Docket		A.24-01-002 et al.
Exhibit Number	:	Cal Adv - #
Commissioner	:	Darcie L Houck
Administrative Law Judge	:	Margery L. Melvin
Public Advocates Office	:	Anthony Andrade
Witness(es)	:	

PUBLIC ADVOCATES OFFICE
CALIFORNIA PUBLIC UTILITIES COMMISSION

REPORT ON UTILITY PLANT IN SERVICE AND WATER QUALITY

LIBERTY UTILITIES (PARK WATER) and
(APPLE VALLEY RANCHOS WATER) Corp.
TEST YEAR 2025 GENERAL RATE CASE

San Francisco, California
July 24, 2024

536492723

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MEMORANDUM

The Public Advocates Office at the California Public Utilities Commission ("Cal Advocates") examined application material, data request responses, and other information presented by Liberty Utilities Apple Valley Ranchos Water Corp ("AVR") and Liberty Utilities Park ("Park") in Application ("A.") 24-01-002 et al to provide the California Public Utilities Commission ("Commission" or "CPUC") with recommendations in the interests of ratepayers for safe and reliable service at the lowest cost. Anthony Andrade prepared this report under the general supervision of Program Manager Richard Rauschmeier, Program & Project Supervisor Hani Moussa, and Project Lead Suliman Ibrahim. Peter Chau is Cal Advocates legal counsel.

Although every effort was made to comprehensively review, analyze, and provide the Commission with recommendations on each ratemaking and policy aspect presented in the Application, the absence from Cal Advocates' testimony of any particular issue connotes neither agreement nor disagreement of the underlying request, methodology, or policy position related to that issue.

Chapter #	Description	Witness
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CHAPTER 1 UTILITY PLANT IN SERVICE COMMON ISSUES

I. INTRODUCTION

Park Water Company's ("Park") and Apple Valley Ranchos' ("AVR") GRC applications include common issues that inflate their forecasted capital budgets for years 2024 to 2027.[1] The forecasts use an annual escalation rate based on outlier data, include capital projects previously authorized in rate base and in rates in prior GRCs but are not built, and include meter budgets that fail to account for savings from meter repairs. The Public Advocates Office ("Cal Advocates") reviewed Park's and AVR's testimony and workpapers, sent data requests, and reviewed relevant references to develop the recommendations below. Cal Advocates discusses other common issues in Utility Plant-in-Service in its testimony on Pipeline Replacement, Depreciation Reserve & Expense, Rate Base and PFAS Memo Account. Cal Advocates uses its recommended budget in this chapter as a component to calculate the rate base forecast for Park and AVR in the Test Years 2025 and 2026.

II. SUMMARY OF RECOMMENDATIONS

The Commission should:

- Adopt an annual escalation of 3.12% for all projects in the capital budget to reflect normalized inflation rates.
- Remove $1,391,461 in 2025, $1,308,706 in 2026, and $549,333 in 2027 for projects included in rate base and in rates in prior GRCs that Park did not build. These projects are the:
  - Mesa Crest booster pump station electrical upgrades,
  - Reservoir seismic connections,
  - Supervisory Control and Data Acquisition (SCADA) equipment,
  - Forest Green hydro-pneumatic tank, and
  - La Cañada Irrigation District interconnection.

[1] Liberty Utilities utilizes the fiscal year as its basis for financial statements. Because the fiscal year straddles two different calendar years, the calendar year budget and fiscal year budget will not always match. Liberty proposes projects for the years 2024-2027. Cal Advocates presents data for the years 2024-2027 for capital projects in this chapter.

- Remove $166,000 in 2025 and $1,805,189 in 2027 from AVR's capital budget for projects included in rate base and in rates in prior GRCs that AVR did not build. These projects are the:
  - Well 19 electrical and lighting upgrades, and
  - Well 18 motor and electrical upgrades.
- Adjust Park's and AVR's proposed meter budgets to account for replacing meter registers consistent with the Commission's decision in the prior GRCs.

III. ANALYSIS

Because many of the issues analyzed are equally relevant to both Park and AVR, analysis and recommendations pertaining to these issues are presented below for both Park and AVR together.

A. Capital Project Escalation

The Commission should use 3.12% as the escalation rate of Liberty's capital projects in 2024 to 2027 because it is based on a more accurate forecast of future costs in the current GRC cycle.

A rate of 3.12% is the average of the annual percentage increases to the California Construction Cost Index ("CCI") for the years 2016 to 2020.[2] The California CCI tracks the average cost markers for building construction in San Francisco and Los Angeles. An escalation rate based on the 2016-to-2020-year period is most reasonable because it is consistent with expected inflation in the current GRC cycle.

Economic forecasters predict smaller increases in construction costs in 2024 when compared to recent high increases in 2021 and 2022. Due to the COVID-19 pandemic, inflation rates rose and peaked in 2022.[3] However, inflation is returning to pre-pandemic

[2] Attachment 1-1: Liberty's Response to Data Request ("DR") SIB-006, Question ("Q.") 5.b.

[3] Attachment 1-2: Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024. Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024 - Water Finance & Management (waterfm.com).

rates in 2024.[4] The annual rate of inflation in construction costs are lower in 2023 compared to 2021 and 2022.[5]

Liberty proposes to escalate its estimated costs for projects that it plans to complete in years 2024 to 2027 based on a five-year average increase to the California CCI.[6] [7] Liberty then calculates an average of the annual percentage increases of the California CCI in years 2018 to 2022.[8] Liberty proposes an annual escalation rate of 6.08% based on this methodology.[9]

Liberty's proposed escalation rate is not based on the economic markers for the upcoming years 2024 to 2027. Liberty's proposed escalation rate is an average of increases to the California CCI in the recent years 2018 to 2022 and is skewed by outlier data. In particular, the increases to the California CCI in years 2021 and 2022 were over 9%, which were the highest increases since at least 1996.[10] The 3.12% escalation rate removes the outlier increases from 2021 and 2022. Removing the outlier data results in a more accurate construction cost outlook for the test years and a more reasonable capital budget forecast.

B. Previously Funded Projects Not Built

The Commission should remove from rate base and rates Liberty's cost estimates for projects funded in prior GRCs that the utility did not build and is now requesting

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[4] Attachment 1-2: Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024. Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024 - Water Finance & Management (waterfm.com).

[5] Attachment 1-3: United States Construction Market Trends. United States Construction Market Trends | CBRE.

[6] Liberty escalates project costs based on 2023 recorded costs.

[7] Attachment 1-1: Liberty's Response to DR SIB-006, Q.5.a.

[8] Attachment 1-1: Liberty's Response to DR SIB-006, Q.5.b.

[9] Park's Workpapers, at 6-20 to 6-21, 48, 65 and 69 and AVR's Workpapers, at 6-20, 64-65, 91, 94, and 96.

[10] Attachment 1-4: DGS California Construction Cost Index CCCI. DGS California Construction Cost Index CCCI.

again in the current GRC. When these projects are eventually completed, used and useful, and provide tangible benefits to ratepayers, Liberty can request authorization to include them in rate base and rates in a future GRC, subject to a prudency review by the Commission.

Ratepayers should not be asked to pay for projects twice before they receive any benefits. In Liberty's 2021 GRC, the Commission included the forecasted cost of these projects in rate base and in rates based on the utility's representation that the projects would be completed and used and useful during that rate case cycle. Because rates for the test years are based on what projects are included in forecasts, ratepayers pay for the projects even where a utility fails to complete them within the forecasted period. Even if the utility completes the project in the following GRC cycle, ratepayers still will have paid twice. Instead of raising rates again in anticipation of the same projects that Liberty previously represented would be completed, the Commission should address the completed plant additions in the next GRC after conducting a reasonableness review of the actual costs.

The Advice Letter process is not an appropriate vehicle to address cost recovery of these projects once completed. The Advice Letter process provides a quick and simplified review of utility requests that are not expected to be controversial.[11] Advice Letters would increase rates in between GRCs. The GRC is the regularly scheduled proceeding that requires utilities to notice and inform customers of rate changes. The GRC is a transparent process that includes public participation hearings, serving of testimony, evidentiary hearings, legal briefs, a proposed decision, and a final decision by the Commission. Advice Letters are less transparent and provide little time for Cal Advocates, other parties, and the Commission to conduct a thorough prudency review of a utility's rate increase request.

[11] Commission General Order 96-B, at 8.

1. Park's Previously Authorized but Not Built Projects

The Commission should remove $1,391,461 in 2025, $1,308,706 in 2026, and $549,333 in 2027 from Park's capital budget forecast projects previously included in rate base and in rates in prior GRCs. This includes the Mesa Crest Booster Pump Station ("BPS") electrical upgrades, reservoir seismic connections, SCADA, back-up generator, hydro-pneumatic tank, and interconnection at the Mesa Crest system.

The following table breaks down the specific cost estimates that should be removed from Park's capital budget as part of this recommendation. Park has identified each of the projects summarized in the table below as plant improvements for which it previously received ratepayer funding but were not built.[12] Row 7 shows Park's proposed total for previously authorized projects.

[12] Attachment 1-5: A.21-07-003 et al., Park's Exhibit B Excerpt.

