The Water Well Site Project. Est. year 2025

Well Site: following the SWRCB guidelines and recommendations/requirements

1. Water Well No. 2: Re-work of the discharge pipes to include the above-ground components, elevating the wellhead to a minimum of 24" above ground level (State Requirement); the discharging of water within the work site area needs to have proper backflow requirements AIR GAP, an increase of the HP motor and possible pump assembly. Increase water production to have a minimum pumping rate of 500 GPM. Electrical work as needed, with a "soft starting" well pump motor. **Total estimated cost: $125k (includes cleaning and rehabilitation of aquifer)** *Winter 2024-25*

2. Electrical: Water Wells No. 1 and 2 electrical panels to handle larger electrical loads, generator transfer switch replacement/upgrade, pump starter, motor saver, lighting replacements and upgrades; Well 1 & 2 sheds and surrounding area, generator storage container. **Total estimated cost: $45k (necessary to allow the increase of water production)** *Winter 2024-25*

3. Well-Site Replacement Generator: Our current generator is not compliant with new state rules for emissions. With the SWRCB requiring all PWS to have a back-up power to supply water during an outage, we will need to replace our current Tier 1 generator soon. We can operate the generator under a waiver permitted for emergencies / low-use**.** A trailer mounted 260Kv Diesel -California Compliant- **Total estimated cost $180k**

    - **Estimated Grand Total of the Wellsite Projects $350k**

The Booster Station Back-Up Power Project. Est. year 2030

- Generator A trailer mounted 75Kv Diesel -California Complaint- **Total estimated cost $100k**
- Building/Structure Demolition of the Booster Station shed with the construction of the sheet metal structure to house the booster pumps, motors, and electrical panels. **Total estimated cost of $70k**

Meter Replacement - AMR water meters and software Est. year 2030

- Ultra-Sonic Sonata water meters – Integrated into our new billing software to allow drive-by remote water meter readings. Meter readings will take under 30 minutes, and seamless billings will be posted and emailed to the customer within 30

minutes. Meters read water flows as low as 1/8 gallon per minute; with a digital display, alarms (leak, empty pipe, reverse flow) instantly notify customers and district staff. **Total estimated cost of 125k**

The Water Well No. 3 Project Est. year 2035

Thompson Family Water Storage Tank Facility:

1. Water Well No. 3: Drilling of Well No. 3 to meet the current and future demands of the AVFCWD water system. **Total estimated cost: 500k**

BUDGET CALCULATOR GUIDELINES

This is a simple budget calculator to be used for a small water system. It is an Excel spreadsheet that consists of three tabs which are located near the bottom of your screen:
the **5-Year Budget Projection** tab, the **Capital Improvement Plan (CIP)** tab, and this **Guidelines** tab. All three sheets including the instructions are formatted to print on standard 8.5 x 11 inch paper. When the pertinent expense figures have been inserted, the program will calculate a minimum flat monthly rate per customer.

Be sure to use only the expenses and revenues related to the water system. For example, if the bill for electricity covers the entire establishment, estimate the amount of electricity that the water system uses. The number of connections can be changed to enable the user to factor in growth or costs associated with a certain portion of the system. The inflation factor percentage can also be changed.

Sample numbers have been inserted into both spreadsheets. The yellow shaded cells are for data entry. The two orange cells are linked from the CIP on the third tab. Except for line item descriptions which can be changed if needed, all other cells are locked for the calculations. To calculate the actual budget for the water system, remove the sample numbers in the yellow shaded cells and enter the actual figures for your system.

On the Budget tab the spreadsheet automatically projects many costs over the next four years. Expenses in Years 2 through 5 are compounded automatically by the inflation factor in cell G6 which can be changed.

On the CIP tab there are examples of various water system components, numbers of components, unit costs, and equipment life expectancy. To determine the CIP for the water system enter the information for these categories specific to the system. Information on typical equipment life expectancy can be found at:
http://ww2.cdph.ca.gov/certlic/drinkingwater/Documents/TMFplanningandreports/Typical_life.pdf
The CIP Annual Reserve total is linked to the Budget tab on Line 20, Existing Contribution to CIP to enable the monthly rate per customer to include the cost of replacing equipment that has served its useful life.

For funding projects include the new infrastructure components under the New Project CIP Costs at the bottom of the CIP tab. The total of these figures links to the Budget tab on Line 25, Additional New Project Contribution to CIP. In this example the existing budget is shown in Years 1 and 2. The grant or loan is received in Year 3, and the debt service is paid in Years 4, 5, and beyond. The Additional O&M for New Project costs is listed in the expense section of the Budget tab beginning in Year 4 since these costs are not included in the funding.

If you have further questions, please call the Drinking Water Capacity Development Coordinator George Faggella at 916-449-5652.

