

**AGENDA FOR THE REGULAR MEETING OF THE
BOARD OF DIRECTORS OF THE
TEMESCAL VALLEY WATER DISTRICT
DECEMBER 19, 2017, 8:30 A.M. AT
THE DISTRICT'S ADMINISTRATIVE OFFICE
22646 TEMESCAL CANYON ROAD,
TEMESCAL VALLEY, CALIFORNIA 92883**

The following is a summary of the rules of order governing meetings of the Temescal Valley Water District Board of Directors:

AGENDA ITEMS

In case of an emergency, items may be added to the Agenda by a majority vote of the Board of Directors. An emergency is defined as a work stoppage; a crippling disaster; or other activity, which severely imperils public health, safety or both. Also, items, which arise after the posting of Agenda, may be added by a two-thirds vote of the Board of Directors.

PUBLIC COMMENT

Persons wishing to address a matter not on the Agenda may be heard at this time; however, no action will be taken until placed on a future agenda in accordance with Board policy.

NOTICE TO PUBLIC

All matters listed under the Consent Calendar will be voted upon by one motion. There will be no separate discussion of these items, unless a Board Member or member of the public requests that a particular item(s) be removed from the Consent Calendar, in which case, they will be considered separately under New Business.

**IF ANYONE WISHES TO SPEAK WITH THE BOARD
ABOUT ANY CONSENT CALENDAR MATTER(S),
PLEASE STATE YOUR NAME, ADDRESS,
AND APPROPRIATE ITEM NUMBER(S).**

AFFIDAVIT OF POSTING

I, Allison Harnden, Office Manager of the Temescal Valley Water District, hereby certify that I caused the posting of the Agenda at the District office at 22646 Temescal Canyon Road, Temescal Valley, California 92883 before December 16, 2017.

Allison Harnden, Office Manager

**AGENDA FOR REGULAR MEETING
December 19, 2017**

Page No.

1. **Roll Call and Call to Order.**
2. **Presentations and Acknowledgments.**
3. **Public Comment.**

BOARD ITEMS:

4. **Minutes of the November 28, 2017 Regular Meeting.** **6-8**
RECOMMENDATION: Approve Minutes as written.
5. **Payment Authorization Report.** **9-12**
RECOMMENDATION: Approve Report and authorize payment of the November 28-December 19, 2017 invoices.
6. **Revenue & Expenditure Reports. (Unaudited).**
 - a. **Revenue & Expenditure Reports.** **13-33**
RECOMMENDATION: Note and file.
 - b. **Lien update.** **34**
RECOMMENDATION: Note and file.
7. **Draft FY 2016/17 Audit.** **35-66**
8. **Trilogy Development.**
 - a. **Homeowners Association update.** **(-)**
 - b. **Golf Course update.** **(-)**

	<u>Page No.</u>
9. Sycamore Creek Development.	
a. Project Update.	(-)
b. 1738 homes to be built. 1431 houses occupied to date. 82% complete.	
10. Terramor Development (Forestar Toscana).	
a. Project Update.	(-)
b. 1443 homes to be built. 45 houses released to date.	
11. Water Utilization Reports.	67-80
RECOMMENDATION: Note and file.	
12. Sustainable Groundwater Management Act.	(-)
a. Project Update.	
13. Urban Water Management Plan Review.	
RECOMMENDATION: Adopt as draft report and schedule the public hearing for January 23, 2018.	81-249
14. Resignation of Director De Frates.	250
RECOMMENDATION: To be made by the Board.	
15. Committee Reports.	
a. Finance (Director Rodriguez).	(-)
b. Engineering (Director Destache).	(-)
c. Public Relations (Allison Harnden).	(-)
16. General Manager's Report.	
a. General Manager's Report.	251
1. Trilogy Non-potable water conversion project funding request.	252-268
RECOMMENDATION: To be made by the Board.	

	<u>Page No.</u>
2. Generator Replacement Project. RECOMMENDATION: To be made by the Board.	269-298
3. Glen Eden Temporary Water. RECOMMENDATION: Authorize the General Manager to sign the agreement.	299-325
b. Operations Report.	326-328
17. District Engineer's Report. a. Status of Projects.	329-330
18. District Counsel's Report.	(-)
19. Seminars/Workshops.	(-)
20. Consideration of Correspondence. An informational package containing copies of all pertinent correspondence for the Month of November will be distributed to each Director along with the Agenda.	331
21. Adjournment.	(-)

**MINUTES OF THE
REGULAR MEETING OF THE
TEMESCAL VALLEY WATER DISTRICT**

November 28, 2017

PRESENT

C. Colladay
P. Rodriguez
J. Butler
G. Destache

ABSENT

D. De Frates

GUESTS

J. Niccoli

STAFF

J. Pape
A. Harnden
M. McCullough
J. Scheidel
D. Saunders

1. Roll Call and Call to Order.

The regular meeting of the Temescal Valley Water District was called to order by President Colladay at 8:30 a.m.

2. Presentations and Acknowledgments.

3. Public Comment.

BOARD ITEMS:

4. Minutes of the October 24, 2017 Regular Meeting.

ACTION: Director Butler moved to approve the minutes as presented. Director Rodriguez seconded. Motion carried unanimously.

5. Payment Authorization Report.

ACTION: Director Rodriguez moved to approve the October 24-November 28, 2017 invoices. Director Destache seconded. Motion carried unanimously.

6. Revenue & Expenditure Reports. (Unaudited).

a. Revenue & Expenditure Reports.

ACTION: Note and file.

b. Lien update.

ACTION: Note and file.

7. **Trilogy Development.**
 - a. Homeowners Association update: None
 - b. Golf Course update: None
8. **Sycamore Creek Development.**
 - a. Project Update: None
 - b. 1738 homes to be built. 1431 houses occupied to date. 82% complete.
9. **Terramor Development (Forestar Toscana).**
 - a. Project Update.
 - b. 1443 estimated homes to be built. 28 houses released to date.
10. **Water Utilization Reports.**

ACTION: Note and file.
11. **Sustainable Groundwater Management Act.**
 - a. Project Update.
12. **Committee Reports.**
 - a. Finance (Director Rodriguez) – Director Rodriguez requested a quarterly meeting be scheduled for January 2018.
 - b. Engineering (Director Destache).
 - c. Public Relations (Allison Harnden) – Allison reminded the Board that the December meeting date was changed to the 19th.
13. **General Manager’s Report.**
 - a. General Manager’s Report.
 1. Trilogy Non-potable water conversion project funding request.

ACTION: President Colladay appointed an ad hoc committee of Director Rodriguez and Director Butler to meet and review the project for possible funding assistance by the District.
 2. Proposal by Dudek for CEQA required environmental review for water for reclamation facility expansion.

ACTION: Director Destache moved to approve the proposal in a not-to-exceed amount of \$40,000. Director Butler seconded. Motion carried unanimously.

b. Operations Report.

14. District Engineer's Report.

a. Status of Projects.

15. District Counsel's Report.

16. Seminars/Workshops.

17. Consideration of Correspondence.

An informational package containing copies of all pertinent correspondence for the Month of October will be distributed to each Director along with the Agenda.

18. Adjournment.

There being no further business, the November 28, 2017 Regular Meeting of the Temescal Valley Water District Board of Directors was adjourned at 10:37 a.m. by President Colladay.

ATTEST:

APPROVED:

Paul Rodriguez, Secretary

Charles Colladay, President

Date: _____

Date: _____

TEMESCAL VALLEY WATER DISTRICT

Payment Authorization Report

Dec 19, 2017

Check #	Date	Payee ID	Payee	Amount	
20326-20328	#####		VOID	\$ -	
20329	#####	EL	EDUARDO LOPEZ-TRK MAINT	80.00	
20330	#####	ACSI	ALEXANDER'S CONTRACT SERVICES, INC.	10,036.75	TWO MONTHS
20331	#####	AS01	ASJ INDUSTRIAL HOSE & FITTING INC.	897.51	
20332	#####	BR01	AREND BROUWER ELECTRICAL CONTRACTING IN	800.00	
20333	#####	CL01	CLAYSON, BAINER & SAUNDERS	250.00	
20334	#####	CM01	CORE & MAIN	385.16	
20335	#####	FDPCI	FAIN DRILLING & PUMPING CO. INC.	61,723.01	CAP IMP-SUMP WELL
20336	#####	FM	MAIL FINANCE	1,504.87	
20337	#####	IEI	INNERLINE ENGINEERING INC	2,040.00	
20338	#####	Maxim	MAXIM SECURITY SERVICES	2,286.00	
20339	#####	MU01	WILLDAN FINANCIAL SERVICES	6,394.15	CFD DELQ LTRS & W/S ADMIN CHG
20340	#####	PCE	PACIFIC COAST ENVELOPE INC	2,382.35	
20341	#####	PLIC	PROTECTIVE LIFE INSURANCE COMPANY	117.60	
20342	#####		VOID	-	
20343	#####	PU02	PUMP MAN	3,184.00	
20344	#####	SEMA	SEMA INC.	718.79	
20345	#####	TR01	THANG TRAN	1,548.37	
20346	#####	TR012	TRAN CONTROLS SCADA SOLUTIONS, LLC.	28,752.80	MONTHLY/TERRAMOR LIFT STATION (BILLED)
20347	#####	CO	CHARLES W. COLLADAY	202.52	
20348	#####	DES	GRANT DESTACHE	202.52	
20349	#####	JB	JOHN B. BUTLER	147.82	
20350	#####	RO	PAUL RODRIGUEZ	147.82	
20351-20357	12/1/17		VOID	-	
20358	12/1/17	AD	PAYROLL	-	
20359	12/1/17	BE	PAYROLL	-	
20360	12/1/17	CG	PAYROLL	-	
20361	12/1/17	CL	PAYROLL	-	
20362	12/1/17	DB	PAYROLL	-	
20363	12/1/17	JH	PAYROLL	-	
20364	12/1/17	KC	PAYROLL	-	
20365	12/1/17	KN	PAYROLL	-	
20366	12/1/17	MM	PAYROLL	-	
20367	12/1/17	FI01	FIDELITY INVESTMENTS	910.80	
20368	12/5/17	AGSI	AUTOMATED GATE SERVICES INC	424.00	
20369	12/7/17		EDUARDO LOPEZ	80.00	
20370	12/7/17	BGM	BIG GIANT MEDIA	54.90	
20371	12/7/17	BLIC	BENEFICIAL LIFE INS COMPANY	759.54	
20372	12/7/17	CA16	CALIFORNIA CHOICE BENEFIT ADMINISTRATOR	5,277.25	
20373	12/7/17	CAM	CHANDLER INVESTMENT MANAGEMENT	1,000.00	
20374	12/7/17	CE01	CENTRAL COMMUNICATIONS	72.75	
20375	12/7/17	DSC	DATABASE SYSTEMS CORP.	323.57	

TEMESCAL VALLEY WATER DISTRICT

Payment Authorization Report

Dec 19, 2017

Check #	Date	Payee ID	Payee	Amount	
20376	12/7/17	DU02	DUDEK & ASSOCIATES-SPECIAL PJTS	6,782.66	
20377	12/7/17	DU03	DUDEK & ASSOCIATES-PASS THRU	13,092.50	
20378	12/7/17	DU04	DUDEK & ASSOCIATES-ENGINEERING	4,206.26	
20379	12/7/17	EASI	ENGINEERED AIR SERVICES, INC.	374.62	
20380	12/7/17	HITR	HIGHLEY TRUCKING	1,200.00	
20381	12/7/17	HO01	HOME DEPOT CREDIT SERVICES	838.98	
20382	12/7/17	MC	MOOTE COMPANIES LLC	12,155.00	CAP IMP-GEN RPLC BIDDING
20383	12/7/17	MH01	MCFADDEN-DALE HARDWARE CO.	128.32	
20384	12/7/17	ON01	ONE STOP LANDSCAPE SUPPLY INC.	2,277.00	
20385	12/7/17	PLM01	PARRA LANDSCAPE MAINTENANCE	825.00	
20386	12/7/17	PU02	PUMP MAN	21,526.00	REPLACE PUMP LEROY LIFT STAT
20387	12/7/17	SAQMD	SOUTH COAST AIR QUALITY MGT DIST	1,011.48	
20388	12/7/17	SO03	SOUTHERN CALIF EDISON CO.	38,184.00	
20389	12/7/17	ST01	STAPLES CREDIT PLAN	476.97	
20390	12/7/17	TWC	SPECTRUM BUSINESS	1,017.55	
20391	12/7/17	UN01	UNDERGROUND SERVICE ALERT	57.85	
20392	12/7/17	USB01	US BANK GOVERNMENT SERVICES	3,933.78	
20393	12/7/17	W9S	WIN-911 SOFTWARE	495.00	
20394	12/7/17	WA01	WASTE MANAGEMENT - INLAND EMPIRE	179.52	
20395	12/7/17	WE01	WESTERN MUNICIPAL WATER DISTR.	13,429.01	
20396	12/7/17	REFUND	MICHAEL BRADY	300.00	
20397	12/7/17	REFUND	DURRANI FOWAD	76.63	
20398	12/7/17	REFUND	CYNTHIA NG	49.09	
20399	12/7/17	REFUND	VIKRAM KUMAR	10.61	
20400	12/7/17	REFUND	SANDRA GOEBEL	57.30	
20401	12/7/17	REFUND	MARIPOSA LANDSCAPE INC.(CONT METER)	1,037.76	
20402	12/7/17	REFUND	FRANK BERTHOLET	145.77	
20403	12/7/17	REFUND	MAURICE CASHMAN	2.99	
20404	12/7/17	REFUND	JAY KOO	55.50	
20405	12/7/17	REFUND	AMIE RICHARDS	214.37	
20406	12/7/17	REFUND	WEKA INC	370.72	
20407	12/7/17	REFUND	HARJIT DHILLON	142.96	
20408	#####	AD	PAYROLL	-	
20409	#####	BE	PAYROLL	-	
20410	#####	CG	PAYROLL	-	
20411	#####	CL	PAYROLL	-	
20412	#####	CO	CHARLES W. COLLADAY	202.52	
20413	#####	DB	PAYROLL	-	
20414	#####	DES	GRANT DESTACHE	202.52	
20415	#####	JB	JOHN B. BUTLER	147.82	
20416	#####	JH	PAYROLL	-	
20417	#####	KC	PAYROLL	-	

TEMESCAL VALLEY WATER DISTRICT

Payment Authorization Report

Dec 19, 2017

Check #	Date	Payee ID	Payee	Amount	
20418	#####	KN	PAYROLL	-	
20419	#####	MM	PAYROLL	-	
20420	#####	RO	PAUL RODRIGUEZ	147.82	
20421	#####	BE	PAYROLL	-	
20422	#####	JH	PAYROLL	-	
20423	#####	JH	JASON HODEL-MILEAGE	62.40	
20424	#####	JH	PAYROLL	-	
20425	#####	JB	JOHN B. BUTLER-ENG	147.82	
20426	#####	RO	PAUL RODRIGUEZ-ENG	147.82	
20427	#####	CO	CHARLES W. COLLADAY-ADMIN	202.52	
20428	#####	RO	PAUL RODRIGUEZ-ADMIN	147.82	
20429	#####	SWRCB	STATE WATER RESOURCES CONTROL BOARD	170.00	
20430	#####	AGSI	AUTOMATED GATE SERVICES INC	169.00	
20431	#####	ATT01	AT&T	445.92	
20432	#####	BRE	BRITHINEE ELECTRIC	6,637.46	REPAIR BAR SCREEN/AIR COND FOR VFD CONTRL
20433	#####	BT	BT PIPELINE INC.	38,303.00	CAP IMP - REPLACE SECTION OF NPWL/EXT 12" LINE
20434	#####	CL01	CLAYSON, BAINER & SAUNDERS	875.00	
20435	#####	CRTD	COUNTY OF RIVERSIDE-TRANS DEPT	1,650.00	
20436	#####	GI	GORM INC.	203.54	
20437	#####	GR02	GRAINGER INC.	438.23	
20438	#####	ISC	IT SUPPORT CA INC.	3,596.41	
20439	#####	MC02	McCROMETER, INC.	730.38	
20440	#####	MH01	MCFADDEN-DALE HARDWARE CO.	133.17	
20441	#####	MU01	WILLDAN FINANCIAL SERVICES	2,500.00	
20442	#####	NC	NORTHSTAR CHEMICAL	3,329.43	
20443	#####	PLM01	PARRA LANDSCAPE MAINTENANCE	1,354.00	
20444	#####	RTL	RUTAN & TUCKER, LLP	109.73	
20445	#####	SAQMDHB	SOUTH COAST AIR QUALITY MGT DIST	505.74	
20446	#####	ST02	STATE COMPENSATION INSUR.FUND	1,904.67	
20447	#####	SWRCB-1	WATER BOARDS-SWRCB	9,911.00	COUNTY PERMIT W/S
20448	#####	TR012	TRAN CONTROLS SCADA SOLUTIONS, LLC.	1,588.68	
20449	#####	UPG	UNITED POWER GENERATION	1,355.73	
20450	#####	WE01	WESTERN MUNICIPAL WATER DISTR.	258,821.55	
Total				#####	

THESE INVOICES ARE SUBMITTED TO THE
 TEMESCAL VALLEY BOARD OF DIRECTORS FOR
 APPROVAL AND AUTHORIZATION FOR PAYMENT

Mel McCullough - Finance Manager

TEMESCAL VALLEY WATER DISTRICT

Payment Authorization Report

Dec 19, 2017

Check #	Date	Payee ID	Payee	Amount
	12/19/17		Mel McCullough - Finance Manager	
	Date			

**TEMESCAL VALLEY WATER DISTRICT
INTERNAL BALANCE SHEET
30-Nov-17**

ASSETS

Fixed Assets (net of accumulated depreciation)		
Land	\$	902,118
Treatment Plants		8,925,267
Capacity Rights		13,503,639
Water System, Reservoir & Wells		9,371,086
Water & Sewer Mains		27,093,657
General Equipment Sewer/Water/ Furniture		413,059
Buildings & Entrance Improvements		350,198
		\$ 60,559,023
Current Assets		
Cash - Wastewater	8,839,466	
Cash - Water	7,706,201	
Cash - ID #1	453,306	
Cash - ID #2	226,652	
Cash - Nonpotable	5,439,673	
Cash - Deposits	1,036,945	23,702,244
Accounts Receivable-Services/Developers		1,030,379
Assessment Receivable		158,235
Interest Receivable		7,896
Prepaid Expenses		21,564
Inventory		55,154
		24,975,470
Other Assets		
Work-in-Process		172,349
Deferred Outflows - Pension	\$	158,570
TOTAL ASSETS	\$	85,865,413

LIABILITIES

Current Liabilities		
Accounts Payable	\$	418,350
Security Deposits		190,377
Payroll & Payroll Taxes Payable		67,939
Capacity & Meter Deposits		171,630
Fiduciary Payments Payable		349,060
Developer Deposits		302,851
Other Deposits		23,027
		1,523,235
Long-term Liabilities		
TVRP Note		1,743,224
Deferred Inflows - Pension		57,103
TOTAL LIABILITIES	\$	3,323,562

FUND EQUITY

Fund Balances		
Waste Water Fund Balance		27,716,425
Water Fund Balance		43,444,779
ID #1 Fund Balance		569,729
ID #2 Fund Balance		643,716
Recycled Water Fund Balance		10,167,203
TOTAL FUND EQUITY	\$	82,541,851
TOTAL LIABILITIES & FUND EQUITY	\$	85,865,413

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET	BUDGET
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	2017-2018	REMAINING
<u>WASTEWATER DEPARTMENT</u>								
OPERATING REVENUE:								
MONTHLY SEWER SERVICE CHARGE	180,829	176,000	4,829	907,354	880,000	27,354	2,110,000	(1,202,646)
MONTHLY SERVICE CHARGE-ID #1	10,766	10,766	-	53,830	53,830	-	129,200	(75,370)
MONTHLY SERVICE CHARGE-ID #2	12,179	12,179	-	60,895	60,895	-	146,150	(85,255)
MONTHLY SEWER SERVICE CHG-R COM	10,680	9,200	1,480	40,217	46,000	(5,783)	110,000	(69,783)
MISC UTILITY CHARGES/ REVENUE	5,113	5,420	(307)	25,772	27,100	(1,328)	65,000	(39,228)
STANDBY CHARGES	-	-	-	8,940	-	8,940	106,000	(97,060)
CFD REIMBURSEMENTS	-	-	-	-	-	-	20,000	(20,000)
INSPECTION CHARGES	-	-	-	5,313	3,750	1,563	15,000	(9,687)
TOTAL WASTEWATER REVENUE	219,567	213,565	6,002	1,102,321	1,071,575	30,746	2,701,350	(1,599,029)
OPERATING EXPENSES:								
PLANT WAGES EXPENSE	8,700	12,250	(3,550)	43,051	61,250	(18,199)	159,000	(115,949)
PAYROLL TAXES EXP	137	250	(113)	660	1,250	(590)	2,800	(2,140)
EMPLOYEE BENEFITS-INS	968	1,200	(232)	4,797	6,000	(1,203)	15,500	(10,703)
EMPLOYEE BENEFITS-RETIREMENT	1,339	1,630	(291)	6,625	8,150	(1,525)	21,200	(14,575)
OVERTIME EXP	891	600	291	9,912	3,000	6,912	7,000	2,912
MILEAGE EXP	59	50	9	399	250	149	500	(101)
VACATION EXP	624	675	(51)	3,172	3,375	(203)	8,100	(4,928)
ELECTRICIAN LABOR COSTS	-	400	(400)	800	2,000	(1,200)	5,000	(4,200)
SCADA SYSTEM ADMIN/MAINT	-	830	(830)	3,096	4,150	(1,054)	10,000	(6,904)
LABORATORY TESTING COSTS	-	1,875	(1,875)	3,430	9,375	(5,945)	22,500	(19,070)
SLUDGE DISPOSAL/PUMPING COSTS	6,196	2,100	4,096	14,831	12,500	2,331	25,000	(10,169)
SLUDGE DISPOSAL BAG EXP	-	-	-	21,333	25,000	(3,667)	25,000	(3,667)
SLUDGE CHEMICAL EXP	-	-	-	-	1,250	(1,250)	5,000	(5,000)
CHEMICALS, LUBRICANTS & FUELS	278	10,000	(9,722)	18,033	50,000	(31,967)	115,000	(96,967)
EQUIPMENT RENTAL COSTS	-	200	(200)	-	1,000	(1,000)	2,000	(2,000)
EQUIPMENT REPAIRS & MAINT.	478	18,750	(18,272)	67,314	93,750	(26,436)	225,000	(157,686)
SEWER LINE REPAIRS	-	-	-	3,249	2,500	749	10,000	(6,751)
SEWER CLEANING AND VIDEO EXP	-	1,250	(1,250)	1,785	6,250	(4,465)	15,000	(13,215)
SECURITY AND ALARM EXP	-	-	-	-	375	(375)	1,500	(1,500)
PROPERTY MAINTENANCE	1,494	4,400	(2,906)	14,218	22,000	(7,782)	53,000	(38,782)
ENGINEERING/ADMIN. STUDIES	-	1,700	(1,700)	-	8,500	(8,500)	20,000	(20,000)
ENERGY COSTS	12,501	16,250	(3,749)	78,065	81,250	(3,185)	195,000	(116,935)
CONSUMABLE SUPPLIES & CLEANING	539	420	119	3,703	2,100	1,603	5,000	(1,297)
SMALL EQUIPMENT & TOOLS COST	1,490	420	1,070	3,339	2,100	1,239	5,000	(1,661)
PERMITS, FEES & TAXES	8,227	2,100	6,127	9,924	10,500	(576)	25,000	(15,076)
SAWPA BASIN MONITORING EXP	-	-	-	-	25,000	(25,000)	25,000	(25,000)
MAP UPDATING/GIS EXP	-	-	-	-	5,000	(5,000)	2,000	(2,000)
MISC. OPERATING EXP	-	-	-	-	400	(400)	1,000	(1,000)
BAD DEBT EXPENSES	-	-	-	-	-	-	1,500	(1,500)
CONTINGENCIES	-	2,500	(2,500)	-	12,500	(12,500)	30,000	(30,000)
TOTAL OPERATING EXPENSES	43,921	79,850	(35,929)	311,736	460,775	(149,039)	1,037,600	(725,864)

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET	BUDGET
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	2017-2018	REMAINING
ADMINISTRATIVE EXPENSES:								
CONTRACT MANAGEMENT	7,744	8,500	(756)	37,833	40,500	(2,667)	100,000	(62,167)
GENERAL ENGINEERING EXP	-	1,250	(1,250)	5,627	6,250	(623)	15,000	(9,373)
ANNUAL ASSESSMENT EXP	-	-	-	5,708	3,000	2,708	3,000	2,708
PLAN CHECK & INSPECTION EXP	-	-	-	-	-	-	2,500	(2,500)
EMPLOYEE BENEFITS-INS	1,759	1,700	59	8,986	9,000	(14)	17,000	(8,014)
EMPLOYEE BENEFITS-RETIREMENT	2,150	2,100	50	10,984	11,000	(16)	22,000	(11,016)
WAGES EXPENSE	10,803	11,650	(847)	56,890	58,250	(1,360)	151,000	(94,110)
VACATION EXP	797	850	(53)	4,024	4,250	(226)	10,100	(6,076)
OVERTIME EXP	-	100	(100)	-	500	(500)	1,000	(1,000)
MILEAGE EXP ADMIN	-	50	(50)	65	250	(185)	500	(435)
PAYROLL TAX EXPENSES	170	210	(40)	957	1,050	(93)	2,700	(1,743)
CONTRACT STAFFING EXP	-	-	-	-	-	-	2,000	(2,000)
LEGAL EXPENSES	350	850	(500)	1,440	4,250	(2,810)	10,000	(8,560)
AUDIT EXPENSES	-	5,400	(5,400)	-	5,400	(5,400)	5,400	(5,400)
BOARD COMMITTEE MEETING EXP.	404	625	(221)	1,735	3,125	(1,390)	7,500	(5,765)
ELECTION & PUBLIC HEARING EXP	-	-	-	-	7,000	(7,000)	7,000	(7,000)
COMPUTER SYSTEM ADMIN	1,457	1,700	(243)	4,504	8,500	(3,996)	20,000	(15,496)
BANK CHARGES EXP	1,253	850	403	6,555	4,250	2,305	10,000	(3,445)
MISCELLANEOUS & EDUCATION EXP	-	100	(100)	815	500	315	1,000	(185)
TELEPHONE, FAX & CELL EXP	618	1,100	(482)	4,101	5,500	(1,399)	13,000	(8,899)
OFFICE SUPPLIES EXP	826	1,050	(224)	5,462	5,250	212	12,500	(7,038)
PRINTING EXPENSES	1,062	1,000	62	2,450	2,000	450	6,000	(3,550)
POSTAGE & DELIVERY EXPENSE	883	1,000	(117)	4,715	5,000	(285)	12,000	(7,285)
PUBLICATIONS, NOTICES & DUES	84	-	84	312	250	62	750	(438)
EQUIPMENT LEASE EXPENSES	296	500	(204)	2,777	2,500	277	6,000	(3,223)
INSURANCE EXPENSES	1,785	2,100	(315)	9,996	10,500	(504)	25,000	(15,004)
INVESTMENT EXP	400	400	-	2,000	2,000	-	4,800	(2,800)
COMMUNITY OUTREACH EXP	-	-	-	-	5,000	(5,000)	8,000	(8,000)
TOTAL ADMINISTRATIVE EXPENSES	32,841	43,085	(10,244)	177,936	205,075	(27,139)	475,750	(297,814)
TOTAL WASTEWATER EXPENSES	76,762	122,935	(46,173)	489,672	665,850	(176,178)	1,513,350	(1,023,678)
NET OPERATING REVENUE/EXPENSE	142,805	90,630	52,175	612,649	405,725	206,924	1,188,000	(575,351)
NON-OPERATING SOURCE OF FUNDS:								
OTHER REVENUE REIMB-MANDATE COSTS	-	-	-	-	-	-	-	-
INTEREST INCOME	1,500	1,800	(300)	3,680	9,000	(5,320)	22,000	(18,320)
PROPERTY TAX INCOME	39	-	39	8,471	-	8,471	70,000	(61,529)
TOTAL NON-OPER SOURCE OF FUNDS	1,539	1,800	(261)	12,151	9,000	3,151	92,000	(79,849)
TOTAL SEWER REVENUE/EXPENSE	144,344	92,430	51,914	624,800	414,725	210,075	1,280,000	(655,200)
TRANSFER TO CAPITAL FUND-REPLACEMENT				354,188				
TRANSFER TO CAPITAL FUND-IMPROVEMENT				270,612				
CONNECTION FEES				81,617				
				-				

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

WASTE WATER CAPITAL FUND:

ENDING FUNDS AVAILABLE 2015-2016	10,179,521
TRANSFER FOR CAPITAL FUND REPLACEMENT	354,188
TRANSFER FOR CAPITAL IMPROVEMENTS	352,229
CAPITAL IMPROVEMENT (SEE ATTACHED DETAIL)	<u>(24,510)</u>
TOTAL FUNDS AVAILABLE	<u>10,861,428</u>

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET 2017-2018	BUDGET REMAINING
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE		
<u>WATER DEPARTMENT</u>								
OPERATING REVENUE:								
WATER SERVICE CHARGE	126,600	117,000	9,600	609,919	585,000	24,919	1,400,000	(790,081)
WATER USAGE CHARGES	305,175	285,000	20,175	1,845,096	2,022,000	(176,904)	4,038,000	(2,192,904)
WATER PUMPING CHARGE	11,533	10,500	1,033	76,168	75,000	1,168	150,000	(73,832)
FIRE PROTECTION CHARGES	2,783	2,300	483	13,945	11,500	2,445	28,000	(14,055)
MISC. UTILITY CHARGES	6,189	5,000	1,189	20,041	25,000	(4,959)	60,000	(39,959)
SERVICE METER INCOME	5,100	6,500	(1,400)	53,500	33,000	20,500	80,000	(26,500)
CELLULAR SITE LEASE	2,870	3,300	(430)	8,611	16,500	(7,889)	40,000	(31,389)
MWD READINESS TO SERVE CHARGE	11,683	13,300	(1,617)	58,434	66,500	(8,066)	160,000	(101,566)
STANDBY CHARGES	-	-	-	3,629	-	3,629	41,000	(37,371)
CFD REIMBURSEMENTS	-	-	-	-	-	-	20,000	(20,000)
INSPECTION CHARGES	-	-	-	5,312	3,750	1,562	15,000	(9,688)
TOTAL WATER REVENUE	471,933	442,900	29,033	2,694,655	2,838,250	(143,595)	6,032,000	(3,337,345)
OPERATING EXPENSES:								
WAGES EXPENSE	7,612	8,000	(388)	37,670	39,000	(1,330)	139,000	(101,330)
PAYROLL TAXES EXP	121	155	(34)	578	600	(22)	2,400	(1,822)
EMPLOYEE BENEFITS-INS	889	900	(11)	4,399	4,500	(101)	14,000	(9,601)
EMPLOYEE BENEFITS-RETIREMENT	1,131	1,200	(69)	5,598	6,000	(402)	19,000	(13,402)
OPERATION-MILEAGE EXP	32	50	(18)	97	250	(153)	500	(403)
OVERTIME EXPENSE/ ON CALL	-	500	(500)	-	2,500	(2,500)	6,000	(6,000)
VACATION EXP	780	600	180	3,711	3,000	711	7,100	(3,389)
CONTRACT STAFFING-METER READS	5,040	5,400	(360)	24,939	27,000	(2,061)	65,000	(40,061)
SCADA SYSTEM ADMIN/MAINT	-	850	(850)	2,710	4,250	(1,540)	10,000	(7,290)
LABORATORY TESTING COSTS	-	1,000	(1,000)	4,767	5,000	(233)	12,500	(7,733)
COMPLIANCE TESTING (ISDE/CROSS)	-	-	-	-	1,000	(1,000)	3,000	(3,000)
LEAK DETECTION EXPENSE	-	800	(800)	-	4,000	(4,000)	8,000	(8,000)
EPA WATER TESTING EXP	-	-	-	-	2,000	(2,000)	6,000	(6,000)
EQUIPMENT RENTAL COSTS	-	200	(200)	-	1,000	(1,000)	2,000	(2,000)
EQUIPMENT REPAIRS & MAINT.	40	8,500	(8,460)	37,402	42,500	(5,098)	100,000	(62,598)
WATER LINE REPAIRS	-	3,500	(3,500)	-	17,500	(17,500)	40,000	(40,000)
ALARM MONITORING COSTS	-	-	-	-	400	(400)	1,200	(1,200)
PROPERTY MAINTENANCE	-	500	(500)	-	2,500	(2,500)	6,000	(6,000)
ENGINEERING/ADMIN. STUDIES	-	700	(700)	-	3,500	(3,500)	8,000	(8,000)
ENERGY COSTS	7,639	8,750	(1,111)	74,627	62,500	12,127	125,000	(50,373)
CONSUMABLE SUPPLIES & CLEANING	294	300	(6)	1,004	1,500	(496)	3,500	(2,496)
CHEMICALS, LUBRICANTS & FUELS	243	600	(357)	1,229	3,000	(1,771)	7,000	(5,771)
SMALL EQUIPMENT & TOOLS COST	1,152	200	952	1,677	1,000	677	2,000	(323)
PERMITS, FEES & TAXES	2,442	500	1,942	3,784	7,000	(3,216)	34,000	(30,216)
MAP UPDATING/GIS EXP	-	400	(400)	-	2,000	(2,000)	5,000	(5,000)
SERVICE METERS & PARTS COSTS	2,752	5,000	(2,248)	30,770	30,000	770	60,000	(29,230)
WHOLESALE WATER PURCHASES	258,782	245,000	13,782	1,655,491	1,750,000	(94,509)	3,503,000	(1,847,509)
WATER-MWD CAPACITY CHARGE	3,733	5,000	(1,267)	18,667	25,000	(6,333)	60,000	(41,333)
WATER-READINESS TO SERVE/REFUSAL CHARGE	9,696	11,700	(2,004)	48,478	58,500	(10,022)	140,000	(91,522)
WMWD-MGLMR EXP	-	-	-	116,314	110,000	6,314	110,000	6,314
BAD DEBT EXPENSES	-	-	-	-	-	-	1,500	(1,500)
CONSERVATION REBATE EXP	-	-	-	40	1,000	(960)	3,000	(2,960)
CONTINGENCIES	-	1,750	(1,750)	-	8,750	(8,750)	20,000	(20,000)
TOTAL OPERATING EXPENSES	302,378	312,055	(9,677)	2,073,952	2,226,750	(152,798)	4,523,700	(2,449,748)

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET	BUDGET
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	2017-2018	REMAINING
ADMINISTRATIVE EXPENSES:								
CONTRACT MANAGEMENT	6,776	7,700	(924)	33,104	34,300	(1,196)	87,500	(54,396)
GENERAL ENGINEERING EXP	-	1,350	(1,350)	12,720	6,750	5,970	16,000	(3,280)
PLAN CHECK & INSPECTION EXP	-	-	-	216	2,500	(2,284)	10,000	(9,784)
EMPLOYEE BENEFITS-INS	1,411	1,250	161	6,642	6,250	392	15,000	(8,358)
EMPLOYEE BENEFITS-RETIREMENT	1,437	1,500	(63)	8,117	7,500	617	19,000	(10,883)
ANNUAL ASSESSMENT EXP	-	-	-	5,709	3,000	2,709	3,000	2,709
WAGES EXPENSE	9,453	10,200	(747)	45,404	51,000	(5,596)	132,000	(86,596)
VACATION EXP	997	750	247	4,721	3,750	971	8,800	(4,079)
MILEAGE EXP ADMIN	-	50	(50)	151	250	(99)	500	(349)
OVERTIME EXPENSE	-	100	(100)	-	500	(500)	1,000	(1,000)
PAYROLL TAX EXPENSES	149	185	(36)	838	925	(87)	2,400	(1,562)
CONTRACT STAFFING OFFICE	-	-	-	-	-	-	2,000	(2,000)
LEGAL EXPENSES	306	675	(369)	1,260	3,375	(2,115)	8,000	(6,740)
AUDIT EXPENSES	-	-	-	-	5,000	(5,000)	5,000	(5,000)
BOARD COMMITTEE/ MEETING EXP.	353	525	(172)	1,535	2,525	(990)	6,300	(4,765)
COMPUTER SYSTEM EXP	1,275	1,000	275	3,941	5,000	(1,059)	12,000	(8,059)
BANK CHARGES EXP	1,097	600	497	5,737	3,000	2,737	7,000	(1,263)
MISCELLANEOUS & EDUCATION EXP	-	-	-	450	500	(50)	2,000	(1,550)
TELEPHONE EXP	541	920	(379)	3,588	4,600	(1,012)	11,000	(7,412)
OFFICE SUPPLIES EXP	683	825	(142)	4,788	4,125	663	10,000	(5,212)
PRINTING EXPENSES	833	400	433	2,221	2,000	221	5,000	(2,779)
POSTAGE & DELIVERY EXPENSE	772	850	(78)	4,067	4,250	(183)	10,000	(5,933)
PUBLICATIONS, NOTICES & DUES	-	-	-	526	500	26	2,000	(1,474)
EQUIPMENT LEASE EXPENSES	779	500	279	1,827	2,500	(673)	6,000	(4,173)
INSURANCE EXPENSES	1,562	1,850	(288)	8,748	9,250	(502)	22,000	(13,252)
INVESTMENT EXPENSE	350	350	-	1,750	1,750	-	4,200	(2,450)
ELECTION & PUBLIC HEARING EXP	-	-	-	-	6,600	(6,600)	6,600	(6,600)
COMMUNITY OUT REACH EXP	-	-	-	7,901	4,000	3,901	7,000	901
JPA EXPENSE(GSA FOR BEDFORD/COLDWATER)	-	-	-	-	-	-	-	-
TOTAL ADMINISTRATIVE EXPENSES	28,774	31,580	(2,806)	165,961	175,700	(9,739)	421,300	(255,339)
TOTAL WATER EXPENSES	331,152	343,635	(12,483)	2,239,913	2,402,450	(162,537)	4,945,000	(2,705,087)
NET OPERATING REVENUE/EXPENSE	140,781	99,265	41,516	454,742	435,800	18,942	1,087,000	(632,258)
NON-OPERATING SOURCE OF FUNDS:								
OTHER REVENUE REIMB-MANDATE COSTS			-	-	-	-	-	-
INTEREST INCOME	1,895	2,100	(205)	4,649	10,500	(5,851)	25,200	(20,551)
PROPERTY TAX INCOME	-	-	-	10,888	10,000	888	40,000	(29,112)
TOTAL NON-OP SOURCE OF FUNDS	1,895	2,100	(205)	15,537	20,500	(4,963)	65,200	(49,663)
TOTAL REVENUE/EXPENSE	142,676	101,365	41,311	470,279	456,300	13,979	1,152,200	(681,921)
TRANSFER TO CAPITAL FUND-REPLACEMENT				217,532				
TRANSFER TO CAPITAL FUND-IMPROVEMENT				252,747				
CONNECTION FEES				291,169				
CAPACITY USAGE INCOME				284,098				
LONG TERM DEBT REDUCTION				284,098				
				-				

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

<u>WATER CAPITAL FUND:</u>	
ENDING FUNDS AVAILABLE 2015-2016	9,129,875
TRANSFER FOR CAPITAL FUND REPLACEMENT	217,532
TRANSFER FOR CAPITAL IMPROVEMENTS	543,916
CAPITAL IMPROVEMENT (SEE ATTACHED DETAIL)	<u>(96,877)</u>
TOTAL FUNDS AVAILABLE	<u>9,794,446</u>

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET 2017-2018	BUDGET REMAINING
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE		
<u>ID#1 DEPARTMENT</u>								
OPERATING REVENUE:								
ANNUAL SEWER SERVICE CHARGE	13,725	13,725	-	68,625	68,625	-	164,700	(96,075)
TOTAL ID #1 REVENUE	13,725	13,725	-	68,625	68,625	-	164,700	(96,075)
OPERATING EXPENSES:								
MONTHLY TREATMENT PLANT COSTS	10,766	10,766	-	53,832	53,832	-	129,200	(75,368)
TOTAL OPERATING COSTS	10,766	10,766	-	53,832	53,832	-	129,200	(75,368)
ADMINISTRATIVE EXPENSES:								
ANNUAL ASSESSMENT PROCESSING	-	-	-	-	-	-	3,000	(3,000)
TOTAL ADMINISTRATIVE EXPENSES	-	-	-	-	-	-	3,000	(3,000)
TOTAL ID#1 EXPENSES	10,766	10,766	-	53,832	10,766	43,066	132,200	(78,368)
NET OPERATING REVENUE/EXPENSE	2,959	2,959	-	14,793	57,859	(43,066)	32,500	(17,707)
NON-OPERATING SOURCE OF FUNDS:								
INTEREST INCOME	39	30	9	97	150	(53)	360	(263)
TOTAL NON-OPER SOURCE OF FUNDS	39	30	9	97	150	(53)	360	(263)
TOTAL REVENUE/EXPENSE	2,998	2,989	9	14,890	58,009	(43,119)	32,860	(17,970)
TRANSFER TO CAPITAL FUND-REPLACEMENT				9,124				
TRANSFER TO CAPITAL FUND-IMPROVEMENT				5,766				
				-				
<u>ID #1 FUND BALANCE:</u>								
ENDING FUNDS AVAILABLE 2015-2016	453,900							
TRANSFER FOR CAPITAL FUND REPLACEMENT	9,124							
TRANSFER FOR CAPITAL IMPROVEMENTS	5,766							
CAPITAL IMPROVEMENT (SEE ATTACHED DETAIL)	-							
TOTAL FUNDS AVAILABLE	468,790							

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET 2017-2018	BUDGET REMAINING
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE		
<i>ID#2 DEPARTMENT</i>								
OPERATING REVENUE:								
ANNUAL SEWER SERVICE CHARGE	15,525	15,525	-	77,625	77,625	-	186,300	(108,675)
TOTAL ID #2 REVENUE	15,525	15,525	-	77,625	77,625	-	186,300	(108,675)
OPERATING EXPENSES:								
MONTHLY TREATMENT PLANT COSTS	12,179	12,179	-	60,893	60,893	-	146,150	(85,257)
TOTAL OPERATING COSTS	12,179	12,179	-	60,893	60,893	-	146,150	(85,257)
ADMINISTRATIVE EXPENSES:								
GENERAL ENGINEERING EXP	-	-	-	-	-	-	2,500	(2,500)
ANNUAL ASSESSMENT PROCESSING	-	-	-	1,085	1,000	85	3,000	(1,915)
TOTAL ADMINISTRATIVE EXPENSES	-	-	-	1,085	1,000	85	5,500	(4,415)
TOTAL ID#2 EXPENSES	12,179	12,179	-	61,978	61,893	85	151,650	(89,672)
NET OPERATING REVENUE/EXPENSE	3,346	3,346	-	15,647	15,732	(85)	34,650	(19,003)
NON-OPERATING SOURCE OF FUNDS:								
INTEREST INCOME	79	60	19	194	300	(106)	720	(526)
TOTAL NON-OPER SOURCE OF FUNDS	79	60	19	194	300	(106)	720	(526)
TOTAL REVENUE/EXPENSE	3,425	3,406	19	15,841	16,032	(191)	35,370	(19,529)
TRANSFER TO CAPITAL FUND-REPLACEMENT				24,065				
TRANSFER TO CAPITAL FUND-IMPROVEMENT				(8,224)				
				-				
<i>ID #2 FUND BALANCE:</i>								
ENDING FUNDS AVAILABLE 2015-2016	130,874							
TRANSFER FOR CAPITAL FUND REPLACEMENT	24,065							
TRANSFER FOR CAPITAL IMPROVEMENTS	-							
CAPITAL IMPROVEMENT-PLANT REMOVAL	-							
TOTAL FUNDS AVAILABLE	154,939							

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET 2017-2018	BUDGET REMAINING
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE		
<u>NON-POTABLE WATER DEPARTMENT</u>								
OPERATING REVENUE:								
RECYCLED/NON-POTABLE WATER SALES	126,980	64,000	62,980	811,618	800,000	11,618	1,600,000	(788,382)
RECYCLED/ NON-POT WATER FIXED CHARGE	24,147	16,500	7,647	108,032	82,500	25,532	200,000	(91,968)
RECYCLED/NON-POTABLE PUMPING CHARGE	2,610	3,400	(790)	14,480	17,000	(2,520)	40,000	(25,520)
MISC INCOME	-	1,000	(1,000)	-	5,000	(5,000)	12,000	(12,000)
TOTAL NON-POTABLE REVENUE	153,737	84,900	68,837	934,130	904,500	29,630	1,852,000	(917,870)
OPERATING EXPENSES:								
RECYCLED/NON-POTABLE LABOR EXP	5,438	6,400	(962)	26,907	28,500	(1,593)	100,000	(73,093)
PAYROLL TAXES EXP	86	130	(44)	412	550	(138)	1,700	(1,288)
EMPLOYEE BENEFITS-INS	806	840	(34)	3,063	3,200	(137)	10,000	(6,937)
EMPLOYEE BENEFITS-RETIREMENT	820	900	(80)	4,061	4,500	(439)	14,000	(9,939)
MILEAGE EXP	-	20	(20)	-	90	(90)	200	(200)
OVERTIME EXP	-	350	(350)	-	1,750	(1,750)	4,000	(4,000)
VACATION EXP	156	225	(69)	1,045	1,125	(80)	5,100	(4,055)
SCADA SYS EXP	-	560	(560)	1,936	2,800	(864)	6,800	(4,864)
LABORATORY TESTING COSTS	-	250	(250)	-	1,250	(1,250)	3,000	(3,000)
EQUIPMENT REPAIRS & MAINT.	2,240	8,300	(6,060)	50,633	51,500	(867)	100,000	(49,367)
NONPOTABLE WATER LINE REPAIR	-	8,300	(8,300)	15,908	41,500	(25,592)	100,000	(84,092)
SECURITY AND ALARM EXP	-	-	-	-	250	(250)	1,000	(1,000)
PROPERTY MAINTENANCE	-	420	(420)	305	2,100	(1,795)	5,000	(4,695)
ENERGY COSTS	18,043	11,000	7,043	112,781	137,000	(24,219)	275,000	(162,219)
CONSUMABLE SUPPLIES EXP	210	-	210	561	100	461	350	211
CHEMICALS, LUBRICANTS & FUELS	174	-	174	878	1,000	(122)	3,000	(2,122)
PERMITS AND FEES EXP	253	500	(247)	506	2,500	(1,994)	6,000	(5,494)
SERVICE METERS AND PARTS COSTS	-	600	(600)	-	3,000	(3,000)	7,000	(7,000)
RECYCLED SIGN/TOOLS EXP	-	-	-	-	750	(750)	3,000	(3,000)
MISC OPERATING EXP	-	-	-	-	200	(200)	500	(500)
POTABLE WATER EXP	-	-	-	-	112,500	(112,500)	150,000	(150,000)
BAD DEBT	-	-	-	-	-	-	1,600	(1,600)
CONTINGENCIES	-	1,600	(1,600)	-	8,000	(8,000)	20,000	(20,000)
TOTAL OPERATING EXPENSES	28,226	40,395	(12,169)	218,996	404,165	(185,169)	817,250	(598,254)

**TEMESCAL VALLEY WATER DISTRICT
REVENUE AND EXPENDITURES/BUDGET
For Five Months ending November 30, 2017**

REVISED

	NOVEMBER			YEAR TO DATE			BUDGET	BUDGET
	ACTUAL	BUDGET	VARIANCE	ACTUAL	BUDGET	VARIANCE	2017-2018	REMAINING
ADMINISTRATIVE EXPENSES:								
CONTRACT MANAGEMENT	4,840	5,300	(460)	23,646	25,400	(1,754)	62,500	(38,854)
GENERAL ENGINEERING/ PLAN CHECK EXP	525	1,250	(725)	6,528	6,250	278	15,000	(8,472)
INSPECTION EXP	-	-	-	-	1,250	(1,250)	5,000	(5,000)
EMPLOYEE BENEFITS-INS	858	925	(67)	4,637	4,625	12	11,000	(6,363)
EMPLOYEE BENEFITS-RETIREMENT	1,008	1,100	(92)	5,443	5,500	(57)	14,000	(8,557)
WAGES EXPENSE	6,752	7,000	(248)	32,431	33,500	(1,069)	94,000	(61,569)
VACATION EXP	200	225	(25)	1,323	1,625	(302)	6,300	(4,977)
MILEAGE EXP	-	20	(20)	-	100	(100)	200	(200)
OVERTIME EXP	-	50	(50)	-	250	(250)	500	(500)
PAYROLL TAX EXPENSE	106	150	(44)	598	750	(152)	2,000	(1,402)
CONTRACT STAFFING EXP	-	-	-	-	-	-	2,000	(2,000)
LEGAL EXPENSE	219	625	-	900	3,125	(2,225)	7,500	(6,600)
AUDIT EXP	-	-	-	-	4,000	(4,000)	4,000	(4,000)
BOARD FEES EXP	253	375	(122)	1,090	1,875	(785)	4,500	(3,410)
ELECTION EXP	-	580	(580)	-	2,900	(2,900)	7,000	(7,000)
COMPUTER SYSTEMS EXP	910	830	80	2,815	4,150	(1,335)	10,000	(7,185)
BANK CHARGES	783	545	238	4,097	2,725	1,372	6,500	(2,403)
TELEPHONE EXP	376	650	(274)	2,552	3,250	(698)	7,600	(5,048)
OFFICE SUPPLIES	539	375	164	2,789	1,875	914	4,500	(1,711)
PRINTING EXP	595	600	(5)	595	1,000	(405)	3,000	(2,405)
POSTAGE EXP	552	700	(148)	2,906	3,500	(594)	8,500	(5,594)
PUBLICATION EXP	-	250	(250)	376	1,250	(874)	3,000	(2,624)
EQUIPMENT LEASE EXP	555	250	305	1,067	1,250	(183)	3,000	(1,933)
INSURANCE EXPENSE	1,116	1,250	(134)	6,249	6,250	(1)	15,000	(8,751)
ANNUAL ASSESSMENT EXP	-	-	-	-	2,500	(2,500)	2,500	(2,500)
INVESTMENT EXPENSE	250	250	-	1,250	1,250	-	3,000	(1,750)
COMMUNITY OUTREACH EXP	-	400	(400)	-	2,000	(2,000)	4,800	(4,800)
MISC & EDUCATION EXP	-	100	(100)	322	500	(178)	1,000	(678)
JPA EXPENSE(GSA FOR BEDFORD/COLDWATER)	-	-	-	-	-	-	-	-
TOTAL ADMINISTRATIVE EXPENSES	20,437	23,800	(2,957)	101,614	122,650	(21,036)	307,900	(206,286)
TOTAL NON-POTABLE OPERATING EXPENSES	48,663	64,195	(15,532)	320,610	526,815	(206,205)	1,125,150	(804,540)
NET OPERATING REVENUE/EXPENSE	105,074	20,705	84,369	613,520	377,685	235,835	726,850	(113,330)
NON-OPERATING SOURCE OF FUNDS:								
INTEREST INCOME	434	450	(16)	1,065	2,250	(1,185)	5,300	(4,235)
TOTAL NON-OP SOURCE OF FUNDS	434	450	(16)	1,065	2,250	(1,185)	5,300	(4,235)
TOTAL REVENUE/EXPENSE	105,508	21,155	84,353	614,585	379,935	234,650	732,150	(117,565)
TRANSFER TO CAPITAL FUND-REPLACEMENT				134,897				
TRANSFER TO CAPITAL FUND-IMPROVEMENT				479,688				
CONNECTION FEES				-				
				-				
NON-POTABLE FUND BALANCE:								
ENDING FUNDS AVAILABLE 2015-2016	2,094,839							
TRANSFER FOR CAPITAL FUND REPLACEMENT	134,897							
TRANSFER FOR CAPITAL IMPROVEMENTS	479,688							
CAPITAL IMPROVEMENT (SEE ATTACHED DETAIL)	(206,874)							
TOTAL FUNDS AVAILABLE	2,502,550							

Temescal Valley Water District
Capital Projects
Yearly Miscellaneous and Multi - Year

FY 2017/2018 Maintenance/ General Projects	Total Cost	Source of Funding			AS OF NOVEMBER 30, 2017 EXPENDITURES				Total YTD	Variance
		Sewer Fund	Water Fund	Recycled Fund	Previous YRS	Current				
						Sewer Fund	Water Fund	Recycled Fund		
Computer and Software Upgrades	\$ 25,000	\$ 10,000	\$ 8,750	\$ 6,250	\$ -	\$ 4,086	\$ -	\$ -	\$ 4,086	\$ 20,914
General Building Improvements	\$ 40,000	\$ 16,000	\$ 14,000	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000
Convert to Recycled	\$ 135,000	\$ -	\$ 75,000	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 135,000
Replace VFD	\$ 40,000	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000
Sewer Management Plan Update	\$ 45,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,000
New Generator design	\$ 54,150	\$ 54,150	\$ -	\$ -	\$ 40,595	\$ 12,741	\$ -	\$ -	\$ 12,741	\$ 814
Park Canyon RW Design and Easements	\$ 90,000	\$ -	\$ -	\$ 90,000	\$ 17,074	\$ -	\$ -	\$ -	\$ -	\$ 72,926
Air Actuator valves	\$ 42,000	\$ 42,000	\$ -	\$ -	\$ -	\$ 208	\$ -	\$ -	\$ -	\$ 42,000
Subtotal Maintenance and General	\$ 471,150	\$ 162,150	\$ 97,750	\$ 166,250	\$ 57,669	\$ 17,035	\$ -	\$ -	\$ 16,827	\$ 396,654
Multiple Fiscal Year Projects										
Recycled and Non-potable Pipeline extentions	\$ 722,000	\$ -	\$ -	\$ 700,000	\$ -	\$ -	\$ -	\$ 21,167	\$ 21,167	\$ 700,833
Upgrade STP PLCs	\$ 250,000	\$ 100,000	\$ 87,500	\$ 62,500	\$ 211,952	\$ -	\$ -	\$ -	\$ -	\$ 38,048
WRF 225,000 GPD Upgrade (Generator)	\$ 1,230,000	\$ 123,000	\$ -	\$ -	\$ -	\$ 1,330	\$ -	\$ -	\$ -	\$ 1,230,000
GIS Mapping - Water Sewer RW pipelines and facilities	\$ 171,700	\$ 66,000	\$ 66,000	\$ 39,700	\$ 48,522	\$ 2,826	\$ 2,826	\$ -	\$ 5,652	\$ 117,526
Well Rehab	\$ 125,000	\$ -	\$ 50,000	\$ 75,000	\$ -	\$ -	\$ -	\$ 61,723	\$ -	\$ 125,000
SCADA Standardization	\$ 35,000	\$ 15,000	\$ 15,000	\$ 5,000	\$ 28,371	\$ 1,589	\$ -	\$ -	\$ 1,589	\$ 5,040
SCADA Tower	\$ 60,000	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000
Groundwater Study and Development (inc GSA)	\$ 428,000	\$ -	\$ 60,000	\$ 368,000	\$ -	\$ -	\$ 20,183	\$ 123,984	\$ 144,167	\$ 283,833
Alternate Tertiary Percolation Area	\$ 320,000	\$ 300,000		\$ 20,000	\$ -	\$ 1,730	\$ -	\$ -	\$ -	\$ 320,000
Dawson Canyon Potable Reservoir Design	\$ 160,000	\$ -	\$ 160,000	\$ -	\$ 17,177	\$ -	\$ 44,080	\$ -	\$ 44,080	\$ 98,743
Urban Water Management Plan	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ 3,368	\$ -	\$ 29,788	\$ -	\$ 29,788	\$ 66,844
Subtotal Multiple Year	\$ 3,601,700	\$ 634,000	\$ 568,500	\$ 1,270,200	\$ 309,390	\$ 7,475	\$ 96,877	\$ 206,874	\$ 246,443	\$ 3,045,867
TOTAL	\$ 4,072,850	\$ 796,150	\$ 666,250	\$ 1,436,450	\$ 367,059	\$ 24,510	\$ 96,877	\$ 206,874	\$ 328,261	\$ 3,442,521

TEMESCAL VALLEY WATER DISTRICT

General Ledger

For the Period From Jul 1, 2017 to Nov 30, 2017

Filter Criteria includes: 1) IDs from 567500.000100.1 to 567500.5. Report order is by ID. Report is printed in Detail Format.