Table 1-1: Park's Cost Estimates for Previously Funded Projects[13]

	(A) Description	(B) 2025	(C) 2026	(D) 2027
1	Tank Seismic Connections Upgrade at Forest Green		$238,743	
2	La Cañada Irrigation District Interconnect[14]	$800,000		
3	BPS Electrical Upgrades with New MCC at Four Sites	$488,167	$517,847	$549,333
4	Forest Green Hydro System Tank		$426,409	
5	Drainage at Forest Green Site		$125,707	
6	Forest Green SCADA	$103,294		
7	**Park's Proposed Total**	**$1,391,461**	**$1,308,706**	**$549,333**
8	**Cal Advocates' Proposed Total**	**$0**	**$0**	**$0**

2. AVR's Previously Funded Projects Not Built

The Commission should remove $166,000 in 2025, and $1,805,189 in 2027 from AVR's capital budget forecast for projects included in rate base and in rates in a prior GRC. This includes the Well 19 electrical and lighting upgrades, and Well 18 motor and electrical upgrades.

The following table breaks down the specific cost estimates that should be removed from AVR's capital budget as part of this recommendation. AVR has identified each of the projects summarized in the table below as plant improvements for which it

[13] Park's Exhibit B Revenue Requirement Report, at 62, 74-76, 84-85, 89, and 94.

[14] Cal Advocates uses a cost estimate of $517,897 for the La Cañada Irrigation District Interconnect during the year 2024. Park uses a cost estimate of $698,000. Cal Advocates' recommendation for this project's cost estimate in year 2024 is based on escalation as discussed in this chapter and Cal Advocates' recommendations for removing pipeline price adders such as for consultant/design and inspection that it discusses in its testimony on Pipeline Replacement, Depreciation Reserve & Expense, Rate Base and PFAS Memo Account.

previously received ratepayer funding but were not built.[15] Row 3 shows AVR's proposed total for previously authorized projects.

Table 1-2: AVR's Cost Estimates for Previously Funded Projects[16]

	(A) Description	(B) 2025	(C) 2027
1	Well 19 electrical and lighting upgrades	$166,000	
2	Well 18 motor and electrical upgrades		$1,805,189
3	**AVR's Proposed Total**	**$166,000**	**$1,805,189**
4	**Cal Advocates' Proposed Total**	**$0**	**$0**

C. Meters

The Commission should adjust the costs of Liberty's proposed meters budget to account for regular meter maintenance and upgrades rather than wholesale replacement. As determined by the Commission in previous GRCs, Liberty can and should repair meters by replacing the meter registers after a battery failure. Registers are the component of Automated Meter Reading ("AMR") meters that use battery-powered sensors to track water usage.

Liberty previously explained the nature of battery failures of its AMR meters in its 2018 GRC.[17] Although Liberty expected a useful life of 20 years for its AMR meters, it found that many were failing early due to battery failures. When the battery meter fails, Liberty can replace the register (containing a new battery) or choose to replace the entire meter, which is more costly.

[15] Attachment 1-6: A.21-07-003 et al., AVR's Exhibit B Excerpt .

[16] AVR's Exhibit B Revenue Requirement Report, at 87 and 89.

[17] Attachment 1-7: A.18-01-003, Park's Exhibit B Excerpt, at 75.

During the 2018 GRC, the Commission reviewed these two alternatives.[18] The Commission determined that failed registers were covered by a warranty that replaced the register for free before 10 years and then at a discounted rate in years 11 to 20.[19] Even though it was aware that the labor cost was the same, the Commission found no reason to forego the equipment cost savings of replacing only the register. The Commission also reasoned that there was no evidence showing that the completely replaced meters, which also use batteries, would last the expected 20-year lifetime.[20] For these reasons, the Commission adjusted Liberty's meter budget to account for the lower costs of meter upgrades and maintenance.[21]

The Commission should again adjust the meter budget consistent with the 2018 and prior GRCs' decisions and what continues to be a more reasonable business practice and expectation for Liberty.

1. Park's Meters Budget

The Commission should authorize rates calculated using the adjusted meters budget for Park's Central Basin water systems shown in Table 1-3, Row 2 below.

Table 1-3: Park Central Basin Meters[22]

	(A) Description	(B) 2025	(C) 2026	(D) 2027	(E) Total
1	Park	$1,019,115	$1,058,965	$1,141,428	$3,219,508
2	Cal Advocates	$391,242	$395,197	$411,233	$1,197,672
3	Cal Advocates as % of Park	38.4%	37.3%	36.0%	37.2%

[18] D.20-0-019, at 53-54.

[19] Attachment 1-8: Dialog 3G-DS Register Warranty.

[20] D.20-0-019, at 53-54.

[21] D.20-0-019, at 53-54.

[22] Park RO Model, file "PW25 CapEx," tab "CB – Budget Detail," cells H383, H448, and H517.

Park proposes to replace over 2,300 5/8" meters each year during 2025, 2026, and 2027. Park proposes an aggressive replacement rate "to keep up with meter aging and battery failures."[23] Park did not explain or justify why such an aggressive replacement rate is necessary.

As previously stated by the Commission, Park initially installed its AMR meters from 2004 to 2017. Table 1-4 shows the number of meters installed since 2004:

Table 1-4: Park AMR Meter Installations

	(A) Year	(B) Description	(C) New Installations (5/8"-size Meters)	(D) Replacements (5/8"-size Meters)
1	2004	Original Installations before 2015 (Total 19,818)[24]	26	N/A
2	2005		152	
3	2006		1,115	
4	2007		1,215	
5	2008		2,124	
6	2009		1,885	
7	2010		624	
8	2011		690	
9	2012		3,035	208
10	2013		5,081	117
11	2014		3,871	454
12	2015	Original Installations after 2015 (Total 6,570) and Recorded Replacements[25],[26] (Total 11,783)	3,353	1,075
13	2016		1,634	863
14	2017		1,583	825
15	2018		N/A	3,479
16	2019			1,585
17	2020			1,963
18	2021	Park's Recorded Replacements since last GRC[27]	N/A	4,063
19	2022			2,512
20	2023			608

[23] Park's Exhibit B, p. 82.

[24] For Years 2004 to 2017: D.20-0-019, at 56-57.

[25] For Years 2004 to 2017: D.20-0-019, at 56-57.

[26] For Years 2018, 2019 and 2020: Attachment 1-9: A.21-07-003 et al., Park's Response to DR AA9-10, Q. 1.

[27] Attachment 1-10: Park's Response to DR 040-AA, Q.3.d.

	(A) Year	(B) Description	(C) New Installations (5/8"-size Meters)	(D) Replacements (5/8"-size Meters)
21	2024	Park's Proposed Replacements[28]	N/A	2,300
22	2025			2,300
23	2026			2,300
24	2027			2,300

Park installed about 19,818 AMR meters before 2015. Those 19,818 meters would be ineligible for a free register replacement. However, Park already replaced thousands of meters between 2015 and 2023, and it estimates thousands more replacements in 2024. Altogether, Park will have replaced about 17,700 AMR meters before the 2025 test year. As a result, most of Park's remaining meters will be twelve years old or less during the test years. Because the remaining meters are eligible for discounted register replacement under the warranty, the Commission should again adjust Park's meters budget to account for meter upgrades and maintenance.

The Commission should adopt the meters budget of about $400,000 per year as shown in Table 1-3, Row 2. This budget estimates that the 2,300-meters per year proposed replacements will have an age between ten and twelve years. The cost to rehabilitate these meters should be based on the discounted register replacement cost.

2. AVR's Meters Budget

The Commission should authorize rates calculated using the adjusted meters budget for AVR's Domestic water system shown in Table 1-5, Row 2:

[28] Attachment 1-10: Park's Response to DR 040-AA, Q.3.a. Attachment Small Meter Replacement Schedule.

Table 1-5: AVR Domestic Meters[29]

	(A) Description	(B) 2025	(C) 2026	(D) 2027	(E) Total
1	AVR	$635,189	$673,809	$714,776	$2,023,774
2	Cal Advocates	$283,659	$292,509	$301,636	$877,804
4	Cal Advocates as % of AVR	44.7%	43.4%	42.2%	43.4%

AVR proposes to replace 1,300 5/8" meters each year during 2025, 2026, and 2027. AVR proposes an aggressive replacement rate "to keep up with meter aging and battery failures."[30]

As the Commission previously stated, AVR initially installed its AMR meters from 2006 to 2013. Table 1-6 shows the number of meters installed since 2006:

[29] AVR's RO Model, file "AV25 CapEx," tab "AVR Budget Detail," cells H467, H533, and H596.

[30] AVR's Exhibit B, at 82.

Table 1-6: AVR AMR Meter Installations

	(A) Year	(B) Description	(C) New Installations (5/8"-size Meters)	(D) Replacements (5/8"-size Meters)
3	2006	Original Installations (Total 19,282)	2,146	N/A
4	2007		2,401	
5	2008		2,772	
6	2009		2,807	
7	2010		2,718	
8	2011		2,715	
9	2012		1,809	
10	2013		1,914	
11	2014	Recorded Replacements[31],[32] (Total 11,320)	N/A	106
12	2015			227
13	2016			1,244
14	2017			2,033
15	2018			1,840
16	2019			1,842
17	2020			1,413
18	2021	AVR's Recorded Replacements since last GRC[33]		2,890
19	2022			2,326
20	2023			843
21	2024	AVR's Proposed Replacements[34]		1,300
22	2025			1,300
23	2026			1,300
24	2027			1,300

As shown by Table 1-6 (column B, rows 3 through 10), AVR installed about 19,300 AMR meters before 2013. Between 2014 and 2023, AVR replaced thousands of meters and it estimates replacing more than a thousand in 2024. Altogether, AVR will have replaced about 16,000 AMR meters before the 2025 test year. As a result, most of AVR's remaining meters will be twelve years old or less during the test years. Since the remaining meters are eligible for discounted register replacement under the warranty, the

[31] For Years 2015 to 2019: Attachment 1-11: A.21-07-003 et al., AVR's Workpapers Excerpt, at 6-538.

[32] For Years 2014 and 2020: Attachment 1-12: A.21-07-003 et al., AVR's Response to DR AA9-10, Q.1.

[33] Attachment 1-13: AVR's Response to DR 042-AA, Q.4.e.

[34] AVR's Workpapers Section 6, at 6-62.

Commission should again adjust AVR's meters budget to account for meter upgrades and maintenance.

Accordingly, the Commission should adopt the meters budget of about $300,000 per year as shown in Table 1-5, Row 2. This budget estimates that the 1,300-meters per year proposed replacements will have an age between ten and twelve years. The cost to rehabilitate these meters should be based on the discounted register replacement cost.

IV. CONCLUSION

The Commission should adjust Park's proposed capital budget, as follows:

- Adopt an annual escalation of 3.12% for all projects in the capital budget to reflect normalized inflation rates.
- Remove $1,391,461 in 2025, $1,308,706 in 2026, and $549,333 in 2027 for projects included in rate base and in rates in prior GRCs that Park did not build. These projects are the:
  - Mesa Crest booster pump station electrical upgrades,
  - Reservoir seismic connections,
  - Supervisory Control and Data Acquisition (SCADA) equipment,
  - Forest Green hydro-pneumatic tank, and
  - La Cañada Irrigation District interconnection.
- Remove $166,000 in 2025 and $1,805,189 in 2027 from AVR's capital budget for projects included in rate base and in rates in prior GRCs that AVR did not build. These projects are the:
  - Well 19 electrical and lighting upgrades, and
  - Well 18 motor and electrical upgrades.
- Adjust Park's and AVR's proposed meter budgets to account for replacing meter registers consistent with the Commission's decision in the prior GRCs.

LIST OF ATTACHMENTS FOR CHAPTER 1
(See Appendix B)

Attachment #	Description
1-1	Liberty's Response to Data Request ("DR") SIB-006
1-2	Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024
1-3	United States Construction Market Trends
1-4	DGS California Construction Cost Index CCCI
1-5	A.21-07-003 et al., Park's Exhibit B Excerpt
1-6	A.21-07-003 et al., AVR's Exhibit B Excerpt
1-7	A.18-01-003, Park's Exhibit B Excerpt, at 75.
1-8	Dialog 3G-DS Register Warranty
1-9	A.21-07-003 et al., Park's Response to DR AA9-10
1-10	Park's Response to DR 040-AA
1-11	A.21-07-003 et al., AVR's Workpapers Excerpt
1-12	A.21-07-003 et al., AVR's Response to DR AA9-10
1-13	AVR's Response to DR 042-AA

CHAPTER 2 PARK UTILITY PLANT IN SERVICE

I. INTRODUCTION

Liberty Utilities Park Water Company ("Park") proposes to raise customer rates based, in part, on an unreasonable forecast for its Utility Plant-in-Service for the Test Years. The Utility Plant-in-Service forecast for a Test Year includes both recorded costs for historical plant that is used and useful and the cost estimates of plant that will be constructed and placed in service in the Test Year. Both the historical and proposed components of Park's Utility Plant-in-Service forecast contain costs that are unreasonable. First, Park includes historical plant that is not currently used and will not be used or useful in the GRC cycle. For example, Park proposes to charge customers for wells that will not provide any water supply for customers over the years 2025 to 2027. Second, Park includes cost estimates for proposed projects that are much higher than necessary. For example, Park proposes to pass on the full cost estimate of installing a treatment system when it is clearly qualified to receive funding from governments and organizations. The Public Advocates Office ("Cal Advocates") uses the recommendations in this chapter as components to calculate the rate base forecast for Park in the Test Years: 2025 and 2026.

II. SUMMARY OF RECOMMENDATIONS

The Commission should adjust Park's proposed Utility Plant-in-Service forecast as follows:

- Remove $6,391,016 million in recorded costs for the Well 28D project from rate base because Well 28D has not provided benefits to customers and will not provide benefits until at least 2028.
- Remove $2,874,549 in recorded costs from Park's Utility Plant-in-Service for the remaining wells that are not in service and not expected to provide benefits to ratepayers during the current GRC.
- Remove $3,457,186 in recorded costs for Well 12C from Park's Utility Plant-in-Service because Park can operate the Compton West water system without the Well 12C capacity that Park greatly reduced shortly after construction.

- Remove the cost estimate of $1,593,071 in 2025 and $3,000,000 in 2026 for the Compton East Well Project and $831,456 in recorded costs for the well site's land because Park can continue to operate the Compton East water system and meet water supply requirements without building a new well.
- Remove the cost estimate of $337,589 in 2025 and $2,959,724 in 2026 from Park's forecast for the per- and polyfluoroalkyl substances ("PFAS") treatment system at Well 46C to account for the multiple grants that Park should pursue before passing costs through to customers.
- Remove $379,888 in 2027 from Park's forecast for the design of a PFAS treatment system at Well 41A because Park does not plan to complete the treatment system until the next GRC.
- Remove $202,190 in 2027 from the capital budget for Park's planned variable frequency drive ("VFD") upgrade to Well 41A because the well will not be useful until Park completes a treatment system for it.
- Remove $1,125,297 in 2026 from the capital budget for Park's planned Electric Vehicle ("EV") Stations and Infrastructure Project. Park has not completed the cost-benefit analysis to show that this project is just and reasonable.
- Remove $278,952 and $150,708 in 2025 from the capital budget for Park's planned 400-kilowatt ("kW") and 75-kW emergency generator replacements as they are unnecessary.

III. ANALYSIS

This chapter explains why the Commission should reduce Park's Utility Plant-in-Service balance by removing the recorded costs for Well 28D and wells shutdown due to PFAS contamination, and why the Commission should reduce the proposed capital budget due to PFAS treatment, new generators, and the Electric Vehicle Charging Infrastructure project. Park includes its testimony regarding its capital budget, including descriptions of capital projects, in Exhibit B.

A. Park's Well 28D Disallowance

The Commission should remove $6,391,016 million in recorded costs from Park's Utility Plant in Service for the Well 28D project because Well 28D has not provided benefits to customers and will not provide benefits until at least 2028. The total of

$6,418,681 includes $317,449 for a land purchase and $6,073,567 in site and structure improvements at Well 28D.[35]

Park proposes to continue charging ratepayers for $6,391,016 million in recorded costs for this well.[36] However, Park has been constructing this well for years without completing it. As a result, the well has never been able to provide service to customers. Now, Park plans to evaluate and add treatment before it can place the well in service. That this well's benefits are deferred despite its continued cost to customers demonstrates the consequences of including construction work in progress ("CWIP") in rate base.

The Public Utilities Code states objectives for rates that customers of water utilities pay. One objective is that rates should provide for equity between present and future users of water service.[37] In the past, staff have advised the Commission to allow CWIP in rate base because of the short construction time of water utility plant compared to electric and gas utilities.[38] Accordingly, the Commission has stated that water utilities are uniquely able to seek CWIP accounting to recover the cost of financing plant under construction but not yet used and useful.[39]

However, the Commission's general policy of allowing projects under construction in rate base should not prevent the Commission from disallowing specific projects. The rates set by the Commission must be fair to present customers.[40] Therefore, utilities should not charge current customers for the benefits of future customers. The construction of Park's well will stretch far beyond what the Commission considered when it first approved the project. The Commission should consider the long

[35] Attachment 2-1: Park's Response to DR 015-AA, Q.3.a.

[36] Attachment 2-1: Park's Response to DR 015-AA, Q.3.a.

[37] California Public Utilities Code § 701.10(d).

[38] Attachment 2-2: CPUC Staff Memorandum on CWIP May 11, 1982.

[39] D.94-08-031.

[40] California Public Utilities Code § 701.10(d).

period that current rate payers have been paying for this project while the project's benefits continue to be postponed.

The Commission originally raised rates following Park's representation that it would complete the Well 28D project in 2017.[41] At the time, the Commission stated that if the treatment plant were necessary, the well would not be in service until 2018.[42] Nevertheless, Park completed construction of the well behind schedule in August 2022.[43] Despite this progress, Park now states that the well cannot yet provide service until Park installs a treatment system, which Park does not expect to complete until 2028 at the earliest.[44] This would push the project completion beyond the current GRC cycle. By 2028, rate payers will have been paying for the project for over ten years without ever having received any benefit.