E. 2. Capital Improvement Projects Short-Mid-Long-term planning

FIVE YEAR BUDGET PROJECTION (Small Community Water System)

System Name: APPLE VALLEY FOOTHILL COUNTY WATER DISTRICT

Inflation Factor (%): 3.0

System ID Number: 3600008

LINE		EXPENSES AND SOURCE OF FUNDS	2023	2024	2025	2026	2027
1		**OPERATIONS AND MAINTENANCE (O&M) EXPENSES**					
2		Source of Supply	3,028.00	3,118.84	3,212.41	3,308.78	3,408.04
3		Pumping	20,042.00	20,643.26	21,262.56	21,900.43	22,557.45
4		Transmission and Distribution	40,820.00	42,044.60	43,305.94	44,605.12	45,943.27
5		General and Administrative	89,362.00	92,042.86	94,804.15	97,648.27	100,577.72
6		Depreciation	35,373.00	36,434.19	37,527.22	38,653.03	39,812.62
7				0.00	0.00	0.00	0.00
8				0.00	0.00	0.00	0.00
9				0.00	0.00	0.00	0.00
10				0.00	0.00	0.00	0.00
11				0.00	0.00	0.00	0.00
12				0.00	0.00	0.00	0.00
13		Additional O&M for New Project	0.00	0.00	0.00	2,000.00	2,060.00
14		**Total O&M Expenses:**	188,625.00	194,283.75	200,112.26	208,115.63	214,359.10
16		**GENERAL AND ADMINISTRATIVE EXPENSES**					
17		Engineering and Professional Services		0.00	0.00	0.00	0.00
18		Depreciation and Amortization		0.00	0.00	0.00	0.00
19		Insurance		0.00	0.00	0.00	0.00
20		Existing Contribution to CIP (From CIP J48)	94,917.27	94,917.27	94,917.27	94,917.27	94,917.27
21		O&M Reserve	0.00	0.00	0.00	0.00	0.00
22		Other Reserves	0.00	0.00	0.00	0.00	0.00
23		Miscellaneous		0.00	0.00	0.00	0.00
24	**	New Funding Project Costs	0.00	0.00	250,000.00	0.00	0.00
25		Additional New Project Contribution to CIP (From CIP J59)	0.00	0.00	0.00	1,166.67	1,166.67
26	**	Debt Service	0.00	0.00	0.00	10,000.00	10,000.00
27		**Total General and Administrative Expenses:**	94,917.27	94,917.27	344,917.27	106,083.93	106,083.93
28		**TOTAL EXPENSES (Line 14+ Line 27):**	283,542.27	289,201.02	545,029.53	314,199.56	320,443.03
30		**REVENUES RECEIVED**					
31		Cash Revenues (Water Rates)	259,618.00	260,000.00	280,000.00	285,000.00	290,000.00
32	**	Depreciation Reserves	0.00	0.00	0.00	0.00	0.00
33	**	Fees and Services	33,300.00	0.00	0.00	0.00	0.00
34	**	Hookup Charges	0.00	0.00	0.00	0.00	0.00
35	**	Withdrawal from CIP or Other Reserves	0.00	0.00	0.00	0.00	0.00
36	**	Other Fund Sources: Interest, Etc.	20,801.00	20,801.00	20,801.00	20,801.00	20,801.00
37	**	Grants	0.00	0.00	0.00	0.00	0.00
38	**	SRF Loan	170000.00	0.00	0.00	0.00	0.00
39	**	Business Loans	0.00	0.00	0.00	0.00	0.00
40		**TOTAL REVENUE (Lines 31 through 39):**	483,719.00	280,801.00	300,801.00	305,801.00	310,801.00
41		**NET LOSS OR GAIN:**	200,176.73	-8,400.02	-244,228.53	-8,398.56	-9,642.03

Report Prepared by (Name and Title): _____ Date: _____

(** Inflation factor not applied to future year projections)

	2023	2024	2025	2026	2027
Number of Customers:	243	245	247	249	251
Average Monthly Revenue Needed Per Customer:	97.24	98.37	99.54	105.15	106.39

(total expenses ÷ # of customers ÷ 12)

E. 2. Capital Improvement Projects Short-Mid-Long-term planning

SIMPLIFIED CAPITAL IMPROVEMENT PLAN (CIP)

Date: 9/20/2024
System ID No.: 3600008
System Name: APPLE VALLEY FOOTILL CWD
Service Connections: 245