Account ID Account Description	Date	Reference	Jrn	Trans Description	Debit Amt	Credit Amt	Balance
567500.3	7/1/17			Beginning Balance			
EQUIPMENT REPAIRS & MAIN	7/3/17	23411	PJ	RICHARDSON TECHNOLOGIES INC. - SYNC	329.00		
				CRK LIFT STAT REPLACE COIL			
	7/13/17	105142	PJ	BARRETT ENGINEERED PUMPS - SEAL	782.99		
				KIT FOR GRUNDFOS PUMP #96525458			
	7/20/17	2015	PJ	ENGINEERED AIR SERVICES, INC. -	380.31		
				MAINT OIL /FILTER			
	7/20/17	2017-045	PJ	DON PETERSON CONTRACTING, INC. -	1,250.00		
				REPAIR LEAK SBR #3 CHECK VALVE BY			
				REMOVING INTERNAL COMPONETS			
	7/22/17	19885	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS	70.00		
				& MAINT.			
	7/24/17	23448	PJ	RICHARDSON TECHNOLOGIES INC. -	289.00		
				DRAINS PLUGED			
				Current Period Change	3,101.30		
	8/1/17			Beginning Balance			3,101.30
	8/3/17	19917	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS	30.00		
				& MAINT.			
	8/14/17	6756	PJ	Maxim Security Services - SWITCH	1,602.00		
				EXISTING ALARM/FIRE PANELS FROM			
				EXISTING MONITOR COMPANY TO MAXIM			
	8/16/17	19962	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS	30.00		
				& MAINT.			
	8/31/17	20034	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS	40.00		
				& MAINT.			
	8/31/17	08222017	PJ	US BANK GOVERNMENT SERVICES	761.26		
	8/31/17	15880	PJ	RS INSTRUMENTS & SERVICES - YRLY	953.50		
				CALIBRATION			
	8/31/17	2017-034	PJ	DON PETERSON CONTRACTING, INC. -	4,965.00		
				FABRICATE AND INSTALL SS CHUTE AT			
				HEADWORKS			
	8/31/17	12015	PJ	FAIN DRILLING & PUMPING CO. IN -	2,785.98		
				LABOR TO PULL WELL 4A REMOVE			
				SHROUD AND INSTALL SPARE UNIT			
	8/31/17	15614913	PJ	TOP NOTCH PLUMBING	195.00		
				Current Period Change	11,362.74		
	9/1/17			Beginning Balance			14,464.04
	9/7/17	120018	PJ	AUTOMATED GATE SERVICES INC -	169.00		
				quarterky preventative maintenance service			
	9/14/17	20076	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS	30.00		
				& MAINT.			
	9/14/17	si07016	PJ	BRITHINEE ELECTRIC - REPLACE LEVEL	5,505.29		
				CONTROLLER AT LEROY SEWER LIFT			
				STATION			
	9/14/17	336300	PJ	USA BLUEBOOK - 2 1/2 X 2 1/2 NST X NPT	266.90		
				FITTING PK OF 6 PUMP TUBES			
	9/28/17	4888	PJ	BRITHINEE ELECTRIC - REPAIR #3 PUMP	3,081.10		
				MOTOR AT SUMP BOOSTER			
	9/28/17	30418	PJ	RICHARDSON TECHNOLOGIES INC. -	399.00		
				SCHEDULED MAINTENANCE			
	9/29/17	10338	PJ	TRAN CONTROLS SCADA SOLUTIONS, -	805.14		
				REPLACE NETSYS MEDIA			
				CONVERTER/SPARES			
	9/29/17	2017-048	PJ	DON PETERSON CONTRACTING, INC. -	1,250.00		
				TIME AND MATERIAL TO REPLACE STUB			
				SHAFT AND PLATE TO COMPACTOR			
				BRUSH AT HEAD WORKS IN PLANT			
	9/29/17	2593	PJ	BT PIPELINE INC. - REPAIRED FIRE	352.50		
				HYDRANT STOLEN 1968 STELLAR CT			
	9/29/17	12075	PJ	FAIN DRILLING & PUMPING CO. IN	582.94		
	9/29/17	SI07101	PJ	BRITHINEE ELECTRIC	4,359.01		
	9/30/17	6979	PJ	VALLEY CITIES/GONZALES FENCE -	450.00		
				material and labor per proposal			
				Current Period Change	17,250.88		17,250.88

TEMESCAL VALLEY WATER DISTRICT
General Ledger
For the Period From Jul 1, 2017 to Nov 30, 2017

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Account ID Account Description	Date	Reference	Jrn	Trans Description	Debit Amt	Credit Amt	Balance
	10/1/17			Beginning Balance			31,714.92
	10/1/17	70290	PJ	PUMP MAN - REMOVE PUMP #2 FROM LEROY LIFT STATION FOR REPAIR	3,184.00		
	10/1/17	20329	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	40.00		
	10/10/1	10917	PJ	Cal's Crane	660.00		
	10/11/1	20172	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	30.00		
	10/13/1	2273	PJ	ENGINEERED AIR SERVICES, INC. - AIR FILTER, PAPER MEDIA, MOLDED ENDS	374.62		
	10/16/1	30449	PJ	RICHARDSON TECHNOLOGIES INC. - SCHEDULED REPAIR QUOTE	343.00		
	10/17/1	7087	PJ	Maxim Security Services	2,749.41		
	10/17/1	H927577	PJ	CORE & MAIN	275.97		
	10/26/1	20249	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	40.00		
	10/26/1	15766865	PJ	TOP NOTCH PLUMBING - REPLACED FAILED GARBAGE DISPOSAL IN OPERATIONS BUILDING KITCHEN WORK COMPLETED ON 10/26/17	1,065.22		
	10/26/1	270-1	PJ	GJR ELECTRIC - PROVIDE AND INSTALL 100 AMP CIRCUIT BREAKER FOR WELL WATER PUMP AT TERRAMOR SEWER LIFT STATION	2,316.82		
	10/26/1	11167	PJ	PUMP MAN - REPAIR AERATOR FROM DIGESTER #2	12,312.00		
	10/26/1	11187	PJ	PUMP MAN - REPAIR AERATOR FROM DIGESTER #2	9,214.00		
	10/31/1	10/23/2017	PJ	US BANK GOVERNMENT SERVICES	168.46		
	10/31/1	10343	PJ	TRAN CONTROLS SCADA SOLUTIONS, - INVENSYS FOXBORO PRESSURE TRANSMITTER	1,588.68		
	10/31/1	SI07306	PJ	BRITHINEE ELECTRIC - TROUBLE SHOOT BARSCREEN SYSTEM SHUT OFF AND STAGED OFF FOR NO APPCORAT REASON	758.33		
				Current Period Change	35,120.51		35,120.51
	11/1/17			Beginning Balance			66,835.43
	11/9/17	20270	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	40.00		
	11/30/1	9630292325	PJ	GRAINGER INC.	438.23		
	11/30/1			Current Period Change	478.23		478.23
	11/30/1			Ending Balance			67,313.66
567500.4 EQUIPMENT REPAIRS & MAIN	7/1/17			Beginning Balance			
	7/22/17	19885	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	70.00		
	7/24/17	23448	PJ	RICHARDSON TECHNOLOGIES INC. - SYNC CRKRPLC MOTOR	1,320.00		
	7/26/17	281242/1	PJ	MCFADDEN-DALE HARDWARE CO. - MISC PARTS FOR REPAIR OF FORKLIFT BRAKES AND PUMP AT CHEM BUILDING AT RETREAT	433.87		
	7/31/17	10335	PJ	TRAN CONTROLS SCADA SOLUTIONS, - TO INSTALL CONTROL PANEL FOR SCADA, PROGRAMMING, HMI, FEILD TESTING, AUTO CAD DRAWINGS, SITE TEST, TELEMETRY TESTING, & PANEL VIEW INSTALATION	3,176.88		
				Current Period Change	5,000.75		5,000.75
	8/1/17			Beginning Balance			5,000.75
	8/3/17	19917	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	30.00		
	8/14/17	E-17-2372-0	PJ	GMC ELECTRICAL INC - CATHODIC	1,625.00		

TEMESCAL VALLEY WATER DISTRICT
General Ledger
For the Period From Jul 1, 2017 to Nov 30, 2017

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Account ID Account Description	Date	Reference	Jrn	Trans Description	Debit Amt	Credit Amt	Balance
				PROTECTION SYSTEM CHECKOUT SURVEY FOR FIVE TANKS			
	8/16/17	19962	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	30.00		
	8/31/17	20034	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	40.00		
	8/31/17	08222017	PJ	US BANK GOVERNMENT SERVICES	666.10		
	8/31/17	H774645	PJ	CORE & MAIN	899.77		
	8/31/17	725291	PJ	GRISWOLD INDUSTRIES (CAL-VAL)	2,610.80		
				Current Period Change	5,901.67		5,901.67
	9/1/17			Beginning Balance			10,902.42
	9/14/17	20076	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	30.00		
	9/14/17	wl005085	PJ	BRITHINEE ELECTRIC - REPAIR MOTOR ON #2 PUMP AT SYC CRK	2,240.62		
	9/19/17	CR39220	PJ	WATER UTILITY PRODUCTS		196.68	
	9/29/17	10339	PJ	TRAN CONTROLS SCADA SOLUTIONS, - FREEWAVE FGR-CE-U RADIO SERIAL	10,494.87		
	9/30/17	093017	PJ	US BANK GOVERNMENT SERVICES - OIL CHG	30.42		
				Current Period Change	12,795.91	196.68	12,599.23
	10/1/17			Beginning Balance			23,501.65
	10/1/17	20329	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	40.00		
	10/11/1	20172	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	30.00		
	10/26/1	20249	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	40.00		
	10/30/1	10344-1	PJ	TRAN CONTROLS SCADA SOLUTIONS, - FREEWAVE FGR-CE-U RADIO SERIAL	13,582.06		
	10/31/1	10/23/2017	PJ	US BANK GOVERNMENT SERVICES	168.46		
				Current Period Change	13,860.52		13,860.52
	11/1/17			Beginning Balance			37,362.17
	11/9/17	20270	CD	EDUARDO LOPEZ - EQUIPMENT REPAIRS & MAINT.	40.00		
				Current Period Change	40.00		40.00
	11/30/1			Ending Balance			37,402.17
567500.5	7/1/17			Beginning Balance			
EQUIPMENT REPAIRS & MAIN	7/20/17	39370	PJ	UNIVERSAL ASPHALT CO., INC. - REMOVE AND REPLACE DAMAGED ASPHALT AT TCR AND BROWN CYN	8,478.00		
	7/31/17	2537	PJ	BT PIPELINE INC. - TIME AND MATERIAL REPAIR LEAK NON POT TCR AND LEROY	6,725.00		
	7/31/17	106907	PJ	BRITHINEE ELECTRIC - TROUBLE SHOOT REPAIR ON #4 PUMP SYC RW BOOSTER PUMP	242.00		
				Current Period Change	15,445.00		15,445.00
	8/1/17			Beginning Balance			15,445.00
	8/14/17	10591	PJ	BARRETT ENGINEERED PUMPS - SPARE REPLACEMENT MOTOR FOR SYC CRK RECLAIM BOOSTER PUMP SSTATION	3,635.53		
	8/31/17	08222017	PJ	US BANK GOVERNMENT SERVICES	475.80		
	8/31/17	2017-046	PJ	DON PETERSON CONTRACTING, INC. - REMOVE/REPLACE 8" PIPELINE	20,322.00		
	8/31/17	2017-054	PJ	DON PETERSON CONTRACTING, INC. - INSTALL NEW SEAL ON GRUNFOS VERTICAL PUYMP	8,515.00		
				Current Period Change	32,948.33		32,948.33
	9/1/17			Beginning Balance			48,393.33
	10/1/17			Beginning Balance			48,393.33
	11/1/17			Beginning Balance			48,393.33
	11/6/17	2655	PJ	BT PIPELINE INC. - WORK PERFORMED ON 11/3/17 WELD NEW 2" SADDLE	2,240.00		

TEMESCAL VALLEY WATER DISTRICT

General Ledger

For the Period From Jul 1, 2017 to Nov 30, 2017

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Account ID Account Description	Date	Reference	Jrn	Trans Description	Debit Amt	Credit Amt	Balance
				INSTALL NEW CORP STOP VALVE, REINSTALL AIR- VAC ON RECLAIM WATER LINE ON DAWSON CYN RD			
	11/30/1			Current Period Change	2,240.00		2,240.00
				Ending Balance			50,633.33

TEMESCAL VALLEY WATER DISTRICT
Community Facilities District No. 2
Financing Authority
(Montecito Ranch)
11/30/2017

Special Tax Fund (Acct #105636-014)
Account Balance at Wilmington Trust

\$ -

BONDS PR ACCT (Acct # 105636-015)
Account Balance at Wilmington Trust

-

Administrative Expense Fund(Acct #105636-016)
Account Balance at Wilmington Trust

1.33

Surplus Fund (Acct #105636-017)
Account Balance at Wilmington Trust

458,872.33

TOTAL \$ 458,873.66

TEMESCAL VALLEY WATER DISTRICT
Community Facilities District No. 3
Financing Authority
(The Retreat)
11/30/2017

<u>Special Tax Fund (Acct #105636-019)</u> Account Balance at Wilmington Trust	\$ 0.01
<hr/>	
<u>BONDS PR ACCT (Acct # 105636-020)</u> Account Balance at Wilmington Trust	-
<hr/>	
<u>Administrative Expense Fund(Acct #105636-021)</u> Account Balance at Wilmington Trust	1.42
<hr/>	
<u>Surplus Fund (Acct #105636-022)</u> Account Balance at Wilmington Trust	1,069,446.97
<hr/>	
TOTAL	\$ 1,069,448.40

TEMESCAL VALLEY WATER DISTRICT
Community Facilities District
Financing Authority

11/30/2017

Senior Lien Bonds - Revenue Fund (Acct #105636-000)	\$	-
- Lien Interest A/C (Acct #105636-001)		6,969.12
- Lien Principal A/C (Acct #105636-002)		-
- Financing Authority Surplus A/C (Acct #105636-003)		-
- Reserve Fund CFD #1 (Acct #105636-004)		2,266,126.74
- Reserve Fund CFD #2 (Acct #105636-005)		276,137.85
- Reserve Fund CFD #3 (Acct #105636-006)		1,495,919.49
Junior Lien Bonds - Revenue Fund (Acct #105639-000)	\$	0.01
- Lien Interest A/C (Acct #105639-001)		64,148.86
- Lien Principal A/C (Acct #105639-002)		-
- Financing Authority Surplus A/C (Acct #105639-003)		-
- Reserve Fund CFD #1 (Acct #105639-004)		619,209.09
- Reserve Fund CFD #2 (Acct #105639-005)		100,200.57
- Reserve Fund CFD #3 (Acct #105639-006)		541,002.43
TOTAL	\$	5,369,714.16



**JOHN CHIANG
TREASURER
STATE OF CALIFORNIA**



PMIA Performance Report

Date	Daily Yield*	Quarter to Date Yield	Average Maturity (in days)
11/07/17	1.16	1.15	196
11/08/17	1.16	1.15	197
11/09/17	1.17	1.15	198
11/10/17	1.17	1.15	197
11/11/17	1.17	1.15	197
11/12/17	1.17	1.15	197
11/13/17	1.17	1.15	194
11/14/17	1.17	1.15	193
11/15/17	1.17	1.15	196
11/16/17	1.17	1.15	196
11/17/17	1.17	1.15	192
11/18/17	1.17	1.15	192
11/19/17	1.17	1.15	192
11/20/17	1.18	1.15	190
11/21/17	1.18	1.15	188
11/22/17	1.18	1.15	184
11/23/17	1.18	1.15	184
11/24/17	1.18	1.15	184
11/25/17	1.18	1.15	184
11/26/17	1.18	1.16	184
11/27/17	1.18	1.16	180
11/28/17	1.18	1.16	183
11/29/17	1.18	1.16	182
11/30/17	1.19	1.16	180
12/01/17	1.19	1.16	190
12/02/17	1.19	1.16	190
12/03/17	1.19	1.16	190
12/04/17	1.19	1.16	192
12/05/17	1.20	1.16	190
12/06/17	1.20	1.16	189
12/07/17	1.21	1.16	188

*Daily yield does not reflect capital gains or losses

[View Prior Month Daily Rates](#)

LAIF Performance Report

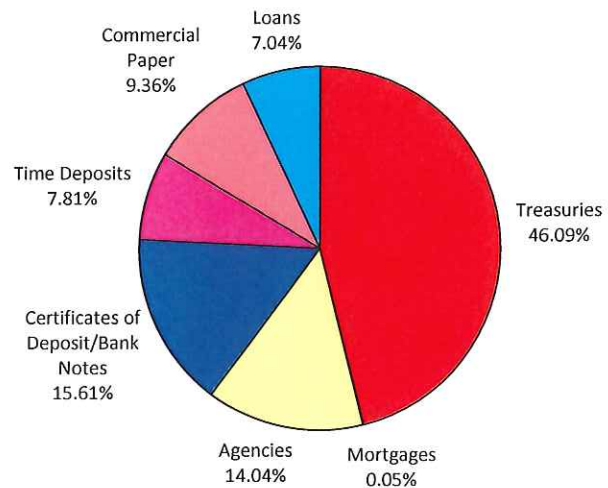
Quarter Ending 09/30/17

Apportionment Rate: 1.07%
 Earnings Ratio: .00002942867511750
 Fair Value Factor: .999042071
 Daily: 1.11%
 Quarter to Date: 1.08%
 Average Life: 190

**PMIA Average Monthly
Effective Yields**

Nov 2017 1.172
 Oct 2017 1.143
 Sept 2017 1.111

**Pooled Money Investment Account
Portfolio Composition
10/31/17
\$72.4 billion**



Active Lien Board Update

Balance as of 11/28/17: \$11,962.91

Payments received: \$204.64

New liens recorded: \$444.92

ACTIVE

Active liens value \$1,479.65

Number of active liens 7

WRITTEN OFF

Written off liens value \$10,723.54

Number of written off liens 53

Released liens 6/13/07 - 12/19/17: \$172,484.11

TEMESCAL VALLEY WATER DISTRICT

ANNUAL FINANCIAL REPORT

For the Fiscal Years Ended
June 30, 2017 and 2016

Draft

Temescal Valley Water District
Table of Contents
June 30, 2017 and 2016

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INDEPENDENT AUDITOR'S REPORT

Board of Directors
Temescal Valley Water District
Corona, California

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the aggregate remaining fund information of the Temescal Valley Water District (the "District"), as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate remaining fund information of the Temescal Valley Water District, as of June 30, 2017 and 2016, and the changes in financial position, and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the District's basic financial statements. The schedule listed in the Supplementary Information section of the table of contents, is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The schedule listed in the Supplementary Information section of the table of contents is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule listed in the Supplementary Information section of the table of contents is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued a report dated _____, 2017 on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

_____, 2017

Draft

BASIC FINANCIAL STATEMENTS

Draft

Temescal Valley Water District
Statement of Net Position
June 30, 2017 and 2016

	2017	2016
ASSETS		
Current Assets:		
Cash and Cash Equivalents	\$ 21,053,624	\$ 17,428,054
Accounts Receivable:		
Utility	1,080,038	870,741
Other	225,607	273,253
Accrued Interest Receivable	10,054	12,917
Prepaid Expenses	25,597	-
Inventory	61,148	79,778
Total Current Assets	22,456,068	18,664,743
Noncurrent Assets:		
Restricted Cash and Cash Equivalents	797,166	4,896,607
Capital Assets Not Being Depreciated:		
Land	902,118	902,118
Water Capacity Rights	13,503,639	13,503,639
Construction in Progress	2,636,807	2,454,558
Capital Assets, Net of Accumulated Depreciation	44,212,818	45,727,418
Total Noncurrent Assets	62,052,548	67,484,340
Total Assets	84,508,616	86,149,083
DEFERRED OUTFLOWS OF RESOURCES		
Deferred Pension Related Items	240,340	158,570
LIABILITIES		
Current Liabilities:		
Accounts Payable	277,706	93,930
Payable to Other Governmental Agencies	299,814	267,636
Due to Agency Fund	137,342	3,954,091
Accrued Salaries and Refunds	51,812	54,289
Related Party Payable	66,519	26,587
Excess Sewer Capacity Deposits	98,330	98,330
Other Deposits	584,798	844,186
Total Current Liabilities	1,516,321	5,339,049
Noncurrent Liabilities:		
Net Pension Liability	50,718	10,501
Loan Payable	2,027,322	2,245,321
Total Noncurrent Liabilities	2,078,040	2,255,822
Total Liabilities	3,594,361	7,594,871
DEFERRED INFLOWS OF RESOURCES		
Deferred Pension Related Items	23,566	46,602
NET POSITION		
Net Investment in Capital Assets	59,228,060	60,486,754
Unrestricted	21,902,969	18,179,426
Total Net Position	\$ 81,131,029	\$ 78,666,180

The accompanying notes are an integral part of this statement.

Temescal Valley Water District
Statement of Revenues, Expenses and Changes in Net Position
For the Years Ended June 30, 2017 and 2016

	2017	2016
OPERATING REVENUES		
Standby Charges	\$ 131,441	\$ 186,926
Sewer Service Fees	2,544,072	2,469,186
Water Service Fees	6,740,410	5,387,057
Connection Fees	743,114	28,038
Service Meter Income	38,700	27,400
Other	566,575	796,715
	<u>10,764,312</u>	<u>8,895,322</u>
OPERATING EXPENSES		
Annual Assessment Processing	11,432	11,542
Bank Charges	33,203	21,198
Computer System	54,897	39,696
Community Outreach	8,182	11,981
Contract Work - Management and Administrative	252,393	226,485
Contract Work - Operations and Engineering	213,807	130,302
Depreciation and Amortization	1,736,388	1,819,131
Director Fees	11,193	12,543
Insurance	65,063	66,092
Legal and Accounting	86,729	26,758
Map Updating	14,535	
Miscellaneous	3,892	18,611
Office Equipment Rental	21,505	13,860
Office Supplies and Expenses	72,246	84,299
Operating Study	20,240	12,293
Permits	56,665	33,547
Plan Check/Inspection Fees and Studies	94,842	47,848
Pumping and Testing	65,211	92,670
Repairs, Maintenance, and Supplies	1,048,017	716,898
Telephone and Utilities	553,410	518,223
Wages, Employee Benefits, and Payroll Taxes	782,852	762,684
Water - Purchased	3,339,109	2,588,104
	<u>8,545,811</u>	<u>7,254,765</u>
Operating Income (Loss)	<u>2,218,501</u>	<u>1,640,557</u>
NON-OPERATING REVENUES (EXPENSES)		
Property Taxes	147,240	141,315
Interest Income	42,865	65,635
Other	56,243	67,202
	<u>246,348</u>	<u>274,152</u>
Change in Net Position	<u>2,464,849</u>	<u>1,914,709</u>
Net Position - Beginning of Year	<u>78,666,180</u>	<u>76,751,471</u>
Net Position - End of Year	<u>\$ 81,131,029</u>	<u>\$ 78,666,180</u>

The accompanying notes are an integral part of this statement.

Temescal Valley Water District
Statement of Cash Flows
For the Years Ended June 30, 2017 and 2016

	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES		
Receipts from Customers	\$ 10,602,661	\$ 8,819,843
Payments to Employees	(849,918)	(837,529)
Payments to Suppliers	(5,777,652)	(4,625,220)
Other Revenue	56,243	67,202
	<u>4,031,334</u>	<u>3,424,296</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Property Taxes	147,240	141,315
	<u>147,240</u>	<u>141,315</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Principal Payments on Loans	(217,999)	(233,194)
Purchases of Capital Assets	(380,733)	(5,553,198)
	<u>(598,732)</u>	<u>(5,786,392)</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest on Cash and Cash Equivalents	45,728	62,812
	<u>45,728</u>	<u>62,812</u>
Net (Decrease) Increase in Cash and Cash Equivalents	3,625,570	(2,157,969)
Cash and Cash Equivalents - Beginning of Year	17,428,054	19,586,023
Cash and Cash Equivalents - End of Year	<u>\$ 21,053,624</u>	<u>\$ 17,428,054</u>

The accompanying notes are an integral part of this statement.

Temescal Valley Water District
Statement of Cash Flows - Continued
For the Years Ended June 30, 2017 and 2016

	2017	2016
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED BY OPERATING ACTIVITIES		
Operating Income (Loss)	\$ 2,218,501	\$ 1,640,557
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided by Operating Activities:		
Depreciation and Amortization	1,736,388	1,819,131
Other Revenue	56,243	67,202
Change in Assets and Liabilities:		
(Increase) Decrease in Accounts Receivable:		
Utility	(209,297)	(31,556)
Other	47,646	(43,923)
(Increase) Decrease in Prepays	(25,597)	5,085
(Increase) Decrease in Inventory	18,630	80,743
(Increase) Decrease in Deferred Outflows Related to Pensions	(81,770)	(44,823)
Increase (Decrease) in Accounts Payable	183,776	(70,554)
Increase (Decrease) in Payable to Other Governmental Agencies	32,178	23,439
Increase (Decrease) in Accrued Salaries and Refunds	(2,477)	(2,966)
Increase (Decrease) in Net Pension Liability	40,217	(19,598)
Increase (Decrease) in Deferred Inflows Related to Pensions	(23,036)	(7,458)
Increase (Decrease) in Related Party Payable	39,932	9,017
	\$ 4,031,334	\$ 3,424,296

The accompanying notes are an integral part of this statement.

Temescal Valley Water District
Statements of Fiduciary Assets and Liabilities
Agency Fund
June 30, 2017 and 2016

	2017	2016
ASSETS		
Cash and Investments with Fiscal Agent	\$ 12,099,077	\$ 10,065,186
Due from Water District	137,342	3,954,091
Total Assets	\$ 12,236,419	\$ 14,019,277
LIABILITIES		
Due to Bondholders	\$ 12,236,419	\$ 14,019,277
Total Liabilities	\$ 12,236,419	\$ 14,019,277

Draft

The accompanying notes are an integral part of this statement.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

1) REPORTING ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

The reporting entity includes the accounts of the Temescal Valley Water District (District) and the related improvement districts located within the service area of the District. The District is a special district created for the purpose of providing water, water treatment, and sewage disposal services to customers within its service area. The District has a contract to purchase a majority of their water from the Western Municipal Water District. As of July 1, 2015, the District, formerly named the Lee Lake Water District, officially changed the name to Temescal Valley Water District.

In a previous fiscal year, the District's Board of Directors ratified the formation of the Lee Lake Water District Financing Corporation to facilitate the issuance of certificates of participation. The certificates may be issued to assist in the financing of costs of design and engineering of certain sewer system and water system improvements. Although the Financing Corporation qualifies as a component unit for inclusion within these financial statements, the certificates have not been issued and there has been no other activity to record in these financial statements to date.

On April 23, 2013, the District and CFD No. 1 created the Lee Lake Public Financing Authority (Authority), through a joint exercise of powers agreement under Chapter 5 of Division 7 of Title 1 of the California Government Code (the "Act"). Article 4 of the Act authorizes and empowers the Authority to issue bonds and to purchase bonds issued by, or to make loans to, the District or CFD No. 1 for financing public capital improvements or projects as determined by the District or CFD No. 1. The Authority's Board consists of the five members of the District's Board of Directors. The General Manager of the District is designated as the Executive Director of the Authority. On July 18, 2013, the Authority issued Series A and B Revenue Bonds (Bonds) to refund outstanding special tax bonds previously issued by CFD No. 1, 2 and 3, as described in Note 8 of these financial statements. The Bonds do not represent obligations of the District, and the related balances and activity are reported in an agency fund in these financial statements.

Basis of Accounting and Measurement Focus

As a governmental agency, the District is subject to accounting and reporting standards established by the Governmental Accounting Standards Board (GASB). As the majority of revenues consist of water sales and related services, the District as a whole, for financial statements purposes, is classified as a proprietary fund. Separate financial statements are provided for the proprietary fund and the agency fund. The District uses the accrual basis of accounting. The financial activities of the District are accounted for using the economic resources measurement focus. Under this method, all assets and liabilities associated with its operations are included on the statement of net position; revenues are recorded when earned and become measurable; and expenses are recorded when liabilities are incurred.

The District reports its water and sewer operations as a single enterprise fund. Additionally, the District reports an agency fund to account for money received by the District as an agent for individuals, other

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

1) REPORTING ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Continued

governments and other entities. Specifically, the District accounts for activities of the Public Financing Authority in the agency fund. The agency fund is reported using the accrual basis of accounting.

Cash and Cash Equivalents

For purposes of the statement of cash flows, the District considers all short-term debt securities purchased with an original maturity of three months or less to be cash equivalents. The District invests funds with the State of California Pooled Local Agency Investment Fund (LAIF). Due to the high liquidity of this investment, the funds are classified as a cash equivalent. Fair value in external investments pools such as LAIF are determined based on the District's pro rate share of the fair value of the Pool's underlying portfolio. Some of the cash and cash equivalents have been classified as restricted in accordance with applicable standards, and are not included in the statement of cash flows.

Inventory

Inventory consists of supplies and excess Equivalent Dwelling Units (EDUs) and is recorded at the lower of cost (first-in, first-out) or market.

Capital Assets

The District records the acquisition of capital assets and additions, improvements, and other capital outlays that significantly extend the life of an asset. Capital assets are defined by the District as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of one year. The reported value excludes normal maintenance and repairs which are essentially amounts spent in relation to capital assets that do not increase the capacity or efficiency of the item or extend its useful life beyond the original estimate.

Donated capital assets received prior to the implementation of GASB 72 were recorded at fair value on the date of donation. Donated capital assets received subsequent to the implementation of GASB 72 are recorded at acquisition value as of the date received. Capital assets purchased by the District are carried at cost. Assets are depreciated using the straight-line method of depreciation over their estimated useful lives ranging from five to fifty years.

Revenue and Expenses

Revenues and expenses are distinguished between operating and nonoperating items. Operating revenues generally result from providing services in connection with the District's principal ongoing operations. The principal operating revenues of the District are fees in connection with providing water and sewer services to customers.

Operating expenses include the costs of providing water and sewer services, administrative expenses, and depreciation on capital assets. All revenue and expenses not meeting these definitions are reported as nonoperating revenues and expenses.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

1) REPORTING ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Continued

Property Taxes

Property taxes are assessed and collected each fiscal year according to the following property tax calendar:

Lien Date	March	
Levy Date	July 1 to June 30	
Due Date	November 1	1st Installment
	March 1	2nd Installment
Collection Date	December 10	1st Installment
	April 10	2nd Installment

The District assesses its property taxes through the County tax rolls. Property taxes are recognized as revenue in the period for which the taxes are levied.

Reclassification

Certain reclassifications have been made to prior fiscal year amounts to conform with the current fiscal year financial statement presentations.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ from those estimates.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents consumption of net position that applies to future period(s) and so will not be recognized as an outflow of resources (expense) until then. The District reports deferred outflows as a result of the District's implementation of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, which qualify for reporting in this category.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources*, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The District reports deferred inflows as a result of the District's implementation of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, which qualify for reporting in this category.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

1) REPORTING ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Continued

Net Position

The difference between assets and liabilities is reported as net position. Net position is classified as either net investment in capital assets, restricted, or unrestricted.

Net investment in capital assets, consist of capital assets, net of accumulated depreciation and reduced by the outstanding principal of related debt. Restricted net position reflects the carrying value of assets less related liabilities that have external constraints placed on them by creditors, grantors, contributors, laws, or regulations of other governments, or through constitutional provisions, or enabling legislation. Unrestricted net position represents the remaining fund equity balance.

Net Position Flow Assumption

Sometimes the District will fund outlays for a particular purpose from both restricted (e.g. restricted bond or grant proceeds) and unrestricted resources. In order to calculate the amounts to report as restricted – net position and unrestricted – net position in the statement of net position, a flow assumption must be made about the order in which the resources are considered to be applied.

It is the District's policy to consider restricted net position to have been depleted before unrestricted net position.

Pension Plan

For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the District's California Public Employees' Retirement System (CalPERS) plan (Plan) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by CalPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

2) CASH AND INVESTMENTS

Cash and investments as of June 30, 2017 and June 30, 2016 are classified in the accompanying financial statements as follows:

	2017	2016
Statement of Net Position:		
Cash and Cash Equivalents	\$ 21,053,624	\$ 17,428,054
Restricted Cash and Cash Equivalents	797,166	4,896,607
Total Cash and Investments - Statement of Net Position	\$ 21,850,790	\$ 22,324,661
Statement of Fiduciary Assets and Liabilities:		
Cash and Investments with Fiscal Agent	\$ 12,099,077	\$ 10,065,186

Cash and investments as of June 30, 2017 and June 30, 2016 consist of the following:

	2017	2016
Cash on Hand	\$ 400	\$ 400
Deposits with Financial Institutions	7,465,058	7,982,044
Investments	14,385,332	14,342,217
Total Cash and Investments	\$ 21,850,790	\$ 22,324,661
Cash and Investments with Fiscal Agent		
Money Market Funds	\$ 12,099,077	\$ 10,065,186
Total Cash and Investments with Fiscal Agent	\$ 12,099,077	\$ 10,065,186

Investments Authorized by the District's Investment Policy

The table below identifies the investment types that are authorized by the District's investment policy, which is in accordance with the California Government Code. This table does not address investments of debt proceeds held by bond trustees that are governed by the provisions of debt agreements of the District, rather than the general provision of the California Government Code or the District's investment policy:

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

2) CASH AND INVESTMENTS - Continued

Authorized Investment Type	Maximum Maturity	Maximum Allowable Investment Percentage	Maximum in one Issuer
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years	75%	None
U.S. Agency Securities	5 years	60%	\$6,000,000
Banker's Acceptances	180 days	20%	\$2,000,000
Commercial Paper	270 days	20%	10%
Negotiable Certificates of Deposits	5 years	30%	\$7,500,000
Medium-Term Notes	5 years	30%	\$1,000,000
Mutual Funds	None	20%	\$1,000,000
Money Market Mutual Funds	None	20%	\$1,000,000
County Pooled Investments	None	None	None
Local Agency Investment Fund (LAIF)	None	100%	100%
Community Facility District Assessment District	None	40%	None

Disclosures Relating to Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market rates. One of the ways that the District manages its exposure to interest rate risk is by purchasing a combination of shorter term and longer term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturing evenly over time as necessary to provide the cash flow and liquidity needed for operations.

Information about the sensitivity of the fair values of the District's investments (including investments held by bond trustees) to market interest rate fluctuations is provided by the following table that shows the distribution of the District's investments by maturity as of June 30, 2017:

		Remaining Maturity (in Months)			
		12 Months Or Less	13 to 24 Months	25 to 60 Months	More than 60 Months
LAIF	\$ 4,366,028	\$ 4,366,028	\$ -	\$ -	\$ -
U.S Treasury Obligations	3,046,276	798,318	598,524	1,649,434	-
U.S. Agency Securities	4,459,156	1,197,889	2,044,778	1,216,489	-
Money Market Funds	30,409	30,409	-	-	-
Medium-Term Notes	2,483,463	850,023	1,633,440	-	-
Cash and Investments with Fiscal Agent:					
Money Market Funds	12,099,077	12,099,077	-	-	-
Total	\$ 26,484,409	\$ 19,341,744	\$ 4,276,742	\$ 2,865,923	\$ -

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

2) CASH AND INVESTMENTS - Continued

Disclosures Relating to Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required by (where applicable) the California Government Code, the District's investment policy, or debt agreements, and the actual rating as of year-end for each investment type.

Investment Type		Minimum Legal Rating	Rating as of Year end			
			AAA	AA	A	Not Rated
LAIF	\$ 4,366,028	N/A	\$ -	\$ -	\$ -	\$ 4,366,028
U.S Treasury Obligations	3,046,276	N/A	-	3,046,276	-	-
U.S. Agency Securities	4,459,156	N/A	-	4,459,156	-	-
Money Market Funds	30,409	A	30,409	-	-	-
Medium-Term Notes	2,483,463	A	113,637	636,956	1,732,870	-
Cash and Investments with Fiscal Agent:						
Money Market Funds	<u>12,099,077</u>	A	<u>12,099,077</u>	-	-	-
Total	<u>\$ 26,484,409</u>		<u>\$ 12,243,123</u>	<u>\$ 8,142,388</u>	<u>\$ 1,732,870</u>	<u>\$ 4,366,028</u>

Concentration of Credit Risk

The investment policy of the District contains no limitation on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. There are no investments in any one issuer that represent 5% or more of total District investments (other than U.S. Treasury securities, mutual funds and external investment pools).

Custodial Credit Risk

Custodial credit risk for *deposits* is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The California Government Code and the District's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits, other than the following provision for deposits: The California Government Code requires that a financial institution secure deposits made by state or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure District deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

2) CASH AND INVESTMENTS - Continued

As of June 30, 2017 and June 30, 2016, the District had deposits with financial institutions in excess of federal depository insurance limits of \$7,215,058 and \$7,732,044, respectively, which were collateralized by securities held by the pledging Financial Institution's Agent but not in the District's name.

Fair Value of Investments

The District categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The District has the following recurring fair value measurements as of June 30, 2017:

- U.S. Treasury Obligations of \$3,046,276 are valued using quoted marked prices (Level 1 inputs)
- U.S. Agency Securities of \$4,459,156 are valued using institutional bond quotes (Level 2 inputs)
- Medium-Term Notes of \$2,483,463 are valued using institutional bond quotes (Level 2 inputs)

Investment in State Investment Pool

The District is a voluntary participant in the Local Agency Investment Fund (LAIF) that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. The fair value of the District's investment in this pool is reported in the accompanying financial statements at the amounts based upon the District's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis.

All temporary investments are with the Local Agency Investment Fund (LAIF) administered by the State Treasurer's Office. The yield of LAIF for the quarter ended June 30, 2017 was 0.925%. The estimated amortized cost and fair value of the LAIF Pool at June 30, 2017 was \$77,621,442,814 and \$77,539,216,146, respectively. The District's share of the Pool at June 30, 2017 was approximately .0006 percent. The LAIF is a special fund of the California State Treasury through which local governments may pool investments. Each local government may invest up to \$65,000,000 in the Fund. Investments in LAIF are highly liquid, as deposits can be converted to cash within twenty-four hours without loss of interest. Investments in LAIF are secured by the full faith and credit of the State of California. Included in LAIF's investment portfolio are certain derivative securities or similar products in the form of asset-backed securities totaling \$1,419,481,000. LAIF's (and the District's) exposure to risk (credit, market or legal) is not currently available.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

3) CAPITAL ASSETS

Capital assets are presented as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
Capital Assets, Not Being Depreciated				
Land	\$ 902,118	\$ -	\$ -	\$ 902,118
Water Capacity Rights	13,503,639	-	-	13,503,639
Construction in Progress	2,454,558	182,249	-	2,636,807
	<u>16,860,315</u>	<u>182,249</u>	<u>-</u>	<u>17,042,564</u>
Total Capital Assets, Not Being Depreciated				
Capital Assets Being Depreciated:				
Water Reclamation Facility	22,224,760	-	-	22,224,760
Reservoirs	12,265,486	-	-	12,265,486
Water and Sewer Mains	33,039,132	-	-	33,039,132
Office Building Improvements	191,354	-	-	191,354
Sewage Systems (Improvement Districts)	2,779,412	-	-	2,779,412
Equipment - Water and Sewer	1,989,950	34,001	-	2,023,951
Administration Building	529,200	-	-	529,200
Well Systems	152,263	187,789	-	340,052
	<u>73,171,557</u>	<u>221,790</u>	<u>-</u>	<u>73,393,347</u>
Total Capital Assets Being Depreciated				
Less Accumulated Depreciation:				
Water Reclamation Facility	(13,005,014)	(522,994)	-	(13,528,008)
Reservoirs	(2,926,645)	(304,427)	-	(3,231,072)
Water and Sewer Mains	(7,426,687)	(710,901)	-	(8,137,588)
Office Building Improvements	(92,764)	(15,196)	-	(107,960)
Sewage Systems (Improvement Districts)	(2,174,461)	(90,847)	-	(2,265,308)
Equipment - Water and Sewer	(1,577,152)	(61,376)	-	(1,638,528)
Administration Building	(224,388)	(22,678)	-	(247,066)
Well Systems	(17,028)	(7,971)	-	(24,999)
	<u>(27,444,139)</u>	<u>(1,736,390)</u>	<u>-</u>	<u>(29,180,529)</u>
Total Accumulated Depreciation				
Total Capital Assets Being Depreciated, Net	<u>45,727,418</u>	<u>(1,514,600)</u>	<u>-</u>	<u>44,212,818</u>
Capital Assets, Net of Depreciation	<u>\$ 62,587,733</u>	<u>\$ (1,332,351)</u>	<u>\$ -</u>	<u>\$ 61,255,382</u>

*The beginning balance for Reservoirs was adjusted by (\$144,342) due to recording a transaction twice in the accounting records.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

4) EXCESS SEWER CAPACITY DEPOSITS

In connection with the District's construction of its water reclamation plant, the District can offer "excess" sewer capacity to individuals outside Community Facilities Districts (CFD) 87-5 and 89-1. According to the agreement, the District shall pay to the CFDs, without interest, the reimbursement amount for the oversized sewer capacity utilized by the connection of those parties outside the CFDs. As of June 30, 2017 and 2016, the District held deposits of \$98,330 and \$98,330, respectively, from individuals interested in hooking up to the District's plant. Payment to the CFDs shall be due upon receipt of the full connection fee or commencement of service, whichever is earlier.

5) DESIGNATIONS OF DISTRICT UNRESTRICTED NET POSITION

For the amounts reported as unrestricted net position in these financial statements, the District's Board of Directors has designated \$13,528,008 to be set aside for the future major refurbishing or replacement of the wastewater utility plant as of June 30, 2017.

6) DEFINED BENEFIT PENSION PLAN

General Information about the Defined Benefit Pension Plan

Plan Descriptions – All qualified permanent and probationary employees are eligible to participate in the Public Agency Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Plan) administered by the California Public Employees' Retirement System (CalPERS.) The plan consists of individual rate plans (benefit tiers) within a safety risk pool (police and fire) and a miscellaneous risk pool (all others.) Plan assets may be used to pay benefits for any employer rate plan of the safety and miscellaneous pools. Accordingly, rate plans within the safety or miscellaneous pools are not separate plans under GASB Statement No. 68. Individual employers may sponsor more than one rate plan in the miscellaneous or safety risk pools. The District sponsors 2 rate plans (both are miscellaneous.) Benefit provisions under the Plan are established by State statute and District resolution. CalPERS issues publicly available reports that include a full description of the pension plan regarding benefit provisions, assumptions and membership information that can be found on the CalPERS website.

Benefits Provided – The Plan is a cost-sharing multiple-employer defined benefit pension plan administered by the California Public Employees' Retirement System (CalPERS). A full description of the pension plan benefit provisions, assumptions for funding purposes but not accounting purposes, and membership information is listed in the June 30, 2015 Annual Actuarial Valuation Report. Details of the benefits provided can be obtained in Appendix B of the June 30, 2015 actuarial valuation report. This report is a publically available valuation report that can be obtained at CalPERS' website under Forms and Publications.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

6) DEFINED BENEFIT PENSION PLAN – Continued

The Plans' provisions and benefits in effect at June 30, 2017, are summarized as follows:

	Miscellaneous	Miscellaneous PEPRA
	Prior to January 1, 2013	On or after January 1, 2013
Hire date		
Benefit formula	2% @ 60	2% @ 62
Benefit vesting schedule	5 years service	5 years service
Benefit payments	monthly for life	monthly for life
Retirement age	60	62
Monthly benefits, as a % of eligible compensation	2%	2%
Required employee contribution rates	7%	6.25%
Required employer contribution rates	8.687% + \$0	6.555% + \$5

Beginning in fiscal year 2016, CalPERS collects employer contributions for the Plan as a percentage of payroll for the normal cost portion as noted in the rates above and as a dollar amount for contributions toward the unfunded liability. The dollar amounts are billed on a monthly basis. The District's required contribution for the unfunded liability was \$5 in fiscal year 2017.

Contributions – Section 20814(c) of the California Public Employees' Retirement Law requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. Funding contributions for the Plans are determined annually on an actuarial basis as of June 30 by CalPERS. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The District is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. The District pays the required employee contribution on behalf of the employees.

The District's contributions to the Plan for the year ended June 30, 2017 were \$53,460.

Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions

As of June 30, 2017, the District reported \$50,718 net pension liability for its proportionate share of the net pension liability.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

6) DEFINED BENEFIT PENSION PLAN – Continued

The District's net pension liability for the Plan is measured as the proportionate share of the net pension liability. The net pension liability of the Plans is measured as of June 30, 2016, and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2015 rolled forward to June 30, 2016 using standard update procedures. The District's proportion of the net pension liability was based on a projection of the District's long-term share of contributions to the pension plans relative to the projected contributions of all participating employers, actuarially determined.

The District's proportionate share of the net pension liability as of June 30, 2015 and 2016 was as follows:

Proportion - June 30, 2015	0.00015%
Proportion - June 30, 2016	0.00059%
Change - Increase (Decrease)	0.00044%

For the year ended June 30, 2017, the District recognized pension expense of (\$11,129). At June 30, 2017, the District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Pension contributions subsequent to measurement date	\$ 53,460	\$ -
Differences between actual and expected experience	1,375	-
Changes in assumptions	-	16,878
Change in employer's proportion	38,403	6,688
Differences between the employer's contributions and the employer's proportionate share of contributions	59,256	-
Net differences between projected and actual earnings on plan investments	87,846	-
	<u>87,846</u>	<u>-</u>
Total	<u>\$ 240,340</u>	<u>\$ 23,566</u>

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

6) DEFINED BENEFIT PENSION PLAN – Continued

\$53,460 reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows:

Year Ending June 30,	\$
2018	50,454
2019	44,720
2020	45,387
2021	22,753
2022	-
Thereafter	-

Actuarial Assumptions – The total pension liabilities in the June 30, 2015 actuarial valuations were determined using the following actuarial assumptions:

Valuation date	June 30, 2015
Measurement date	June 30, 2016
Actuarial cost method	entry-age normal
Actuarial assumptions:	
Discount rate	7.65%
Inflation	2.75%
Payroll growth	3.00%
Projected salary increase	(1)
Investment rate of return	7.65%
Mortality	(2)

(1) Depending on age, service and type of employment

(2) Derived using CalPERS' Membership Data for all Funds.

The underlying mortality assumptions and all other actuarial assumptions used in the June 30, 2015 valuation were based on the results of a January 2014 actuarial experience study for the period 1997 to 2011. Further details of the Experience Study can found on the CalPERS website.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

6) DEFINED BENEFIT PENSION PLAN – Continued

Discount Rate – The discount rate used to measure the total pension liability was 7.65% for the Plan. To determine whether the municipal bond rate should be used in the calculation of a discount rate for each plan, CalPERS stress tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing, none of the tested plans run out of assets. Therefore, the current 7.65 percent discount rate is adequate and the use of the municipal bond rate calculation is not necessary. The long term expected discount rate of 7.65 percent will be applied to all plans in the Public Employees Retirement Fund (PERF). The stress test results are presented in a detailed report that can be obtained from the CalPERS website.

CalPERS is scheduled to review all actuarial assumptions as part of its regular Asset Liability Management (ALM) review cycle that is scheduled to be completed in February 2018. Any changes to the discount rate will require Board action and proper stakeholder outreach. For these reasons, CalPERS expects to continue using a discount rate net of administrative expenses for GASB 67 and 68 calculations through at least the 2017-18 fiscal year. CalPERS will continue to check the materiality of the difference in calculation until such time as we have changed our methodology.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Using historical returns of all the funds' asset classes, expected compound returns were calculated over the short-term (first 10 years) and the long-term (11-60 years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equivalent to the single equivalent rate calculated above and rounded down to the nearest one quarter of one percent.

The table below reflects the long-term expected real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These rates of return are net of administrative expenses.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

6) DEFINED BENEFIT PENSION PLAN – Continued

Asset Class	New Strategic Allocation	Real Return Years 1 - 10 (1)	Real Return Years 11+ (2)
Global Equity	51%	5.25%	5.71%
Global Fixed Income	20%	0.99%	2.43%
Inflation Sensitive	6%	0.45%	3.36%
Private Equity	10%	6.83%	6.95%
Real Estate	10%	4.50%	5.13%
Infrastructure and Forestland	2%	4.50%	5.09%
Liquidity	1%	-0.55%	-1.05%

(1) An expected inflation of 2.5% used for this period.

(2) An expected inflation of 3.0% used for this period.

Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate – The following presents the District’s proportionate share of the net pension liability for the Plan, calculated using the discount rate for the Plan, as well as what the District’s proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current rate:

1% Decrease	6.65%
Net Pension Liability	\$ 133,873
Current Discount Rate	7.65%
Net Pension Liability	\$ 50,718
1% Increase	8.65%
Net Pension Liability	\$ (18,005)

Pension Plan Fiduciary Net Position – Detailed information about the pension plan’s fiduciary net position is available in the separately issued CalPERS financial reports.

Payable to the Pension Plan

At June 30, 2017, the District reported a payable of \$0 for the outstanding amount of contributions to the pension plan required for the year ended June 30, 2017.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

7) RISK MANAGEMENT

The District is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; and natural disasters for which the District carries commercial insurance. Premiums are paid annually by the District.

Claims liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. As of June 30, 2017 and June 30, 2016, there were no such liabilities to be reported.

8) DEBT WITHOUT DISTRICT COMMITMENT

The District has issued \$79,145,000 in Community Facilities District Special Tax Bonds to finance the acquisition and construction of public improvements within the Community Facilities Districts No. 1, 2, and 3. In July of 2014, the bonds were refinanced and combined into Series A and Series B bonds of \$51,695,000 and \$18,045,000. The refinanced bonds have the same maturity dates with a lower interest rate. The Bonds were issued pursuant to the Mello-Roos Community Facilities Act of 1982, and are special obligations of the District payable solely from revenues derived from special taxes levied on taxable land within the Community Facilities Districts. The Bonds are not general obligations of the District. Neither the faith and credit of the District, nor of either County, nor the State or any related political subdivision, is pledged to the payment of the Bonds. Therefore, these Bonds are not reflected as debt in the District's financial statements. As of June 30, 2017, the remaining balance on the bonds was \$64,145,000.

9) COMMITMENTS AND CONTINGENCIES

Construction Commitments

The District has active construction projects as of June 30, 2017. At year-end the District's commitments are \$161,093.

10) RELATED PARTY TRANSACTIONS

The District contracts with Dudek & Associates for management and engineering services. The services of the general manager for the District are hired under this contract. The general manager has an ownership interest in Dudek & Associates. The District owed Dudek & Associates \$66,519 and \$26,587 at June 30, 2017 and 2016, respectively, for services received.

Temescal Valley Water District
Notes to Financial Statements
June 30, 2017 and 2016

10) RELATED PARTY TRANSACTIONS - Continued

In addition, the District incurred the following costs to Dudek & Associates for the years ended June 30, 2017 and 2016 as follows:

	June 30,	
	2017	2016
General Management	\$ 252,393	\$ 226,485
Engineering and Special Projects	82,121	50,031
Total	\$ 334,514	\$ 276,516

11) LOAN PAYABLE

In the 2014-15 Fiscal year, the District entered into a loan agreement with the Elsinore Valley Municipal Water District (EVMWD) to purchase a pipeline owned by EVMWD for \$2,644,000. Under the terms of the agreement, in exchange for the pipeline, EVMWD received the right to use the District's excess capacity water rights from Western Municipal Water District (WMWD). The loan balance is reduced based on EVMWD's purchases of the District's excess water capacity. EVMWD's purchases from year to year are expected to fluctuate and, therefore, the final maturity of the loan is unknown because there is not an established repayment schedule. During the 2016-17 fiscal year, EVMWD purchased \$217,999 of the District's excess capacity rights from WMWD. The remaining loan balance as of June 30, 2017 and June 30, 2016 was \$2,027,322 and \$2,245,321, respectively.

12) JOINT VENTURE

The District is a member of the California Finance Authority for Delinquent Special Taxes and Assessments (Authority), along with the Cities of Norco and Riverside. The Authority was established to implement and finance a program for the purchase from the member agencies of delinquent special taxes, assessments and property-related fees and charges that are collected on the secured property tax roll. The District has determined to assign to the Authority certain delinquent special taxes (levied under the Mello-Roos Community Facilities Act of 1982) in consideration of the agreement by the Authority to pay the purchase price to the District for such liens and to assume all responsibility and pay all costs in connection with the enforcement and collection of such liens. Separate financial statements for the Authority are currently not available.

13) DUE TO AGENCY FUND

The District, as a pass-through agency, held property tax assessments for the Community Facilities Districts as of June 30, 2017 of \$137,342. This amount represents the amounts received by the District prior to June 30, 2017 for the benefit of the Community Facilities District (Agency Fund).

REQUIRED SUPPLEMENTARY INFORMATION

Draft

Temescal Valley Water District
Required Supplementary Information
June 30, 2016 and 2015

Schedule of the District's Proportionate Share of the Net Pension Liability
Last 10 Years*

Measurement Date	Proportion of the Net Pension Liability	Proportionate Share of Net Pension Liability	Covered Employee Payroll	Proportionate Share of the Net Pension Liability as a % of Payroll	Plan Fiduciary Net Position as a % of the Total Pension Liability
2016	0.00059%	\$ 50,718	\$ 607,698	8.35%	91.79%
2015	0.00015%	10,501	603,039	1.74%	97.84%
2014	0.00048%	30,099	572,273	5.26%	91.51%

Notes to the Schedule of the District's Proportionate Share of the Net Pension Liability

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2014 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes in Assumptions: For the June 2015 measurement date, the discount rate was changed from 7.5 percent (net of administrative expense) to 7.65 percent to correct for an adjustment to exclude administrative expense.

*Fiscal year 2015 was the first year of implementation, therefore, not all 10 years of information is available.

Temescal Valley Water District
Required Supplementary Information
June 30, 2016 and 2015

Schedule of Plan Contributions
Last 10 Years*

Fiscal Year	Contractually Required Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency/ (Excess)	Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
2017	\$ 53,460	\$ (53,460)	\$ -	\$ 607,698	8.80%
2016	49,928	(49,928)	-	603,039	8.28%
2015	48,665	(48,665)	-	572,273	8.50%

Notes to the Schedule of Plan Contributions

Valuation Date: 6/30/2013, 6/30/2014, and 6/30/2015

*Fiscal year 2015 was the first year of implementation, therefore, not all 10 years of information is available.