The benefit of the well project would be to lower water supply costs by replacing purchased water with pumped water. Liberty's current customers have been paying for the recovery of Park's recorded costs of the well project, which have reached a total of $6,391,016 million, at the same time as paying for the higher costs of purchased water that the project was meant to reduce. For example, Park estimates that returning the inactive Well 46C to service will save about $10 million over ten years by pumping groundwater instead of purchasing imported water in the current GRC.[45]

In addition to having paid the financing and depreciation costs for a well that has never provided service, if Well 28D is completed in 2028 or later, about ten years after originally scheduled, ratepayers will have paid $10 million in expenses that could have been avoided if the well had been in service. A temporary disallowance of the costs of Park's well for this GRC cycle will relieve current customers of continuing to pay

[41] D.16-01-009, Exhibit A, at 58-59.

[42] D.16-01-009, at 18.

[43] Attachment 2-1: Park's Response to DR 015-AA, Q.3.c.

[44] Attachment 2-1: Park's Response to DR 015-AA, Q.2.e.

[45] Attachment 1-10: Park's Response to DR 040-AA, Q.2.f.

without receiving any benefit. In the next GRC, following Park's showing of an actual used and useful project, the Commission can place all reasonable costs into rate base.

Park has not justified continuing to profit at ratepayers' expense for a well that has been under construction with constantly revised completion dates. Ultimately, this well is not used and useful and ratepayers should not be expected to pay for utility profit on it as a component of rate base until it is in service. The Commission should impose a temporary disallowance on the well project until Park can demonstrate in a future GRC that the well is used and useful to ratepayers.

B. Wells Not in Service (Wells 4B, 28B, 40D, and 41A)

The Commission should remove $2,874,549 in recorded costs from Park's Utility Plant in Service forecast for land, improvements, and equipment at various wells that Park has shut down and that will not be used and useful during the GRC cycle made up of years 2025 to 2027.[46]

Park shut down the production of Well 28B, 41A, and 46C in 2020 after Park detected PFAS above the State of California's Response Levels.[47] In this GRC, Park also states that it plans to shut down production from Well 4B and 40D starting in 2024 and, as a result, forecasts increased purchased water expense.[48] Park detected PFAS at Well 4B and 40D, below the California Response Levels. However, the detections are above the Maximum Contaminant Level set by the United States Environmental Protection Agency in 2024. Of all these wells, Park plans to install treatment only at Well 46C and return it to service in the current GRC.[49] Park also plans to begin designing a second treatment system at Well 41A for its return to service in the next GRC cycle. For years 2025 to 2027, however, Wells 4B, 28B, 40D, and 41A will all be out of service and thus not used and useful.

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[46] Attachment 2-3: Cal Advocates Workpaper Recorded Costs of Wells.

[47] Park's Exhibit B Revenue Requirement Report, at 50.

[48] Park's Exhibit B Revenue Requirement Report, at 50.

[49] Park's Exhibit B Revenue Requirement Report, at 50.

Ratepayers should only be required to pay for the reasonable capital costs of infrastructure that provides direct and ongoing benefits or are used and useful in providing adequate and reasonable service. According to Park, the four wells will not produce any water in the current GRC cycle.[50] The four wells are therefore not fulfilling their only purpose. Instead, Park's purchased water forecast passes through the increased expenses of purchased water to supply customers where its wells will not. As the Commission itself recently stated, it would be unreasonable to require current ratepayers to bear costs for projects which currently provide no current benefit and are not expected to provide benefits during the current GRC.[51]

C. Existing Plant at Well 12C

The Commission should remove $3,457,186 in recorded costs for Well 12C from Park's Utility Plant-in-Service forecast.[52] The continued cost to ratepayers is not reasonable because Park can operate the Compton West water system without the Well 12C capacity that Park greatly reduced shortly after construction.

Well 12C is a recent extensive project that continues to cost ratepayers significantly. Park built Well 12C to have a well capacity of 2,500 gallons per minute ("gpm") in 2015. But after construction, Park found that water produced at Well 12C had odor issues. To mitigate the odor issues, Park installed packers to bypass the substances causing the odor. Consequently, Park reduced the capacity of Well 12C from 2,500 gpm to 675 gpm.[53] In other words, Well 12C's production is just over a quarter of its planned capacity.

Ratepayers should not be required to bear the costs of impaired assets such as Well 12C. Well 12C serves the Compton West water system. Park could have continued to

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[50] Park's Exhibit B Revenue Requirement Report, at 50-51.

[51] D.24-03-042, at 30.

[52] Attachment 2-3: Cal Advocates Workpaper Recorded Costs of Wells.

[53] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, Table 3.2 Groundwater Wells Data.

operate the Compton West water system without building Well 12C. The Compton West system is required to meet a Maximum Day Demand ("MDD") with its water supply. This water supply must be from water sources such as groundwater wells, surface water connections, or imported water connections, such as that purchased from the Metropolitan Water District. Water systems with more than 1,000 connections, such as the Compton West water system, additionally are required to meet the system's peak hour demand ("PHD") with the combined capacities of water sources and storage such as reservoirs. Water systems also usually account for providing fire flow, which is a surge in water demand when responding to fires.

The Compton West water system has access to two Metropolitan Water District interconnections that greatly expand the system's water supply capacity beyond that of the groundwater wells. According to the Division of Drinking Water ("DDW"), the Compton West water system could have met its required MDD in 2014 before Well 12C was built.[54] Similarly, DDW determined that it met the PHD requirement as well.[55] In 2014, the Compton West water system only had one well, yet it could meet the required water supply with the one existing well and the two Metropolitan Water District interconnections.

In the years since 2014, the water supply necessary to meet the Compton West water system's demands has decreased. The current MDD is 2,708 gpm.[56] Well 12C only adds 675 gpm while the other system's existing well adds 1,593 gpm and the two MWD interconnections are capable of up to 10,000 gpm.[57, 58] The Compton West water

[54] Park's Exhibit F Response to Minimum Data Requirements, Attachment PW II.G.6, Compton/Willowbrook Sanitary Survey Report 2014, Section 4. Adequacy of Supply.

[55] Park's Exhibit F Response to Minimum Data Requirements, Attachment PW II.G.6, Compton/Willowbrook Sanitary Survey Report 2014, Section 4. Adequacy of Supply.

[56] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, Table 3.2 Groundwater Wells Data.

[57] Attachment 1-10: Park's Exhibit F, Attachment PW II.G.6, Permit No. 04-22-19P-007 Compton/Willowbrook, Table 2 Interconnections.

[58] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, Table 3.2 Groundwater Wells Data.

system could not meet the MDD with wells alone even if the reduced capacity of Well 12C is included.

Park's Water System Master Plan, the document prepared by Park's consultant, analyzes the storage of the Compton West water system and recommends long-term capital improvements. Park's Master Plan determines that the Compton West water system does not need more water storage because the system's storage capacity can meet the system's PHD requirement.[59] Furthermore, Park's Master Plan states that no more water storage is needed in the system to provide fire flow because of the capacity of the Metropolitan Water District connections.[60] Therefore, the Compton West water system does not require Well 12C to meet its PHD requirement or fire flow demand.

The water supply requirements based on MDD and PHD represent the maximum demand that a water system would use since they are based on the greatest usage of a single day in the last 10 years. In practice, Park would not need to purchase additional water from Metropolitan Water District for daily operations. In response to discovery, Park stated that the other well in the system, Well 19C, could fully supply the system. Park stated: "although Well 19C can fully supply the water demands of the Compton West water system, additional and alternate sources of water supply are necessary to maintain a reliable water system."[61] Nevertheless, the Compton West system has redundancy without Well 12C due to having two interconnections that when combined can supply over 10,000 gpm in addition to its other existing well.

Therefore, the Commission should remove the recorded costs of Well 12C from rate base.

D. Compton East Well Project

The Commission should remove the cost estimate of $1,593,071 in 2025 and $3,000,000 in 2026 for the Compton East Well Project and $831,456 in recorded costs

[59] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, at 111.

[60] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, at 111.

[61] Attachment 2-6: Liberty's Response to DR 043-KN, Q.18.a.

for the well site's land because Park can continue to operate the Compton East water system and meet water supply requirements without building a new well.

The Compton East water system can meet its regulatory requirements for water supply with a mixture of the existing Well 9D and the Metropolitan Water District interconnection. The MDD, or required water supply, for the Compton East water system is 1,736 gpm.[62] According to Park, the available capacity of the existing Well 9D is 1,200 gpm.[63] However, Park's interconnection with the Metropolitan Water District has a capacity of 5,625 gpm.[64] The available capacity of the interconnection meets the MDD requirement for the Compton East water system. Park's Master Plan also finds that the available storage capacity of the Compton East water system meets the system's PHD requirement and fire flow demand.[65] Therefore, the existing water source and storage capacities are more than enough to meet the Compton East water system requirements.

Similarly to the Compton West water system, the Compton East water system would not need to use the Metropolitan Water District interconnection daily. Currently, the Compton East water system uses two wells.[66] In addition to Well 9D, the system currently uses Well 4B but Park plans to shut down production from Well 4B due to its age and PFAS contamination.[67] At the moment, Well 9D is underutilized and pumps below its capacity. Instead of building a new well and underutilizing both the new well and Well 9D, it is reasonable to expand the production from Well 9D.

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[62] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, Table 3.2 Groundwater Wells Data.

[63] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, Table 3.2 Groundwater Wells Data.

[64] Park's Exhibit F Response to Minimum Data Requirements, Attachment PW II.G.6, Permit Engineering Report Liberty Utilities-Lynwood/Rancho Dominguez, Section 2.1.1 Purchased Surface Water.

[65] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, at 111.

[66] Attachment 2-5: Park Water Company Water System Master Plan Excerpt, Table 3.2 Groundwater Wells Data.

[67] Park's Exhibit B Revenue Requirement Report, at 50.

Therefore, the Commission should remove the cost estimates for the new Compton East Well Project from the capital budget forecast.

E. Well 46C and Well 41A PFAS Treatment Projects

The Commission should not include the cost estimate for the PFAS treatment system at Well 46C of $337,589 in 2025 and $2,959,724 in 2026 in rates before Park has demonstrated it is unable to receive any of the multiple grants available.

Park forecasts $337,589 in 2025 and $2,959,724 in 2026 to design and build an ion exchange treatment system at the Well 46C site to remove per- and polyfluoroalkyl substances ("PFAS") that have been detected in water produced from the well. Park shutdown production from Well 46C in 2020 after detecting PFAS.[68] The well has not been used since that time.

The widespread contamination of drinking water supply by PFAS has prompted governments and organizations to provide funding to affected water systems. At the federal level, the Bipartisan Infrastructure Law is investing $10 billion over five years to help communities address PFAS in drinking water.[69] Additionally, the U.S. District Court in Charleston, South Carolina approved the settlement agreement between the chemical manufacturer 3M Company and U.S. public water suppliers that will provide $10.3 billion over 13 years to address PFAS.[70] At the local level, the Water Replenishment District of Southern California ("WRD"), the management agency for the Central and West Coast Groundwater Basins, established $60 million for the PFAS Remediation Program in 2020.[71]

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[68] Park's Exhibit B Revenue Requirement Report, at 50.

[69] Attachment 2-7: Padilla Announces Funds from Bipartisan Infrastructure Law to Clean up PFAS in California Drinking Water. Padilla Announces Funds from Bipartisan Infrastructure Law to Clean up PFAS in California Drinking Water - Senator Alex Padilla (senate.gov).

[70] Attachment 2-8: 3M Settlement with Public Water Suppliers to Address PFAS in Drinking Water Receives Final Court Approval. 3M Settlement with Public Water Suppliers to Address PFAS in Drinking Water Receives Final Court Approval - Apr 1, 2024.

[71] Attachment 2-9: PFAS Remediation Program. PFAS Remediation Program - Water Replenishment District (wrd.org).

Based on the available sources of funding, it is reasonable for the Commission to remove Park's PFAS Treatment cost estimate from the capital budget forecast until such time as Park has exhausted the possibility of grant funds. In February 2023, WRD reported that it considered thirteen initial applications from groundwater pumpers as qualified for the PFAS Remediation Program.[72] The following year, WRD reported that it had encumbered funds from the PFAS Remediation Program for Park among eight other applicants.[73] As of December 2023, those encumbered funds were listed as to be determined. Nevertheless, the PFAS Remediation Program has provided an average of $2.6 million to other applicants.[74]

In response to discovery, Park stated that it did not complete the application process for the PFAS Remediation Program "because of objections to certain conditions proposed by WRD."[75] The source of funds for the PFAS Remediation program is an assessment, or fee, that Central Basin groundwater pumpers, such as Park, pay as a water production expense. This fee is passed on to Park's ratepayers. It is not just for the ratepayers to contribute to the funding for the PFAS Remediation Program but be denied its benefits because of Park's vague objections. California Water Service Company, another Class A investor-owned utility, received a $4.2 million grant from this same program.[76]

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[72] Attachment 2-10: WRD PFAS Remediation Program - Status of Projects. MEETING_OF_THE_GROUNDWATER_QUALITY_COMMITTEE_915_Agenda_Packet_2_14_2023_11_00_00_AM.pdf (wrd.org).

[73] Attachment 2-11: Encumbered Program Funds - Capital - PFAS Remediation Fund. MEETING_OF_THE_FINANCE_AUDIT_COMMITTEE_1139_Agenda_Packet_2_21_2024_3_00_00_PM.pdf (wrd.org).

[74] Attachment 2-11: Encumbered Program Funds - Capital - PFAS Remediation Fund. MEETING_OF_THE_FINANCE_AUDIT_COMMITTEE_1139_Agenda_Packet_2_21_2024_3_00_00_PM.pdf (wrd.org).

[75] Attachment 1-10: Park's Response to DR 040-AA, Q.3.k.

[76] Attachment 2-11: Encumbered Program Funds - Capital - PFAS Remediation Fund. MEETING_OF_THE_FINANCE_AUDIT_COMMITTEE_1139_Agenda_Packet_2_21_2024_3_00_00_PM.pdf (wrd.org).

In addition, Park is proposing to design PFAS treatment at a second well, Well 41A, during the current GRC cycle and complete the installation during the next GRC cycle.[77] The Commission should remove $379,888 in 2027 from Park's forecast for the design of a Well 41A treatment system. This adjustment is consistent with the Commission's 2024 decision in the California Water Service Company GRC.[78] There the Commission removed forecasted capital projects that are phased over multiple GRCs because the Commission cannot determine the total impact to rates until a future GRC and ratepayers receive no direct benefit from only design.[79] Removing Park's company-funded estimates from its budget does not prevent Park from pursuing funding for a treatment system at Well 41A from WRD or other grant providers. Park can also present the total costs for this project in a subsequent GRC when the project is either used and useful or, at a minimum, assumed to be used and useful over the period in which customer rates are being set.

Finally, the Commission should remove $202,190 in 2027 from the capital budget for Park's planned variable frequency drive ("VFD") upgrade to Well 41A. As a well contaminated with PFAS, Park has shutdown water production from Well 41A and the well will not be useful until Park completes a treatment system for it.[80] Although Park is planning to install a treatment system at this well, Park does not plan to complete the project until the next GRC. The Commission can consider the VFD upgrade in a future GRC when Park can demonstrate its used and useful status for the period in which rates are being set.

F. Electric Vehicle Stations and Infrastructure Project

The Commission should remove $1,125,297 in 2026 from the capital budget for Park's planned Electric Vehicle ("EV") Stations and Infrastructure Project. Park

[77] Park's Exhibit B Revenue Requirement Report, at 93.

[78] D.24-03-042, at 27-31.

[79] D.24-03-042, at 30.

[80] Park's Exhibit B Revenue Requirement Report, at 50.

proposes to add a 600-amperage electrical service to its facilities to provide power for EV stations.[81] To date, Park has not completed a cost-benefit analysis to show that this project is just and reasonable.

When a utility proposes to recover capital project costs from ratepayers, the Commission should evaluate the individual merits of capital projects. Even if the project is for policy goals that support environmental sustainability and climate resiliency, the Public Utilities Code requires that the Commission set just and reasonable rates.[82] A utility's intention to address policy goals should not be sufficient reason, in of itself, to conclude that a project is a just and reasonable expenditure.

Park has not completed a cost-benefit analysis to show that the $1.1 million cost for the EV stations and Infrastructure Project will be a sensible investment for ratepayers.[83] In response to discovery, Park states that it currently has only one EV and that it does not plan to acquire EVs in years 2025 to 2027.[84] At this point, Park would be constructing this extensive EV Stations and Infrastructure Project but would only be able to charge a single EV. Although Park may choose to acquire EVs following this project's completion, Park has yet to show that EVs are a reasonable alternative to its current vehicles and charging stations.

Park should also account for potential sources of funding before passing on capital expenditures on to ratepayers. Park should investigate federal, state, and local government programs, as well any private programs (such as Liberty's electricity provider). Because ratepayers would have to pay for the investor return, depreciation expense, and taxes on any capital expenditure, it is fair that Park complete its due diligence and apply for any available sources of funding prior to seeking funding from ratepayers.

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[81] Attachment 1-10: Park's Response to DR 040-AA, Q.5.a.

[82] California Public Utilities Code § 451.

[83] Attachment 1-10: Park's Response to DR 040-AA, Q.5.e.

[84] Attachment 1-10: Park's Response to DR 040-AA, Q.5.b.

G. Emergency Power Generators

The Commission should remove $278,952 in 2025 for Park's planned 400-kilowatt ("kW") emergency generator replacement and $150,708 in 2025 for a planned 75-kW emergency generator at the Forest Green site from the proposed capital budget. Park can use its many existing mobile generators where it plans to use its proposed 400-kW generator and at the Forest Green site instead of purchasing two new ones.

Park currently has a total of eight back-up power generators.[85] Park keeps one stationary generator and five mobile generators at its main office building lot.[86] Park keeps the largest of its generators at the site of Well 19C which also has a booster pump station.[87] The remaining generator is stationary and kept at the Forest Green site in the Mesa Crest water system.[88] In response to discovery, Park first stated that hours of usage for its existing generators were not available.[89] However, in response to further discovery, Park confirmed that it is required to record its hours of usage to comply with air quality requirements and provided the usage data.[90]

Park can continue to operate its water systems without acquiring the proposed 400-kW generator. Park's three water systems that draw groundwater from the Central Basin make up most of Park's service area and plant. These Central Basin water systems are not in high fire threat areas and therefore face a lower risk of extended power outages. Park states that it proposes a 400-kW generator because it has three facilities that would require the increased power rating.[91] These facilities include Well 19C, Booster Pump Station ("BPS") 10A, and Well 28D. Currently, Well 28D is not planned to be in service

[85] Attachment 1-10: Park's Response to DR 040-AA, Q.4.b.

[86] Attachment 1-10: Park's Response to DR 040-AA, Q.4.b.

[87] Attachment 1-10: Park's Response to DR 040-AA, Q.4.b.

[88] Attachment 1-10: Park's Response to DR 040-AA, Q.4.b.

[89] Attachment 1-1: Liberty's Response to DR SIB-006, Q.10.e.

[90] Attachment 1-10: Park's Response to DR 040-AA, Q.4.h.

[91] Attachment 1-10: Park's Response to DR 040-AA, Q.4.e.

in the current GRC cycle and Well 19C already has a 400-kW generator.[92] Finally, although Park considers the generator at Well 19C stationary, the generator is mounted on wheels and Park should therefore be able to transport it to BPS 10A if necessary.[93]

Park can convert an existing mobile generator to a stationary generator for the Forest Green site instead of acquiring a new generator for the site. Park's Forest Green site only requires a 75-kW generator.[94] Five of Park's current generators are mobile generators that Park can transport as needed. From 2014 to 2023, Park has only had to use at most three mobile generators concurrently.[95] Park could therefore reuse the 180-kW mobile generator it acquired in 2021 for its Forest Green site.

IV. CONCLUSION

The Commission should adjust Park's proposed capital budget, as follows:

- Remove $6,391,016 million in recorded costs for the Well 28D project from rate base because Well 28D has not provided benefits to customers and will not provide benefits until at least 2028.
- Remove $2,874,549 in recorded costs from Park's Utility Plant-in-Service for the remaining wells that are not in service and not expected to provide benefits to ratepayers during the current GRC.
- Remove $3,457,186 in recorded costs for Well 12C from Park's Utility Plant-in-Service because Park can operate the Compton West water system without the Well 12C capacity that Park greatly reduced shortly after construction.
- Remove the cost estimate of $1,593,071 in 2025 and $3,000,000 in 2026 for the Compton East Well Project and $831,456 in recorded costs for the well site's land because Park can continue to operate the Compton East water system and meet water supply requirements without building a new well.
- Remove the cost estimate of $337,589 in 2025 and $2,959,724 in 2026 from Park's forecast for the PFAS treatment system at Well 46C to

[92] Appendix 1-11: Park's Response to DR 040-AA, Q.4.b.

[93] Appendix 2-12: Cal Advocates' Photo of Emergency Generator at Plant 19C.

[94] Appendix 1-11: Park's Response to DR 040-AA, Q.4.d.

[95] Appendix 1-11: Park's Response to DR 040-AA, Q.4.k.

account for the multiple grants that Park should pursue before passing costs through to customers.

- Remove $379,888 in 2027 from Park's forecast for the design of a PFAS treatment system at Well 41A because Park does not plan to complete the treatment system until the next GRC.
- Remove $202,190 in 2027 from the capital budget for Park's planned VFD upgrade to Well 41A because the well will not be useful until Park completes a treatment system for it.
- Remove $1,125,297 in 2026 from the capital budget for Park's planned EV Stations and Infrastructure Project. Park has not completed the cost-benefit analysis to show that this project is just and reasonable.
- Remove $278,952 and $150,708 in 2025 from the capital budget for Park's planned 400-kW and 75-kW emergency generator replacements as they are unnecessary.

LIST OF ATTACHMENTS FOR CHAPTER 2 (See Appendix B)	
Attachment #	**Description**
2-1	Park's Response to DR 015-AA
2-2	CPUC Staff Memorandum on CWIP May 11, 1982
2-3	Cal Advocates Workpaper Recorded Costs of Wells
2-4	Liberty's Response to DR 039-ZS
2-5	Park Water Company Water System Master Plan Excerpt
2-6	Liberty's Response to DR 043-KN
2-7	Padilla Announces Funds from Bipartisan Infrastructure Law to Clean up PFAS in California Drinking Water
2-8	3M Settlement with Public Water Suppliers to Address PFAS in Drinking Water Receives Final Court Approval
2-9	PFAS Remediation Program
2-10	WRD PFAS Remediation Program - Status of Projects
2-11	Encumbered Program Funds - Capital - PFAS Remediation Fund.
2-12	Cal Advocates' Photo of Emergency Generator at Plant 19C.

CHAPTER 3 AVR UTILITY PLANT IN SERVICE

I. INTRODUCTION

Liberty Utilities Apple Valley Ranchos Water Corp ("AVR") proposes to raise customer rates based, in part, on an unreasonable forecast for its Utility Plant-in-Service for the Test Years. AVR includes cost estimates for proposed projects where costs outweigh benefits. For example, AVR proposes to increase rates to recover more than $7 million in costs for a new well for its Apple Valley water system where it has a water supply surplus. In another example, AVR proposes to recover over $5 million in costs for proposed solar panels and structures that would burden customers far much more than the $70,000 annual savings that AVR expects. Cal Advocates uses the recommendations in this chapter as components to calculate the rate base forecast for AVR in the Test Years: 2025 and 2026.

II. SUMMARY OF RECOMMENDATIONS

The Commission should adjust AVR's proposed capital budget, as follows:

- Adjust the cost estimate of the Well 34 project in the capital budget to $1,081,546 because AVR can continue to operate the existing Well 34 without the proposed costly block building. The Commission should also find that it is not reasonable to include costs for an equivalent building at Well 18 in rate base.
- Remove $3,143,000 in 2025 and $3,000,000 in 2026 for drilling and equipping a new well and $1,394,762 in 2025 for the well's land purchase from the capital budget because AVR can continue to operate its Apple Valley water system with its existing water supply surplus.
- Remove $3,000,000 in 2026 and $2,065,170 in 2027 from the capital budget for AVR's planned Apple Valley Campus Solar Project because AVR has not demonstrated its cost effectiveness.
- Oppose AVR's separate application request for its Apple Valley New Office Building project and instead consider the project in the next GRC. The sizable cost estimate of the New Office Building could trigger significant rate increases that customers only expect during the GRC proceeding.

III. ANALYSIS

This chapter will explain why the Commission should reduce AVR's proposed capital budget due to the Well 34 project, New Well project, and Campus Solar Project. AVR includes its testimony regarding its capital budget, including descriptions of capital projects, in Exhibit B.

A. Well 18 and Well 34 New Buildings

The Commission should adjust the cost estimate of the Well 34 project in the capital budget to $1,081,546 because AVR can continue to operate the existing Well 34 without the proposed costly block building. The Commission should also find that it is not reasonable to include costs for an equivalent building at Well 18 in rate base. As discussed in Chapter 1 of this report, the Commission should remove the cost estimate of the full Well 18 project from the capital budget because the Well 18 project was previously authorized and funded in AVR's previous GRC in 2021 but not built.[96] The Commission had previously removed the estimate for the block building when AVR proposed the Well 18 project in the prior GRC.[97]

Table 3-1 compares AVR's cost estimates for the Well 34 project with Cal Advocates' cost estimate. Row 2 in the table shows the cost estimate of only the well building. Cal Advocates' cost estimate removes the cost of the well building and uses a different escalation rate than AVR.

[96] Attachment 1-6: A.21-07-003 et al., AVR's Exhibit B Excerpt .

[97] D.23-02-003, at 60.

Table 3-1: AVR's Well 34 Project Cost Estimates[98]

	(A) Description	(B) 2027
1	AVR's Cost Estimate	$1,805,189
2	Cost Estimate of Well Building[99]	($409,453)
3	Escalation Difference	($314,190)
4	**Cal Advocates' Cost Estimate**	**$1,081,546**

The sites at Wells 18 and 34 do not require block buildings. In its testimony, AVR states that it proposes to add block buildings to enclose its Wells 18 and 34 to prevent noise complaints from neighbors.[100] However, AVR has not substantiated complaints from neighbors for Wells 18 and 34. While AVR states that it has received verbal complaints from neighbors for Well 34 over the telephone, AVR did not provide any documentation recording the date or any other data regarding the complaint.[101]

In response to discovery, AVR stated that the noise level at Wells 18 and 34 were in violation of the Town of Apple Valley's Code of Ordinances.[102] AVR stated that the residential noise limit is 50 decibels ("dBA") while AVR measured the sound at Well 18 at 72 dBA and the sound at Well 34 at 78 dBA.[103] However, AVR measured the wells' sound "at pump," which means AVR measured the sound immediately next to the well.[104] The noise limits are not applicable to these measurements because the noise limits apply to the sound when measured at another property, not the property producing

[98] AVR's Exhibit B Revenue Requirement Report, pp. 86 and 88.