*Enter information only in YELLOW shaded cells

QTY	COMPONENT			UNIT COST	INSTALLED COST	AVG LIFE, YEARS	ANNUAL RESERVE	MONTHLY RESERVE	MONTHLY RESERVE PER CUSTOMER
	Drilled Well, 6", steel casing	Depth:		80	0	25	0.00	0.00	0.00
	Drilled Well, 8", steel casing	Depth:		130	0	25	0.00	0.00	0.00
1	Drilled Well, 12", steel casing	Depth:	500	1000	500000	10	50000.00	4166.67	17.01
1	Wellhead Electrical Controls			30000	30000	10	3000.00	250.00	1.02
	Submersible Pump, 20 HP			9000	0	7	0.00	0.00	0.00
	Submersible Pump, 3 HP			2000	0	7	0.00	0.00	0.00
	Submersible Pump, 5 HP			3500	0	7	0.00	0.00	0.00
2	Booster Pump Station, 25 HP, complete			12500	25000	20	1250.00	104.17	0.43
1	Booster Pump Station Electrical Controls			25000	25000	40	625.00	52.08	0.21
	Pressure Tank	Gallons:		1.5	0	10	0.00	0.00	0.00
	Pressure Tank	Gallons:	80	1.5	0	10	0.00	0.00	0.00
	Storage Tank, Plastic	Gallons:		0.5	0	10	0.00	0.00	0.00
	Storage Tank, Redwood	Gallons:		1.3	0	40	0.00	0.00	0.00
	Storage Tank, Redwood	Gallons:		1.3	0	40	0.00	0.00	0.00
2	Storage Tank, Steel	Gallons:	155	1613.0	500030	50	10000.60	833.38	3.40
1	Storage Tank, Steel	Gallons:	75	1250.0	93750	50	1875.00	156.25	0.64
	Storage Tank, Steel	Gallons:		1.2	0	50	0.00	0.00	0.00
	Storage Tank, Concrete	Gallons:		1.5	0	80	0.00	0.00	0.00
	Master Meter, 2"			450	0	10	0.00	0.00	0.00
	Master Meter, 3"			800	0	10	0.00	0.00	0.00
	Master Meter, 6"			2500	0	10	0.00	0.00	0.00
	Hypochlorinator w/ Tank & Pump, Complete			1000	0	10	0.00	0.00	0.00
	Pipe w/ sand bedding, 1" (Enter linear feet for quantity)			20	0	50	0.00	0.00	0.00
	Pipe w/ sand bedding, 2" (Enter linear feet for quantity)			25	0	50	0.00	0.00	0.00
	Pipe w/ sand bedding, 4" (Enter linear feet for quantity)			30	0	50	0.00	0.00	0.00
	Pipe w/ sand bedding, 6" (Enter linear feet for quantity)			35	0	50	0.00	0.00	0.00
	Pipe w/ sand bedding, 8" (Enter linear feet for quantity)			50	0	50	0.00	0.00	0.00
	Standpipe Hydrant, 1-1/2"			700	0	20	0.00	0.00	0.00
	Standpipe Hydrant, 2-1/2"			900	0	20	0.00	0.00	0.00
	Customer Meter w/ Box & Shutoff, Complete			250	0	20	0.00	0.00	0.00
	Distribution Valve, 2"			150	0	10	0.00	0.00	0.00
	Distribution Valve, 4"			250	0	10	0.00	0.00	0.00
	Distribution Valve, 6"			600	0	20	0.00	0.00	0.00
	Distribution Valve, 8"			850	0	20	0.00	0.00	0.00
1	Generator/s			300000	300000	30	10000.00	833.33	3.40
1	Water Well No. 2 Rehabilation - Motor HP increase - Pedestal			125000	125000	15	8333.33	694.44	2.83
1	Electrical Panels - Lighting - Transfer Switch			45000	45000	30	1500.00	125.00	0.51
250	Water Meters			500	125000	15	8333.33	694.44	2.83
	SUBTOTAL Existing CIP Costs				$1,768,780.00		$94,917.27	$7,909.77	$32.28
	NEW Project CIP Costs								
	Iron & manganese removal plant				0	45	0.00	0.00	0.00
1	New SCADA system -telemetry-			35000	35000	30	1166.67	97.22	0.40
	OTHER ITEM				0	1	0.00	0.00	0.00
	OTHER ITEM				0	1	0.00	0.00	0.00
	OTHER ITEM				0	1	0.00	0.00	0.00
	OTHER ITEM				0	1	0.00	0.00	0.00
	OTHER ITEM				0	1	0.00	0.00	0.00
	OTHER ITEM				0	1	0.00	0.00	0.00
	SUBTOTAL New Project CIP Costs				$35,000.00		$1,166.67	$97.22	$0.40
	TOTAL Existing and New Project CIP:				$1,803,780.00		$96,083.93	$8,006.99	$32.68

Report Prepared by (Title): _____ Date: _____

NOTE: Installed costs are averages and include all materials and contracted labor and equipment.

NOTES: