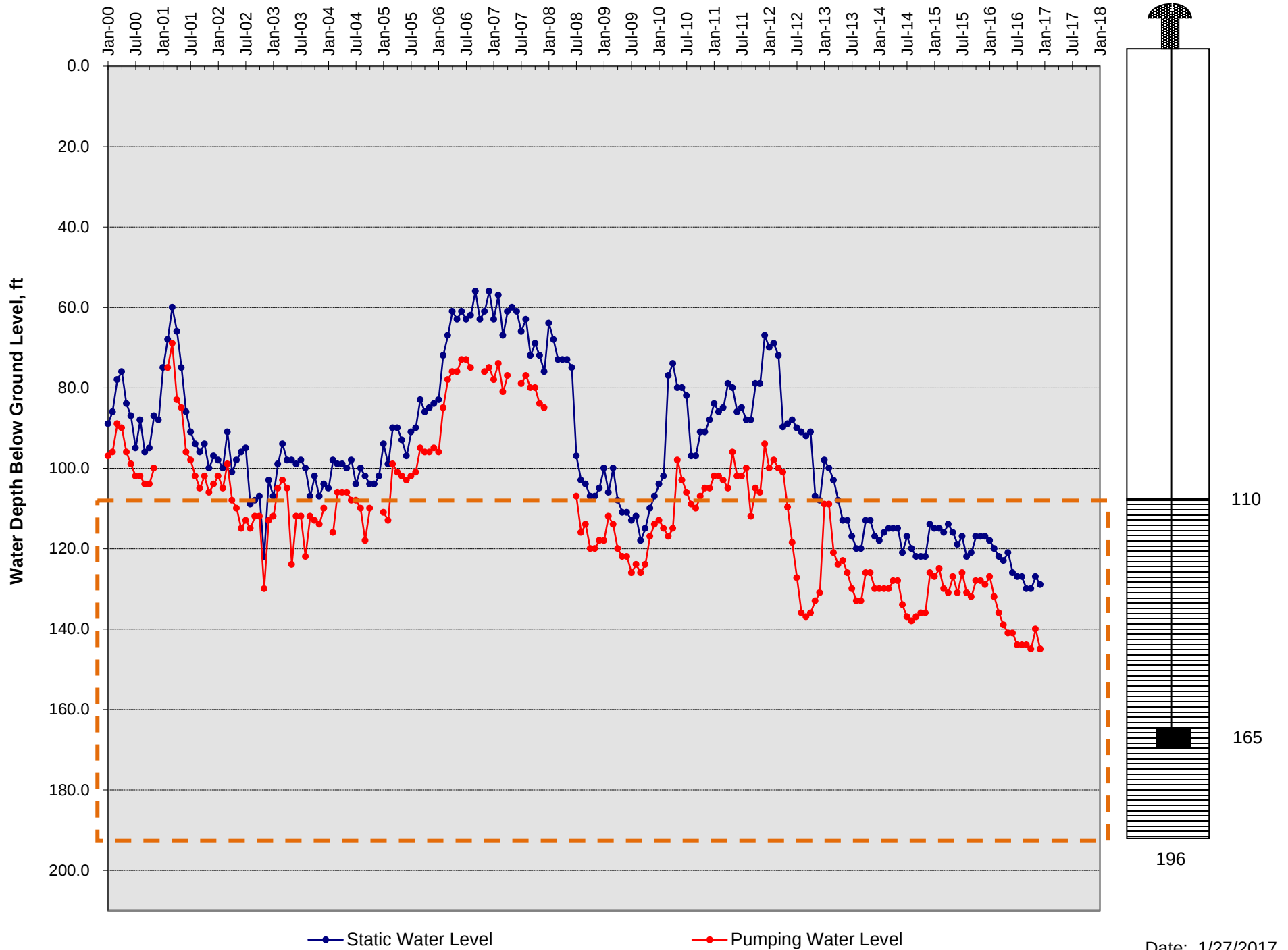


Well 6: 2000 - 2016 - Static and Pumping Levels

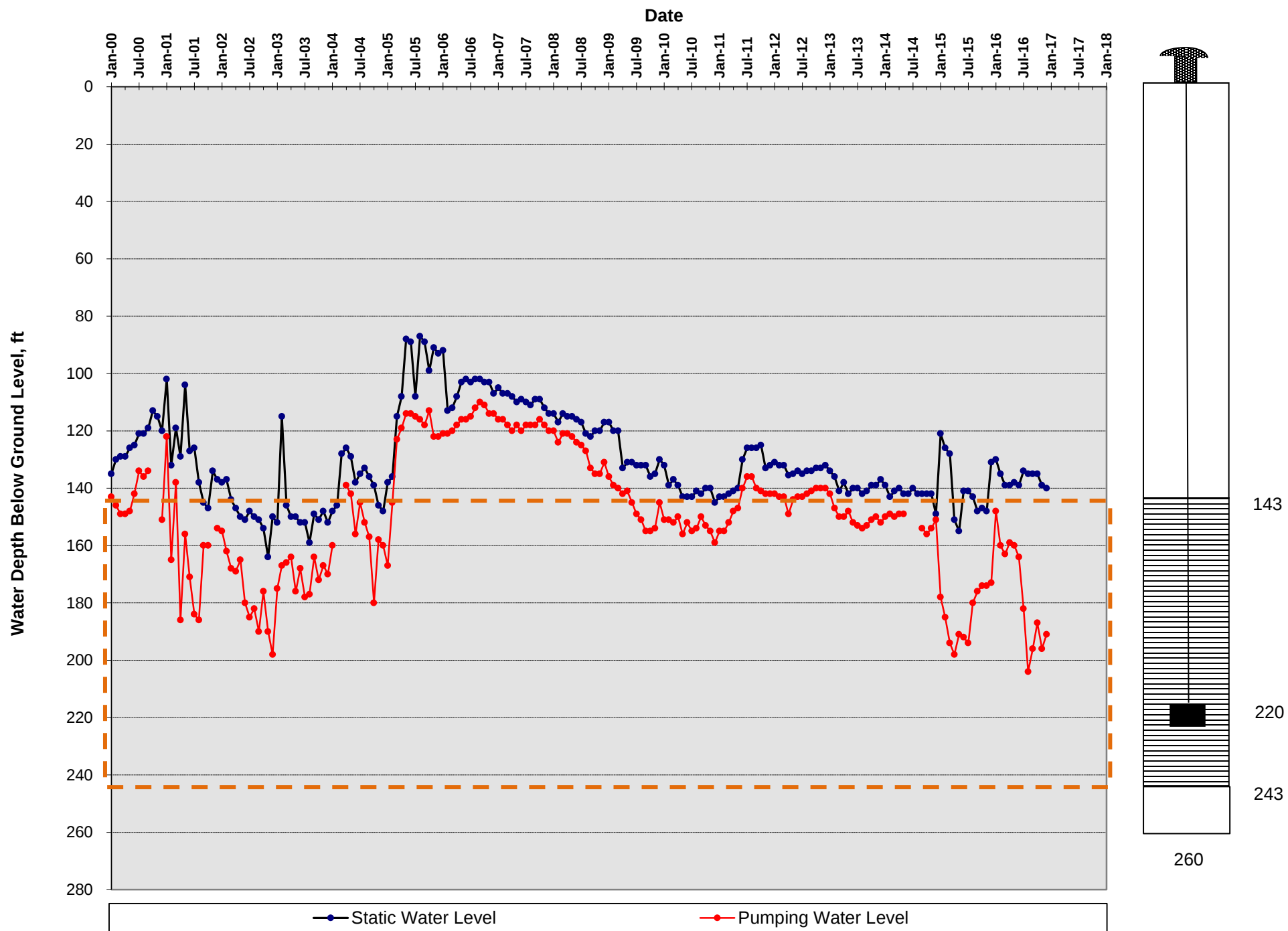


Well 7: 2000 - 2017 - Static and Pumping Levels

Date

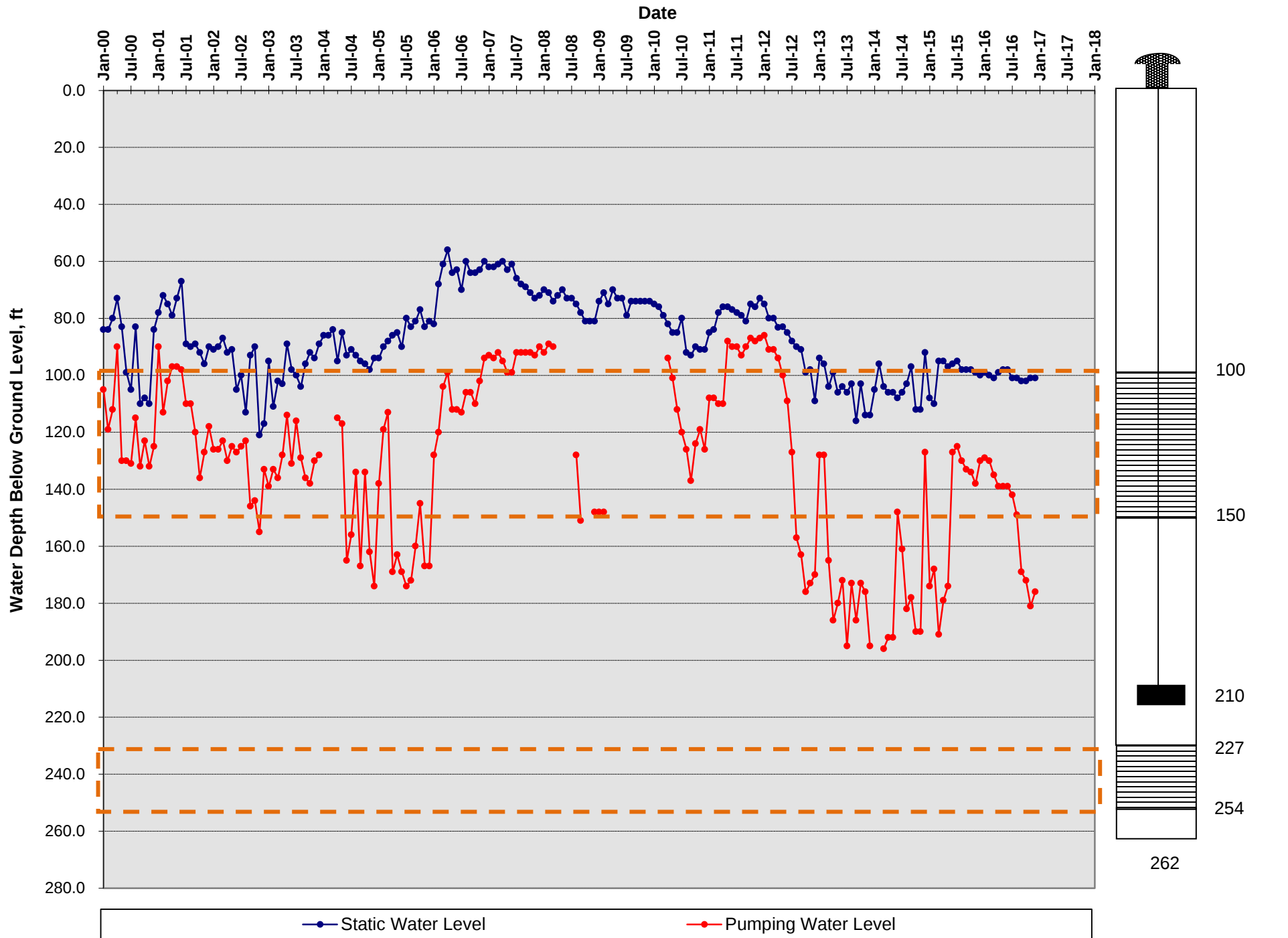


Well 8: 2000 - 2016 - Static and Pumping Levels

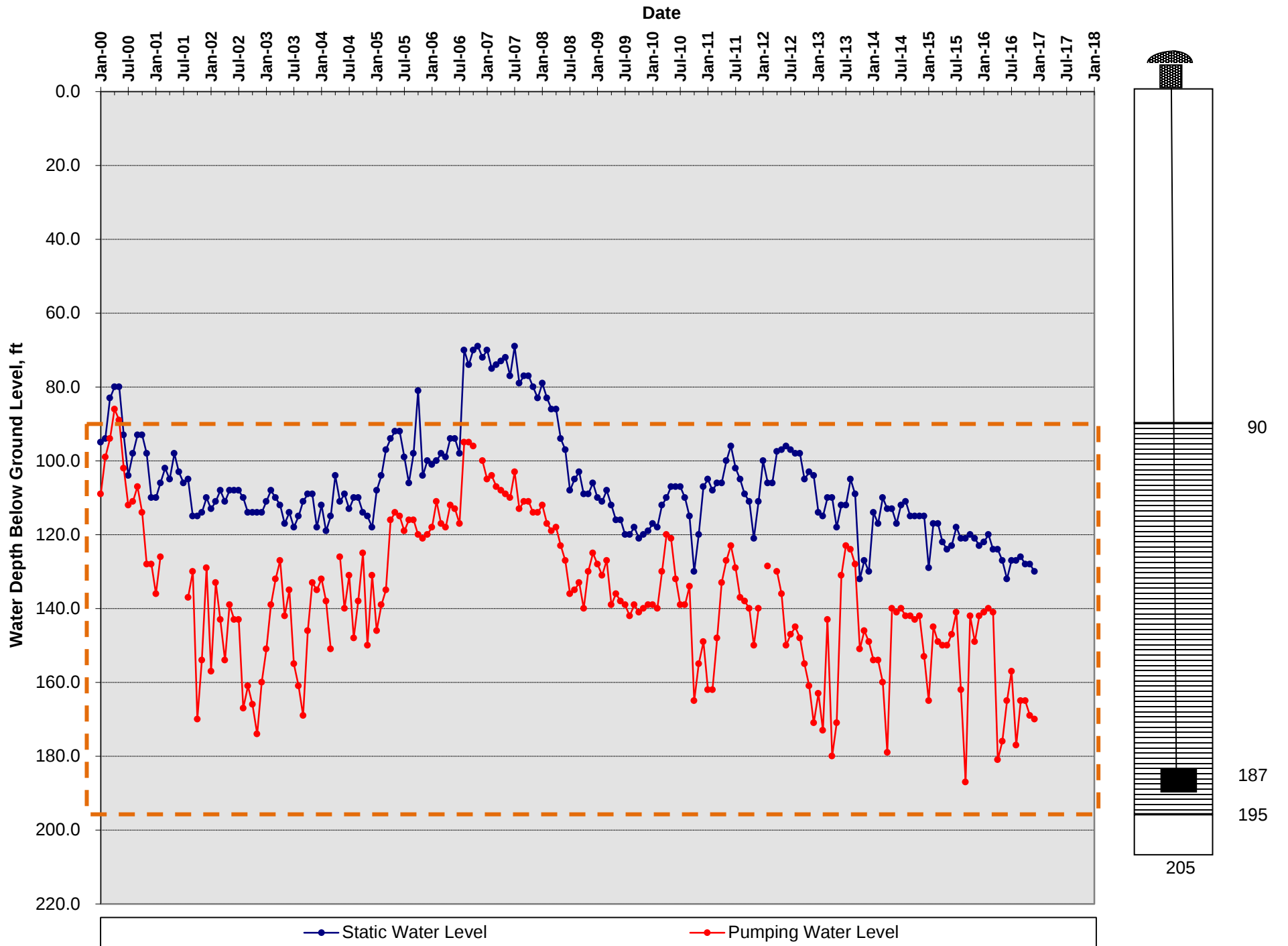


Date: 1/27/2017

Well 9: 2000 - 2016 - Static and Pumping Levels

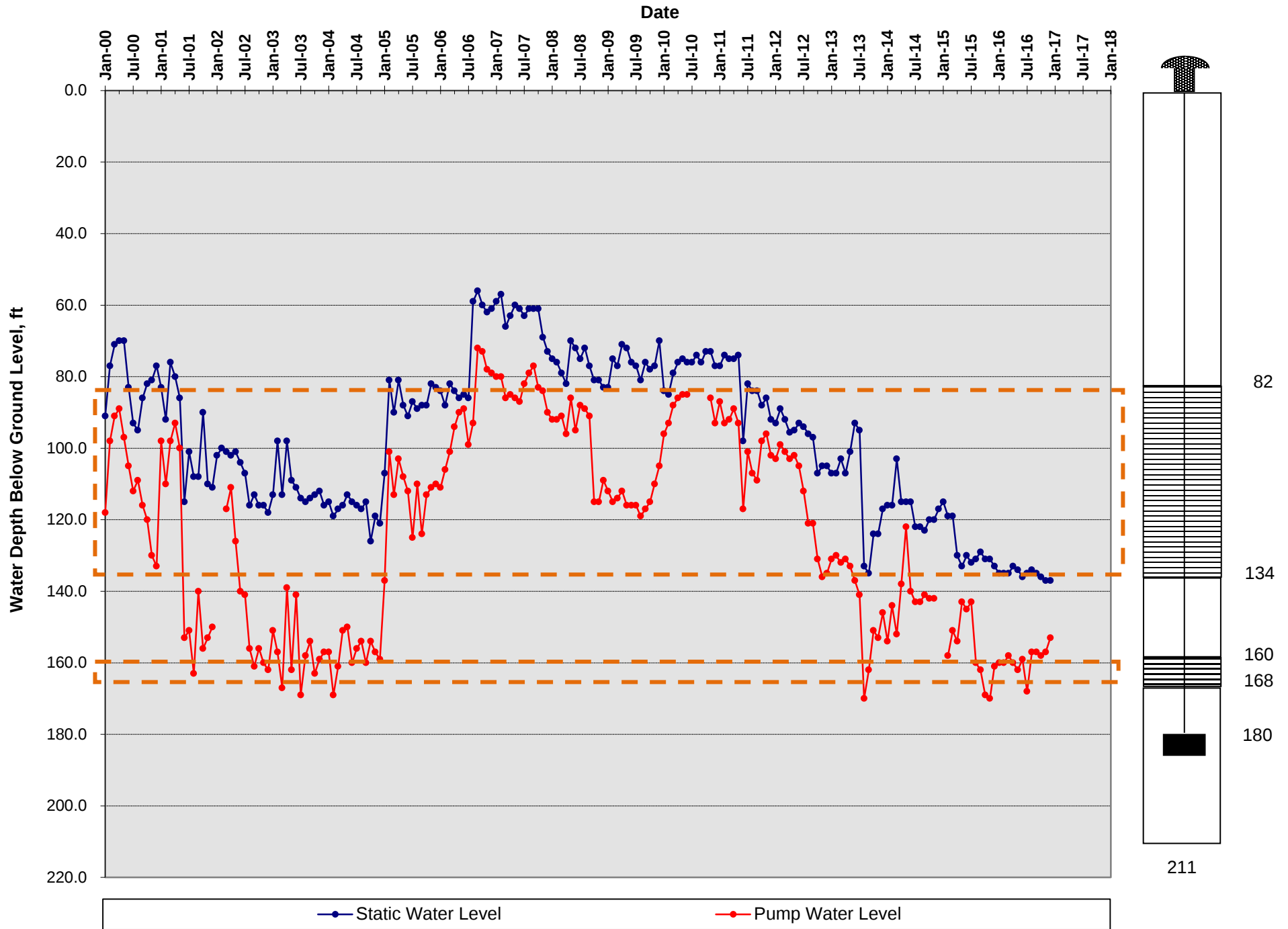


Well 10: 2000 - 2016 - Static and Pumping Levels



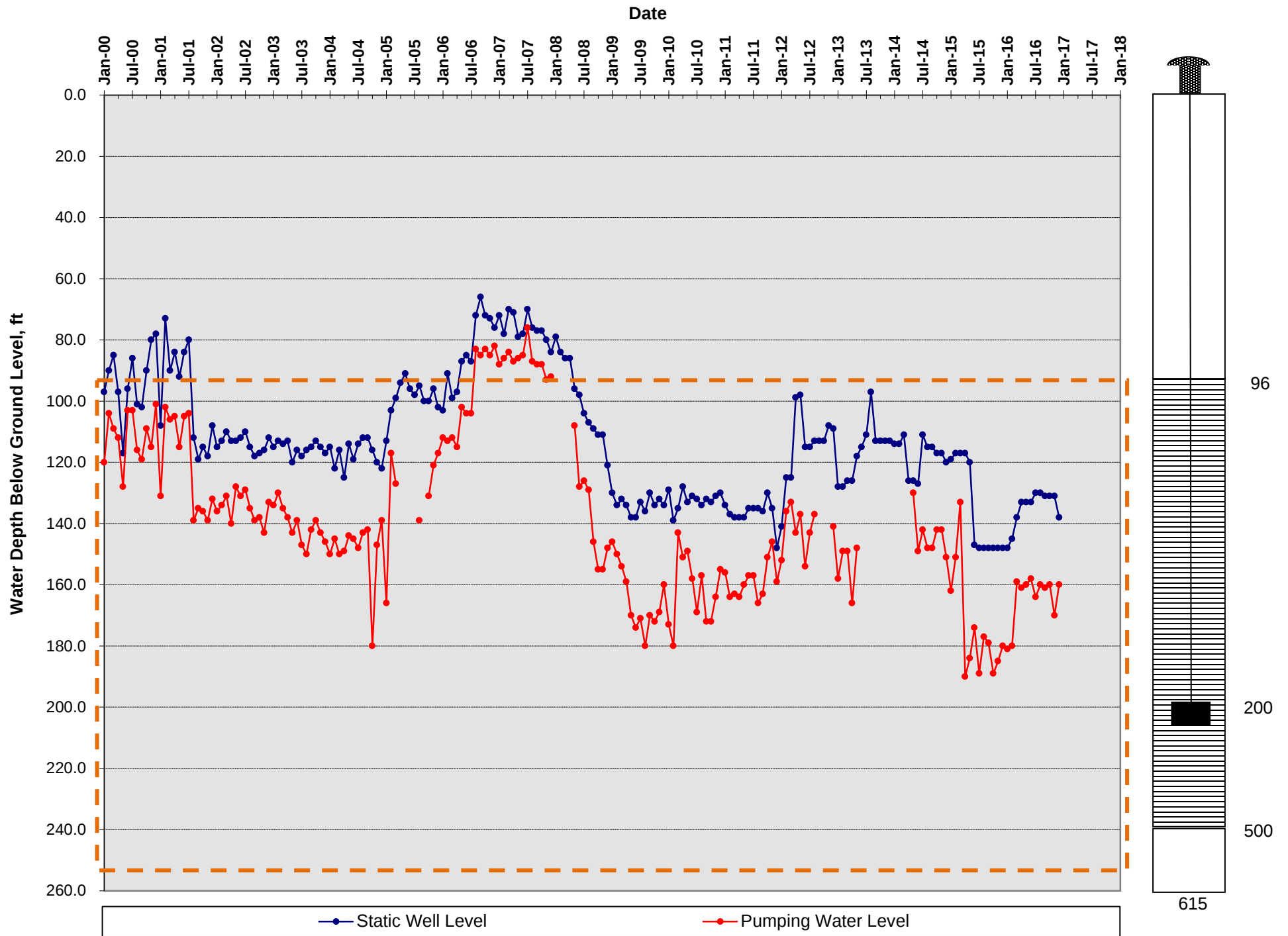
Date: 1/27/2017

Well 11: 2000 - 2016 - Static and Pumping Levels



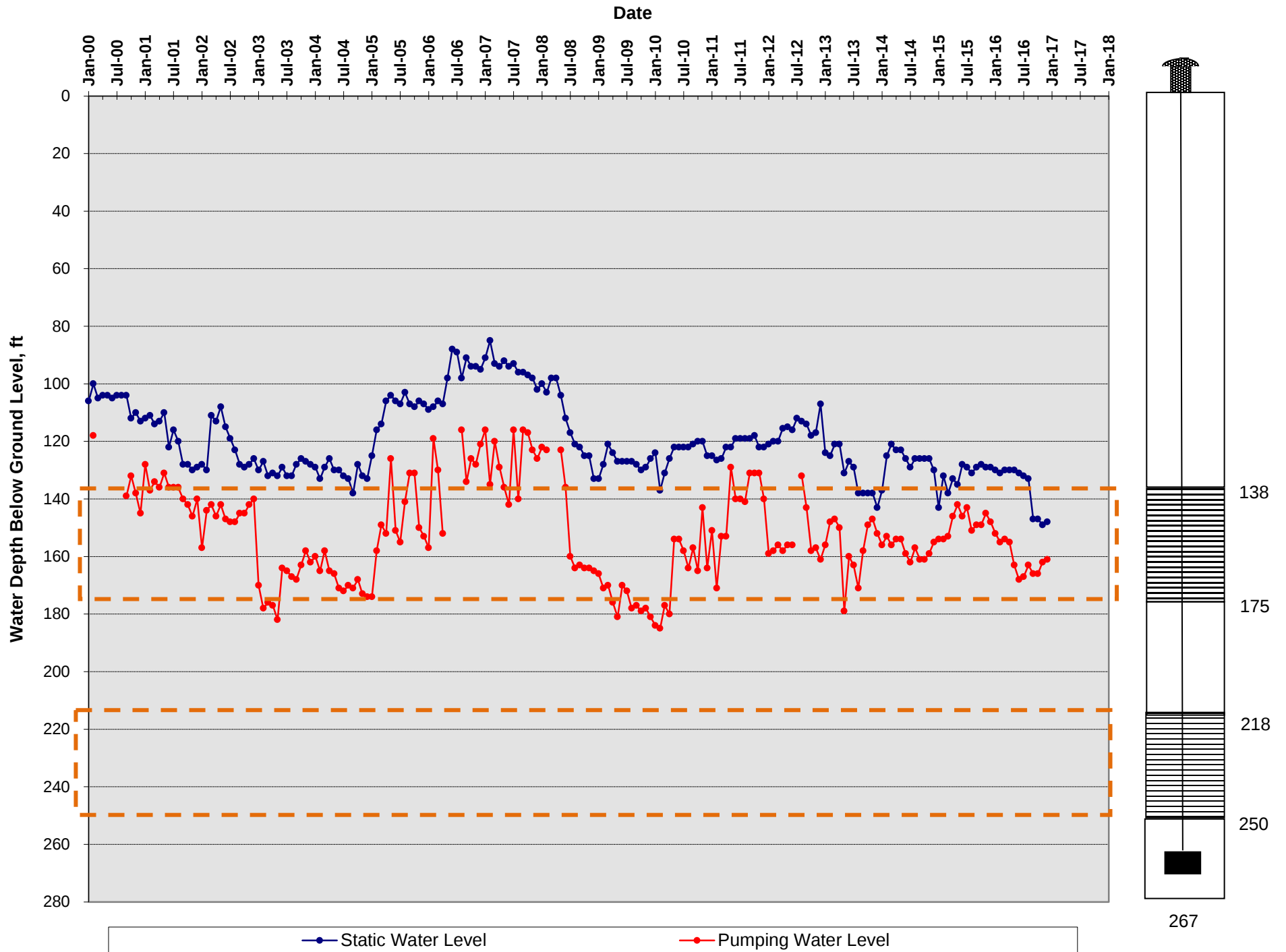
Date: 1/27/2017

Well 12: 2000 - 2016 - Static and Pumping Levels

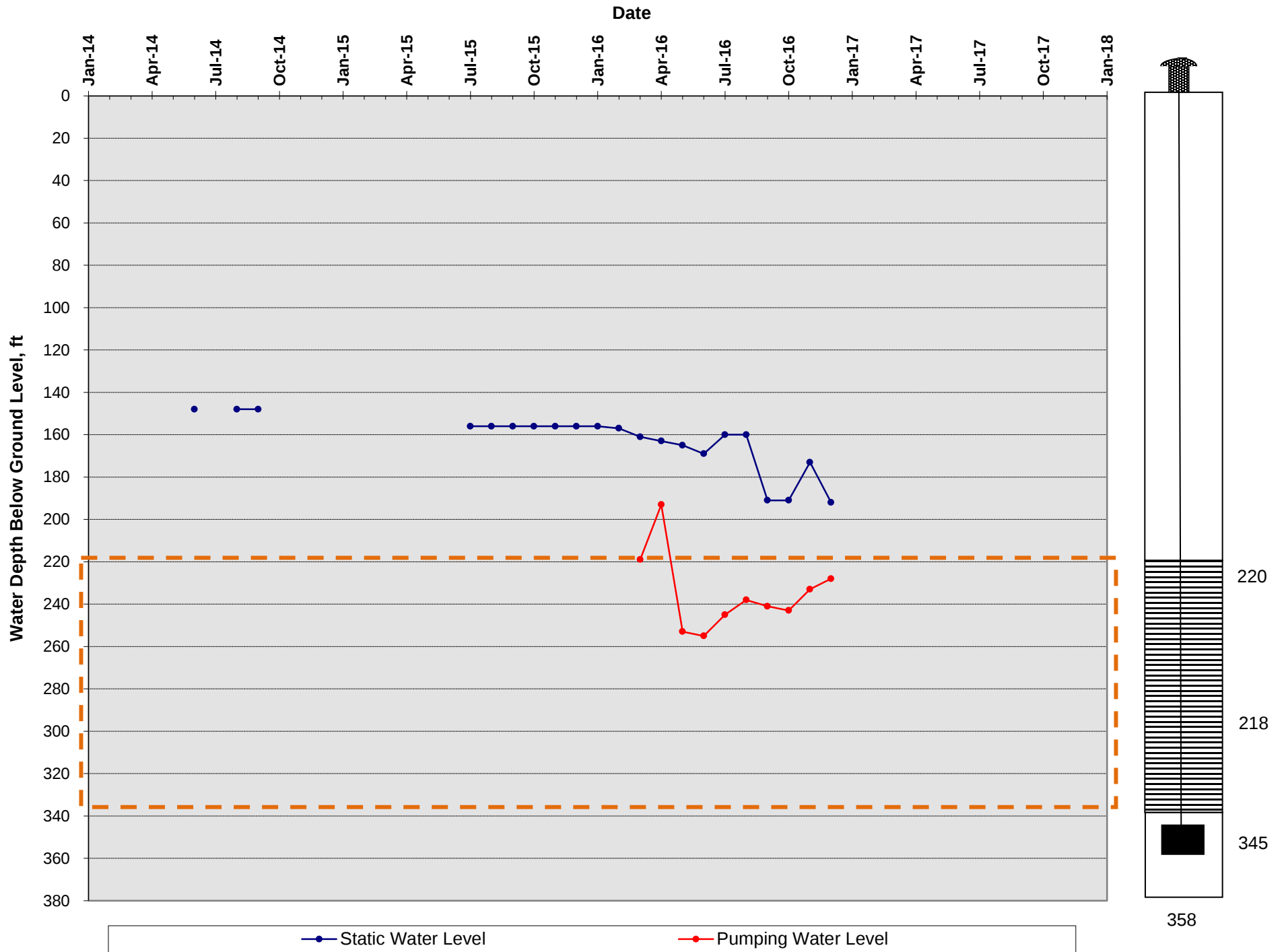


Date: 1/27/2017

Well 14: 2000 - 2016 - Static and Pumping Levels

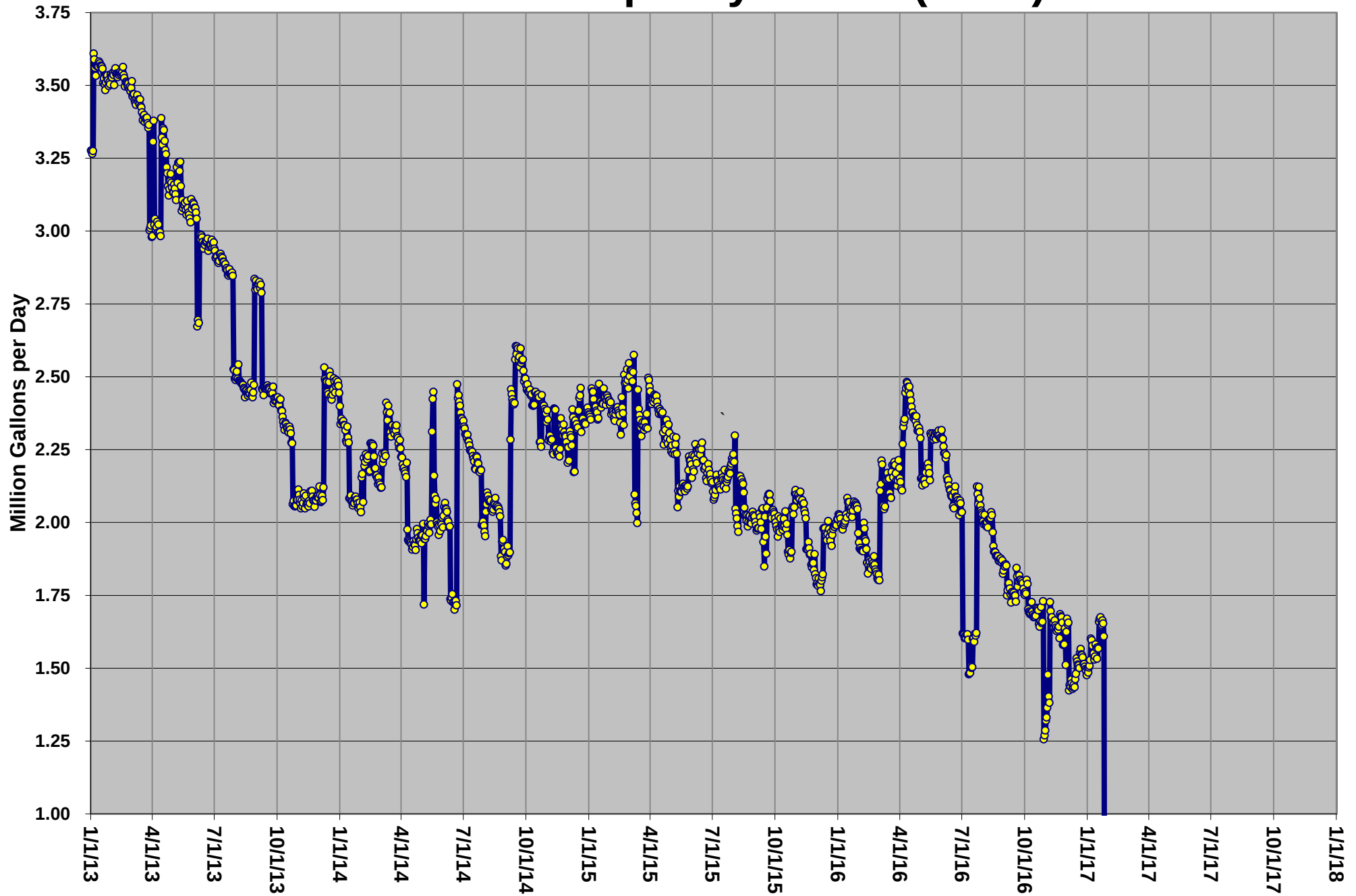


Well 16: 2014 - 2016 - Static and Pumping Levels



Date: 1/27/2017

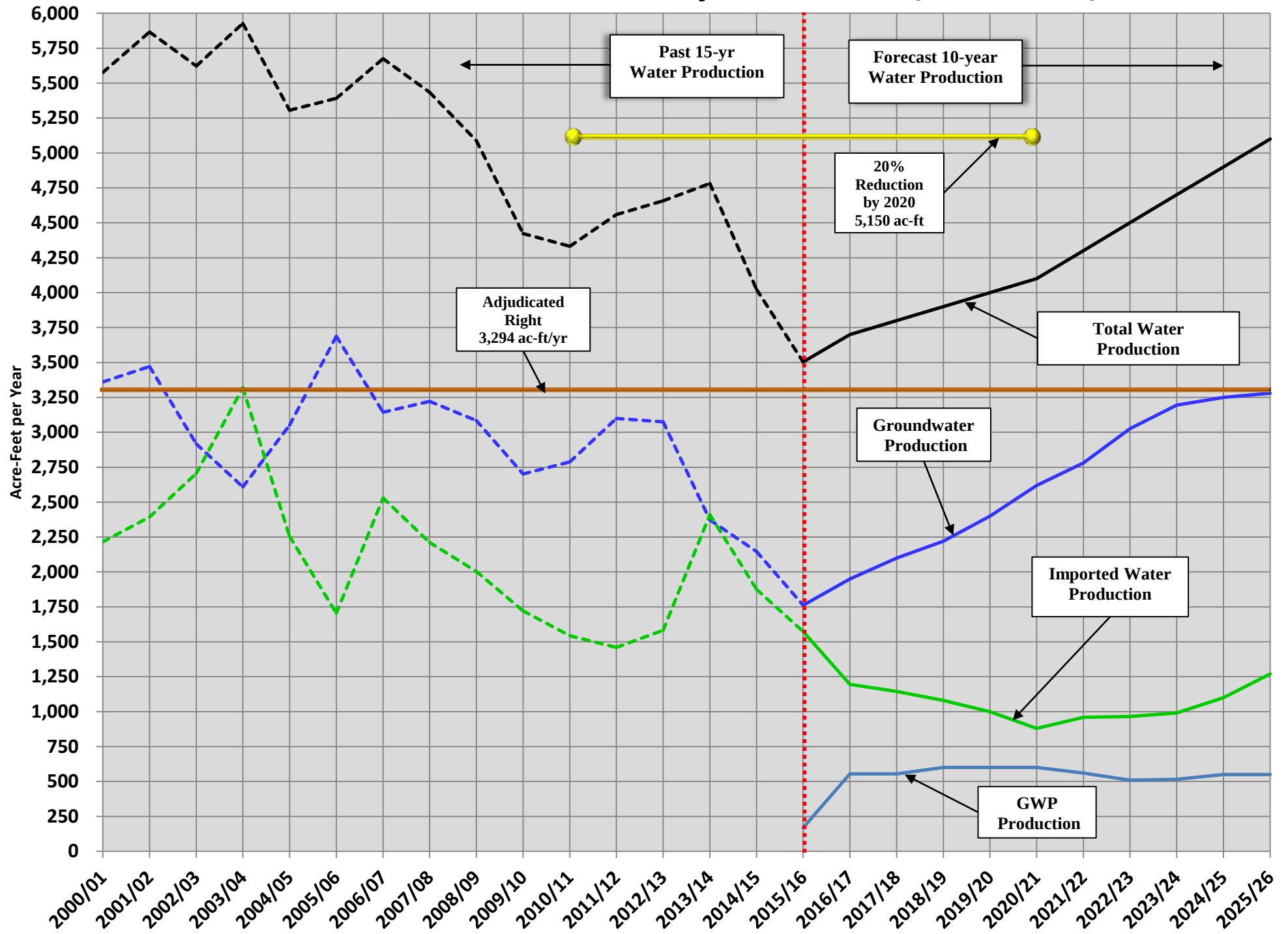
Crescenta Valley Water District 2013-17 Well Capacity Status (MGD)



10-year Water Production Estimate
Based on:
Slow Recovery of Verdugo Basin
Compliance with 25% Reduction to Oct 16
2% to 3% annual increase in water production over next 5 years
(Used for FY 16/17 Water Budget Projections)

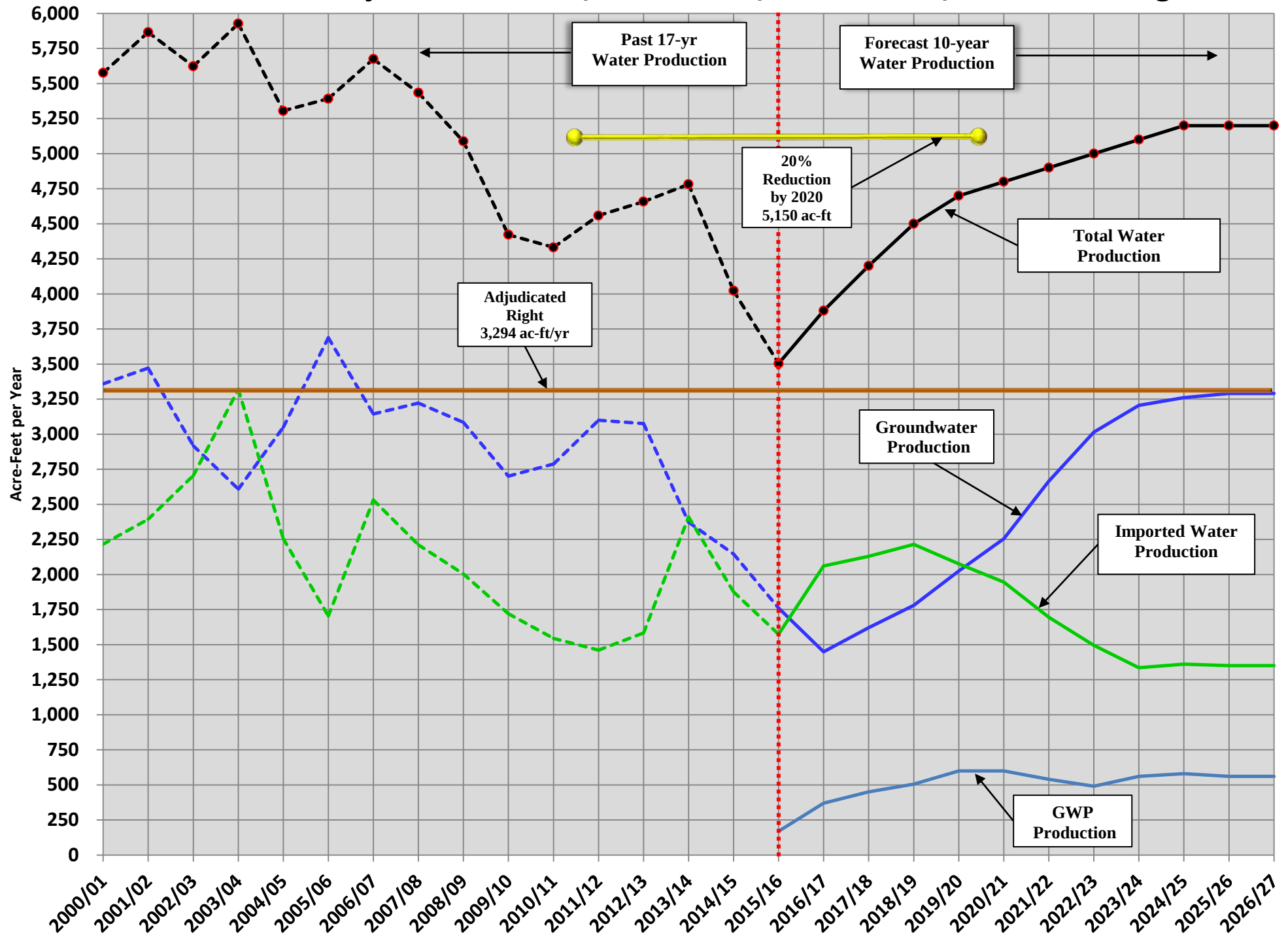
Fiscal Year	Groundwater (ac-ft)	GWP (ac-ft)	FMWD (ac-ft)	Total Water Production (ac-ft)	Percent Increase or Decrease
2013/14	2,372	0	2,410	4,782	2.7%
2014/15	2,146	0	1,876	4,022	-15.9%
2015/16	1,761	169	1,573	3,504	-12.9%
2016/17	1,950	555	1,195	3,700	5.6%
2017/18	2,100	555	1,145	3,800	2.7%
2018/19	2,220	600	1,080	3,900	2.6%
2019/20	2,400	600	1,000	4,000	2.6%
2020/21	2,620	600	880	4,100	2.5%
2021/22	2,780	560	960	4,300	4.9%
2022/23	3,025	510	965	4,500	4.7%
2023/24	3,195	515	990	4,700	4.4%
2024/25	3,250	550	1,100	4,900	4.3%
2025/26	3,280	550	1,270	5,100	4.1%

CVWD - Water Production Projections - FY 00/01 to FY 25/26



<u>10-year Water Production Estimate Based on:</u> Slow Recovery of Verdugo Basin (8 yrs to Adjudicated Level) Includes Well 2 in FY 17/18 Increase in FMWD until FY 18/19; Decreases following years 7% to 10% annual increase in total water production over next 3 years 2% to 4% annual increase in water production over the following 2 years Estimate 5,000 to 5,200 ac-ft/yr over the following 5 years (FY 22/23 to FY 26/27)					
Fiscal Year	Groundwater (ac-ft)	GWP (ac-ft)	FMWD (ac-ft)	Total Water Production (ac-ft)	Percent Increase or Decrease
2013/14	2,372	0	2,410	4,782	2.7%
2014/15	2,146	0	1,876	4,022	-15.9%
2015/16	1,761	169	1,573	3,504	-12.9%
<i>Estimate 2016/17</i>	<i>1,449</i>	<i>370</i>	<i>2,061</i>	<i>3,880</i>	<i>10.7%</i>
2017/18	1,620	450	2,130	4,200	8.2%
2018/19	1,780	505	2,215	4,500	7.1%
2019/20	2,025	600	2,075	4,700	4.4%
2020/21	2,255	600	1,945	4,800	2.1%
2021/22	2,665	540	1,695	4,900	2.1%
2022/23	3,015	490	1,495	5,000	2.0%
2023/24	3,205	560	1,335	5,100	2.0%
2024/25	3,260	580	1,360	5,200	2.0%
2025/26	3,290	560	1,350	5,200	0.0%
2026/27	3,290	560	1,350	5,200	0.0%

Water Projections - FY 00/01 to FY 26/27 for FY 17/18 Water Budget



CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Information Item No. 2

January 31, 2017

To: Engineering Committee
From: Thomas A. Love, General Manager
Subject: Recycled Water Feasibility Study

ACTION ITEM:

1. **Recycled Water Feasibility Evaluation** – Discussion of Draft Technical Memorandum – Recycled Water Project Feasibility Evaluation.

BACKGROUND:

Recycled water (treated and disinfected wastewater) has been used to supplement water supplies in California and other western states for many decades. Since the late 1980's several large scale recycled water projects have been completed in southern California utilizing new federal, state and local grant funding and rebates. Recycled water is currently used for irrigation at parks, schools, golf courses and other landscape irrigation, industrial cooling and processes and groundwater recharge.

CVWD has previously evaluated projects to deliver recycled water to irrigation customers served by the District and neighboring water Districts. In 2004 a recycled water feasibility study, prepared by Bookman Edmonston Consultants, was conducted which included a regional recycled water distribution system which included irrigation customer demands served by CVWD and Valley Water Company. In 2015 the District prepared a draft concept report evaluating recycled water service to Two-Strike Park including an on-site treatment plant. Both these reports concluded that the cost of developing recycled water service would be substantially higher than the cost to purchase imported water from Foothill Municipal Water District (FMWD).

Following the Board's review of the Two-Strike Park concept report the Board directed staff to evaluate a larger scale recycled water project.

DISCUSSION:

Recycled water re-evaluation: District staff reviewed the earlier reports and studies and recognized that additional recycled water demand would be necessary to improve the financial feasibility. Staff updated the recycled water demands used in the 2004 feasibility study and expanded the project scope to include customers in the Los Angeles Department of Water and Power (LADWP) service area west of La Crescenta and additional customer demands served by CVWD increasing the projected annual recycled water demand to 850 acre-feet. A conceptual distribution system consisting of pipelines, pump stations and reservoirs was identified and capital and operating costs estimated. The recycled water would be supplied from the City of Glendale recycled water system. Three additional project alternatives were similarly evaluated: CVWD and LADWP project (Valley Water Company customers excluded); a CVWD only alternative and; an alternative which included only CVWD customers with additional demand included for groundwater recharge.

Staff retained the services of John Robinson Consulting, Inc. (JRC) to conduct a peer review of the work done by CVWD staff and summarizing the findings in a Technical Memorandum (Final Draft attached).

Summary of findings. The evaluation included the use of grant funding (50% of capital cost) and the maximum Local Resources Program (LRP) rebate from Metropolitan Water District.

The following table summarizes the evaluation of the four recycled water project alternatives:

Project	Average Annual Demand (AFY)	Capital Cost*	Annual Unit Cost (\$/AF, Net of Grants)
Regional Project CVWD, LADWP, GWP and VWC	849	\$18,400,000	\$2,190
CVWD and LADWP Project	339	\$11,660,000	\$2,891
CVWD RW Customers only Project	175	\$9,690,000	\$4,017
CVWD RW Customers Only and Groundwater Recharge	475	\$9,760,000*	\$2,117

* Does not include cost for advanced treatment which may be required for groundwater recharge

The annual unit costs are compared to the cost of purchasing imported water which is \$1,124 in 2017 (MWD Treated Tier 1 rate plus FMWD pumping cost).

Significant cost factors. The most significant cost component is the purchase of recycled water from the City of Glendale at \$1,200 per acre-foot. Staff has discussed this cost with Glendale Water and Power staff. This cost includes Glendale's operations, maintenance and pumping costs and also includes capital recovery for their distribution system. The other significant cost factors are amortized capital and long term system maintenance cost.

RECOMMENDATION:

Staff recommends that the committee receive and file the Final Draft Recycled Water Project Feasibility Evaluation and direct staff to finalize the report and present to the Board.

Prepared and Submitted by:



Thomas A. Love, P.E.
General Manager

DRAFT FINAL Technical Memorandum

Subject: Recycled Water Project Feasibility Evaluation

Prepared for: Thomas Love, Crescenta Valley Water District

Prepared by: John Robinson, John Robinson Consulting, Inc.

Date: December 30, 2016

cc: David Gould, CVWD

BACKGROUND

This Technical Memorandum (TM) prepared by John Robinson Consulting, Inc. (JRC) re-evaluates the means and feasibility to provide recycled water within the Crescenta Valley Water District (CVWD). This TM utilized the April 22, 2004 Recycled Water Feasibility Study which was developed by Bookman-Edmonston, A Division of GEI Consultants, Inc., 2015 spreadsheets prepared by CVWD staff based on the 2004 Recycled Water Feasibility Study, the 2015 City of Glendale Water Master Plan update which included updates to their priorities for the recycled water system into CVWD's service area, the March 2015 Two Strike Park Recycled Water Satellite Facility Concept Report, and the 2015 CVWD Urban Water Management Plan.

Recycled Water Study Area

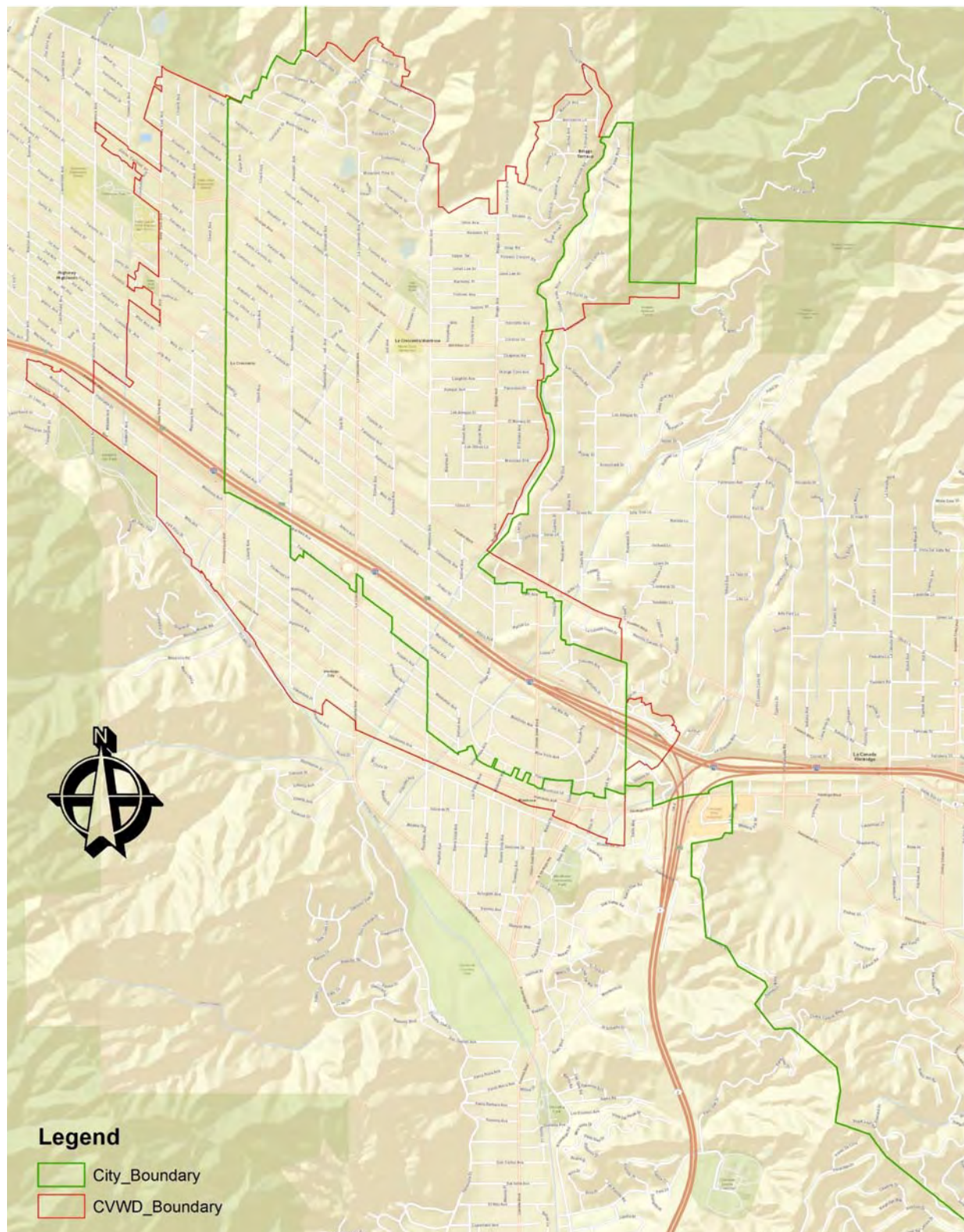
CVWD's service area is located in the Crescenta Valley area of Los Angeles County in the foothills of the San Gabriel Mountains, between the San Fernando and San Gabriel valleys. CVWD provides water distribution and sewage collection within its four-square mile service area boundaries to the unincorporated communities of La Crescenta, Montrose, and Verdugo City as well as a small portion of the City of Glendale and City of La Cañada-Flintridge. The service area ranges in elevation from approximately 1,200 feet to almost 3,000 feet above sea level due to its location next to the San Gabriel Mountains and sloping terrain. Figure 1 shows a map of CVWD's service boundaries.

CVWD currently provides water to over 8,000 accounts representing a population of 32,385. Customer growth is steady although the Crescenta Valley area is nearly built-out. Residential growth is occurring through increased housing density in the multiple-unit zoned areas (primarily Montrose) as well as limited in-fill housing developments on random parcels in La Crescenta.

CVWD's water sources are 12 local groundwater wells, with an average depth of 200 feet, one mountain tunnel (gravity fed), and imported water supply through three separate Foothill Municipal Water District (FMWD) connections and an emergency inter-tie system with the City of Glendale. On a long-term basis, approximately 60 percent of CVWD's annual water demand is met by the local groundwater supply and 40 percent by imported water. This ratio does change depending on the water supply

conditions, weather, and demand. CVWD operates 11 separate water pressure zones served by 14 pumping stations and 17 storage reservoirs totaling 17.5 million gallons.