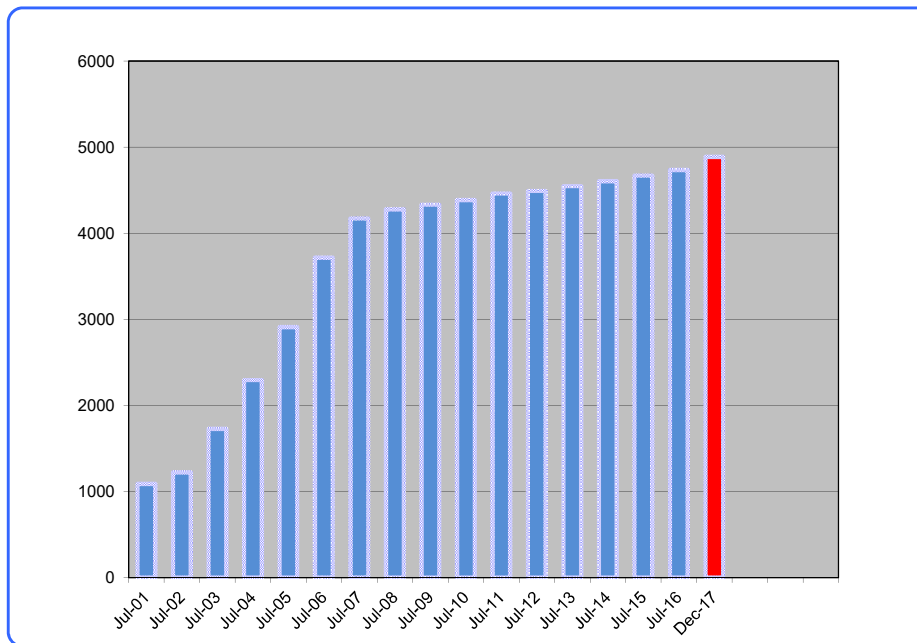
SUPPLEMENTARY INFORMATION

Draft

TEMESCAL VALLEY WATER DISTRICT CUSTOMER COUNT PER YEAR(RESIDENTIAL)

(Excludes SID#1 and SID#2 sewer customers)

DATE	Jul-01	Jul-02	Jul-03	Jul-04	Jul-05	Jul-06	Jul-07	Jul-08	Jul-09	Jul-10	Jul-11	Jul-12	Jul-13	Jul-14	Jul-15	Jul-16	Dec-17
CUSTOMERS	1090	1223	1729	2295	2910	3718	4173	4279	4332	4386	4463	4492	4547	4605	4670	4736	4888



RESIDENTIAL	Total Homes	Completed Homes	
Wildrose Ranch	1043	1043	100%
Trilogy at Glen Ivy	1317	1317	100%
Painted Hills	204	204	100%
Canyon Oaks	26	26	100%
Montecito Ranch	305	305	100%
Sycamore Creek	1748	1431	82%
The Retreat	525	517	98%
Terramor	1443	45	0% 6 MODELS
	<u>6611</u>	<u>4888</u>	74%

TOTAL CUSTOMER COUNT REPORT
11/31/2017

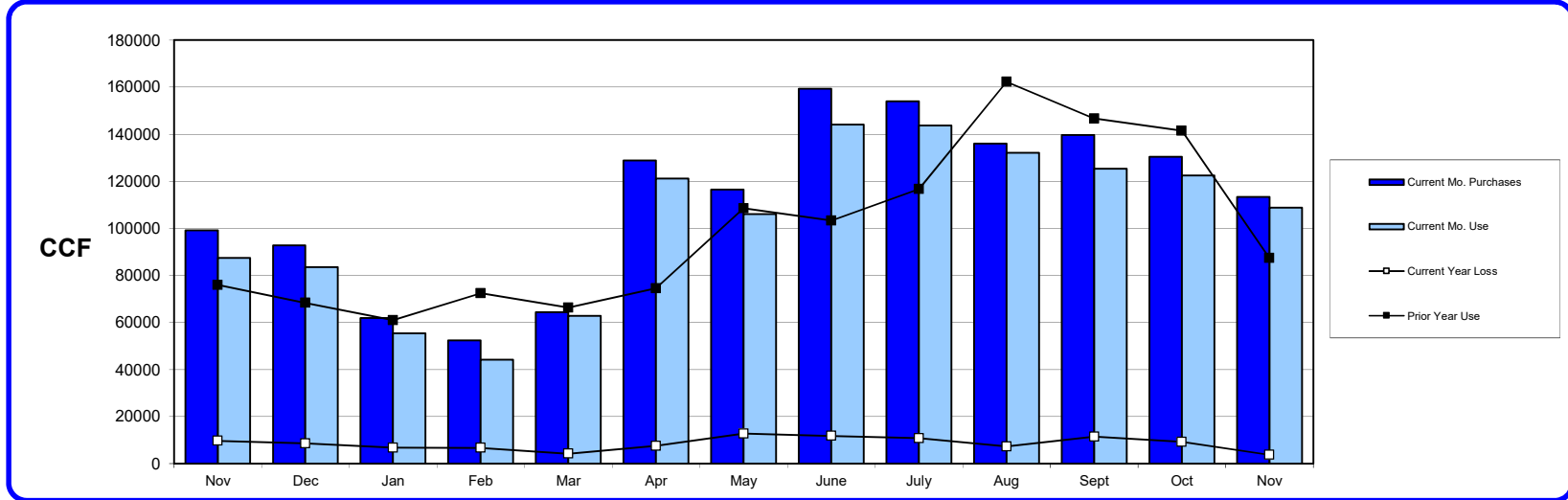
	Water & Sewer	Water Only	Sewer Only	Count
New homes added 17 Accts closed/transf 53 Empty Homes 4			Butterfield (305) Calif. Meadows (345)	
Residential	4979	2	650	5631
Commercial	83	0	2	85
Commercial-fireheld inactive	41			41
Public Govt	4	1	0	5
Irrigation-Industrial	0	65	0	65
Non-Potable Water other	0	139	0	139
Construction-Bulk Sales	0	15	0	15
Total Active Customers				

DELINQUENT REPORT

Meters Read - Customers Billed	5288	
Received Delinquent Notice on current bill	492	9.30%
Turned Off for lack of payment	18	0.34%
Customers turned back on, amount paid	18	0.34%

WATER USAGE REPORT FOR THIRTEEN MONTHS

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	TOTAL
Beg Water Levels	8320	10346	11057	10830	12304	9691	9757	7421	10837	10333	7035	9975	8641	
Ending Water Levels	10346	11057	10830	12304	9691	9757	7421	10837	10333	7035	9975	8641	9467	
Cur Yearly Purchases	99087	92774	61904	52287	64302	128743	116454	159241	153973	136030	139591	130347	113260	1447993
Cur Yr Monthly Use	87384	83501	55396	44125	62713	121182	106003	144053	143645	132059	125247	122417	108702	1336427
Prior Yr Monthly Use	75904	68282	60973	72419	66313	74479	108426	103216	116641	162272	146618	141397	87384	1284324



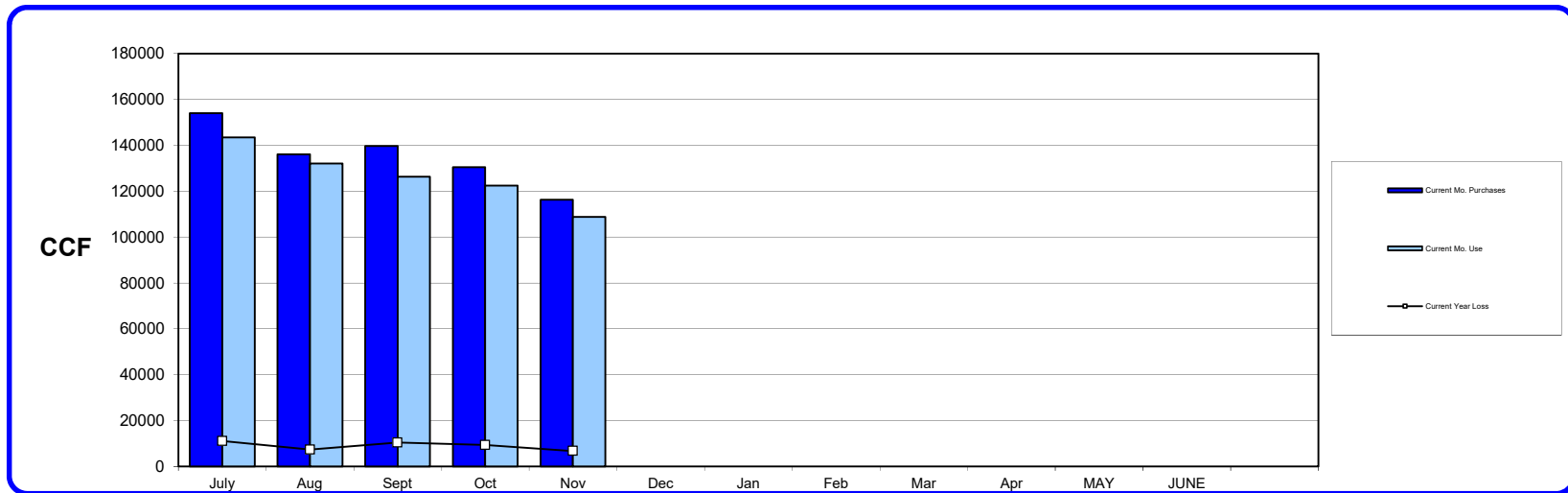
SUMMARY		CCF
Beginning Water in System		8320 CCF
Water Purchased in last 13 months		1447993 CCF
Water Used in last 13 months		1336427 CCF
Water Remaining in System		9467 CCF
(Loss)/Gain over last 13 months		(110419) CCF
		-7.63%

KEY
2015-2016
2016-2017
2017-2018

WATER USAGE REPORT FOR FY 2017-2018

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Beg Water Levels	10837	10333	7035	9975	8641							
Ending Water Levels	10333	7035	9975	8641	9467							
Cur Yearly Purchases	153973	136030	139591	130347	113260							
Cur Yr Monthly Use	143377	132059	126247	122417	108702							
GAIN/LOSS (UNITS)	11100	7269	10404	9264	6732							

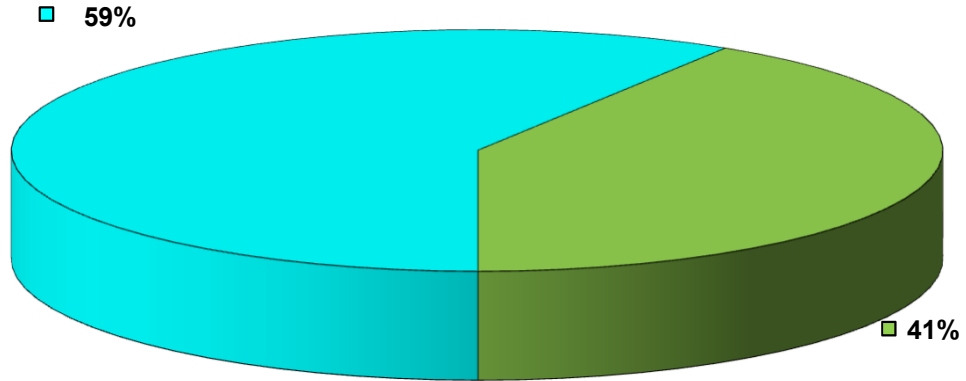
TOTAL
673201
632802
44769



YEAR	%
2014-2015	-5.61
2015-2016	-4.83
2016-2017	-8.01

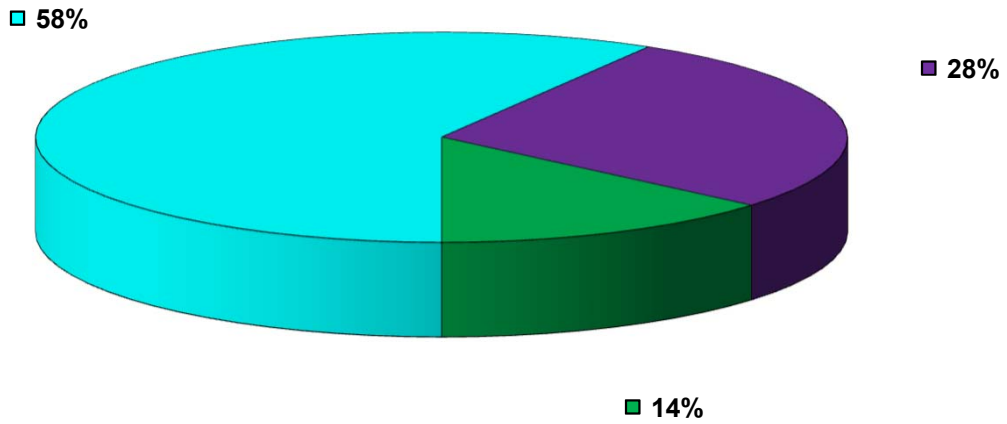
SUMMARY		CCF
Beginning Water in System		10837 CCF
Water Purchased		673201 CCF
Water Used		632802 CCF
Water Remaining in System		9467 CCF
(Loss)/Gain FY to date		(41769) CCF
		-6.20%

**Temescal Valley Water District
Volume of Water Sold
For Five Months Ending Nov 30, 2017
F/Y 2017-2018**



POTABLE NON-POTABLE

**Temescal Valley Water District
Water Volume Sold
For F/Y 2016-2017
Twelve Months**



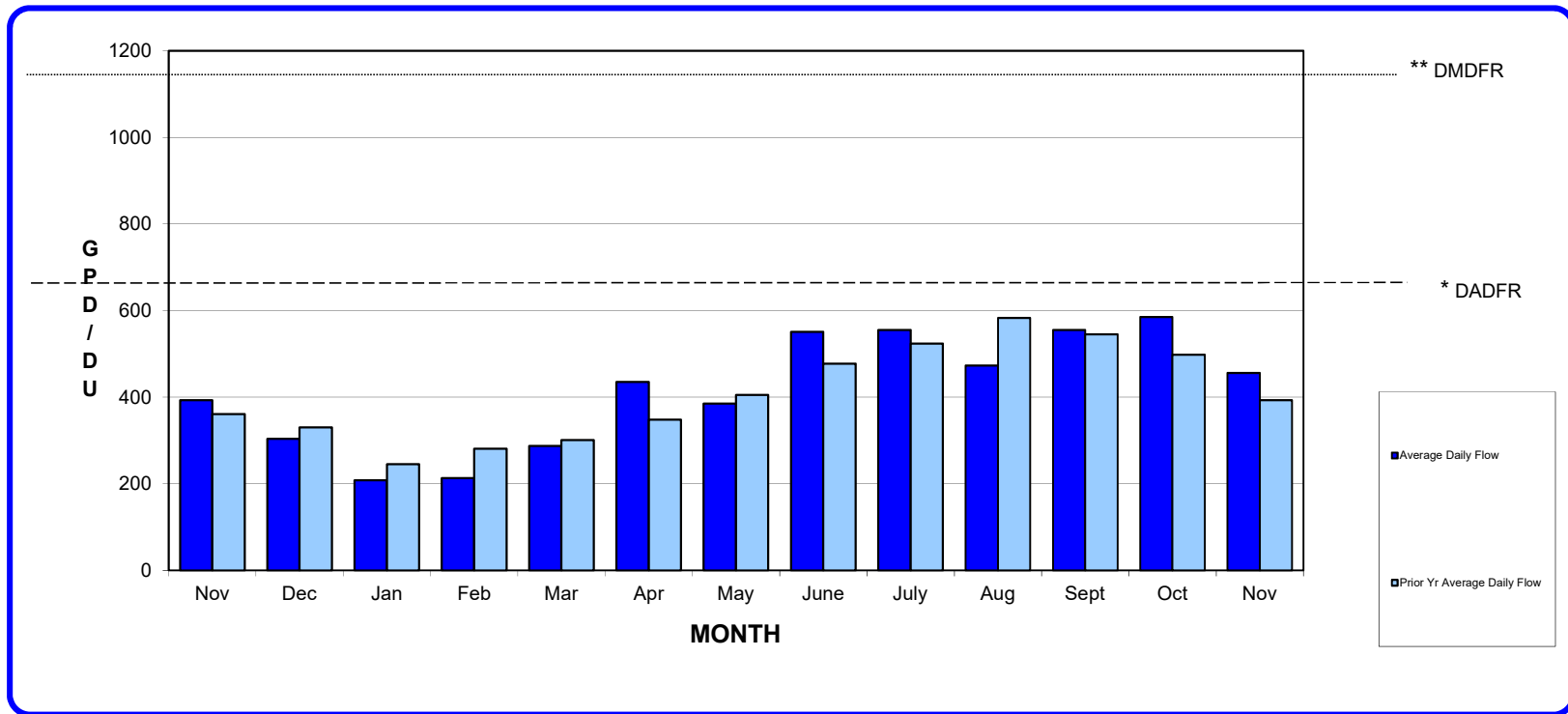
POTABLE RECYCLED NON-POTABLE

RESIDENTIAL WATER USAGE

AVERAGE DAILY FLOW

(GALLONS per DAY per RESIDENTIAL DWELLING UNIT CONNECTED)

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	YEARLY AVERAGE
Average Daily Flow	393	304	208	213	287	435	385	551	555	473	555	585	456	417
Prior Yr Average Daily Flow	361	330	245	281	301	348	405	477	524	583	545	498	393	411

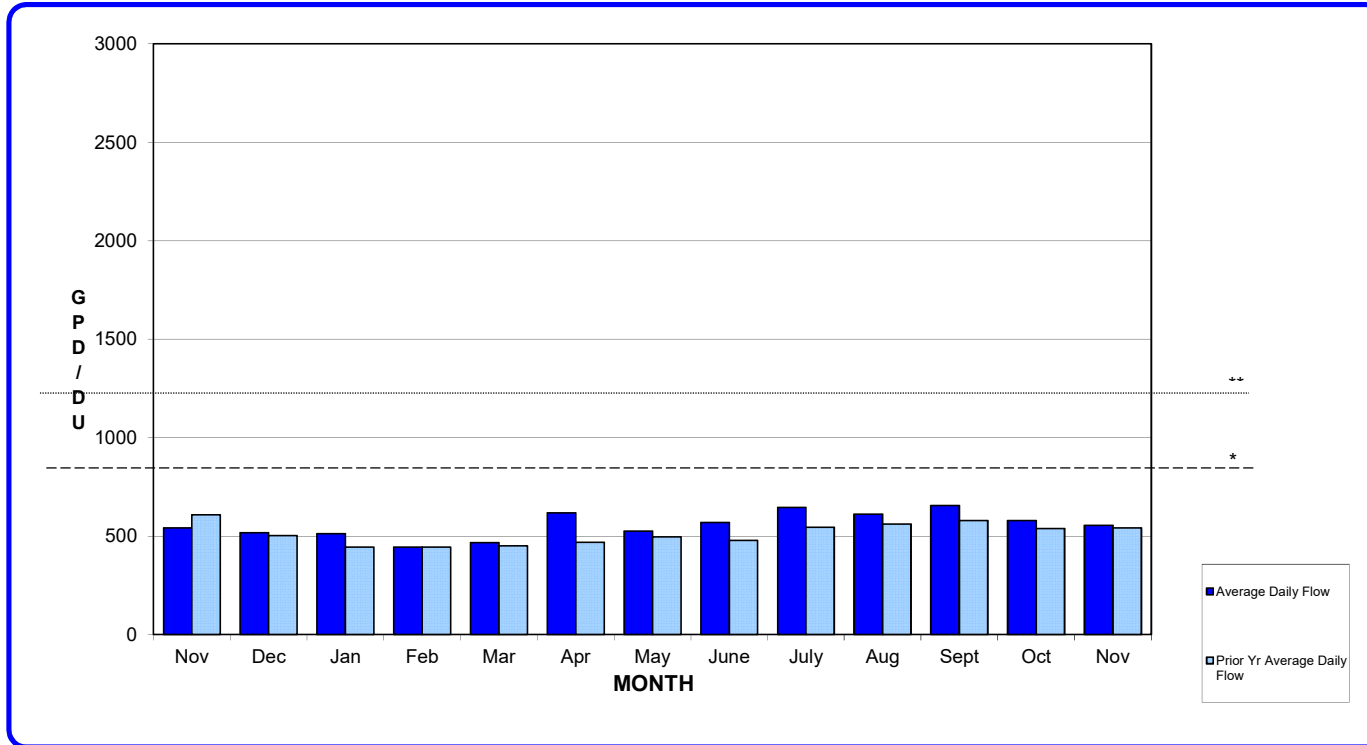


Key
 2015-2016
 2016-2017
 2017-2018

* DESIGN AVERAGE DAILY FLOW RATE IN GPD (650)
 ** DESIGN MAXIMUM DAILY FLOW RATE IN GPD (1140)

COMMERCIAL WATER USAGE AVERAGE DAILY FLOW (GALLONS per DAY per COMMERCIAL DWELLING UNIT CONNECTED)

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	YEARLY AVERAGE
Average Daily Flow	542	518	512	445	467	618	525	569	646	612	656	580	555	559
Prior Yr Average Daily Flow	608	503	444	444	451	469	496	478	546	561	579	539	542	865

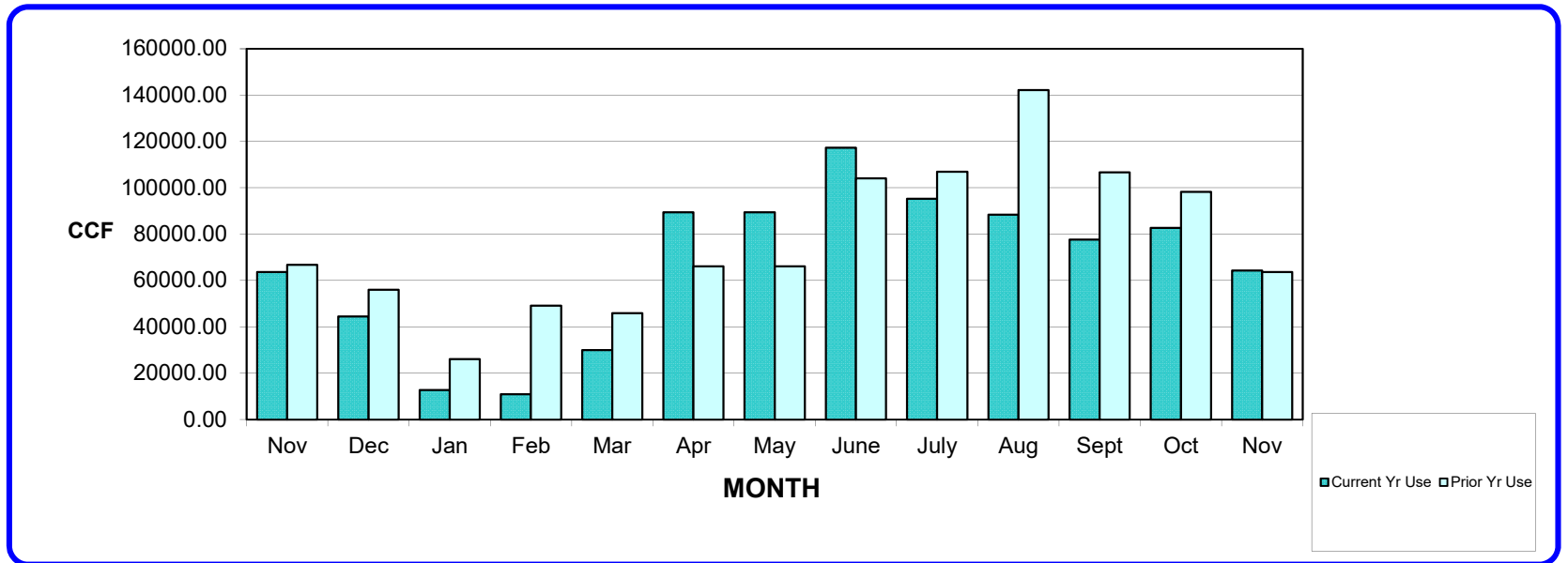


Key
2015-2016
2016-2017
2017-2018

- * DESIGN AVERAGE DAILY FLOW RATE IN GPD (650)
- ** DESIGN MAXIMUM DAILY FLOW RATE IN GPD (1140)

RECYCLED AND NON-POTABLE WELL WATER MONTHLY FLOW (ccf)

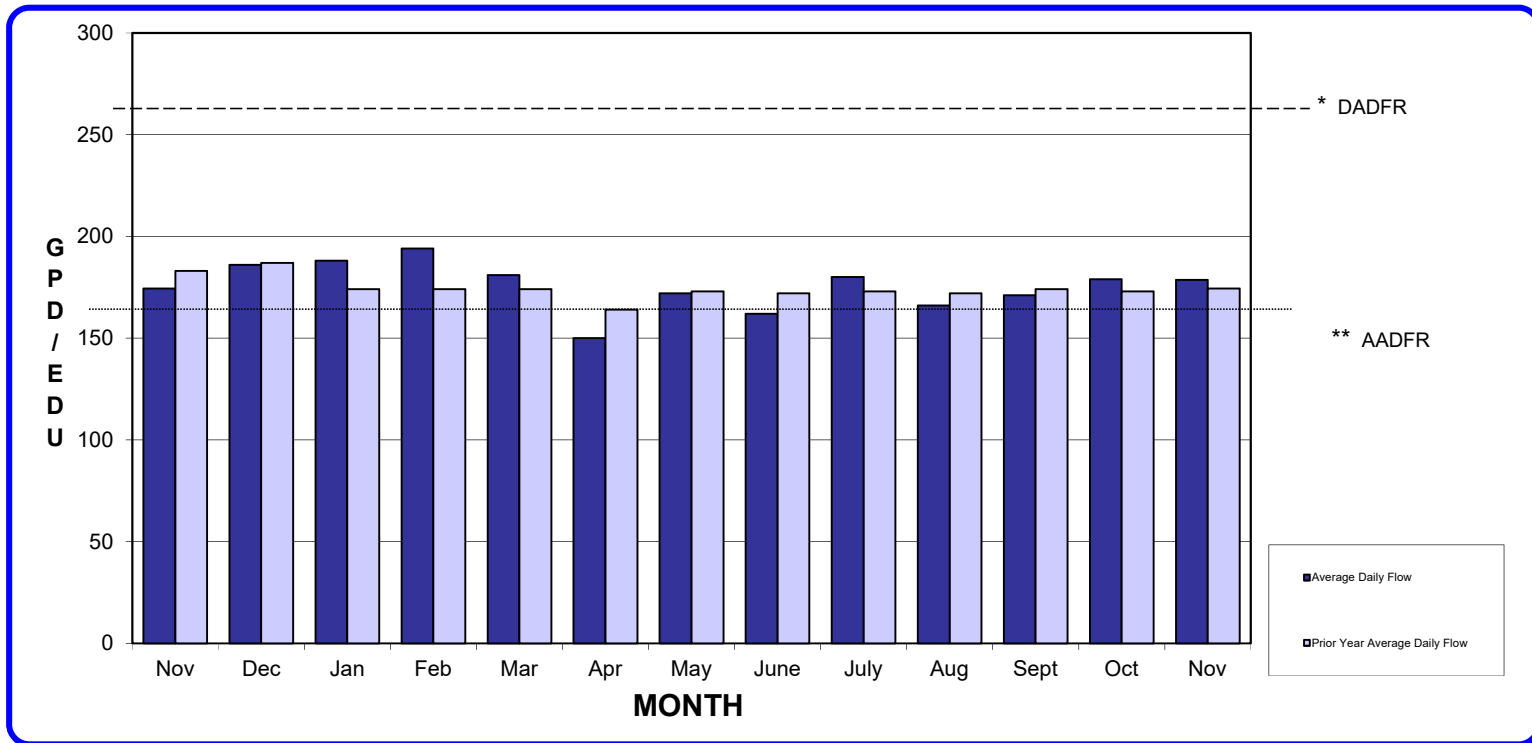
	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
Current Yr Use	63655.96	44418.02	12663.02	10972.41	29977.05	89476.06	89476.06	117228.16	95220.93	88355.76	77651.75	82662.81	64288.64
Prior Yr Use	66739.00	56050.32	26122.81	49169.19	45887.67	66124.51	66124.51	104019.74	106957.12	142210.12	106718.90	98261.40	63655.96
Revenue	\$112,792	\$76,130	\$21,401	\$17,384	\$59,951	\$203,970	\$167,723	\$231,786	\$200,946	\$175,828	\$158,379	\$158,379	\$119,347



Key	
2015-2016	
2016-2017	
2017-2018	

RESIDENTIAL & COMMERCIAL SEWER USAGE AVERAGE DAILY FLOW (GALLONS per DAY per DWELLING UNIT)

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	12-Month Average
Average Daily Flow	174	186	188	194	181	150	172	162	180	166	171	179	179	190
Prior Year Average Daily Flow	183	187	174	174	174	164	173	172	173	172	174	173	174	174



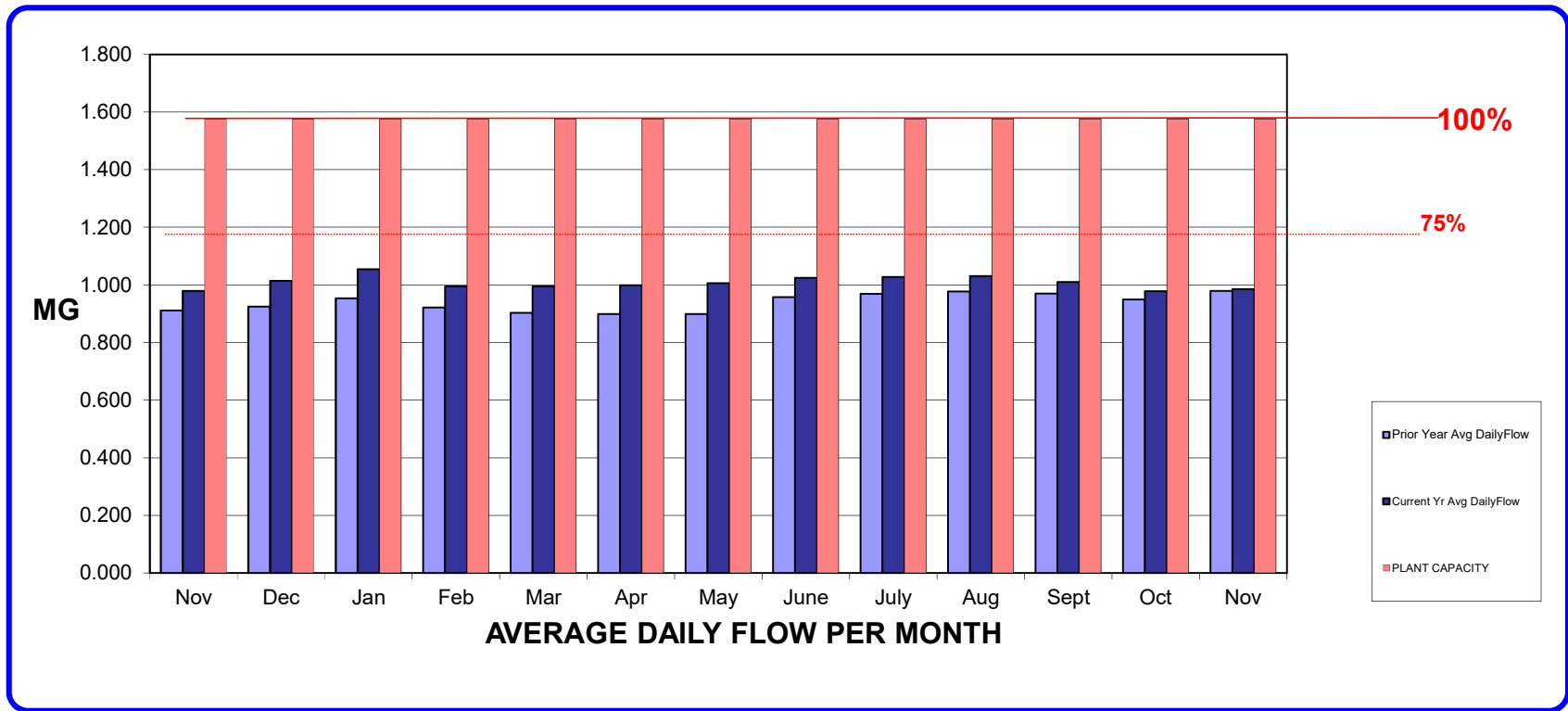
Key
2015-2016
2016-2017
2017-2018

** ACTUAL AVERAGE DAILY FLOW

RECLAMATION PLANT FLOW REPORT AVERAGE DAILY FLOW (Million Gallons)

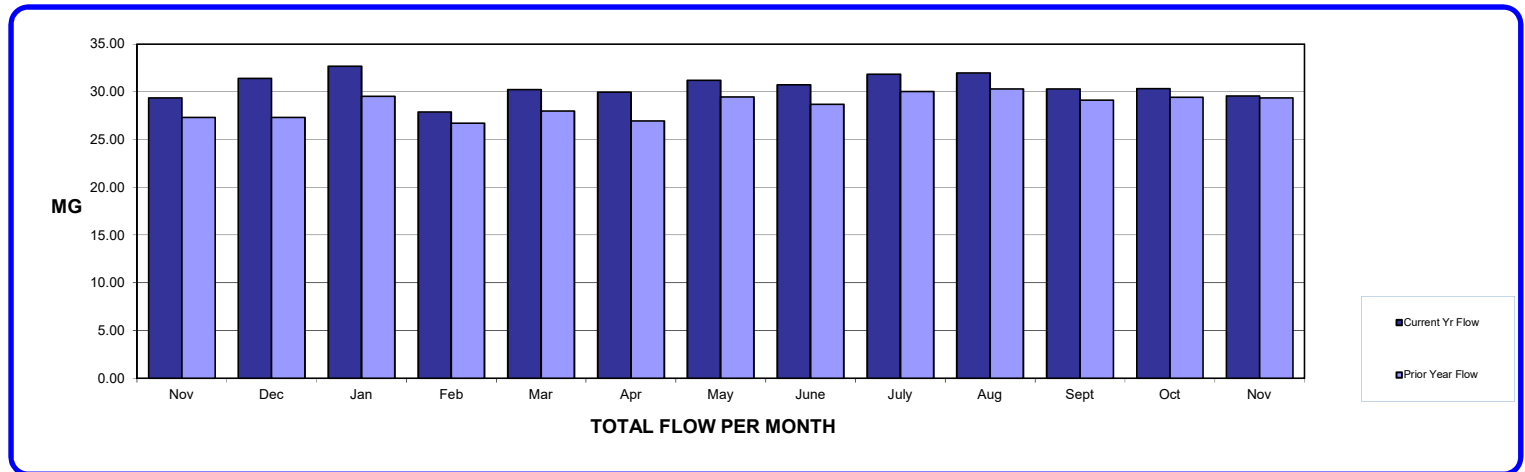
Key
2013-2014
2014-2015
2015-2016

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
Current Yr Avg DailyFlow	0.9790	1.0140	1.0540	0.9950	0.9950	0.9990	1.0060	1.0240	1.0270	1.0310	1.0100	0.9780	0.9850
Prior Year Avg DailyFlow	0.9110	0.9240	0.9530	0.9210	0.9030	0.8990	0.8990	0.9570	0.9690	0.9770	0.9700	0.9490	0.9790
PLANT CAPACITY	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575	1.575



RECLAMATION PLANT DISCHARGE REPORT MONTHLY FLOW (Million Gallons)

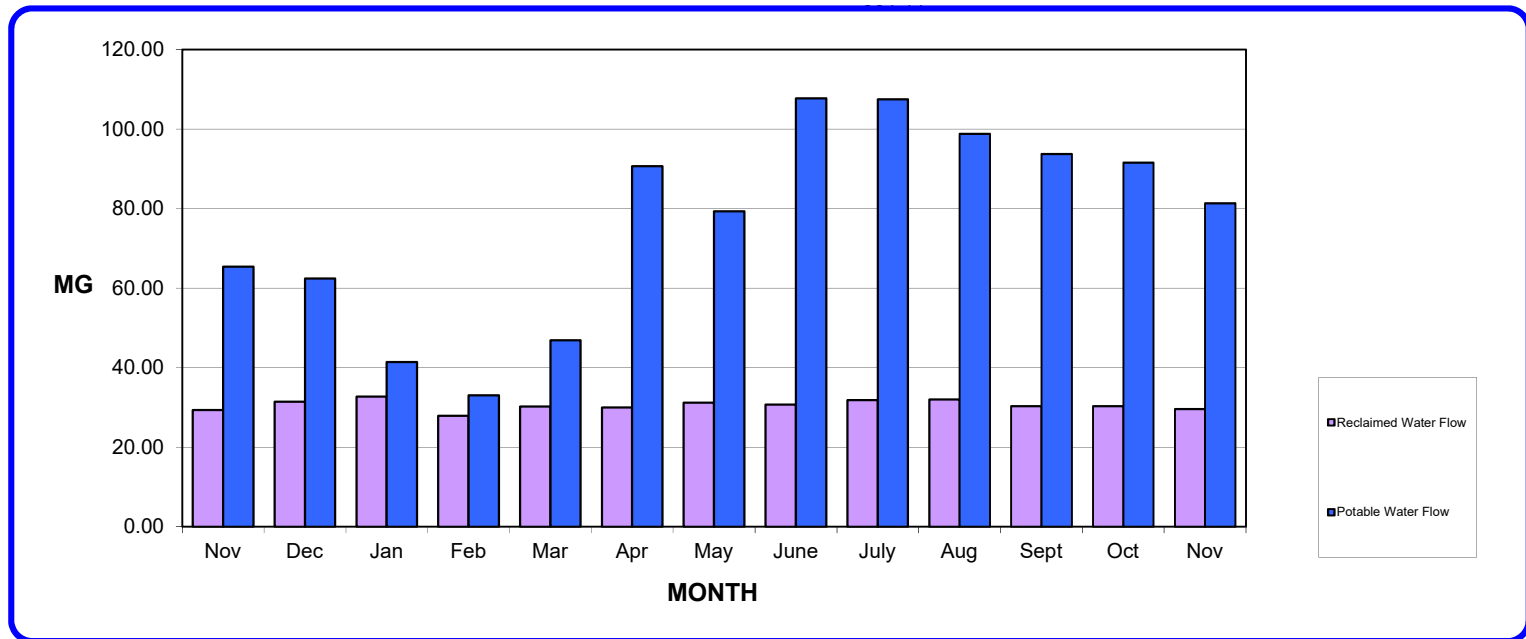
	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Total/yr
Current Yr Flow	29.36	31.42	32.68	27.87	30.22	29.95	31.19	30.73	31.84	31.97	30.30	30.32	29.55	368.04
Prior Year Flow	27.32	27.32	29.54	26.71	27.99	26.96	29.47	28.70	30.03	30.30	29.11	29.41	29.36	344.90
Potential Revenue	\$66,324	\$70,978	\$73,831	\$62,958	\$68,260	\$79,667	\$82,965	\$81,742	\$84,694	\$85,032	\$80,598	\$80,651	\$78,606	\$929,983
Current Month Revenue	\$66,324	\$66,324	\$19,313	\$17,384	\$41,008	\$123,254	\$107,511	\$146,772	\$122,817	\$107,694	\$99,273	\$99,273	\$119,347	\$1,069,971
Additional Potential Rev	\$0	\$4,654	\$54,517	\$45,574	\$27,252	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$131,998



Key	
2015-2016	
2016-2017	
2017-2018	

RECLAIMED WATER VERSUS POTABLE WATER MONTHLY FLOW (Million Gallons)

	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
No. of Sewer Dwelling Units Connected	5602	5610	5618	5616	5828	5921	5929	5944	5961	5926	5897	5910	5909
Reclaimed Water Flow	29.36	31.42	32.68	27.87	30.22	29.96	31.19	30.73	31.84	31.97	30.30	30.32	29.55
Potable Water Flow	65.36	62.45	41.44	33.01	46.90	90.64	79.29	107.75	107.45	98.78	93.69	91.57	81.31



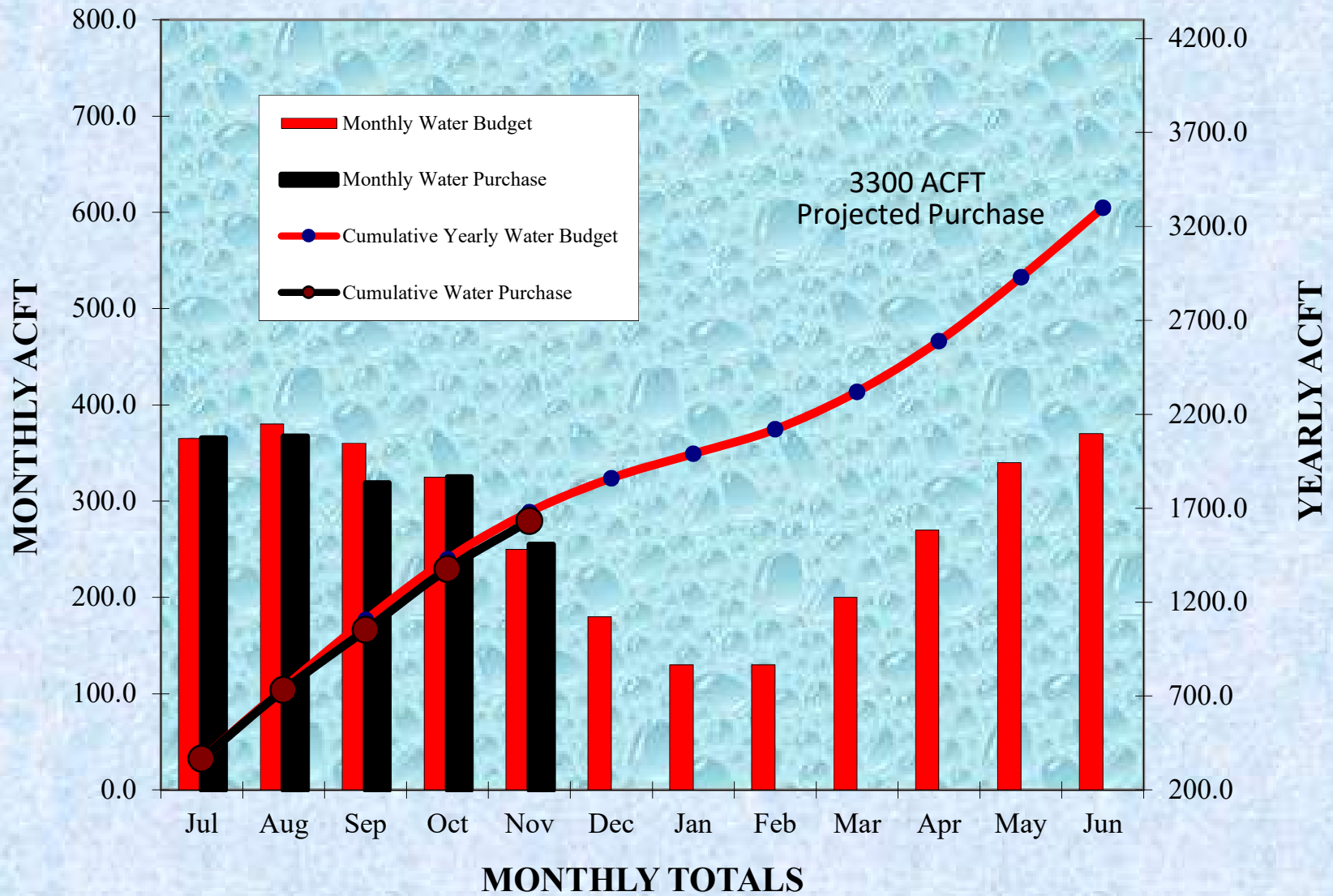
Month	AVG								TOTAL			
	Wildrose(2)	Montecito(3)	Trilogy(4)	Painted Hills(5)	Syc Crk(6)	Retreat(7)	Terramor(8)	Avg All Resid	IND-BK / IRR	RECYCLED- Inc Retreat Golf	NONPOT- Other	NONPOT-Trilogy Golf
AVG '07-'08	18.1	32.7	15.9	32.2	21.7	37.1	-	25.9	106.6			
AVG '08-'09	24.6	33.8	17.0	33.3	32.6	40.8	-	25.4	53.3			
AVG '09-'10	21.9	30.0	15.8	30.2	26.3	38.0	-	23.0	51.7			
AVG '10-'11	20.6	27.6	15.5	25.8	25.1	35.2	-	22.3	36.0			
AVG '11-'12	21.0	27.9	15.9	27.3	24.7	34.0	-	22.5	82.3			
AVG '12-'13	21.9	31.3	15.6	27.5	23.6	30.5	-	22.9	190.0			
AVG '13-'14	22.5	33.8	16.5	28.2	24.5	30.6	-	23.0	9.8			
AVG '14-'15	20.7	28.4	15.4	26.8	21.9	28.2	-	21.2	62.8			
AVG '15-'16	17.4	21.3	10.6	22.4	16.9	24.3	-	16.5	105.4	38,401.9	4,639.1	18,977.2
AVG '16-'17	18.4	26.4	16.7	24.8	18.5	27.1	26.4	19.4	211.0	46,977.4	8,442.6	16,068.4
Jul-17	22.2	28.8	18.7	30.8	23.0	36.5	32.8	23.9	282.2	61,717.0	6,576.7	26,927.2
Aug-17	19.6	25.3	15.1	26.8	20.6	32.0	30.1	20.7	238.3	54,117.8	5,731.9	28,506.0
Sep-17	18.5	23.9	14.2	24.4	18.8	29.7	19.5	19.3	237.4	49,886.0	5,776.8	17,915.1
Oct-17	18.5	22.8	13.2	28.3	18.9	27.8	21.3	18.9	637.8	50,781.8	6,329.0	25,552.0
Nov-17	16.9	21.1	12.9	23.6	17.3	24.5	9.7	17.3	438.8	39,959.2	3,462.5	12,824.5
Dec-17												
Jan-18												
Feb-18												
Mar-18												
Apr-18												
May-18												
Jun-18												
AVG '17-'18	95.7	121.9	74.2	134.0	98.7	150.5	113.4	100.1	1834.5	256,461.83	27,876.91	111,724.82

AMOUNTS IN UNITS (CCF) (ONE UNIT = 748 GALS.)

WHOLESALE BUDGET vs PURCHASE

Water Year July 2017 through June 2018

3300 ACFT PROJECTION



MEMORANDUM

DATE: December 19, 2017

TO: Board of Directors
Temescal Valley Water District

FROM: General Manager

SUBJECT: Urban Water Management Plan Adoption Schedule

BACKGROUND

Staff and our consultant Sally Johnson from RMC has completed the Draft Urban Water Management Plan for your review and comment. We have completed the required 60 day notice to Land Use and Water Management Agencies of Riverside County. We have also started the required posting for a Public Hearing on January 23, 2018 for public comment and adoption. Please see the following schedule.

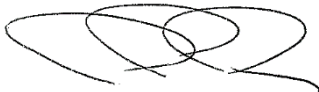
- Public Draft Report to TVWD for inclusion in the December 19, 2017 Board packet
- Public Draft released posted - **Dec 18**
- Newspaper notice 1 – **Dec 19**
- Newspaper notice 2 – **Dec 26**
- Comments from public requested - **Jan 12**
- (Optional Third notice) – Jan 16 announcing the public hearing
- Public Hearing and adoption– **Jan 23**

RECOMMENDATION

It is recommended that the Board of Directors:

1. Adopt as Public Draft Report and schedule the Public Hearing on January 23, 2018

Respectfully submitted,



Jeff Pape
General Manager

2015 Urban Water Management Plan

DRAFT



Temescal Valley Water District

22646 Temescal Canyon Road
Corona, California 92883
(951) 277-1414

December 2017

Prepared by:



National Experience. Local Focus.

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Acronyms and Abbreviations

ACT	Urban Water Management Planning Act of 1983
AF	Acre-feet
AFY	Acre Feet per Year
AWWA	American Water Works Association
BMP	Best Management Practices
CA	California
CASGEM	California Statewide Groundwater Elevation Monitoring Program
cfs	Cubic feet per second
CII	Commercial, Industrial and Institutional
CIMIS	California Irrigation Management Information System
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
DHS	Department of Health Services
DMM	Demand Management Measure
DWR	Department of Water Resources
ET _o	Evapotranspiration
EPA	Environmental Protection Agency
EVMWD	Elsinore Valley Municipal Water District
GPCD	Gallons Per Capita Per Day
gpm	Gallons Per Minute
GWMP	Groundwater Management Plan
HOA	Homeowners Association
IICP	Incremental Interruption and Conservation Plan
In	Inches
IRP	Integrated Resources Plan
LLWRF	Lee Lake Water Reclamation Facility
MG	Million Gallons
MGD	Million Gallons per Day

mg/L	Milligrams Per Liter
MHI	Median Household Income
MOU	Memorandum of Understanding
Metropolitan	Metropolitan Water District of Southern California
RUWMP	Regional Urban Water Management Plan
RWMP	Recycled Water Master Plan
SB	Senate Bill
SBX7-7	The Water Conservation Act of 2009
SCADA	Supervisory Control Data Acquisition System
SWP	State Water Project
TVWD	Temescal Valley Water District
USBR	U.S. Bureau of Reclamation
UWMP	Urban Water Management Plan
WMWD	Western Municipal Water District
WSDM	Water Surplus and Drought Management

Chapter 1 Introduction and Overview

1.1 Background and Purpose

Located in west Riverside County, the Temescal Valley Water District (TVWD) service area consists of approximately 6,730 acres, and serves nearly 15,000 customers. The TVWD 2015 Urban Water Management Plan (UWMP) provides a framework for long term water planning and informs the public of the TVWD's plans to ensure adequate water supplies through the year 2040. The UWMP also establishes a water use target that aids in meeting the State's goal of reducing per capita water use by 20% by 2020. TVWD's UWMP will help identify current and future water demands and supplies, and provide a planning framework for water-related management decisions.

1.2 Urban Water Management Planning and California Water Code

1.2.1 Urban Water Management Planning Act of 1983

This 2015 UWMP has been prepared in accordance with the California Urban Water Management Planning Act (Act), as amended, California Water Code (CWC) Division 6, Part 2.6, Sections §10610 through §10657. The Act became part of the CWC with the passage of Assembly Bill 797 during the 1983–1984 regular session of the California legislature, and requires every urban water supplier that provides water for municipal purposes to more than 3,000 connections or supplying more than 3,000 acre-feet (AF) of water annually to prepare, adopt, and submit a plan every five years to the California Department of Water Resources (DWR).

This 2015 UWMP has been developed in accordance with DWR's 2015 Urban Water Management Plans, Guidebook for Urban Water Suppliers (2015 Guidebook), which provides guidance to agencies on how to include the information required under the CWC. The Act states that urban water suppliers should make every effort to assure the appropriate level of reliability in its water service is sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. Additionally, the Act describes both the required contents of the UWMP and how urban water suppliers should adopt the Plan. A completed checklist showing where each UWMP requirement has been met in this Plan is provided in **Appendix A**.

1.2.2 Applicable Changes to the Water Code since 2010 UWMPs

Since 2010, modifications have been made to the CWC relevant to development of UWMPs. A summary of these changes is presented in **Table I-1**.

Table I-1: Changes to the CWC since the 2010 UWMPs

Topic	CWC Section	Legislative Bill	Summary of Change
Demand Management Measures	10631 (f)(1) and (2)	AB 2067, 2014	Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets.
Submittal Date	10621 (d)	AB 2067, 2014	Requires each urban water supplier to submit its 2015 plan to the Department of Water Resources by July 1, 2016.
Electronic Submittal	10644 (a) (2)	SB 1420, 2014	Requires the plan, or amendments to the plan, to be submitted electronically to the department.
Standardized Forms	10644 (a) (2)	SB 1420, 2014	Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by the department.
Water Loss	10631 (e) (1) (J) and (e) (3) (A) and (B)	SB 1420, 2014	Requires a plan to quantify and report on distribution system water loss.
Estimating Future Water Savings	10631 (e) (4)	SB 1420, 2014	Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.
Voluntary Reporting of Energy Intensity	10631.2 (a) and (b)	SB 1036, 2014	Provides for an urban water supplier to include certain energy related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies.
Defining Water Features	10632	AB 2409, 2010	Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.

1.2.3 Water Conservation Act of 2009 (SB X7-7)

The Water Conservation Act of 2009 (SBX7-7) is one of four policy bills enacted as part of the November 2009 Comprehensive Water Package (Special Session Policy Bills and Bond Summary). SBX7-7 requires that agencies achieve a 20% reduction in potable water use by 2020, consistent with statewide water use reduction goals. Per SBX7-7, water suppliers must determine and report its existing baseline water consumption and establish future water use targets in gallons per capita per day (GPCD). Reporting began with the 2010 UWMP cycle, when interim targets were established for 2015. For the 2015 UWMPs, DWR requires water suppliers to evaluate progress towards meeting the established targets. TVWD did not participate in the 2010 UWMP cycle; as such, this 2015 UWMP will establish the District's SBX7-7 targets and retroactively evaluate progress towards meeting the target. The analysis completed for calculating TVWD's SBX7-7 targets is provided in **Chapter 5**.

1.2.4 Urban Water Management Plans in Relation to Other Planning Efforts

UWMPs allow for integration of information from other planning documents, including regional planning efforts, and this 2015 UWMP synthesizes information from a variety of local and regional planning documents. In addition, the 2015 UWMP will complement regional planning documents and be available to inform other planning decisions, including in the establishment of priorities. Planning efforts relevant to this UWMP include integrated regional water management plans, water master plans, and recycled water master plans. This 2015 UWMP incorporates information from the following related key planning documents, in addition to local data and other references cited throughout the chapters:

- Western Municipal Water District (WMWD) 2015 Urban Water Management Plan (WMWD, 2016)
- Recycled Water Master Plan (TVWD, 2007)
- Water System Master Plan (TVWD, 2014)
- Temescal Valley Water District Comprehensive Water, Recycled Water, and Wastewater Cost of Service Study Draft Report (Raftelis, 2016)

1.3 UWMP Organization

The chapters of this 2015 UWMP follow the recommended UWMP organization provided in DWR's 2015 Guidebook. Included within each chapter are the required tables for retail urban water suppliers. Because additional tables have been included in this UWMP for clarity, all tables will be numbered sequentially, with required DWR tables including a secondary header identifying which required table is being presented, as shown in **Figure I-1**. A copy of all required UWMP tables is also provided in **Appendix B**.

Figure I-1: 2015 UWMP Table Numbering

Table 2-1: TYWD Public Water System

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
CA3310074	Temescal Valley Water District	6,351	2,983
TOTAL		6,351	2,983
NOTES:			

Chapter 2 Plan Preparation

This chapter describes the preparation of TVWD's 2015 UWMP, including coordination with other relevant agencies, organizations, and stakeholders, as applicable, and details standard reporting periods and units used throughout this plan.

2.1 Basis for Preparing a Plan

This plan has been prepared to comply with CWC §10617 because TVWD supplies more than 3,000 acre-feet of water per year to more than 3,000 customers. TVWD supplies water to approximately 15,000 customers within its service area. In calendar year 2015, TVWD served 2,983 AF of potable water and 910 AF of non-potable (raw and recycled) water to customers. In total, TVWD supplied 3,893 AF of potable, raw, and recycled water to its retail customers, with additional water in the system lost as non-revenue water. **Table 2-1** identifies TVWD's retail public water system, the number of potable connections served, and the volume of potable water supplied in 2015.

Table 2-1: TVWD Public Water System

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
CA3310074	Temescal Valley Water District	6,351	2,983
TOTAL		6,351	2,983

2.2 Individual or Regional Planning and Compliance

TVWD's 2015 UWMP is an individual rather than regional UWMP, as shown in **Table 2-2**. TVWD, however, receives wholesale supply from WMWD and some information about TVWD has been included in WMWD's 2015 UWMP.

Table 2-2: TVWD Plan Identification

Table 2-2: Plan Identification		
Select Only One	Type of Plan	Name of RUWMP or Regional Alliance <i>if applicable</i>
<input checked="" type="checkbox"/>	Individual UWMP	
<input type="checkbox"/>	Water Supplier is also a member of a RUWMP	
<input type="checkbox"/>	Water Supplier is also a member of a Regional Alliance	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)	

2.3 Fiscal or Calendar Year and Units of Measure

As shown in **Table 2-3**, TVWD is a retail water supplier, and data presented in this 2015 UWMP is reported in calendar years and in acre-feet (AF).

Table 2-3: TVWD Identification

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables Are in Calendar Years
<input type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
N/A	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF

2.4 Coordination and Outreach

The 2015 UWMP was prepared in coordination with TVWD's potable water wholesaler, Western Municipal Water District (WMWD) (see **Table 2-4**). Additionally, TVWD notified the County of Riverside, neighboring agencies and cities with which TVWD has connections, and the general public of its intention to adopt an UWMP. The UWMP was made available to the public and other interested parties on TVWD's website (www.temescalvwd.com) as well as the El Cerrito Branch Library. The Draft UWMP's availability was also noticed in The Press Enterprise, a local newspaper.

Table 2-4: Water Supplier Information Exchange

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name <i>(Add additional rows as needed)</i>
Western Municipal Water District

Chapter 3 System Description

3.1 General Description

Situated at the foothills of the Cleveland National Forest, TVWD is located in the Temescal Valley in western Riverside County. TVWD's service area sits between the Cities of Corona and Lake Elsinore and is bordered by the Santa Ana Mountains and Estelle Mountains on the west and east, respectively.

TVWD, formerly Lee Lake Water District (changed July 1, 2015) was established in 1965 to provide water and wastewater services to the residents of the Temescal Valley. The District is a public agency governed by a Board of Directors consisting of five locally elected members, and since its establishment, it has significantly grown to accommodate areas of residential communities, businesses, industrial parks, and residual agriculture. Areas currently served by TVWD include residential developments in Wildrose, The Retreat, Montecito, Trilogy, and Painted Hills, and commercial parcels in the Wildrose East Business Park along Temescal Canyon Road. Residential development in the Sycamore Creek development is approximately 70% built out, as of March 2014¹. Remaining areas within the TVWD boundary are undeveloped, supplied from wells, or supplied from the City of Corona or the Elsinore Valley Municipal Water District (EVMWD).

TVWD's service area consists of approximately 6,755 acres (roughly 10.5 square miles), of which approximately 450 acres are currently supplied water from TVWD's distribution system. TVWD provides water service to more than 15,085 customers^{2,3}. All of TVWD's imported water is provided by Metropolitan Water District of Southern California (through WMWD as the wholesale agency) via the Mills Pipeline. The Mills Pipeline serves other communities besides those served by TVWD including part of the City of Corona, the Eagle Valley area, and other areas within unincorporated Riverside County.

Currently, TVWD customers are served from a distribution system that includes five storage reservoirs and five pump stations, and operates with six major pressure zones and two smaller hydropneumatic zones⁴. **Figure 3-1** illustrates TVWD's major water facilities.

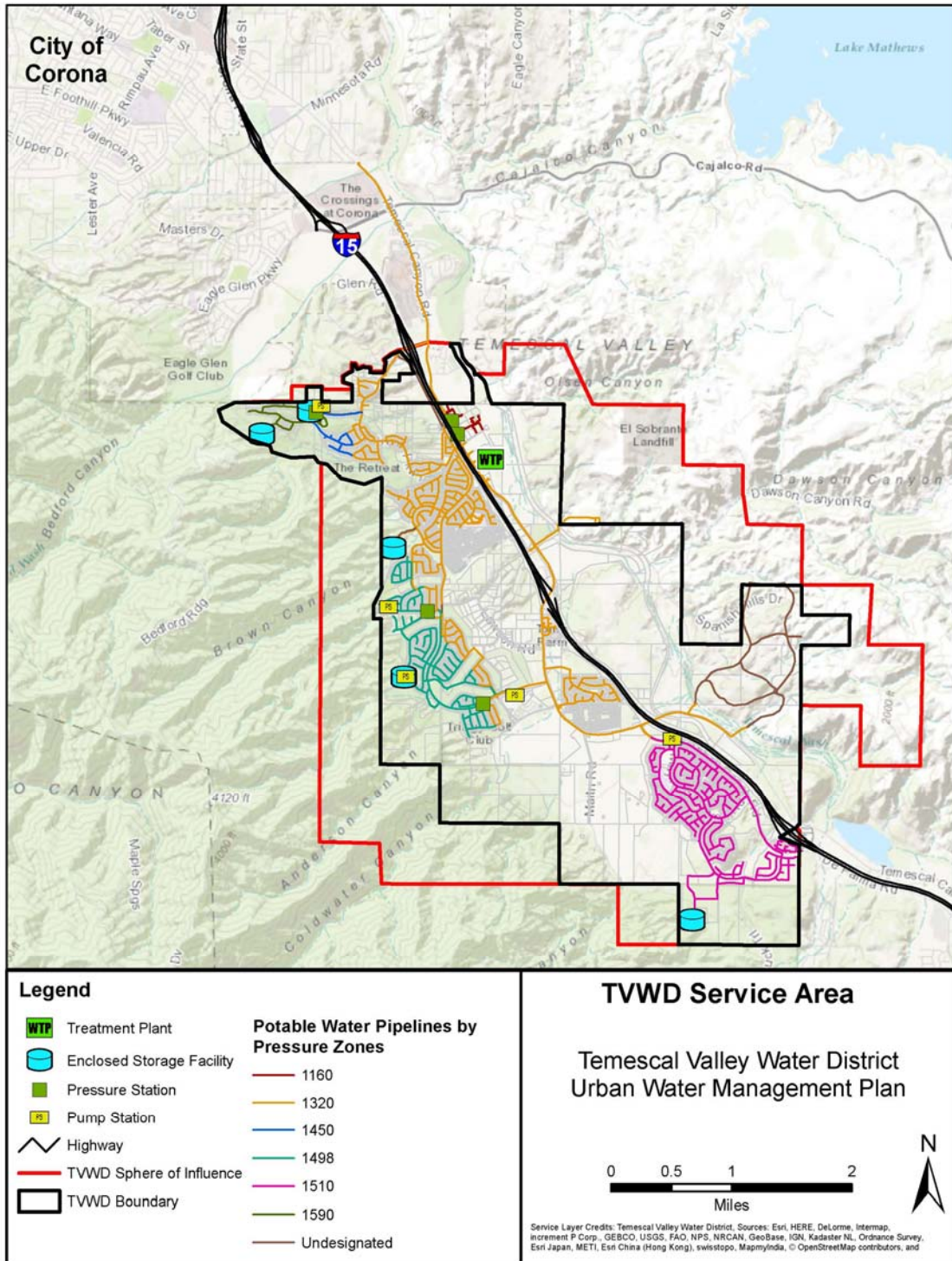
¹ Lee Lake Water District 2014 Water System Master Plan Update pg. 1-2

² Lee Lake Water District 2014 Water System Master Plan Update pg. 1-2

³ 2015 Western Urban Water Management Plan pg. 3-6

⁴ Lee Lake Water District 2014 Water System Master Plan Update pg. 1-4

Figure 3-1: Temescal Valley Water District Service Area Boundary Map



3.2 Service Area Climate

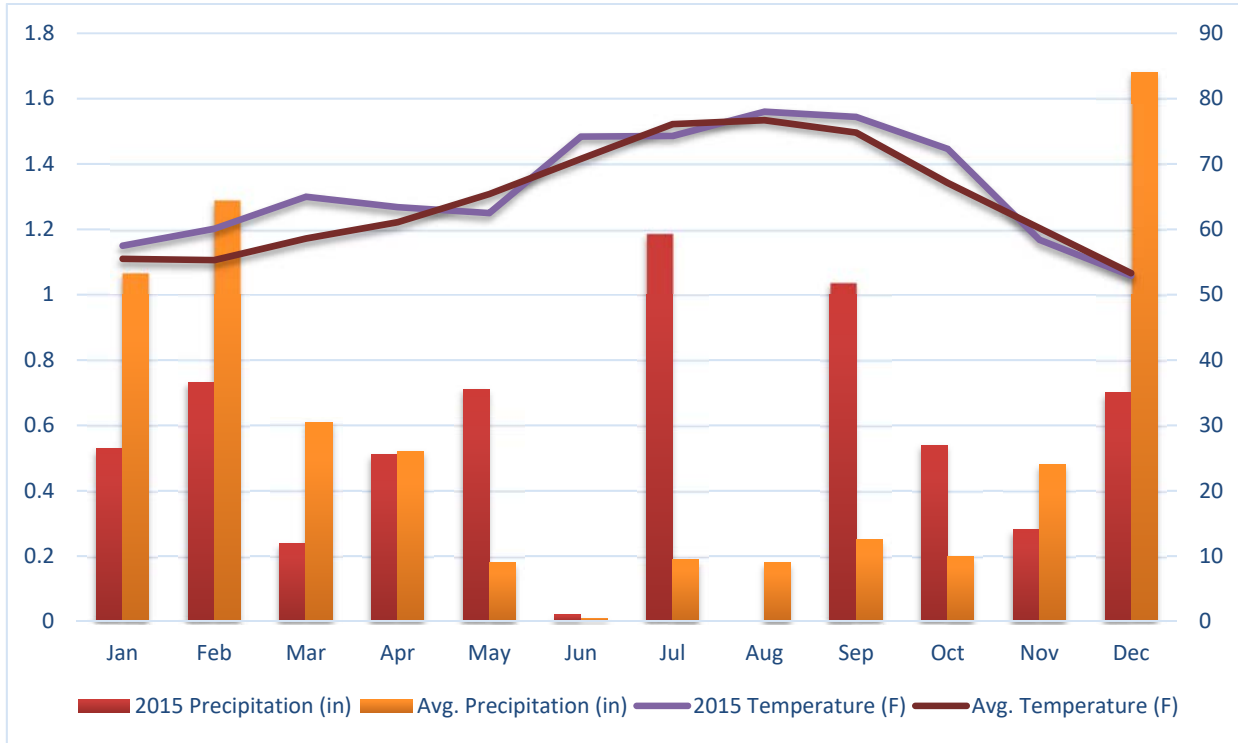
Located in the Temescal Valley in Riverside County, TVWD's climate is characterized as Southern California desert and is infrequently interrupted by periods of extremely hot weather, winter storms, or Santa Ana winds. This climatological pattern has led to historically varying precipitation patterns within TVWD's service area. **Table 3-1** provides information on average evapotranspiration (ET_o), rainfall, and temperature for TVWD's service area using data available from the UC Riverside (Station #44) California Irrigation Management Information System (CIMIS) collection station. This station was selected because it is located nearest to TVWD's service area within the Temescal Valley. The climate data reported below includes 2015 actuals, along with a ten-year average (2006-2015) that offers a broader perspective for TVWD's climate, which experienced severe drought in 2015 and the years immediately prior. **Figure 3-2** compares the 2015 and average temperature and precipitation for TVWD's service area.

Table 3-1: Climate Data for Temescal Valley Water District's Service Area⁵

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Avg
2015														
Precipitation (in)	0.53	0.73	0.24	0.51	0.71	0.02	1.19	0	1.04	0.54	0.28	0.7	6.49	0.54
ET _o (in)	2.84	3.32	5.85	6.28	5.37	7.46	6.75	7.66	5.81	4.22	2.77	2.35	60.68	5.06
Temperature (°F)	57.5	60.1	65	63.4	62.5	74.2	74.3	78	77.2	72.3	58.4	52.9	-	66.3
Ten-Year Average														
Precipitation (in)	1.07	1.29	0.61	0.52	0.18	0.01	0.19	0.18	0.25	0.20	0.48	1.68	6.65	0.55
ET _o (in)	2.83	2.93	4.74	5.60	6.50	7.05	7.43	7.30	5.83	4.12	2.94	2.26	59.53	4.96
Temperature (°F)	55.5	55.3	58.6	61.1	65.4	70.8	76.1	76.7	74.8	67.1	60.2	53.3	-	64.6

⁵ CIMIS (California Irrigation Management System) Monthly Report, U.C. Riverside – Los Angeles Basin – Station 44, [online] <http://www.cimis.water.ca.gov>

Figure 3-2: TVWD Climate



3.3 Service Area Population and Demographics

In 2015, TVWD’s retail service area served a population of 15,098. TVWD estimated its projected population based on proposed developed within its service area, and associated anticipated occupancy. This population projection is presented in **Table 3-2**.

Table 3-2: TVWD’s Current and Projected Population

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040
	15,098	16,100	17,005	20,000	20,000	20,000

NOTES: Projections based on anticipated occupancy of proposed development within TVWD’s service area.

Chapter 4 System Water Use

This chapter provides an overview of TVWD's current and projected potable and raw water demand through 2040. Non-potable/recycled water demands are summarized in **Table 4-3**. A detailed discussion of non-potable/recycled water, including demands, is provided in Chapter 6 System Supplies.

Table 4-1 summarizes potable water use in 2015 based on metered customer billing data and an estimate of water losses in TVWD's service area. While TVWD's water use has increased as population in the region has grown, 2015 water demand reflects conservation efforts among customers. Voluntary water use reductions were implemented by the State in July 2014, with mandatory restrictions in place beginning in May 2015 and extended through 2016 in response to the continued drought. Compliance with these conservation measures and SBX7-7 targets have led to a decrease in total water demands for TVWD in 2015.

Table 4-1: 2015 Potable and Raw Water Demands for TVWD Customers

Table 4-1 Retail: Demands for Potable and Raw Water – Actual			
Use Type	2015 Actual		
	Additional Description	Level of Treatment When Delivered	Volume
Single Family	Includes both single-family and multi-family homes; TVWD does not have separate customer categories for single-family and multi-family homes.	Drinking Water	2,021
Commercial		Drinking Water	60
Industrial		Drinking Water	32
Landscape		Drinking Water	243
Sales/Transfers/Exchanges to other agencies		Drinking Water	7
Agricultural irrigation		Drinking Water	619
Losses		Drinking Water	64
TOTAL			3,046

Table 4-2 presents the TVWD's potable water demand projections through the year 2040, and **Table 4-3** summarizes the potable demand with non-potable/recycled water demand (see Section 6.3) to demonstrate TVWD's total water demand projection.

The potable water demand projections are based on projected development and associated water demands, as calculated in TVWD's 2014 Water System Master Plan Update. The Water Master Plan projected an ultimate average annual water demand of 5,600 AFY (5.3 million gallons per

day (MGD)) for TVWD's service area by 2025, exclusive of deliveries to EVMWD, which are assumed to remain consistent with current, as well as TVWD's projections for water demands included in WMWD's 2015 UWMP.⁶ However, because demand projections developed for the 2014 Water System Master Plan Update do not reflect changes in water use implemented during the drought, some adjustments have been made to reflect long term conservation and behavioral changes. As a result projected water use is anticipated to be lower than previously estimated. **Table 4-2** reflects the revised water use projections, and is consistent with the projections provided to WMWD for its wholesale water demand planning. As described in Chapter 6, TVWD manages raw groundwater as non-potable/recycled water. As such, the demands shown in Table 4-2 reflect only potable demands.

Table 4-2: TVWD's Projected Potable and Raw Water Demands

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type	Additional Description	Projected Water Use				
		2020	2025	2030	2035	2040
Single Family	Includes both single-family and multi-family homes; TVWD does not have separate customer categories for single-family and multi-family homes.	2,042	2,256	2,471	2,900	2,986
Commercial		61	67	73	86	89
Industrial		32	36	39	46	47
Landscape		245	271	297	349	359
Sales/Transfers/Exchanges to other agencies		0	0	0	0	0
Agricultural irrigation		619	619	619	619	619
Losses		64	70	75	86	88
TOTAL		3,064	3,320	3,575	4,086	4,188
NOTES: Projected water use totals have been rounded. Demands shown are potable water only. TVWD manages raw groundwater as part of its non-potable/recycled water system.						

⁶ Lee Lake Water District 2014 Water Master Plan Update

Table 4-3: TVWD’s Projected Potable and Non-Potable/Recycled Water Demands

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	3,046	3,064	3,320	3,575	4,086	4,188
Recycled Water Demand* <i>From Table 6-4</i>	910	1,280	2,115	2,115	2,115	2,115
TOTAL WATER DEMAND	3,956	4,344	5,435	5,690	6,201	6,303

4.1 Water Use by Sector

TVWD provides water service to a variety of customer types, each with a unique use pattern. Customers are categorized as residential, commercial, industrial, landscape, or agricultural. There is also an “other agencies” category, which captures water that TVWD sells to other agencies. **Figure 4-1** shows each sector 2015 demands.

Figure 4-1: 2015 Potable Water Use by Sector

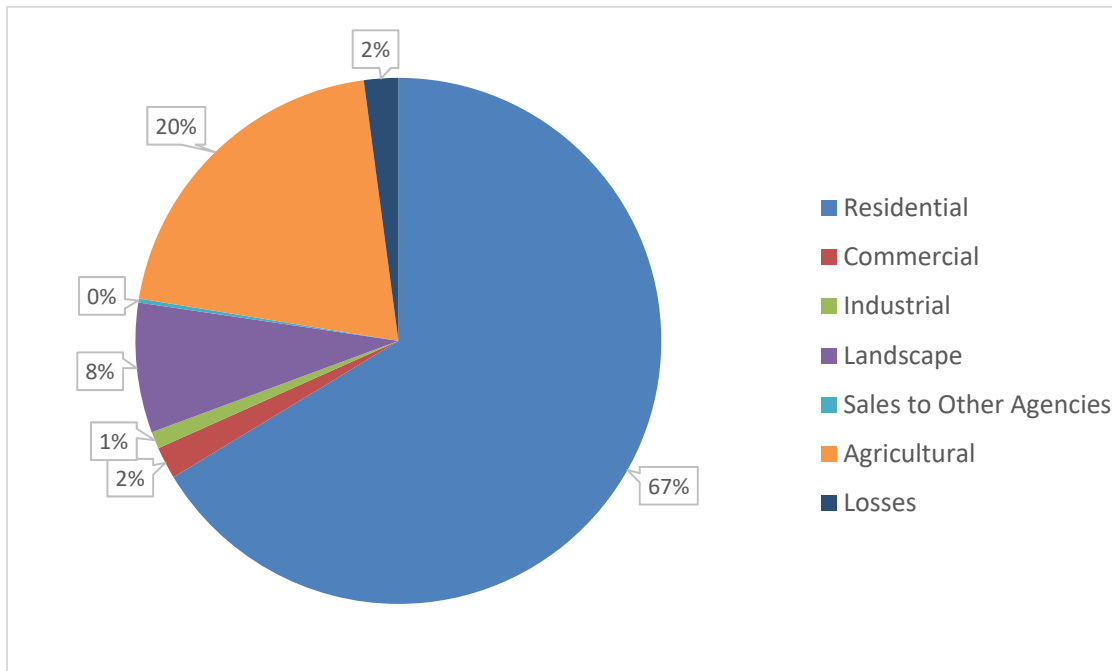
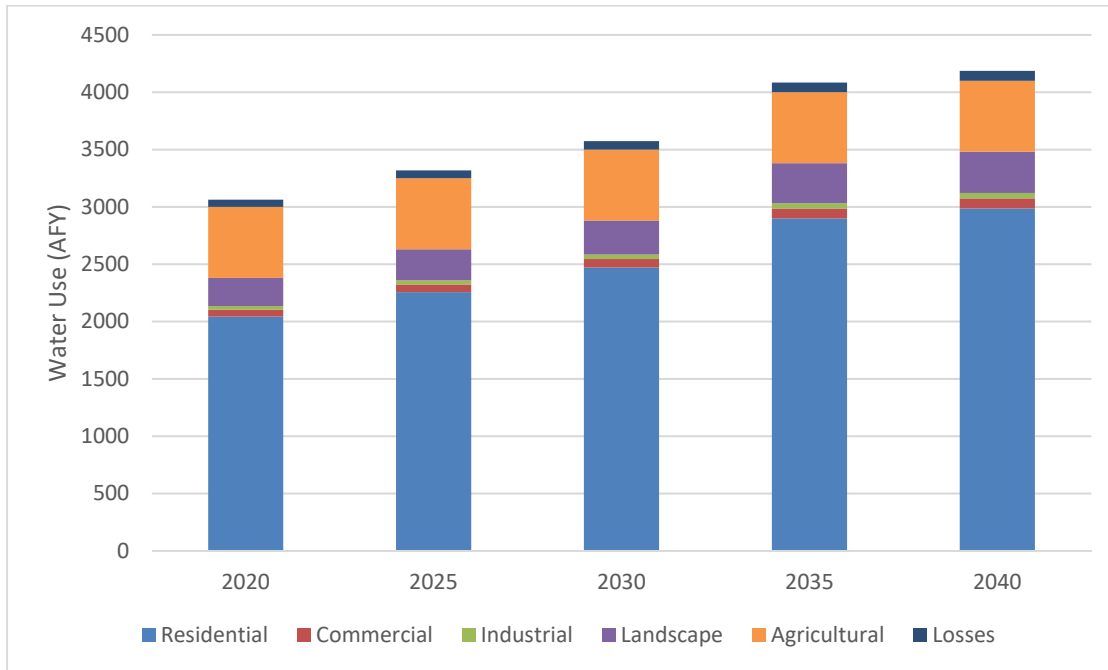


Table 4-4: Projected Potable Water Use by Sector



4.1.1 Residential

TVWD does not track single-family and multi-family residential customers separately in their customer classifications. Based on development in its service area, all of TVWD’s residential customers are single-family homes. As a result, in this UWMP, single family customers are simply reported as residential customers, and no breakdown is required between single family and multi-family customers.

Residential customers form the bulk of TVWD’s demands, using approximately 67% of total water potable water supplied by TVWD in 2015. In addition to being the largest customer class for TVWD, this sector is projected to have the greatest increase in demands based on planned development.

4.1.2 Commercial

TVWD’s commercial customers represent roughly 2% of 2015 demands. Commercial customers include business parks, golf courses, industrial and manufacturing. Most of these facilities include restaurants, offices, retail spaces, and service facilities. A majority of these customers are located within, or near, the Wildrose Business Park on Temescal Valley Road. Projected increases in commercial customer water demand, which is based on planned development, is approximately three-tenths that of the growth of residential customers.

4.1.3 Industrial

Industrial customers currently include light industry and construction. A majority of industrial demand comes from the local quarries supplying aggregate materials and manufacturing facilities. Most of these facilities are located within or near the Wildrose Business Park, with the exception of a quarry located in the south section of TVWD's service area near the Sycamore Creek development. Construction water is related to both residential and commercial projects, and is typically short-term with high flow demands. It also includes single family construction water prior to occupancy.

4.1.4 Landscape

Landscape customers include irrigation for roadways, parks, and commercial landscaping; these demands are TVWD's third largest customer sector. In 2015, irrigation customer demands made up 8% of total demands, outside of other sectors which may have also used water for irrigation purposes on their sites.

4.1.5 Sales to Other Agencies

In addition to serving its customers directly, TVWD has connections with the City of Corona and EVMWD. Historically, TVWD has provided water to these agencies as part of their regular service or to supplement supplies, though both connections are now considered emergency connections only. Historical water deliveries to the City of Corona included service by TVWD for a residential area outside the northern boundary of TVWD. Water deliveries to EVMWD were limited to supplemental water during peak summer demand to supplement supply from their wells that cannot meet demand for the California Meadows, Butterfield Estates and Tract 7240 subdivisions. EVMWD is constructing new delivery mains to serve these projects, so water deliveries from TVWD are expected to discontinue in the future. Because future deliveries to the City of Corona and to EVMWD will be through emergency connections only, sales to other agencies not anticipated to continue as part of regular deliveries. As such, future demands for these agencies have been reduced to 0 AFY, from the 7 AFY delivered in 2015.

4.1.6 Agricultural

Agricultural irrigation represented 20% of total 2015 demands, and generally served citrus and avocado groves within the HOA areas of the Trilogy and Montecito Ranch communities. Agricultural irrigation is not projected to increase in the future, as some agricultural land is projected to convert to other uses, such as residential or commercial. These areas are also proposed to be converted to the future non-potable system. For planning purposes, agricultural demands have been kept constant in demand projections, in the event that land conversion or future non-potable system connections occur slower than anticipated.

4.1.7 Distribution System Water Losses

Some water use is "lost" through unmetered releases from the system. These losses can be categorized as either apparent losses or real losses. Apparent losses are paper losses that occur in utility operations due to customer meter inaccuracies, billing system data errors and

unauthorized consumption. This is water that is consumed but is not properly measured, accounted or paid for. Real losses are the physical losses of water from the distribution system, including leakage and storage overflows. These losses inflate the water utility's production costs and stress water resources because they represent water that is extracted and treated, but is not beneficially used. Real losses also include events that cause water to be withdrawn from the system and not measured, such as hydrant testing and flushing, street cleaning, new construction line draining or filling, draining and flushing, and firefighting. TVWD's 2015 water losses, both apparent and real, were calculated using the American Water Works Association (AWWA) Water Loss Worksheet (**Appendix C**), and are presented in **Table 4-5**.

Table 4-5: TVWD's 2015 Water Loss

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
07/2014	64.2
<i>* Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.</i>	

4.2 Future Water Savings

Water savings associated with any future conservation efforts are not accounted for in projected water use. TVWD's current active and passive conservation measures are accounted for in projected use, but additional future conservation and savings measures were not included in the demand forecast due to uncertainty regarding details of such measures and unknown levels of success of uncertain future efforts. TVWD's commitment to water conservation is documented in Chapter 9 as well as its compliance with SBX7-7 water conservation requirements (Chapter 5). TVWD will continue to consider opportunities for water conservation as they are identified moving forward. **Table 4-6** indicates future water savings are not included in projections.

Table 4-6: Inclusions in TVWD's Water Use Projections

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections?	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	N/A
Are Lower Income Residential Demands Included In Projections?	Yes
NOTES: TVWD's service area does not include lower income residential areas, per U.S. Census median household income data.	

4.3 Water Use for Lower Income Households

California Water Code 10631.1 requires that water use projections of an UWMP include the projected water use for single-family residential housing for lower income households as identified in the housing element of any city, county, or city and county in the service area of the supplier. TVWD's service area falls entirely within unincorporated Riverside County, whose General Plan estimates approximately 39.7% of all households in western Riverside County are "very low" or "low" income. A review of household incomes in TVWD's service area shows that there are no customers within a U.S. Census-tract with a median household income (MHI) less than 80% of the area MHI. As such, no lower income households are considered present in TVWD's service area.

Chapter 5 SBX7-7 Baselines and Targets

The Water Conservation Act of 2009, also referred to as SB X7-7 or 20x2020, requires the State to reduce its urban water demands 20% by 2020. To help the State achieve its goal of reducing urban water use, water agencies must have established urban water use targets in their 2010 UWMPs and demonstrate compliance in their 2015 UWMPs. TVWD did not complete a 2010 UWMP; as such its water use analysis and goal setting for compliance with SB X7-7 is completed in this UWMP.

As demonstrated by the analysis presented below, TVWD is in compliance with its 2015 target and is on track for achieving its 2020 target. Supporting calculations used to determine the SBX7-7 baselines and targets as well as the DWR SB X7-7 Verification Form are included in **Appendix D**.

5.1 Urban Water Use Target

Setting the urban water use target follows a four-step process:

- 1) Determine the base daily per capita water use – a baseline water use period is used to determine the starting point from which the 20% use reduction goal is set; this can be a 10- to 15-year period ending no later than December 31, 2010 and no earlier than December 31, 2004.
- 2) Determine the urban water use target – Using the baseline established in Step 1, agencies calculate their 20% use reduction target that must be achieved by 2020; agencies may use one of four DWR-approved methods.
- 3) Confirm the urban water use target – Agencies may not have a 2020 target per capita water use greater than 95% of the 5-year baseline average per capita water use; this step confirms whether the agency's target may be the goal set in Step 2 or if they must use the 95% of the 5-year baseline average.
- 4) Determine the interim urban water use target – To measure progress towards meeting their 2020 goals, agencies set an interim target that must be met in their 2015 UWMPs to be considered compliant with SBX7-7; these interim targets are generally the mid-point between an agency's baseline and its 2020 goal.

5.1.1 Step 1 – Determine Base Daily per Capita Water Use

Baseline Periods

A 15-year baseline period is allowed for use in baseline water use calculation only if an agency's recycled water deliveries accounted for 10% or more of their total water deliveries in 2008. If recycled water accounted for 10% or less of an agency's total water deliveries, then the baseline period used must be a 10-year period ending no earlier than 2004. TVWD's recycled water supply was 226 AF in 2008, only 5.9% of total supply that year, therefore the base period range for determining the baseline daily per capita water use is 10 years. Additionally, a 5-year baseline period must be selected to confirm the 2020 target GPCD, as described in Section 5.1.2.

TVWD selected 1998 to 2007 for its 10-year baseline period and 2003 to 2007 for its 5-year baseline period. **Table 5-1** summarizes the baseline periods chosen for the analysis.

Table 5-1: Baseline Period Ranges (SB X7-7 Table-1)

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	3,816	Acre Feet
	2008 total volume of delivered recycled water	226	Acre Feet
	2008 recycled water as a percent of total deliveries	5.92%	Percent
	Number of years in baseline period ^{1, 2}	10	Years
	Year beginning baseline period range	1998	
	Year ending baseline period range ³	2007	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range ⁴	2007	
¹ If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.			
² The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.			
³ The ending year must be between December 31, 2004 and December 31, 2010.			
⁴ The ending year must be between December 31, 2007 and December 31, 2010.			

Service Area Population

For the 2015 UWMPs, DWR has provided a Population Tool to aid agencies in calculating their population during their baseline period and for 2015. DWR's Population Tool uses TVWD's retail service area boundary, number of residential connections served by TVWD, and U.S. Census data to compute the population served. The result of DWR's Population Tool were compared to population estimates maintained by TVWD for its service area. Per DWR's Population tool, TVWD's population was estimated to increase from 837 people to 3,617 people between 1998 and 1999, a more than 400% increase. Lack of accurate data compatible with the Population Tool was determined to be at fault for the unrealistic increase. As a result, this analysis instead uses TVWD's population estimates, which are considered to be more reasonable. During development of WMWD's 2015 UWMP, TVWD provided current and projected population estimates. TVWD's estimated population for its baseline periods and the year 2015 are summarized in **Table 5-2**.

Gross Water Use

Gross Water Use is defined in the 2015 Guidebook as the total volume of treated and raw (untreated) water that enters TVWD's distribution system. Recycled water, water placed into long-term storage, water sold to other agencies, and water used for agricultural purposes are excluded from this volume. TVWD's Gross Water Use for its baseline period and for 2015 is shown in **Table 5-2**.

Table 5-2: Gallons Per Capita Per Day (GPCD) (SB X7-7 Table 5)

Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1998	2,039	551	241
Year 2	1999	3,402	703	184
Year 3	2000	3,410	860	225
Year 4	2001	3,520	1,047	266
Year 5	2002	4,677	1,328	253
Year 6	2003	6,815	2,219	291
Year 7	2004	10,165	2,729	240
Year 8	2005	11,667	3,054	234
Year 9	2006	13,168	3,699	251
Year 10	2007	14,133	3,832	242
10-15 Year Average Baseline GPCD				243
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2003	6,815	2,219	291
Year 2	2004	10,165	2,729	240
Year 3	2005	11,667	3,054	234
Year 4	2006	13,168	3,699	251
Year 5	2007	14,133	3,832	242
5 Year Average Baseline GPCD				251
2015 Compliance Year GPCD				
2015		15,098	3,046	180

5.1.2 Step 2 – Determine Urban Water Use Target

DWR provided four methods that an urban water supplier may choose from to develop its 2020 water use target. TVWD has selected Method 1, 80% of the Base Daily Per Capita Use, to meet the urban water use target. The calculated base daily per capita use from **Table 5-2** is 243 GPCD; therefore, the 2020 target calculated at 80% of the base GPCD is **194 GPCD**.

5.1.3 Step 3 – Confirm Urban Water Use Target

The 2020 target may not be greater than 95% of the 5-year baseline average. **Table 5-2** provides the annual daily per capita use for the 5-year baseline period (2003 to 2007). 95% of the 5-year base daily per capita water use (251 GPCD) was calculated to be 238 GPCD. The 2020 target of 194 GPCD calculated from the 10-year baseline period was compared to 95% of the 5-year base period to confirm that the use target meets a minimum threshold.

5.1.4 Step 4 – Determine Interim Urban Water Use Target

The 2015 interim water use target is halfway between the baseline GPCD (243 GPCD) and the 2020 target GPCD (194 GPCD). Therefore, the interim water use target is 218 GPCD for 2015. **Table 5-3** summarizes TVWD’s baseline and target GPCDs.

Table 5-3: Baselines and Targets Summary

Table 5-1 Baselines and Targets Summary					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	1998	2007	243	218	194
5 Year	2003	2007	251		

*All values are in Gallons per Capita per Day (GPCD)

5.2 2015 Compliance

TVWD’s actual 2015 use was 180 GPCD. This meets the 2015 interim target of 218 GPCD and also meets the 2020 target of 194 GPCD. Although 2015 use may be artificially low due to state-mandated restrictions caused by the recent severe drought, TVWD is on track to meet its 2020 target. TVWD demonstrates compliance with its 2015 GPCD goal in **Table 5-4**. No adjustments were made to the 2015 GPCD. TVWD plans to continue to make improvements to its system, implement demand management measures (DMMs) as described in **Chapter 9** and encourage water use efficiency throughout its service area to further reduce urban per capita water use.

Table 5-4: 2015 Compliance

Table 5-2: 2015 Compliance									
Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD Enter "0" if no adjustment is made <i>From Methodology 8</i>					Adjusted 2015 GPCD*	2015 GPCD* <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*			
180	218	0	0	0	0	180	180	Yes	

**All values are in Gallons per Capita per Day (GPCD)*

Chapter 6 System Supplies

This chapter describes TVWD's water supply sources. Although TVWD was initially served by groundwater, it began receiving imported water in 1992, and currently purchases all of its potable water from its wholesale supplier, WMWD. In addition to water conservation programs and purchased imported water, TVWD provides non-potable groundwater and recycled water to its customers.

6.1 Purchased or Imported Water

TVWD receives all its potable water supply from Metropolitan Water District of Southern California (Metropolitan) through Western Municipal Water District (WMWD) via the Mills Pipeline. This water is imported from the State Water Project (SWP) system, and treated at the Henry J. Mills Water Filtration Plant. TVWD has two separate meters for its single connection to the Mills Pipeline – a 24-inch diameter flow control valve and a 10-inch diameter bypass and sleeve valve assembly. TVWD's turnout has a rated capacity of 26 cubic feet per second (cfs), but TVWD owns 10.6 cfs capacity, with potential to increase to 14.66 cfs. In addition to serving TVWD, the Mills Pipeline serves other communities including part of the City of Corona, the Eagle Valley area and other areas within the unincorporated Riverside County.

6.1.1 Metropolitan Water District of Southern California

Metropolitan is a public agency established “to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.”⁷ Metropolitan was formed in 1928 with the passage of the Metropolitan Water District Act by 13 Southern California cities who formed its original charter members. These cities recognized that continued economic development required careful management of the limited water supplies available within the region and acquisition of additional supplies. Metropolitan imports water from the SWP, which conveys water from the Bay-Delta and the Colorado River to Southern California via the California Aqueduct and the Colorado River Aqueduct, respectively.

Metropolitan's service area covers approximately 5,200 square miles of the Southern California coastal plain and is currently composed of 26 member agencies, including WMWD⁸. Metropolitan has no retail customers and distributes treated and/or untreated water directly to its member agencies. It also implements conservation programs as part of its supply management strategy. Member agencies pay for service through a rate structure made up of multiple components, primarily uniform volumetric rates, with the majority of revenue collected through a tiered volumetric supply charge, along with a secondary tier based on the cost of developing new supplies⁹. Currently Metropolitan supplies between 50% and 60% of the total municipal,

⁷ Metropolitan Water District of Southern California Mission Statement [<http://www.mwdh2o.com/>]

⁸ The Metropolitan Water District of Southern California 2015 Urban Water Management Plan pg. 1-6

⁹ Metropolitan Water District of Southern California 2015 Urban Water Management Plan pg. 1-7

commercial, and agricultural water used within the boundary of its service area. Member agencies coordinate with Metropolitan annually to project water demands for the next five years, while Metropolitan, in concert with its member agencies, also develops longer-term demand forecasts.

6.1.2 Western Municipal Water District (WMWD)

WMWD was formed in 1954 as a member of Metropolitan to import supplemental water to the developing western Riverside County. In 1962, Western expanded to also providing retail services. As the regional wholesaler of water from Metropolitan, WMWD serves, or is able to serve, 14 wholesale customers, of which eight purchased water from WMWD in 2015, including TVWD. WMWD's wholesale service area covers 527 square miles¹⁰. In total, WMWD serves an estimated 955,531 people across its wholesale (861,424) and retail (94,107) customers.

In a normal year, approximately one-quarter of the water WMWD purchases from Metropolitan comes from the Colorado River Aqueduct and about three-quarters from the SWP, which transports water from the Sacramento-San Joaquin Bay Delta via the California Aqueduct. This supply mix depends on the availability of SWP supplies, which varies more significantly than the Colorado River supply. During the recent drought, water allocations from SWP were significantly reduced, leading to a greater proportion of Colorado River supplies in Metropolitan's supply mix. WMWD also has significant groundwater resources which is pumped directly from the Temecula-Murrieta portion of the Temecula Valley Groundwater Basin and the San Bernardino Basin Area, and purchased from Meeks and Daly Water Company, Riverside Highland Water Company, and City of Riverside. WMWD's major water infrastructure is detailed in its 2015 UWMP¹¹.

6.2 Groundwater

In addition to potable water, TVWD provides non-potable groundwater to its irrigation customers. While TVWD's service area encompasses three hydrologic subbasins, (Lee Lake Subbasin, Coldwater Subbasin, and Bedford Subbasin), all three of TVWD's wells pump from the Bedford Subbasin. TVWD's wells are located approximately one mile northwest of the Lee Lake Water Reclamation Facility (LLWRF), and are replenished by subsurface inflow, precipitation, and percolation of stream flows from nearby Temescal Creek. Two of these wells have submersible turbine pumps and are used to supplement recycled water supplies. Each of these pumps has a capacity of approximately 1,250 gallons per minute (gpm) and are outfitted with Department of Health Services (DHS) approved backflow preventers. A 12-inch diameter pipeline connects the wells to the recycled water delivery pipeline, which supplies non-potable water for construction and irrigation purposes¹².

¹⁰ Western Municipal Water District 2015 Urban Water Management Plan pg. 3-1

¹¹ Western Municipal Water District 2015 Urban Water Management Plan pg. 6-1

¹² Lee Lake Water District 2007 Recycled Water Master Plan pg. 2-3

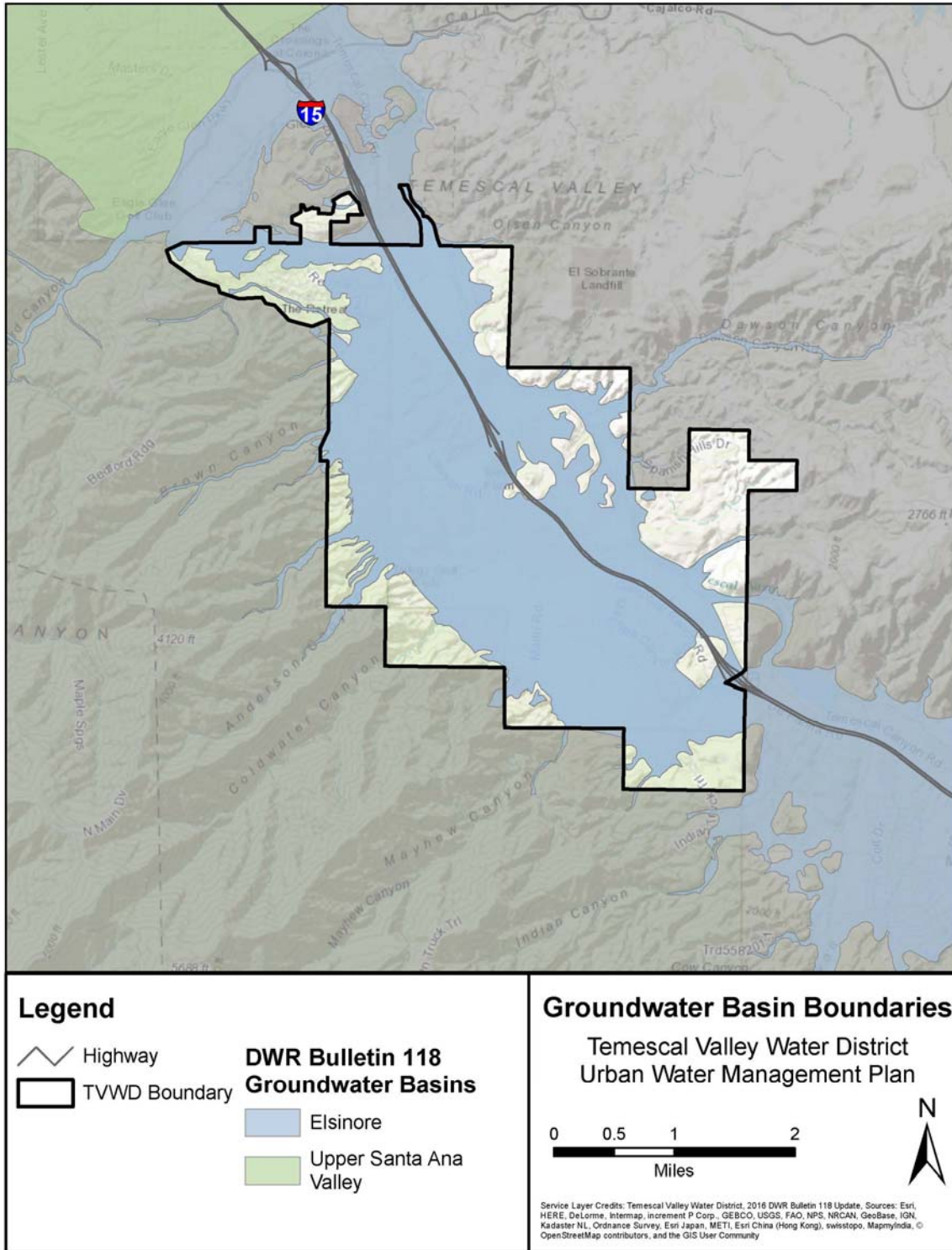
6.2.1 Basin Description

As shown in **Figure 6-1**, the Bedford Subbasin is the northernmost subbasin in the Elsinore Groundwater Basin (Basin Number 8-04). The Bedford Subbasin is in the process of becoming a formally recognized subbasin in DWR's Bulletin 118. The Elsinore Basin is an alluvial basin covering approximate 40.2 square miles, and has relatively restricted groundwater flows within the basin due to the presence of multiple fault lines. DWR's Bulletin 118 estimates total storage capacity in Elsinore Basin to be between 27,000 AF and 1,840,000 AF¹³.

Groundwater quality can vary in the Bedford basin, but is typically high in total dissolved solids (TDS) and sulfite. TDS ranges from 650 milligrams per liter (mg/L) to 900 mg/L, while sulfite generally ranges from less than 100 mg/L to over 450 mg/L. Although water quality testing is limited in these wells, they are known to have exceeded nitrate concentration limits for potable water (45 mg/l).

¹³ DWR Bulletin 118, Hydrologic Region South Coast – Elsinore Groundwater Basin, January 2006.

Figure 6-1: Groundwater Basins in TVWD's Service Area



6.2.2 Groundwater Management

Management of the Elsinore Basin is currently guided by the Elsinore Groundwater Management Plan (GWMP), adopted in 2005 by the Elsinore Valley Municipal Water District to help resolve the potential overdraft issues in the basin¹⁴. The GWMP focuses on the basin floor area, located south of the Bedford Subbasin. In addition to potential overdraft, the GWMP identified the nine issues listed in **Table 6-1** as areas of concern in the Elsinore Basin.

Table 6-1: Groundwater Management Issues in the Elsinore Basin

Groundwater Management Issues		
Well construction, destruction, and abandonment policies	Compliance with drinking water regulations and Basin Plan objectives	Declining groundwater levels and storage deficit
Groundwater contamination	Doubling of water demands	Basin monitoring
Well head protection	Use of groundwater for Lake Elsinore replenishment needs	Potential of subsidence

Source: *Elsinore Valley Municipal Water District, 2005*

Under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, the Elsinore Basin has been designated a high priority basin. The region is in the process of determining groundwater sustainability agencies and will develop groundwater sustainability plans for the basin or subbasins to comply with the Sustainable Groundwater Management Act (SGMA). A boundary modification request has been submitted for the Elsinore to split it into the Elsinore Valley Subbasin (8-004.01) and the Bedford-Coldwater Subbasin (8-004.02). In 2017, the Bedford-Coldwater Groundwater Sustainability Authority was created as a joint powers authority, and was approved to be the Groundwater Sustainability Agency for the Bedford-Coldwater Subbasin. The Bedford-Coldwater Groundwater Sustainability Authority includes TVWD, EVMWD, and the City of Corona.

6.2.3 Overdraft Conditions

As previously noted, the Elsinore Basin is in a potential overdraft condition. The CASGEM assessment of the Elsinore Basin states that studies indicate the basin has accumulated a 19,000 AF deficit in groundwater between 1990 and 2000, with an average annual deficit of 1,800 AFY between 2000 and 2011.¹⁵ The 2005 GWMP evaluated four management alternatives to address groundwater overdraft, and selected Alternative 4 as the preferred approach. Alternative 4 includes a combination of 14 dual-purpose wells, in-lieu recharge, and conservation, and utilizes injection of imported water into the groundwater basin to balance the groundwater budget¹⁶.

¹⁴ Elsinore Valley Municipal Water District, Elsinore Basin Groundwater Management Plan, March 2005. <http://www.evmwd.com/civicax/filebank/blobdload.aspx?BlobID=2096>

¹⁵ DWR, CASGEM Basin Summary – Elsinore Basin, May 2014.

¹⁶ EVMWD, 2005

6.2.4 Historical Groundwater Pumping

TVWD has pumped groundwater between 2011 and 2015, as indicated in **Table 6-2**. This water is primarily used to supplement non-potable recycled supplies. Because it is not a primary source of supply, groundwater pumped during this period is considered insignificant, and generally offset by natural inflow and imported water recharge to the basin.

Table 6-2: 2011-2015 Groundwater Pumping

Table 6-1 Retail: Groundwater Volume Pumped						
	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type	Location or Basin Name	2011	2012	2013	2014	2015
Alluvial Basin	Bedford Subbasin	50	50	200	500	1,269
TOTAL		50	50	200	500	1,269

6.3 Surface Water

Surface water is not currently used as a source of water for the TVWD and is not a planned source of water for TVWD.

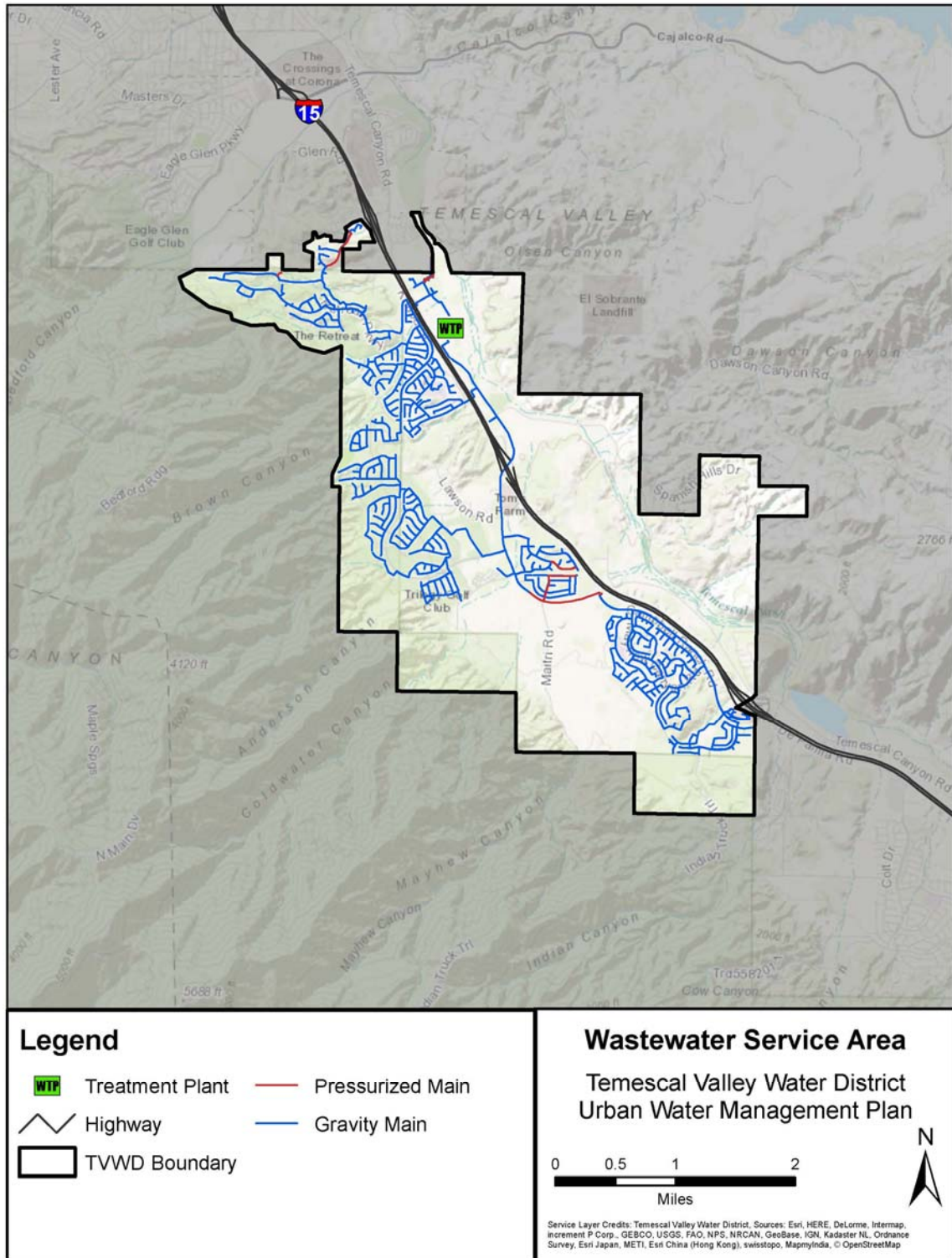
6.4 Stormwater

Stormwater is not currently used as a source of water for TVWD and is not a planned source of water for TVWD.

6.5 Wastewater and Non-potable/Recycled Water

TVWD owns and operates one wastewater treatment facility (LLWRF), and produces tertiary recycled water. **Figure 6-2** shows TVWD's wastewater service area and key infrastructure.

Figure 6-2: TVWD's Wastewater Infrastructure



6.5.1 Recycled Water Coordination

TVWD provides both wastewater and recycled water services within its service area. In general, all non-potable water produced by TVWD, including non-potable groundwater, is managed as recycled water. In 2007, TVWD adopted a Recycled Water Master Plan (RWMP) for the purpose of developing a plan to expand the recycled water system to address the water needs of its quickly developing region. TVWD does not receive wastewater flows from other agencies nor does it send wastewater from its service area for treatment by other agencies.

6.5.2 Wastewater Collection, Treatment, and Disposal¹⁷

As noted above, TVWD owns and operates one wastewater treatment facility (LLWRF), identified in **Table 6-3**. Septic systems are also common within TVWD's service area.

Table 6-3: TVWD Wastewater Treatment Facilities

Facility	Wastewater Treatment Capacity	Produces Recycled Water
Lee Lake Water Reclamation Facility (LLWRF)	1.58 MGD	Yes

The LLWRF discharges its secondary treated water to three EQ storage basins (total storage capacity: 750,000 gallons) to be used as feed water for its tertiary treatment train. Although inflows to LLWRF average between 0.6 and 0.7 MGD, peak flows can be substantially higher. The LLWRF has a tertiary treatment capacity of 2.3 MGD, and because it operates on demand, the tertiary treatment facilities operate at a higher production rate to treat stored flows. Tertiary treated water enters the recycled water distribution system immediately; TVWD does not own or operate storage facilities for the tertiary effluent/recycled water. TVWD anticipates future expansion of the LLWRF to a build-out capacity of 2.25 MGD for both secondary and tertiary treatment. **Table 6-4** provides additional details about these facilities.

Lee Lake Water Reclamation Facility

LLWRF was built in 1991 as a 0.9 MGD facility. It was later expanded to its present capacity of 1.58 MGD in 2005. The LLWRF utilizes an activated sludge treatment process, consisting of influent pumping, grit removal, and sequential batch reactors. Following flow equalization, secondary effluent is treated to tertiary standards through the use of rapid mix, flocculation, and sand filtration treatment methods. Tertiary treated effluent is then disinfected with chlorine and either pumped to the recycled water distribution system or dechlorinated and percolated into the ground. All disinfected tertiary recycled water meets Title 22 requirements and is permitted for unrestricted reuse in almost all recycled water applications.

¹⁷ Lee Lake Water District 2007 Recycled Water Master Plan pg. 1-5

Table 6-4: Wastewater Collection and Treatment in TVWD’s Service Area

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
<input type="checkbox"/>	There is no wastewater collection system. The supplier will not complete the table below.					
70	Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>					
95	Percentage of 2015 service area population covered by wastewater collection system <i>(optional)</i>					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party?
<i>Add additional rows as needed</i>						
TVWD	Estimated	1,007	TVWD	Lee Lake Water Reclamation Facility	Yes	No
Total Wastewater Collected from Service Area in 2015:		1,007				

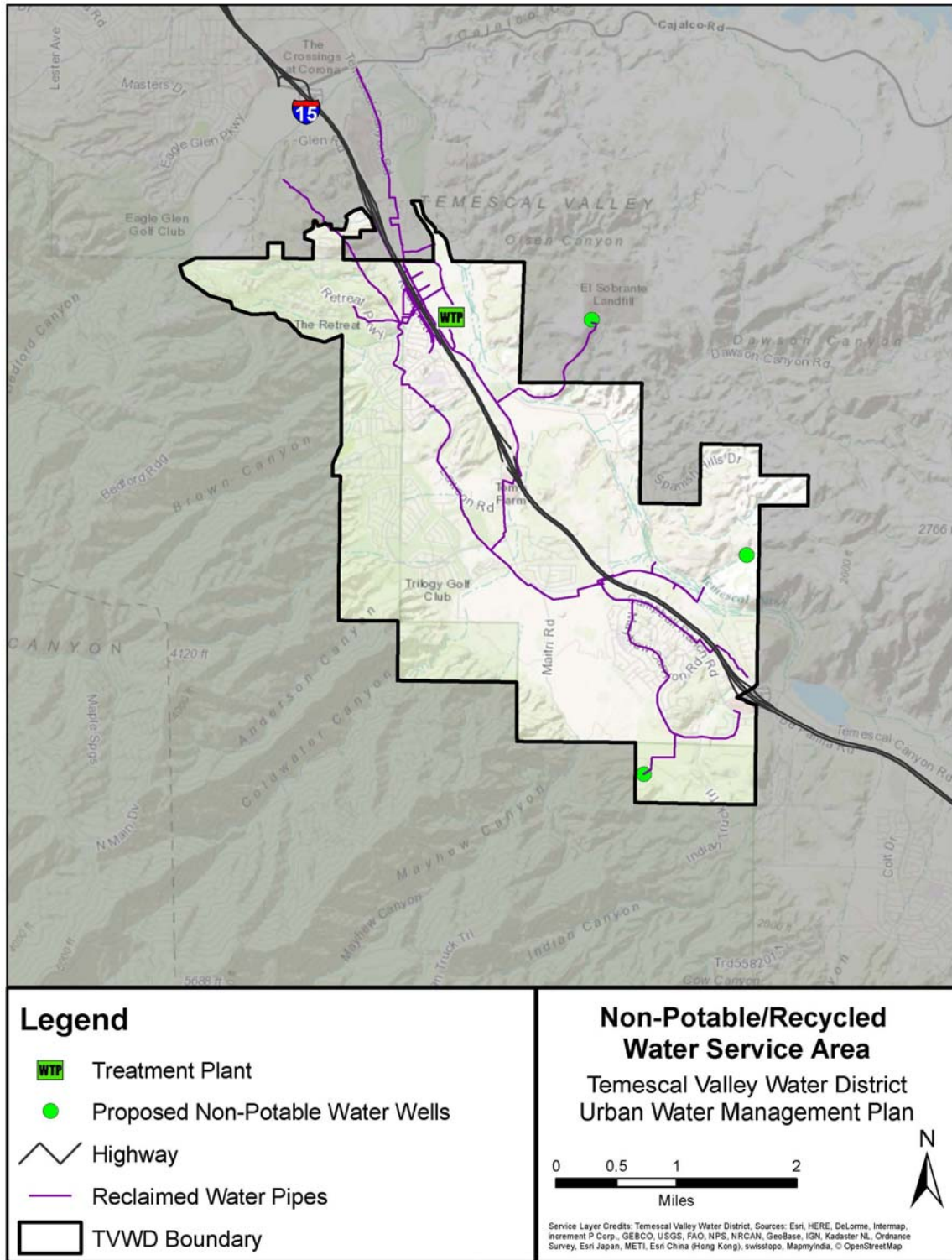
Table 6-5: Wastewater Treatment and Discharge within TVWD’s Service Area

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015									
<input type="checkbox"/>	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.								
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2015 volumes			
						Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Lee Lake Water Reclamation Facility	Recycled water customers and Temescal Creek	Landscaping and surface water disposal	River or creek outfall	No	Tertiary	1,007	1,007*	0	0
					Total	1,007	1,007	1,007	0
*Onsite Percolation									

6.5.3 Recycled Water System

Although the LLWRF was originally constructed in 1991, recycled water distribution pipelines were not constructed until 2006, when deliveries to the Retreat Golf Course began. TVWD supplied non-potable water to 97 customer accounts in 2015. Non-potable water includes non-potable groundwater and tertiary recycled water. TVWD treats both of these sources as recycled water, as the majority of the non-potable groundwater is used to supplement recycled water supplies. In accordance with TVWD's recycled water policy, recycled water should be used for any purpose or project approved for recycled water use when it is economically, financially, and technically feasible. All recycled water delivered by TVWD is produced at the LLWRF, and is used for landscape irrigation, golf course irrigation, industrial uses, and other Title 22-approved uses. Excess recycled water is dechlorinated and discharged to Temescal Creek. As shown in **Figure 6-3**, some of TVWD's service area is not served by its recycled water distribution system. Butterfield Estates, California Meadows, and the Lawson Road custom estates area are served by Temescal Canyon Water Company, a subsidiary of EVMWD.

Figure 6-3: TVWD Non-Potable/Recycled Water System



6.5.4 Recycled Water Beneficial Uses

Recycled water provided by TVWD is used by a limited number of customers, primarily those with large outdoor irrigation needs. TVWD anticipates future recycled water use to expand to additional customers, who will be able to reduce their outdoor use of potable water. Current and planned recycled water use is identified in **Table 6-6**. Because TVWD does not have a 2010 UWMP, **Table 6-7** (DWR Table 6-5), comparing the projected recycled water use with actual 2015 recycled water use is not applicable.

Current Use

In 2015, TVWD delivered approximately 910 AF of recycled water. **Figure 6-4** shows the distribution of recycled water use in TVWD's service area by use type. Industrial use includes use at the LLWRF (plant processes, washdown, on-site irrigation), while landscape irrigation includes outdoor irrigation needs in the Sycamore Creek development area. The Retreat Golf Course was the only golf course user of non-potable/recycled water delivered by TVWD, and represents the single largest use. The remaining 15% of non-potable/recycled water was delivered to the "Other" category of customers, which includes Wildrose Business Park, public parks, and other irrigation needs. **Table 6-6** shows current and projected recycled water use for its retail customers.

Planned Use

Approved recycled water use types in TVWD's service area include landscape irrigation (parks/playgrounds, golf courses, residential landscaping, commercial/industrial landscaping, freeway landscaping, open space/median strips), agricultural irrigation, construction dust control/compaction, industrial uses, commercial car washes, interior uses/dual plumbed systems, commercial laundries, fountains/water features, and sewer flushing/street sweeping. TVWD anticipates that of the approved uses, the bulk of its recycled water customers will use it for landscape irrigation. Customers within TVWD's service that could potentially be supplied from an expanded recycled water distribution system include all industrial, commercial, and agricultural users, such as irrigation of community parks, streetscape and median landscaping, common area HOA landscaping, and landscaping at commercial/business centers. In its 2007 RWMP, TVWD identified 96 irrigation customers that could be converted to recycled water, some of which have since been connected and are receiving recycled water. These near-term sites had an estimated demand of 637 AFY. Future growth in the region was also identified as potential source of new recycled water customers, and long-term could increase recycled water demand by another 925 AFY.