[99] Attachment 3-1: AVR's Response to DR 047-AA, Q.1c. Attachment "HDU Proposal."

[100] AVR's Exhibit B Revenue Requirement Report, at 86 and 88.

[101] Attachment 1-13: AVR's Response to DR 042-AA, Q.1.a.

[102] Attachment 3-1: AVR's Response to DR 047-AA, Q.1.a.

[103] Attachment 3-1: AVR's Response to DR 047-AA, Q.1.a.

[104] Attachment 3-1: AVR's Response to DR 047-AA, Q.1.a. Attachment "Noise Survey."

the sound.[105] Since sound will have less intensity over a distance, the sound produced at the wells may not be a noise problem at nearby properties.[106] In the past, AVR has been able to provide documentation for the noise complaints it received for another well, Well 16.[107] Therefore, the Commission should require that AVR substantiate noise issues with documented complaints for Wells 18 and 34 before finding that a noise problem exists at these sites.

Apart from noise abatement, AVR states that its proposed block buildings would provide protection from the weather and vandalism.[108] Yet, AVR has alternatives to block buildings to protect its well equipment. The Apple Valley water system has been operating wells without block buildings for more than 50 years. For example, the water system placed Well 18 into service in 1969. The well sites' current improvements protect equipment against the weather and vandalism at Wells 18, 34, and others without buildings. AVR currently uses pipe insulation, for example, to protect against the weather and chain-link fencing and enclosures around wells to protect against vandalism.[109] Additionally, the disinfection system is enclosed by its own container.[110] As a result, it is more reasonable to adjust AVR's proposed cost estimates to exclude the costs of the block buildings (see Table 3-1, above).

For the reasons discussed above, the Commission should adjust the costs for well improvements in AVR's 2027 capital budget.

B. Drill New Well and Land Purchase

The Commission should remove $3,143,000 in 2025 and $3,000,000 in 2026 for drilling and equipping a new well and $1,394,762 in 2025 from the capital budget for

[105] Attachment 3-1: AVR's Response to DR 047-AA, Q.1.a. Attachment "Apple Valley, CA Code of Ordinances 9.73.050," A.1.b.

[106] Attachment 3-2: Cal Advocates' Photos of Well 18 and Well 34.

[107] Attachment 3-3: A.21-07-003 et al., AVR's Response to DR AA9-05, Q.2.

[108] AVR's Exhibit B Revenue Requirement Report, pp. 86 and 88.

[109] Attachment 3-2: Cal Advocates' Photos of Well 18 and Well 34.

[110] Attachment 3-2: Cal Advocates' Photos of Well 18 and Well 34.

AVR's planned land purchase. AVR can continue to operate its Apple Valley water system with its existing water supply surplus.

AVR proposes to drill a new well to replace one of AVR's wells in the Apple Valley water system. The decision to drill a new well should be based on an evaluation of the existing conditions of the water system. It is more reasonable to analyze the water system's existing water supply and anticipated demand to determine if there is a need for a new well than it is to replace wells one-for-one as they are retired and removed from service. This is reasonable because the water system may have amassed a water supply surplus from the construction of previous wells. Similarly, through the past conservation efforts of customers, the water system's water demand may have decreased.

AVR has several wells that all contribute to the water supply of the Apple Valley water system. In total, the Apple Valley water system has a combined well capacity of 25,018 gallons per minute ("gpm") as of 2023.[111] AVR's demand can be analyzed by finding the greatest water consumption on a single day in the last ten years. This demand is known as the Maximum Day Demand ("MDD"). During the period between years 2014 and 2023, the MDD was 12,517 gpm and it occurred during the year 2014.[112] The Apple Valley water system has nearly double the well capacity of the system's MDD. The Apple Valley system also has enough well capacity to meet its Peak Hour Demand requirement and fire flow demand when combined with the system's water storage in reservoirs.[113] AVR's analysis shows that it has adequate storage capacity in its reservoirs.[114]

AVR can continue to operate its Apple Valley water system without a new well because it has an existing water supply surplus. The California Waterworks Standards

[111] Attachment 3-4: AVR's Response to DR 028-AA, Q.1.b.

[112] Attachment 3-4: AVR's Response to DR 028-AA, Q.1.a.

[113] Attachment 3-4: AVR's Response to DR 028-AA, Q.1.a and b.

[114] AVR's Workpapers, Section 14, Source and Storage Capacity Analysis, at 14-20.

require water systems to have enough water supply capacity to always meet the MDD.[115] The Apple Valley water system, with twice as much water supply capacity as demand, clearly meets this requirement. AVR mentions the need to have redundant sources when sources are unavailable and that five of its active wells were constructed in the 1950s or 60s.[116] These five wells have a combined capacity of 4,661 gpm.[117] Even accounting for the theoretical shutdown of these five wells, the Apple Valley water system would have a water supply capacity of 20,357 gpm, which is still much more than its MDD.

AVR does not require a land purchase for the proposed well because it can continue to operate its Apple Valley water system without a new well. Even if there was a need to drill a new well, AVR would not need to purchase land because AVR's existing lots have enough space to accommodate a new well. Since wells can pump water to the same system, the location of AVR's proposed well is only limited to sites that have access to groundwater. AVR has several such sites with an existing well that can support a new well after removing the existing well.[118] At this time, AVR has stated that it does not know whether it will need to purchase more land or not.[119]

For the above reasons, the Commission should remove the cost estimates for the proposed new well and land purchase from AVR's capital budget.

C. Apple Valley Campus Solar Project

The Commission should remove $3,000,000 in 2026 and $2,065,170 in 2027 from the capital budget for AVR's planned Apple Valley Campus Solar Project. AVR proposes to add solar panels on structures over its parking lot. AVR has not completed the cost-benefit analysis to show that this over $5-million project is just and reasonable.

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[115] California Code of Regulations, Title 22, §64554(a).

[116] AVR's Exhibit B, at 88.

[117] Attachment 3-4: AVR's Response to DR 028-AA, Q.1.b.

[118] Attachment 3-4: AVR's Response to DR 028-AA, Q.4.e.

[119] Attachment 3-4: AVR's Response to DR 028-AA, Q.4.e.

The Commission should evaluate the individual merits of capital projects that support environmental sustainability and climate resiliency that a utility proposes to recover costs from ratepayers. The Public Utilities Code requires that the Commission set just and reasonable rates.[120] A utility's intention to address environmental goals should not be sufficient reason to conclude that a project is a just and reasonable expenditure.

In the specific case of the Apple Valley Campus Solar Project, the enormous cost to rate payers greatly outweighs the comparatively minor financial benefits that AVR has identified. In its testimony, AVR stated that it purchased electricity for its main office facility at a total of $37,492 during the last 12 months.[121] In response to discovery, AVR estimates that the Campus Solar Project could save $70,000 in electric power costs for the site annually.[122] AVR did not explain why this savings estimate is so much greater than its most recent annual cost. Nevertheless, even if the Commission accepts AVR's savings estimate, $70,000 is about 1/10th the initial annual cost of the project to ratepayers.[123] This means that electric power rates would need to increase 1000% for the project to be cost-effective. Even if electric rates increased 12% every year (i.e. four times anticipated annual inflation) for the foreseeable future, it would be more than twenty years before the savings were comparable to the initial annual cost.

The Campus Solar Project that AVR proposes is a significant financial loss to ratepayers after considering all its associated costs. This project may even have a net negative effect on environmental goals due to the opportunity cost of investing in other more cost-effective environmental projects.

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[120] California Public Utilities Code § 451.

[121] AVR's Exhibit B, at 93.

[122] Attachment 1-13: AVR's Response to DR 042-AA, Q.6.e.

[123] The project's cost estimate is $5,065,170. The depreciation rate for the project is 2.88%, AVR's rate of return is 7.35%, and AVR's net-to-gross multiplier is 1.44967. Therefore, a simplified estimate for the project's revenue requirement impact is ($5,065,170 × 0.0735 × 1.44967) + ($5,065,170 × 0.0288) = $539,698 + $145,877 = $685,565 in the first year.

D. Apple Valley Office Building

The Commission should oppose AVR's separate application for its Apple Valley New Office Building project and instead consider the project in the next GRC. The sizable cost estimate of the New Office Building could trigger significant increases in general rates that customers should only expect during a general rate case proceeding.

The New Office Building will trigger significant rate increases in the year following AVR's application. In the current GRC, AVR proposes full capital budgets of $9 million in 2025, $11 million in 2026, and $15 million in 2027. Following discussions between the staff of the Public Advocates Office and AVR during the Public Advocates Office's site visit of the Apple Valley water system on March 19, 2023, it was the understanding of Public Advocates Office staff that the new office building may have a cost estimate of approximately $20 million.[124] This capital expenditure is more than twice the entire capital budget that AVR proposes for the Test Year 2025 in the current GRC. Therefore, the New Office Building application will result in rate increases that are comparable to a GRC.