Figure 1 – CVWD's Service Boundaries



Scope of Work

The scope of work for the Technical Memorandum included the following:

Recycled Water Title 22 System - Investigate the potential of a Title 22 recycled water distribution system to be connected to the City of Glendale's recycled water distribution system which is supplied by the Los Angeles-Glendale Water Recycling Plant. Based on that point of connection, investigate options to supply CVWD with Title 22 recycled water including:

- Regional Project involving CVWD, City of Glendale, Los Angeles Department of Water & Power, and Valley Water District customers
- Project involving CVWD and Los Angeles Department of Water & Power
- Project involving CVWD potential recycled water customers only
- Supplying CVWD recycled water customers as well as a groundwater recharge option

Economic Feasibility Evaluation Key Assumptions – An economic evaluation of each of the options listed above was completed using the following key assumptions:

- Capital costs based on recent construction cost including design, project management and contingencies.
- Grant funding at 50% of total capital cost, plus MWD LRP funding.
- Amortization of balance of capital costs over 30 years at a 4% interest rate.
- Recycled water purchase cost - \$1,200 per acre-foot based on the City of Glendale's recycled water retail rate escalated at 3% annually. This rate includes Glendale's pumping, operations and capital costs.
- Power cost based on current electricity rates escalated at 5% per year.
- Operations and Maintenance cost at 2.5% of total capital cost annually, escalated at 3% per year.
- Avoided cost of imported water at \$1,068 per acre-foot (2015 rate) including FMWD power cost escalated at 5% per year. FMWD fixed cost are not included.

Recycled Water Scalping/Satellite Facilities – JRC did not investigate any future scalping/satellite recycled water facilities within CVWD's service area since this effort was already conducted with a Concept Report dated March 2015 with a Membrane Bioreactor and ultraviolet treatment facility to be located at Two Strike Park.

Task 1.0 Recycled Water Title 22 System – Market and Distribution

As discussed, an assessment of the potential market for recycled water within CVWD's service area was completed in 2004 as part of a recycled water master plan for CVWD but due to the age of the document the District is looking to re-evaluate and assess the current recycled water market. The potential recycled water customer base is the same, demands have been updated, and the overall infrastructure alignment has not changed but has been re-evaluated.

Table 1 summarizes the potential recycled water market in 2016 which is for all future recycled water demands. Figure 2 shows the potential recycled water pump stations and pipelines to support these

potential recycled water customer demands within the local agencies including CVWD, Los Angeles Department of Water & Power (LADWP), and Valley Water Company (VWC).

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Table 1 - Summary of Recycled Water Demands

Project	Agencies	Number of Customers	Average Annual Demand (AFY)
Regional Project	CVWD, LADWP GWP and VWC	Approx. 11	849
CVWD and LADWP Project	CVWD and LADWP	Approx. 9	339
CVWD RW Customer only Project	CVWD	Approx. 10	175
CVWD RW Customer Only and Groundwater Recharge	CVWD with Recharge	Approx. 10	475

Google Maps **FIGURE 2 - Crescenta Valley Water District - Recycled Water Project Re-Evaluation**



2.0 Recycled Water Availability

The proposed recycled water source is the City of Glendale (Glendale) recycled water system. This system distributes water for the Los Angeles-Glendale Water Recycling Plant. Glendale just recently completed an update to their 2015 Water Master Plan which included an update to the section on their recycled water distribution system. The recycled water system is owned by Glendale and the overall water supply availability to the system is approximately 10,000 acre feet per year with 50% of the flow (5,000 acre- feet per year) available to the City of Los Angeles and Glendale, respectively.

The closest connection point to the Glendale system is along the 16-inch Verdugo Canyon Pipeline in the vicinity of La Crescenta Avenue and Verdugo Road. This pipeline is supplied by the 300,000-gallon Freeway reservoir which is supplied by the Fern Lane Pump Station. In conversations with Glendale staff there are no plans to expand the recycled water system to the northwest portions of Glendale specifically a La Crescenta Pipeline Project which had been discussed in the past as a potential pipeline extension. The Glendale recycled water retail rate would be \$2.58 per HCF or approximately \$1,100 per acre-feet. Glendale recommended that \$1,200 per acre-feet be utilized for the economic analysis for this recycled water re-evaluation as Glendale is moving forward with a rate study and are recommending an increase to their potable and recycled water rates.

3.0 Conceptual Recycled Water Projects

Meetings were held with CVWD staff to discuss and define the potential recycled water customers and potential recycled water alignment in CVWD's service area and to further develop conceptual collaborative projects with neighboring agencies including Los Angeles Department of Water & Power and Valley Water Company. The following projects were identified in those meeting discussions.

3.1 Regional Project

The Regional Project proposes a system which would replace the potable water irrigation connections as outlined in the 2004 report with recycled water and those customers are in three (3) different water purveyor service areas (CVWD, LADWP, and VWC). Figure 1 shows this alternative. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch serving CVWD and supplying some customers in LADWP including Caltrans and Verdugo Hills Golf course and an east branch serving Valley Water Company and a north branch serving CVWD customers near Rosemont Avenue. The west branch pipeline would be installed in Montrose Avenue and the east branch would follow Foothill Boulevard. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and minimum operational storage capacity of 500,000 gallons has been assumed.

Table 3-1 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum Local Resource Project (LRP) Funding from Metropolitan Water District of Southern California (MWD) at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water customer conversion- this project cost is \$2,190 per AF and therefore not financially feasible. A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Crescenta Valley Water District — Recycled Water Project Re-Evaluation
DRAFT FINAL Technical Memorandum

Table 3-1
Capital and Operation and Maintenance Costs and Economic Evaluation
Regional Project

Financing Term	30 years								
Interest Rate	4%								
Recycled Water Purchase	\$ 1,200 per AF								
Deliveries	849 AFY								
	Annual								
	Cost	\$/AF	Sensitivity						
Amortized Capital	\$532,304	\$627	1		\$627				
Power	\$ 107,177	\$126	1		\$126				
Maintenance	\$ 460,231	\$542	1		\$542				
Recycled Water Purchase	\$ 1,019,280	\$ 1,200	1		\$1,200				
			0						
									Increase RW Demand (Recharge)
SUBTOTAL		\$2,495			\$2,495				
MWD LRP Funding	(\$259,067)	(\$305)			(\$305)				
TOTAL		\$2,190			\$2,190				
		\$6.72	per gallon						
Avoided FMWD Purchase	\$ 1,124								
Future Cost									
CPI	3%								
FMWD	5%								
Power	5%								
GWP	3%								
							Net	Avoided FMWD	Net Incremental
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Cost/AF	Cost	Cost
1	2017	\$627	\$126	\$542	\$ 1,200	(\$305)	\$2,190	\$ 1,124	\$1,066
2	2018	\$627	\$ 132	\$ 558	\$ 1,236	\$ (305)	\$ 2,248	\$ 1,180	\$1,068
3	2019	\$627	\$ 139	\$ 575	\$ 1,273	\$ (305)	\$ 2,309	\$ 1,239	\$1,069
4	2020	\$627	\$ 146	\$ 592	\$ 1,311	\$ (305)	\$ 2,371	\$ 1,301	\$1,070
5	2021	\$627	\$ 153	\$ 610	\$ 1,351	\$ (305)	\$ 2,436	\$ 1,366	\$1,069
6	2022	\$627	\$ 161	\$ 628	\$ 1,391	\$ (305)	\$ 2,502	\$ 1,435	\$1,067
7	2023	\$627	\$ 169	\$ 647	\$ 1,433	\$ (305)	\$ 2,571	\$ 1,506	\$1,064
8	2024	\$627	\$ 178	\$ 666	\$ 1,476	\$ (305)	\$ 2,641	\$ 1,582	\$1,060
9	2025	\$627	\$ 186	\$ 686	\$ 1,520	\$ (305)	\$ 2,715	\$ 1,661	\$1,054
10	2026	\$627	\$ 196	\$ 707	\$ 1,566	\$ (305)	\$ 2,790	\$ 1,744	\$1,046
11	2027	\$627	\$ 206	\$ 728	\$ 1,613	\$ (305)	\$ 2,868	\$ 1,831	\$1,037
12	2028	\$627	\$ 216	\$ 750	\$ 1,661	\$ (305)	\$ 2,949	\$ 1,922	\$1,026
13	2029	\$627	\$ 227	\$ 773	\$ 1,711	\$ (305)	\$ 3,032	\$ 2,019	\$1,013
14	2030	\$627	\$ 238	\$ 796	\$ 1,762	\$ (305)	\$ 3,118	\$ 2,119	\$998
15	2031	\$627	\$ 250	\$ 820	\$ 1,815	\$ (305)	\$ 3,206	\$ 2,225	\$981
16	2032	\$627	\$ 262	\$ 844	\$ 1,870	\$ (305)	\$ 3,298	\$ 2,337	\$961
17	2033	\$627	\$ 275	\$ 869	\$ 1,926	\$ (305)	\$ 3,392	\$ 2,454	\$939
18	2034	\$627	\$ 289	\$ 896	\$ 1,983	\$ (305)	\$ 3,490	\$ 2,576	\$914
19	2035	\$627	\$ 304	\$ 922	\$ 2,043	\$ (305)	\$ 3,591	\$ 2,705	\$886
20	2036	\$627	\$ 319	\$ 950	\$ 2,104	\$ (305)	\$ 3,695	\$ 2,840	\$855
21	2037	\$627	\$ 335	\$ 979	\$ 2,167	\$ (305)	\$ 3,802	\$ 2,982	\$820
22	2038	\$627	\$ 352	\$ 1,008	\$ 2,232	\$ (305)	\$ 3,914	\$ 3,131	\$782
23	2039	\$627	\$ 369	\$ 1,038	\$ 2,299	\$ (305)	\$ 4,028	\$ 3,288	\$740
24	2040	\$627	\$ 388	\$ 1,069	\$ 2,368	\$ (305)	\$ 4,147	\$ 3,452	\$695
25	2041	\$627	\$ 407	\$ 1,101	\$ 2,439	\$ (305)	\$ 4,269	\$ 3,625	\$644
26	2042	\$627	\$ 427	\$ 1,134	\$ 2,513	\$ (305)	\$ 4,396	\$ 3,806	\$590
27	2043	\$627	\$ 449	\$ 1,169	\$ 2,588	\$ (305)	\$ 4,527	\$ 3,997	\$530
28	2044	\$627	\$ 471	\$ 1,204	\$ 2,666	\$ (305)	\$ 4,662	\$ 4,196	\$465
29	2045	\$627	\$ 495	\$ 1,240	\$ 2,746	\$ (305)	\$ 4,802	\$ 4,406	\$395
30	2046	\$627	\$ 519	\$ 1,277	\$ 2,828	\$ (305)	\$ 4,946	\$ 4,627	\$319

3.2 CVWD and LADWP Project

The CVWD and LADWP Project propose a system which would replace the CVWD and LADWP potable water irrigation connections as outlined in the 2004 report with recycled water. Figure 2 shows this alternative and is supported by Appendix A. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch serving CVWD and supplying some customers in LADWP including Caltrans and Verdugo Hills Golf course and a north branch serving CVWD customers near Rosemont Avenue. The west branch pipeline would be installed in Montrose Avenue. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and storage capacity of approximately 4-hour peak flow or 500,000 gallons has been assumed.

Table 3-2 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum LRP Funding from MWD at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water conversion- this project cost is \$2,891 and therefore not financially feasible.

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance. and specific project summaries are in Appendix A.

Crescenta Valley Water District — Recycled Water Project Re-Evaluation
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Table 3-2
Capital and Operation and Maintenance Costs and Economic Evaluation
CVWD and LADWP Project

Financing Term	30	years								
Interest Rate	4%									
Recycled Water Purchase Rate	\$ 1,200	per AF								
Deliveries	339	AFY								
	Annual									
	Cost	\$/AF	Sensitivity							
Amortized Capital	\$337,134	\$993	1		\$993					
Power	\$ 48,866	\$144	1		\$144					
Maintenance	\$ 291,487	\$859	1		\$859					
Recycled Water Purchase	\$ 407,280	\$ 1,200	1		\$1,200					
			0							
SUBTOTAL		\$3,196			\$3,196					
MWD LRP Funding	(\$103,517)	(\$305)			(\$305)					
TOTAL		\$2,891			\$2,891					
		\$8.87	per gallon							
Avoided FMWD Purchase		\$ 1,124								
Future Cost										
	CPI	3%								
	FMWD	5%								
	Power	5%								
	GWP	3%								
							Net	Avoided FMWD	Net Incremental	
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Cost/AF	Cost	Cost	
1	2017	\$993	\$144	\$859	\$ 1,200	(\$305)	\$2,891	\$ 1,124	\$1,767	
2	2018	\$993	\$ 151	\$ 885	\$ 1,236	\$ (305)	\$ 2,960	\$ 1,180	\$1,780	
3	2019	\$993	\$ 159	\$ 911	\$ 1,273	\$ (305)	\$ 3,031	\$ 1,239	\$1,792	
4	2020	\$993	\$ 167	\$ 938	\$ 1,311	\$ (305)	\$ 3,105	\$ 1,301	\$1,804	
5	2021	\$993	\$ 175	\$ 967	\$ 1,351	\$ (305)	\$ 3,181	\$ 1,366	\$1,814	
6	2022	\$993	\$ 184	\$ 996	\$ 1,391	\$ (305)	\$ 3,259	\$ 1,435	\$1,824	
7	2023	\$993	\$ 193	\$ 1,025	\$ 1,433	\$ (305)	\$ 3,340	\$ 1,506	\$1,833	
8	2024	\$993	\$ 203	\$ 1,056	\$ 1,476	\$ (305)	\$ 3,423	\$ 1,582	\$1,841	
9	2025	\$993	\$ 213	\$ 1,088	\$ 1,520	\$ (305)	\$ 3,509	\$ 1,661	\$1,848	
10	2026	\$993	\$ 223	\$ 1,121	\$ 1,566	\$ (305)	\$ 3,598	\$ 1,744	\$1,854	
11	2027	\$993	\$ 235	\$ 1,154	\$ 1,613	\$ (305)	\$ 3,690	\$ 1,831	\$1,859	
12	2028	\$993	\$ 246	\$ 1,189	\$ 1,661	\$ (305)	\$ 3,784	\$ 1,922	\$1,862	
13	2029	\$993	\$ 259	\$ 1,224	\$ 1,711	\$ (305)	\$ 3,882	\$ 2,019	\$1,864	
14	2030	\$993	\$ 271	\$ 1,261	\$ 1,762	\$ (305)	\$ 3,983	\$ 2,119	\$1,864	
15	2031	\$993	\$ 285	\$ 1,299	\$ 1,815	\$ (305)	\$ 4,088	\$ 2,225	\$1,862	
16	2032	\$993	\$ 299	\$ 1,338	\$ 1,870	\$ (305)	\$ 4,195	\$ 2,337	\$1,859	
17	2033	\$993	\$ 314	\$ 1,378	\$ 1,926	\$ (305)	\$ 4,306	\$ 2,454	\$1,853	
18	2034	\$993	\$ 330	\$ 1,420	\$ 1,983	\$ (305)	\$ 4,421	\$ 2,576	\$1,845	
19	2035	\$993	\$ 346	\$ 1,462	\$ 2,043	\$ (305)	\$ 4,540	\$ 2,705	\$1,835	
20	2036	\$993	\$ 364	\$ 1,506	\$ 2,104	\$ (305)	\$ 4,662	\$ 2,840	\$1,822	
21	2037	\$993	\$ 382	\$ 1,551	\$ 2,167	\$ (305)	\$ 4,789	\$ 2,982	\$1,807	
22	2038	\$993	\$ 401	\$ 1,598	\$ 2,232	\$ (305)	\$ 4,919	\$ 3,131	\$1,788	
23	2039	\$993	\$ 421	\$ 1,646	\$ 2,299	\$ (305)	\$ 5,054	\$ 3,288	\$1,766	
24	2040	\$993	\$ 442	\$ 1,695	\$ 2,368	\$ (305)	\$ 5,194	\$ 3,452	\$1,741	
25	2041	\$993	\$ 464	\$ 1,746	\$ 2,439	\$ (305)	\$ 5,338	\$ 3,625	\$1,713	
26	2042	\$993	\$ 488	\$ 1,798	\$ 2,513	\$ (305)	\$ 5,487	\$ 3,806	\$1,680	
27	2043	\$993	\$ 512	\$ 1,852	\$ 2,588	\$ (305)	\$ 5,640	\$ 3,997	\$1,644	
28	2044	\$993	\$ 538	\$ 1,908	\$ 2,666	\$ (305)	\$ 5,799	\$ 4,196	\$1,603	
29	2045	\$993	\$ 564	\$ 1,965	\$ 2,746	\$ (305)	\$ 5,963	\$ 4,406	\$1,557	
30	2046	\$993	\$ 593	\$ 2,024	\$ 2,828	\$ (305)	\$ 6,133	\$ 4,627	\$1,506	

3.3 CVWD Potential Recycled Water Customer Project only

The CVWD potential recycled water customer project proposes a system which would replace the only the CVWD potable water irrigation connections as outlined in the 2004 report with recycled water. Figure 2 shows this alternative and is supported by Appendix A. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch in Montrose Avenue serving Crescenta Valley Park and a north branch serving CVWD customers near Rosemont Avenue. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and minimum operational storage capacity of 500,000 gallons has been assumed.

Table 3-3 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum LRP Funding from MWD at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water conversion- this project cost is \$4,017 and therefore not financially feasible.

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Crescenta Valley Water District — Recycled Water Project Re-Evaluation
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Table 3-3
Capital and Operation and Maintenance Costs and Economic Evaluation
CVWD Potential Recycled Water Customers Project only

Financing Term	30 years								
Interest Rate	4%								
Recycled Water Purchase Rate	\$ 1,200 per AF								
Deliveries	175 AFY								
	Annual								
	Cost	\$/AF	Sensitivity						
Amortized Capital	\$280,143	\$1,601	1		\$1,601				
Power	\$ 23,921	\$137	1		\$137				
Maintenance	\$ 242,212	\$1,384	1		\$1,384				
Recycled Water Purchase	\$ 210,000	\$ 1,200	1		\$1,200				
			0					Increase RW Demand (Recharge)	
SUBTOTAL		\$4,322			\$4,322				
MWD LRP Funding	(\$53,375)	(\$305)			(\$305)				
TOTAL		\$4,017			\$4,017				
		\$12.33	per gallon						
Avoided FMWD Purchase		\$ 1,124							
Future Cost									
	CPI 3%								
	FMWD 5%								
	Power 5%								
	GWP 3%								
							Net	Avoided FMWD	Net Incremental
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Cost/AF	Cost	Cost
1	2017	\$1,601	\$137	\$1,384	\$ 1,200	(\$305)	\$4,017	\$ 1,124	\$2,893
2	2018	\$1,601	\$ 144	\$ 1,426	\$ 1,236	\$ (305)	\$ 4,101	\$ 1,180	\$2,921
3	2019	\$1,601	\$ 151	\$ 1,468	\$ 1,273	\$ (305)	\$ 4,188	\$ 1,239	\$2,949
4	2020	\$1,601	\$ 158	\$ 1,512	\$ 1,311	\$ (305)	\$ 4,278	\$ 1,301	\$2,977
5	2021	\$1,601	\$ 166	\$ 1,558	\$ 1,351	\$ (305)	\$ 4,370	\$ 1,366	\$3,004
6	2022	\$1,601	\$ 174	\$ 1,605	\$ 1,391	\$ (305)	\$ 4,466	\$ 1,435	\$3,031
7	2023	\$1,601	\$ 183	\$ 1,653	\$ 1,433	\$ (305)	\$ 4,565	\$ 1,506	\$3,058
8	2024	\$1,601	\$ 192	\$ 1,702	\$ 1,476	\$ (305)	\$ 4,666	\$ 1,582	\$3,085
9	2025	\$1,601	\$ 202	\$ 1,753	\$ 1,520	\$ (305)	\$ 4,771	\$ 1,661	\$3,111
10	2026	\$1,601	\$ 212	\$ 1,806	\$ 1,566	\$ (305)	\$ 4,879	\$ 1,744	\$3,136
11	2027	\$1,601	\$ 223	\$ 1,860	\$ 1,613	\$ (305)	\$ 4,991	\$ 1,831	\$3,160
12	2028	\$1,601	\$ 234	\$ 1,916	\$ 1,661	\$ (305)	\$ 5,107	\$ 1,922	\$3,184
13	2029	\$1,601	\$ 245	\$ 1,973	\$ 1,711	\$ (305)	\$ 5,226	\$ 2,019	\$3,207
14	2030	\$1,601	\$ 258	\$ 2,033	\$ 1,762	\$ (305)	\$ 5,348	\$ 2,119	\$3,229
15	2031	\$1,601	\$ 271	\$ 2,094	\$ 1,815	\$ (305)	\$ 5,475	\$ 2,225	\$3,250
16	2032	\$1,601	\$ 284	\$ 2,156	\$ 1,870	\$ (305)	\$ 5,606	\$ 2,337	\$3,269
17	2033	\$1,601	\$ 298	\$ 2,221	\$ 1,926	\$ (305)	\$ 5,741	\$ 2,454	\$3,287
18	2034	\$1,601	\$ 313	\$ 2,288	\$ 1,983	\$ (305)	\$ 5,880	\$ 2,576	\$3,304
19	2035	\$1,601	\$ 329	\$ 2,356	\$ 2,043	\$ (305)	\$ 6,024	\$ 2,705	\$3,319
20	2036	\$1,601	\$ 345	\$ 2,427	\$ 2,104	\$ (305)	\$ 6,172	\$ 2,840	\$3,332
21	2037	\$1,601	\$ 363	\$ 2,500	\$ 2,167	\$ (305)	\$ 6,326	\$ 2,982	\$3,343
22	2038	\$1,601	\$ 381	\$ 2,575	\$ 2,232	\$ (305)	\$ 6,484	\$ 3,131	\$3,352
23	2039	\$1,601	\$ 400	\$ 2,652	\$ 2,299	\$ (305)	\$ 6,647	\$ 3,288	\$3,359
24	2040	\$1,601	\$ 420	\$ 2,732	\$ 2,368	\$ (305)	\$ 6,816	\$ 3,452	\$3,363
25	2041	\$1,601	\$ 441	\$ 2,814	\$ 2,439	\$ (305)	\$ 6,990	\$ 3,625	\$3,365
26	2042	\$1,601	\$ 463	\$ 2,898	\$ 2,513	\$ (305)	\$ 7,169	\$ 3,806	\$3,363
27	2043	\$1,601	\$ 486	\$ 2,985	\$ 2,588	\$ (305)	\$ 7,355	\$ 3,997	\$3,358
28	2044	\$1,601	\$ 510	\$ 3,074	\$ 2,666	\$ (305)	\$ 7,546	\$ 4,196	\$3,350
29	2045	\$1,601	\$ 536	\$ 3,167	\$ 2,746	\$ (305)	\$ 7,744	\$ 4,406	\$3,338
30	2046	\$1,601	\$ 563	\$ 3,262	\$ 2,828	\$ (305)	\$ 7,948	\$ 4,627	\$3,321

3.4 CVWD Potential Recycled Water Customer Project with Groundwater Recharge

The CVWD potential recycled water customer project with groundwater recharge proposes a system which would replace only the potable water irrigation connections served by CVWD as outlined in the 2004 report by CVWD customers with recycled water plus groundwater recharge facilities at Two Strike Park as outlined in the March 2015 Report and recycled water recharge utilizing the proposed storm water recharge facilities at Crescenta Valley Park. Figure 2 shows this alternative and is supported by Appendix A. The backbone of this system would be a 16-inch pipeline along Verdugo Road from the existing Glendale system to a pump station located in the general vicinity of Broadview Drive.

After the pump station, the system would split into a west branch in Montrose Avenue serving Crescenta Valley Park and a north branch serving CVWD customers near Rosemont Avenue. Groundwater recharge facilities would be constructed at Two Strike and Crescenta Valley Parks. Each of these branches is initially 12-inches in diameter and gradually reduces in size as demand decreases. Required laterals would be 4-inch minimum. In many cases these laterals would cross Interstate 210 inside of existing Caltrans owned bridges and would require encasement.

Storage would be required and storage capacity of approximately 4-hour peak flow or 500,000 gallons has been assumed.

Due to the recently approved Title 22 Groundwater Recharge regulations the existing recycled water purchased from Glendale would require additional treatment prior to groundwater recharge. The Regional Water Quality Control Board (RWQCB) – Los Angeles office last permit for a Title 22 groundwater recharge project without additional advanced treatment was in 1994 for the Water Replenishment District expansion of additional Title 22 recycled water at the Montebello Forebay project.

Additional Advanced Oxidation Process (AOPs) process would likely be required to further remove additional organic parameters not degradable by means of biologic processes at the Los Angeles-Glendale Water Recycling Plant. The use of ultraviolet (UV) treatment as an AOP is acceptable by the State Water Resource Control Board Division of Drinking Water in combination with soil aquifer treatment (SAT) in order to comply with the approved Title 22 Groundwater Recharge regulations. Although this additional treatment may be required the costs of the additional treatment have not been included in the economic evaluation for this alternative.

Table 3-4 summarizes the economic evaluation for this alternative. With the absolute maximum plausible grant funding – 50-percent of capital costs, maximum LRP Funding from Metropolitan Water District at \$305 per acre-foot for twenty-five (25) years and \$975 per acre-foot for the recycled water conversion- this project cost is \$2,117 and therefore not financially feasible.

A summary of the potential recycled water customer demands, summary of capital costs (pipelines, pump stations, storage, recycled water retrofits), operations and maintenance, and specific project summaries are in Appendix A.