Figure 6-4: 2015 Recycled Water Use

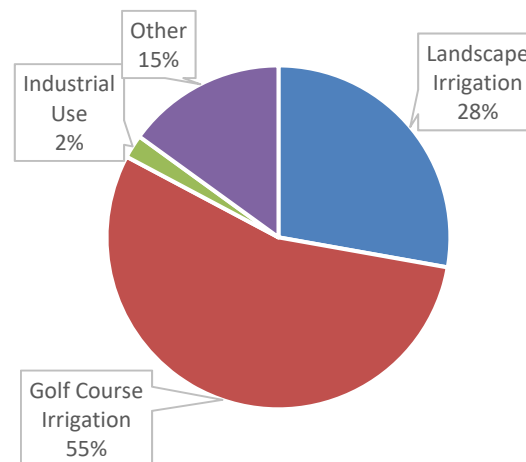


Table 6-6: TVWD’s Current and Planned Recycled Water Use

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area								
<input type="checkbox"/> Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.								
Name of Agency Producing (Treating) the Recycled Water:			Temescal Valley Water District					
Name of Agency Operating the Recycled Water Distribution System:			Temescal Valley Water District					
Supplemental Water Added in 2015			0 AF					
Source of 2015 Supplemental Water			Bedford Subbasin					
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment	2015	2020	2025	2030	2035	2040
Agricultural irrigation								
Landscape irrigation (excludes golf courses)	Parkways, landscaping, and outdoor irrigation	Tertiary	253	595	1,430	1,430	1,430	1,430
Golf course irrigation	Retreat Golf Course	Tertiary	500	504	504	504	504	504
Commercial use								
Industrial use	WRF processes and on-site irrigation	Tertiary	20	20	20	20	20	20
Geothermal and other energy production			0	0	0	0	0	0
Seawater intrusion barrier			0	0	0	0	0	0
Recreational impoundment			0	0	0	0	0	0
Wetlands or wildlife habitat			0	0	0	0	0	0
Groundwater recharge (IPR)*			0	0	0	0	0	0
Surface water augmentation (IPR)*				0	0	0	0	0
Direct potable reuse				0	0	0	0	0
Other	Misc. outdoor and approved uses	Tertiary	137	181	181	181	181	181
Total:			910	1,280	2,115	2,115	2,115	2,115
*IPR - Indirect Potable Reuse								

Table 6-7: Planned versus Actual 2015 Water Use

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual		
☒	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.	
Use Type	2010 Projection for 2015	2015 Actual Use
Agricultural irrigation		
Landscape irrigation (excludes golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Surface water augmentation (IPR)		
Direct potable reuse		
Other	<i>Type of Use</i>	
Total	0	0
NOTES:		

6.5.5 Actions to Encourage and Optimize Future Recycled Water Use

For all potential recycled water customers with substantial potential demands for recycled water, TVWD's 2007 RWMP included a strategy for connecting most potential customers. The planned expansion of the recycled water system included all but the most remote and difficult to reach customers in its assessment of potential demands. The RWMP laid out a phased approach to expand recycled water use within the service area. The first phase, to design recycled water delivery to the Retreat Golf Course and Wildrose Business Park, was completed in 2007. The second phase of the RWMP includes converting customers currently using potable supply for irrigation to a recycled water supply¹⁸. As noted previously, TVWD's recycled water policy mandates the use of recycled water where feasible, and future developments are anticipated to include dual plumbing or otherwise be designed with recycled water in mind. **Table 6-8** shows how these methods are anticipated to increase recycled water use in TVWD's service area.

¹⁸ Lee Lake Water District 2007 Recycled Water Master Plan pg. 5-1

Table 6-8: Methods to Expand Recycled Water Use in TVWD's Service Area

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
N/A	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
RWMP - second phase connections	Construct additional distribution pipelines and storage	2016	835
Total			835

6.6 Desalinated Water Opportunities

Given desalination's high cost and TVWD's significant distance from the ocean, TVWD has no identified desalination projects. However, there is potential for TVWD to consider future groundwater desalination if TVWD determines that demands are sufficiently high, imported water is sufficiently costly, or that available supplies are sufficiently limited to make groundwater desalination an attractive option. At this time, TVWD does not anticipate implementing groundwater desalination.

6.7 Exchanges or Transfers

6.7.1 Exchanges

TVWD does not have, nor plan to have, any exchanges for the purpose of reducing costs or improving water quality.

6.7.2 Transfers

Although TVWD sells some water to EVMWD and the City of Corona, it does not have, nor plan to have, any transfers for the purpose of reducing costs or improving water quality.

6.7.3 Emergency Interties

TVWD has an emergency intertie with EVMWD, but limited emergency storage. TVWD also has an intertie with the City of Corona, that can be used as an emergency intertie if necessary. TVWD has set its emergency storage requirement at 100% of the maximum day demand¹⁹.

6.8 Future Water Projects

TVWD's 2014 Water Master Plan recommended implementation of three projects in the Capital

¹⁹ LLWD 2014 WMPU pg. 3-3, 3-4

Improvement Plan to improve the backbone transmission and distribution system (**Table 6-9**). None of these projects expand TVWD's supplies, though they will increase reliability and TVWD's ability to continue serving its customers. For this reason, **Table 6-10** (DWR Table 6-7), is not applicable.

TVWD is already in the process of expanding its recycled water system (see Section 6.5) which will offset demands for potable water. Although TVWD uses some groundwater, it is not potable, and TVWD has reduced the number of functional wells it owns following connection to the imported water system. TVWD does not have direct control over the source of its potable supplies because all of TVWD's potable water is purchased from WMWD and Metropolitan. Expansion of TVWD's potable supplies is therefore achieved either through WMWD and Metropolitan projects or through increased purchases.

Table 6-9: Recommended Future Water Projects

Description/Location	System Benefit
Dawson Canyon Reservoir	Additional storage for 1320 Zone on east side of I-15
18" Dawson Canyon Reservoir supply line	Supplies Dawson Canyon Reservoir
12" pipeline between Retreat and Wildrose developments (microtunnel under Brown Canyon Channel)	Improves operation of 1320 Zone and balance between reservoirs

Table 6-10: TVWD's Expected Future Water Supply Projects and Programs

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input checked="" type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
<input type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency
	Y/N	If Yes, Agency Name				
N/A						

6.8.1 Summary of Existing and Planned Sources of Water

TVWD's existing and planned sources of water are anticipated to remain consistent, though the volume of water provided by each source is expected to vary. Recycled water production is anticipated to increase as TVWD continues to expand its recycled water distribution system. Groundwater supplies are anticipated to remain relatively constant as no new wells are planned and supplemental water may remain necessary for continued recycled water deliveries until such time as recycled water storage is available. All potable demands will continue to be met with purchases from WMWD and Metropolitan, and to increase over time as the region continues to grow. **Table 6-11** and **Table 6-12** show the actual and projected water supplies for TVWD's service area.

Table 6-11: TVWD's 2015 Water Supplies

Table 6-8 Retail: Water Supplies — Actual			
Water Supply	Additional Detail on Water Supply	2015	
		Actual Volume	Water Quality
Purchased or Imported Water	WMWD/Metropolitan	2,900	Drinking Water
Groundwater	Bedford Subbasin	1,007	Raw Water
Total		3,907	

Table 6-12: TVWD’s Projected Water Supplies

Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>									
		2020		2025		2030		2035		2040 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
<i>Add additional rows as needed</i>											
Purchased or Imported Water	WMWD/ Metropolitan	3,000		3,250		3,500		4,000		4,100	
Recycled Water	LLWRF	1,280		2,115		2,115		2,115		2,115	
Groundwater	Bedford Subbasin	1,100		2,000		2,500		2,500		2,500	
Total		5,380	0	7,365	0	8,115	0	8,615	0	8,715	0

Chapter 7 Water Supply Reliability Assessment

Water suppliers are required to assess water supply reliability by identifying constraints on their water sources and comparing total projected water use with the expected water supply over the next twenty years. Reliability must also be assessed for single-dry year and multiple-dry years. All of TVWD's potable supplies, and subsequently the majority of supplies, are imported water purchased from WMWD through Metropolitan. TVWD's non-potable supplies (recycled water and groundwater) are generally considered drought proof, and not vulnerable to restrictions during dry years. Thus, TVWD's supply reliability analysis follows that developed by WMWD as presented in WMWD's 2015 UWMP. This section presents the reliability assessment for TVWD's service area.

7.1 Constraints on Water Sources

TVWDs sources of supply are purchased imported water, non-potable groundwater, and recycled water (see **Chapter 6**). Each of these sources is constrained in one or more ways, driven by climatic and hydrologic conditions, water quality, and legal restrictions, as well as potential for supply interruption by catastrophic events.

7.1.1 Imported Supply Reliability

Imported supplies available to TVWD are only as reliable as they are for Metropolitan and WMWD. Imported water reliability is increasingly becoming a concern, especially in light of restricted SWP allocations in recent years. These concerns, especially about SWP supplies, are driven by impacts of climate change, competing demands, and environmental goals of the Bay-Delta. Recently, Metropolitan evaluated the reliability of imported supplies and concluded that without investment in new supplies and water conservation, short-falls are likely to occur in the future. Metropolitan outlined an approach in its 2015 Integrated Water Resources Plan (IRP) that included conservation savings and planned local supply development, which resulted in an anticipated 90 to 100% chance of meeting supply commitments over the next 25 years. Constraints on imported water supplies include:

- **Drought:** recent years have seen SWP allocations reduced to as low as 5% in some areas.
- **Operational Constraints:** SWP pumping cannot decrease flows in the Bay-Delta below certain thresholds required for sensitive species.
- **Climate Change:** impacts of climate change on imported water are anticipated to include increased variability in precipitation and changes to the timing of snowmelt, affecting flows, coupled with sea level rise that could impact supply availability, along with greater stresses to the environment which might result in required operational changes.
- **Threats to Infrastructure:** imported supplies much travel hundreds of miles from their source to TVWD. Damage to this infrastructure from natural disasters (flooding, seismic events, wildfires) or deliberate attack could result in supply disruption.

Metropolitan's Water Surplus and Drought Management Plan (WSDM) was adopted in 1999 with

the intent to maximize surplus water, when available, thereby minimizing impacts of drought and water shortage. The four primary strategies of the WSDM are:

1. Encourage efficient water use and economical local resource programs.
2. Coordinate operations with member agencies to make as much surplus water as possible available for use in dry years.
3. Pursue innovative transfer and banking programs to secure more imported water for use in dry years.
4. Increase public awareness about water supply issues.

In addition, Metropolitan's two-phased IRP outlines long-term water supply reliability strategies for a variety of scenarios. The 2015 phase of the IRP included a thorough assessment of demands, conservation, and supply, including climate change conditions. This phase evaluated the need for additional supplies and the volumes that should be conserved or developed in the future to achieve reliability. The 2016 phase of the IRP defined the projects that should be implemented to cost-effectively achieve supply and conservation goals.

Metropolitan's strategies for addressing constraints and reliability include investing in substantial storage and measures to reduce demand. These strategies helped reduce the impacts of the recent drought on supply availability. However, additional strategies should be implemented to continue to improve supply reliability. Metropolitan's IRP outlines an adaptive management strategy to address supply reliability issues, including developing new regional supplies (such as recycled water), continuing to reduce demands, and continuing to actively engage in the implementation of the California Water Fix projects. Five strategies were identified by Metropolitan which require action to secure supply reliability and address the constraints identified above:

- Maintain Colorado River supplies through use of a portfolio approach to stabilize delivery of 900,000 AFY.
- Stabilize SWP supplies through investment in state and federal initiatives (California WaterFix and EcoRestore) and collaboration with agencies to improve management of SWP operation and advance coequal goals of Delta restoration and supply reliability.
- Develop and protect local supplies and water conservation by increasing targets for both to meet increased demands from growth and developing a diverse portfolio of regional supplies while encouraging permanent conservation efforts.
- Maximize the effectiveness of storage and transfers by rebuilding reserves after droughts, storing water when excess is available, and utilizing storage and transfers
- Continue with the adaptive management approach to incorporate improved understanding and changing conditions and continuing to update the IRP and management strategies.

7.1.2 Groundwater Supply Reliability

TVWD's groundwater supplies are high in TDS and sulfites, and are not suitable for potable use without additional treatment. As such, groundwater is used in TVWD's non-potable system, primarily to supplement recycled water when demands exceed supplies. The Bedford Subbasin, from which TVWD extracts groundwater, is part of the Elsinore Basin, which is in overdraft conditions. Restrictions in groundwater supplies are poor water quality and overdraft. However, with the new basin boundary designation and creation of the Groundwater Sustainability Agency, which will develop a Groundwater Sustainability Plan for the newly designated Bedford-Coldwater Subbasin, better management of the groundwater basin is expected. Other threats include climate change, which could reduce inflow to basin while increasing demands for groundwater, and population growth, which would increase overall demands on the basin.

TVWD's groundwater supplies are considered reliable even during drought because of the small volume extracted by TVWD and its use as supplemental supply for recycled water rather than a primary supply for the region. Although recycled water use is anticipated to increase to 2,500 AFY by 2035, TVWD will be able to increase the use of recycled water produced at the LLWRF because all wastewater flows in TVWD's service area will be treated at the LLWRF, including flows from future developments that will use LLWRF's recycled water.

7.1.3 Recycled Water Supply Reliability

As previously indicated, recycled water is considered a drought proof supply because there will always be a base flow into the wastewater collection system. Constraints on recycled water include water quality and wastewater flows. TVWD treats its recycled water to disinfected tertiary, which can be used in a wide variety of applications, as described in **Chapter 6**. Although TVWD is expanding its recycled water distribution system, the LLWRF has sufficient capacity to accommodate increased production demands. Additionally, future growth will produce wastewater that will then be recycled to meet said growth's recycled water demands.

7.2 Reliability by Year Type

Because TVWD's non-potable supplies are stable during drought, they are not included in the following supply reliability assessment. Additionally, because TVWD's potable supplies are entirely purchased from WMWD, TVWD has elected to utilize the same years as WMWD and Metropolitan for the analysis presented here (**Table 7-1**). These years correspond to:

- Average Year: average hydrology between 1922 and 2004
- Single-Dry Year: 1977, corresponding to the year with the lowest SWP deliveries to Metropolitan for the years included in the IRP
- Multiple-Dry Years (3): 1990 to 1992, corresponding to the lowest 3-year period of SWP deliveries to Metropolitan

Table 7-1: Basis for Water Year Data

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		<input checked="" type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year	1922-2004	-	100%
Single-Dry Year	1977	-	100%
Multiple-Dry Years 1st Year	1990	-	100%
Multiple-Dry Years 2nd Year	1991	-	100%
Multiple-Dry Years 3rd Year	1992	-	100%
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
NOTES: TVWD has selected the same base years for each year type as WMWD and Metropolitan, as TVWD's sole supply source is Metropolitan water provided by WMWD.			

7.3 Supply and Demand Assessment

This section compares projected water supplies in the various hydrologic year types discussed above to projected demands. The demands used for this analysis are included in **Chapter 4**.

7.3.1 Normal Water Year

Projections for normal water year hydrology are based on the supply and demand projections described in **Chapter 4** and **Chapter 6**. As shown in **Table 7-2**, TVWD has sufficient supplies to meet projected demands in normal years.

Table 7-2: Normal Year Supply and Demand

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	5,380	7,365	8,115	8,615	8,715
Demand totals	4,344	5,435	5,690	6,201	6,303
Difference	1,036	1,930	2,425	2,414	2,412

7.3.2 Single-Dry Year

Both Metropolitan and WMWD show that during a single dry year, no shortages are anticipated because of storage within their systems and resiliency of groundwater supplies. As such, TVWD's potable supplies are not anticipated to be affected by a single dry year. As previously noted, TVWD's non-potable supplies are not anticipated to be affected by drought, especially over just a single year timeframe. Although Metropolitan's demand model shows a 2% increase in WMWD's demands, which is assumed to translate to an equivalent 2% increase in TVWD's demands, such demand variability is already accounted for in Metropolitan's model, which continues to project no shortages during the single-dry year event. As such, no demand increases (or corresponding supply increases) are included in **Table 7-3**.

Table 7-3: Single-Dry Year Supply and Demand

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040
Supply totals	5,380	7,365	8,115	8,615	8,715
Demand totals	4,344	5,435	5,690	6,201	6,303
Difference	1,036	1,930	2,425	2,414	2,412

7.3.3 Multiple-Dry Years

During the three-year drought scenario used for multiple-dry years assessment of reliability, SWP and Colorado River deliveries to Metropolitan are anticipated to decrease while demands are anticipated to increase. However, Metropolitan has invested in sufficient storage to manage demands during such drought years. As such, available supplies are not anticipated to vary from normal years. Similar to the single-dry year scenario, Metropolitan's model accounts for the increase in demand and still projects all demands can be met with its supplies. As a result, TVWD's demand increase (and corresponding increase in purchases from WMWD/Metropolitan) are not shown in **Table 7-4**.

Table 7-4: Multiple-Dry Year Supply and Demand

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040
First year	Supply totals	5,380	7,365	8,115	8,615	8,715
	Demand totals	4,344	5,435	5,690	6,201	6,303
	Difference	1,036	1,930	2,425	2,414	2,412
Second year	Supply totals	5,380	7,365	8,115	8,615	8,715
	Demand totals	4,344	5,435	5,690	6,201	6,303
	Difference	1,036	1,930	2,425	2,414	2,412
Third year	Supply totals	5,380	7,365	8,115	8,615	8,715
	Demand totals	4,344	5,435	5,690	6,201	6,303
	Difference	1,036	1,930	2,425	2,414	2,412

7.4 Regional Supply Reliability

As demonstrated in this chapter, TVWD projects 100% reliability in the normal, single-dry, and multiple-dry year scenarios. Both Metropolitan and WMWD are seeking to diversify their supply portfolios to increase resiliency to drought, while increasing local supplies, such as recycled water and groundwater desalination. TVWD is also actively seeking to reduce its per capita potable water demands through the increased use of recycled water and encouragement of water conservation practices. TVWD's Water Shortage Contingency Plan, included in **Chapter 8** addresses the actions to be taken in the event that demands need to be reduced or shortages become a possibility.

Chapter 8 Water Shortage Contingency Planning

TVWD has adopted a Water Shortage Contingency Plan in its Rules and Regulations. Section 39 of the Rules and Regulations is titled District Water Conservation Program (Program) and includes water shortage stages and stages of action to reduce water consumption. The Program will be implemented in water shortage conditions due to interruption in water supply.

TVWD's stages of action are the measures by which customers will assist in voluntary and/or mandatory water conservation practices during a water shortage. As the region's wholesaler, WMWD has a Drought Allocation Plan (DAP) for its member agencies. DAC actions apply to TVWD as one of WMWD's customers. TVWD will focus on implementing its own stages of action with consideration of WMWD's response to a declared water shortage throughout its service area.

8.1 Stages of Action

To prepare for a water supply shortage, the Water Shortage Contingency Plan (**Appendix E**) allows for stages of water supply and a worst-case shortage. TVWD's water regulation combines voluntary and mandatory conservation measures to be implemented during a water shortage.

- **Stage I – Normal Conditions:** TVWD is able to meet all the water demands of its customers in the immediate future.
- **Stage II – Water Alert:** There is a probability that TVWD will not be able to meet all of the water demands of its customers.
- **Stage III – Water Warning:** TVWD is not able to meet all of the water demands of its customers.
- **Stage IV – Water Emergency:** A major failure of any storage supply or distribution facility.

During a Stage II Water Alert, the required cutback in usage is planned to be achieved on a voluntary basis. However, during a Stage III Water Warning shortage, voluntary measures would not be sufficient and rationing measures would need to be enacted. This has generally been shown to be the case in southern California during the droughts of the mid-1970's and late 1980's. During a Stage IV Water Emergency, a major failure to provide water has occurred and drastic voluntary and rationing measures will be enacted. These stages of action are shown in **Table 8-1**. A summary of expected reduction in usage is shown in **Table 8-2**.

Table 8-1: Stages of Action

Table 8-1 Retail: Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
<i>Add additional rows as needed</i>		
I: Normal Conditions	0%	Normal conditions – no reduction in supply
II: Water Alert	5-10%	5-10% reduction in total supply
III: Water Warning	11-25%	11-25% reduction in total supply
IV: Water Emergency	26-50%	26-50% reduction in total supply
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES:		

Table 8-2: Water Shortage Stages and Demand Reductions

Stage	Shortage	Voluntary Goal	Rationing Goal	Total Reduction Goal
I	Normal Conditions	0%	0%	0%
II	5-10%	10%	0%	10%
III	11-25%	10%	10%	20%
IV	26-50%	10%	20%	50%

8.2 Prohibitions on End Uses

The Water Shortage Contingency Plan establishes water use restrictions based on four phases or shortage conditions with an increasing level of severity as the stage number increases. **Table 8-3** shows the proposed measures to overcome a water shortage, as identified in Section 39 of TVWD's Water Conservation Program. These measures take effect when TVWD's General Manager has declared a water supply stage, which is then ratified by resolution of the Board of Directors.

The implementation of the water shortage stages will result in a significant reduction in water consumption. In the most severe water shortage, the collective implementation of residential and commercial landscape irrigation may achieve a reduction of up to 50% in irrigation water use. Further, as a member agency of WMWD, TVWD will respond to WMWD's actions as they respond to implementation of various stages of Metropolitan's WSDM Plan during water shortages.

Table 8-3: Restrictions and Prohibitions on End Uses

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>Drop Down List</i>
<i>Add additional rows as needed</i>			
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Customers prohibited from allowing water to leave property by draining onto adjacent properties or roadways	No
1	Other	Customers asked to practice water conservation and use water wisely	No
2	Landscape - Limit landscape irrigation to specific times	Parks, golf courses, recreation fields, and school grounds irrigated between 11 p.m. and 5 a.m. Lawn watering and landscape irrigated between 10 p.m. and 5 a.m.	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	No washing down of driveways, parking lots, or other paved surfaces.	Yes
2	Other	No hoses permitted when washing private car(s), RV, boat(s), trailer(s) or truck(s) – by bucket only.	Yes
2	CII - Restaurants may only serve water upon request		Yes
2	Other water feature or swimming pool restriction	No refilling of pools	Yes
2	Other - Prohibit use of potable water for construction and dust control	Construction meters used for irrigation shall not be used; no new temporary or construction meters; no potable construction water for earthwork or road construction	Yes
2	Other water feature or swimming pool restriction	No potable water will be used for artificial lakes, ponds or streams.	Yes
2	Landscape - Limit landscape irrigation to specific times	Agricultural customers limited to water sue between midnight and noon.	Yes
2	CII - Other CII restriction or prohibition	Commercial nurseries limited to water use between 11 p.m. and 5 a.m.	Yes
3	Landscape - Limit landscape irrigation to specific days	Parks and recreation field shall only be watered on even numbered days between 11 p.m. and 5 a.m. All school grounds shall	Yes

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>Drop Down List</i>
		be watered only on odd numbered days between 11 p.m. and 5 a.m.	
3	Landscape - Limit landscape irrigation to specific times	Golf courses shall irrigate greens only between 11 p.m. and 5 a.m.	Yes
3	Landscape - Limit landscape irrigation to specific days	Customers whose house number ends with an even number shall water only on even numbered days; customers whose house number ends with an odd number shall water only on odd numbered days; no watering or irrigation shall be done between 10 a.m. and 5 p.m. on any day.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Car and truck washing shall only be done at commercial washes	Yes
4	Landscape - Prohibit all landscape irrigation	No lawn watering or landscape irrigation shall be done.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	No watering of parks, recreation fields, school grounds, or golf courses unless watered with recycled water.	Yes
4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Car, RV, boat, trailer, or truck washing shall only be done at commercial establishments using recycled water.	Yes
4	Other - Prohibit use of potable water for construction and dust control	All construction meters shall be turned off and locked.	Yes
4	CII - Other CII restriction or prohibition	Agricultural customers and commercial nurseries shall stop all irrigation and watering.	Yes
4	Other	District will comply with Metropolitan's Incremental Interruption and Conservation Plan (IICP). MWD will establish periodically	Yes

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>Drop Down List</i>
		under the IICP, targeted water conservation goals for member agencies.	
NOTES:			

8.3 Penalties, Charges, Other Enforcement of Prohibitions

During emergency situations, TVWD may be required to activate its water conservation program. Customers will be notified to decrease their nonessential water use that range from Stage I: Normal Conditions to Stage IV: Water Emergency with prohibited uses of water. The objective of the program is that customers, knowing what is required in each drought phase, will manage their water use to be in compliance. However, should individual customers not be in compliance, then penalties or incentives may be implemented as allowed by TVWD. Some of the prohibitions include the following, depending on the stage enacted: failure to repair leaks, mobile equipment washing, hosing or washing sidewalks, using water to clean decorative structures, landscape irrigation, construction water use, fire hydrants, etc. **Table 8-3** shown above summarizes the prohibitions.

It is unlawful for any water customer to fail to comply with any of the provisions of this chapter. The penalties for failure to comply are shown below:

- 1st Violation – Written citation
- 2nd Violation – Water turn off, customer will be required to pay all applicable turn-on fees prior to resumption of service
- 3rd Violation – Penalty to be determined by the Board of Directors

Any such restricted or terminated service may be restored upon application of the customer in person at TVWD offices and only upon a showing by the customer that the customer is ready, willing and able to comply with the provision of this chapter’s rules regarding the conservation of water. Prior to any restoration of the service, the customer shall pay all TVWD charges for any restriction or termination of service and its restoration.

8.4 Consumption Reduction Methods

TVWD encourages responsible water use at all times, regardless of water shortage stage. During the recent drought, TVWD expanded its website content on water conservation programs, and provided regular drought newsletters to educate its customers on drought practices and regulations. A summary of TVWD’s consumption reduction methods is provided in **Table 8-4**.

Table 8-4: TVWD's Consumption Reduction Methods

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>		
1	Expand Public Information Campaign	TVWD produces drought newsletters and expands drought and conservation information on its website, including conservation rebate programs available to customers.
1	Provide Rebates for Landscape Irrigation Efficiency	TVWD's Water Conservation Program offers rebates for residents, HOAs, and businesses to increase irrigation efficiency
1	Provide Rebates for Turf Replacement	TVWD's Water Conservation Program offers rebates for residents, HOAs, and businesses to replace turf with waterwise landscaping
1	Other	TVWD's Water Conservation Program offers rebates for conversion to recycled water
NOTES:		

8.5 Mechanism to Determine Reduction in Water Use

TVWD meters all connections, through which it tracks water use. It also tracks water production through use of the real-time supervisory control data acquisition (SCADA) system. Additionally, month-end water meter readings are also collected and compiled into Monthly and Fiscal Year-to-Date Water System Reports. In the event that a water shortage stage is declared, water production and use data will be monitored and compared from week to week, and used to measure the effectiveness of any water shortage actions that may be implemented.

Historically, during a water supply shortage, operations personnel have conducted production facility inspections twice a day with increased monitoring of the SCADA system screens. Reservoir storage trend screens are the key indicators of overall system demand. In addition, field staff has monitored TVWD service area for signs of system or individual service leaks or excessive landscape watering.

TVWD will also follow implementation of stages of water shortage declared by WMWD and continue to monitor water demand levels. WMWD is likely to respond directly to Metropolitan's implementation of the WSDM Plan consumption reduction stages. During Shortage Stage 5, Metropolitan may call for extraordinary conservation, affecting all of its member agencies,

including WMWD. During this stage, TVWD will coordinate emergency activities with WMWD staff and Metropolitan's Drought Program Officer and monitor the effectiveness of ongoing conservation programs. Monthly or more frequent reporting on estimated conservation water savings will be provided and reviewed. Water consumption reports, water facility condition, and watershed hydrology information will all be considered for further appropriate action in response to the water shortage.

8.6 Revenue and Expenditure Impacts, Drought Rate Structures, and Use of Financial Reserves

There is potential for a decrease in revenues as a result of implementation of the Water Shortage Contingency Plan, due to decreased water use. At the same time, enforcement of the shortage contingency actions can increase costs to a water agency. TVWD's 2016 Water, Recycled Water, and Wastewater Cost of Service Study re-evaluated TVWD's tiered rate structure, and recommended rate changes. In 2017, TVWD adopted a new rate structure that was priced to provide sufficient revenue to build funds that could be used to cover drought-related expenses, but does not include a drought surcharge. The revised recycled water rates include a provision for an increase in commodity charges in the event that non-potable/recycled water demands outpace supply and supplemental potable water is required.

TVWD's rate structure is tiered, with customers charged a fixed fee plus a variable commodity fee. The fixed fee is based on meter size, while the variable commodity fee changes depending on volume of water used (for potable water), and pumping costs by zone. The fixed fee also includes a pass-through charge that helps cover costs for water provided by WMWD. This pass-through charge is adjusted when WMWD's rates and fees change. Any changes to costs of WMWD water (used to meet all of TVWD's potable demands) would increase TVWD's costs, but would be accommodated through the pass-through charge.

TVWD has identified four strategies that may be used to avoid financial problems during drought:

- **Use accumulated reserves.** A water purveyor needs a reserve for cash flow and system emergencies. In a severe drought or water emergency the District may be required to utilize emergency reserves.
- **Temporary increase of water rates if required to generate revenue.** This should be done during the winter when the impact on water use is lessened. Summer rate increases, when water usage is naturally greater, only exaggerate the impact of the increase, and should be avoided.
- **Rate structure adjustment.** Have a greater portion of revenue come from the fixed component, making it less vulnerable to changes in water sales.
- **Defer programs and costs – operating and capital.** It is assumed that any kind of emergency may cause the District to decrease or suspend certain programs to minimize operating and/or capital costs.

In general, TVWD does not anticipate financial shortfalls during short-term water shortages.

There is a risk of negative financial impacts during prolonged periods of drought, however during the recent drought, TVWD was able to accommodate changes in revenue and expenditures using a combination of reducing costs and drawing on reserves. Since then, TVWD has adjusted its rate structure to maintain financial health of the agency and allow for continued provision of service to customers.

8.7 Resolution or Ordinance

TVWD has prepared a draft Water Shortage Stage Resolution (**Appendix F**) that can be enacted by the Board of Directors during times of shortage. This resolution formally declares a water shortage stage, and enacts the conservation actions identified in TVWD's adopted Water Shortage Plan. During normal water supply (Stage 1), all customers are encouraged to use water wisely and avoid runoff. TVWD promotes local and statewide conservation programs on its website. Prior to and during implementation of the Resolution, TVWD would likely meet water shortage demands by implementing water use efficiency programs.

8.8 Catastrophic Supply Interruption

A water shortage emergency could be the result of a catastrophic event such as the result of drought, failures of transmission facilities, a regional power outage, earthquake, flooding, supply contamination from chemical spills, or other adverse conditions. Should a water shortage emergency occur, TVWD's Board may authorize implementation of the water conservation stages described in the Water Shortage Contingency Plan, as appropriate, to address emergencies. TVWD will take actions to activate its Emergency Response Plan (ERP), which includes planned responses for emergency situations that affect TVWD's facilities and service area. The goals of the ERP are to rapidly restore service after an emergency; ensure adequate water service for fire suppression; minimize water or electrical system damage; minimize impact and loss to customers; and provide emergency public information concerning customer service.

For catastrophic water supply interruptions, the ERP outlines the water shortage emergency response responsibilities, and provides a step by step procedure for responding to different types of emergencies. In general, actions taken during a major emergency or catastrophe include the following:

- Activate the appropriate level of the ERP
- Mobilize emergency response personnel, as needed
- Activate the Emergency Operations Center, if necessary
- Notify other relevant agencies, such as regulatory agencies
- Begin damage inspections
- Evaluate safety of facilities
- Begin documentation process
- Activate emergency communications systems, as needed

- Activate emergency mutual assistance agreements, if necessary
- Activate contracts for emergency supplies (including water) and equipment
- Interface with the media
- Coordinate inter-agency resources, including water supplies
- Develop repair and restoration plans
- Provide public and employee information announcements, including water quality advisories

TVWD has agreements in place that make certain emergency services and support available should the need arise. Available emergency services include the State of California Master Mutual Aid Agreement, California Water Agencies Response Network (WARN) and Plan Bulldozer. The Master Mutual Aid Agreement is planned out of the California Office of Emergency Services. WARN includes provides mutual aid assistance to signatory public agencies, and is managed by a State Steering Committee. Plan Bulldozer provides mutual aid for construction equipment to any public agency for the initial time of disaster when danger to life and property exists. Additionally, TVWD has an Emergency Water Quality Notification Plan, approved by DHS, that is reviewed and updated annually. WMWD also has construction equipment that can be made available to TVWD for use in disaster recovery.

In the event of an emergency, TVWD has the opportunity to stretch existing water storage, as well as obtain water from neighboring agencies. TVWD has an emergency interconnection with the City of Corona, through a 3,800 gpm permanent pump station. It also has an emergency interconnection with EVMWD, which is a metered, gravity connection that could be activated if necessary.

Public health notifications conforming to state laws will be distributed if TVWD determines that any damage to the water supply distribution system has compromised water quality. Public advisories may include directives to use bottled water or to boil tap water prior to consumption, or in the case of the absence of natural gas or electricity, instructions on the use of household bleach to disinfect tap water.

If the imported water supplies are reduced dramatically and power supply is not available for extended periods of time, TVWD will rely on the implementation of WMWD's and Metropolitan's emergency water supply plans.

8.9 Minimum Supply Next Three Years

As described in **Chapter 7**, TVWD's potable water supply reliability is dependent on supply availability from WMWD, and this analysis aligns with the one completed in WMWD's 2015 UWMP. As previously described, TVWD's non-potable/recycled water supplies are considered drought-proof and are projected to be sufficient to meet demands, regardless of water year.

In this UWMP, the minimum supply for the next three years (2016 through 2018) is based on the driest three-year historic sequence used for the supply reliability assessment (corresponding to

1990 through 1992). WMWD has projected sufficient supply to meet demands in the three year dry period; therefore, TVWD also projects that it will have supply sufficient to meet demands. Further, non-potable/recycled water supplies are anticipated to be sufficient to meet demands. Based on the analysis in Chapter 7, and assuming a consistent increase in demand annually between 2015 and 2020, supplies are anticipated to be equivalent to demands, as TVWD only purchases enough water from WMWD to meet demands. A summary of the minimum supply for the next three years is provided in **Table 8-5**.

Table 8-5: Minimum Supply Next Three Years

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	4,044	4,378	4,712
NOTES:			

Chapter 9 Demand Management Measures

9.1 TVWD's Demand Management Measures

TVWD recognizes water use efficiency as an integral component of its current and future water strategy for the service area. Demand management measures (DMM) refer to policies, programs, rules, regulation and ordinances, and the use of devices, equipment and facilities that, over the long term, have been generally justified and accepted by the industry as providing a “reliable” reduction in water demand. This means providing education, tools, and incentives to help the homeowner, apartment owner and business owner reduce the amount of water used on their property. DMMs help TVWD maintain supply reliability and achieve its SBX7-7 goals.

DMMs are equivalent to the 14 Best Management Practice's (BMP) as established by the California Urban Water Conservation Council (CUWCC). The BMPs are technically and economically reasonable and not environmentally or socially unacceptable, and are not otherwise unreasonable for most water suppliers to carry out.

While TVWD is not a signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) with the CUWCC, WMWD is a signatory to the MOU. Updated on January 4, 2016, the MOU has two primary purposes: (1) to expedite implementation of reasonable water conservation measures in urban areas; and (2) to establish assumptions for use in calculating estimates of reliable future water conservation savings resulting from proven and reasonable conservation measures²⁰. Western has made state-mandated Best Management Practices (BMPs) under the MOU the cornerstone of its conservation programs and a key element in the overall regional water resource management strategy. As a MOU signatory, Western assists its wholesale customers with BMP implementation, but is responsible for implementing only a subset of BMPs. Western works closely with its retail agencies and provides financial and technical assistance to help fund, market, and implement BMP programs to promote conservation.

9.1.1 Water Waste Prevention Ordinance

As described in Chapter 7, and the Water Shortage Contingency Plan included in Appendix E, TVWD requires customers to avoid runoff at all times. It also encourages customers to use water wisely regardless of water supply shortage stage.

9.1.2 Metering

TVWD has universal metering for water accounts in its service area and maintains water use information for residential, commercial, industrial, and irrigation users. All customer accounts are billed each month based on a monthly service charge and a volumetric commodity charge. TVWD also encourages the installation of dedicated landscape meters, which promotes appropriate

²⁰ Memorandum of Understanding Regarding Urban Water Conservation in California (MOU), pg. 7

irrigation schedules for future landscape programs²¹.

9.1.3 Conservation Pricing

Temescal Valley Water District's water rate structure is consistent with a recent consultant report²², and uses a tiered pricing model. Higher water use is charged at a higher rate, encouraging water conservation. In 2015, TVWD used a five-tiered rate structure. This was modified in 2017 to a three-tiered structure, as recommended in TVWD's Cost of Service Study.

9.1.4 Public Education and Outreach

Public Outreach

TVWD promotes public awareness of water use by distributing conservation information through bill inserts, brochures and special events every year. Pamphlets on water conservation are available in the lobby of the office where customers pay their bills. Consumption information for the same month from the previous year and letters on how to conserve water are provided on the customer's bill, allowing customers to monitor their own monthly water use, the effectiveness of household water conservation measures, and techniques used to conserve water. TVWD also maintains a web page (<http://www.temescalvwd.com>) which includes "Water Saving Tips" and "Kids Corner," frequently asked questions, newsletters, public service announcements, conservation related workshops and current press releases and publications. The "Water Savings Tips" includes a variety of information that encourages water conservation throughout TVWD, such as:

- 9 Ways to Save Water in the Bathroom
- 5 Ways to Save Water in the Kitchen and Laundry
- 10 Ways to Save Water Outside
- Testing Toilet for Leaks
- Preventative Maintenance for Your Toilets
- You Can Make a Difference
- A Homeowner's Guide to Garden and Lawn Watering Savings
- Residential Landscape Watering
- Water Facts
- How to Stop the Water: A quick Guide to Turning off Emergency Leaks

The "Kids Corner" page includes a link to the "EPA Beach Kids," "EPA Drinking Water Fun," and "Drippy's Drops (WMWD website)". These websites provide lesson plans and step-by-step instruction on an array of information for kids, students and teachers. Information is divided ranging from K-12, allowing children of all age groups to learn about the importance of clean water, water pollution, and how the water cycle operates.

²¹ LLWD 2005 Draft UWMP pg. 6-5

²² TVWD Comprehensive Water, Recycled Water, and Wastewater Cost of Service Study

TVWD's website also provides customers information on its rebate programs, as well as extending rebates offered through WMWD and Metropolitan's SoCal Water\$mart Program. More information can be found below in Section 9.2 Implementation over the Past Five Years.

School Education Programs

In addition to distributing information to schools, various fairs and other public events, TVWD supports numerous school education programs implemented by WMWD within TVWD's service area. The material and services offered meet the requirements of the California Science Framework Addendum and include class presentations and teacher's workshops, student workbooks, water cycle bracelets, earth balls, water story rocks, assembly-related material, teachers' guides, videos, speakers, and field trips. WMWD's programs are free-of-charge to public and private schools for grades K-12 and are designed to encourage and assist educators as they teach students about water supply, distribution, reclamation, conservation, and the future of water supplies²³.

As a customer of WMWD, TVWD is also able to take advantage of education programs offered through WMWD's wholesale agency, Metropolitan Water District of Southern California. Metropolitan's Conservation Program (<http://www.bewaterwise.com>) is Metropolitan's gateway to rebates, incentives and grant programs as well as educational materials, tips and inspiration for water-saving ideas indoors and outside.

Metropolitan Water District's Education unit provides water education programs, supplemental materials, activities and projects, teacher in-services, field trips, and classroom presentation ranging from Pre-K to K-12 for teachers and students in Southern California. The wide array of curriculum offered can be used either in class or online.

Curriculum and Supplemental Material	K	1	2	3	4	5	6	7	8	9	10	11	12
All About Water (C)	X	X	X										
Admiral Splash (C)					X	X							
WaterWays (C)						X							
Water Times (C)							X						
Conservation Connection (C)							X	X	X				
Water Quality: The Qualities and Science of Water (C)								X	X	X	X	X	X
Guzzler Gang (S)	X	X	X										
Little Splash (S)	X	X	X	X									
Journey Down The Colorado River Aqueduct (S)				X	X	X	X	X	X				
California's Water Resources Map (S)				X	X	X	X	X	X	X	X	X	X
Geography of Water (S)					X	X	X	X	X				
Water Conservation Poster (S)	X	X	X	X	X	X	X	X	X	X	X	X	X

²³ WMWD 2015 UWMP pg. 9-3

Curriculum and Supplemental Material	K	1	2	3	4	5	6	7	8	9	10	11	12
Water Cycle Poster (S)	X	X	X	X	X	X	X	X	X	X	X	X	X
MWD At A Glance Fact Sheet (S)	X	X	X	X	X	X	X	X	X	X	X	X	X

In addition to these resources, classroom activities and projects are also provided.

Grade K-5	Grade 6-8	Grade 9-12
Student Art	H2O Basics	Solar Cup
How Many Gallons Are You	Pressure	Properties of Water
Layers of Liquids	Turbidity	Water Treatment
Drops in a Penny	H2O Treatment	Groundwater Contamination
Best Water Filter	Gravity	Invasive Species
ABC's of Water	Science Projects	Science Projects
Water Bingo	Groundwater	Grimy Groundwater
Water Wizard	Heat	Saltwater Intrusion
Making Capillary Bookmarks	H2O Ratios	Water Debate
Float Your Boat	Solid Liquid Vapor	
Water Cycle in a Jar	Stratigraphy	

Metropolitan's education unit continues past high school graduation and expands its resources and opportunities into and beyond the classroom. Metropolitan has various internship opportunities in a broad range of academic areas for undergraduate and graduate students to learn about the water industry and gain valuable work experience. Outside of the classroom, Metropolitan's apprentice program provides instruction and on-the-job training for those interested in serving as a mechanic, electrician, or other trade profession in the water industry. In addition, a variety of water experts are also made available to speak about water issues facing the Temescal Valley region, address a specific water topic such as the drought, or provide an overview of their water system.

9.1.5 Programs to Assess and Manage Distribution System Real Loss

Neither TVWD nor WMWD have a formal leak detection program, although all identified leaks are repaired in a timely manner. Unaccounted-for water (water loss or non-revenue water) for TVWD is estimated at 2% of all water delivered into the distribution system.

9.1.6 Water Conservation Program Coordination and Staffing Support

Water conservation is under the direction of the TVWD office manager Allison Harden and is administered by TVWD office staff. This staff coordinates TVWD sponsored programs, and supports programs implemented by WMWD, TVWD's water wholesaler.

9.2 Implementation over the Past Five Years

9.2.1 Water Waste Prevention Implementation

Residential Programs

TVWD offers various programs to its residential customers to help them reduce and manage their water use. This is one of the primary means by which TVWD manages demands, and supports the directive to customers to use water wisely. Conservation program funding and rebate programs available through TVWD or its suppliers over the past five years, are described here.

TVWD Potable Water Conservation Funding Program

This program's goal is to provide incentives to TVWD customers to reduce potable water consumption used for irrigation purposes, which in turn will preserve potable water resources and aid in reducing water consumption charges.

Through this program homeowners are offered \$0.10 per square foot of irrigated area converted to rotary (conservation) type sprinkler nozzles, turf removal, conversion to drip type water system or conservation based irrigation timers up to 50% of verified cost or \$150 per household, whichever is less. TVWD's budget for this program, which includes the same offer to HOA's and commercial building irrigation, is \$100,000 available on a first come, first serve basis.

Rebate Programs from TVWD Suppliers

TVWD offers rebates to its residential customers through Metropolitan's SoCal WaterSmart program (http://socalwatersmart.com/?page_id=3007). Rebates offered through this program include:

- Turf Removal
- High-Efficiency Clothes Washers
- Premium High-Efficiency Toilets
- Rain Barrels & Cisterns
- Rotating Sprinkler Nozzles
- Soil Moisture Sensor Systems
- Weather-Based Irrigation Controllers

TVWD also offers WMWD's sprinkler nozzle distribution program, which provides vouchers for free Precision Sprinkler Nozzles (<http://www.freesprinklernozzles.com>).

Educational and Community Programs

In addition to the rebate program offered above, TVWD offers educational and informational material through Metropolitan.

Classes

Metropolitan offers classes both online and in person to reduce landscape water use, detailed below.

Mini-tutorials on the basics	In-depth tutorials for home gardeners	Professional Landscape Maintenance tutorials
<ul style="list-style-type: none"> • Getting Started • Plant Selection • Irrigation System Basics • Planting and Maintenance 	<ul style="list-style-type: none"> • Landscape Design Basics • Efficient Irrigation Systems • Plant Selections • Plant Care 	<ul style="list-style-type: none"> • Irrigation Principles • Irrigation System Troubleshooting • Controller Programming • Irrigation Scheduling

Drought Tracker

Metropolitan offers several resources to keep customers updated on the drought and its financial, political, and natural impacts.

- Drought In the News: Newspaper articles and broadcast coverage clips of drought related topics updated throughout the year
- Drought Impacts: Investigating the droughts impacts as it affects:
 - Agriculture/Food
 - Jobs
 - Recreation
 - Fire Safety
 - Local
- Supply Allocation Plan
- Water Supply Conditions
- Board Policy and Statements
- State and Federal Information
- Video Library and Resources

Videos

A video archive that displays everything from household repair tips, past water conservation efforts, and upcoming water conservation events.

Watering Calculator

The calculator tool estimates the correct amount of water to irrigate a landscape or garden weekly during normal supply conditions. Developed by the city of San Diego, it provides customized watering schedules by zip code based on data from the California Irrigation Management Information System (CIMIS) weather station network. The calculator uses average numbers for weather, plants, and soils within zip codes of the urban Southern California area.

Water Saving Tips

Residential water saving advice ranging from indoor use (washing machines, leaky faucets, shower length, toilet efficiency) to outdoor use (irrigation times and intervals, smart sprinkler controllers, sprinkler maintenance).

California's Friendly Gardening Guide

This guide features garden tours and galleries which display information on plant care, maintenance, and growth, as well as garden resources and a 1,500 plant index.

Quick Tips for a California Friendly Garden

With smart choices about sprinklers, plants and maintenance, water bills can drop and landscape health increase.

Conservation Materials

Conservation fact sheets provided by Metropolitan include:

- How to choose a water-efficient clothes washer
- How to choose water-efficient sprinkler nozzles
- Five Things to Know About the Drought
- Quick Tips for a California Friendly Garden
- 50 Favorites for California Friendly Landscapes
- Working Together Through the Drought
- How to Make a Rain Garden
- Metropolitan Today and Tomorrow
- How to choose a smart sprinkler controller
- Tips for being water-wise outside and indoors
- Top 10 California Friendly Plants

Commercial, Industrial, and Institutional Programs

TVWD offers a variety of programs to its commercial, industrial, and institutional customers to help manage and reduce their demands. Many of these programs overlap with residential programs, or provide the same or similar services.

TVWD Potable Water Conservation Funding Program

This program's goal is to provide incentives to TVWD customers to reduce potable water consumption used for irrigation purposes, which in turn will preserve potable water resources and aid in reducing water consumption charges.

Through this program home owner associations or commercial buildings with irrigation systems are offered \$0.10 per square foot of irrigated area converted to rotary (conservation) type sprinkler nozzles, turf removal or conversion to drip type water system up to 50% of verified cost or \$500 per 2" irrigation meter, whichever is less. TVWD's budget for this program, which includes the same offer to residential homeowners, is \$100,000 available on a first come, first serve basis.

TVWD Recycled Water Conservation Funding Program

Homeowner's or commercial buildings with irrigation systems are offered \$0.10 per square foot

of converted area up to 50% of the verified cost. The total refund per customer is determined by the Board of Directors, and \$150,000 is available on a first come, first serve basis.

TVWD will provide the following free of charge:

- RW signage (post and installation not included)
- Consultation, inspection and cross-connection testing

In addition, recycled water customers are given a rate incentive for using recycled water over potable water (currently RW at \$1.54/unit vs. \$2.15 to \$2.81/unit for potable).

Rebate Programs

Rebates are available to TVWD’s commercial customers through Metropolitan’s SoCal Water\$mart program. Rebates for commercial customers fall into several categories as shown below.

Plumbing Fixtures	Landscape Equipment	Food Equipment
<ul style="list-style-type: none"> • Premium High-Efficiency Toilets • Ultra-Low and Zero Water Urinals • Plumbing Flow Control Valves 	<ul style="list-style-type: none"> • Irrigation Controllers • Rotating Nozzles for Pop-Up Spray Heads • Large Rotary Nozzles • In-stem Flow Regulators • Soil Moisture Sensor Systems 	<ul style="list-style-type: none"> • Connectionless Food Steamers • Air-cooled Ice Machines
HVAC Equipment		Medical and Dental Equipment
<ul style="list-style-type: none"> • Cooling Tower Conductivity Controllers • Cooling Tower ph Controllers 		

In addition to equipment and fixture rebates, Metropolitan’s Water\$mart offers other rebate programs to promote water conservation. Additional information can be found at <http://socalwatersmart.com/commercial/>.

Turf Removal Program

Similar to the program offered to residential customers, this program offers a rebate for turf removal to commercial and public agencies.

Commercial customers may apply for and receive \$1 per square foot, up to \$25,000 per property each fiscal year (July 1-June 30). Public agencies may apply for and receive \$2 per square foot for the first \$3,000 square feet, and \$1 for each square foot of turf removed thereafter, up to a maximum of \$50,000 per property each fiscal year (July 1-June 30). Approval of all applications are on a first come, first serve basis and subject to fund availability.

Public Agency Landscape Program

To encourage agencies that have not already installed water-efficient landscape to do so, SoCal Water\$mart offers incentives for public agencies to install water-efficient landscape devices at their facilities and on their grounds. Eligible devices include weather-based or central computer, soil moisture sensor systems, large rotary nozzles, and rotating nozzles for pop-up spray heads.

On-Site Retrofit Program

Metropolitan's On-site Retrofit Program provides financial incentives directly to public or private property owners to convert potable water irrigation or industrial water systems to recycled water service. Incentives of up to \$195 per acre-foot for five years of estimated water use are available, with a cap at the actual retrofit costs. Items eligible for incentives include project design, permitting, construction costs associated with the retrofit of potable to recycled water systems, connection fees and required recycled water signage. Applications are reviewed and funds distributed on a first come, first served basis.

Landscape Irrigation Survey

Surveys are scheduled on a first-come, first-served basis. A certified landscape irrigation auditor will survey and provide written recommendations for qualifying non-residential properties within Metropolitan's 5,200 square-mile service area **at no cost**. To participate, properties must have a minimum of one acre of irrigated area. Eligible landscapes include commercial and industrial sites, homeowner association common areas, and institutional sites like schools, parks and government facilities.

Grant Funding Programs

Metropolitan's Water\$mart program even offers opportunities to apply for and receive grant funding for research toward water conserving technologies or products.

Innovative Conservation Program

Metropolitan's Innovative Conservation Program (ICP) provides funding in cooperation with the U.S. Bureau of Reclamation (USBR), Environmental Protection Agency (EPA), Southern Nevada Water Authority (SNWA), the Central Arizona Project (CAP), the Southern California Gas Company (SoCalGas) and Western Resource Advocates for research that will document water savings and reliability of innovative water savings devices. The objective is to evaluate the water saving potential and reliability of innovative water saving devices, technologies, and strategies.

Community Partnering Program

The Primary focus of the Community Partnering Program is sponsorship of water conservation and water-use efficiency programs and activities. Grants for up to \$2,000 for water use efficiency education and outreach programs are reviewed and awarded throughout the year.

World Water Forum

This program offers grants to college teams to research and develop cost-effective, water-saving technologies, policies, or communication strategies

World Water Forum College Program

The Metropolitan Water District of Southern California, the U.S. Bureau of Reclamation, and the Sanitation Districts of Los Angeles County sponsor this competitive grant program to help further awareness of global and local water issues. Grants up to \$10,000 per team are available to Southern California college teams to research and develop water-saving technologies, policies, or communication strategies.

9.2.2 Metering Implementation

TVWD meters all connections, and reads meters monthly when not in drought. More frequent metering may occur when water shortage actions are implemented to evaluate the status of demand and supply, and identify potential water waste in a timely manner.

9.2.3 Conservation Pricing Implementation

As described above, TVWD utilizes a tiered rate structure for potable use. This tiered structure has been in place for more than the last five years, and in 2017 was reduced from a five-tier structure to a three-tier structure. The lowest tier is limited to up to 7 units (each unit is equal to 748 gallons). As identified in Chapter 5, TVWD's per capita water use is only 131 gallons per person per day.

9.2.4 Public Education and Outreach Implementation

As previously noted, TVWD has multiple outreach programs on its website, and provides links to outreach and education programs available through WMWD and Metropolitan. Additionally, there is generally outreach associated with the conservation programs described above.

9.2.5 Implementation of Programs to Assess and Manage Distribution System Losses

TVWD meters all connections, including connections to WMWD (for potable water) and local supplies (non-potable and recycled water). TVWD completes an AWWA water loss audit annually, and in 2015 had a water loss of only 2%, or 64 AF. Of the total losses recorded in TVWD's 2015 water loss audit, only 43 AF, or just over 1% of total use were real losses. This is a small volume of water lost, and is not anticipated to increase substantially in the future.

9.2.6 Implementation of Water Conservation Program Coordination

TVWD's conservation program opportunities for its customers is described in Section 9.2.1, above, and their successes reflect the ongoing support from TVWD and its staff for its water conservation program.

9.3 Planned Implementation to Achieve Water Use Targets

TVWD will continue implementing the DMMs discussed in this chapter to achieve its 2020 water use goal. All DMMs work synergistically to reduce water use. TVWD will continue to promote Metropolitan conservation programs to the community.

9.4 Members of the California Urban Water Conservation Council

TVWD is not a signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU) on water conservation. Historically, TVWD selected BMPs that were cost-effective and reasonable in total cost, but will participate in all BMPs recommended by the CUWCC to some degree, either through local programs or as part of regional programs.

Chapter 10 Plan Adoption Submittal and Implementation

10.1 Inclusion of all 2015 Data

TVWD conducts its reporting for UWMP preparation on a calendar year basis. As such, this 2015 UWMP includes water use and planning data for the entire 2015 calendar year.

10.2 Notice of Public Hearing

10.2.1 Notice to Cities and Counties

The California Water Code Section 10621(b) stipulates that a water supplier must notify any city or county within which the supplier provides water that it is reviewing and considering changes to the UWMP. This notification must occur at least 60 days before the public hearing. TVWD held the public hearing for the UWMP on January 23. Notifications were sent to the City of Corona, Western MWD, Elsinore Valley MWD, and County of Riverside on November 14, well in advance of the 60-day requirement. All cities and counties receiving notifications are listed in Table 10-1. A copy of this notice is provided in **Appendix G**.

Table 10-1: Notification to Cities and Counties

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
City of Corona	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
County Name	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Riverside County	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Notes:		

10.2.2 Notice to the Public

Government Code 6066 requires that the water supplier notify the public of the public hearing in a local newspaper once a week for two consecutive weeks. The notice must include the time and place of the hearing, as well as the location where the draft UWMP is available for public review. TVWD noticed the public on December 19 and December 26 in The Press Enterprise. A copy of these notices is provided in **Appendix G**. The public comment period ran from December 18, when the Public Draft was posted, to January 12.

10.2.3 Public Hearing and Adoption

California Water Code 10642 states that prior to adopting the 2015 UWMP, the water supplier must hold a public hearing. The purpose of the public hearing is to allow public input on the Plan, consider economic impacts of the UWMP, and adopt a method for determining the water

supplier's water use target. TVWD held a Public Hearing on January 23. A copy of the agenda is provided in **Appendix H**. TVWD also held a 4 week public comment period from December 18 to January 12.

TVWD's 2015 UWMP was adopted by the Board of Directors during the January 23 meeting. A copy of the resolution is provided in **Appendix H**.

10.3 Plan Submittal

TVWD will submit the 2015 UWMP to DWR via the approved website after adoption. No later than 30 days after the Plan is adopted by TVWD's Board of Directors, TVWD will submit a CD copy of the adopted 2015 UWMP to the California State Library and submit a copy to any city or county to whom TVWD provides water.

10.4 Public Availability

California Water Code 10645 requires that water suppliers, no later than 30 days after filing a copy with DWR, must make the approved Plan available for public review during normal business hours. TVWD will provide a copy of the approved 2015 UWMP to the El Cerrito Branch Library, leave a copy at the front lobby of TVWD, and post the plan on TVWD's website.

10.5 Amending an Adopted UWMP

Should TVWD amend any portion of the approved 2015 UWMP, TVWD will follow each of the steps for notification, public hearing, adoption, and submittal that are required for an updated Plan. However, the 60-day notification to cities and counties to whom TVWD supplies water will not be sent again; the notification sent with the original plan addresses the requirement.

Appendix A - CWC Checklist

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Table F1
Checklist Arranged by Water Code Section

CWCSection	UWMP Requirement	Subject	Guidebook Location	UWMP Location
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	Section 5.1 and App D
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5 and App E	Chapter 5 and App D
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	Section 5.1.3
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	Section 5.2 and App D
1608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	Not Applicable
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	Section 10.2
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	Not Applicable
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	Section 5.2 and App D
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1	Section 2.1
10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.5.2	Section 2.4
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	Section 7.4

CWCSection	UWMP Requirement	Subject	Guidebook Location	UWMP Location
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	Section 10.2.1
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	Section 10.3
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	Section 3.1
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	Section 3.2
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	Section 3.3
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	Section 3.3
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	Section 3.3
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	Chapter 6
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	Section 6.2
10631(b)(1)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	Section 6.2.2
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	Section 6.2.1
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	Not applicable
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	Section 6.2.3
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.4	Section 6.2.4

CWCSection	UWMP Requirement	Subject	Guidebook Location	UWMP Location
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2and 6.9	Sections 6.2 and 6.8
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	Section 7.1
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	Section 7.2 and 7.3
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	Section 7.1
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.7	Section 6.7
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	Section 4.1
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	Section 4.1.7 and App. C
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	Section 9.2 and 9.3
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	Not Applicable
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.8	Section 6.8
10631(i)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	Section 6.6
10631(j)	CUWCC members may submit their 2013- 2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	Not Applicable
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	Section 2.4 and Chapter 4

CWCSection	UWMP Requirement	Subject	Guidebook Location	UWMP Location
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	Not Applicable
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	Section 4.3
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	Section 8.1
10632(a)(2)	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three- year historic sequence for the agency.	Water Shortage Contingency Planning	Section 8.9	Section 8.9
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	Section 8.8
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	Section 8.2
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	Section 8.4
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	Section 8.3
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	Section 8.6
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	Section 8.7 and App F
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	Section 8.5
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	Section 6.5
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	Section 6.5.2

CWCSection	UWMP Requirement	Subject	Guidebook Location	UWMP Location
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2	Section 6.5.2
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	Section 6.5.3 and 6.5.4
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	Section 6.5.4
10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.5.4	Section 6.5.4
10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.5	Section 6.5.5
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	Section 6.5.5
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	Section 7.1
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	Section 7.3
10635(b)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Section 10.3
10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	Plan Preparation	Section 2.5.2	Section 2.4 and 10.2
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	Sections 10.2 and App G

CWCSection	UWMP Requirement	Subject	Guidebook Location	UWMP Location
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	Sections 10.2.1
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	Section 10.2.3 and App H
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	Section 10.3
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	Section 10.3
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	Section 10.3 and 10.5
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	Section 10.4

Appendix B - DWR Required UWMP Tables

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Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
CA3310074	Temescal Valley Water District	6,351	2,983
TOTAL		6,351	2,983
NOTES:			

Table 2-2: Plan Identification		
Select Only One	Type of Plan	Name of RUWMP or Regional Alliance <i>if applicable</i> <i>drop down list</i>
<input checked="" type="checkbox"/>	Individual UWMP	
	<input type="checkbox"/> Water Supplier is also a member of a RUWMP	
	<input type="checkbox"/> Water Supplier is also a member of a Regional Alliance	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)	
NOTES:		

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables Are in Calendar Years
<input type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

Table 2-4 Retail: Water Supplier Information Exchange
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The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.

Wholesale Water Supplier Name <i>(Add additional rows as needed)</i>
--

Western Municipal Water District

NOTES:

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040(<i>opt</i>)
	15,098	16,100	17,005	20,000	20,000	20,000
NOTES: Projections based on anticipated occupancy of proposed development within TVWD's service area.						

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type <i>(Add additional rows as needed)</i>	2015 Actual		
<i>Drop down list</i> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	Additional Description <i>(as needed)</i>	Level of Treatment When Delivered <i>Drop down list</i>	Volume
Single Family	Includes both single-family and multi-family homes; TVWD does not have separate customer categories for single-family and multi-family homes.	Drinking Water	2,021
Commercial		Drinking Water	60
Industrial		Drinking Water	32
Landscape		Drinking Water	243
Sales/Transfers/Exchanges to other agencies		Drinking Water	7
Agricultural irrigation		Drinking Water	619
Losses		Drinking Water	64
TOTAL			3,046
NOTES:			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type <i>(Add additional rows as needed)</i>	Additional Description <i>(as needed)</i>	Projected Water Use <i>Report To the Extent that Records are Available</i>				
<u>Drop down list</u> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>		2020	2025	2030	2035	2040-opt
Single Family	Includes both single-family and multi-family homes; TVWD does not have separate customer categories for single-family and multi-family homes.	2042	2256	2471	2900	2986
Commercial		61	67	73	86	89
Industrial		32	36	39	46	47
Landscape		245	271	297	349	359
Sales/Transfers/Exchanges to other agencies		0	0	0	0	0
Agricultural irrigation		619	619	619	619	619
Losses		64	70	75	86	88
TOTAL		3,064	3,320	3,575	4,086	4,188
NOTES:						

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 <i>(opt)</i>
Potable and Raw Water <i>From</i> <i>Tables 4-1 and 4-2</i>	3,046	3,064	3,320	3,575	4,086	4,188
Recycled Water Demand* <i>From</i> <i>Table 6-4</i>	910	1,280	2,115	2,115	2,115	2,115
TOTAL WATER DEMAND	3,956	4,344	5,435	5,690	6,201	6,303
<i>*Recycled water demand fields will be blank until Table 6-4 is complete.</i>						
NOTES:						

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
07/2014	64.2
<i>* Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.</i>	
NOTES:	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i>	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections? <i>Drop down list (y/n)</i>	No
NOTES: There are no lower income residential customers within TVWD's service area	

Table 5-1 Baselines and Targets Summary					
<i>Retail Agency or Regional Alliance Only</i>					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	1998	2007	243	218	194
5 Year	2003	2007	251		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES:					

Table 5-2: 2015 Compliance								
<i>Retail Agency or Regional Alliance Only</i>								
Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD					2015 GPCD* <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Enter "0" if no adjustment is made <i>Methodology 8</i>						
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
180	218	0	0	0	0	180	180	Yes
<i>*All values are in Gallons per Capita per Day (GPCD)</i>								
NOTES:								

Table 6-1 Retail: Groundwater Volume Pumped						
<input type="checkbox"/>	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type <i>Drop Down List</i> <i>May use each category multiple times</i>	Location or Basin Name	2011	2012	2013	2014	2015
<i>Add additional rows as needed</i>						
Alluvial Basin	Bedford Subbasin	50	50	200	500	1269
TOTAL		50	50	200	500	1,269
NOTES:						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
<input type="checkbox"/>	There is no wastewater collection system. The supplier will not complete the table below.					
70	Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>					
95	Percentage of 2015 service area population covered by wastewater collection system <i>(optional)</i>					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i> <i>Drop Down List</i>
<i>Add additional rows as needed</i>						
TVWD	Estimated	1,007	TVWD	Lee Lake Water Reclamation Facility	Yes	No
Total Wastewater Collected from Service Area in 2015:		1,007				
NOTES:						

Appendix B - DWR UWMP Tables
Temescal Valley Water District 2015 UWMP

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015										
<input type="checkbox"/>	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.									
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number (optional)	Method of Disposal <i>Drop down list</i>	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level <i>Drop down list</i>	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
<i>Add additional rows as needed</i>										
Lee Lake Water Reclamation Facility	Recycled water customers and Temescal Creek	Landscaping and surface water disposal	-	River or creek outfall	No	Tertiary	1,007	1,007	0	0
Total							1,007	1,007	0	0
NOTES: Treated wastewater is discharged to onsite percolation										

Appendix B - DWR UWMP Tables
 Temescal Valley Water District 2015 UWMP

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area								
<input type="checkbox"/> Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.								
Name of Agency Producing (Treating) the Recycled Water:		Temescal Valley Water District						
Name of Agency Operating the Recycled Water Distribution System:		Temescal Valley Water District						
Supplemental Water Added in 2015								
Source of 2015 Supplemental Water		Bedford Subbasin						
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment <i>Drop down list</i>	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)	Parkways, landscaping, and outdoor irrigation	Tertiary	253	595	1,430	1,430	1,430	1,430
Golf course irrigation	Retreat Golf Course	Tertiary	500	504	504	504	504	504
Commercial use								
Industrial use	Water reclamation facility processes and on-site irrigation	Tertiary	20					
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)*								
Surface water augmentation (IPR)*								
Direct potable reuse								
Other (<i>Provide General Description</i>)	Misc. outdoor and approved uses	Tertiary	137	181	181	181	181	181
Total:			910	1,280	2,115	2,115	2,115	2,115
*IPR - Indirect Potable Reuse								
NOTES:								

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual		
<input checked="" type="checkbox"/>	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.	
Use Type	2010 Projection for 2015	2015 Actual Use
Agricultural irrigation		
Landscape irrigation (excludes golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Surface water augmentation (IPR)		
Direct potable reuse		
Other	<i>Type of Use</i>	
Total	0	0
NOTES:		

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
N/A	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
<i>Add additional rows as needed</i>			
RWMP - second phase connections	Construct additional distribution pipelines and storage	2016	835
Total			835
NOTES:			

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input checked="" type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
<input type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Agency <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Agency Name</i>				
<i>Add additional rows as needed</i>						
NOTES:						

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
<i>Drop down list</i> <i>May use each category multiple times.</i> <i>These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i>		Actual Volume	Water Quality <i>Drop Down List</i>	Total Right or Safe Yield <i>(optional)</i>
<i>Add additional rows as needed</i>				
Purchased or Imported Water	WMWD/Metropolitan	2,900	Drinking Water	-
Groundwater	Bedford Subbasin	1,007	Raw Water	-
Total		3,907		0
NOTES:				

Appendix B - DWR UWMP Tables
Temescal Valley Water District 2015 UWMP

Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>									
<i>Drop down list</i> <i>May use each category multiple times.</i> <i>These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i>		2020		2025		2030		2035		2040 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
<i>Add additional rows as needed</i>											
Purchased or Imported Water	WMWD/Metropolitan	3,000		3,250		3,500		4,000		4,100	
Recycled Water	LLWRF	1,280		2,115		2,115		2,115		2,115	
Groundwater	Bedford Subbasin	1,100		2,000		2,500		2,500		2,500	
Total		5,380	0	7,365	0	8,115	0	8,615	0	8,715	0
NOTES:											

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year <i>If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000</i>	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		<input checked="" type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year	1922-2004	-	100%
Single-Dry Year	1977	-	100%
Multiple-Dry Years 1st Year	1990	-	100%
Multiple-Dry Years 2nd Year	1991	-	100%
Multiple-Dry Years 3rd Year	1992	-	100%
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
NOTES: TVWD has selected the same base years for each year type as Western and Metropolitan, as the District's sole supply source is Metropolitan water provided by Western.			

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 <i>(Opt)</i>
Supply totals <i>(autofill from Table 6-9)</i>	5,380	7,365	8,115	8,615	8,715
Demand totals <i>(autofill from Table 4-3)</i>	4,344	5,435	5,690	6,201	6,303
Difference	1,036	1,930	2,425	2,414	2,412
NOTES:					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	5,380	7,365	8,115	8,615	8,715
Demand totals	4,344	5,435	5,690	6,201	6,303
Difference	1,036	1,930	2,425	2,414	2,412
NOTES:					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	5,380	7,365	8,115	8,615	8,715
	Demand totals	4,344	5,435	5,690	6,201	6,303
	Difference	1,036	1,930	2,425	2,414	2,412
Second year	Supply totals	5,380	7,365	8,115	8,615	8,715
	Demand totals	4,344	5,435	5,690	6,201	6,303
	Difference	1,036	1,930	2,425	2,414	2,412
Third year	Supply totals	5,380	7,365	8,115	8,615	8,715
	Demand totals	4,344	5,435	5,690	6,201	6,303
	Difference	1,036	1,930	2,425	2,414	2,412
NOTES:						

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
<i>Add additional rows as needed</i>		
I: Normal Conditions	0%	Normal conditions – no reduction in supply
II: Water Alert	5-10%	5-10% reduction in total supply
III: Water Warning	11-25%	11-25% reduction in total supply
IV: Water Emergency	26-50%	26-50% reduction in total supply
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES:		

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>Drop Down List</i>
<i>Add additional rows as needed</i>			
1	Landscape - Restrict or prohibit runoff from landscape irrigation	Customers prohibited from allowing water to leave property by draining onto adjacent properties or roadways	No
1	Other	Customers asked to practice water conservation and use water wisely	
2	Landscape - Limit landscape irrigation to specific times	Parks, golf courses, recreation fields, and school grounds irrigated between 11 p.m. and 5 a.m. Lawn watering and landscape irrigated between 10 p.m. and 5 a.m.	Yes
2	Other - Prohibit use of potable water for washing hard surfaces	No washing down of driveways, parking lots, or other paved surfaces.	Yes
2	Other	No hoses permitted when washing private car(s), RV, boat(s), trailer(s) or truck(s) – by bucket only.	Yes
2	CII - Restaurants may only serve water upon request		Yes
2	Other water feature or swimming pool restriction	No refilling of pools	Yes
2	Other - Prohibit use of potable water for construction and dust control	Construction meters used for irrigation shall not be used; no new temporary or construction meters; no potable construction water for earthwork or road construction	Yes
2	Other water feature or swimming pool restriction	No potable water will be used for artificial lakes, ponds or streams.	Yes
2	Landscape - Limit landscape irrigation to specific times	Agricultural customers limited to water sue between midnight and noon.	Yes
2	CII - Other CII restriction or prohibition	Commerical nurseries limited to water use between 11 p.m. and 5 a.m.	Yes
3	Landscape - Limit landscape irrigation to specific days	Parks and recreation field shall only be watered on even numbered days between 11 p.m. and 5 a.m. All school grounds shall be watered only on odd numbered days between 11 p.m. and 5 a.m.	Yes
3	Landscape - Limit landscape irrigation to specific times	Golf courses shall irrigate greens only between 11 p.m. and 5 a.m.	Yes

Appendix B - DWR UWMP Tables
 Temescal Valley Water District 2015 UWMP

3	Landscape - Limit landscape irrigation to specific days	Customers whose house number ends with an even number shall water only on even numbered days; customers whose house number ends with an odd number shall water only on odd numbered days; no watering or irrigation shall be done between 10 a.m. and 5 p.m. on any day.	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Car and truck washing shall only be done at commercial washes	Yes
4	Landscape - Prohibit all landscape irrigation	No lawn watering or landscape irrigation shall be done.	Yes
4	Landscape - Prohibit certain types of landscape irrigation	No watering of parks, recreation fields, school grounds, or golf courses unless watered with recycled water.	Yes
4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Car, RV, boat, trailer, or truck washing shall only be done at commercial establishments using recycled water.	Yes
4	Other - Prohibit use of potable water for construction and dust control	All construction meters shall be turned off and locked.	Yes
4	CII - Other CII restriction or prohibition	Agricultural customers and commercial nurseries shall stop all irrigation and watering.	Yes
4	Other	District will comply with Metropolitan's Incremental Interruption and Conservation Plan (IICP). MWD will establish periodically under the IICP, targeted water conservation goals for member agencies.	Yes
NOTES:			

**Table 8-3 Retail Only:
 Stages of Water Shortage Contingency Plan - Consumption Reduction Methods**

Stage	Consumption Reduction Methods by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>		
1	Expand Public Information Campaign	TVWD produces drought newsletters and expands drought and conservation information on its website, including conservation rebate programs available to customers.
1	Provide Rebates for Landscape Irrigation Efficiency	TVWD's Water Conservation Program offers rebates for residents, HOAs, and businesses to increase irrigation efficiency
1	Provide Rebates for Turf Replacement	TVWD's Water Conservation Program offers rebates for residents, HOAs, and businesses to replace turf with waterwise landscaping
1	Other	TVWD's Water Conservation Program offers rebates for conversion to recycled water
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	4,044	4,378	4,712
NOTES:			

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
City of Corona	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Riverside County	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Appendix C - AWWA Water Loss Audit

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AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0
American Water Works Association
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?	Click to access definition
+	Click to add a comment

Water Audit Report for: Temescal Valley Water District (formerly Lee Lake Water District) (3310074)
Reporting Year: FY 2014/2015 7/2014 - 6/2015

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

----- Enter grading in column 'E' and 'J' ----->

Volume from own sources:	+	?	10		acre-ft/yr
Water imported:	+	?	10	3,012.000	acre-ft/yr
Water exported:	+	?	10		acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt:	+	?	10	0.55%	Value:		acre-ft/yr
	+	?	10				acre-ft/yr
	+	?	10				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 2,995.525 acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	+	?	10	2,879.000	acre-ft/yr
Billed unmetered:	+	?	10	10.000	acre-ft/yr
Unbilled metered:	+	?	10	4.875	acre-ft/yr
Unbilled unmetered:	+	?	10	37.444	acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: 2,931.319 acre-ft/yr

Click here: ? for help using option buttons below

Pcnt:	+	?	10	1.25%	Value:		acre-ft/yr
-------	---	---	----	-------	--------	--	------------

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

64.206 acre-ft/yr

Apparent Losses

Unauthorized consumption:	+	?	10	7.489	acre-ft/yr
---------------------------	---	---	----	-------	------------

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+	?	6	5.779	acre-ft/yr
Systematic data handling errors:	+	?	10	7.198	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 20.466 acre-ft/yr

Pcnt:	+	?	10	0.25%	Value:		acre-ft/yr
-------	---	---	----	-------	--------	--	------------

Pcnt:	+	?	10	0.20%	Value:		acre-ft/yr
	+	?	10	0.25%	Value:		acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 43.740 acre-ft/yr

WATER LOSSES: 64.206 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 106.525 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+	?	10	65.3	miles
Number of active AND inactive service connections:	+	?	10	4,670	
Service connection density:	?	?	10	71	conn./mile main

Are customer meters typically located at the curbside or property line? Yes

Average length of customer service line: + ? 10 (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: + ? 10 70.0 psi

COST DATA

Total annual cost of operating water system:	+	?	10	\$1,024,779	\$/Year
Customer retail unit cost (applied to Apparent Losses):	+	?	10	\$2.65	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	+	?	10	\$980.00	\$/acre-ft

Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 92 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Customer metering inaccuracies

2: Unauthorized consumption

3: Systematic data handling errors

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Appendix D - SBx7-7 Verification Form

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SB X7-7 Table 0: Units of Measure Used in UWMP*

(select one from the drop down list)

Acre Feet

**The unit of measure must be consistent with Table 2-3*

NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	3,816	Acre Feet
	2008 total volume of delivered recycled water	226	Acre Feet
	2008 recycled water as a percent of total deliveries	5.92%	Percent
	Number of years in baseline period ^{1,2}	10	Years
	Year beginning baseline period range	1998	
	Year ending baseline period range ³	2007	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range ⁴	2007	
<p>¹ If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. ² The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.</p>			
<p>³ The ending year must be between December 31, 2004 and December 31, 2010.</p>			
<p>⁴ The ending year must be between December 31, 2007 and December 31, 2010.</p>			
<p>NOTES:</p>			

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
<input type="checkbox"/>	1. Department of Finance (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
<input type="checkbox"/>	2. Persons-per-Connection Method
<input type="checkbox"/>	3. DWR Population Tool
<input checked="" type="checkbox"/>	4. Other DWR recommends pre-review
NOTES: Limited data for number of connections in 1990 and accurate shapefiles for TVWD boundaries in 1990 resulted in skewed results from the DWR Population Tool. Population data instead reflects TVWD estimates.	

SB X7-7 Table 3: Service Area Population		
Year	Population	
10 to 15 Year Baseline Population		
Year 1	1998	2,039
Year 2	1999	3,402
Year 3	2000	3,410
Year 4	2001	3,520
Year 5	2002	4,677
Year 6	2003	6,815
Year 7	2004	10,165
Year 8	2005	11,667
Year 9	2006	13,168
Year 10	2007	14,133
<i>Year 11</i>		
<i>Year 12</i>		
<i>Year 13</i>		
<i>Year 14</i>		
<i>Year 15</i>		
5 Year Baseline Population		
Year 1	2003	6,815
Year 2	2004	10,165
Year 3	2005	11,667
Year 4	2006	13,168
Year 5	2007	14,133
2015 Compliance Year Population		
	2015	15,098
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *								
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4-A is completed.</i>	Deductions					Annual Gross Water Use	
		Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use	Process Water <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>		
10 to 15 Year Baseline - Gross Water Use								
Year 1	1998	551			-		-	551
Year 2	1999	744	41		-		-	703
Year 3	2000	929	69		-		-	860
Year 4	2001	1,112	65		-		-	1,047
Year 5	2002	1,328			-		-	1,328
Year 6	2003	2,219			-		-	2,219
Year 7	2004	2,729			-		-	2,729
Year 8	2005	3,054			-		-	3,054
Year 9	2006	3,699			-		-	3,699
Year 10	2007	3,832			-		-	3,832
<i>Year 11</i>	0	-			-		-	-
<i>Year 12</i>	0	-			-		-	-
<i>Year 13</i>	0	-			-		-	-
<i>Year 14</i>	0	-			-		-	-
<i>Year 15</i>	0	-			-		-	-
10 - 15 year baseline average gross water use								2,002
5 Year Baseline - Gross Water Use								
Year 1	2003	2,219			-		-	2,219
Year 2	2004	2,729			-		-	2,729
Year 3	2005	3,054			-		-	3,054
Year 4	2006	3,699			-		-	3,699
Year 5	2007	3,832			-		-	3,832
5 year baseline average gross water use								3,107

Appendix D - SBx7-7 Verification Form
Temescal Valley Water District 2015 UWMP

2015 Compliance Year - Gross Water Use							
2015	3,046	-		-		-	3,046
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3							
NOTES:							

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source Western Municipal Water District

This water source is:

- The supplier's own water source
 A purchased or imported source

Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System
--	-------------------------------------	--	---

10 to 15 Year Baseline - Water into Distribution System

Year 1	1998	551	551
Year 2	1999	744	744
Year 3	2000	929	929
Year 4	2001	1112	1,112
Year 5	2002	1328	1,328
Year 6	2003	2219	2,219
Year 7	2004	2729	2,729
Year 8	2005	3054	3,054
Year 9	2006	3699	3,699
Year 10	2007	3832	3,832
Year 11	0		-
Year 12	0		-
Year 13	0		-
Year 14	0		-
Year 15	0		-

5 Year Baseline - Water into Distribution System

Year 1	2003	2219	2,219
Year 2	2004	2729	2,729
Year 3	2005	3054	3,054
Year 4	2006	3699	3,699
Year 5	2007	3832	3,832

2015 Compliance Year - Water into Distribution System

2015	3046		3,046
-------------	------	--	-------

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

Table 4-B is not applicable to TVWD - indirect recycled water is not being deducted

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction (For use only by agencies that are deducting indirect recycled water)										
Baseline Year <i>Fm SB X7-7 Table 3</i>	Surface Reservoir Augmentation					Groundwater Recharge			Total Deductible Volume of Indirect Recycled Water Entering the Distribution System	
	Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge		
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1998			-		-			-	-
Year 2	1999			-		-			-	-
Year 3	2000			-		-			-	-
Year 4	2001			-		-			-	-
Year 5	2002			-		-			-	-
Year 6	2003			-		-			-	-
Year 7	2004			-		-			-	-
Year 8	2005			-		-			-	-
Year 9	2006			-		-			-	-
Year 10	2007			-		-			-	-
Year 11	0			-		-			-	-
Year 12	0			-		-			-	-
Year 13	0			-		-			-	-
Year 14	0			-		-			-	-
Year 15	0			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2003			-		-			-	-
Year 2	2004			-		-			-	-
Year 3	2005			-		-			-	-
Year 4	2006			-		-			-	-
Year 5	2007			-		-			-	-
2015 Compliance - Indirect Recycled Water Use										
	2015			-		-			-	-
*Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.										
NOTES:										

Table 4-C is not applicable to TVWD - process water is not being deducted

SB X7-7 Table 4-C: Process Water Deduction Eligibility

(For use only by agencies that are deducting process water) Choose Only One

<input type="checkbox"/>	Criteria 1- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
<input type="checkbox"/>	Criteria 2 - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
<input type="checkbox"/>	Criteria 3 - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
<input type="checkbox"/>	Criteria 4 - Disadvantaged Community. Complete SB x7-7 Table 4-C.4

NOTES:

Table 4-C.1 is not applicable to TVWD - process water is not being deducted

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility					
Criteria 1					
Industrial water use is equal to or greater than 12% of gross water use					
Baseline Year <i>Fm SB X7-7 Table 3</i>	Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	Eligible for Exclusion Y/N	
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1998	551		0%	NO
Year 2	1999	703		0%	NO
Year 3	2000	860		0%	NO
Year 4	2001	1,047		0%	NO
Year 5	2002	1,328		0%	NO
Year 6	2003	2,219		0%	NO
Year 7	2004	2,729		0%	NO
Year 8	2005	3,054		0%	NO
Year 9	2006	3,699		0%	NO
Year 10	2007	3,832		0%	NO
Year 11	0	-			NO
Year 12	0	-			NO
Year 13	0	-			NO
Year 14	0	-			NO
Year 15	0	-			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003	2,219		0%	NO
Year 2	2004	2,729		0%	NO
Year 3	2005	3,054		0%	NO
Year 4	2006	3,699		0%	NO
Year 5	2007	3,832		0%	NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015		3,046		0%	NO
NOTES:					

Table 4-C.2 is not applicable to TVWD - process water is not being deducted

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility					
Criteria 2					
Industrial water use is equal to or greater than 15 GPCD					
Baseline Year <i>Fm SB X7-7 Table 3</i>	Industrial Water Use	Population	Industrial GPCD	Eligible for Exclusion Y/N	
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1998		2,039	-	NO
Year 2	1999		3,402	-	NO
Year 3	2000		3,410	-	NO
Year 4	2001		3,520	-	NO
Year 5	2002		4,677	-	NO
Year 6	2003		6,815	-	NO
Year 7	2004		10,165	-	NO
Year 8	2005		11,667	-	NO
Year 9	2006		13,168	-	NO
Year 10	2007		14,133	-	NO
<i>Year 11</i>	0		-		NO
<i>Year 12</i>	0		-		NO
<i>Year 13</i>	0		-		NO
<i>Year 14</i>	0		-		NO
<i>Year 15</i>	0		-		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003		6,815	-	NO
Year 2	2004		10,165	-	NO
Year 3	2005		11,667	-	NO
Year 4	2006		13,168	-	NO
Year 5	2007		14,133	-	NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015			15,098	-	NO
NOTES:					

Table 4-C.3 is not applicable to TVWD - process water is not being deducted

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility							
Criteria 3							
Non-industrial use is equal to or less than 120 GPCD							
Baseline Year <i>Fm SB X7-7 Table 3</i>	Gross Water Use Without Process Water Deduction <i>Fm SB X7-7 Table 4</i>	Industrial Water Use	Non-industrial Water Use	Population <i>Fm SB X7-7 Table 3</i>	Non-Industrial GPCD	Eligible for Exclusion Y/N	
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	1998	551		551	2,039	241	NO
Year 2	1999	703		703	3,402	184	NO
Year 3	2000	860		860	3,410	225	NO
Year 4	2001	1,047		1,047	3,520	266	NO
Year 5	2002	1,328		1,328	4,677	253	NO
Year 6	2003	2,219		2,219	6,815	291	NO
Year 7	2004	2,729		2,729	10,165	240	NO
Year 8	2005	3,054		3,054	11,667	234	NO
Year 9	2006	3,699		3,699	13,168	251	NO
Year 10	2007	3,832		3,832	14,133	242	NO
<i>Year 11</i>	0	-		-	-		NO
<i>Year 12</i>	0	-		-	-		NO
<i>Year 13</i>	0	-		-	-		NO
<i>Year 14</i>	0	-		-	-		NO
<i>Year 15</i>	0	-		-	-		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2003	2,219		2,219	6,815	291	NO
Year 2	2004	2,729		2,729	10,165	240	NO
Year 3	2005	3,054		3,054	11,667	234	NO
Year 4	2006	3,699		3,699	13,168	251	NO
Year 5	2007	3,832		3,832	14,133	242	NO

Appendix D - SBx7-7 Verification Form
Temescal Valley Water District 2015 UWMP

2015 Compliance Year - Process Water Deduction Eligibility						
2015	3,046		3,046	15,098	180	NO
NOTES:						

Table 4-C.4 is not applicable to TVWD - process water is not being deducted

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility

Criteria 4

Disadvantaged Community. A “Disadvantaged Community” (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

- 1. IRWM DAC Mapping tool**
http://www.water.ca.gov/irwm/grants/resources_dac.cfm

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

- 2. 2010 Median Income**

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	Eligible for Exclusion? Y/N
2015 Compliance Year - Process Water Deduction Eligibility				
2010	\$60,883		0%	YES

NOTES:

Table 4-D is not applicable to TVWD - process water is not being deducted

SB X7-7 Table 4-D: Process Water Deduction - Volume						<i>Complete a</i>
<i>separate table for each industrial customer with a process water exclusion</i>						
Name of Industrial Customer		<i>Industrial Customer 1</i>				
Baseline Year <i>Fm SB X7-7 Table 3</i>	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1998					-
Year 2	1999					-
Year 3	2000					-
Year 4	2001					-
Year 5	2002					-
Year 6	2003					-
Year 7	2004					-
Year 8	2005					-
Year 9	2006					-
Year 10	2007					-
<i>Year 11</i>	0					-
<i>Year 12</i>	0					-
<i>Year 13</i>	0					-
<i>Year 14</i>	0					-
<i>Year 15</i>	0					-
5 Year Baseline - Process Water Deduction						
Year 1	2003					-
Year 2	2004					-
Year 3	2005					-
Year 4	2006					-
Year 5	2007					-
2015 Compliance Year - Process Water Deduction						
2015						-
NOTES:						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1998	2,039	551	241
Year 2	1999	3,402	703	184
Year 3	2000	3,410	860	225
Year 4	2001	3,520	1,047	266
Year 5	2002	4,677	1,328	253
Year 6	2003	6,815	2,219	291
Year 7	2004	10,165	2,729	240
Year 8	2005	11,667	3,054	234
Year 9	2006	13,168	3,699	251
Year 10	2007	14,133	3,832	242
<i>Year 11</i>	0	-	-	
<i>Year 12</i>	0	-	-	
<i>Year 13</i>	0	-	-	
<i>Year 14</i>	0	-	-	
<i>Year 15</i>	0	-	-	
10-15 Year Average Baseline GPCD				243
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2003	6,815	2,219	291
Year 2	2004	10,165	2,729	240
Year 3	2005	11,667	3,054	234
Year 4	2006	13,168	3,699	251
Year 5	2007	14,133	3,832	242
5 Year Average Baseline GPCD				251
2015 Compliance Year GPCD				
2015		15,098	3,046	180
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day

Summary From Table SB X7-7 Table 5

10-15 Year Baseline GPCD	243
5 Year Baseline GPCD	251
2015 Compliance Year GPCD	180

NOTES:

SB X7-7 Table 7: 2020 Target Method		
<i>Select Only One</i>		
Target Method		Supporting Documentation
<input checked="" type="checkbox"/>	Method 1	SB X7-7 Table 7A
<input type="checkbox"/>	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
<input type="checkbox"/>	Method 3	SB X7-7 Table 7-E
<input type="checkbox"/>	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
243	194
NOTES:	

Table 7-B is not applicable to TVWD - Target Method 2 is not being used for SBx7-7 compliance

SB X7-7 Table 7-B: Target Method 2

Target

Landscape Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

Table 7-BCis not applicable to TVWD - Target Method 2 is not being used for SBx7-7 compliance

SB X7-7 Table 7-C: Target Method 2

Target CII Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

Table 7-D is not applicable to TVWD - Target Method 2 is not being used for SBx7-7 compliance

SB X7-7 Table 7-D: Target Method 2 Summary

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

Table 7-E is not applicable to TVWD - Target Method 3 is not being used for SBx7-7 compliance

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
<input type="checkbox"/>		North Coast	137	130
<input type="checkbox"/>		North Lahontan	173	164
<input type="checkbox"/>		Sacramento River	176	167
<input type="checkbox"/>		San Francisco Bay	131	124
<input type="checkbox"/>		San Joaquin River	174	165
<input type="checkbox"/>		Central Coast	123	117
<input type="checkbox"/>		Tulare Lake	188	179
<input type="checkbox"/>		South Lahontan	170	162
<input type="checkbox"/>		South Coast	149	142
<input type="checkbox"/>		Colorado River	211	200
Target <i>(If more than one region is selected, this value is calculated.)</i>				0
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD From SB X7-7 Table 5	Maximum 2020 Target ¹	Calculated 2020 Target ²	Confirmed 2020 Target
251	239	194	194
¹ Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD. ² 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.			
NOTES:			

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
194	243	218
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments <i>(in GPCD)</i>					2015 GPCD <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015?
		Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD		
		Extraordinary Events	Weather Normalization	Economic Adjustment				
180	218	-	-	-	-	180	180	YES
NOTES:								

Appendix E - Water Shortage Contingency Plan

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SECTION 39 DISTRICT WATER CONSERVATION PROGRAM

39.01 ESTABLISHMENT OF THE CONSERVATION PROGRAM

There is hereby established the District Water Conservation Program which shall be administered as provided in this Section 39. This program is adopted pursuant to Sections 375 through 377 of the California Water Code. Any violation of the provisions in this Section 39 is a misdemeanor (California Water Code Section 377).

39.02 NONAPPLICABILITY OF THIS PROGRAM TO CERTAIN ACTIVITIES

A. No provisions of this ordinance shall apply to fire hydrants, fire mains, sprinkler lines, or other equipment used solely for fire protection purposes.

B. No provisions of this ordinance shall apply to any hospital, health care or convalescent facility or any other type of facility where the health and welfare would be affected by restricted water use. This shall also apply to veterinary hospitals and facilities. However, this ordinance does apply to the outdoor grounds, yard and parking areas of these facilities.

39.03 DETERMINATION AND DECLARATION BY GENERAL MANAGER OF WATER SUPPLY CONDITIONS

A. The General Manager of the District (or in the General Manager's absence, the District Engineer), based upon all available data, shall determine and declare whether the

District's water supply and/or distribution is in one of the following four conditions, notify all members of the Board of Directors and post a notice thereof in the lobby of the District's offices:

STAGE I - NORMAL CONDITIONS: The District is able to meet all the water demands of its customers in the immediate future.

STAGE II - WATER ALERT: There is a probability that the District will not be able to meet all of the water demands of its customers.

STAGE III - WATER WARNING: The District is not able to meet all of the water demands of its customer.

STAGE IV - WATER EMERGENCY: A major failure of any storage supply or distribution facility.

B. As soon as a particular condition is declared to exist, the water conservation measures provided for herein for that condition shall apply to all District water services until a different condition is declared.

39.04 WATER CONSERVATION MEASURES

A. STAGE I - NORMAL CONDITIONS. When the General Manager has declared that the District's water supply is in a NORMAL condition, customers are asked to use water wisely and to practice water conservation measures so that water is not wasted. A customer shall not let water leave the property by draining onto adjacent properties or public or private roadways.

B. STAGE II - WATER ALERT. When the General Manager has declared that the District's water supply is in a WATER ALERT condition, the following rules and regulations shall be in effect:

1. Parks, golf courses, recreation fields, and school grounds are to be irrigated between the hours of 11:00 p.m. and 5:00 a.m.
2. Other lawn watering and landscape irrigation shall be done between 10:00 p.m. and 5:00 a.m.
3. There shall be no washing down of driveways, parking lots, or other paved surfaces.
4. Private car, RV, boat, trailer or truck washing shall be done using a bucket - no hoses permitted.
5. Restaurants will be asked not to serve water to customers unless specifically requested and then only in disposable cups.
6. Filling of swimming pools will not be allowed until the WATER ALERT has been declared over.

-
7. District will not issue new construction meters.
 8. Construction meters used for irrigation shall not be used.
 9. No potable water will be used for artificial lakes, ponds or streams until the WATER ALERT has been declared over.
 10. District will not issue new temporary or construction meters.
 11. Potable construction water shall not be used for earthwork or road construction purposes.
 12. Agricultural customers shall use water only between midnight and noon of the following day.
 13. Commercial nurseries shall use water only between 11:00 p.m. and 5:00 a.m. Irrigation of propagation beds is permitted at any time.
 14. Watering of livestock is permitted at any time.

C. STAGE III - WATER WARNING. When the General Manager has declared that the District's water supply is in a WATER WARNING condition, the following rules and regulations shall be in effect:

1. Parks and recreation field shall only be watered on even numbered days between 11:00 p.m. and 5:00 a.m.
2. All school grounds shall be watered only on odd numbered days between 11:00 p.m. and 5:00 a.m.
3. Golf courses shall irrigate greens only between 11:00 p.m. and 5:00 a.m.
4. Other lawn watering and landscape irrigation: Customers whose house number ends with an even number shall water only on even numbered days; customers whose house number ends with an odd number shall only water on odd numbered days; no watering or irrigation shall be done between 10:00 a.m. and 5:00 p.m. on any day.
5. Restaurants shall not serve water to customers unless specifically requested and then only in disposable cups.
6. No washing down of driveways, parking lots, or other paved surfaces shall be done.
7. Filling of swimming pools, ponds, etc., shall not be allowed until the WATER WARNING has been declared over.

-
8. Car and truck washing shall only be done at commercial washes.
 9. District will not issue new construction meters.
 10. Construction meters used for irrigation shall not be used.
 11. Construction water shall not be used.
 12. Agricultural customers shall use water only between midnight and noon of the following day.
 13. Commercial nurseries shall use water only between 11:00 p.m. and 5:00 a.m. Irrigation of propagation beds is permitted at any time.
 14. Watering of livestock is permitted at any time.

D. STAGE IV - WATER EMERGENCY. When the General Manager has determined that the District's water supply is in a WATER EMERGENCY condition, the following rules and regulations shall be in effect:

1. No lawn watering or landscape irrigation shall be done.
2. No watering of parks, recreation fields, school grounds, or golf courses unless watered with reclaimed water.
3. No washing down of driveways, parking lots, or other paved surfaces shall be done.
4. Washing of private car, RV, boat, trailer or truck shall be done only at commercial establishments using recycled or reclaimed water.
5. Restaurants shall not serve water to customers unless specifically requested and then only disposal cups.
6. Filling of swimming pools shall be prohibited.
7. District will not issue new construction meters.
8. All construction meters shall be turned off and locked.
9. Agricultural customers and commercial nurseries shall stop all irrigation and watering.
10. Watering livestock shall be permitted at any time.

E. District will in the adoption of above referenced stages, comply with the Metropolitan Water District's Incremental Interruption and Conservation Plan (IICP). MWD will establish, periodically under the IICP, targeted water conservation goals for member agencies.

District will comply with conservation goals through the implementation of penalties and incentives as allowed by MWD.

Appendix F - Water Shortage Stage Resolution

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Resolution No. X-XXX-XX

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE LEE LAKE WATER DISTRICT
OF RIVERSIDE COUNTY, STATE OF CALIFORNIA
ADOPTING AND AUTHORIZING IMPLEMENTATION OF
WATER SHORTAGE STAGE ___ OF THE WATER SHORTAGE CONTINGENCY PLAN**

WHEREAS, the District's Water Shortage Contingency Plan establishes Water Conservation Measures to be implemented when demand for water consumption threatens to exceed the District's available supply of water to the consumer, provided there are not immediate resources available to remedy the situation.

WHEREAS, the District's Water Shortage Contingency Plan establishes water conservation stages and penalties for violations of mandatory conservation measures to be enacted during a declared water shortage.

WHEREAS, the Board of Directors of the Lee Lake Water District is authorized to direct implementation of the applicable provisions of the Water Shortage Contingency Plan upon determination that such implementation is necessary to protect the public health, welfare and safety.

WHEREAS, the Board of Directors of the Lee Lake Water District hereby finds that a water shortage exists within the District's water service area.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE LEE LAKE WATER DISTRICT OF RIVERSIDE COUNTY that for the reasons herein above set forth, the foregoing Resolution No. XX-XXXX, implementing the Water Shortage Stage ___ of the Water Shortage Contingency Plan for the purpose of conserving water consumption within the District's water service area is adopted and approved by the Board of Directors of the Lee Lake Water District this ____ day of _____ 20__.

President

I HEREBY CERTIFY that the foregoing is a full, true and correct copy of Resolution No. X-XX-XX adopted by the Board of Directors of the Lee Lake Water District of Riverside County at its Regular Meeting held _____, 20__.

Secretary-Treasurer

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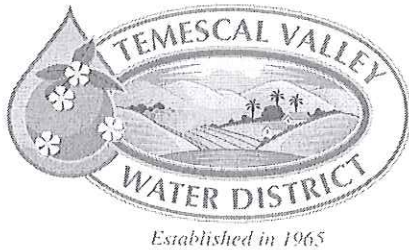
Appendix G - Public Notices

Appendix G will be included in the Final UWMP.

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Appendix H - UWMP Public Hearing Agenda and Adoption Resolution

Appendix H will be included in the Final UWMP.



November 14, 2017

TO: Land Use and Water Management Agencies of Riverside County
FROM: Jeff R. Pape, General Manager

**TEMESCAL VALLEY WATER DISTRICT
60-DAY NOTICE
2015 URBAN WATER MANAGEMENT PLAN**

Temescal Valley Water District (TVWD) is undertaking the development of its Urban Water Management Plan. The Urban Water Management Planning Act requires every “urban water supplier” of a certain size to prepare and adopt an Urban Water Management Plan (UWMP) at least once every five years. Temescal Valley Water District is currently preparing its 2015 UWMP. The 2015 UWMP documents the Temescal Valley Water District’s plans to ensure adequate water supplies to meet existing and future demands for water under a range of water supply conditions, including water shortages.

In conformance with the California Water Code Division 6, Part 2.6, §10621, this letter serves as a notification to all city and county agencies within which Temescal Valley Water District provides water supplies that the UWMP is being reviewed and updated. We anticipate having a draft plan available for public review in early 2018. Notice will be provided for the public review period of the draft UWMP closer to the release date.

Please contact Mr. Jeff Pape at (951) 277-1414 or jeffp@temescalvwd.com if you would like additional information or to set up a meeting to discuss the District’s 2015 UWMP.

Sincerely,

Temescal Valley Water District



November 9, 2017

Department of Water Resources
Sustainable Groundwater Planning Grant Program

Re: Urban Water Management Plan Compliance with Sustainable Water Use and Demand Reduction Part 2.55 of Division 6 (Water Code Section 10608 et seq.)

The Temescal Valley Water District is a small water district (delivered 2560 ACFT Potable Water in FY 2016/2017) in the Riverside County area of California. We are currently in the process of finalizing our 2015 UWMP document and expect to complete the public hearing and adoption in January 2018.

While TVWD's water use has increased as population in the region has grown, 2015 water demand reflects conservation efforts among our customers. Compliance with Sustainable Water Use and Demand Reduction Part 2.55 of Division 6 (Water Code Section 10608 et seq.) will be documented in the 2015 UWMP.

Voluntary water use reductions were implemented by the State in July 2014, with mandatory restrictions in place beginning in May 2015 and extended through 2016 in response to the continued drought. Compliance with these conservation measures and SBX7-7 targets have led to a decrease in total water demands for TVWD in 2015. The Temescal Valley Water District met its water use targets based on the actual 2015 (129 gpcd) per capita water use figures.

A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke at the end.

Jeff R. Pape
General Manager
Temescal Valley Water District

**TEMESCAL VALLEY WATER DISTRICT
PUBLIC HEARING NOTICE
2015 URBAN WATER MANAGEMENT PLAN**

Notice is hereby given that on Tuesday, January 23, 2018 at 8:30 A.M. at the Temescal Valley Water District Board Room, 22646 Temescal Canyon Road, Temescal Valley, California 92883 the Board of Directors of the Temescal Valley Water District will conduct a public hearing on the 2015 Urban Water Management Plan (UWMP).

The Draft 2015 UWMP is available for public review during normal business hours at the offices of Temescal Valley Water District at the address set forth above and at www.temescalvwd.com. Copies will also be available for review at the El Cerrito Library. Any written questions or comments regarding the Draft 2015 UWMP must be received at the District by the close of business on Friday, January 12, 2018 and should be directed to: Temescal Valley Water District, 22646 Temescal Canyon Road, Temescal Valley, California 92883, Attention: Jeff Pape.

Public comments can also be made at the public hearing at the time and place listed above. Upon conclusion of the public hearing, the Board of Directors may revise, change, modify and/or adopt the Draft 2015 UWMP. Questions regarding the Draft 2015 UWMP should be directed to Jeff Pape at (951) 277-1414 or jeffp@temescalvwd.com.

Allison Harnden

From: Defrates, Damon <DDefrates@wm.com>
Sent: Thursday, December 14, 2017 12:21 PM
To: Allison Harnden
Subject: Resignation

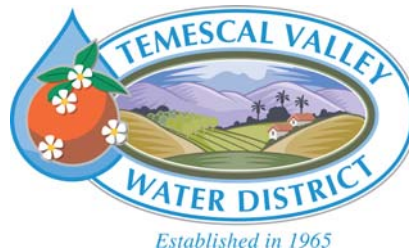
Hi Allison,

With my recent changes in responsibilities at WM, I can no longer retain my position at the Water District. As a result, I would like to resign my position effect 12/31/2017.

Damon De Frates
Director, Post Collection Operations
ddefrates@wm.com

Waste Management - Four Corners Market Area
222 South Mill Avenue, Suite 333
Tempe, AZ 85281
Tel 480 457 4835
Cell 951 505 4302

Recycling is a good thing. Please recycle any printed emails.



December 14, 2017

Board of Directors
Temescal Valley Water District

RE: General Manager's Report

Dear Board:

The following is a brief status report on a number of issues that I have been involved in since the last meeting.

- Working on non-potable water supply improvements
 - New Sump Well – New Well Pump – **In and operational**
 - Terramor Basin Park Perk Piping – **Redesign to the floor of the basin**
 - Park Canyon Drive RW line – **Easement was denied by Craig Deleo**
- Working on Conservation opportunities and RW conversion locations
 - **Trilogy HOA**
- Working with Land Developers on water and sewer fees for multiple infill projects.
 - Deleo adjacent to Tom's Farms – **No Activity**
 - Forest Boundary – Plan Checking design plans – **Construction to start after the first of the year**
 - Retreat Infill – **Kiley Court – Plans signed**
 - Temescal Canyon Road at Campbell Ranch Road – **No Activity**
 - Kiley Family Trust Property – **Tract Map Stage**
- Terramor CFD – **Request to start Phase II CFD formation**
- Terramor Review:
 - RW and Potable Tank Siting – **Design Complete – mylars ready for signature**
- Terramor Onsite Water, Sewer and RW improvements
 - 1320 Water line – **Loop finished – Phase II in Construction**
 - 1509 Water line – **Loop finished**
 - Back Bone Gravity Sewer – **Loop finished – Phase II in construction**
 - Potable Water Booster Upgrade – **In operation**
 - RW Water Booster - **In operation**
 - Sewer Lift Station – **In testing**
- Sycamore Creek:
 - TM 36317 Water Sewer and RW improvement plans - **In construction**
 - TM 36317 Potable Booster – **In construction**

Temescal Valley Water District

22646 Temescal Canyon Road | Temescal Valley, CA 92883-4106 | tel: 951.277.1414 | fax: 951.277.1419
www.temescalvwd.com

MEMORANDUM

DATE: December 19, 2017
TO: Board of Directors
Temescal Valley Water District
FROM: General Manager
SUBJECT: Trilogy Non-potable water conversion project funding request

BACKGROUND

The ad hoc committee formed to review the Trilogy request met to discuss the project on Tuesday, December 12, 2017. Upon extensive review and discussion, the following recommendations are made to the Board.

The project meets the District's criteria for funding under our Potable Water Conversion Policy

- Recommend approval of Meter ____ conversion.
- Recommend Funding of 50% not to exceed _____ dollars

The following shall be a requirement of the funding:

1. Formal agreement between TVWD and Trilogy HOA
2. Interruptible water supply, No liability or cost due to water loss, evaporation, power, maintenance, capital improvement or replacement and point of delivery
3. No guarantee of water quality
4. Receive a current copy of the agreement between Trilogy HOA and Glen Ivy Golf Course for the use of their Golf Course Irrigation System

FISCAL IMPACT

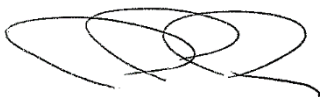
The District currently has \$135,00 budgeted in the Conversion Fund

RECOMMENDATION

It is recommended that the Board of Directors:

1. As recommended by the Board.

Respectfully submitted,



Jeff Pape
General Manager



24503 Trilogy Parkway, Temescal Valley, CA. 92883

November 14, 2017

Temescal Valley Water District
Board of Directors
Jeff Pape, General Manager
22646 Temescal Canyon Road
Temescal Valley, CA 92883

RE: Request for Financial Assistance

Dear Board of Directors and Jeff Pape,

The Trilogy at Glen Ivy Maintenance Association (TGMA) is requesting financial assistance in the amount of \$395,440.00 from the Temescal Valley Water District to:

- A) eliminate four (4) common area potable water meters and to convert them into two (2) agriculture (AG) water meters to irrigate avocado groves and common areas within Modjeska Canyon and along Trilogy Parkway, and
- B) to add one (1) AG water meter to water the avocado groves and common area in Cobblestone Canyon.

At Jeff Pape's recommendation, TGMA contracted with Brett Allen of Van Dyke Landscape Architects who engineered and designed the proposed project. Bids were also obtained from three (3) qualified vendors.

TGMA is providing the attached packet of information to the Temescal Valley Water District which includes: the project overview, detailed maps and plans, estimated water consumption, and vendor bid summary packets.

We request this item be added to the Temescal Valley Water District's November 2017 meeting agenda for discussion and consideration.

If you should have any questions or need additional information please contact James Niccoli, Trilogy at Glen Ivy Maintenance Association's General Manager at 951-603-3826 or at james.niccoli@fsresidential.com.

On behalf of the Board of Directors,

James Niccoli

James Niccoli
General Manager Trilogy at Glen Ivy

PROJECT OVERVIEW

METER A	
Location:	Modjeska Canyon
Potable water meter being eliminated:	#13 – 24289 Fawskin (see attached meter map)
Coverage area:	This location will water the Avocado slopes and select common areas in Modjeska Canyon.
Connection:	Connection on T-box 15 between the white and blue T-markers. The controller will be located on Fawnskin near the area overlooking the flood basin.
Number of avocado groves:	Two (2)
Number of avocado trees:	907
Estimated yearly water use	7,156.13 Units or 5,352,802 Gallons
Cost for Meter A:	Bright View: \$59,024.09 O’Connell: \$58,950.00 Aramexx: \$111,080.00

METER B	
Location:	Modjeska Canyon and Trilogy Parkway
Potable water meters being eliminated:	#15 – 2415 Augusta #16– 23939 Four Corners (see attached meter map) #17 – 24144 Augusta
Coverage area:	This location will water avocado groves and common areas in Modjeska Canyon and water the west side of Trilogy Parkway.
Connection:	Connection behind T-box at hole #13. The controller will be located on Trilogy Parkway behind hole #13.
Number of avocado groves:	Five (5)
Number of avocado trees:	371
Estimated yearly water use:	7,216.58 Units or 5,398,003 Gallons
Cost for Meter B:	Bright View: \$152,851.39 O’Connell: \$212,475.00 Aramexx: \$206,645.00

METER C	
Location:	Cobblestone Condominiums
Potable water meters being eliminated:	None – however, meters #12 – 8720 Cuyamaca, #18 – Upper Park / La Posta, and #19 – eastside of Falcon will no longer irrigate Avocado groves and will only irrigate the front and back yards of the condominiums. (see attached meter map)
AG water meter being added:	One (1)
Coverage area:	This location will water the Cobblestone Avocado slopes, meadow and select common areas in Modjeska Canyon and on Falcon Lane.
Connection:	Connection on Falcon. The controller will be located on Falcon Lane near the cart path and bathroom.
Number of avocado slopes:	Five (5)
Number of avocado trees:	503
Estimated yearly water use:	9,852.37 Units or 7,369,569 Gallons
Cost for Meter C:	Bright View: \$183,563.73 O’Connell: \$216,200.00 Aramexx: \$195,142.00

TOTAL	
Locations:	Modjeska Canyon, Cobblestone Canyon, Trilogy Parkway
Potable water meter being eliminated:	#13 – 24289 Fawskin #15 – 2415 Augusta #16– 23939 Four Corners #17 – 24144 Augusta
AG water meter being added:	One (1)
Coverage areas:	See attached meter map
Number of avocado groves:	Twelve (12)
Number of avocado trees:	1781
Estimated yearly water use	24,225.08 Units or 18,120,374 Gallons
Cost for entire project:	Bright View: \$395,439.21 O’Connell: \$487,625.00 Aramexx: \$512,867.00

PROJECTED IRRIGATION DEMAND

Trilogy at Glen Ivy Point of Connection A Maintained by Trilogy HOA

AS OF 1-13-16

MONTH	* Hist Eto	** Turf	Plant Factors					Et Adjust Factor	Projected	Projected	Projected	Projected
			*** Rotor Irrigated	*** Spray Irrigated	*** Drip Irrigated	*** Bubbler Irrigated	*** Other		Water Use In Gallons Based On Eto	Water Use In HCF Based On Eto	Water Use In Acre Feet Based On Eto	Water Use In GPM Based on Eto
Jan	2.49	0.61	0.31	0.31	0.31	0.31	0.31	1	174899	233.82	0.54	19
Feb	2.91	0.64	0.32	0.32	0.32	0.32	0.32	1	214452	286.70	0.66	23
Mar	4.16	0.75	0.38	0.38	0.38	0.38	0.38	1	359262	480.30	1.10	38
Apr	5.27	1.04	0.50	0.50	0.50	0.50	0.50	1	606831	811.27	1.86	65
May	5.94	0.95	0.48	0.48	0.48	0.48	0.48	1	649781	868.69	1.99	69
June	6.56	0.88	0.44	0.44	0.44	0.44	0.44	1	664728	888.67	2.04	71
July	7.22	0.94	0.47	0.47	0.47	0.47	0.47	1	781488	1044.77	2.40	84
Aug	6.92	0.86	0.43	0.43	0.43	0.43	0.43	1	685270	916.14	2.10	73
Sept	5.35	0.74	0.37	0.37	0.37	0.37	0.37	1	455872	609.45	1.40	49
Oct	4.05	0.75	0.38	0.38	0.38	0.38	0.38	1	349763	467.60	1.07	37
Nov	2.94	0.69	0.35	0.35	0.35	0.35	0.35	1	233590	312.29	0.72	25
Dec	2.56	0.60	0.30	0.30	0.30	0.30	0.30	1	176868	236.45	0.54	19
Annual	56.37	9.45	4.71	4.71	4.71	4.71	4.71	1	5352802	7156.15	16.43	554

ESTIMATED IRRIGATED LANDSCAPED AREA:

Turf Grass (Spray Irrigated):	0	square feet
Rotor Irrigated:	9590	square feet
Spray Irrigated:	4747	square feet
Drip Irrigated:	0	square feet
Bubbler Irrigated:	0	square feet
Other:	264008	square feet
TOTAL LANDSCAPE:	278345	square feet
	6.39	acres

GENERAL PLANT MATERIALS

N/A
Rosmarinus, Pittosporum, Myoporum, Dietes
Rosmarinus, Pittosporum, Myoporum, Dietes
N/A
N/A
Avocado Trees

ESTIMATED IRRIGATION EFFICIENCY

0.60
0.75
0.60
0.90
0.85
0.90

* Reference Eto data obtained from CIMIS weather station 44 and Standards Booklet Exhibit 5, 2000.

** Plant Factor for turf obtained from University of California Cooperative Extension Article "California Turfgrass Culture", Volume 39 Numbers 2 & 3, 1990.

*** Plant Factor for Shrubs and Ornamental grasses obtained from Estimating Irrigation Water Needs of Landscape Plantings in California, University of California Cooperative Extension, August 2000

Note: Projected water use is based on a 6 hour a day, 6 day a week water window.

PROJECTED IRRIGATION DEMAND

Trilogy at Glen Ivy Point of Connection B Maintained by Trilogy HOA

AS OF 1-13-16

MONTH	Plant Factors								Et Adjust Factor	Projected	Projected	Projected	Projected
	* Hist Eto	** Turf	*** Rotor Irrigated	*** Spray Irrigated	*** Drip Irrigated	*** Bubbler Irrigated	*** Other	Water Use In Gallons Based On Eto		Water Use In HCF Based On Eto	Water Use In Acre Feet Based On Eto	Water Use In GPM Based on Eto	
Jan	2.49	0.61	0.31	0.31	0.12	0.31	0.31	1	176223	235.59	0.54	19	
Feb	2.91	0.64	0.32	0.32	0.13	0.32	0.32	1	216076	288.87	0.66	23	
Mar	4.16	0.75	0.38	0.38	0.15	0.38	0.38	1	361983	483.94	1.11	39	
Apr	5.27	1.04	0.50	0.50	0.20	0.50	0.50	1	616086	823.64	1.89	66	
May	5.94	0.95	0.48	0.48	0.19	0.48	0.48	1	654703	875.27	2.01	70	
June	6.56	0.88	0.44	0.44	0.18	0.44	0.44	1	669762	895.40	2.06	72	
July	7.22	0.94	0.47	0.47	0.19	0.47	0.47	1	787407	1052.68	2.42	84	
Aug	6.92	0.86	0.43	0.43	0.17	0.43	0.43	1	690460	923.08	2.12	74	
Sept	5.35	0.74	0.37	0.37	0.15	0.37	0.37	1	459325	614.07	1.41	49	
Oct	4.05	0.75	0.38	0.38	0.15	0.38	0.38	1	352412	471.14	1.08	38	
Nov	2.94	0.69	0.35	0.35	0.14	0.35	0.35	1	235359	314.65	0.72	25	
Dec	2.56	0.60	0.30	0.30	0.12	0.12	0.30	1	178207	238.24	0.55	19	
Annual	56.37	9.45	4.71	4.71	1.88	4.53	4.71	1	5398003	7216.58	16.57	558	

ESTIMATED IRRIGATED LANDSCAPED AREA:

Turf Grass (Spray Irrigated):	18082	square feet
Rotor Irrigated:	0	square feet
Spray Irrigated:	11848	square feet
Drip Irrigated:	5258	square feet
Bubbler Irrigated:	0	square feet
Other:	210656	square feet
TOTAL LANDSCAPE:	245844	square feet
	5.64	acres

GENERAL PLANT MATERIALS

N/A
N/A
Rosmarinus, Pittosporum, Myoporum, Dietes
Rosmarinus
N/A
Avocado Trees

ESTIMATED IRRIGATION EFFICIENCY

0.60
0.75
0.60
0.90
0.85
0.90

* Reference Eto data obtained from CIMIS weather station 44 and Standards Booklet Exhibit 5, 2000.

** Plant Factor for turf obtained from University of California Cooperative Extension Article "California Turfgrass Culture", Volume 39 Numbers 2 & 3, 1990.

*** Plant Factor for Shrubs and Ornamental grasses obtained from Estimating Irrigation Water Needs of Landscape Plantings in California, University of California Cooperative Extension, August 2000

Note: Projected water use is based on a 6 hour a day, 6 day a week water window.

PROJECTED IRRIGATION DEMAND

Trilogy at Glen Ivy Point of Connection C Maintained by Trilogy HOA

AS OF 1-13-16

MONTH	Plant Factors								Et Adjust Factor	Projected	Projected	Projected	Projected
	* Hist Eto	** Turf	*** Rotor Irrigated	*** Spray Irrigated	*** Drip Irrigated	*** Bubbler Irrigated	*** Other	Water Use In Gallons Based On Eto		Water Use In HCF Based On Eto	Water Use In Acre Feet Based On Eto	Water Use In GPM Based on Eto	
Jan	2.49	0.61	0.12	0.31	0.12	0.31	0.31	1	240795	321.92	0.74	26	
Feb	2.91	0.64	0.13	0.32	0.13	0.32	0.32	1	295251	394.72	0.91	32	
Mar	4.16	0.75	0.15	0.38	0.15	0.38	0.38	1	494621	661.26	1.52	53	
Apr	5.27	1.04	0.20	0.50	0.20	0.50	0.50	1	835466	1116.93	2.56	89	
May	5.94	0.95	0.19	0.48	0.19	0.48	0.48	1	894598	1195.99	2.75	96	
June	6.56	0.88	0.18	0.44	0.18	0.44	0.44	1	915176	1223.50	2.81	98	
July	7.22	0.94	0.19	0.47	0.19	0.47	0.47	1	1075928	1438.41	3.30	115	
Aug	6.92	0.86	0.17	0.43	0.17	0.43	0.43	1	943458	1261.31	2.90	101	
Sept	5.35	0.74	0.15	0.37	0.15	0.37	0.37	1	627630	839.08	1.93	67	
Oct	4.05	0.75	0.15	0.38	0.15	0.38	0.38	1	481542	643.77	1.48	51	
Nov	2.94	0.69	0.14	0.35	0.14	0.35	0.35	1	321599	429.94	0.99	34	
Dec	2.56	0.60	0.12	0.30	0.12	0.12	0.30	1	243506	325.54	0.75	26	
Annual	56.37	9.45	1.88	4.71	1.88	4.53	4.71	1	7369569	9852.37	22.62	762	

ESTIMATED IRRIGATED LANDSCAPED AREA:

Turf Grass (Spray Irrigated):	0	square feet
Rotor Irrigated:	88485	square feet
Spray Irrigated:	11448	square feet
Drip Irrigated:	56363	square feet
Bubbler Irrigated:	0	square feet
Other:	306935	square feet
TOTAL LANDSCAPE:	463231	square feet
	10.63	acres

GENERAL PLANT MATERIALS

N/A
Native Area
Rosmarinus, Pittosporum, Myoporum, Dietes
Trees
N/A
Avocado Trees

ESTIMATED IRRIGATION EFFICIENCY

0.60
0.75
0.60
0.90
0.85
0.90

* Reference Eto data obtained from CIMIS weather station 44 and Standards Booklet Exhibit 5, 2000.

** Plant Factor for turf obtained from University of California Cooperative Extension Article "California Turfgrass Culture", Volume 39 Numbers 2 & 3, 1990.

*** Plant Factor for Shrubs and Ornamental grasses obtained from Estimating Irrigation Water Needs of Landscape Plantings in California, University of California Cooperative Extension, August 2000

Note: Projected water use is based on a 6 hour a day, 6 day a week water window.

Trilogy - Recycled Water Conversion Project

Bid Summary as of 8/15/17

**Lowest to
Highest Bid Submittal
Overall* Order Bidder Contact Name Meter A Meter B Meter C Total**

Overall*	Order	Bidder	Contact Name	Meter A	Meter B	Meter C	Total
1	2	BrightView	Jonathan Caceres	\$ 59,024.09	\$ 152,851.39	\$ 183,563.73	\$ 395,439.21
2	3	O'Connell	Jon Louis	\$ 58,950.00	\$ 212,475.00	\$ 216,200.00	\$ 487,625.00
3	1	Aramexx	Abe Benitez	\$ 111,080.00	\$ 206,645.00	\$ 195,142.00	\$ 512,867.00

Indicates Lowest Bid By Section

* Lowest to highest bid overall is based on the sum of section A through section C on the bid form.

REVISED AS OF 07-06-17

Indicates Bid Item Revision 7-6-17

PROPOSAL

TVWD Meter 'A'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
1	8" x 4" Mueller Tapping Sleeve & 4" Resilent Wedge Tapping Valve & Fittings per Detail 1	EA	1	9,122.00	9,122.00
2	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	350	13.79	4,826.50
3	2" Master Meter & Fittings per Detail 2	EA	1	3,245.00	3,245.00
4	Yardney 1816-2 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 3	EA	1	12,230.20	12,230.20
5	Wilkins 500 HLR Pressure Reducing Valve & Fittings per Detail 6	EA	1	1,285.00	1,285.00
6	1" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	1,015.31	1,015.31
7	2" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	1,297.91	1,297.91
8	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	1,229.51	1,229.51
9	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	1,591.31	1,591.31
10	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	1	734.20	734.20
11	Connection to Existing Potable Pressure Supply Line & Fittings	EA	1	212.00	212.00
12	Misc. Fittings / Joint Restraints	LS	1	2,340.00	2,340.00
13	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	8,500.40	8,500.40
14	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	1	212.00	212.00
15	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 25)	LS	1	2,982.14	2,982.14
16	Valve Box Lid Tag w/ Purple (Approximately 100)	LS	1	568.65	568.65
17	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 100)	LS	1	739.68	739.68
18	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	192.32	192.32
19	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	83.81	83.81
20	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	41.88	41.88
21	6" Concrete Header per Detail A	LS	1	5,623.27	5,623.27
22	Recycled Water Signage per Detail B	LS	1	951.00	951.00

SUBTOTAL: Fifty nine thousand twenty four dollars and nine cents \$ 59,024.09

ITEMS 1-22 "WORDS"

TVWD Meter 'B'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
23	8" x 4" Mueller Tapping Sleeve & 4" Resilent Wedge Tapping Valve & Fittings per Detail 1	EA	1	9,122.00	9,122.00
24	2" Master Meter & Fittings per Detail 2	EA	1	3,445.00	3,445.00
25	Yardney 1816-2 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 3	EA	1	12,426.40	12,426.40
26	Barrett Booster Pump Assembly, Concrete Pad, Fittings and All Conduit / Electrical Components per Detail 5	EA	1	43,443.60	43,443.60
27	1" Griswold 2250 E Master Valve, Conduit, Wiring, Pull Box & Fittings Per Detail 7 & 21	EA	1	1,401.95	1,401.95
28	2" Griswold 2250 E Master Valve, Conduit, Wiring, Pull Box & Fittings Per Detail 7 & 21	EA	1	1,684.55	1,684.55
29	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring, Pull Box & Fittings Per Detail 8 & 21	EA	1	1,616.15	1,616.15
30	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring, Pull Box & Fittings Per Detail 8 & 21	EA	1	1,977.95	1,977.95
31	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	3	734.20	2,202.60
32	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	2,075	5.72	11,869.00
33	Stabized Decomposed Granite Trail Removal / Replacement	LF	1,800	6.11	10,998.00
34	2" Leemco LMV Gate Valve & Fittings per Detail 9	EA	1	692.80	692.80
35	2.5" PVC CL 200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	EA	200	5.48	1,096.00
36	2" Val-Matic Air / Vacuum Relief Valve & Fittings per Detail 11	EA	1	988.00	988.00
37	Connection to Existing Potable Pressure Supply Line & Fittings	EA	2	212.00	424.00
38	Misc. Fittings / Joint Restraints	LS	1	2,250.00	2,250.00
39	Street Crossing / Sleeving @ Larkspur Court (Saw Cut and Patch) Per Detail 12 & 19	EA	1	12,344.00	12,344.00
40	Street Crossing / Sleeving @ Augusta Drive (Saw Cut and Patch) Per Detail 12 & 19	EA	1	5,560.00	5,560.00
41	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	8,500.40	8,500.40
42	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	2	177.00	354.00
43	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 75)	LS	1	8,946.43	8,946.43
44	Valve Box Lid Tag w/ Purple (Approximately 250)	LS	1	1,421.63	1,421.63
45	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 250)	LS	1	1,849.20	1,849.20
46	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	525.65	525.65
47	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	83.81	83.81
48	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	41.88	41.88
49	6" Concrete Header per Detail A	LS	1	6,478.99	6,478.99
50	Recycled Water Signage per Detail B	LS	1	1,107.40	1,107.40

SUBTOTAL: _____ One hundred fifty two thousand eight hundred fifty one dollars and thirty nine cents _____ \$ 152,851.39

ITEMS 23-50 "WORDS"

TVWD Meter 'C'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
51	8" x 4" Mueller Tapping Sleeve & 4" Resilent Wedge Tapping Valve & Fittings per Detail 1	EA	1	9,122.00	9,122.00
52	2" Master Meter & Fittings per Detail 2	EA	1	3,245.00	3,245.00
53	Yardney 1816-3 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 4	EA	1	18,449.40	18,449.40
54	Barrett Booster Pump Assembly, Concrete Pad, Fittings and All Conduit / Electrical Components per Detail 5	EA	1	52,284.36	52,284.36
55	Wilkins 500 HLR Pressure Reducing Valve & Fittings per Detail 6	EA	2	1,285.00	2,570.00
56	1" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	1,930.00	1,930.00
57	2" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	2,212.60	2,212.60
58	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	2,142.40	2,142.40
59	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	2,506.00	2,506.00
60	2.5" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	3	692.80	2,078.40
61	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	1	734.20	734.20
62	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	1,050	11.04	11,592.00
63	2.5" PVC CL 200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	1,150	10.29	11,833.50
64	2" PVC SCH 40 Purple Pipe - Glued & Fittings per Details 12 - 14	LF	1,850	9.61	17,778.50
65	2" Nibco T-113-K Gate Valve with Cross Handle & Fittings Per Detail 10	EA	3	321.57	964.71
66	2" Val-Matic Air / Vacuum Relief Valve & Fittings per Detail 11	EA	2	988.00	1,976.00
67	Stabized Decomposed Granite Trail Removal / Replacement	LF	1,200	7.67	9,204.00
68	Connection to Existing Potable Pressure Supply Line or HOA Sub Meter & Fittings	EA	6	212.00	1,272.00
69	Cut, Cap and 10' Separation of Existing Potable Pressure Supply Line	EA	2	247.00	494.00
70	Misc. Fittings / Joint Restraints	LS	1	4,680.00	4,680.00
71	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	8,500.40	8,500.40
72	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	1	212.00	212.00
73	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 50)	LS	1	5,964.29	5,964.29
74	Valve Box Lid Tag w/ Purple (Approximately 200)	LS	1	1,137.30	1,137.30
75	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 200)	LS	1	1,479.36	1,479.36
76	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	525.65	525.65
77	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	83.81	83.81
78	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	41.88	41.88
79	6" Concrete Header per Detail A	LS	1	6,967.97	6,967.97
80	Recycled Water Signage per Detail B	LS	1	1,582.00	1,582.00

SUBTOTAL: One hundred eighty three thousand five hundred sixty three dollars and seventy three cents \$ 183,563.73
 ITEMS 51-80 "WORDS"

REVISED AS OF 07-06-17

Indicates Bid Item Revision 7-6-17

PROPOSAL

TVWD Meter 'A'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
1	8" x 4" Mueller Tapping Sleeve & 4" Resilient Wedge Tapping Valve & Fittings per Detail 1	EA	1	3,000.00	3,000.00
2	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	350	15.00	5,250.00
3	2" Master Meter & Fittings per Detail 2	EA	1	2,500.00	2,500.00
4	Yardney 1816-2 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 3	EA	1	9,000.00	9,000.00
5	Wilkins 500 HLR Pressure Reducing Valve & Fittings per Detail 6	EA	1	1,000.00	1,000.00
6	1" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	350.00	350.00
7	2" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	400.00	400.00
8	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	700.00	700.00
9	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	1,000.00	1,000.00
10	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	1	1,500.00	1,500.00
11	Connection to Existing Potable Pressure Supply Line & Fittings	EA	1	2,000.00	2,000.00
12	Misc. Fittings / Joint Restraints	LS	1	3,000.00	3,000.00
13	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	3,000.00	3,000.00
14	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	1	3,000.00	3,000.00
15	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 25)	LS	1	5,000.00	5,000.00
16	Valve Box Lid Tag w/ Purple (Approximately 100)	LS	1	2,500.00	2,500.00
17	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 100)	LS	1	2,500.00	2,500.00
18	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	3,750.00	3,750.00
19	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	3,750.00	3,750.00
20	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	3,750.00	3,750.00
21	6" Concrete Header per Detail A	LS	1	1,000.00	1,000.00
22	Recycled Water Signage per Detail B	LS	1	1,000.00	1,000.00

SUBTOTAL: Fifty Eight Thousand Nine Hundred Fifty Dollars and Zero Cents

\$58,950.00

ITEMS 1-22

"WORDS"

TVWD Meter 'B'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
23	8" x 4" Mueller Tapping Sleeve & 4" Resilient Wedge Tapping Valve & Fittings per Detail 1	EA	1	3,000.00	3,000.00
24	2" Master Meter & Fittings per Detail 2	EA	1	2,500.00	2,500.00
25	Yardney 1816-2 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 3	EA	1	9,000.00	9,000.00
26	Barrett Booster Pump Assembly, Concrete Pad, Fittings and All Conduit / Electrical Components per Detail 5	EA	1	32,000.00	32,000.00
27	1" Griswold 2250 E Master Valve, Conduit, Wiring, Pull Box & Fittings Per Detail 7 & 21	EA	1	350.00	350.00
28	2" Griswold 2250 E Master Valve, Conduit, Wiring, Pull Box & Fittings Per Detail 7 & 21	EA	1	400.00	400.00
29	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring, Pull Box & Fittings Per Detail 8 & 21	EA	1	700.00	700.00
30	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring, Pull Box & Fittings Per Detail 8 & 21	EA	1	1,000.00	1,000.00
31	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	3	1,500.00	4,500.00
32	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	2,075	15.00	31,125.00
33	Stabized Decomposed Granite Trail Removal / Replacement	LF	1,800	12.50	22,500.00
34	2" Leemco LMV Gate Valve & Fittings per Detail 9	EA	1	1,000.00	1,000.00
35	2.5" PVC CL 200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	EA	200	10.00	2,000.00
36	2" Val-Matic Air / Vacuum Relief Valve & Fittings per Detail 11	EA	1	1,000.00	1,000.00
37	Connection to Existing Potable Pressure Supply Line & Fittings	EA	2	1,500.00	3,000.00
38	Misc. Fittings / Joint Restraints	LS	1	5,000.00	5,000.00
39	Street Crossing / Sleeving @ Larkspur Court (Saw Cut and Patch) Per Detail 12 & 19	EA	1	10,000.00	10,000.00
40	Street Crossing / Sleeving @ Augusta Drive (Saw Cut and Patch) Per Detail 12 & 19	EA	1	10,000.00	10,000.00
41	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	3,000.00	3,000.00
42	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	2	3,000.00	6,000.00
43	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 75)	LS	1	15,000.00	15,000.00
44	Valve Box Lid Tag w/ Purple (Approximately 250)	LS	1	6,250.00	6,250.00
45	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 250)	LS	1	6,250.00	6,250.00
46	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	12,500.00	12,500.00
47	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	12,500.00	12,500.00
48	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	12,500.00	12,500.00
49	6" Concrete Header per Detail A	LS	1	1,000.00	1,000.00
50	Recycled Water Signage per Detail B	LS	1	1,400.00	1,400.00

SUBTOTAL: Two Hundred Twelve Thousand Four Hundred Seventy Five Dollars and Zero Cents \$212,475.00

ITEMS 23-50 "WORDS"

TVWD Meter 'C'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
51	8" x 4" Mueller Tapping Sleeve & 4" Resilient Wedge Tapping Valve & Fittings per Detail 1	EA	1	3,000.00	3,000.00
52	2" Master Meter & Fittings per Detail 2	EA	1	2,500.00	2,500.00
53	Yardney 1816-3 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 4	EA	1	11,000.00	11,000.00
54	Barrett Booster Pump Assembly, Concrete Pad, Fittings and All Conduit / Electrical Components per Detail 5	EA	1	38,000.00	38,000.00
55	Wilkins 500 HLR Pressure Reducing Valve & Fittings per Detail 6	EA	2	1,000.00	2,000.00
56	1" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	350.00	350.00
57	2" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	400.00	400.00
58	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	700.00	700.00
59	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	1,000.00	1,000.00
60	2.5" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	3	1,000.00	3,000.00
61	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	1	1,000.00	1,000.00
62	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	1,050	15.00	15,750.00
63	2.5" PVC CL 200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	1,150	12.00	13,800.00
64	2" PVC SCH 40 Purple Pipe - Glued & Fittings per Details 12 - 14	LF	1,850	12.00	22,200.00
65	2" Nibco T-113-K Gate Valve with Cross Handle & Fittings Per Detail 10	EA	3	500.00	1,500.00
66	2" Val-Matic Air / Vacuum Relief Valve & Fittings per Detail 11	EA	2	1,000.00	2,000.00
67	Stabized Decomposed Granite Trail Removal / Replacement	LF	1,200	12.50	15,000.00
68	Connection to Existing Potable Pressure Supply Line or HOA Sub Meter & Fittings	EA	6	2,000.00	12,000.00
69	Cut, Cap and 10' Separation of Existing Potable Pressure Supply Line	EA	2	2,000.00	4,000.00
70	Misc. Fittings / Joint Restraints	LS	1	8,000.00	8,000.00
71	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	3,000.00	3,000.00
72	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	1	3,000.00	3,000.00
73	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 50)	LS	1	10,000.00	10,000.00
74	Valve Box Lid Tag w/ Purple (Approximately 200)	LS	1	5,000.00	5,000.00
75	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 200)	LS	1	5,000.00	5,000.00
76	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	10,000.00	10,000.00
77	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	10,000.00	10,000.00
78	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	10,000.00	10,000.00
79	6" Concrete Header per Detail A	LS	1	1,000.00	1,000.00
80	Recycled Water Signage per Detail B	LS	1	2,000.00	2,000.00

SUBTOTAL: Two Hundred Sixteen Thousand Two Hundred Dollars and Zero Cents \$216,200.00
 ITEMS 51-80 "WORDS"

REVISED AS OF 07-06-17

Indicates Bid Item Revision 7-6-17

PROPOSAL

TVWD Meter 'A'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
1	8" x 4" Mueller Tapping Sleeve & 4" Resilent Wedge Tapping Valve & Fittings per Detail 1	EA	1	5,280.00	5,280.00
2	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	350	20.00	7,000.00
3	2" Master Meter & Fittings per Detail 2	EA	1	2,180.00	2,180.00
4	Yardney 1816-2 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 3	EA	1	13,340.00	13,340.00
5	Wilkins 500 HLR Pressure Reducing Valve & Fittings per Detail 6	EA	1	2,580.00	2,580.00
6	1" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	2,230.00	2,230.00
7	2" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	2,410.00	2,410.00
8	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	2,190.00	2,190.00
9	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	2,490.00	2,490.00
10	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	1	850.00	850.00
11	Connection to Existing Potable Pressure Supply Line & Fittings	EA	1	2,640.00	2,640.00
12	Misc. Fittings / Joint Restraints	LS	1	3,800.00	3,800.00
13	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	9,830.00	9,830.00
14	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	1	4,760.00	4,760.00
15	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 25)	LS	1	4,200.00	4,200.00
16	Valve Box Lid Tag w/ Purple (Approximately 100)	LS	1	1,800.00	1,800.00
17	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 100)	LS	1	1,600.00	1,600.00
18	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	4,000.00	4,000.00
19	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	570.00	570.00
20	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	3,200.00	3,200.00
21	6" Concrete Header per Detail A	LS	1	27,190.00	27,190.00
22	Recycled Water Signage per Detail B	LS	1	6,940.00	6,940.00

SUBTOTAL: One Hundred Eleven thousand and eighty dollars zero cents \$ 111,080.00

ITEMS 1-22 "WORDS"

TVWD Meter 'B'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
23	8" x 4" Mueller Tapping Sleeve & 4" Resilent Wedge Tapping Valve & Fittings per Detail 1	EA	1	5,500.00	5,500.00
24	2" Master Meter & Fittings per Detail 2	EA	1	2,000.00	2,000.00
25	Yardney 1816-2 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 3	EA	1	13,000.00	13,000.00
26	Barrett Booster Pump Assembly, Concrete Pad, Fittings and All Conduit / Electrical Components per Detail 5	EA	1	45,000.00	45,000.00
27	1" Griswold 2250 E Master Valve, Conduit, Wiring, Pull Box & Fittings Per Detail 7 & 21	EA	1	6,000.00	6,000.00
28	2" Griswold 2250 E Master Valve, Conduit, Wiring, Pull Box & Fittings Per Detail 7 & 21	EA	1	2,070.00	2,070.00
29	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring, Pull Box & Fittings Per Detail 8 & 21	EA	1	2,000.00	2,000.00
30	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring, Pull Box & Fittings Per Detail 8 & 21	EA	1	2,200.00	2,200.00
31	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	3	530.00	1,590.00
32	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	2,075	5.00	10,375.00
33	Stabized Decomposed Granite Trail Removal / Replacement	LF	1,800	2.00	36,000.00
34	2" Leemco LMV Gate Valve & Fittings per Detail 9	EA	1	350.00	350.00
35	2.5" PVC CL 200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	EA	200	10.00	2,000.00
36	2" Val-Matic Air / Vacuum Relief Valve & Fittings per Detail 11	EA	1	810.00	810.00
37	Connection to Existing Potable Pressure Supply Line & Fittings	EA	2	5,620.00	11,240.00
38	Misc. Fittings / Joint Restraints	LS	1	3,760.00	3,760.00
39	Street Crossing / Sleeving @ Larkspur Court (Saw Cut and Patch) Per Detail 12 & 19	EA	1	12,000.00	12,000.00
40	Street Crossing / Sleeving @ Augusta Drive (Saw Cut and Patch) Per Detail 12 & 19	EA	1	13,000.00	13,000.00
41	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	9,000.00	9,000.00
42	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	2	3,950.00	7,900.00
43	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 75)	LS	1	11,000.00	11,000.00
44	Valve Box Lid Tag w/ Purple (Approximately 250)	LS	1	4,000.00	4,000.00
45	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 250)	LS	1	3,500.00	3,500.00
46	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	500.00	500.00
47	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	570.00	570.00
48	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	3,200.00	3,200.00
49	6" Concrete Header per Detail A	LS	1	27,030.00	27,030.00
50	Recycled Water Signage per Detail B	LS	1	3,450.00	3,450.00

SUBTOTAL: Two Hundred six thousand six hundred and forty five dollars and zero cents \$ 206,645.00

ITEMS 23-50

"WORDS"

TVWD Meter 'C'

ITEM No.	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
51	8" x 4" Mueller Tapping Sleeve & 4" Resilent Wedge Tapping Valve & Fittings per Detail 1	EA	1	5,500.00	5,500.00
52	2" Master Meter & Fittings per Detail 2	EA	1	2,000.00	2,000.00
53	Yardney 1816-3 Sand Media Filter, Fittings, Backwash Piping and Concrete Pad per Detail 4	EA	1	15,000.00	15,000.00
54	Barrett Booster Pump Assembly, Concrete Pad, Fittings and All Conduit / Electrical Components per Detail 5	EA	1	44,000.00	44,000.00
55	Wilkins 500 HLR Pressure Reducing Valve & Fittings per Detail 6	EA	2	2,496.00	4,992.00
56	1" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	1,800.00	1,800.00
57	2" Griswold 2250 E Master Valve, Conduit, Wiring & Fittings Per Detail 7	EA	1	2,400.00	2,400.00
58	1" Calsense FM-1B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	2,300.00	2,300.00
59	2" Calsense FM-2B Brass Flow Sensor, Conduit, Wiring & Fittings Per Detail 8	EA	1	2,600.00	2,600.00
60	2.5" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	3	300.00	900.00
61	3" Leemco LMV Gate Valve & Fittings Per Detail 9	EA	1	500.00	500.00
62	3" PVC CL200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	1,050	8.00	8,400.00
63	2.5" PVC CL 200 Purple Pipe - Bell / Gasket & Fittings per Details 12 - 18	LF	1,150	6.00	6,900.00
64	2" PVC SCH 40 Purple Pipe - Glued & Fittings per Details 12 - 14	LF	1,850	5.00	9,250.00
65	2" Nibco T-113-K Gate Valve with Cross Handle & Fittings Per Detail 10	EA	3	364.00	1,092.00
66	2" Val-Matic Air / Vacuum Relief Valve & Fittings per Detail 11	EA	2	794.00	1,588.00
67	Stabized Decomposed Granite Trail Removal / Replacement	LF	1,200	2.00	2,400.00
68	Connection to Existing Potable Pressure Supply Line or HOA Sub Meter & Fittings	EA	6	3,800.00	22,800.00
69	Cut, Cap and 10' Separation of Existing Potable Pressure Supply Line	EA	2	26.00	52.00
70	Misc. Fittings / Joint Restraints	LS	1	828.00	828.00
71	Calsense 8 Station CS3000 Controller, Enclosure, Quick Pad and Elec. Connection Per Detail 20	EA	1	9,500.00	9,500.00
72	Blind Flange Existing Potable Connection (Remove Meter and Provide to TVWD, Remove Backflow)	EA	1	3,000.00	3,000.00
73	Quick Coupler Replacement (ALL) with Signature 7645 Acme (Assume total of 50)	LS	1	7,500.00	7,500.00
74	Valve Box Lid Tag w/ Purple (Approximately 200)	LS	1	3,000.00	3,000.00
75	Valve Tags w/ Purple (All existing electric control valves, gate valves and equipment) (Approximately 200)	LS	1	3,000.00	3,000.00
76	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Spray Heads	LS	1	500.00	500.00
77	Addition of Purple Stickers to all Spray Heads & Rotors on Riser	LS	1	570.00	570.00
78	Addition of Purple "Tag" (Paint) to all Exposed Pop-Up Rotors	LS	1	3,200.00	3,200.00
79	6" Concrete Header per Detail A	LS	1	27,030.00	27,030.00
80	Recycled Water Signage per Detail B	LS	1	2,540.00	2,540.00

SUBTOTAL: One hundred and ninety five thousand nine hundred and four two dollars and zero cents \$ 195,142.00
 ITEMS 51-80 "WORDS"

MEMORANDUM

DATE: December 19, 2017
TO: Board of Directors
Temescal Valley Water District
FROM: General Manager
SUBJECT: Generator Replacement Project

BACKGROUND

The District approved the replacement of the Emergency Generator as a sewer capital project for FY 2017/2018. We completed the design and bid the project last month. Two qualified bids were received and we have verified the bid from ACS Engineering.

CAPITAL BUDGET

The District currently has \$1,23,000 budgeted in the WRF Upgrade which includes the Generator Replacement and SBR Controls

FISCAL IMPACT


ACS Engineering -	\$415,400
Construction Management and Inspection -	\$20,000
Contingency -	\$50,000

RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and approve the project in the amount of \$485,400.

Respectfully submitted,



Jeff Pape
General Manager

MEMORANDUM

DATE: April 21, 2016
TO: Board of Directors
Temescal Valley Water District
FROM: General Manager
SUBJECT: Water Reclamation Facility Emergency Power

BACKGROUND

The existing Emergency Generator was installed when the plant was first completed in 1992. During the Phase II and III construction the design called for utilizing software to regulate the emergency loads on the plant and a second generator was purchased for the Recycled Water Booster Pump Station. This has proved adequate through time as other improvements were completed at the plant. As the generator has aged and the transfer switch became obsolete, we have had to purchase used transfer switches, have them refurbished and hold in inventory as spares. The exiting generator runs infrequently but at full load and has failed to run on occasion – this could prove disastrous as we would have a major sewer spill. The system is old and needs to be replaced. We will need to replace the generator with the final expansion of the plant and from an operational standpoint we will need to run on emergency power as we relocate the existing power feed from EDISON. This design will provide sizing of the new generator and configure the RW Booster MCC's for a separate EDISON feed that will allow true off peak pumping to the new RWW tank. The construction cost of the new generator will be paid for between the participants in the plant expansion.

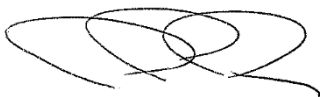
FINANCIAL IMPACT

\$54,150

RECOMMENDATION

Approve proposal and allow the General Manager to enter into an agreement for services.

Respectfully submitted,



Jeff Pape
General Manager

DEXTER WILSON ENGINEERING, INC.

DEXTER S. WILSON, P.E.
ANDREW M. OVEN, P.E.
STEPHEN M. NIELSEN, P.E.
NATALIE J. FRASCHETTI, P.E.

March 11, 2016

000-204

Temescal Valley Water District
22646 Temescal Canyon Road,
Temescal Valley, CA 92883

Attention: Jeff Pape, General Manager

Subject: Proposal for Engineering Services to Prepare Plans and Specifications for
Electrical Upgrades to the TVWD Water Reclamation Plant

We are pleased to provide Temescal Valley Water District with the following proposal for engineering services. The work, as further described in the Scope of Services below, consists of preparing plans and specifications for the replacement of the generator and upgrades to the electrical service for the reclaimed water pump station at the TVWD Water Reclamation Facility. This proposal includes office engineering assistance during bidding and construction, but does not include preparation of front end bid documents or field inspection.

Dexter Wilson Engineering, Inc. will utilize the services of Moraes/Pham & Associates for design of electrical equipment and instrumentation. All sub-consultant costs will be billed inside the proposed cost ceiling at cost plus five percent. Exhibit "A" provides an estimate of costs by task. The total estimated costs for all Tasks is \$54,150.

SCOPE OF SERVICES

Dexter Wilson Engineering, Inc. will perform the following tasks:

- Task 1 - Prepare preliminary design technical memorandum to summarize findings and recommendations based on meetings, site investigation, evaluation of ATS controller, generator sizing evaluation, and coordination with SCE.
- Task 2 - Prepare final design plans to include the following:
- T1 Title Sheet
 - G1 General Notes and Abbreviations
 - C1 Site Plan and Details
 - E1 Standard Symbols and Abbreviations
 - E2 Partial Electrical Site Plan/Schedules
 - E3 Generator Area Plan
 - E4 Partial Single Line Diagram/Elevations
 - E5 RWPS Area Plan
 - E6 RWPS Single Line Diagram/Elevations
 - E7 Electrical Details
- Task 3 - Prepare technical specifications, preliminary costs estimates, and provide SCE utility coordination.
- Task 4 - Provide assistance during bidding and construction, including attendance at pre-bid meeting, attendance at pre-construction meeting, response to RFIs (5 assumed), and submittal review (10 assumed).
- Task 5 - Final walk through and preparation of record drawings based on contractor red-lines.

COMPENSATION

Work completed under this contract will be billed on a monthly basis. Fees will be calculated on an hourly rate basis by multiplying the actual hours worked on the job in each classification by the rates in the schedule attached as Exhibit "B." These rates are subject to change in January of each year.

All direct costs will be billed outside the proposed cost ceiling at cost plus 10 percent. Subconsultant invoices will be billed inside the cost ceiling at cost plus 5 percent.

TIME OF PERFORMANCE

The time for completion of the preliminary design technical memorandum is approximately six weeks from the date of authorization to proceed.

COST ESTIMATES

Since the Design Professional has no control over the cost of labor, materials, or equipment, or over the Contractor's method of determining prices, or over competitive bidding or market conditions, his opinions of probable construction cost provided for herein are to be made on the basis of his experience and qualifications. These opinions represent his best judgment as a Design Professional familiar with the construction industry. However, the Design Professional cannot and does not guarantee that proposals, bids, or the construction costs will not vary from opinions of probable cost prepared by him. If the Owner wishes greater assurance as to the construction cost, he shall employ an independent cost estimator.

OWNERSHIP OF ORIGINALS

The Owner acknowledges the Design Professional's plans and specifications as instruments of professional service. Nevertheless, the plans and specifications prepared under this agreement shall become the property of the Owner upon completion of the work. The Owner agrees to hold harmless and indemnify the Design Professional against all damages, claims, and losses, including defense costs, arising out of any reuse of the plans and specifications without the written authorization of the Design Professional.

Jeff Pape
March 11, 2016
Page 4

QUALIFICATIONS

Stephen M. Nielsen will supervise the services described above. Mr. Nielsen is a Registered Civil Engineer in California and graduated from the University of California, Davis with a Bachelor of Science in Civil Engineering.

Thank you for the opportunity to provide a proposal on this project. If this proposal meets your approval, please execute and return an electronic copy for our files or prepare a contract in your format for our signature.

Respectfully submitted,

Dexter Wilson Engineering, Inc.



Stephen M. Nielsen, P.E.

SMN:pjs

Attachments

I accept the above proposal and authorize the work described above to be performed.

Temescal Valley Water District

Date

Exhibit "A"

Summary of Costs by Task

Task	Description	Cost, \$
1 DWEI MPA	Preliminary Design	1,000 9,400
2 DWEI MPA	Final Design	7,000 17,750
3 DWEI MPA	Technical Specifications	2,500 6,250
4 DWEI MPA	Assistance with Bidding/Construction	3,500 5,000
5 DWEI MPA	Record Drawings	1,000 750
TOTAL		\$54,150

Exhibit "B"

DEXTER WILSON ENGINEERING, INC.

Rate Schedule
Effective January 1, 2016

CLASSIFICATION	HOURLY RATE
Office Personnel:	
Planning/Design	
Principal Engineer (RCE)	\$200.00
Managing Engineer (RCE)	\$190.00
Project Engineer (RCE)	\$170.00
Senior Engineer (RCE)	\$130.00
Design Engineer (RCE)	\$120.00
Associate Engineer II	\$110.00
Associate Engineer I	\$100.00
Engineering Aide II	\$100.00
Engineering Aide I	\$ 85.00
Drafting/Design	
Senior Designer	\$110.00
Senior Drafter	\$100.00
Drafter II	\$ 85.00
Drafter I	\$ 75.00
Clerical	\$ 65.00

BID REVIEW SUMMARY

Project Number: TVW-700B

Date: December 7, 2017

Bid Name: Water Reclamation Facility

Generator Replacement

1. **Reviewed and cross verified unit pricing on base bid and alternatives.**

a. Final bid tabulations on all base bid items:

- | | |
|--------------------|--------------|
| 1. ACS Engineering | \$415,400.00 |
| 2. RC Foster | \$556,650.00 |

2. **Bid Package submission review.**

a. ACS Engineering

Submitted All Required Documents

No Math Errors

b. RC Foster

Submitted All Required Documents

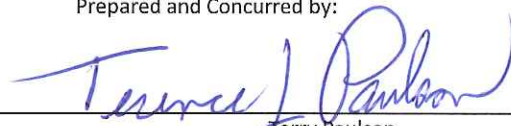
No Math Errors

3. **Recommendation of Moote Companies, LLC ("MC")**

Based on this bid review, Moote Companies recommends the award of the contract to:

ACS Engineering

Prepared and Concurred by:



Terry Paulson
Moote Companies, LLC

12/7/17

Date:

cc:

SUBMIT WITH BID

Verified by Bid Administrator	Verified by Contractor	Sheet	Documents
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-1	This Page
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-2	Bid Proposal
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-3	Addendum No. Acknowledgments
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-4	Declaration of the Bidder
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-5	Rate Sheet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-6	Bidder's Proposed Construction Schedule
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-7	Bidder's Statement of Financial Responsibility, Technical Ability and Experience
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-8	List of Subcontractors
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-9	Affidavit for Corporate Contractor
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-10	Notice of Equal Employment Opportunity
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-11	Non-Collusion Affidavit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	G-12	Public Works Contractor Registration
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Attachment	Contractor Price Schedule
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Attachment	Bid Bond (Please use form provided by your surety company)

By signing and initialing the attached documentation (Bid Submittal Document Sheets and the Contract Price Schedule), the contractor is acknowledging receipt of all defined documentation included in the Project "BOX" file.

Bidder ACS Engineering

Date: 12/6/2017

By Babak Kawoossi

Signature 

WATER RECLAMATION FACILITY GENERATOR REPLACEMENT
 TEMESCAL VALLEY WATER DISTRICT
 CITY OF CORONA

PROPOSAL TO THE OWNER

Under Provisions of Specifications for Construction of:	WATER RECLAMATION FACILITY GENERATOR REPLACEMENT FOR TEMESCAL VALLEY WATER DISTRICT IN THE CITY OF CORONA
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To the Owner:

The undersigned, as bidder, declares that this proposal is made without collusion with any other person, firm, or corporation, and that the only persons or parties interested as principals are those named herein. Having carefully examined the site of the proposed work and the plans and specifications therefore, the undersigned proposes and agrees in the event of acceptance hereof to enter into a contract with the Owner, to perform said proposed work in accordance with the terms of the aforesaid specifications, and to furnish or provide all materials, labor, tools, equipment, apparatus, and other means necessary to do so, except such thereof as may be otherwise furnished or provided under the terms of said specifications, for the stated prices on the following pages, to wit:

ACS Engineering, Inc.	\$ 415,400
Name of Firm	Total Bid Price

Note to Bidder: The Bidder must sign and complete requested information on page G-3.
The Contractor shall prepare and complete proposal in ink.

WATER RECLAMATION FACILITY GENERATOR REPLACEMENT
TEMESCAL VALLEY WATER DISTRICT
CITY OF CORONA

PROPOSAL ITEM

- 1) The Owner shall mathematically extend the unit price amount and estimated quantity for each item and sum of all item totals. In case of inconsistency or conflict between the total bid price and the sum derived from the mathematical extension and addition of item totals, the sum derived from the addition shall govern and shall represent the bid.
- 2) If not provided for in the above, the unit price amounts for each item shall include all indirect costs (i.e., permit fee, business license, mobilization, demobilization, excavation, shoring, special bedding, shading, backfill, applying construction water, excavation, fine grading, compaction, temporary paving, temporary pavement markings, barricades, warning devices, traffic control, traffic detour, dust control, temporary erosion control, potholing, damage repair, maintenance of erosion control, clean up, temporary facilities, portable toilets, job safety as long as the Contractor is on the project, coordination, supervision, overhead, and profit, etc.), incidental work (i.e., traffic control, safety devices, construction water, protection of utilities, utility investigation and pot holes, work necessary for the protection of life and limb, etc.), and other work required by the contract but not listed above.
- 3) Payment for all work on the above items shall be made subject to verifications in the field of the actual quantity of work performed.
- 4) All applicable sales taxes, state and/or federal taxes, and other special taxes, patent rights, or royalties are included in the price quoted in the proposal.

ADDENDUM ACKNOWLEDGEMENT

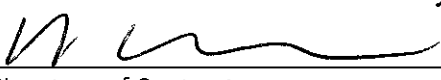
Addendum No. 1	Date 11/22/2017
Addendum No. 2	Date 11/29/2017
Addendum No.	Date
Addendum No.	Date
Addendum No.	Date
Addendum No.	Date
Addendum No.	Date
Addendum No.	Date

PROPOSAL ITEM

Declaration of the Bidder:

- 1) I, as the Contractor for this project, specifically agree to comply with the applicable provisions of §1777.5 of the Labor Code relating to employment by the Contractor and any subcontractor under me, of journeyman or apprentice or workman, in any apprenticeable craft or trade for the Improvements named WATER RECLAMATION FACILITY GENERATOR REPLACEMENT FOR TEMESCAL VALLEY WATER DISTRICT IN THE CITY OF CORONA.
- 2) I, by my signature hereunder, certify that I am aware of the provisions of §3700 of the Labor code which requires every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that code. I will comply with such provisions before commencing the performance of the work of this contract.

ACS Engineering, Inc.
Name of Firm


Signature of Contractor

33 Hammond, Irvine, CA 92618
Address

Babak Kavossi / President
Printed Name/Title

949-297-3777
Telephone

Karen Kavossi / Office Manager
Officers of Firm/Title

962264
Facsimile

Sid Bahmanpour / Engineer
Officers of Firm/Title

C-10
Contractor's License Number

Officers of Firm/Title

C-10
Classification

Officers of Firm/Title

PROPOSAL ITEM

Bidder's Equipment, Labor Time & Materials:

[Attach Here] *Please See Attached*

Labor rates shall include the following:

- Prevailing wage rate per classification and group number plus 20% Mark-up for Overhead and Profit.

Equipment Rental Rates shall include the following:

- Equipment Rental rates shall include hourly/daily rates for non-operated equipment plus 15% Mark-up for Overhead and Profit.

Material Costs shall include the following:

- Material Costs plus 15% Mark-up for Overhead and Profit.

Subcontractor Costs shall include the following:

- Subcontractor Costs plus 5% Mark-up for Overhead and Profit.



G5 Attachment: Rate Sheet

- Labor Rates:

Type	Hourly Rate	Overtime Rates	Weekends & Holidays	Extended Rate
Project Manager	\$105	X 1.5	X 2.5	TBD (Cost + 20%)
Sr. Design Engineer	\$105	X 1.5	X 2.5	TBD (Cost + 20%)
Project Engineer	\$95	X 1.5	X 2.5	TBD (Cost + 20%)
Field Engineer	\$95	X 1.5	X 2.5	TBD (Cost + 20%)
Field Electrician	\$65.90	X 1.5	X 2.5	TBD (Cost + 20%)
Shop Technician	\$58.70	X 1.5	X 2.5	TBD (Cost + 20%)
CAD Designer	\$60	X 1.5	X 2.5	TBD (Cost + 20%)
Administrative/Clerical	\$45	X 1.5	X 2.5	TBD (Cost + 20%)

Note: 20% mark-up included for overhead and profit

- Equipment Rental Rates:

Type	Hourly Rate	Extended Rate
Non-operated Equipment	\$105	TBD (Cost + 15%)

Note: 15% mark-up included for overhead and profit

- Material Cost: Please refer to Contractor Price Schedule sheet.



CITY OF CHINO, CONDUIT AND ELECTRICAL EQUIPMENT INSTALLATION FOR MOBIL CONTAINERIZED GENERATOR

• Subcontractor Cost:

Type	Hourly Rate	Extended Rate
Subcontractor Cost	TBD	TBD (Cost + 5%)

Note: 5% mark-up included for overhead and profit

Notes:

1. All Expenses will be billed monthly (or per occurrence) based on the table above.
2. Project-related mileage expenses will be billed at IRS-approved rate.
3. Reproduction and printing cost for reports, drawings, and other project records, excluding those for internal use or check printing and one hard-copy original, will be billed at cost plus 15%.
4. Other direct charges will be billed at cost, plus 15%
5. Travel Expenses will be billed at cost plus 5%
6. Lodging will be billed at cost plus 5%
7. These rates are valid effective Jan 01, 2017.

• Billing and Terms:

- o Monthly billing. Invoice to be sent at the first full week of each month for the previous month
- o Net 30 days
- o Pricing good for 90 days from date of this proposal

PROPOSAL ITEM

Bidder's Proposed Construction Schedule:

Note to Contractor:

In Accordance with the Bid Documents, the Bidder shall attach his construction schedule showing the work activities, durations and start/finish dates outlined in the bid specification. The awarded contractor will be required to furnish a detailed construction schedule in MS Project or equal.

[Attach Here]

- 1. Submittals : Jan 5, 2018 — Jan 20th, 2018
- 2. Procurements: Feb 6, 2018 — March 15th, 2018
- 3. Installation: March 15, 2018 — April 3, 2018

PROPOSAL ITEM

**Bidder's Statement of Financial
Responsibility, Technical Ability & Experience:**

The bidder is required to state what work of a character similar to that included in the proposed contract he has successfully performed in The Agency's County, and to give references which will enable the Contractor to judge his responsibility, experience, skill, and business standing. Said references shall include the name of the supervisor responsible for the acceptance of the work performed.

The bidder submits herewith a statement of work, which he has successfully performed of a character similar to that included in the proposed contract.

[Attach Here]

We have performed similar works to this project for Orange County & Los Angeles County Public works department.

PROPOSAL ITEM

Designation of Subcontractors: Complete & Submit with Bid

List below the name of each Subcontractor, the price of whose work constitutes one-half of 1% of the total bid or more, who it is proposed to employ, and the segregated portion of the work each will perform if the contract is awarded to the undersigned. Where a normally segregated portion of the work equals or exceeds one-half of 1% of the bid and no Subcontractor is listed, the undersigned represents that he is competent, experienced and equipped to do that segregated portion of the work and that it will not be subcontracted.

Per the California Public Contract Code § 4104, the Contractor is limited to listing only one subcontractor for each portion of Work.

Description of Work	Percentage %	DIR Registration No.	Subcontractor License No.	Subcontractor Name & Address
1. <u>Generator Pad</u>	<u>1</u>	<u>1000011140</u>	<u>903737 A&B</u>	<u>United Engineering & Construction Inc. 336 N. Central Ave Glendale, CA 91203</u>
2.				
3.				
4.				
5.				
6.				

PROPOSAL ITEM

Affidavit for Corporate Contractor:

Babak Kavousi declares as follows:

That he or she is President
Of ACSE

a corporation which is the party making the foregoing proposal or bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the Owner or anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company associates, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare, under penalty of perjury, that the foregoing is true and correct.

Dated this 21st (day) of Nov. (month), 2017 (year)

At Irvine, California

Signature of affiant: [Handwritten Signature]

Note: Notarization of signature required

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On Nov 21st, 2017 before me, Caroline Azer, Notary Public,
Date Here Insert Name and Title of the Officer

personally appeared Babak Kavcoosi
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature [Handwritten Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Corporate Officer — Title(s): _____
- Partner — Limited General
- Individual Attorney in Fact
- Trustee Guardian or Conservator
- Other: _____

Signer Is Representing: _____

Signer's Name: _____

- Corporate Officer — Title(s): _____
- Partner — Limited General
- Individual Attorney in Fact
- Trustee Guardian or Conservator
- Other: _____

Signer Is Representing: _____

PROPOSAL ITEM

Notice of Equal Employment Opportunity:

Water Reclamation Facility Generator Replacement
Project # & Title

To: _____
Name of Labor Union, Worker's Representative, etc.

Address

The undersigned currently holds a contract with the Owner, Assessment District Funds or a subcontract with a prime Owner holding such contract.

You are advised that under the provisions of the above contract or subcontract and in accordance with Executive Order 11246, the undersigned is obliged not to discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The obligation not to discriminate in employment includes, but is not limited to the following:

HIRING, PLACEMENT, UPGRADING, TRANSFER, OR DEMOTION; RECRUITMENT, ADVERTISING, OR SOLICITATION FOR EMPLOYMENT; TREATMENT DURING EMPLOYMENT; RATES OF PAY OR OTHER FORMS OF COMPENSATION; SELECTION FOR TRAINING, INCLUDING APPRENTICESHIP; LAYOFF OR TERMINATION.

This notice is furnished you pursuant to the provisions of the above contract or subcontract and Executive Order 11246.

Copies of this notice will be posted by the undersigned in conspicuous places available to employees or applicants for employment.

ACS Engineering, Inc.
Name of Contractor

33 Hammond, STE 209
Address

Irvine, CA 92618
Address

[Signature] / Resident
Signature & Title

12/7/17
Date

PROPOSAL ITEM

Non-Collusion Affidavit: Complete & Submit with Bid

STATE OF CALIFORNIA

COUNTY OF Orange

Babak Kavoussi being first duly sworn,
Deposits and says that he/she is President of ACS Engineering, Inc.
(Title) (Name of Bidder)

the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or a sham; that the bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the entity awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted its bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

[Handwritten Signature]
(Signature) (Typed)

Babak Kavoussi
(Name)

State of California

County of _____

Subscribed and sworn to (or affirmed) before me on this _____

Day of _____, 20____, by _____ proved to me on the basis of satisfactory evidence to be the person who appeared before me.

Notary Public

WATER RECLAMATION FACILITY GENERATOR REPLACEMENT
TEMESCAL VALLEY WATER DISTRICT
CITY OF CORONA

CALIFORNIA NOTARY
ACK. / JURAT ATTACHED
[Signature] 12/5/2012

PROPOSAL ITEM

Public Works Contractor Registration:

(Pursuant to SB 854)

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Pursuant to Section 1771.1 of the Labor Code, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal pursuant to Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work unless currently registered to perform public work pursuant to Section 1725.5 of the Labor Code. Furthermore, Contractor is hereby notified that no contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations.

BIDDERS AND THEIR SUBCONTRACTORS (listed on the Designation of Subcontractors List G-7) must provide an extract (pdf) at time of bid showing active registration from the Public Works Contractor Registration online registration at <https://efiling.dir.ca.gov/PWCR/Search>

Failure to submit any of the above-mentioned information with your bid may deem your bid non-responsive

Bidders to attach their CONTRACT REGISTRATION EXTRACT and those of all subcontractors listed on the G-7 Designation of Subcontractors list.

[SUBMIT EXTRACTS WITH BID]

Contractor DIR Registration Number – Note here 1000001248

Any Subcontractor DIR Registration Number shall be listed on sheet G-8.

PROJECT: WATER RECLAMATION FACILITY GENERATOR REPLACEMENT

FILE NO.: TVW-700B

DATE: 10/10/2017

CITY OF CORONA

OWNER: TEMESCAL VALLEY WATER DISTRICT

CONTRACT PRICE SCHEDULE
415,400

GENERAL NOTES:

- Bidder must bid all of the items Included in Contract Price Schedule .
- All workmanship and materials shall be per Temescal Valley Water District and City of Corona standard specifications.
- All miscellaneous clean up of the site from subcontractor's operation is included.
- Safe working conditions shall be maintained at all times in accordance with the regulations of the California Division of Industrial Safety. Safety shall include, but not be limited to, good housekeeping on the job, traffic control measures, dust control on disturbed earth, and such other conditions as may be deemed appropriate by competent authority.
- All erosion control, devices and implementation to meet the requirements of the NPDES, SWPPP and any other Agencies is the responsibility of the subcontractor up until the time of final acceptance by Temescal Valley Water District.

A.	GENERAL.....	\$	28,000
B.	WATER RECLAMATION FACILITY GENERATOR REPLACEMENT.....	\$	387,400

TOTAL - CONTRACT PRICE SCHEDULE		\$	415,400.00
---------------------------------------	--	----	------------

CONTRACTOR NAME: ACS Engineering, Inc.

ADDRESS: 33 Hammond, Ste 209, Irvine, CA 92618

TELEPHONE: 949-297-3777 FAX: 949-215-1117

BY: Sid Bahmanpour

STATE CONTRACTOR LICENSE NO: 962264 EXPIRATION: 6-30-2019

DATE: 12-7-2017

Contractor shall prepare and complete proposal in ink.

ITEM NO.	A. GENERAL	UNIT		UNIT PRICE		AMOUNT
		MEAS	QUAN			
1.	Mobilization (max 2% of total bid amount), Complete	LS	1	8,000		8,000
2.	Performance, Labor & Payment Bond, Complete	LS	1	12,000		12,000
3.	Develop Construction Water, Complete	LS	1	8,000		8,000
SUB-TOTAL, GENERAL.....						\$ 28,000

ITEM NO.	B. WATER RECLAMATION FACILITY GENERATOR REPLACEMENT	UNIT		UNIT PRICE		AMOUNT
		MEAS	QUAN			
4.	Intercept Existing (1)1" C. From DPL1 and Extend to New Generator. Refer to Generator Submittal for Stub Up Location, Complete	LS	1	6,400		6,400
5.	Intercept Existing (4)4" C. and (1)1" C. From ATS and Extend to New Generator. Refer to Generator Submittal for Stub Up Locations, Complete	LS	1	22,000		22,000
6.	Bond to Existing Ground Rod, Complete	LS	1	13,000		13,000
7.	Remove and Replace to Match the Existing, including Sawcut and Disposal, Complete	LS	1	8,000		8,000
8.	Label and Coil 10 Feet of Conductors in RTU Enclosure. Refer to Dwg. E-2 for Communications Diagram. PLC Digital Conductors Shall be Violet Color to Match Existing. Complete	LS	1	1,400		1,400
9.	Add 20A/2P Breaker. Label 'Generator Heater'. Relabel Position 15 'Spare', Complete	LS	1	1,600		1,600
10.	Remove and Dispose of Existing Generator, Fuel Tank, Fuel and Pad, Complete	LS	1	23,000		23,000
11.	Identify and Remove All Power and Control Conductors to Generator, Complete	LS	1	2,000		2,000
12.	Remove and Dispose Existing 120VAC Circuits from Panel 'DPL1.', Complete	LS	1	3,000		3,000
13.	Furnish and Install All Conduit, Complete	LS	1	35,000		35,000
14.	Furnish and Install Generator per Technical Specifications, including All Appurtenances and Testing, Complete	LS	1	272,000		272,000
SUB-TOTAL, WATER RECLAMATION FACILITY GENERATOR REPLACEMENT.....						\$ 387,400

Owner: _____

Contractor: _____

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That ACS Engineering, Inc. as Principal,
and American Contractors Indemnity Company as Surety, are

held and firmly bound unto Temescal Valley Water District
hereinafter called Owner, in the sum of Ten Percent of the Total Amount of the Bid (10%)
dollars, (not less than ten percent of the total bid amount) for the payment of which sum well and truly to
be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly by these presents.

WHEREAS, said Principal has submitted a bid to said Owner to perform all work required under the
Bidding Schedule(s):

Water Reclamation Facility Generator Replacement

of the Owner's Specifications entitled Contract Documents and Specifications for

Water Reclamation Facility Generator Replacement

NOW THEREFORE, if said Principal is awarded a contract by said Owner and, within the time and in the
manner required under the heading "Instructions to Bidders" bound with said Specifications, enters into a
written contract on the form of agreement bound with said Specifications and furnishes the required bonds,
one to guarantee faithful performance and the other to guarantee payment for labor and materials, then this
obligation shall be null and void, otherwise it shall remain in full force and effect. In the event suit is
brought upon this bond by said Owner and judgment is recovered, said Surety shall pay all costs incurred
by said Owner in such suit, including a reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this 7th day of December, 2017.

ACS Engineering, Inc. (SEAL) American Contractors Indemnity Company (SEAL)
(Principal) (Surety)

By: _____ By: Pietro Micciche
(Signature) (Signature) Pietro Micciche, Attorney-in-Fact

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On 12-9-17 before me, Angel Nunez, Notary Public
Date Here Insert Name and Title of the Officer

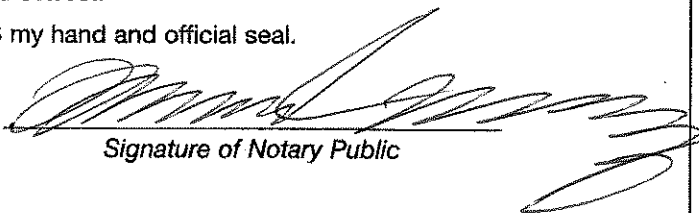
personally appeared Pietro Micciche
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

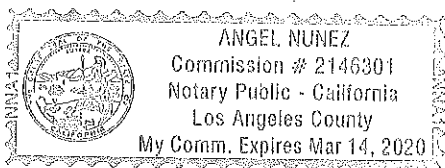
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature



Signature of Notary Public



Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Corporate Officer — Title(s): _____
- Partner — Limited General
- Individual Attorney in Fact
- Trustee Guardian or Conservator
- Other: _____

Signer Is Representing: _____

Signer's Name: _____

- Corporate Officer — Title(s): _____
- Partner — Limited General
- Individual Attorney in Fact
- Trustee Guardian or Conservator
- Other: _____

Signer Is Representing: _____

POWER OF ATTORNEY
AMERICAN CONTRACTORS INDEMNITY COMPANY TEXAS BONDING COMPANY
UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

KNOW ALL MEN BY THESE PRESENTS: That American Contractors Indemnity Company, a California corporation, Texas Bonding Company, an assumed name of American Contractors Indemnity Company, United States Surety Company, a Maryland corporation and U.S. Specialty Insurance Company, a Texas corporation (collectively, the "Companies"), do by these presents make, constitute and appoint:

Patricia Zenizo, Pietro Micciche or Angel Nunez of Los Angeles, California

its true and lawful Attorney(s)-in-fact, each in their separate capacity if more than one is named above, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver **any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed** *****Three Million***** Dollars (\$ **3,000,000.00**).

This Power of Attorney shall expire without further action on November 3, 2019. This Power of Attorney is granted under and by authority of the following resolutions adopted by the Boards of Directors of the Companies:

Be it Resolved, that the President, any Vice President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

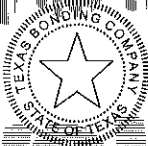
Attorney-in-Fact may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity and other conditional or obligatory undertakings, including any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts, and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and effected by the Corporate Secretary.

Be it Resolved, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, The Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 1st day of November, 2016.

AMERICAN CONTRACTORS INDEMNITY COMPANY TEXAS BONDING COMPANY
UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY

Corporate Seals



By:

[Signature]
Daniel P. Aguilar, Vice President

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Los Angeles SS:

On this 1st day of November, 2016, before me, Sabina Morgenstein, a notary public, personally appeared Daniel P. Aguilar, Vice President of American Contractors Indemnity Company, Texas Bonding Company, United States Surety Company and U.S. Specialty Insurance Company who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.