Crescenta Valley Water District — Recycled Water Project Re-Evaluation
DRAFT FINAL Technical Memorandum

Table 3-4
Capital and Operation and Maintenance Costs and Economic Evaluation
CVWD Potential Recycled Water Customers Project with Groundwater Recharge

Financing Term	30 years								
Interest Rate	4%								
Recycled Water Purchase Rate	\$ 1,200 per AF								
Deliveries	475 AFY								
	Annual								
	Cost	\$/AF	Sensitivity						
Amortized Capital (excluding retri	\$282,310	\$594	1		\$594				
Power	\$ 54,243	\$114	1		\$114				
Maintenance	\$ 244,086	\$514	1		\$514				
Recycled Water Purchase	\$ 570,000	\$ 1,200	1		\$1,200				
			0						
SUBTOTAL		\$2,422			\$2,422				
MWD LRP Funding	(\$144,875)	(\$305)			(\$305)				
TOTAL		\$2,117			\$2,117		\$ 1,202	\$ 1,156	
		\$6.50	per gallon						
Avoided FMWD Purchase		\$ 1,124							
Future Cost									
	CPI 3%								
	FMWD 5%								
	Power 5%								
	GWP 3%								
							Net	Avoided FMWD	Net Incremental
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Cost/AF	Cost	Cost
1	2017	\$594	\$114	\$514	\$ 1,200	(\$305)	\$2,117	\$ 1,124	\$993
2	2018	\$594	\$ 120	\$ 529	\$ 1,236	\$ (305)	\$ 2,175	\$ 1,180	\$994
3	2019	\$594	\$ 126	\$ 545	\$ 1,273	\$ (305)	\$ 2,233	\$ 1,239	\$994
4	2020	\$594	\$ 132	\$ 562	\$ 1,311	\$ (305)	\$ 2,294	\$ 1,301	\$993
5	2021	\$594	\$ 139	\$ 578	\$ 1,351	\$ (305)	\$ 2,357	\$ 1,366	\$991
6	2022	\$594	\$ 146	\$ 596	\$ 1,391	\$ (305)	\$ 2,422	\$ 1,435	\$987
7	2023	\$594	\$ 153	\$ 614	\$ 1,433	\$ (305)	\$ 2,489	\$ 1,506	\$983
8	2024	\$594	\$ 161	\$ 632	\$ 1,476	\$ (305)	\$ 2,558	\$ 1,582	\$976
9	2025	\$594	\$ 169	\$ 651	\$ 1,520	\$ (305)	\$ 2,629	\$ 1,661	\$968
10	2026	\$594	\$ 177	\$ 670	\$ 1,566	\$ (305)	\$ 2,703	\$ 1,744	\$959
11	2027	\$594	\$ 186	\$ 691	\$ 1,613	\$ (305)	\$ 2,779	\$ 1,831	\$948
12	2028	\$594	\$ 195	\$ 711	\$ 1,661	\$ (305)	\$ 2,857	\$ 1,922	\$935
13	2029	\$594	\$ 205	\$ 733	\$ 1,711	\$ (305)	\$ 2,938	\$ 2,019	\$919
14	2030	\$594	\$ 215	\$ 755	\$ 1,762	\$ (305)	\$ 3,022	\$ 2,119	\$902
15	2031	\$594	\$ 226	\$ 777	\$ 1,815	\$ (305)	\$ 3,108	\$ 2,225	\$882
16	2032	\$594	\$ 237	\$ 801	\$ 1,870	\$ (305)	\$ 3,197	\$ 2,337	\$860
17	2033	\$594	\$ 249	\$ 825	\$ 1,926	\$ (305)	\$ 3,289	\$ 2,454	\$835
18	2034	\$594	\$ 262	\$ 849	\$ 1,983	\$ (305)	\$ 3,384	\$ 2,576	\$808
19	2035	\$594	\$ 275	\$ 875	\$ 2,043	\$ (305)	\$ 3,482	\$ 2,705	\$777
20	2036	\$594	\$ 289	\$ 901	\$ 2,104	\$ (305)	\$ 3,583	\$ 2,840	\$743
21	2037	\$594	\$ 303	\$ 928	\$ 2,167	\$ (305)	\$ 3,688	\$ 2,982	\$705
22	2038	\$594	\$ 318	\$ 956	\$ 2,232	\$ (305)	\$ 3,796	\$ 3,131	\$664
23	2039	\$594	\$ 334	\$ 985	\$ 2,299	\$ (305)	\$ 3,907	\$ 3,288	\$619
24	2040	\$594	\$ 351	\$ 1,014	\$ 2,368	\$ (305)	\$ 4,023	\$ 3,452	\$570
25	2041	\$594	\$ 368	\$ 1,045	\$ 2,439	\$ (305)	\$ 4,142	\$ 3,625	\$517
26	2042	\$594	\$ 387	\$ 1,076	\$ 2,513	\$ (305)	\$ 4,264	\$ 3,806	\$458
27	2043	\$594	\$ 406	\$ 1,108	\$ 2,588	\$ (305)	\$ 4,391	\$ 3,997	\$395
28	2044	\$594	\$ 426	\$ 1,141	\$ 2,666	\$ (305)	\$ 4,523	\$ 4,196	\$326
29	2045	\$594	\$ 448	\$ 1,176	\$ 2,746	\$ (305)	\$ 4,658	\$ 4,406	\$252
30	2046	\$594	\$ 470	\$ 1,211	\$ 2,828	\$ (305)	\$ 4,798	\$ 4,627	\$172

4.0 Conclusion

There are several factors affecting the unit cost of recycled water in these four alternatives: 1) Total recycled water demand; 2) Capital cost of infrastructure; 3) Energy and annual operations and maintenance cost; 4) Cost of recycled water supply from Glendale; and 5) Grant funding and other subsidies.

Each of the four alternatives evaluated include reasonably aggressive estimates of recycled water demand the largest of which is 850 acre feet per year which would be considered a very small recycled water project. This, combined with the extensive distribution pipelines required to serve this demand, results in high recycled water unit cost.

Energy cost is not a significant cost factor and is offset by reduced potable water pumping. Estimated annual operations and maintenance cost represent 25% to 35% of the recycled water unit cost.

The retail price for recycled water from Glendale is estimated at \$1,200 based on discussions with Glendale Water and Power staff. This represents over 50% of the recycled water unit cost.

Grant funding of 50% of the capital costs and MWD subsidies for retrofit on operations cost have been included in the economic evaluations. These subsidies reduce the recycled water unit cost by about 45%.

All four recycled water project options have resulting recycled water unit costs ranging from \$2,117 per acre-foot to \$4,017 per acre-foot as outlined in Table 3-1 through Table 3-4.

Appendix A

Potential Recycled Water Customer Demands
Capital Costs
(Pipelines, Pump Stations, Storage, RW Retrofits),
Operations and Maintenance
and
Summary
for
Regional Project
CVWD and LCID Project
CVWD RW Customer Only Project
CVWD RW Customer Only and Groundwater
Recharge Project

**CRESCENTA VALLEY WATER DISTRICT
RECYCLED WATER PROJECT RE-EVALUATION
CUSTOMER DEMANDS**

CVWD		Recycled Water Demands							On-Site			
									Retrofit	\$/af		
Caltrans	2004 Report	2014	2013	2012	2011	Avg (highlighted)	AF					
1	N/E Corner Ocean View	45.4	8243	16335	15662	6656	11724	36.0	Low			
2	E/Side Rosemont	39.2	4008	6032	7552	63	5864	18.0				
3	S/Side Encinal (Pennsylvania)	32.4	4769	4577	0	0	4673	14.3				
4	W/Side New York	11.9	1931	421	678	518	1931	5.9				
5	S/Side La Granada (2 Fwy)	12.3	2730	2594	2123	1106	2482	7.6				
	Ramsdell (2015)	0						0.0				
	La Crescenta (2015)	0						0.0				
Total Caltrans		141.2					81.9			\$	75,000 \$ 916	
Parks		2014	2013	2012	2011	Avg (highlighted)	AF					
	CV Park Total	32.7	3943	6473	3914	4591	4730	14.5	Low - Use 30	\$	75,000 \$ 5,166	
1	CV Park Dunsmore (1.5")		1469	1464	553	0						
	CV Park Dunsmore (2")		346	655	267	573						
2	CV Park Honolulu		1139	2446	1826	2082						
3	CV Park New York		989	1908	1268	1936						
4	Two Strike Park	23.6	4477	3741	6295	8583	5774	17.7	Low	\$	25,000	
5	Pickens Canyon Park	0	58	137	168	165	132	0.4		\$	25,000 Added since using demand	
Total Parks		56.3					32.6			\$	100,000 \$ 3,063	
Schools		2014	2013	2012	2011	Avg (highlighted)	AF					
	CV High (2 meters)	0	5381	4195	5170	5360	5027	15.4		\$	50,000	
	Rosemont Jr. High	0	7312	8345	1434	5493	7050	21.6		\$	35,000	
	Mt. Ave School	0	3191	2563	2934	2395	2771	8.5		\$	25,000	
	Monte Vista School	0	972	1008	878	1240	1025	3.1		\$	25,000	
Total Schools		0					48.7			\$	135,000 \$ 2,771	
CVWD Total		197.5					163.2	AFY		\$	310,000 \$ 1,899 Use \$1,900/AF	
			92.6	2014 All Irrig. Meters Total excludes schools				137.1				
VWC		319						319	AFY			
LCID		191						191	AFY			
LADWP/GWP North West												
	Verdugo Hills GC	19.87 Acres	3 AFY/Acre					59.6		\$	75,000 \$ 1,258	
	Clark Magnet		Estimated (similar to Rosemont Jr.)					21.6		\$	35,000	
	Dunsmore Park		Estimated (similar to Two Strike Park)					17.7		\$	25,000	
	Caltrans		Estimated (80% of CVWD Caltrans demand)					65.5		\$	15,000	
Total LADWP/GWP								164.5	AFY	\$	150,000	
Total Potential RW Irrigation Demand								837.7	AFY			

Key Assumptions to be validated

Demands (High or Low) (Verdugo Hills GC remaining life?)
Capital Cost
GWP RW Cost
O&M Cost
Reservoir Site
Retrofit Costs

Fatal Flaws

Verdugo Basin Groundwater Production- Judgement, well production capacity
Recharge Permitting without Advanced Treatment at LAG
GWP RW Purchase Agreement
Interagency Agreements - LADWP, GWP, FMWD, LCID, LC City, VWC

CRESENTA VALLEY WATER DISTRICT
RECYCLED WATER PROJECT RE-EVALUATION
REGIONAL PROJECT

Regional Project

Pipelines																						
			Customers	Pipe Length					Demand				Segment Flow (AFY)	Avg CFS	Peak CFS PF=	GPM	Pipe Size V (FPS)=	Nominal Pipe Size	Cost per Foot	Segment Cost	\$/AF	
					Caltrans	Park/GC	School	Total														
Backbone Pipeline																						
N - 1	La Crescenta Ave/Rosemont	Rosemont/Montrose		3960				837	849.4	2.35	16.4		7375	38.8	36	425	\$ 1,683,000			\$ 1,981		
NW - 1	Rosemont/Montrose	Honolulu/Dunsmore	CV Park	8501	38.2	30		68.2	232.6	0.64	4.5		2020	20.3	16	285	\$ 2,422,728			\$ 10,416		
NW - 2	Honolulu/Dunsmore	Honolulu/La Tuna Can	VHGC/Caltrans	4805	65.5	77.3	21.6	164.4	164.4	0.45	3.2		1427	17.1	16	285	\$ 1,369,368			\$ 8,329		
E - 1	Rosemont/Verdugo	Oakgrove/LCHS	St Francis/LCHS	20011	43.6			553.6	553.6	1.53	10.7		4807	31.3	24	375	\$ 7,504,200			\$ 13,555		
																				\$ 12,979,296		
Laterals																						
CV-1	Montrose/Rosemont	Rosemont/Country side	Rosemont Jr High	4670			21.6		63.2	0.17	1.2		549	10.6	10	235	\$ 1,097,450			\$ 17,365		
CV-2	Montrose/Rosemont	Rosemont/Francis	Two Strike Park	2612		17.7			17.7	0.05	0.3		154	5.6	8	235	\$ 613,820			\$ 34,679		
CV-3	Rosemont/Prospect	Prospect/Glenwood	CVHS	2675			15.4		15.4	0.04	0.3		134	5.2	8	235	\$ 628,625			\$ 40,820		
CV-4	Rosemont/Fairmount	El Sereno/Mt. Ave. School	Mt. Ave. School	2621			8.5		8.5	0.02	0.2		74	3.9	4	235	\$ 615,935			\$ 72,463		
CV-5	Misc Caltrans Laterals	Caltrans		4000	20 Avg				20	0.06	0.4		174	6.0	8	235	\$ 940,000			\$ 47,000		
																				\$ 3,895,830		
																			Total		\$ 16,875,126	

Pump Stations																				
Criteria																				
	Glendale HGL	1410																		
	CVWD Zone 4 HGL	1783	373	HGL difference																
	Min Pressure	80																		
	Efficiency	75%																		
High Elevations																				
	Required HGL																			
	Verdugo Hill GC	1720	1905	Verdugo Hills is going to have to increase pressure																
	Two Strike Park	1865	2050																	
	CV High School	1570	1755																	
				Peak Flow				kWh/AF		Annual		Unit	LS	Civil	\$/HP	Total	Total Capital			
				Flow	Head (not TDH)	HP		kW	AFY		kWh/yr					Electrical				
PS-1	Glendale Connection	1783	16.4	373	927	691		510.01	849	433203		1	\$	200,000	\$	400	\$	370,724	\$	570,724
PS-2	Verdugo GC	1905	3.2	122	59	44		166.81	164	27424		1	\$	150,000	\$	400	\$	23,469	\$	173,469
PS-3	Two Strike/Rosemont	2050	0.9	267	37	28		365.07	48	17451		1	\$	150,000	\$	400	\$	14,934	\$	164,934
																		Total	\$	909,127

Reservoir(s)															
Criteria															
	4 hour storage	1.25	per Gallon			500,000	MG								
	Excluding Land Acquisition Cost														\$ 625,000

On-Site Retrofits															
							AF		\$/AF						
							849.4	\$	1,900						\$ 1,613,860

Summary															
Pipelines															\$ 16,875,126
Pump Stations															\$ 909,127
Reservoirs															\$ 625,000
														Sub Total Distribution Sys.	\$ 18,409,253
Grant Funding Distribution System														50%	\$ (9,204,626)
														Total Distribution System	\$ 9,204,626
Retrofits															\$ 1,613,860
MWD Retrofit Funding							849.4	\$	975						\$ (828,165)
Total Capital Cost															\$ 19,194,948

Economic Evaluation															
Financing Term		30 years													
Interest Rate		4%													
Recycled Water Purchase Rate		\$ 1,200 per AF													
Deliveries		849 AFY													
Annual Cost				\$/AF		Sensitivity									
Amortized Capital		\$532,304		\$627		1		\$627							
Power		\$ 107,177		\$126		1		\$126							
Maintenance		\$ 460,231		\$542		1		\$542							
Recycled Water Purchase		\$ 1,019,280		\$ 1,200		1		\$1,200							
						0				Increase RW Demand (Recharge)					
SUBTOTAL				\$2,495				\$2,495							
MWD LRP Funding				(\$259,067)		(\$305)		(\$305)							
TOTAL				\$2,190				\$2,190							
				\$6.72		per gallon									
Avoided FMWD Purchase				\$ 1,124											
Future Cost															
CPI		3%													
FMWD		5%													
Power		5%													
GWP		3%													
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Net Cost/AF	Avoided FMWD Cost	Net Incremental Cost						
1	2017	\$627	\$126	\$542	\$ 1,200	(\$305)	\$2,190	\$ 1,124	\$1,066						
2	2018	\$627	\$ 132	\$ 558	\$ 1,236	\$ (305)	\$ 2,248	\$ 1,180	\$1,068						
3	2019	\$627	\$ 139	\$ 575	\$ 1,273	\$ (305)	\$ 2,309	\$ 1,239	\$1,069						
4	2020	\$627	\$ 146	\$ 592	\$ 1,311	\$ (305)	\$ 2,371	\$ 1,301	\$1,070						
5	2021	\$627	\$ 153	\$ 610	\$ 1,351	\$ (305)	\$ 2,436	\$ 1,366	\$1,069						
6	2022	\$627	\$ 161	\$ 628	\$ 1,391	\$ (305)	\$ 2,502	\$ 1,435	\$1,067						
7	2023	\$627	\$ 169	\$ 647	\$ 1,433	\$ (305)	\$ 2,571	\$ 1,506	\$1,064						
8	2024	\$627	\$ 178	\$ 666	\$ 1,476	\$ (305)	\$ 2,641	\$ 1,582	\$1,060						
9	2025	\$627	\$ 186	\$ 686	\$ 1,520	\$ (305)	\$ 2,715	\$ 1,661	\$1,054						
10	2026	\$627	\$ 196	\$ 707	\$ 1,566	\$ (305)	\$ 2,790	\$ 1,744	\$1,046						
11	2027	\$627	\$ 206	\$ 728	\$ 1,613	\$ (305)	\$ 2,868	\$ 1,831	\$1,037						
12	2028	\$627	\$ 216	\$ 750	\$ 1,661	\$ (305)	\$ 2,949	\$ 1,922	\$1,026						
13	2029	\$627	\$ 227	\$ 773	\$ 1,711	\$ (305)	\$ 3,032	\$ 2,019	\$1,013						
14	2030	\$627	\$ 238	\$ 796	\$ 1,762	\$ (305)	\$ 3,118	\$ 2,119	\$998						
15	2031	\$627	\$ 250	\$ 820	\$ 1,815	\$ (305)	\$ 3,206	\$ 2,225	\$981						
16	2032	\$627	\$ 262	\$ 844	\$ 1,870	\$ (305)	\$ 3,298	\$ 2,337	\$961						
17	2033	\$627	\$ 275	\$ 869	\$ 1,926	\$ (305)	\$ 3,392	\$ 2,454	\$939						
18	2034	\$627	\$ 289	\$ 896	\$ 1,983	\$ (305)	\$ 3,490	\$ 2,576	\$914						
19	2035	\$627	\$ 304	\$ 922	\$ 2,043	\$ (305)	\$ 3,591	\$ 2,705	\$886						
20	2036	\$627	\$ 319	\$ 950	\$ 2,104	\$ (305)	\$ 3,695	\$ 2,840	\$855						
21	2037	\$627	\$ 335	\$ 979	\$ 2,167	\$ (305)	\$ 3,802	\$ 2,982	\$820						
22	2038	\$627	\$ 352	\$ 1,008	\$ 2,232	\$ (305)	\$ 3,914	\$ 3,131	\$782						
23	2039	\$627	\$ 369	\$ 1,038	\$ 2,299	\$ (305)	\$ 4,028	\$ 3,288	\$740						
24	2040	\$627	\$ 388	\$ 1,069	\$ 2,368	\$ (305)	\$ 4,147	\$ 3,452	\$695						
25	2041	\$627	\$ 407	\$ 1,101	\$ 2,439	\$ (305)	\$ 4,269	\$ 3,625	\$644						
26	2042	\$627	\$ 427	\$ 1,134	\$ 2,513	\$ (305)	\$ 4,396	\$ 3,806	\$590						
27	2043	\$627	\$ 449	\$ 1,169	\$ 2,588	\$ (305)	\$ 4,527	\$ 3,997	\$530						
28	2044	\$627	\$ 471	\$ 1,204	\$ 2,666	\$ (305)	\$ 4,662	\$ 4,196	\$465						
29	2045	\$627	\$ 495	\$ 1,240	\$ 2,746	\$ (305)	\$ 4,802	\$ 4,406	\$395						
30	2046	\$627	\$ 519	\$ 1,277	\$ 2,828	\$ (305)	\$ 4,946	\$ 4,627	\$319						

Pipelines			Cutomers	Pipe Length	Demand				Segment Flow (AFY)	Avg CFS	Peak CFS PF=	GPM	Pipe Size V (FPS)=	Nominal Pipe Size	Cost per Segment Foot	Segment Cost	\$/AF	
					Caltrans	Park/GC	School	Total										
Backbone Pipeline																		
NW -1	La Crescenta Ave/Rosemont	Rosemont/Montrose		3960					339.4	0.94		7	2947	24.5	24	375 \$	1,485,000 \$	4,375
NW -1	Rosemont/Montrose	Honolulu/Dunsmore	CV Park	8501	38.2	30	68.2		232.6	0.64		4.5	2020	20.3	16	285 \$	2,422,728 \$	10,416
NW -2	Honolulu/Dunsmore	Honolulu/La Tuna Can	VHGC/Caltrans	4805	65.5	77.3	21.6	164.4	164.4	0.45		3.2	1427	17.1	16	285 \$	1,369,368 \$	8,329
E-1	Rosemont/Verdugo	Oakgrove/LCHS	St Francis/LCHS	5000	43.6			43.6	43.6	0.12		0.8	379	8.8	10	235 \$	1,175,000 \$	26,950
																\$	6,452,096	
Laterals																		
CV-1	Montrose/Rosemont	Rosemont/Country side	Rosemont Jr High	4670			21.6		63.2	0.17		1.2	549	10.6	10	235 \$	1,097,450 \$	17,365
CV-2	Montrose/Rosemont	Rosemont/Francis	Two Strike Park	2612		17.7			17.7	0.05		0.3	154	5.6	8	235 \$	613,820 \$	23,679
CV-3	Rosemont/Prospect	Prospect/Glenwood	CVHS	2675			15.4		15.4	0.04		0.3	134	5.2	8	235 \$	628,625 \$	40,820
CV-4	Rosemont/Fairmount	El Sereno/Mt. Ave. School	Mt. Ave. School	2621			8.5		8.5	0.02		0.2	74	3.9	4	235 \$	615,935 \$	72,463
CV-5	Misc Caltrans	Laterals	Caltrans	4000		20 Avg			20	0.06		0.4	174	6.0	8	235 \$	940,000 \$	47,000
																\$	3,895,830	
														Total		\$	10,347,926	

Pump Stations																			
Criteria																			
Glendale HGL		1410																	
CWWD Zone 4 HGL		1783		373 HGL difference															
Min Pressure		80																	
Efficiency		75%																	
High Elevations																			
Required HGL																			
Verdugo Hill GC		1720		1905 Verdugo Hills is going to have to increase pressure															
Two Strike Park		1865		2050															
CV High School		1570		1755															
								Unit				\$/HP		Total		Electrical		Total Capital	
										LS		Civil							
				Flow		Peak Flow		HP		kW		kWh/AF		Annual					
				Head		AFY		kWh/yr											
PS-1	Glendale Connection	1783	6.6	373	370	276	510.01	339	173098	1	\$	200,000	\$	400	\$	148,133	\$	348,133	
PS-2	Verdugo GC	1905	3.2	122	59	44	166.81	164	27424	1	\$	150,000	\$	400	\$	23,469	\$	173,469	
PS-3	Two Strike/Rosemont	2050	0.9	267	37	28	365.07	48	17451	1	\$	150,000	\$	400	\$	14,934	\$	164,934	
																Total	\$	686,535	

Reservoir(s)	Criteria	4 hour storage			
	\$	1.25	per Gallon	500,000	MG
	Excluding Land Acquisition Cost				\$ 625,000

On-Site Retrofits	AF 339.4	S/AF \$ 1,900	\$ 644,860
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Summary									
	Pipelines							\$	10,347,926
	Pump Stations							\$	686,535
	Reservoirs							\$	625,000
								\$	<u>11,659,461</u>
	Grant Funding Distribution System							50%	\$ (5,829,731)
									\$ 5,829,731
									\$ 644,860
	Retrofits							\$	(330,915)
	MWD Retrofit Funding	339.4	\$	975				\$	
	Total Capital Cost							\$	11,973,406

Economic Evaluation									
Financing Term		30 years							
Interest Rate		4%							
Recycled Water Purchase Rate		\$ 1,200 per AF							
Deliveries		339 AFY							
Annual Cost		\$/AF		Sensitivity					
Amortized Capital		\$337,134		5993		1		5993	
Power		\$ 48,866		5144		1		5144	
Maintenance		\$ 291,487		5859		1		5859	
Recycled Water Purchase		\$ 407,280		1,200		1		51,200	
						0		Increase RW Demand (Recharge)	
SUBTOTAL				\$3,196				\$3,196	
MWD LRP Funding				(\$103,517)		(\$305)		(\$305)	
TOTAL				\$2,891				\$2,891	
				58.87		per gallon			
Avoided FMWD Purchase				\$ 1,124					
Future Cost									
CPI		3%							
FMWD		5%							
Power		5%							
GWP		3%							
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Net Cost/AF	Avoided FMWD Cost	Net Incremental Cost
1	2017	5993	\$144	\$859	\$1,200	(\$305)	\$2,891	1,124	\$1,767
2	2018	5993	\$ 151	\$ 885	\$1,236	(\$305)	\$ 2,960	1,180	\$1,780
3	2019	5993	\$ 159	\$ 911	\$1,273	(\$305)	\$ 3,031	1,239	\$1,792
4	2020	5993	\$ 167	\$ 938	\$1,311	(\$305)	\$ 3,105	1,301	\$1,804
5	2021	5993	\$ 175	\$ 967	\$1,351	(\$305)	\$ 3,181	1,366	\$1,814
6	2022	5993	\$ 184	\$ 996	\$1,391	(\$305)	\$ 3,259	1,435	\$1,824
7	2023	5993	\$ 193	\$1,025	\$1,433	(\$305)	\$ 3,340	1,506	\$1,833
8	2024	5993	\$ 203	\$1,056	\$1,476	(\$305)	\$ 3,423	1,582	\$1,841
9	2025	5993	\$ 213	\$1,088	\$1,520	(\$305)	\$ 3,509	1,661	\$1,848
10	2026	5993	\$ 223	\$1,121	\$1,566	(\$305)	\$ 3,598	1,744	\$1,854
11	2027	5993	\$ 235	\$1,154	\$1,613	(\$305)	\$ 3,690	1,831	\$1,859
12	2028	5993	\$ 246	\$1,189	\$1,661	(\$305)	\$ 3,784	1,922	\$1,862
13	2029	5993	\$ 259	\$1,224	\$1,711	(\$305)	\$ 3,882	2,019	\$1,864
14	2030	5993	\$ 271	\$1,261	\$1,762	(\$305)	\$ 3,983	2,119	\$1,864
15	2031	5993	\$ 285	\$1,299	\$1,815	(\$305)	\$ 4,088	2,225	\$1,862
16	2032	5993	\$ 299	\$1,338	\$1,870	(\$305)	\$ 4,195	2,337	\$1,859
17	2033	5993	\$ 314	\$1,378	\$1,926	(\$305)	\$ 4,306	2,454	\$1,853
18	2034	5993	\$ 330	\$1,420	\$1,983	(\$305)	\$ 4,421	2,576	\$1,845
19	2035	5993	\$ 346	\$1,462	\$2,043	(\$305)	\$ 4,540	2,705	\$1,835
20	2036	5993	\$ 364	\$1,506	\$2,104	(\$305)	\$ 4,662	2,840	\$1,822
21	2037	5993	\$ 382	\$1,551	\$2,167	(\$305)	\$ 4,789	2,982	\$1,807
22	2038	5993	\$ 401	\$1,598	\$2,232	(\$305)	\$ 4,919	3,131	\$1,788
23	2039	5993	\$ 421	\$1,646	\$2,299	(\$305)	\$ 5,054	3,288	\$1,766
24	2040	5993	\$ 442	\$1,695	\$2,368	(\$305)	\$ 5,194	3,452	\$1,741
25	2041	5993	\$ 464	\$1,746	\$2,439	(\$305)	\$ 5,338	3,625	\$1,713
26	2042	5993	\$ 488	\$1,798	\$2,513	(\$305)	\$ 5,487	3,806	\$1,680
27	2043	5993	\$ 512	\$1,852	\$2,588	(\$305)	\$ 5,640	3,997	\$1,644
28	2044	5993	\$ 538	\$1,908	\$2,666	(\$305)	\$ 5,799	4,196	\$1,603
29	2045	5993	\$ 564	\$1,965	\$2,746	(\$305)	\$ 5,963	4,406	\$1,557
30	2046	5993	\$ 593	\$2,024	\$2,828	(\$305)	\$ 6,133	4,627	\$1,506

CVWD Only																		
Pipelines			Customers	Pipe Length	Demand				Segment Flow (AFY)	Avg CFS	Peak CFS PF=	GPM	Pipe Size V (FFS)=	Nominal Pipe Size	Cost per Foot	Segment Cost	\$/AF	
					Caltrans	Park/GC	School	Total										
Backbone Pipeline																		
N - 1	La Crescenta Ave/Rosemont	Rosemont/Montrose		3960					175	0.48		7	1519	17.6	16	285 \$	1,128,600 \$	6,449
NW - 1	Rosemont/Montrose	Honolulu/Dunsmore	CV Park	8501	38.2	30		68.2	68.2	0.19		1.3	592	11.0	16	285 \$	2,422,728 \$	35,524
NW - 2	Honolulu/Dunsmore	Honolulu/La Tuna Can	VHGC/Caltrans	0	65.5	77.3	21.6	0	0	0.00		0.0	0	0.0	16	285 \$	-	
E - 1	Rosemont/Verdugo	Oakgrove/LCHS	St Francis/LCHS	5000	43.6			43.6	43.6	0.12		0.8	379	8.8	10	235 \$	1,175,000 \$	26,950
															\$	4,726,328		
Laterals																		
CV-1	Montrose/Rosemont	Rosemont/Country side	Rosemont Jr High	4670			21.6		63.2	0.17		1.2	549	10.6	10	235 \$	1,097,450 \$	17,365
CV-2	Montrose/Rosemont	Rosemont/Francis	Two Strike Park	2612		17.7			17.7	0.05		0.3	154	5.6	8	235 \$	613,820 \$	34,679
CV-3	Rosemont/Prospect	Prospect/Glenwood	CVHS	2675			15.4		15.4	0.04		0.3	134	5.2	8	235 \$	628,625 \$	40,820
CV-4	Rosemont/Fairmount	El Sereno/Mt. Ave. School	Mt. Ave. School	2621			8.5		8.5	0.02		0.2	74	3.9	4	235 \$	615,935 \$	72,463
CV-5	Misc Caltrans Laterals		Caltrans	4000		20 Avg			20	0.06		0.4	174	6.0	8	235 \$	940,000 \$	47,000
															\$	3,895,830		
															Total	\$	8,622,158	