Signature

[Signature]

(Seal)



I, Kio Lo, Assistant Secretary of American Contractors Indemnity Company, Texas Bonding Company, United States Surety Company and U.S. Specialty Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect; furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Los Angeles, California this 1st day of December, 2017.

Corporate Seals

Bond No. 113
Agency No. 3057



[Signature]
Kio Lo, Assistant Secretary

BID OPENING VERIFICATION SHEET

Moote File No: TVW-700B

Admin:

Moote Companies LLC
 60 Corporate Park, Suite 100
 Irvine, CA 92606
 Tel: 949-428-1400

Owner:

Temescal Valley Water District
 22646 Temescal Canyon Road
 Corona, CA 92883-5015
 Tel: 951-667-6323

Project:	Water Reclamation Facility Generator Replacement
Type:	Generator Replacement

Bid Date:	December 7, 2017
Bid Opening Location:	Moote Companies Office
Bid Opening Time:	11:00 AM
Contact:	Terry Paulson, tpaulson@moote.com
Contact:	Colin Zavrnsnick, czavrnsnick@moote.com

Contact Information	Amount	Bid Receipt Time	Bid Addenda	
			No.1	No.2
ACS Engineering	\$415,400.00	10:57am	✓	✓
RC Foster	\$550,050.00	10:57am	✓	✓

The Apparent Low Bidder is: ACS Engineering

Verified By:

Terrance J Paulson



MEMORANDUM

DATE: December 19, 2017
TO: Board of Directors
Temescal Valley Water District
FROM: General Manager
SUBJECT: Glen Eden Temporary Water

BACKGROUND

The District has received a letter requesting a source of temporary water for blending of high Nitrate well water for the Glen Eden Community. This Community is adjacent to the Sycamore Creek community but actually within the Elsinore Valley Municipal Water District (EVMWD) service area. Staff has worked out a temporary service agreement to supply low Nitrate water with EVMWD and Glen Eden. This water will be supplied at the District's Temporary water rate. Please see the attached agreement for additional requirements.

FISCAL IMPACT


None

RECOMMENDATION

It is recommended that the Board of Directors:

1. Discuss and authorize the General Manager to sign the agreement.

Respectfully submitted,



Jeff Pape
General Manager



Glen Eden Corporation
25999 Glen Eden Road
Temescal Valley, Ca 92883

August 23, 2017

Jeff Pape
Temescal Valley Water District
22646 Temescal Canyon Road
Temescal Valley, Ca 92883

Margie Armstrong
31315 Chaney Street
Lake Elsinore, Ca 92530

Subject: Request for Temporary Water Connection to Temescal Valley Water District

Dear Mr. Pape and Ms. Armstrong

Pursuant to our recent telephone conversations and at the suggestion of Ms. Armstrong, we are submitting this request for a three way working agreement between your agencies and Glen Eden Corporation for a three inch temporary metered water connection between TVWD and Glen Eden.

This request is a result of Compliance Order No. 05_63_17R_004 sent to Glen Eden on July 19, 2017 a copy of which is attached. The order was issued as a result of the quarterly sampling of our two active wells showing nitrate levels exceeding the MCL of 10 mg/L. This spike in Nitrate level is suspected to be a result of the large amount of rainfall this past winter and it is noted that other small water companies in the area operating on wells have experienced similar levels.

The subject compliance order requires Glen Eden to secure a reliable source of water that meets drinking water standards. Of the options provided, connection to an existing water district is the only viable approach, and at this time, connection for TVWD is the only economically viable approach.

Ms. Armstrong has verbally stated that the EVMWD would be amenable to our connection to TVWD provided that TVWD agrees and that Glen Eden agrees to ultimately connect to EVMWD when the 1434 pipeline is installed at some time in the future. The 1434 pipeline would provide water to the developers and property owners between Glen Eden and the Horsethief housing tract and at that time it would be financially feasible to connect. Our estimate for this to occur is 5 years.

Glen Eden is required to respond to the Compliance Order by September 14, 2017 and provide a proposed solution and a schedule. The essence of our proposal is as follows:

- 1) Glen Eden would hire a civil engineering firm to work with TVWD to design a buried 3 inch pipeline (or whatever TVWD would require to supply our Maximum Daily Requirement of 55,000 gallon per day) to bring water to the vicinity of well #3.
- 2) The Civil Engineer would work with both districts to design a back flow preventer and a pumping station at elevation 1210 feet to boost the water to approximately 105 psig to blend with well #3 water and deliver it to the 240,000 gallon tank at Chapel Hill, elevation 1450 feet. From there an existing booster station pumps water to a 320,000 gallon tank at elevation 1520 to feed

the upper half of Glen Eden. We are assuming a 3 inch connection and meter compatible with both TVWD and EVMWD such that the transition to EVMWD would be seamless.

- 3) We are proposing K&A engineering to design the pipeline as the prime and Dexter Wilson as a sub to K&A to design the backflow prevention and the booster station. We would also look to Dexter Wilson to develop a blending plan and monitoring system to blend the districts water with our well water to meet the water quality requirements. Obviously we are open to other suggestions by TVWD.
- 4) Figure 1 illustrates the most probable route for the pipeline, details to be worked out with the District's engineers. There are other options that would not involve the De Palma right of way or the bridge but the bridge offers the best way to span Indian Creek. In earlier discussions with EVMWD in 2004, there was a desire to run the EVMWD line past Glen Eden and interconnect with TVWD. Unknown if this is still desired but if so this might be the opportunity to bring a section of 12 inch line to the east side of the bridge where we could connect to a temporary 3 inch line. Just a thought.

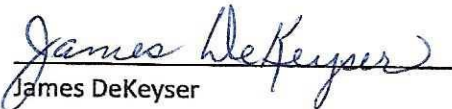
The purpose of this letter is to determine if this is a viable solution for both districts before we submit our proposal to the County of Riverside Department of Environmental Health for their approval. That submittal is due by September 14, 2017.

We look forward to your inputs and hope we can work with both districts to facilitate this effort. Glen Eden has over 150 permanent residents and 1700 members who depend on our water system. We also accommodate hundreds of visitors to our facilities from all over the world including many Canadian snowbirds that reside with us for the winter.

Sincerely



Dale L. Hook
Member, Board of Directors
Glen Eden Corporation
310-210-4096



James DeKeyser
President
Glen Eden Corporation
909-728-0822

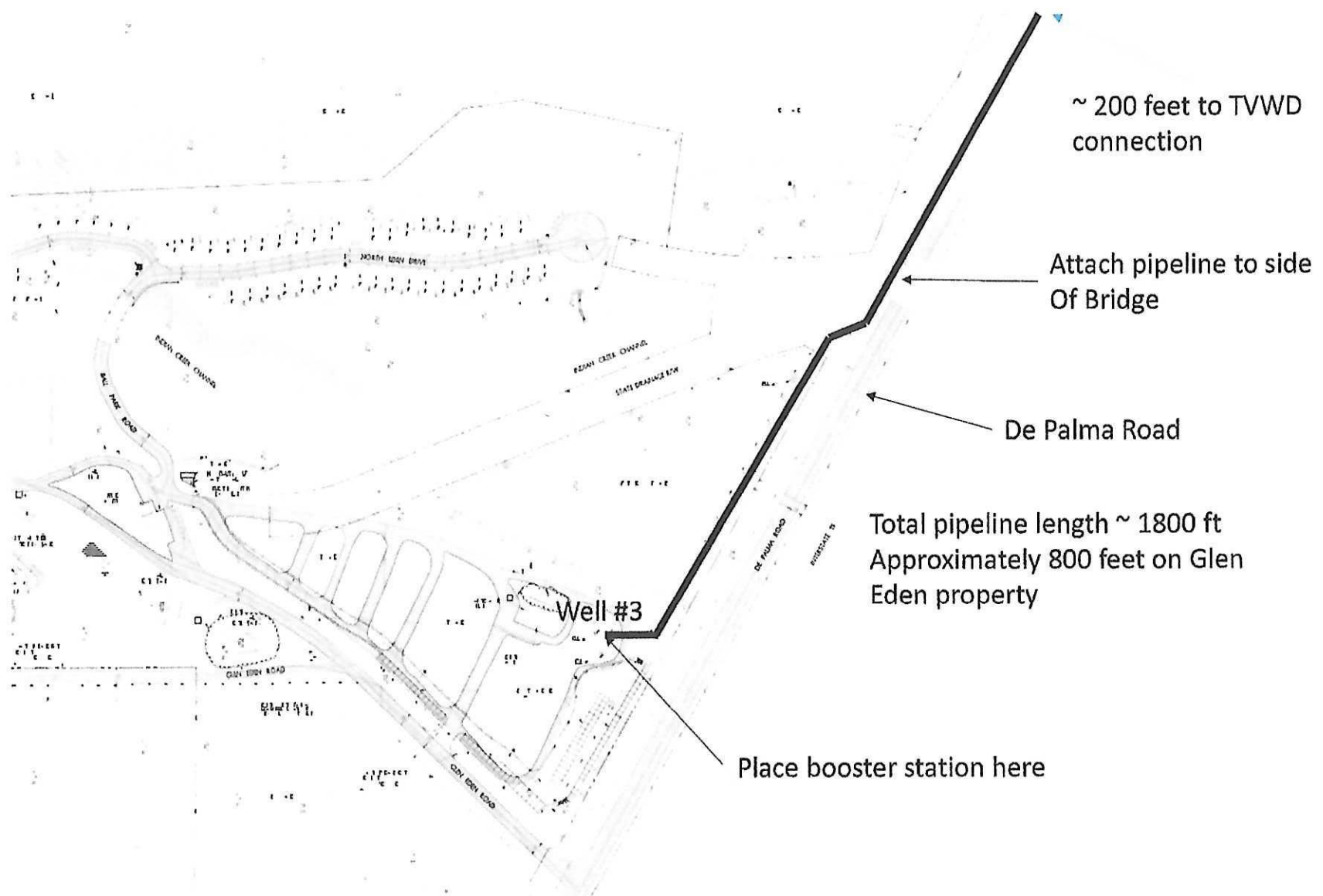


Figure 1, Probable Pipeline Route



County of Riverside
DEPARTMENT OF ENVIRONMENTAL HEALTH

P.O. BOX 7909 • RIVERSIDE, CA 92513-7909

STEVE VAN STOCKUM, DIRECTOR

COMPLIANCE ORDER
NO. 05_63_17R_004

WATER SYSTEM NO. 3301283
Glen Eden Sun Club
25999 Glen Eden Road
Corona, CA 92883

TO: Glen Eden Sun Club
25999 Glen Eden road.
Corona, CA 92883

July 19, 2017

FINDINGS OF FACT

OVERVIEW

Glen Eden Sun Club (hereafter “Glen Eden” or “Respondent”) is a Community Water System serving 359 sites, occupied by full time and part time residents. The sources for this system are: Well #1 (Station # 3301283-001) is 132 feet deep and is serviced by a 3 hp submersible pump. This well has a flow meter and is producing 22 gpm. Well #2 (Station # 3301283-002) it is serviced by a 7.5 hp submersible pump. This well has a flow meter and is currently off line, due to low production. Well #3 (Station # 3301283-003) is 300 feet deep and is serviced by a 5 hp submersible pump. This well has a flow meter and is producing 35 gpm.

Water is pumped from the two active wells into two 120,000 gallon tanks for the lower pressure zone. Water is then pumped by two 5hp pumps up to a 300,000 gallon storage tank and then gravity flows into the upper pressure zone.

There is one agricultural well which is 400ft deep and serviced by a 5 hp submersible pump. Due to high iron, manganese levels and poor pumping capacity, this well was converted to an irrigation well and is disconnected from the domestic system. This well is producing approximately 3 gallons per minute.

On June 23, 2017, Well #1 and Well #3 were sampled for nitrate. Well #1 nitrate results were 10 mg/L. Well #3 nitrate results were 12 mg/L. On June 28, 2017, Well #1 and Well #3 were resampled for nitrate. Well #1 nitrate results were 9.6 mg/L. Well #3 results were 12 mg/L. The

standard or Maximum Contaminant Level (“MCL”) for Nitrate is 10 mg/L pursuant to Title 22 of the California Code of Regulations (“CCR”) section 64431.

A summary of Glen Eden’s nitrate monitoring for Well #1 is presented in the table below.

Date of Sampling	Result
June 23, 2017	10 mg/L
June 28, 2017	9.6 mg/L

A summary of Glen Eden’s nitrate monitoring for Well #3 is presented in the table below.

Date of Sampling	Result
June 23, 2017	12 mg/L
June 28, 2017	12 mg/L

Well #3 now exceeds the State drinking water standard for Nitrate which is established as 10.0 mg/L. Community water systems must comply with the MCL for Nitrate.

Well #2 is currently off line and not sampled.

Riverside County Department of Environmental Health (the “Department”) required Glen Eden to issue a Tier 1 Nitrate notice to the water consumers of Glen Eden on 6/28/2017. Proof of notification was submitted to this Department indicating that the Tier 1 Nitrate notice was posted on 6/29/2017, hand delivered and mailed on 7/2/2017. All members were sent an email of the notice on 7/1/2017 and notification is ongoing for transient guest as they check in to the park. The Department received the Proof of Notification Form and a copy of the Tier 1 from the certified water operator.

ORDER

Pursuant to the California Safe Drinking Water Act, Health & Safety Code Sections 116650 and 116655, the Riverside County Department of Environmental Health (the “Department”) hereby orders Glen Eden Sun Club to do the following:

1. Secure a reliable source of water that meets drinking water standards. The following are some available options:
 - A. Permanently consolidate water system with an existing water district such as Elsinore Valley or Temescal Valley Water districts.
 - B. Provide a State Water Resources Control Board Division of Drinking Water (“DDW”) approved treatment system to correct the nitrate violation. DDW and this Department must approve any type of treatment prior to installation. Detailed plans and plan check fees will be required.
 - C. Drill a new well or new wells under permit with this Department that do not exceed the nitrate MCL.
2. Apply to the State Water Resources Control Board Division of Drinking Water for financial aid. The Financial Assistance Application Submittal Tool (“FAAST”) is the

first step in requesting funding for projects to correct public water system problems through programs administered by DDW. Funding projects can include consolidation plans.

To learn more about FFAST, please follow this link:

http://www.waterboards.ca.gov/drinking_water/services/funding/SRF.shtml

3. Interim actions such as localized treatment for the restaurant will need to be implemented. Submit plans to this Department for interim treatment by August 30th, 2017.
4. Sample wells # 1 and #3 quarterly for nitrate. Ensure that the analytical results are reported to the Department by the analyzing laboratory no later than the 10th day following the month in which the analysis was completed.
5. Continue to notify all residents quarterly using an approved Tier 1 notice regarding the nitrate levels in the water.
6. Submit Proof of Notification to this Department within 10 days following notification.
7. Notify customers of the violation on the annual Consumer Confidence Report (“CCR”) beginning in the 2017 CCR.

Submit a Corrective Action Plan with Glen Eden’s decision on the method of compliance and reasonable work schedule to this Department, in writing, no later than September 14, 2017. Respondent shall indicate the estimated amount of time necessary to provide a reliable source of water. The Department will take under consideration Respondent’s submitted work schedule and estimated time of completion and will either accept or modify the Respondent’s proposed date, and will notify the Respondent of its decision, in writing.

PARTIES BOUND

This Citation & Compliance Order (“Order”) shall apply to and be binding upon the Respondent, its officers, directors, agents, employees, successors and assignees.

SEVERABILITY

The requirements of this Order are severable, and Respondent shall comply with each and every provision thereof notwithstanding the effectiveness of any provisions.

PENALTIES FOR NONCOMPLIANCE

Failure to comply with all the terms of this Order may subject Respondent to civil penalties and/or any costs incurred by the Department as a result of such failure, as provided by Health & Safety Code section 116595 and other applicable provisions of law.

OTHER PROVISIONS

The Department reserves the right to make such modifications to this Order as it may deem necessary to protect public health and safety. Such modifications may be issued as an amendment to this Order and shall be effective upon issuance.

All submittals required by this Order shall be addressed to:

County of Riverside
Department of Environmental Health
Attention: Mark Abbott, Supervising REHS
47950 Arabia St., Suite A
Indio, CA 92201
(760) 863-7570

If Respondent is unable to perform the tasks specified in this Order for any reason beyond the Respondent's control, and if Respondent notifies the Department in advance of the due date, the Department *may* extend the time for performance if Respondent demonstrates good cause, which includes good faith efforts to comply with the schedules and other requirements of this Order. The decision to extend the date(s) of compliance shall be based upon good cause shown and within the sole discretion of the Department.

If Respondent fails to perform any of the tasks specified in this Order by the time described herein or by the time as subsequently extended pursuant to the paragraph above, Respondent shall have failed to comply with the obligations of this Order and may be subject to additional action, including but not limited to civil penalties specified in Health & Safety Code sections 116650 and 116725.

The County of Riverside shall not be held liable for any injuries or damages to persons or property resulting from acts or omissions by the Respondent, its employees, agents, or contractors in carrying out activities pursuant to this Order, nor shall the County of Riverside be held as a party to any contract entered into by the Respondent or its agents in carrying out activities pursuant to this Order.

By issuance of this Order, the Department of Environmental Health does not waive any further enforcement actions.

Any person who is aggrieved by a Compliance Order issued by the Riverside County LPA may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the Compliance Order. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the Compliance Order. The date of issuance is the date when the Riverside County LPA mails or serves a copy of the Compliance Order, whichever occurs first. If the 30th day falls on a Saturday, Sunday, or state holiday, the petition is due the following business day. Petitions must be received by 5:00 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

7-19-17

Date



Mark Abbott R.E.H.S.
Supervising Environmental Health Specialist

CERTIFIED MAIL: 7015 0640 0006 0766 5247



Glen Eden Corporation
25999 Glen Eden Road
Temescal Valley, Ca 92883

September 10, 2017

County of Riverside
Department of Environmental Health
22646 Temescal Canyon Road
Attn: Mark Abbott, Supervising REHS
47950 Arabia Street, Suite A
Indio, CA 92201
760-863-7570

Subject: Response to Compliance Order No. 05_63_17R_004

Dear Mr. Abbott:

This letter proposal is in response to Compliance Order No. 05_63_17R_004 sent to Glen Eden on July 19, 2017. The order was issued as a result of the quarterly sampling of our two active wells showing nitrate levels exceeding the MCL of 10 mg/L. This spike in nitrate level is suspected to be a result of the large amount of rainfall this past winter and it is noted that other small water companies in the area operating on wells have experienced similar increases.

In addition to various short term measures, the subject compliance order requires Glen Eden to secure a reliable source of water that meets drinking water standards. Any such source of water can be blended with Glen Eden's well water using an approved blending plan. Of the options provided, connection to an existing water district is the most viable approach. Further, connection to Temescal Valley Water District is the most economical approach that could be accomplished in the near term.

Unfortunately, Glen Eden is not located within the Temescal Valley Water District boundary even though we are less than 1000 feet from the nearest connection. We are located in the Elsinore Valley Municipal Water District but the nearest connection point in that district is a mile and a half away.

However, we have reached out to Margie Armstrong of EVMWD and Jeff Pape of the TVWD to request a temporary water connection to TVWD until such time as regional development brings a permanent water line along DePalma Road. Both districts appear to be amenable to this solution and Ms. Armstrong is currently drafting a 3 way agreement to this effect.

In the meantime, we have engaged K&A Engineering to prepare an engineering plan for a 2 inch buried connection from the nearest connection point in TVWD as specified by Mr. Pape. The 1485 TVWD line is of sufficient pressure to interconnect with the Glen Eden system without the need for a pumping station.

The success of this plan will depend upon the engineers obtaining permission from the Riverside County Transportation Department, to place the water line within the right of way adjacent to DePalma Road and attaching the line to the side of the bridge crossing Indian Creek. Assuming we can obtain the necessary permissions, we propose to engage the Dexter Wilson group to prepare the water blending plan to mix TVWD water with Glen Eden water to lower nitrate concentrations below 8 mg/l.

Glen Eden is currently operating Well 3 with a nitrate concentration of 12 mg/l and Well 1 with a nitrate concentration of 9.5 mg/l. Well 2 has been off line for the past several years because of the severe drought and the related water table level. However, the rains of this past winter have raised the water table to a point where Well 2 is again a viable well. Realizing that Well 2 has a solid casing to a depth of 90 feet, we decided to test the nitrate level in that well and have found that it appears to be around 6 mg/l. Placing that well into the mix, provides additional flexibility in the blending calculations and we plan to reactivate that well in the near future.

Mr. Dale Hook, one of our Board members and a retired engineer, will be coordinating this project for Glen Eden. Mr. Hook has been coordinating our water facilities development for the past 14 years and represented Glen Eden in the 2004 to 2007 Alberhill CFD efforts with EVMWD.

We are still very early in the planning and estimating process. Our estimated schedule for completion of the project is provided as Figure 1. As requested, we will continue to monitor nitrate levels quarterly at the well heads and monthly within the café. We will keep you posted on the progress of the water line project. Any support you can provide to the permitting process with RTLMA would be greatly appreciated.

Sincerely:



Art Bell
General Manager
Glen Eden Sun Club
951.277.4650
gegmg@gleneden.com



DeDe Utter
Assistant General Manager
Glen Eden Sun Club
951.277.4650
geagm@gleneden.com



Figure 1, Estimated Project Schedule



County of Riverside
DEPARTMENT OF ENVIRONMENTAL HEALTH

P.O. BOX 7909 • RIVERSIDE, CA 92513-7909

STEVE VAN STOCKUM, DIRECTOR

Date: September 26, 2017

To: Glen Eden Corporation
C/O Art Bell and DeDe Utter
2599 Glen Eden Road
Temescal Valley, CA 92883

RE: Response to Compliance order # 05_63_17R_004 Acceptance

Riverside County Department of Environmental Health in conjunction with the State Water Resources Control Board Division of Drinking Water has reviewed your proposal to address the existing Nitrate violation for the Glen Eden Water System. The proposal is accepted with the following conditions:

- Detailed blending plan must be submitted to this Department for approval prior to implementation.
- A four-inch water line must be installed as required by waterworks standards for the connection to the Temescal Valley Water District.
- Glen Eden must show that the Maximum Day Demand and Peak Hour Demand is met by this connection. The water system must show that the connection can supply the system enough water to meet these demands, even with a blending plan in place and take in to account any fire suppression demand.
- Provide documentation for the point of use treatment that was installed at the café. Continue to sample the café for nitrate monthly and submit results to this Department.
- Drinking water fountains throughout the park must be turned off, water hose bibs throughout facility should be labeled with a do not drink warning sign.
- Provide a map showing number and type of connections the system currently has.

If you have any questions regarding this Notice, do not hesitate to contact Daisy Ciudad Real at (951) 955-8980.

Sincerely,

Daisy Ciudad Real, REHS, MPH.

INTERAGENCY AGREEMENT

This Interagency Agreement (“Agreement”) is made and entered into this 14th day of December, 2017, by and between Temescal Valley Water District, hereinafter referred to as “Temescal”, Elsinore Valley Municipal Water District, hereinafter referred to as “Elsinore”, and Glen Eden Corporation, hereinafter referred to as “Glen Eden”. Temescal, Elsinore, and Glen Eden will hereinafter be referred to as “Parties”.

RECITALS

WHEREAS, Glen Eden, located on 25999 Glen Eden Road, Corona, CA, hereinafter referred to as “the Site”, within the boundaries of Elsinore Valley Municipal Water District, utilizes multiple private onsite wells to provide water service to their parcel; and

WHEREAS, Glen Eden received a Compliance Order from the County of Riverside Department of Environmental Health for the exceedance of nitrate levels in their onsite well water supply; and

WHEREAS, the Compliance Order requires Glen Eden to secure a reliable source of additional temporary water for the direct purpose of blending onsite well water with a second source of water to meet drinking standards; and

WHEREAS, Elsinore does not have water facilities in close proximity of the site and Temescal has an existing water facility adjacent to the Site; and

WHEREAS, Temescal and Elsinore agree that Temescal would provide water service to Glen Eden for the Site until such time that Elsinore has water facilities in close proximity to the Site; and

WHEREAS, Temescal and Elsinore agree that the temporary water service arrangement can best be administered and accomplished pursuant to the provisions of an interagency agreement by and between the Districts.

NOW THEREFORE, in consideration of the mutual covenants and conditioned herein contained, the Parties hereby agree as follows:

1. Incorporation of Recitals:

The Recitals set forth above are incorporated into and are a part of this Agreement.

2. Service Connection:

Elsinore agrees to allow temporary water service to the Site and Temescal agrees to provide the temporary potable water, subject to the terms and conditions of this Agreement.

3. Blending Structure and Maintenance of Facilities:

Glen Eden shall be solely responsible for the approval, operation, compliance and maintenance of the blending structure. Glen Eden shall be solely responsible for all water testing, reporting and water quality requirements as set by the County of Riverside Department of Environmental Health. Neither Elsinore nor Temescal shall be required to provide permanent water to maintain potable drinking water standards within this agreement to Glen Eden. The operation and maintenance of the water service line from the Temescal's meter to the Site as shown on Attachment A shall be the sole responsibility of Glen Eden.

4. Payment of Water Commodity and Capacity Fees:

4.1 Glen Eden acknowledges and accepts that Temescal is providing Temporary Water Services as defined with in its Rules and Regulations and it does not and will not own Temescal Water Capacity. Water delivered to Glen Eden is subject to all provision of Section 31.01 Temporary Water Service.

4.2 Glen Eden is responsible to provide payment of Elsinore's Water Capacity Fees at the rate applicable at the time of connection to Elsinore's water system. The current Elsinore's Water Capacity Fees are shown on Exhibit "A".

5. Payment of Other Charges:

Glen Eden is responsible to provide reimbursement to Elsinore and Temescal for any legal fees and related costs incurred in providing this Agreement.

6. Term of Agreement:

Use of the water supply pipeline shall be limited to providing service to Glen Eden. No other connection or service shall be provided from subject pipeline. The term of this Agreement shall continue in effect as long as the water service is used for its existing purpose or until such time Elsinore deems it necessary for Glen Eden to install a water meter within Elsinore's service boundary.

7. Indemnification:

The Parties, each mutually, indemnify and hold each other harmless from any and all claims, demands, causes of action, damages, costs and expenses, including attorney fees, property damage, bodily injury, personal injury, losses or liabilities, in law or in equity, of every kind and nature to the extent that the same are the result of an error, omission or

negligent act of the other, its officers or employees, or any other person acting pursuant to its control in performing under this Agreement.

8. Amendment:

This Agreement may be modified only by a subsequent written agreement executed by the Parties.

9. Entire Agreement:

This Agreement is intended by the Parties as a complete and exclusive statement of the terms of their agreement and it supersedes all prior agreements, written or oral, as to this subject matter.

10. Notices:

Written notices to be given to a Party must be given by personal delivery or by registered or certified mail addressed and delivered as set forth below. Other correspondence and invoices may be sent by first-class mail, addressed and delivered as set forth below:

Elsinore Valley Municipal Water District
31315 Chaney St
Lake Elsinore, CA 92531
Attn: Margie Armstrong

Temescal Valley Water District
22646 Temescal Canyon Road
Temescal Valley, CA 92883
Attn: Jeff Pape

Glen Eden Corporation
25999 Glen Eden Road
Corona, CA 92883
Attn: Art Bell

11. Successors and Assigns:

This Agreement shall be binding on the successors and assigns of the Parties.

12. Waiver:

No waiver of any default shall constitute a waiver of any other default or breach, whether of the same or other covenant or condition. No waiver, benefit, privilege, or service voluntarily given or performed by a Party shall give the other Party any contractual rights by custom, estoppel or otherwise.

13. No Third Party Beneficiaries:

There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

14. Invalidity; Severability:

If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

15. Governing Law:

Glen Eden General Manager has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.

This Agreement shall be governed by the laws of the State of California. Venue shall be in Riverside County.

16. Authority to Enter Agreement:

Each Party represents to the other that they are duly authorized to sign this Agreement and to bind their respective Parties hereto.

17. Counterparts:

This Agreement may be signed in counterparts, each of which shall constitute an original.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed.

Temescal Valley Water District

By: _____
Jeff Pape, General Manager

Dated: _____

ATTEST:

By: _____

Elsinore Valley Municipal Water District

By: _____
John Vega, General Manager

Dated: _____

ATTEST:

By: _____
Terese Quintanar
District Secretary

Glen Eden Corporation

By:  _____
Art Bell, General Manager

Dated: 12-14-2017

ATTEST:

By:  _____
SYLVIA AGLIANO
CORPORATE SECRETARY

Exhibit A

**ELSINORE VALLEY MUNICIPAL WATER DISTRICT
WATER CAPACITY FEES BY METER SIZE**

<u>Meter Size</u>	<u>Modified Capacity Ratio*</u>	<u>Effective 08/01/17</u>
0.75	1.0	\$ 10,320
1	1.6	16,512
1.5	3.0	30,960
2	4.5	46,440
3	8.0	82,560
4	12.5	129,000
6	23.3	240,456
8	34.7	358,104

Date: 12/10/2017

Motion # B18-32

G.E. CORP

UNANIMOUS PASSED

RESULTS

I move that: The Board of Directors authorize the General Manager

to sign the Interagency Agreement between Glen Eden, Temescal Valley Water

District and Elsinore Valley Municipal Water District

Expense: _____	Asset: _____	Asset Under Const. _____
Account : _____	Account: 2050	Account: _____

Fiscal Impact: N/A

Maker: Dale Hook

Dale Hook

Second: M. Nash

DEXTER WILSON ENGINEERING, INC.

DEXTER S. WILSON, P.E.
ANDREW M. OVEN, P.E.
STEPHEN M. NIELSEN, P.E.
NATALIE J. FRASCHETTI, P.E.
STEVEN J. HENDERSON, P.E.

October 25, 2017

544-041

K &A Engineering, Inc.
357 North Sheridan Street, Suite 117
Corona, CA 92880

Attention: Jim Bolton, Project Manager

Subject: Glen Eden Water System Blending Plan

This letter provides our recommendations for blending the existing Glen Eden groundwater well supply with a temporary supply from the Temescal Valley Water District (TVWD) to meet the Maximum Contaminant Limit (MCL) for nitrate. This blending plan is being prepared in response to Compliance Order No. 05_63_17R_004 issued by the Riverside County Department of Environmental Health.

Background

The Glen Eden Resort has been in operation since the 1960s and relies solely on groundwater wells for its water supply. Water from the onsite wells is pumped into a storage and distribution system. The property has two 120,000 gallon reservoirs located at the same site with a base elevation of 1,405 feet and a higher reservoir with a base elevation of 1,500 feet and a capacity of 320,000 gallons. The reservoirs provide fire flow storage and meet peak operational demands. The supply wells have adequate capacity to replenish the reservoirs during maximum daily usage.

Jim Bolton
October 25, 2017
Page 2

To comply with Riverside County Department of Environmental Health requirements (in conjunction with State Water Resources Control Board Division of Drinking Water), Glen Eden is required to submit quarterly water quality monitoring reports. In recent monitoring and reporting, it was discovered that the nitrate concentrations in the well supply slightly exceeded the MCL of 10 mg/l which resulted in Compliance Order No. 05_63_17R_004 (July 19, 2017). This compliance order requires Glen Eden to secure a reliable source of water that can be blended with their well water supply to meet drinking water standards.

The Glen Eden property is within the service area of the Elsinore Valley Municipal Water District (EVMWD), but the closest water line is approximately a mile and a half from the project. There are some potential development projects located south of Glen Eden that may extend the EVMWD water system closer to the property in the next three to five years. While this may be the ultimate solution, it does not meet the near term needs of Glen Eden. TVWD has water facilities approximately 1,000 feet from the Glen Eden site and is willing to allow a temporary connection and supply to the property. A three way agreement between EVMWD, TVWD, and Glen Eden is currently being drafted to allow this temporary supply to the property from TVWD.

The TVWD system in the area is supplied by the Sycamore Creek 3.8 million gallon reservoir which has a high water line of 1,509 feet and a pad elevation of 1,470 feet. This tank provides adequate pressure to supply the lower Glen Eden tanks without the need for pumping.

Historical Water Use

To assist with knowing how much water must be supplied from TVWD to achieve a blend that meets the water quality requirements, an understanding of how much water is used on the Glen Eden property is necessary. Based on data received from Glen Eden, Table 1 summarizes one year's worth of water use data for the period from September 2016 through August 2017.

TABLE 1 GLEN EDEN WATER USE SUMMARY		
Month	Total Water Use, gal.	Average Use, gpd
September 2016	1,342,100	44,738
October 2016	1,333,200	43,008
November 2016	1,155,500	38,519
December 2016	880,400	28,400
January 2017	735,600	23,729
February 2017	960,500	33,121
March 2017	883,600	28,502
April 2017	1,308,600	43,621
May 2017	1,119,500	36,112
June 2017	1,513,100	50,437
July 2017	1,820,300	58,720
August 2017	1,418,300	45,752
TOTAL	14,470,700	39,646

As shown, the average annual water use is 39,646 gpd. As expected, water use is higher in summer months than winter months and the maximum monthly use compared to average annual use (maximum month factor) is approximately 1.5. The water supply for the project should be capable of meeting the maximum daily demand (most use that occurs in a single day) and a maximum day demand factor of 2.0 is assumed based on the historical data. Thus, the projected maximum daily demand for the site is approximately 79,300 gpd (55 gpm).

Existing Wells

The Glen Eden property currently has three functional wells. Well No. 1 has been actively used in recent years and has a production rate of 32 gpm when in operation. Recent nitrate testing at this well indicates nitrate concentrations of approximately 9.0 mg/l. Well No. 2 has been out of service in recent years due to drought conditions and corresponding low groundwater levels. Due to better rain conditions this past winter, groundwater levels have

increased to the point where this well could be brought back into service. This well has a capacity of 30 gpm when running and recent testing indicates that nitrate concentrations from this well are approximately 6.5 mg/l. Although the operation of Well No. 2 could help lower the overall nitrate levels in the supply, this well was assumed to not be in operation for our blending calculations. Well No. 3 has a capacity of 40 gpm when in operation and recent testing indicates nitrate levels of approximately 12 mg/l.

Blending Requirements

Wells No. 1 and No. 3 have adequate capacity to meet the maximum daily demands of Glen Eden and the addition of water from TVWD will only improve the water supply capabilities of the system. The onsite reservoirs will still supply peak hour demands and provide fire flow protection for the site. The attached exhibit provides the water system layout for the property and indicates where the proposed TVWD supply will connect to the system.

To provide adequate blending with TVWD water, it is proposed to add enough TVWD water to the system when Wells 1 and 3 are running to reduce the blended nitrate level to 8.0 mg/l. Although the nitrate level is only required to be below 10 mg/l, setting a target of 8.0 mg/l provides a little buffer to ensure that water quality requirements are consistently met. Based on information from TVWD, the maximum nitrate level from this temporary supply source is 1.0 mg/l. Based on this and the well data provided above, Table 2 summarizes how much water is required from TVWD when Wells 1 and 3 are running to achieve the nitrate target in the blended supply.

TABLE 2 GLEN EDEN BLENDING SUMMARY		
Description	Flow, GPM	Nitrate Concentration Mg/l
Well 1	32	9.0
Well 3	40	12
TVWD Supply	27.4	1.0
Total Blended Supply	99.4	8.0

Jim Bolton
October 25, 2017
Page 5

It should be noted that if only one well is running (Well 1 or Well 3) and a supply of 27.4 gpm is being provided by TVWD, the blended nitrate concentration will be below the target of 8.0 mg/l. The TVWD blending flow rate of 27.4 gpm will only result in a velocity of 0.7 feet per second in the proposed 4-inch supply line and a velocity of 2.8 feet per second in the existing section of 2-inch Glen Eden water line. These pipe sizes are adequate to convey this flow.

Blending Supply Automation

The operation of the existing well pumps at Glen Eden is automated such that the well pumps turn on and off based on reservoir level signals that are relayed to well controller via radio telemetry. To integrate the TVWD supply into the system, it is recommended to include a motor operated solenoid valve that will open when either of the pumps in Well 1 or Well 3 come on and will close when these well pumps turn off. When the solenoid valve is open, the amount of supply from TVWD will be set at a constant flow rate by using a flowmeter that sends a 4-20 mA signal to a flow control valve. The setting of the flow control valve is adjustable such that the desired flow rate can be increased or decreased as necessary based on the water quality test results. A detail of the proposed TVWD supply control and automation is provided on the attached exhibit.

Once the system is in place, sampling should be taken downstream of the Well 3 and Well 1 discharge piping to ensure that the blended supply meets the water quality objectives.

If you have any questions on the information contained herein, please let us know.

Dexter Wilson Engineering, Inc.

Stephen M. Nielsen

Stephen M. Nielsen, P.E.

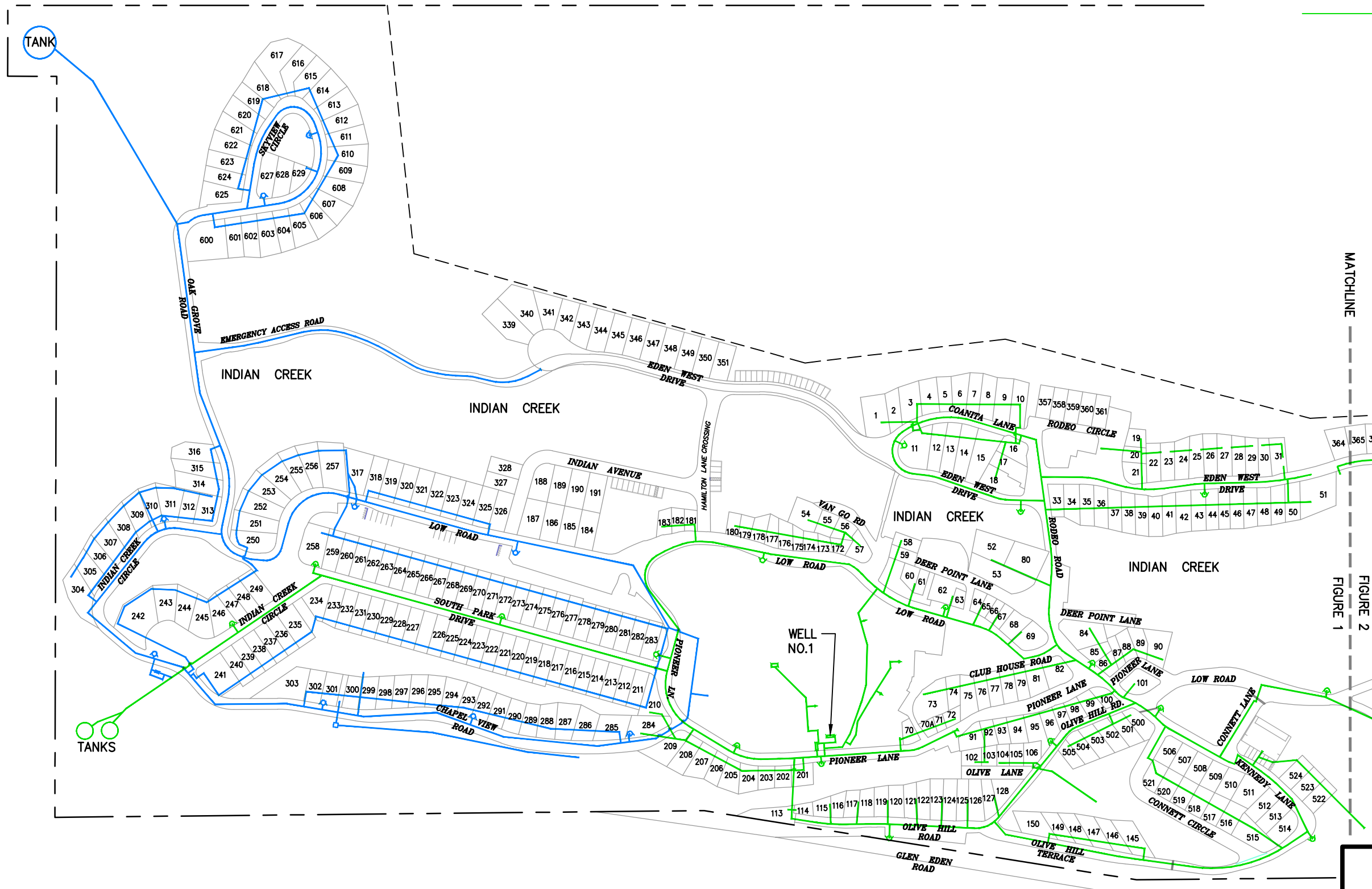
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\\ARTIC\DWG\544041\FIGUR-1.DWG 10-23-17 09:53:19 LAYOUT: LAYOUT

LEGEND

- PROJECT BOUNDARY
- UPPER WATER ZONE
- LOWER WATER ZONE
- ⊕ UPPER FIRE HYDRANTS
- ⊕ LOWER FIRE HYDRANTS
- 48 SITE NUMBER



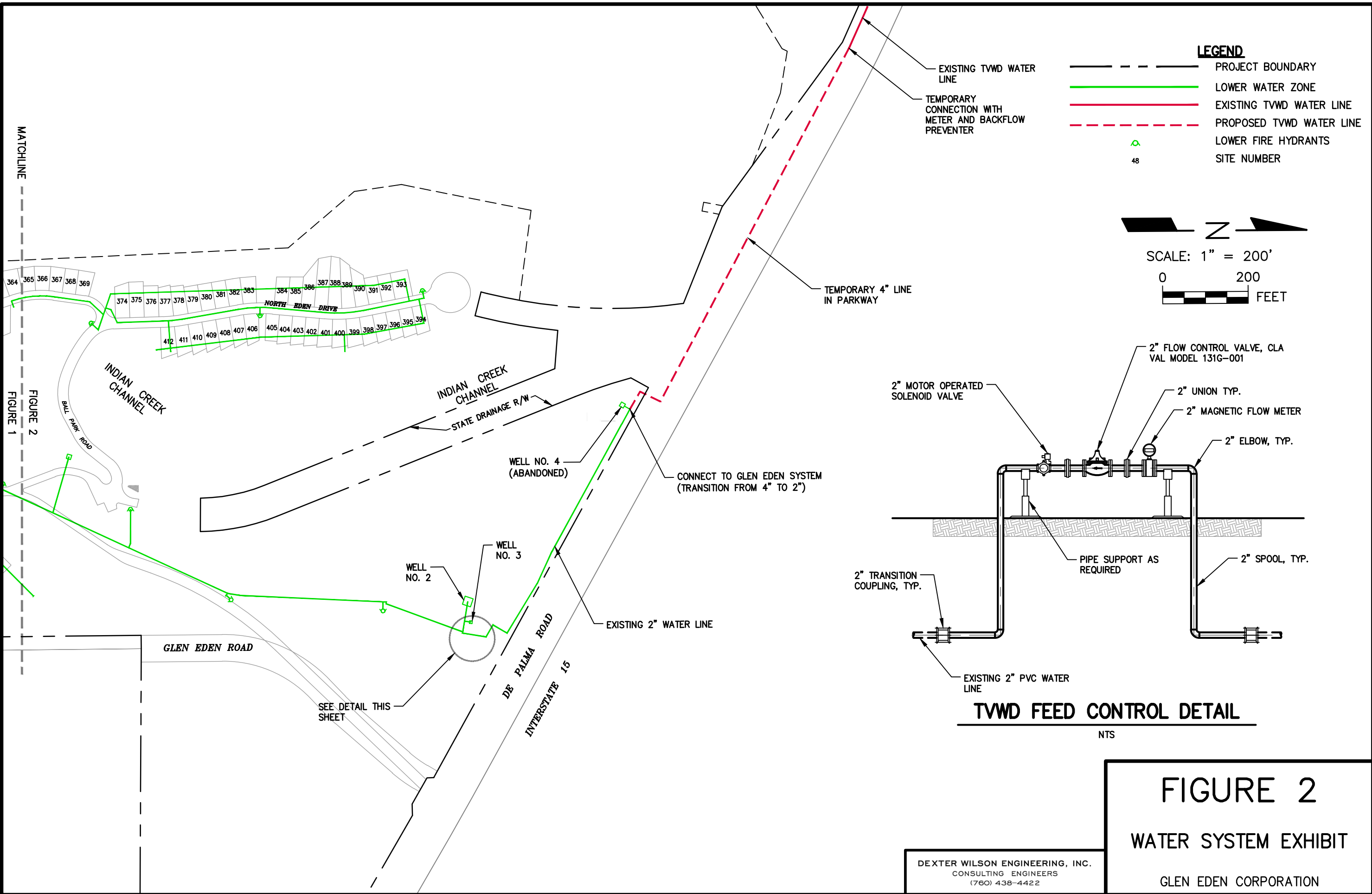
SCALE: 1" = 200'



FIGURE 1
WATER SYSTEM EXHIBIT
 GLEN EDEN CORPORATION

DEXTER WILSON ENGINEERING, INC.
 CONSULTING ENGINEERS
 (760) 438-4422

\\ARTIC\DWG\544041\FIGUR-2.DWG 10-20-17 16:38:08 LAYOUT: LAYOUT



- LEGEND**
- PROJECT BOUNDARY
 - LOWER WATER ZONE
 - EXISTING TVWD WATER LINE
 - PROPOSED TVWD WATER LINE
 - LOWER FIRE HYDRANTS
 - 48 SITE NUMBER

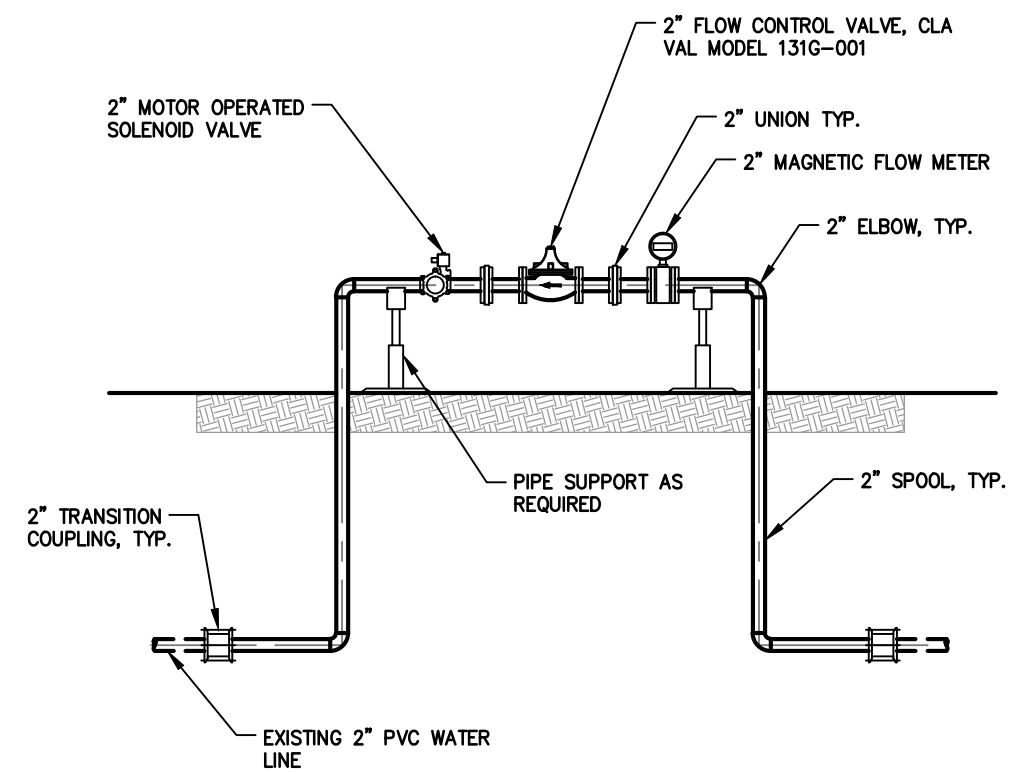
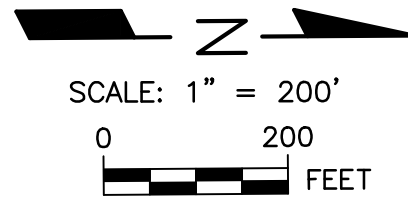


FIGURE 2
WATER SYSTEM EXHIBIT
 GLEN EDEN CORPORATION

DEXTER WILSON ENGINEERING, INC.
 CONSULTING ENGINEERS
 (760) 438-4422

December 14, 2017

Board of Directors
Temescal Valley Water District

Re: Water and Sewer Operations – December 2017

Dear Board Members:

Temescal Valley Water District operations personnel perform the following tasks on a regular and routine basis:

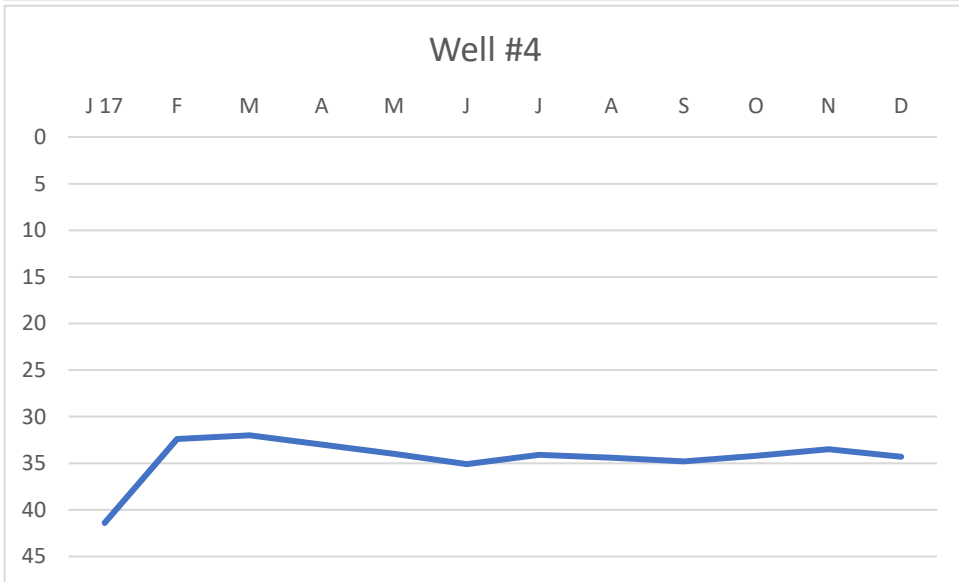
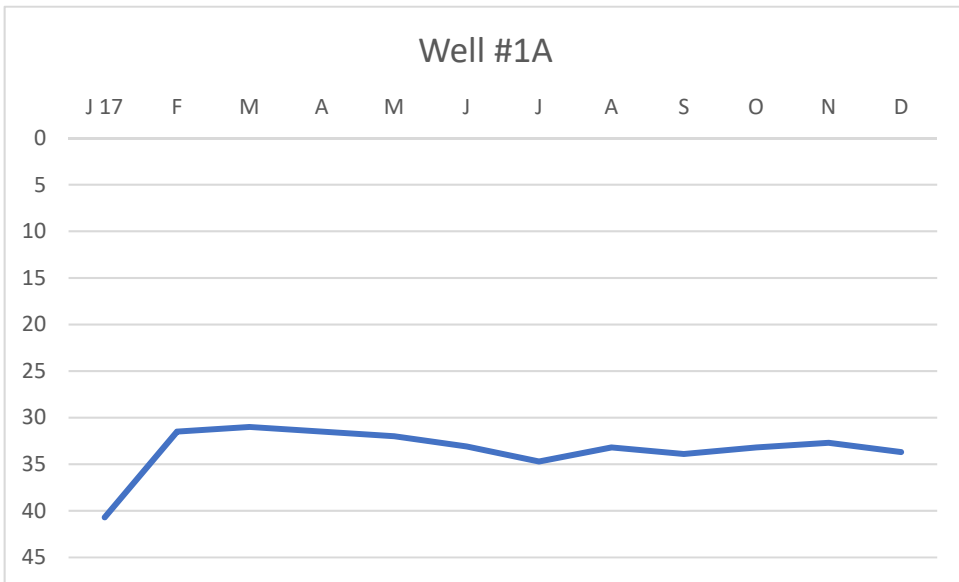
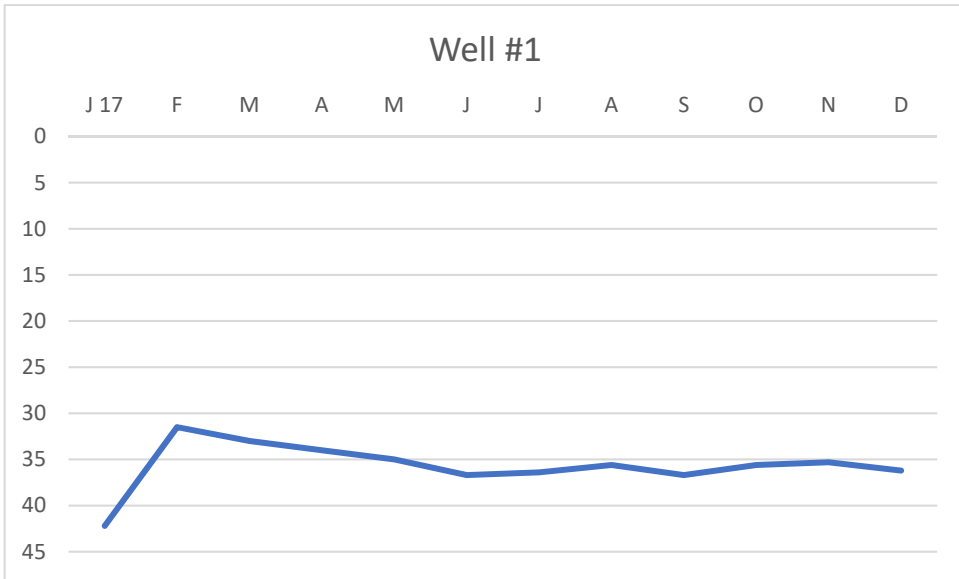
- Managed 260.01 acre-feet of water through system.
- Collected monthly potable water samples. We are now collecting four samples per week as required by the State Water Resources Control Board, Division of Drinking Water.
- Submitted monthly report to the Regional Water Quality Control Board for:
 - Temescal Valley Wastewater Reclamation Facility
- Submitted monthly report to the State Water Resources Control Board, Division of Drinking Water for TVWD distribution system monitoring.
- Read 5288 water meters.
- Maintained aesthetic appearance of all District facilities.
- 18 shut-offs.
- Responded 113 service calls.
- Installed 17 meters for the various developers
- Responded to 46 USA Dig Alerts to mark District underground utilities.

In addition to the above regular and routine tasks we also performed the following operational tasks.

- Installed new valve on non-potable line at Temescal Canyon rd. and Leroy to facilitate pressure testing of line. Also adds flexibility in isolating line in the future.
- Digester #2 aerator failed, has been removed for repair. Motor has been repaired, awaiting crane to reinstall.
- Monitoring construction of new sewer lift station in Terramor. All pumps have been test run. Controls and alarms have been checked and are working. System is ready to go on line.
- Submitted November report to the State Water Resources Control Board via CWIQS.

Sincerely,

Kenneth R. Caldwell, Operations Superintendent



TEMESCAL VALLEY WATER DISTRICT
ENGINEERING DEPARTMENT

DISTRICT ENGINEER'S MONTHLY REPORT

Date: December 14, 2017
To: Jeff Pape, General Manager
From: Justin Scheidel, District Engineer
Subject: Engineering Activities Update for the Month of December 2017

Following is a summary of the status of current engineering projects:

PLAN CHECKING & DEVELOPER RELATED PROJECTS

Terramor Water, Sewer, & RW Improvements In-Tract Laterals (10476, 10477 and 10478) – Engineering review previously completed, currently under construction.

Terramor Regional Sewer LS (8957) – Engineering review completed, currently under construction.

Terramor Reservoirs Project (1401.1610) – Reviewed the 100% design submittal from Dexter Wilson. Minor edits required to complete design and start construction.

TVWD Water Reclamation Facility Expansion (9830) – Reviewed and provided comments on the 60% design submittal for the treatment plant expansion, waiting for 90% re-submittal.

Temescal – Leroy Sewer Improvements (10555 Phase 1) – Engineering review completed and mylars are signed for construction.

Temescal Valley Commerce Center (10555 Phase 2) – Reviewed and provided comments on the final design for the onsite and offsite sewer and the offsite waterline extension. Signed mylars for the potable water pipeline connection and the offsite sewer project which should be constructed soon.

CAPITAL IMPROVEMENT PROJECTS

1320 Reservoir Preliminary Design Report (1401.1608): Submitted Draft Preliminary Engineering Report to the General Manager for review. Currently waiting for comments.

Knabe Road Non-Potable Waterline (1401.1708): Continued design of the pipeline extension and provided drawings to the General Manager for review. Currently waiting for comments.

LLWRF Percolation Pond Improvements (1401.1707): Submitted first round of preliminary drawings to the General Manager for review. We are currently incorporating his comments and working to complete a 75% design level submittal.

AS-NEEDED ENGINEERING SERVICES

General Engineering Initiated During FY 2017/18

- Project 1401.1701: Potable Water Related Services for FY 2017/18. Prepared District Engineer's report. Provided utility request information to developers and other agencies. Organized catalog of as-builts to facilitate utility requests.
- Project 1401.1702: Non-Potable Water Related Services for FY 2017/18. No work completed this month.
- Project 1401.1703: Wastewater Related Services for FY 2017/18. No work completed this month.
- Project 1401.1704/5/6: Potable/Recycled/Wastewater Mapping Updates for FY 2017/18. Provided GIS files and as-builts for a utility request.