Pump Stations														

Reservoir(s)					
Criteria	4 hour storage				
	\$	1.25	per Gallon	500,000 MG	\$ 625,000
Excluding Land Acquisition Cost					

On-Site Retrofits	AF	\$/AF			
	175	\$	1,900		\$ 332,500

Summary				
Pipelines				\$ 8,622,158
Pump Stations				\$ 441,313
Reservoirs				\$ 625,000
				<u>\$ 9,688,471</u>
Grant Funding Distribution System				
			50%	\$ (4,844,236)
				\$ 4,844,236
Retrofits				\$ 332,500
MWD Retrofit Funding	175	\$	975	\$ (170,625)
Total Capital Cost				\$ 9,850,346

Economic Evaluation									
Financing Term	30 years								
Interest Rate	4%								
Recycled Water Purchase Rate	\$ 1,200 per AF								
Deliveries	175 AFY								
	Annual Cost	\$/AF	Sensitivity						
Amortized Capital	\$280,143	\$1,601	1						
Power	\$ 23,921	\$137	1						
Maintenance	\$ 242,212	\$1,384	1						
Recycled Water Purchase	\$ 210,000	\$ 1,200	1						
			0						
SUBTOTAL	\$4,322	\$4,322	Increase RW Demand (Recharge)						
MWD LRP Funding	(\$53,375)	(\$305)	(\$305)						
TOTAL	\$4,017	\$4,017							
	\$12.33	per gallon							
Avoided FMWD Purchase	\$ 1,124								
Future Cost									
	CPI	3%							
	FMWD	5%							
	Power	5%							
	GWP	3%							
Funding Year	Year	Capital	Power	Maint	RW	MWD LRP	Net Cost/AF	Avoided FMWD Cost	Net Incremental Cost
1	2017	\$1,601	\$137	\$1,384	\$ 1,200	(\$305)	\$4,017	\$ 1,124	\$2,893
2	2018	\$1,601	\$ 144	\$ 1,426	\$ 1,236	\$ (305)	\$ 4,101	\$ 1,180	\$2,921
3	2019	\$1,601	\$ 151	\$ 1,468	\$ 1,272	\$ (305)	\$ 4,188	\$ 1,239	\$2,949
4	2020	\$1,601	\$ 158	\$ 1,512	\$ 1,311	\$ (305)	\$ 4,278	\$ 1,301	\$2,977
5	2021	\$1,601	\$ 166	\$ 1,558	\$ 1,351	\$ (305)	\$ 4,370	\$ 1,366	\$3,004
6	2022	\$1,601	\$ 174	\$ 1,605	\$ 1,391	\$ (305)	\$ 4,466	\$ 1,435	\$3,031
7	2023	\$1,601	\$ 183	\$ 1,653	\$ 1,433	\$ (305)	\$ 4,565	\$ 1,506	\$3,058
8	2024	\$1,601	\$ 192	\$ 1,702	\$ 1,476	\$ (305)	\$ 4,666	\$ 1,582	\$3,085
9	2025	\$1,601	\$ 202	\$ 1,753	\$ 1,520	\$ (305)	\$ 4,771	\$ 1,661	\$3,111
10	2026	\$1,601	\$ 212	\$ 1,806	\$ 1,566	\$ (305)	\$ 4,879	\$ 1,744	\$3,136
11	2027	\$1,601	\$ 223	\$ 1,860	\$ 1,613	\$ (305)	\$ 4,991	\$ 1,831	\$3,160
12	2028	\$1,601	\$ 234	\$ 1,916	\$ 1,661	\$ (305)	\$ 5,107	\$ 1,922	\$3,184
13	2029	\$1,601	\$ 245	\$ 1,973	\$ 1,711	\$ (305)	\$ 5,226	\$ 2,019	\$3,207
14	2030	\$1,601	\$ 258	\$ 2,033	\$ 1,762	\$ (305)	\$ 5,348	\$ 2,119	\$3,229
15	2031	\$1,601	\$ 271	\$ 2,094	\$ 1,815	\$ (305)	\$ 5,475	\$ 2,225	\$3,250
16	2032	\$1,601	\$ 284	\$ 2,156	\$ 1,870	\$ (305)	\$ 5,606	\$ 2,337	\$3,269
17	2033	\$1,601	\$ 298	\$ 2,221	\$ 1,926	\$ (305)	\$ 5,741	\$ 2,454	\$3,287
18	2034	\$1,601	\$ 313	\$ 2,288	\$ 1,983	\$ (305)	\$ 5,880	\$ 2,576	\$3,304
19	2035	\$1,601	\$ 329	\$ 2,356	\$ 2,043	\$ (305)	\$ 6,024	\$ 2,705	\$3,319
20	2036	\$1,601	\$ 345	\$ 2,427	\$ 2,104	\$ (305)	\$ 6,172	\$ 2,840	\$3,332
21	2037	\$1,601	\$ 363	\$ 2,500	\$ 2,167	\$ (305)	\$ 6,326	\$ 2,982	\$3,343
22	2038	\$1,601	\$ 381	\$ 2,575	\$ 2,232	\$ (305)	\$ 6,484	\$ 3,131	\$3,352
23	2039	\$1,601	\$ 400	\$ 2,652	\$ 2,299	\$ (305)	\$ 6,647	\$ 3,288	\$3,359
24	2040	\$1,601	\$ 420	\$ 2,732	\$ 2,368	\$ (305)	\$ 6,816	\$ 3,452	\$3,363
25	2041	\$1,601	\$ 441	\$ 2,814	\$ 2,439	\$ (305)	\$ 6,990	\$ 3,625	\$3,365
26	2042	\$1,601	\$ 463	\$ 2,898	\$ 2,513	\$ (305)	\$ 7,169	\$ 3,806	\$3,363
27	2043	\$1,601	\$ 486	\$ 2,985	\$ 2,588	\$ (305)	\$ 7,355	\$ 3,997	\$3,358
28	2044	\$1,601	\$ 510	\$ 3,074	\$ 2,666	\$ (305)	\$ 7,546	\$ 4,196	\$3,350
29	2045	\$1,601	\$ 536	\$ 3,167	\$ 2,746	\$ (305)	\$ 7,744	\$ 4,406	\$3,338
30	2046	\$1,601	\$ 563	\$ 3,262	\$ 2,828	\$ (305)	\$ 7,948	\$ 4,627	\$3,321

CRESCENTA VALLEY WATER DISTRICT
RECYCLED WATER PROJECT RE-EVALUATION
CVWD RECYCLED WATER CUSTOMERS ONLY AND GROUNDWATER RECHARGE

CVWD with Recharge

Pipelines																		
			Customers	Pipe Length	Demand				Segment Flow (AFY)	Avg CFS	Peak CFS P/F=	GPM	Pipe Size V (FPS)=	Nominal Pipe Size	Cost per Foot	Segment Cost	\$/AF	
Backbone Pipeline					Caltrans	Park/GC	School Recharge	Total										
N - 1	La Crescenta Ave/Rosemont	Rosemont/Montrose		3960					475	0.48		7	1519	17.6	16	285 \$	1,128,600 \$	2,376
NW - 1	Rosemont/Montrose	Honolulu/Dunsmore	CV Park	8501	38.2	30	200	268.2	268.2	0.19	1.3	592	11.0	12	235 \$	1,997,688 \$	7,449	
NW - 2	Honolulu/Dunsmore	Honolulu/La Tuna Can	VHGC/Caltrans	0	0	0	21.6	0	0	0.00	0.0	0	0.0	0	225 \$	-		
E - 1	Rosemont/Verdugo	Oakgrove/LCHS	St Francis/LCHS	5000	43.6			43.6	43.6	0.12	0.8	379	8.8	10	235 \$	1,175,000 \$	26,950	
																\$	4,301,288	
Laterals																		
CV-1	Montrose/Rosemont	Rosemont/Country side	Rosemont Jr High	4670			21.6		163.2	0.17	1.2		549	10.6	10	235 \$	1,097,450 \$	6,725
CV-2	Montrose/Rosemont	Rosemont/Francis	Two Strike Park	2612		17.7	100		17.7	0.05	0.3	154	5.6	8	235 \$	613,820 \$	34,679	
CV-3	Rosemont/Prospect	Prospect/Glenwood	CWHS	2675			15.4		15.4	0.04	0.3	134	5.2	8	235 \$	628,625 \$	40,820	
CV-4	Rosemont/Fairmount	El Sereno/Mt. Ave. School	Mt. Ave. School	2621			8.5		8.5	0.02	0.2	74	3.9	4	235 \$	615,935 \$	72,463	
CV-5	Misc Caltrans Laterals		Caltrans	4000					20	0.06	0.4	174	6.0	8	235 \$	940,000 \$	47,000	
																\$	3,895,830	

CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 3

January 31, 2017

To: Engineering Committee
From: David S. Gould, P.E. – District Engineer
Subject: Purchase of New District Vehicle – Unit #51

INFORMATION ITEM:

Purchase of New District Vehicle (Unit #51) – Discussion on purchase of a new vehicle (Unit #51) from Galpin Ford at a cost of \$29,867.70 and to declare Unit #1 as surplus property and direct the General Manager to dispose in a manner which best benefits the District.

BACKGROUND:

CVWD has 22 utility trucks, dump trucks, and/or specialty trucks within its fleet, which are utilized by personnel for various activities and which were purchased between 1995 and 2015 (See attached Fleet Vehicle list). The District has seen an increase in vehicle maintenance costs for its older vehicles in the last few years. This is primarily due to the continued daily use of the utility trucks and the older trucks nearing the end of their useful life. One method to decrease the District's long term fleet maintenance costs would be to replace older vehicles, which thereby reduces future maintenance costs.

During the FY 16/17 budget process, staff identified Unit #1 and Unit #8 as being at the end of their useful life and \$85,000 was allocated for the replacement of these two trucks.

DISCUSSION:

Unit 1 - Ford F150: Unit #1 was purchased in 2003 and has been in the District's fleet for 13 years. Unit #1 is a Ford F-150 Supercab and currently has over 150,000 miles.

This vehicle had been used as the Superintendent's truck until the retirement of Larry Byers in 2015. Since that time, it has been used by various crew members, while other trucks have been in the shop for maintenance/repairs and by field crew members who are helping out with various facilities maintenance.

However, over the last three years, staff has seen an increase in repair costs totaling \$5,963 or an average of \$1,490 per year, to maintain Unit #1. At the present time, the engine is knocking and pinging when driving uphill and Unit #1 will probably require major engine work, which could cost up to \$5,000. Staff concluded that it did not make financial sense to repair Unit #1 since the value of the truck per the current Blue Book value is between \$2,300 and \$3,300, which is less than the repair cost.

At this time, staff determined that Unit #8 is in relatively good shape with respect to maintenance costs and could get another year of service before it would need to be replaced. The replacement of Unit #8 will be included in the FY 17/18 Budget.

Purchase of a Replacement Truck (Unit #51):

Staff requested quotes for the purchase of a new Ford F-150 4 x 2 utility truck (Unit #51) to replace Unit #1 from three (3) Ford dealerships within the Southern California area. Unit #51 will be assigned to the new Superintendent (Mr. Dennis Maxwell) and will include a supercrew cab with seating for four (4) people (the old Unit #1 could only seat 2 people), a 5.0L V8 engine, a 5.5 foot truck bed, with blue tooth compatibility, tailgate step, spray-in bed liner, and a towing package to tow the light duty trailers (i.e. arrow board, lights, etc.).

CVWD received quotes from the following dealerships, which are shown in the bid summary below:

Make	Model	Bid Item	Galpin Ford	Star Ford	Carmenita Truck Center
Ford	F-150	Base Price	\$ 27,286.93	\$ 27,466.00	\$ 28,227.00
		Tax (9%)	\$ 2,463.02	\$ 2,559.06	\$ 2,547.63
		Misc. Costs	\$ 117.75	\$ 117.75	119.50
		Total	\$ 29,867.70	\$ 30,142.81	\$ 30,894.13

Staff contacted these dealerships to get the approximate costs for taxes or any applicable fees for these vehicles and those are included in the bid summary. Galpin Ford of North Hills provided the lowest quote including tax and other fees for Unit #51.

Truck Modifications:

The new Unit #51 will also need safety light bars, two-way radio, tool boxes, and directional arrows installed after delivery at an additional cost of approximately \$2,300. Staff will try to use any existing equipment from Unit #1 to hopefully reduce this cost.

RECOMMENDATION:

It is staff's recommendation to the Engineering Committee to recommend placing this item on the next Board meeting for approval to purchase the replacement vehicle and modifications for a total cost of \$32,868. Also, to declare Unit #1 as surplus property and direct the General Manager to dispose of it in a manner which best benefits the District.

FUNDING AVAILABILITY:

The replacement of Units #1 and #8 are included in the FY 2016/17 budget. There are sufficient funds available in the following account for purchase of the replacement truck as shown below:

Account Description	Amount
FY 16/17 Water and Wastewater Capital Outlay - Equipment	\$ 85,000.00
Total District Cost for Replacement of Unit #1 with Unit #51	\$ (32,167.70)
Amount Remaining in FY 16/17 - Capital Outlay - Equipment	\$ 52,832.30

Prepared by:



David S. Gould, P.E.
District Engineer

Attachment:

Submitted by:

Thomas A. Love
General Manager

CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 1

Assigned to:	Construction
Make	Ford
Model	F-150
Year	2003
Mileage	150,600
Fuel Type	Gasoline

Purpose:

Superintendent

Original Cost \$19,679.04



Unit # 2

Assigned to:	Construction
Make	Ford
Model	F-550
Year	2013
Mileage	8,264
Fuel Type	Diesel

Purpose:

Water main repair
Lateral repair/replacement

Original Cost \$40,757.31
Tool Body \$54,949.08
Air Compressor from unit 20
\$95,706.39



Unit # 3

Assigned to:	Construction
Make	Pacific Tek
Model	Power Vac
Year	1999
Hours	850
Fuel Type	Gasoline

Purpose:

Field Work

Original Cost \$20,165.00

Purchased used, to clean meter
boxes and valve cans
Purchased - Feb 2013



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 6

Assigned to:	Superintendent
Make	Ford
Model	F-150
Year	2005
Mileage	80,200
Fuel Type	Gasoline

Purpose:

Sewer Maintenance

Original Cost \$18,202.28



Unit # 8

Assigned to:	Plant Maintenance Specialist
Make	Ford
Model	F-150
Year	2003
Mileage	38,277
Fuel Type	Gasoline

Purpose:

General Mechanical Maintenance on pumps and motors

Original Cost \$22,393.38



Unit # 9

Assigned to:	Inspector
Make	Ford
Model	F-150
Year	2007
Mileage	45,168
Fuel Type	Gasoline

Purpose:

Construction Inspection

Original Cost \$20,334.85



Updated - Jan. 2017

CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 17

Assigned to:	Plant
Make	Yale
Model	Forklift
Year	1999
Hours	848
Fuel Type	Propane

Purpose:

Fork Lift - Plant

Original Cost \$20,953.66

purchased used



Unit # 18

Assigned to:	Construction
Make	Ford
Model	F-650
Year	2008
Mileage	48,832
Fuel Type	Diesel

Purpose:

Dump Truck

Original Cost \$74,719.26



Unit # 19

Assigned to:	Construction
Make	John Deere
Model	544 J
Year	2008
Hours	1,335
Fuel Type	Diesel

Purpose:

Loader

Original Cost \$78,296.00

purchased used



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 21

Assigned to:	Construction
Make	Komatsu
Model	MR-27
Year	2005
Hours	3,377
Fuel Type	Diesel

Purpose:

Mini Excavator

Original Cost	\$31,425.29
Trailer/Ramps	\$2,951.34
Hydraulic Hammer	\$8,131.40
	\$42,508.03



Unit # 22

Assigned to:	Construction
Make	Ingersoll Rand
Model	Air Compressor
Year	2007
Hours	140
Fuel Type	Diesel

Purpose:

Air Compressor

Original Cost	<u>\$16,372.81</u>
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Unit # 23A

Assigned to:	Meter Reader
Make	GO
Model	Go-4
Year	2012
Mileage	18,829
Fuel Type	Gasoline

Purpose:

Meter Reading

Original Cost	<u>\$20,620.00</u>
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Purchased used in 2012



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 23B

Assigned to:	Meter Reader
Make	GO
Model	Go-4
Year	1996
Mileage	57,827
Fuel Type	Gasoline

Purpose:

Meter Reading - Spare

Original Cost \$16,900.00



Unit # 25

Assigned to:	Construction
Make	Ford
Model	F-650
Year	2000
Mileage	67,832
Fuel Type	Diesel

Purpose:

Dump Truck

Original Cost \$55,934.94
 Pull Tarp \$2,224.63
 Retrofit Emission \$19,525.76
\$77,685.33



Unit # 26

Assigned to:	Construction
Make	Miller
Model	Metro
Year	1999
Hours	
Fuel Type	Diesel

Purpose:

Welding Equipment

Original Cost \$8,235.17
 Work Bed \$1,715.84
\$9,951.01



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 27

Assigned to:	Construction
Make	Ford
Model	F-350
Year	2006
Mileage	49,412
Fuel Type	Diesel

Purpose:

Water system repair

Original Cost	\$25,656.34
Work Bed	\$8,768.25
	<u>\$34,424.59</u>



Unit # 28

Assigned to:	Emergency
Make	Whisperwatt
Model	70kW Generator
Year	2004
Hours	6,359
Fuel Type	Diesel

Purpose:

Standby Power 70 kW
Stored at Rosemont

Original Cost	<u>\$17,265.88</u>
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Purchased Used



Unit # 29

Assigned to:	Emergency
Make	International
Model	200 kW Generator
Year	1998
Hours	387
Fuel Type	Diesel

Purpose:

Standby Power 200 kW
Stored at Rosemont

Original Cost	<u>\$56,831.25</u>
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Purchased Used



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 30

Assigned to:	Emergency
Make	Spectrum
Model	150 kW Generator
Year	2001
Hours	31
Fuel Type	Diesel

Purpose:

Standby Power 150 kW
Stored at Rosemont

Original Cost \$32,239.90

Purchased Used



Unit # 31

Assigned to:	Wastewater
Make	International
Model	Vactor Truck
Year	2005
Mileage	36,998
Fuel Type	Diesel

Purpose:

Sewer Cleaning

Original Cost \$179,577.00
Radio \$1,004.45
Smog Device \$14,804.04
\$195,385.49



Unit # 32

Assigned to:	Wastewater
Make	Ultra
Model	Trailer
Year	2006
Mileage	N/A
Fuel Type	N/A

Purpose:

Sewer Emergency Response

Original Cost \$5,205.30
\$5,205.30



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 33

Assigned to:	Wastewater
Make	GMC
Model	Van
Year	1995
Mileage	23,355
Fuel Type	Gasoline

Purpose:

Sewer Inspection Camera

Original Cost \$53,583.75

Purchased Used



Unit # 34

Assigned to:	System Operator
Make	Ford
Model	F-250
Year	2008
Mileage	58,920
Fuel Type	Diesel

Purpose:

System Operations

Original Cost \$29,713.63



Unit # 35

Assigned to:	Emergency
Make	Kohler
Model	500 kW Generator
Year	2008
Hours	178
Fuel Type	Diesel

Purpose:

Stationary Standby Power 500kW

Original Cost \$206,844.37



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 36

Assigned to:	Construction
Make	Ford
Model	F-350
Year	2008
Mileage	69,468
Fuel Type	Diesel

Purpose:

Water system

Original Cost \$26,384.95



Unit # 37

Assigned to:	Construction
Make	National
Model	Arrow board
Year	2002
Mileage	N/A
Fuel Type	Gasoline

Purpose:

Water system

Original Cost \$5,120.23



Unit # 38

Assigned to:	Customer Service
Make	Ford
Model	Ranger
Year	2011
Mileage	58,374
Fuel Type	Gasoline

Purpose:

Customer Service

Original Cost \$19,407.96



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 39

Assigned to:	Construction
Make	Porta Potty
Model	
Year	2010
Mileage	N/A
Fuel Type	N/A

Purpose:

Original Cost \$651.71



Unit # 40

Assigned to:	Wastewater
Make	Aluma (Trailer)
Model	Serco Flex
Year	2011
Hours	611
Fuel Type	N/A

Purpose:

Sewer Cleaning in easement areas

Original Cost \$2,574.53

SRECO \$5,000.00

\$7,574.53

Purchased Used



Unit # 41

Assigned to:	Emergency
Make	MQ Power
Model	70kW Generator
Year	2006
Hours	8,076
Fuel Type	Diesel

Purpose:

Standby Power 70kw

Original Cost \$15,660.00

Purchased Used



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 42

Assigned to:	System Operators
Make	Aztex
Model	Trailer
Year	2000
Mileage	N/A
Fuel Type	N/A

Purpose:

Flush out Trailer

Original Cost \$2,122.15

Purchased Used



Unit # 43

Assigned to:	System Operators
Make	Ford
Model	F-150
Year	2014
Mileage	28,860
Fuel Type	Gasoline

Purpose:

System Operations

Original Cost \$25,661.14

Purchased New



Unit # 44

Assigned to:	Construction
Make	Ford
Model	F-150
Year	2014
Mileage	16,001
Fuel Type	Gasoline

Purpose:

Water System

Original Cost \$23,244.61

Purchased New



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 45

Assigned to:	Elec/Tele
Make	Ford
Model	F-350
Year	2014
Mileage	16,086
Fuel Type	Diesel

Purpose:

Electrical Maintenance

Original Cost \$44,533.41

Purchased New



Unit # 46

Assigned to:	Construction
Make	Ford
Model	F-350
Year	2014
Mileage	7,602
Fuel Type	Diesel

Purpose:

Valve Exercise Truck

Original Cost \$38,153.79

Valve Operator \$52,391.87

Original Cost \$90,545.66

Purchased New



Unit # 47

Assigned to:	Construction
Make	Ford
Model	F-550
Year	2015
Mileage	4,875
Fuel Type	Diesel

Purpose:

Water system repair

Original Cost \$42,602.58

CTEC \$21,000.00

Original Cost \$63,602.58

Purchased New



CRESCENTA VALLEY WATER DISTRICT

Fleet Vehicle List

Updated - Jan. 2017

Unit # 48

Assigned to:	System Operator
Make	Ford
Model	F-150
Year	2015
Mileage	11,687
Fuel Type	Gasoline

Purpose:
System Operations

Original Cost \$23,208.03
KR Nida \$1,972.33
Original Cost **\$25,180.36**

Purchased New



Unit # 49

Assigned to:	Wastewater
Make	Ford
Model	F-150
Year	2015
Mileage	11,619
Fuel Type	Gasoline

Purpose:
Sewer System

Original Cost \$24,208.03
Original Cost **\$24,208.03**

Purchased New



Unit #50

Assigned to:	Emergency
Make	Doosan
Model	LSC
Year	2016
Hours	
Fuel Type	Diesel

Purpose: Construction
Outdoor Lights

Original Cost

Original Cost

Purchased New



CRESCENTA VALLEY WATER DISTRICT

STAFF REPORT

Information Item No. 4
January 31, 2017

To: Engineering Committee
From: David S. Gould, P.E. – District Engineer
Subject: **Project Status - FY 16/17 - Capital Improvement Project Program**

FY 16/17 – CIP Project Schedule & Cost Estimate - The FY 16/17 Capital Improvement Project (CIP) program includes the following projects which are summarized below:

1. **Rehabilitation of Well 7** – Well 7 was planned to be rehabilitated in FY 14/15, yet, Well 7 maintained its well capacity during the year and taking Well 7 out of service would have meant the loss of water production during the rehabilitation period. Therefore, this project was deferred until FY 16/17.

Well rehabilitation projects typically include repairing or replacing the pump and motor assembly, cleaning or chemical treatment of well casing, replacement of meters, valves, or other appurtenances. The well rehabilitation process usually takes 3 months to complete.

1/31/17 Project Update:

- Staff has observed that water production from all of CVWD's groundwater wells since the last Engineering Committee meeting in September 2016 has decreased by almost 20% which is probably due to low water levels. However, the water production from Well 7 has remained around 170 gpm. In order for CVWD to maintain its groundwater production over the last 4 months, staff made the decision not to proceed with the rehabilitation of Well 7.
- Staff is evaluating CVWD's groundwater operations to determine ways to increase well capacity. In addition, with the recent rainfall in December 2016 and January 2017, staff wants to wait to see the effects of the rainfall on groundwater well levels.

Project Schedule: TBD

Cost Estimate: TBD

2. **Nitrate Removal Treatment Plant at Well 2** – CVWD received a grant under Proposition 84 2015 IRWM Implementation Grant with the Department of Water Resources (DWR) to install a new nitrate removal treatment plant and re-activation of Well 2. Staff has been working with SA Associates on the design of the project and APTwater on the design of the new nitrate removal treatment plant.

The re-activation of Well 2 and the new nitrate removal treatment facility will allow CVWD to utilize a local water resource, increase CVWD's ability to use its adjudicated rights within the Verdugo Basin, reduce CVWD's dependence on imported water from MWD, and reduce nitrates levels within the Verdugo Basin.

1/31/17 Project Update:

- 50% Technical Design Memorandum - completed by SA Associates in late December 2016
- SA Associates and APT Water working on 90% design submittal
- Staff has met with City of Glendale regarding initial plan comments and approvals
- Staff will be meeting with Glendale Water and Power regarding upgrading electrical connection
- SA Associates and staff will be preparing Request for Quotes (RFQ) for the purchase of the electrical motor control center (MCC) and pre-fabricated buildings. This was previously done for Well 16 to assist with the project schedule
- Final design and specifications should be completed by early May 2017, the project advertised for bids in late May 2017, and the construction contract should be awarded in late July 2017
- Construction should begin October 2017 and completed by the end of April 2018
- Well 2 should be in service by May 2018
- See attached project schedule

Cost Estimate: - FY 16/17 - \$720,000 and remainder to be included in FY 17/18 CIP Budget

3. **Proposition 50 - Emergency Water Supply Interconnection Between LADWP, CVWD, and FMWD** - The new interconnection will allow CVWD to receive an emergency water supply from LADWP water and the water transferred to the FMWD's System via existing piping, reservoirs, and upgrades to existing FMWD interconnections.

The project will give CVWD and FMWD the capability to offset the impact of a shutdown of the Metropolitan Water District's (MWD) Weymouth Plant, located in La Verne, which is the only source of water to FMWD during a planned or unplanned emergency.

The overall project is near completion with the construction at Ordunio Reservoir completed and the Chloramination Station at Ocean View Reservoir nearly complete. The next step is testing of the interconnection system between the three agencies and obtaining final approval from the State Water Resources Control Board.

1/31/17 Project Update:

- Construction completed for the Chloramination Building including electrical work and treatment equipment
- Water transfer from FMWD to CVWD including "break point" chlorination operations have been successfully tested
- Initial field inspection from State Water Resources Control Board, Division of Drinking Water (DDW) personnel completed as part of Grant process
- Additional work requested by FMWD to improve emergency operations to transfer water from CVWD to FMWD is currently in design
- Quotes have been requested for SCADA upgrades from TESCO Controls for the Ocean View Reservoir including the additional information for the Chloramination Station
- Staff is finalizing Claim No. 3 for grant reimbursement from DDW and should be submitted by February 2017
- DDW has preliminarily granted a time extension for project completion to May 2017

Cost Estimate: - Carry over from FY 15/16 - \$125,000

4. **Crescenta Valley County Park Storm Water Recharge Facility Study** - The Crescenta Valley County Park Stormwater Recharge Project Facility Study (Study) was conducted to provide important data and geologic information to determine if portions of Crescenta Valley County Park in the La Crescenta area of Los Angeles County can be utilized for storm water capture for groundwater recharge. The Study is a feasibility study which will be called Phase 1 of a two-phase project to create storm water capture for groundwater recharge to maintain water levels, so there is not a wide fluctuation in groundwater levels during dry and wet rainfall years. The Study will investigate CVWD's ability to construct facilities to divert stormwater flow and dry weather runoff to infiltration basins for groundwater recharge within the Verdugo Basin, and reduce surface water runoff from the existing parking areas. Recharge of stormwater runoff will help improve groundwater quality, increase water-supply reliability, and improve surface water quality in downstream receiving waters.

1/31/17 Project Update:

- Draft Study sent in December 2016 to Department of Water Resources (DWR) for review
- AMEC and staff finalizing the Study after receiving comments from DWR by the end of February 2017
- AMEC and staff will make a presentation at a future Board meeting to discuss the conclusions and recommendations from the Study

Cost Estimate: - Carry over from FY 15/16 - \$28,270

5. **Crescenta Valley County Park Storm Water Recharge Facility Preliminary Design** - Staff will be utilizing the information from the Study to create preliminary design plans and cost estimate which will be used for submittal of a DWR - Proposition 1 Stormwater Recharge implementation Grant. Staff will be utilizing consultants to assist in preparing the preliminary design plans and the Grant Application.

1/31/17 Project Update:

- The latest communication from DWR was that the Proposition 1 Stormwater Recharge Implementation Grant Application would be due in early 2018

Cost Estimate: - \$60,000

6. **Steel Reservoir Rehabilitation at Oak Creek Reservoir #2** - The District has two (2) 1.6 MG steel tanks at its Oak Creek Reservoir site which were built in 1958 and 1961. The Oak Creek Reservoirs were re-coated and seismic structural upgrades in 2001. In 2005, the reservoirs were inspected and the report indicated random general corrosion on the roof and rafters. In 2011, the reservoirs were again inspected and the report stated that there was increased corrosion on the roof and rafters above the water line. The report recommended sand blasting, removing the coat, and re-coating the interior roof and shell. In addition, the report stated that structural members damaged by the corrosion should also be replaced.

1/31/17 Project Update:

- The 2016 inspection report was completed by Harper & Associates and it showed Oak Creek Reservoir #2 was in worse condition than Oak Creek Reservoir #1
- Staff and Harper & Associates prepared plans and specifications for advertised for re-coating of Oak Creek Reservoir #2 for bidding in December 2016
- During the bidding process, there was very little response from coating contractors due to the bidding of similar projects in the Southern California area and no contractors attended the mandatory pre-bid meeting
- Staff contacted a number of coating contractors and the general response was that they could start the project in April or May, which was beyond the winter low demand season, but not sooner
- Staff reviewed the project schedule and scope of work with Harper & Associates with respect to delaying this project until October 2017. The general opinion was that this project could be delayed next fiscal year
- Staff also looked into combining this project with the re-coating of Oak Creek Reservoir #1 into FY 17/18 CIP budget and reviewed the project schedule
- Staff revised the project schedule to complete the design, bidding, and award of the contract by September 2017 such that construction would begin in October 2017 and completed by March 2018
- In summary, the steel reservoir rehabilitation at Oak Creek Reservoir #2 will be combined with the re-coating of Oak Creek Reservoir #1 and included in the FY 17/18 CIP budget

Cost Estimate: - \$320,000 – Deferred to FY 17/18 CIP

7. **Pipeline Replacement - Mills Plant Pump Pipeline Replacement** – The District's goal is to replace a minimum of 2,000 liner feet of pipeline, 50 years or older, per year as shown in the FY 16/17 Budget. Staff's original plan was to replace the water mains on the 2700, 3000, & 3100 Blocks of Brookhill Avenue. Staff recommended at the last Engineering Committee meeting to substitute the original project with replacement of the 8-inch transmission main on the east side of Pennsylvania Ave which delivers water from the Mills Plant to the Paschall Booster station, which has recently had three (3) major main breaks.

1/31/17 Project Update:

- Design and specification are complete and the project is being advertising for bids
- Bid opening in February 15, 2017 and the contract should be awarded at the February 21, 2107 Board meeting
- Staff anticipates construction to begin in the middle of March 2017 and completed by the beginning of May 2017
- Staff will be doing a public outreach program to inform the public of the construction and the traffic delineation for the installation of the pipe
- Staff will also coordinate the traffic control with Caltrans as it relates to the closing of the on and off ramps on Pennsylvania Ave

Cost Estimate: - \$600,000 Budget; Revised cost estimate - \$441,500

8. **Lower Pickens Canyon Pipeline and Slope Replacement Project** – In May 2015, the 8-inch Lower Pickens Canyon Pipeline located within the easterly slope of Pickens Canyon, near the 5800 Block of Ocean View had a water main break which caused damage to the existing slope. An interim slope repair project was completed in February 2016 to stabilize the exposed pipeline and the exposed slope.

Staff has met with DMc Engineering and AMEC regarding the pipe material, construction methods, and recommendations for slope restoration. In addition, staff has been in communication with the homeowner at 5481 Ocean View Blvd about the status of the project.

1/31/17 Project Update:

- Design plans and specifications are complete
- Sent to three (3) contractors for bids
- Bids are due January 31, 2017 and the contract will be awarded soon after
- Staff anticipates construction to start in mid-February 2017 and completed by the end of March 2017
- A separate landscape restoration plan is being design such that a landscape contractor can move onto the site after the pipe and slope contractor
- Staff will provide further updates at upcoming Board Meetings

Cost Estimate: - \$500,000 Budget; Construction Estimate - \$465,000

9. **Annual Booster Pump Replacement** – Staff plans on replacing one or two booster pumps per year as part of the annual budget. For FY 16/17, Booster 12 at Markridge will be replaced. Booster 12 is a 600 gpm pump which was taken out of service in June due to a pump failure. Booster 12 was installed in 1998 and has had over 17,000 hours of use. Booster 12 and Booster 25 deliver water from Zone 5 at the Markridge Reservoir to Zone 8 and the Cresta Heights Reservoirs.

General Pump Company provided an inspection report stating that the pump assembly should be replaced and the motor should be refurbished. Staff has reviewed the recommendations and is proceeding with the pump replacement.

1/31/17 Project Update:

- General Pump Company completed the work in September 2016

Cost Estimate: - \$50,000 Budget; Final Cost - \$32,327

10. **Paschall Booster Station Piping Upgrades and New Motor Control Center** – The Paschall Booster Station located on Briggs Avenue was constructed in 1955 and is one of three CVWD connections to FMWD. The existing valves on the inlet side of the two booster pumps are broken in the open position and the main valve to the inlet to the booster pumps is in poor condition, which needs to be replaced. Also, the existing electrical motor control center (MCC) needs to be replaced as part of CVWD's ongoing MCC replacement program.

Staff's goal is to re-design the station to replace the valves and create easier access to the valves in the future, re-design the storm drain constructed over the valve area, take this opportunity to re-evaluate the layout of the Station for ease of use and future maintenance, and investigate possible hydraulic surges at the station.

The project will be a two-year project with the design being completed in FY 16/17 and construction in FY 17/18.

1/31/17 Project Update:

- Prepare request for proposal for a consultant by end of February 2017
- Award the consultant contract in end of March 2017
- Complete the design for bidding by August 2017

Cost Estimate: - \$150,000 for Design Services

11. **Rehabilitation Surge Tanks at Glenwood** - CVWD has an existing surge tank for three (3) booster pumps located at the Glenwood Plant. The purpose of the surge tank is to defuse a water surge wave during an outage event and protect the booster pumps. The surge tank was installed in 1955 and needs to be rehabilitated with an air-surge system. Staff has been working with GEI Consultants on the design of this project. The recommendations included resizing the piping and replacing the surge tank equipment. This project was deferred from FY 15/16 CIP to the FY 16/17.

1/31/17 Project Update:

- Prepare plans and specifications by April 2017
- Award contract in May 2017
- Construction completed by the end of June 2017

Cost Estimate: - \$65,000 for construction.

12. **Seismic Sensors & Valve Actuators at Dunsmore and Pickens Reservoirs** – The District has been working on installing seismic sensors and valve actuators on the outlet valves for each reservoir to prevent water loss during an earthquake event. The seismic sensor detects ground movement and the valve actuators will automatically close the valve and thereby containing the water for public health. The District has ten (10) of these systems installed on the 17 tanks and the program is to install 2 seismic sensors each year for the next three years.

CVWD will order the equipment from AES, Inc, who will assist with the installation and staff will install the concrete pads and electrical conduits for the system.

1/31/17 Project Update:

- Dunsmore Reservoir - Site work and installation of equipment completed in December 2016
- Pickens Reservoir – Field works are installing a new access vault for the inlet/outlet, installation should be completed by the end of February 2017
- SCADA/Telemetry controls provided by Tesco Controls should be completed by the end of March 2017

Cost Estimate: - \$75,000

The attached project schedule shows the schedule for FY 16/17 and the carry-over projects from FY 15/16 for discussion with the Engineering Committee.

Prepared & Submitted by:



David S. Gould, P.E.
District Engineer

Attachments:

1. FY 16/17 CIP Cost and Project Schedule

Crescenta Valley Water District
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Design and Construction Schedule for FY 16/17	
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Project	July				August				September				October				November				December				January				February				March				April				May				June																																							
	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26																																
FY 15/16 - Carryover Projects																																																																																				
OV Chlorination Station - Install Treatment & Electrical Equipment	Complete																																																																																			
OV Meter Testing - FMWD to CVWD																					Complete																																																															
OV Chlorination Station - SCADA Equipment																																	RFP				Design - TESCO				Construction - TESCO																																											
Interconnection Piping - CVWD to FMWD (Phase 5)																																	Design -CVWD				Construction - CVWD/Contractor																																															
Interconnection - Project Testing																																													Construction - CVWD																																							
CVC Park Stormwater Recharge Project - Report	Complete																																																																																			
Ordunio - Wall									Complete																																																																											
8" Pipeline - Harmony, Park Pl, & Brookhill; Prospect & Glenwood	Complete																																																																																			
FY 16/17 - Projects																																																																																				
Well 7 Rehabilitation (under evaluation)																																																																																				
Re-Activate Well 2 - Design/Construction	Design - SA Associates & APTwater																												Meet with Glendale - Permit Requirements				RFQ - MCC & Pre-Fab Bldg				Finalize Project Documents								Advertise for Bids																																							
CVC Stormwater Recharge Project - Grant Application & Preliminary Design	Pre-App				Grant Application Moved to Early 2018																																																Preliminary Design																															
Oak Creek #1 - Roof/Air Vents/Recoat	RFP		AC		Design - Harper & Assoc.																								Advertise for Bids				Project on hold - Combined with Oak Creek #2																								Design - Harper & Assoc.																											
4200 - 4300 Blocks of Pennsylvania (Mills Pumpline) - 1400 LF	Design - CVWD																												Advertise for Bids				AC		Shop Draw Review		Construction- Contractor																																															
Lower Pickens Canyon Crossing & Slope	RFP								AC		Design - DMc Engineering & AMEC																								Advertise for Bids		AC		Construction- Contractor																																													
Seismic Sensors & Valve Actuators - Duns/Pickens																	RFQ				AC		Shop Draw Review				Construction - CVWD & AES																																																									
Booster Pump Replacement	Complete																																																																																			
Paschall Booster Station inlet piping & valves MCC - Design																																					RFP				AC		Design																																									
Rehabilitation Surge Tank at Glenwood																																																	Design - CVWD				Construction- Contractor																															

CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

Agenda for the Meeting of the Finance Committee
of the Crescenta Valley Water District

To be held January 26, 2017 at 8:00 a.m.

Posted: January 24, 2017 at 1:00 p.m.

Call to Order

Adoption of Agenda

Action Items

- 1) Review of 2nd quarter budget vs. actual report.
- 2) Review schedule for FY 2017-18 budget process.
- 3) Review of worker's compensation injuries.

Committee Member's Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Action Item #1
January 26, 2017

To: Finance Committee
From: Thomas A. Love, General Manager
Subject: Fiscal Year 2016/17 Second Quarter Budget Review

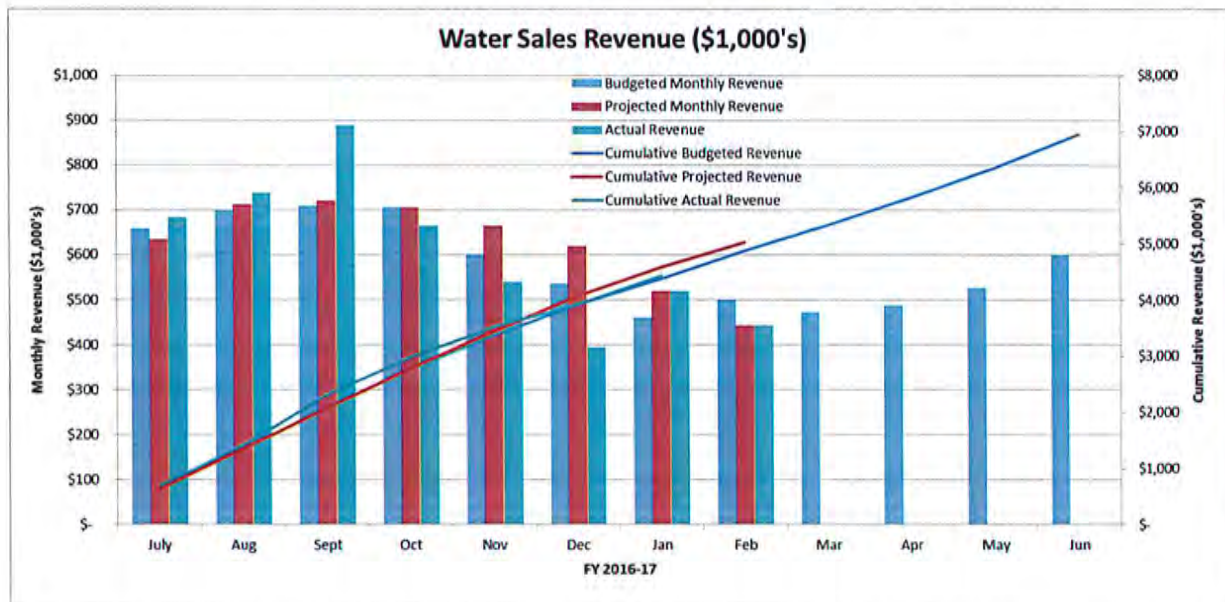
Second Quarter Budget Report

Attached is the Fiscal Year 2016/17 second quarter budget variance summary. The net change in reserves for the water fund is an increase of \$337,000 compared with \$503,000 budgeted (negative variance of \$165,000). However due to the early receipt of grant revenue, explained below, the water fund reserve is higher than budgeted at mid-year. The net change in reserves for the wastewater fund is an increase of \$211,000 compared with a budgeted decrease of \$175,000 for the reasons explained below. The wastewater fund budget for the fiscal year shows a \$350,000 decrease in reserves by fiscal year end.

Water Fund

Revenue:

The Fiscal Year 2016/17 Budget assumptions for water sales revenue are based on water demands increasing by 6% over the prior year. Although water demands to date have exceeded projections, fewer customers are in Tier 2 and 3 resulting in water sales revenue slightly above budget by \$17,000



Another revenue variance of note is grant revenue. \$1,150,000 in grant revenue is expected in the fiscal year, however a \$300,000 grant reimbursement payment from the Department of Water Resources, expected in this fiscal year was received in June and booked in the prior fiscal year.

Expense:

All water fund expense categories, with the exception of purchased water and power, are under the fiscal year to date budget by \$140,000. Groundwater production is 25% less than projected resulting in increased purchased water expense which is over budget by \$346,000. Purchased power is slightly over budget by \$1,500.

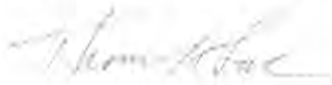
Capital Improvements:

Expenditures for capital improvements and capital equipment are trending under budget by \$165,000. However, most capital improvement projects are completed in the third and fourth quarters. The projected capital improvement expenditures are expected to be at budget at fiscal year-end, with the exception of the planned Oakcreek Reservoir rehabilitation project which has been deferred to next fiscal year.

Wastewater Fund:

Wastewater fund revenues are trending \$100,000 under budget for the first two quarters. This is primarily due to the implementation of the variable sewer rate structure which results in greater revenue variability. Wastewater fund expenses are \$225,000 under budget, partially due to City of Los Angeles sewer treatment charges \$139,000 below the year to date budget. Capital improvements and capital improvements are also significantly under the year to date budget, but capital equipment expense will increase with the purchase of the new vector truck.

Prepared and Submitted by:



Thomas A. Love, General Manager

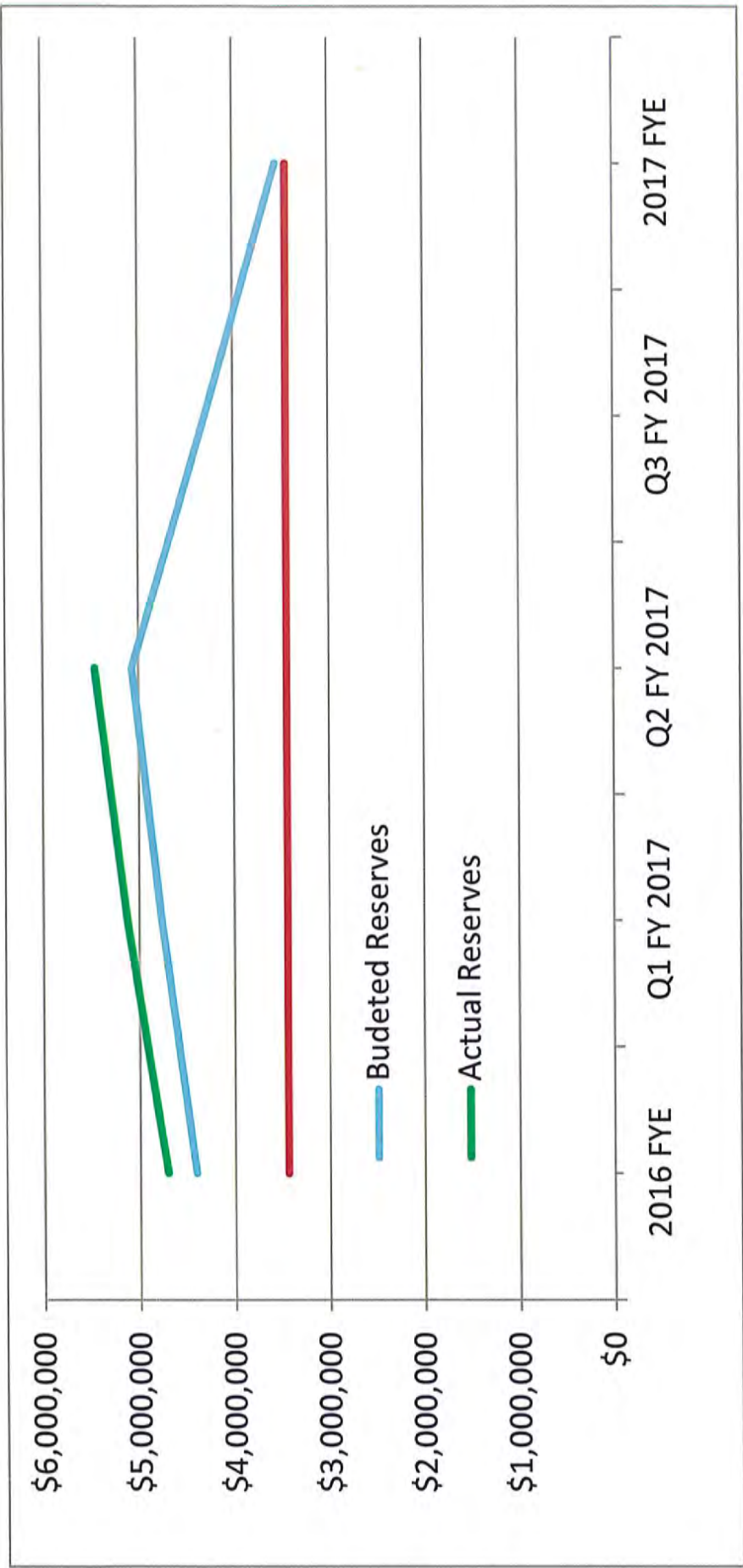
CRESCENTA VALLEY WATER DISTRICT
FISCAL YEAR 2016-17
BUDGET VERSUS ACTUAL
FOR THE FISCAL YEAR ENDING JUNE 30, 2017

Description	First Quarter Ending 9/30/16 25% of Budget ^{1,2}	First Quarter Ending 9/30/16 Actual	Second Quarter Ending 12/31/16 50% of Budget ^{1,2}	Second Quarter Ending 12/31/16 Actual	First Quarter Ending 9/30/16 Variance	Third Quarter Ending 3/31/17 75% of Budget ^{1,2}	Third Quarter Ending 3/31/17	Fourth Quarter Ending 6/30/17 100% of Budget	Fourth Quarter Ending 6/30/17
Water Operations									
Operating Revenues	2,697,150	2,940,249	5,116,180	5,179,064	62,884	7,187,560	9,398,000		
Non-Operating Revenue ³	353,363	74,656	706,725	478,384	(228,341)	1,060,088	1,413,450		
Revenues	3,050,513	3,014,905	5,822,905	5,657,448	(165,457)	8,247,648	10,811,450		
Compensation and Benefits	739,250	639,275	1,478,500	1,432,035	46,465	2,217,750	2,957,000		
Gen'l and Admin Expenses	172,375	145,948	344,750	284,966	59,784	517,125	689,500		
Non-Operating Expense	90,375	92,243	180,750	186,957	(6,207)	271,125	361,500		
Water Plant Operation Expense	98,450	93,933	196,900	178,185	18,715	295,350	393,800		
Water System Expense	881,090	1,096,188	1,698,045	2,045,434	(347,389)	2,229,100	3,025,000		
Distribution System Expense	253,075	196,763	506,150	481,705	24,445	759,225	1,012,300		
Expenses	2,234,615	2,264,350	4,405,095	4,609,281	(204,186)	6,289,675	8,439,100		
Revenue minus Expenses	815,898	750,555	1,417,810	1,048,167	369,643	1,957,973	2,372,350		
W Capital Outlay & Equipment	27,500	-	55,000	8,077	46,923	82,500	110,000		
W Capital Improvements	350,000	255,163	700,000	543,246	156,754	1,750,000	2,800,000		
Principal Payment on Debt	54,750	54,750	109,500	109,500	0	164,250	219,000		
OPEB Fund	25,000	25,000	50,000	50,000	0	75,000	100,000		
Addition/(Reduction) to Working Cash	358,648	415,642	503,310	337,344	(165,966)	(113,778)	(856,650)		
Wastewater Operations									
Operating Revenues	849,250	804,143	1,698,500	1,596,881	(101,619)	2,547,750	3,397,000		
Non-Operating Revenue	2,000	1,478	4,000	3,855	(145)	6,000	8,000		
Revenues	851,250	805,621	1,702,500	1,600,736	(101,764)	2,553,750	3,405,000		
Compensation and Benefits	395,000	335,216	790,000	718,948	71,052	1,185,000	1,580,000		
Gen'l and Admin Expenses	70,888	66,736	141,775	129,894	11,881	212,663	283,550		
Non-Operating Expense	213	828	425	2,468	(2,043)	638	850		
Wastewater Operation Expense	16,381	15,067	32,763	29,749	3,014	49,144	65,525		
Collection System Expense	14,725	7,906	29,450	26,762	2,688	44,175	58,900		
Wastewater System Expense	310,855	321,599	621,710	482,399	139,311	932,565	1,243,420		
Expenses	808,051	747,352	1,616,123	1,390,220	225,902	2,424,184	3,232,245		
Revenue minus Expenses	43,189	58,269	86,378	210,516	124,138	129,566	172,755		
WW Capital Outlay & Equipment	93,750	-	187,500	-	187,500	281,250	375,000		
WW Capital Improvements	36,750	-	73,500	-	73,500	110,250	147,000		
Addition/(Reduction) to Working Cash	(87,311)	58,269	(174,623)	210,516	385,138	(261,934)	(349,245)		
						0	0		

1) Quarterly Budgets for Operating Revenues and Water System Expense adjusted for seasonal variations

2) Quarterly Budgets for Capital Improvements adjusted - 12.5 % in Q1, Q2 - 37.5% in Q3, Q4

3) \$1,000,000 Loan from MTBE Fund not included



Crescenta Valley Water District

Water and Wastewater Budget Project Schedule

Task	Board Mtg. Date	Committee Mtg. Date	Status	Person Responsible	Start Date	End Date	Comments
Update Prior Year Actuals			In Progress	LS/RM	12/15/16	2/1/17	
Supervisor Budget Requests			In Progress	Supervisors	12/1/16	1/27/17	
CIP/Capital Equipment			In Progress	DG	1/16/17	2/14/17	
Water Demand/Supply Projections			In Progress	DG	1/14/17	1/25/17	
Compensation/Benefits Projections			In Progress	LS/RM	1/3/17	2/10/17	
Operations Expenses			In Progress	LS/RM	1/30/17	2/10/17	
Other Rev. - Interest, Grants, Etc			In Progress	RM/DG	1/14/17	2/10/17	
Budget Schedule, Preliminary Budget Assumptions	2/7/17	1/26/17	In Progress	RM/TL	1/16/17	2/7/17	Regular Board Meeting
Preliminary Budget Review - Water and Wastewater	3/7/17	TBD		RM/TL	2/8/17	3/7/17	Regular Board Meeting
Draft Final Budget Review - Water and Wastewater	3/21/17	TBD		RM/TL	3/8/17	3/21/17	Regular Board Meeting
Update Cost of Service Financial Model				RM/TL	3/7/17	3/30/17	
Proposed water & wastewater rates Preliminary Prop. 218 Notice	4/4/17	TBD		RM/TL	3/22/17	4/4/17	Regular Board Meeting
Prop. 218 Notice - Final	4/18/17	TBD		RM/TL	4/13/17	4/18/17	Regular Board Meeting
Send Prop 218 Notice to Printer				RM/CS	4/19/17	4/20/17	8 working days for the printer to send out notice
ACWA Conference - 5/9/17 to 5/12/17							
Send Prop 218 Notice - Send out						4/28/17	45 day review period
Regular Board Meeting	5/2/17					5/6/17	Regular Board Meeting
Regular Board Meeting	5/16/17					5/16/17	Regular Board Meeting
Regular Board Meeting	6/2/17					6/2/17	Regular Board Meeting
Comments - Prop 218 Notice Due						6/12/17	Comments due on Monday
Prop 218 - Public Hearing	6/13/17					6/13/17	Special Board Meeting
Board Approve FY 17/18 Budget and Rates	6/20/17					6/20/17	Regular Board Meeting

*2nd CWA
PERST Insurance*

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

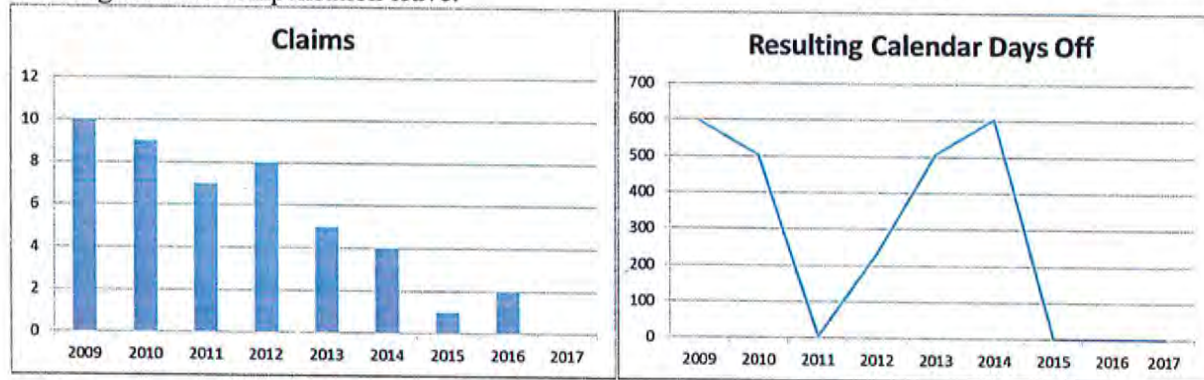
Action Item #3
January 26, 2017

To: Finance Committee
From: Thomas A. Love, General Manager
Subject: Workers Compensation Claims and Safety Program

The District's workers compensation insurance coverage is provided by ACWA JPIA. The workers compensation insurance policy premium is determined by the MOD rate which is based on claims over the prior three years. CVWD's MOD rate increased to 2.73% in 2015 due to an increase in the cost of claims in 2012 through 2014. In response to the increase in claims and resulting MOD rate increase the District has renewed its commitment to safety priorities by enhancing existing and implementing new safety policies and procedures. The following are actions taken to enhance and improve the safety of the District's employees:

- Regular field inspections and meetings with the ACWA-JPIA Senior Risk Analyst.
- Participation in ACWA-JPIA "Commitment to Excellence Best Practices Opportunity Reviews".
- Re-established quarterly safety management meetings.
- Monthly operations and maintenance topical safety meetings.
- Regular safety tailgate training sessions.
- Daily safety tip.
- Review and replacement of personal protective equipment.
- Operations Superintendent commitment to safety. (See attached Superintendent safety report)

The charts below and attached summary table demonstrate that the renewed commitment to safety and the above actions have resulted in a significant reduction in the number of workers compensation claims and resulting workers compensation leave.



Prepared and Submitted by:

Thomas A. Love, General Manager

CRESCENTA VALLEY WATER DISTRICT

OPERATIONS AND MAINTENANCE SUPERINTENDENT – STAFF REPORT

Safety Report
January 25, 2017

To: Thomas A. Love, General Manager
From: Dennis Maxwell, Operations and Maintenance Superintendent
Subject: Safety Report

In order to promote a safe and injury free workplace for all employees these are the tasks that are currently in process to help ensure that our employees go home each day safe and sound. Our daily morning meetings include a “Safety tip of the day” that is verbally announced by myself or through employee interaction. To date we have worked 960 days without a lost time accident. Below are highlights of the most recent and future events that relate to our employees safety.

October 11, 2016 – Raingear and rubber boots issued to new employees.

October 18, 2016 – Tailgate safety meeting on use of portable air horns recently purchased for employee’s use to scare off wildlife after recent bear sightings.

October 19, 2016 – Conducted our annual respirator fit testing with Dakota Donovan from Lifecom Safety, all Glenwood Plant employees that were in attendance passed the annual fit test.

October 21, 2016 – Two chemical resistant Gore-Tex breathable protective suits were purchased and will be issued upon arrival to the two employees that handle chlorine on a regular basis. This purchase was made at the recommendation of one of the two employees mentioned above.

October 27, 2016 – We held our monthly safety meeting; these topics based on JPIA’s monthly guideline for October, which is “Lock-out/Tag-out & Electrical safety”.

October 28, 2016 – I met with Lee Patton, Sr. Risk Analyst with J.P.I.A to review CVWD’s Safety program. We will visit various job sites depending on Mr. Patton’s schedule. He was pleased with my thoughts and direction for the team.

November 16, 2016 – Tailgate safety meeting on the 1000-gallon diesel tank (Glenwood), how to shut down in an emergency and how to use the spill containment kit.

November 30, 2016 – We held our monthly safety meeting; these topics based on JPIA’s monthly guideline for November, which is “Workplace Violence”.

December 1, 2016 – We issued all employees a gear bag to hold needed PPE (personal protective equipment) as this will ensure they would be ready with all safety gear at a moment’s notice.

December 6, 2016 – Tailgate safety meeting on the proper use and care of our new trailer mounted light tower.

December 28, 2016 – We held our monthly safety meeting; these topics based on JPIA's monthly guideline for December, which is "Trenching and Excavation".

December 29, 2016 – We ordered the needed building supplies from Home Depot and started construction on the new Glenwood training center.

January 11, 2017 – Installation of our new digital safety scoreboard in the Glenwood assembly room.

January 12, 2017 – Tailgate safety meeting on our new emergency repair clamp in a box, this is a repair clamp that can repair odd size water pipe from 4"-30" with ease.



CRESCENTA VALLEY WATER DISTRICT

MEMORANDUM

DATE: January 27, 2017
TO: Policy Committee Meeting File
FROM: Ron L. Mitchell

Following is a summary of the Finance Committee Meeting held at 9:00 am on January 27, 2017, at the CVWD main office, and was attended by the following:

Director James Bodnar - Committee Chairperson	CVWD
Director Kerry Erickson - Committee Member	CVWD
Thomas A. Love – General Manager	CVWD
Ron L. Mitchell – Secretary-Treasurer	CVWD
Christy J. Scott – Program Specialist	CVWD

1. Discussion of water use billing alternatives for high residential landscape irrigation needs

Mr. Love provided the Committee a memorandum that outlines the fact that the issue of providing some accommodation for customers with large lots has been ongoing since 2014 and that previous alternatives were either not practical, had high implementation and administrative costs, or might have been in violation of Proposition 218.

Mr. Love said that he has been working with our Engineering Department to revise the District's design standards to allow two meters on a single service lateral with one meter for the home usage and the second meter designated solely for irrigation purposes. This is an alternative supplied by Mr. George Solymar. The memorandum outlined a cost estimate associated with the installation of a second service lateral and Mr. Love said that the change in design standards would dramatically reduce the costs as it would not require excavation in the street and the associated costs for labor, materials, and paving.

The Committee determined that the existing policy is adequate and would not require any amendments to accommodate the method discussed. The Committee directed staff to work with customers on the new designs at their property and the preliminary cost estimates to make the addition of a second meter.

The Committee and staff will develop a method for payment of the upgrades that could include the customer paying for a portion of the estimated costs up front and the balance could be amortized over a period of two years. This is to be done on a case-by-case basis and would be brought back to the Board for final approval of any amortization plan.

2. Discussion on director reimbursement policy and procedures

The Committee and staff discussed the current policy regarding a request from a director for reimbursement of expenses related to attendance at an authorized conference or event. Director Bodnar said he would like to have a comprehensive form for travel that includes a statement that the expenses incurred were actual expenses and that the director would not be reimbursed by another agency. He also would like to see directors provide a written summary report for events attended other than regular Board meetings or committee meetings where formal minutes are prepared.

The meeting adjourned at 9:57 a.m.

CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

Agenda for the
Meeting of the Policy Committee
of the Crescenta Valley Water District
To be held on Friday, January 27th, 2017 at 9:00 AM

Call to Order

Adoption of Agenda

Public Comments

At this time members of the public shall have an opportunity to address the committee on items of interest that are within the subject matter jurisdiction of the Committee. This opportunity is non-transferable and speakers are limited to three (3) minutes each.

Action Calendar

1. Discussion of water use billing alternatives for high residential landscape irrigation needs.
2. Discussion of Board member reimbursement policy and procedures.

Committee Member's Request for Future Agenda Items

Adjournment

CRESCENTA VALLEY WATER DISTRICT

BOARD OF DIRECTORS - STAFF REPORT

Agenda Item No. 1
January 27, 2017

To: Policy Committee
From: Thomas A. Love. – General Manager
Subject: Discussion of water use billing alternatives for high residential landscape irrigation needs

AGENDA ITEM:

Water Use Billing Alternatives – Discussion of alternative water service and billing for single family residential properties with high landscape irrigation needs.

BACKGROUND:

The Board has requested staff evaluate procedures and requirements to provide adjustments to the tiered rate structures for large, single family residential lots to account for the water demands required for landscape maintenance. This topic was previously evaluated by staff and presented to the Policy Committee and Board in late 2014 and again in April 2016. The alternatives previously presented were either not practical, had high implementation and administrative costs or might not have been in compliance with Proposition 218. Therefore these alternatives were not adopted.

DISCUSSION:

Staff has continued to evaluate alternatives and have identified an opportunity to allow residential customers to apply for a separate irrigation meter which is provided for in the District's current Rules and Regulations. However, the installation cost of the separate irrigation meter, which is paid by the customer, is too high for most customers to recover the cost from savings on their water bills. In order to reduce the separate irrigation meter installation cost staff has revised the meter installation design standard that requires a separate service lateral from the distribution pipeline. The revised design standard allows two meters on a single service lateral that eliminates construction of a separate service lateral in the street. The estimated installation cost for the original and revised design is shown below. These estimated costs represent the maximum installation cost including District equipment and labor. The actual cost could be less depending on specific site conditions. The design drawings and detailed cost estimates are attached.

- Service installation with separate service lateral - \$9,500 (maximum estimated cost)
- Service installation using existing service lateral - \$6,700 (maximum estimated cost)

The lower installation cost may still be prohibitive for most customers. Staff continues to evaluate ways to reduce this cost to the customer. Cost reduction options include reduction of District equipment and labor sunk cost and/or cost sharing between the District and Customer. The District may also consider an amortization payment schedule which would allow the customer to use monthly water cost savings to pay for the installation cost.

Prepared and Submitted by:



Thomas A. Love
General Manager

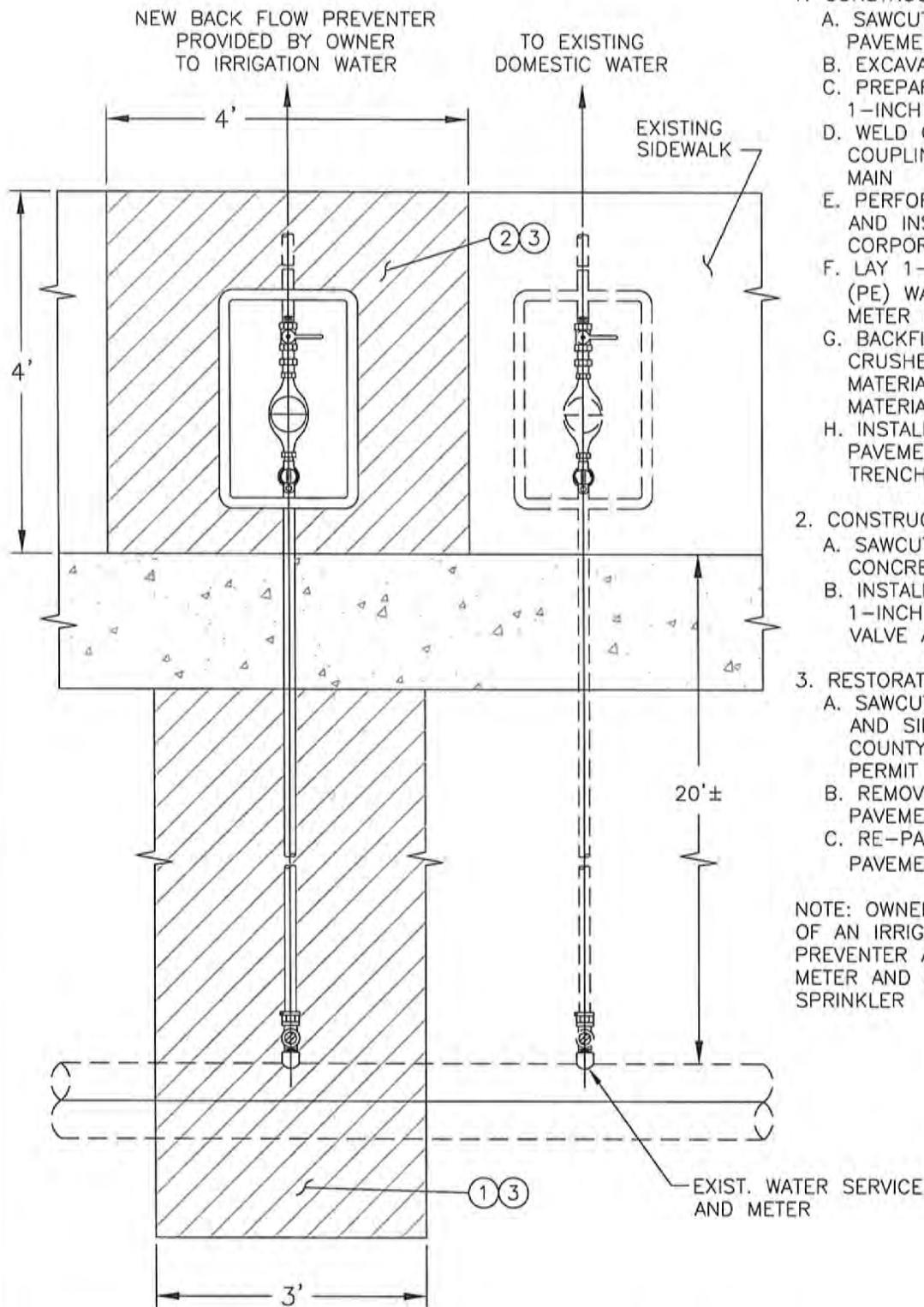
NOTES:

1. CONSTRUCTION IN STREET
 - A. SAWCUT/BREAKOUT EXIST. PAVEMENT
 - B. EXCAVATE NEW TRENCH
 - C. PREPARE WATER MAIN FOR 1-INCH WELD COUPLING
 - D. WELD ON NEW 1-INCH WELD COUPLING ONTO EXIST. WATER MAIN
 - E. PERFORM A 1-INCH HOT-TAP AND INSTALL 1-INCH CORPORATION STOP VALVE
 - F. LAY 1-INCH POLYETHYLENE (PE) WATER SERVICE TO NEW METER LOCATION
 - G. BACKFILL TRENCH WITH CRUSHED AGGREGATE BASE MATERIAL AND COMPACT MATERIAL
 - H. INSTALL TEMPORARY AC PAVEMENT OVER TOP OF TRENCH

2. CONSTRUCTION IN SIDEWALK
 - A. SAWCUT/BREAKOUT EXISTING CONCRETE SIDEWALK
 - B. INSTALL ANGLE METER STOP, 1-INCH METER, 1-INCH BALL VALVE AND METER BOX

3. RESTORATION
 - A. SAWCUT EDGES OF TRENCH AND SIDEWALK AREA PER LA COUNTY OR CITY OF GLENDALE PERMIT STANDARDS
 - B. REMOVE TEMPORARY AC PAVEMENT
 - C. RE-PAVE WITH PERMANENT AC PAVEMENT AND/OR CONCRETE

NOTE: OWNER REQUIRED INSTALLATION OF AN IRRIGATION BACKFLOW PREVENTER ASSEMBLY AFTER THE METER AND BEFORE THE FIRST SPRINKLER



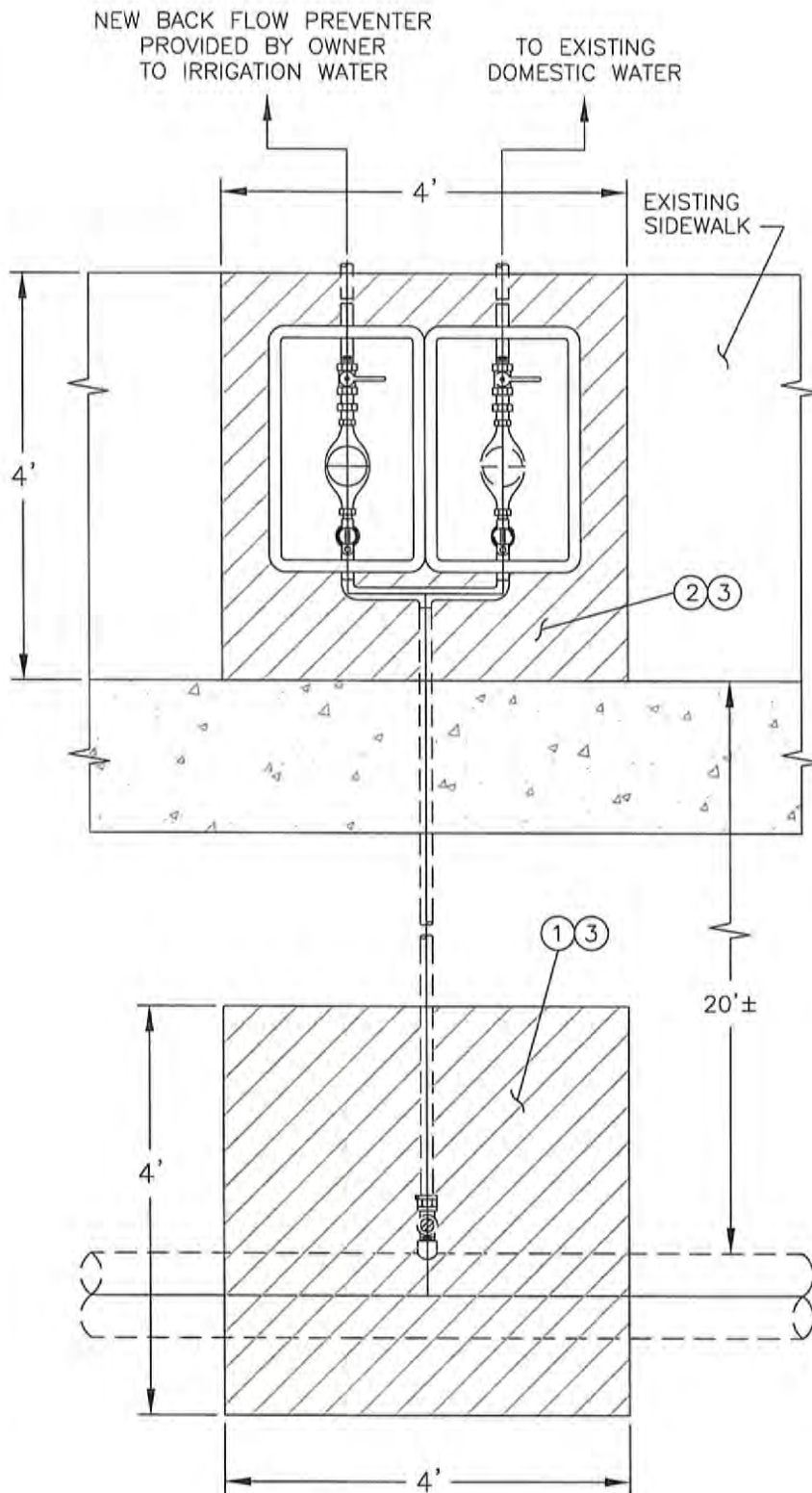
CRESCENTA VALLEY WATER DISTRICT

DRAWN: JAH
DATE: 1/26

REV.
-

1" IRRIGATION METER INSTALLATION (OPTION 1)

DWG. NO.
-



NOTES:

1. CONSTRUCTION IN STREET
 - A. SAWCUT/BREAKOUT EXIST. PAVEMENT OVER EXIST. 1-INCH CORPORATION STOP VALVE
 - B. EXCAVATE 4'X4' TRENCH AND TURN OFF SERVICE
 - C. BACKFILL TRENCH WITH CRUSHED AGGREGATE BASE MATERIAL AND COMPACT MATERIAL
 - D. INSTALL TEMPORARY AC PAVEMENT OVER TOP OF TRENCH
2. CONSTRUCTION IN SIDEWALK
 - A. SAWCUT/BREAKOUT EXISTING CONCRETE SIDEWALK
 - B. CUT THE EXIST. 1-INCH POLYETHYLENE (PE) WATER SERVICE AND INSTALL NEW "U-BRANCH" TO DEVIDE THE WATER BETWEEN THE EXIST. DOMESTIC WATER METER AND THE NEW IRRIGATION METER
3. RESTORATION
 - A. SAWCUT EDGES OF TRENCH AND SIDEWALK AREA PER LA COUNTY OR CITY OF GLENDALE PERMIT STANDARDS
 - B. REMOVE TEMPORARY AC PAVEMENT
 - C. RE-PAVE WITH PERMANENT AC PAVEMENT AND/OR CONCRETE

NOTE: OWNER REQUIRED INSTALLATION OF AN IRRIGATION BACKFLOW PREVENTER ASSEMBLY AFTER THE METER AND BEFORE THE FIRST SPRINKLER

CRESCENTA VALLEY WATER DISTRICT

DRAWN: JAH DATE: 1/26	REV. -	1" IRRIGATION METER INSTALLATION (OPTION 2)	DWG. NO. -
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Water Bill Comparison	Total Annual Water/Sewer Bill		
	SFR	MFR	Separate Irrigation Meter
Customer 1 (MC)	\$ 2,463.14	\$ 2,074.16	\$ 2,046.84
Customer 2 (GS)	\$ 3,261.56	\$ 2,515.70	\$ 2,075.46

Description:

Option 1 - New 1" Irrigation Meter with New Service Lateral

Est. By: B.JonesDate: 01/26/17

Checked By: _____

Date: _____

MATERIALS	Material Cost			Installation Cost		
	Quantity	Unit Price	Total Price	Unit Price	Batch	Total Price
1" Water Meter Sensus iPerl	1.00	\$240.00	\$240.00			
Meter Box - 5 1/4 polymer	1.00	\$126.66	\$126.66			
Meter lid - 5 1/4 polymer	1.00	\$13.00	\$13.00			
1" Meter Coupling short	1.00	\$6.97	\$6.97			
1" Blk Weld Coupling	1.00	\$1.87	\$1.87			
1" Angle Stop Instatite	1.00	\$138.00	\$138.00			
1" Corp Stop	1.00	\$35.31	\$35.31			
1" Plastic Pipe PE	20.00	\$3.64	\$72.80			
1" Ball Valve	1.00	\$86.69	\$86.69			
	0.00	\$0.00	\$0.00			
Welder (4hrs)	4.00	\$500.00	\$2,000.00			
Paveco (Concrete)	16.00	\$17.50	\$280.00			
Paveco (Asphalt)	60.00	\$10.25	\$615.00			
Materials Total			\$3,616.30			\$0.00
EQUIPMENT						
	Hours	Unit Price	Total	Hours	Unit Price	Total
Pickup Truck (Unit # 44)	0	\$30.00	\$0.00			
Utility Truck (Unit # 2)	8	\$50.00	\$400.00			
Dump Truck (Unit 47)	0	\$50.00	\$0.00			
Dump Truck II (Unit 18 & 25)	11	\$60.00	\$660.00			
Back Hoe (Unit 19)	8	\$75.00	\$600.00			
Compact Excavator	8	\$65.00	\$520.00			
Boom Truck (Unit 16)	0	\$41.00	\$0.00			
Wheel Loader (Unit 15)	4	\$41.00	\$164.00			
District Trench Plate Rental	1	\$132.00	\$132.00			
Spoils/Backfill	1	\$375.00	\$375.00			
Rental Plates	0	\$500.00	\$0.00			
Equipment Total			\$2,851.00			\$0.00
LABOR						
	Hours	Unit Price	Total	Hours	Unit Price	Total
Utility Worker I	8	\$40.00	\$320.00			
Utility Worker II	19	\$45.00	\$855.00			
Supervisor	4	\$63.00	\$252.00			
Utility Worker I - OT	0	\$60.00				
Utility Worker II - OT	0	\$67.50				
Crew Leader - OT	0	\$94.50				
Supervision - OT	0	\$94.50				
Contractor Invoice						
Labor Total			\$1,427.00	0		\$0.00
ENGINEERING						
	Hours	Unit Price	Total	Hours	Unit Price	Total
District Engineer	1.0	\$70.00	\$70.00			
Engineering	2.0	\$110.00	\$220.00			
Permits/Printing	1.0	\$850.00	\$850.00			
Misc.	1.0	\$465.70	\$465.70			
Engineering Total			\$1,605.70			\$0.00
SUMMARY						
Materials	\$3,616.30					\$0.00
Equipment	\$2,851.00					\$0.00
Labor	\$1,427.00					\$0.00
Engineering	\$1,605.70					\$0.00
Total	\$9,500.00					\$0.00
Customer's Deposit	\$9,500.00			Amount Refund/(Owed)		\$9,500.00

Approved By: _____

Date: _____

David Gould, P.E.

District Engineer

The total amount shown is an estimate of material, equipment and labor for new installation.

The Owner will be either invoiced or reimbursed for the actual total amount of work completed by District.

Description:

Option 2 - New 1" Irrigation Meter Using Existing Service Lateral

Est. By: B.Jones

Date: 01/26/17

Checked By: _____

Date: _____

MATERIALS	Material Cost			Installation Cost		
	Quantity	Unit Price	Total Price	Unit Price	Batch	Total Price
1" Water Meter Sensus iPerl	2.00	\$240.00	\$480.00			
Meter Box - 5 1/4 polymer	2.00	\$126.66	\$253.32			
Meter lid - 5 1/4 polymer	2.00	\$13.00	\$26.00			
1" Meter Coupling short	2.00	\$6.97	\$13.94			
1" Angle Stop Instatite	2.00	\$138.00	\$276.00			
1" U Branch	1.00	\$60.00	\$60.00			
1" Plastic Pipe PE	4.00	\$3.64	\$14.56			
1" Ball Valve	2.00	\$86.69	\$173.38			
	0.00	\$0.00	\$0.00			
Paveco (Concrete)	16.00	\$17.50	\$280.00			
Paveco (Asphalt)	16.00	\$10.25	\$164.00			
Materials Total			\$1,741.20			\$0.00
EQUIPMENT						
	Hours	Unit Price	Total	Hours	Unit Price	Total
Pickup Truck (Unit # 44)	0	\$30.00	\$0.00			
Utility Truck (Unit # 2)	6	\$50.00	\$300.00			
Dump Truck (Unit 47)	0	\$50.00	\$0.00			
Dump Truck II (Unit 18 & 25)	8	\$60.00	\$480.00			
Back Hoe (Unit 19)	6	\$75.00	\$450.00			
Compact Excavator	6	\$65.00	\$390.00			
Boom Truck (Unit 16)	0	\$41.00	\$0.00			
Wheel Loader (Unit 15)	2	\$41.00	\$82.00			
District Trench Plate Rental	1	\$132.00	\$132.00			
Spoils/Backfill	1	\$375.00	\$375.00			
Rental Plates	0	\$500.00	\$0.00			
Equipment Total			\$2,209.00			\$0.00
LABOR						
	Hours	Unit Price	Total	Hours	Unit Price	Total
Utility Worker I	6	\$40.00	\$240.00			
Utility Worker II	12	\$45.00	\$540.00			
Supervisor	3	\$63.00	\$189.00			
Utility Worker I - OT	0	\$60.00				
Utility Worker II - OT	0	\$67.50				
Crew Leader - OT	0	\$94.50				
Supervision - OT	0	\$94.50				
Contractor Invoice						
Labor Total			\$969.00	0		\$0.00
ENGINEERING						
	Hours	Unit Price	Total	Hours	Unit Price	Total
District Engineer	1.0	\$70.00	\$70.00			
Engineering	2.0	\$110.00	\$220.00			
Permits/Printing	1.0	\$850.00	\$850.00			
Misc.	1.0	\$640.80	\$640.80			
Engineering Total			\$1,780.80			\$0.00
SUMMARY						
Materials	\$1,741.20					\$0.00
Equipment	\$2,209.00					\$0.00
Labor	\$969.00					\$0.00
Engineering	\$1,780.80					\$0.00
Total	\$6,700.00					\$0.00
Customer's Deposit	\$6,700.00			Amount Refund/(Owed)		\$6,700.00

Approved By: _____

Date: _____

David Gould, P.E.

District Engineer

The total amount shown is an estimate of material, equipment and labor for new installation.

The Owner will be either invoiced or reimbursed for the actual total amount of work completed by District.

CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

Minutes for the
Meeting of the Community Relations and Water Conservation Committee
of the Crescenta Valley Water District
held on Friday, January 27, 2017 at 10:00 A.M.

Action Calendar

1. Water Supply Update

Mr. Love supplied the committee with the handout that was presented at the January Crescenta Valley Town Council meeting which is included in your board package under reports of Committee. The Committee discussed the current well elevations, water supply conditions, demands, and the increased amount of purchased imported water.

2. Water Conservation Alert

Staff presented a report outlining the Water Conservation Alert System. This reported is included in your board package under reports of Committee. Staff discussed the historic coordination efforts between the local agencies, (Glendale, Burbank, CVWD, FMWD, La Canada and South Pasadena) of a uniform conservation message and consistent outdoor watering days. The Water Conservation Alert will be on the February 7th Board Agenda.

3. Community Events

Staff discussed with the Committee the list of community activities in which the District participates. This included direct participation of staff and Board members and also the use or donation of District items such as generators, water jugs, and chairs. The Committee asked Staff to look into reducing the labor expenditure for the Hometown Country Fair, which is April 29, 2017, by utilizing more management employees and the Board to staff the District's booth.

4. Communications Plan

The Committee and Staff discussed strategies to more efficiently engage the District's customers. Staff outlined plans to utilize the website for communication blasts. Director Claessens suggested an idea of a web cam for the website. Staff outlined information that will be on the webpage soon, including rainfall totals, groundwater levels, and demand information. Further discussion included a customer survey to gauge how customers would like to receive communications from the District.

Adjournment 11:05

CRESCENTA VALLEY WATER DISTRICT

2700 FOOTHILL BOULEVARD
LA CRESCENTA, CALIFORNIA

Agenda for the
Meeting of the Community Relations and Water Conservation Committee
of the Crescenta Valley Water District
To be held on Friday, January 27, 2017 at 10:00 A.M.

Call to Order

Adoption of Agenda

Public Comments

At this time, members of the public shall have an opportunity to address the committee on items of interest that are within the subject matter jurisdiction of the Committee. This opportunity is non-transferable and speakers are limited to three (3) minutes each.

Action Calendar

1. Water Supply Update
2. Water Conservation Alert
3. Community Events
4. Communications Plan

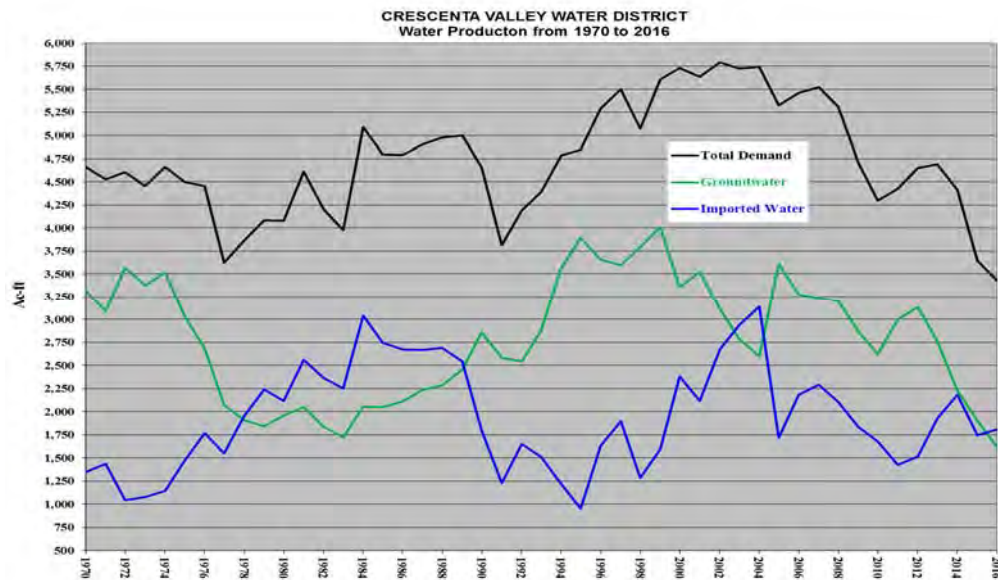
Committee Member's Request for Future Agenda Items

Adjournment

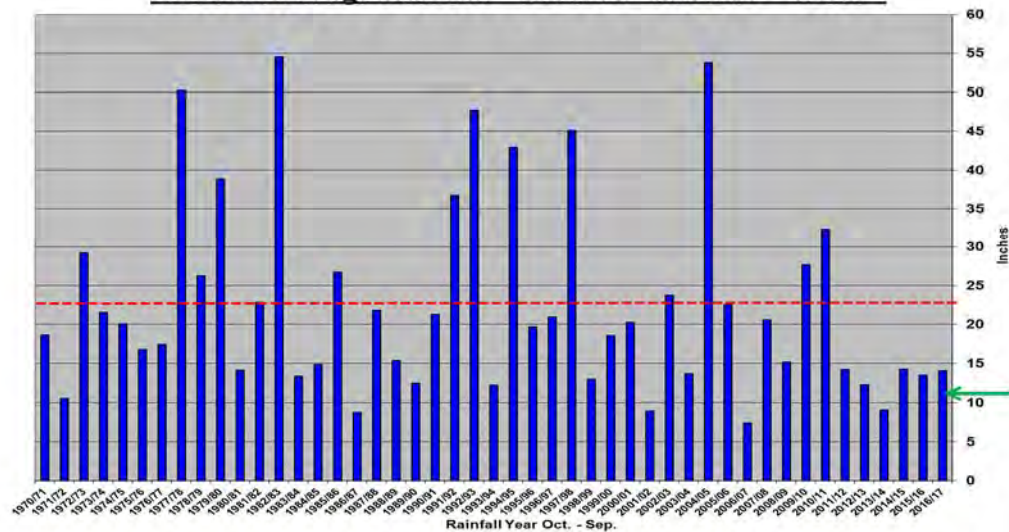
Crescenta Valley Water District Water Supply Update January 19, 2017

CVWD Water Supply Sources:

- **Verdugo Groundwater Basin (Wells)**
- **Imported Water (Metropolitan Water District)**
 - State Water Project (California Aqueduct)
 - Colorado River Aqueduct



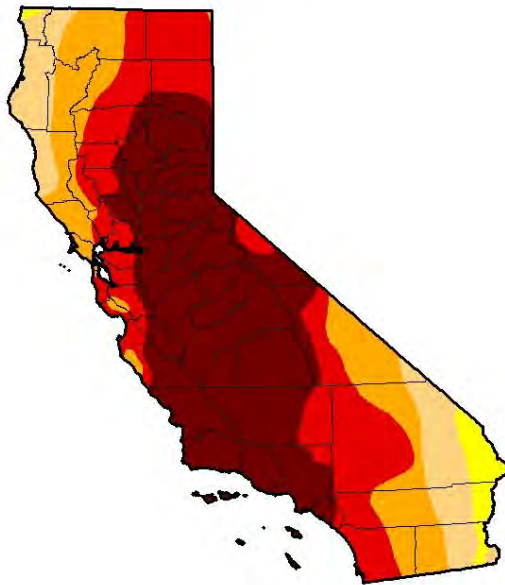
Crescenta Valley Water District Annual Average Rainfall - 1970/71 - 2016/17 = 22.66"



10.5" Avg. Oct-Jan
14.04" Oct. to Date

U.S. Drought Monitor California

January 19, 2016
(Released Thursday, Jan. 21, 2016)
Valid 7 a.m. EST



Intensity

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

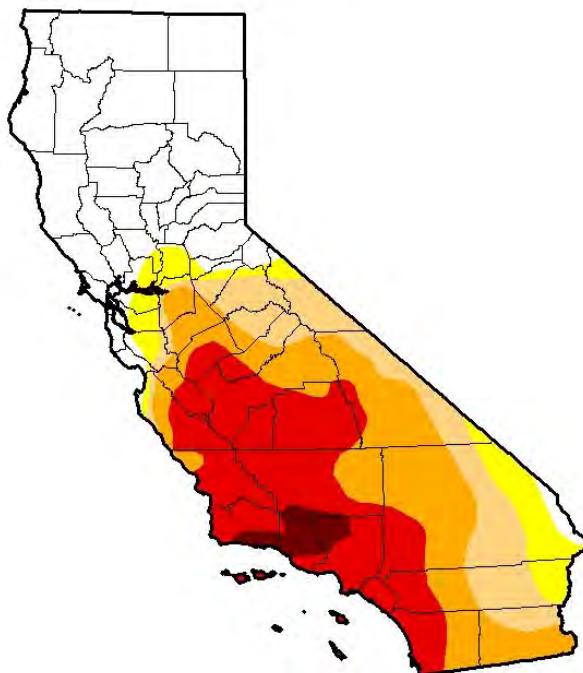
Author:
Mark Svoboda
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor California

January 17, 2017
(Released Thursday, Jan. 19, 2017)
Valid 7 a.m. EST



Intensity

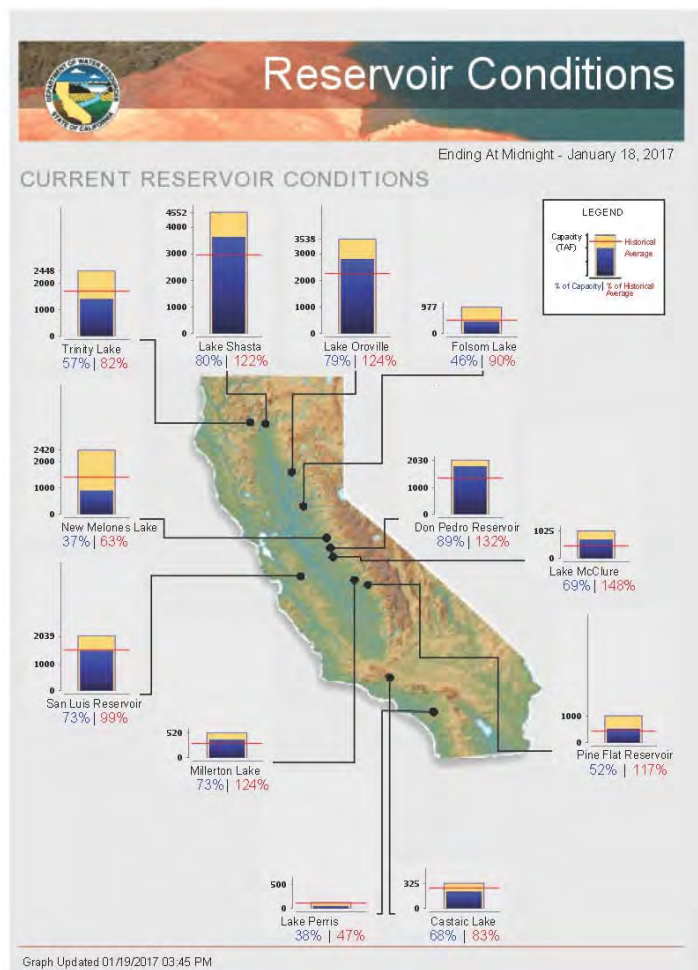
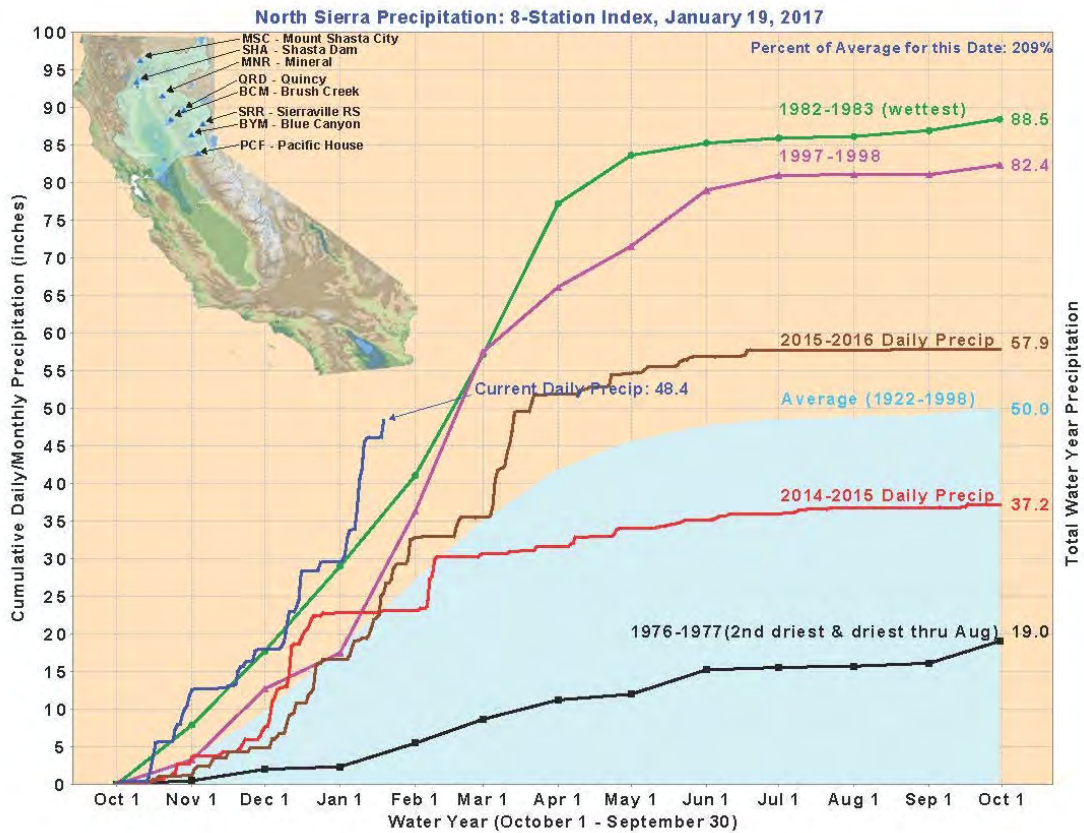
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP



<http://droughtmonitor.unl.edu/>



CRESCENTA VALLEY WATER DISTRICT

COMMUNITY RELATIONS WATER CONSERVATION - STAFF REPORT

To:	Community Relations and Water Conservation Committee	Action Item No. 2 January 27, 2017
From:	Christy Joana Scott	
Subject:	Water Conservation Alert Status	

DISCUSSION ITEM:

Water Conservation Alert Status

BACKGROUND:

Following Governor Brown's issuance of the first executive order with mandatory restrictions and the State Water Board's (State) mandatory water reduction requirements, the District moved to "Orange Water Conservation Alert" on April 21, 2015. The District's "Orange alert" restricted outdoor watering to 2 days per week, Tuesday and Saturday. In May 2016, following a tremendous conservation effort by the community, improvements to available water supplies and reduction in the State mandated water conservation target, the District relaxed the water conservation alert from "Orange to Yellow" which increased outdoor watering from 2-days per week to 3-days per week. A copy of the water conservation alert system (an excerpt from Appendix G of the Rules and Regulations) is included for your review as Attachment A.

CURRENT REGULATORY CONDITIONS:

In the current State Emergency Water Conservation Regulations, there is a self-certification conservation alternative. This option allowed individual water suppliers to "certify" that the level of available water is sufficient to meet demands assuming an additional three years of drought. The demand was specified to be the average demands of the 2013/2014 calendar years. Should there be a calculated shortage, for example if the water agency predicts that there would be a 10% shortage in water supply at the end of the three years, then the conservation target for that agency would become 10%. Under this compliance option, the District self-certified at a "0%" conservation target.

On Wednesday, November 30, 2016, California State agencies released a draft plan for achieving long-term efficient water use as required by Governor Brown's Executive Order B-37-16.

Proposed as a collaborative effort between five state agencies – the Department of Water Resources, the State Water Resources Control Board, the California Public Utilities Commission, the California Department of Food and Agriculture, and the California Energy Commission, collectively referred to as the "EO Agencies", this plan represents a shift from statewide mandates to conservation standards based on local conditions to achieve the four objectives contained in the executive order.

1. Using Water More Wisely
2. Eliminating Water Waste
3. Strengthening Local Drought Resilience
4. Improving Agricultural Water Use Efficiency and Drought Planning

The State held a public hearing on January 18, 2017. During that workshop, it was State staff's recommendation to extend the Emergency Water Conservation Regulations. Several conservation compliance options were discussed including the continuation of the self certification option. Public comments were all in favor of discontinuing the Emergency Regulation. A decision on the outcome of the Water Emergency Water Conservation Regulations is expected at the State's February 7th Board Meeting.

DISCUSSION:

There have been questions from the Board as to the District's current water conservation Alert. The District is currently in a "Yellow Alert" which limits outdoor watering to three days per week, Tuesday, Thursday and Saturday. The next lower alert would be the "Green Alert" which is defined as Voluntary with outdoor watering allowed on even and odd days based on the customer's address. Whereas if your address ends in an odd number then you would water on dates ending in an odd number.

A brief survey of the surrounding agencies, all which are part of the Water Efficiency Team "WET Group", is included as Attachment B. The original members of the WET Group, Burbank, Glendale, and CVWD are all consistent with the 3-day a week watering, Tuesday, Thursday, and Saturday. Valley also later adopted the same alert system to reinforce the efforts of a unified message. None of the agencies currently allows more than 3-days per week of outdoor watering.

Discussion between the WET Group Agencies has indicated that movement towards a lesser alert will not be considered until sometime in the Spring, as outdoor watering during the winter season should not exceed 3-days per week. This will also allow for the State Board's final decision on the revised Emergency Water Conservation Regulations.

Under Resolution 682, the General Manager has the authority to change the District's Water Conservation level. Staff recommends maintaining the current "Yellow Alert" until the State's final decision on the Emergency Water Conservation Regulations is released, the timing of increased watering is warranted, and the change to the alert can be coordinated with surrounding agencies. Staff will keep the Board updated on the Emergency Water Conservation Regulations.

Attachment A: Water Conservation Alert System
Attachment B: WET Group agencies allowed Watering Days

Prepared by:



Christy Joana Scott

Submitted by:



Thomas A. Love
General Manager

WATER CONSERVATION ALERT SYSTEM

When a water conservation alert system is implemented by direction of the General Manager, the following measures to reduce water consumption will be required for all water users within CVWD.

- a. Color Code **“Blue”** is defined as the Normal Water Conservation Alert, Foothill Municipal Water District can meet all Member Agency demands. Standard water conservation applies as defined in Appendix G of the Rules and Regulations.
- b. Color Code **“Green”** is defined as an Increased Voluntary Conservation Alert, some supplies have been impacted and customers should increase efforts to conserve by following strict water conservation practices indoors and limiting outdoor water use to odd or even days, based on ending number of customer address.
- c. Color Code **“Yellow”** is defined as an Extraordinary Conservation Alert, when Metropolitan Water District of Southern California is pulling water from most of its storage programs to meet demands. Extraordinary conservation is called for from customers. Customers are requested to minimize indoor water use and water outdoors no more than three (3) days per week. Outdoor irrigation will be permitted only on Tuesday, Thursday, and Saturday.
- d. Color Code **“Orange”** is defined as a Rationing Conservation Alert, when Metropolitan Water District of Southern California has implemented its allocation plan to its member agencies. Customers are requested to minimize indoor water use and severely limit outdoor water use as follows:
 1. Residential and commercial landscape irrigation is limited to no more than two (2) days per week on Tuesday and Saturday.
 2. Exemption: Public use areas owned and/or operated by School Districts are exempt from watering days, and public use areas greater than 4,000 square feet are exempt from watering days so long as best management practices are applied by all.
 3. The filling, refilling or adding of water to indoor and outdoor pools, wading pools, or spas is prohibited. Exemptions: Commercial Repairs mandated by the Federal Virginia Graeme Baker Act, or adding water for the prevention of equipment failure is permissible, however, the District strongly urges that a cover be used to prevent evaporation and thereby reducing the frequency of refilling..
 4. The use of water to clean, maintain, fill, or refill decorative fountains or similar structures is prohibited. Exemptions: Adding water for the prevention of equipment failure is permissible.
 5. Vehicle washing is restricted to the use of a hand-held bucket and quick rinses using a hose with a positive shut-off nozzle.
 6. Fix leaks within 48 hours.
- e. Color Code **“Red”** is defined as a Critical Water Conservation Alert, when water supplies are only available for health and safety needs. Customers are required to minimize indoor water use and curtail all outdoor water use. Fix any leaks within 24 hours.

Notification of the Water Conservation Alert System status on any given day shall be visibly posted at the exterior of the District’s Administration Office (2700 Foothill Blvd., La Crescenta) and other accessible locations throughout the District service area where allowed. At least one direct mailing shall be made to all water customer accounts, with notification and explanation of the alert system.

Current Watering Limitations					
	One Day	Two Day	3-Day	Other	Comments
FMWD		X			Recommends 2 days Nov-Mar
Valley			X		Tuesday, Thursday, Saturday
Lincoln		X			Follow FMWD
LCID		X			Odd (Tues/Thu) Even (Wed/Sat)
Burbank			X		Tuesday, Thursday, Saturday
Glendale			X		Tuesday, Thursday, Saturday
Pasadena	X				Saturday Only -(November -March)
So Pasadena			X		Odd (Tu-Thu-Sat) Even (M-W-F)
CVWD			X		Tuesday, Thursday, Saturday

**Community Events
2017**

Month	Event	Comments	SUPPLIES COSTS	LABOR COSTS
January	CHAMBER INSTALLATION LUNCHEON	\$40.00 per person		
1/12/2017				
March	DAY AT THE RACES	\$25.00 per person		
3/15/2017	Santa Anita Racetrack, 11 am, Fundraiser with the Sheriff Support Group	Lunch and betting package		
	SMART-A-THON			
	Verdugo Hills Hospital			
April	Special Olympics		\$50.00	\$50.00
4/1/2017	FOOTHILLS RELAY FOR LIFE	District Supplies Generator	\$300.00	\$150.00
4/22/2017	GWP/CVWD CA Friendly Landscape Class		\$60.00	\$150.00
4/29/2017	HOMETOWN COUNTRY FAIR CV Park		\$5,000.00	\$3,200.00
		District supplies generator	\$60.00	\$150.00
May	Earth Day			
5/1/2017	TASTE OF MONTROSE	District Supplies Generator	\$60.00	\$150.00
29-May-17	MEMORIAL DAY SERVICE	District usually Supplies Chairs		\$150.00
	Montrose and Honolulu Avenues			
5/20/2017	PROM PLUS	The District supplies Water	\$300.00	
	Crescenta / Canada YMCA			
5/6 and 5/20	GWP/CVWD CA Friendly Landscape Class		\$60.00	\$150.00
July	GOLF TOURNAMENT	The District supplies water		\$150.00
	Location TBD			
7/4/2017	CV FIREWORKS SHOW CV Fireworks Assoc.	District Supplies Generator	\$60.00	\$150.00

**Community Events
2017**

Month	Event	Comments	SUPPLIES COSTS	LABOR COSTS
August	NATIONAL NIGHT OUT		\$2,000.00	\$675.00
	Glenwood Water Treatment Plant			
September	Water Efficiency Event	Descanso Gardens	\$1,575.00	\$500.00
	FOOTHILLS COMMUNITY BUSINESS EXPO			
	Verdugo Hills Hospital			
October	CV TOWN COUNCIL PANCAKE BREAKFAST	Board / Management Usually Attends		
	SHERIFF OPEN HOUSE			
	OKTOBERFEST			
	(Montrose Chamber)			
	FOOTHILL COMMUNITY CLEAN UP DAY (Committee for Clean Beautiful Glendale)	Board / Management Usually Attends		
November	VETERAN'S DAY SERVICE	Board / Management Usually Attends		
	Two Strike Park (American Legion & VFW)	(Chairs)		\$150.00
	RECOGNITION BANQUET	\$45.00 per person		
	TASTE OF THE FOOTHILLS Marketplace Shopping Center, La Crescenta	District Supplies Generator	\$60.00	\$150.00
December	MONTROSE CHRISTMAS PARADE	District Supplies Generator	\$60.00	\$150.00
The District usually participates in this event				
The Board or Managment usually attends				
The District donates use of District property				
			\$9,645.00	\$6,075.00
additional District events		School Assemblies	\$3,600.00	
		Scouts/Nursery School,	\$1,575.00	
		Board Attended Events	\$600.00	
Grand Totals			\$15,420.00	\$6,075.00

CRESCENTA VALLEY WATER DISTRICT

COMMUNITY RELATIONS WATER CONSERVATION - STAFF REPORT

To: Community Relations and Water Conservation Committee
From: Christy Joana Scott
Subject: Communications Plan

Action Item No. 4
January 27, 2017

DISCUSSION ITEM:

Communications Plan

BACKGROUND:

Public Outreach has been an item brought up during the Strategic Planning Process. The District currently uses several methods to communicate information to the community. Each method of communication has its benefits and challenges with the most difficult challenge being getting the customer to hear the message. With the development of a communications plan, there is no one answer; it takes a dynamic approach, which embraces several potential outreach methods, and must encompass the answer to the two most important questions:

1. What do you want to communicate
2. Who is your target audience

CURRENT CUSTOMER COMMUNICATION METHODS:

Method	Benefits	Challenges
Billing Message	1. Free 2. Directly mailed to every customer	1. Small message space 2. No formatting options 3. Not timely
Press Release	1. Free	1. Local paper is only weekly 2. No guarantee it will be published
Paid Advertisements	1. Guaranteed message 2. Control over timing	1. Can be costly 2. Limited space
Website	1. Control over content 2. Limited costs after initial set-up 3. Timely	1. Keeping it fresh and up to date 2. Getting customers to the site
CV Weekly Articles for 5-week months	1. Free	1. Message cannot be dynamic

Method	Benefits	Challenges
Town Council Meetings	1. Free 2. Usually same group of customers	1. Limited time for presentation 2. Not always timely with events
Annual CCR Report (Water Quality)	1. Free (mandatory report) 2. Unlimited Space and Formatting 3. Directly mailed to every customer	1. Can be too much information 2. Only once a year
Nixle	1. Free to Public Agencies 2. Quick 3. Can link to website for additional	1. Getting customers to sign-up

DISCUSSION:

In addition to the communication methods discussed above, the District participates in many community activities. The donation of water, generators, and chairs as well as attendance at local community events fosters an open level of communication and goodwill with the community which fosters bonding relationships between the District and community leaders.

Many of the listed communication methods can be utilized more frequently and efficiently with the development of a planned outreach message. Again, the most important questions will be what does the District want to communicate and who is the target audience. With those questions answered, a detailed outreach plan can be derived.

In the past, the District wrote a bimonthly newsletter. Due to costs and what was perceived as low interest, that item was cut from the budget. When the newsletter was first started, it was mailed with the bill; however, with the required early preparation and then a two-month billing cycle, the content was often not timely. For a period of time, the newsletter was sent as a direct mailer which did help with the dispersion of current and timely information.

With the District's new website, software called Constant Contact was incorporated. This software allows customers to sign up for newsletters or other information that can be sent via email as it is made available on the District's website. While staff has not yet finalized the specific information groups to be available, some of the following items are under consideration:

1. Press Releases
2. Board Meeting Agendas
3. Pipeline Projects
4. Water Conservation Information / Classes / Rebates
5. Water Supply Update
6. Newsletters

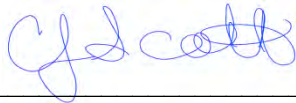
The use of the website as an advance communications method would target that group of customers who respond and get information through social media outlets without engaging in the standard social media outlets. While social media has changed the way people communicate and heightened the level of awareness and transparency in businesses, it is still a tricky road for public agencies to embark.

Feedback from surrounding agencies regarding the use of social media has been somewhat negative as to the problems associated with the time of upkeep to keep it current and keep followers interested and to the proper handling of customer's posts and responses to the content. The District provides a place on the website for customers to send in comments and questions.

The next action item with the utilization of Constant Contact will be to motivate customers to go to the website and sign up to receive the information. Currently, the District has a list of approximately 4,500 emails. With any new account sign-on, an email address is requested. For the current list, the District has the ability to send a welcome email directing customers to the website. Collecting additional emails could come from bill messaging, press releases, and information distributed and collected at community events.

Over the next three months, during the strategic planning process, Staff will be working on the development of the information which will be available on the website and a messaging plan which will address the questions of what the District wishes to communicate and the target audience.

Prepared by:



Christy Joana Scott

Submitted by:



Thomas A. Love
General Manager