The GRC is the regularly scheduled proceeding that requires investor-owned utilities to inform customers of rate changes and the reasons behind those changes. It is most reasonable for the Commission to review causes of major rate increases, such as capital projects, comprehensively in a general rate case.

IV. CONCLUSION

The Commission should adjust AVR's proposed capital budget, as follows:

- Adjust the cost estimate of the Well 34 project in the capital budget to $1,081,546 because AVR can continue to operate the existing Well 34 without the proposed costly block building. The Commission should also find that it is not reasonable to include costs for an equivalent building at Well 18 in rate base.
- Remove $3,143,000 in 2025 and $3,000,000 in 2026 for drilling and equipping a new well and $1,394,762 in 2025 for the well's land

[124] Attachment 1-13: AVR's Response to DR 042-AA, Q.7.

purchase from the capital budget because AVR can continue to operate its Apple Valley water system with its existing water supply surplus.

- Remove $3,000,000 in 2026 and $2,065,170 in 2027 from the capital budget for AVR's planned Apple Valley Campus Solar Project because AVR has not demonstrated its cost effectiveness.
- Oppose AVR's separate application request for its Apple Valley New Office Building project and instead consider the project in the next GRC. The sizable cost estimate of the New Office Building could trigger significant rate increases that customers only expect during the GRC proceeding.

LIST OF ATTACHMENTS FOR CHAPTER 3 (See Appendix B)	
Attachment #	**Description**
3-1	AVR's Response to DR 047-AA
3-2	Cal Advocates' Photos of Well 18 and Well 34
3-3	A.21-07-003 et al., AVR's Response to DR AA9-05
3-4	AVR's Response to DR 028-AA

CHAPTER 4 PARK WATER QUALITY

I. INTRODUCTION

This chapter presents Cal Advocates' analyses and recommendations on Park's water quality for the Central Basin Division and Mesa Crest service areas. Park requests that the Commission find that Park complies with all water quality requirements.

II. SUMMARY OF RECOMMENDATIONS

The Commission should find Park's water systems in compliance with all water quality standards.

III. ANALYSIS

Cal Advocates reviewed Park's Service Area Operations, Reports and Enforcement Actions by the State Water Resources Control Board Division of Drinking Water ("DDW"), and Future Water Quality Regulations.

A. Service Area Operations

Park's two main service areas include the Central Basin Division, and the Mesa Crest water system that Park acquired in 2019.[125] Park operates its water systems under permits from DDW. DDW regulates California's public drinking water systems and oversees a variety of drinking water-related activities.

Park's facilities include four public water systems within two services areas as listed in Table 4-1 below. Park's three water systems in its Central Basin Division serve a total population of approximately 133,000.[126] All of Park's service area is located within Los Angeles County.[127]

[125] Park's Exhibit B Revenue Requirement Report, at 8.

[126] Park's 2020 Urban Water Management Plan, at 3-1.

[127] Park's 2020 Urban Water Management Plan, at 2-5 to 2-6.

Table 4-1: Park's Water Systems and Water Supply

Service Area	Water System	No. of Connections 2022[128]	Groundwater Production 2022 (AF)[129]	Purchased Water 2022 (AF)[130]
Central Basin Division	Bellflower/Norwalk	28,122	4,628.77	5,443.90
	Compton East (Lynwood/Rancho Dominguez)			
	Compton West (Compton/Willowbrook)			
Mesa Crest		704[131]	0	580.60[132]
Total		28,826[133]	4,628.77	6,024.5

Park's water supply comes from a mix of groundwater production and purchased water. The 2022 water supply data for each service area is summarized in Table 4-1 above. Wells in the Central Basin Division service area extract groundwater from the Central Basin.[134] The Central Basin Division service area has a total of seven active wells and three standby wells.[135] Park's Mesa Crest water system does not use groundwater wells as sources of water supply.[136]

Park purchases water for its Central Basin Division from the Central Basin Municipal Water District, a member agency of the regional water wholesaler, the Metropolitan Water District of Southern California ("MWD"). MWD imports water from the Colorado River and from the State Water Project. Park purchases recycled

[128] 2022 Annual Report of Park, Schedule D-1.

[129] 2022 Annual Report of Park, Schedule D-1.

[130] 2022 Annual Report of Park, Schedule D-1.

[131] Park's Exhibit B Revenue Requirement Report, at 29.

[132] Park's Workpapers, RO Model, file "PW25 Prod Exp," tab "Production," cell J76.

[133] Park records a total of 28,494 customers in its Exhibit F Minimum Data Requirements, "PW II.A.1."

[134] Park's Exhibit B Revenue Requirement Report, at 52.

[135] Park's Exhibit B Revenue Requirement Report, at 9.

[136] Park's Exhibit B Revenue Requirement Report, at 52.

water from the Sanitation Districts of Los Angeles County for its Central Basin Division.[137] For the Mesa Crest water system, Park purchases water from the Foothill Municipal Water District.[138]

Water produced at the well sites in the Central Basin Division is disinfected with sodium hypochlorite or ortho-polyphosphate. The standby wells in the Central Basin Division are chlorinated with calcium hypochlorite. Park adds fluoride to the active wells. Currently, Park operates an arsenic and manganese treatment plant at Well 9D.[139]

B. DDW Drinking Water Enforcement Actions

Park's response to Minimum Data Requirements ("MDR") Item G.5 indicates that it has not received any citations during the prior GRC cycle. Similarly, Park reports that it has not received letters of violation.[140] As part of DDW's regular inspections of water systems known as Sanitary Surveys, DDW notes deficiencies or issues with water system. Park addressed the deficiencies in the 2020 Sanitary Survey for the Compton East water system by bringing the seepage pits at Wells 4B and 9D up to grade to prevent debris and runoff from entering the pits. Park likewise addressed the seepage pit concerns at Wells 28B, 41A, and 46C and painted the base of Reservoir 29J in the Bellflower/Norwalk water system following its 2020 Sanitary Survey.[141]

C. Water Quality Reports

Cal Advocates reviewed the most recent DDW Sanitary Survey Reports for Park's water systems.[142] Table 4-2 below shows the dates of the most recent reports. The reports evaluate eight elements of each water system, including:

1) sources of supply;

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[137] Park's 2020 Urban Water Management Plan, at 3-3.

[138] Park's Exhibit B Revenue Requirement Report, at 52.

[139] Park's Exhibit B Revenue Requirement Report, at 11.

[140] Park's Response to MDR, p. A-22, Items G.5 and 6.

[141] Park's Response to MDR, p. A-22, Item G.7.

[142] Park's Response to MDR, Attachment "PW II.G.6."

2) treatment;
3) the distribution system;
4) finished water storage;
5) pumps, pump facilities, and controls;
6) monitoring, reporting, and data verification;
7) system management and operation; and
8) operator compliance with state requirements.

Table 4-2: Most Recent DDW Sanitary Survey Reports[143]

Water System	System No.	Report Date
Bellflower/Norwalk	1910211	August 6, 2020
Compton East (Lynwood/Rancho Dominguez)	1910161	April 26, 2022
Compton West (Compton/Willowbrook)	1910021	July 10, 2019
Mesa Crest	1910241	January 26, 2023

The reports conclude that all systems can provide a continuous supply of safe, wholesome, and potable water to customers. In the reports, DDW includes lists of curable deficiencies and recommendations that the systems should address.

As required by California Health and Safety Code §116470, every public water system should annually prepare a Consumer Confidence Report ("CCR") and mail/deliver a copy of the report to each customer. The CCR is based on data collected during, or prior to, the previous calendar year. The report includes information on source water, levels of any detected contaminants, compliance with drinking water regulations, and educational information. The CCR is also known as the "annual drinking water quality report." In the 2022-2023 water quality reports for each of Park's water systems,

[143] Park's Response to MDR, Attachment "PW II.G.6."

Park stated that the drinking water was in full compliance with all applicable county, state, and federal drinking water regulations in the previous year.[144]

D. Future Water Quality Regulations

In its response to MDR Item G.8, Park discusses Maximum Contaminant Levels Limits ("MCLs") that may be set or revised within the next five years and the potential impact on Park's operations.[145]

1. Arsenic

The State Water Resources Control Board ("SWRCB")'s current MCL for arsenic is 10 parts per million ("ppm"). SWRCB has identified arsenic on its list of contaminants to be considered for a revised MCL. SWRCB has not released a schedule for its revision of the arsenic MCL. Park may be impacted by a revised arsenic MCL. Park has detected arsenic levels at its Well 9D.

2. Perfluorooctanioic acid ("PFOA") and Perfluorooctaniesulfonic acid ("PFOS")

On August 23, 2019, SWRCB released revised guidance revising Notification Levels ("NLs") for PFOA to 5.1 parts per trillion ("ppt") and PFOS to 6.5 ppt. On February 6, 2020, SWRCB revised the Response Level ("RL") to 10 ppt for PFOA and 40 ppt for PFOS. SWRCB then began issuing monitoring requirements to potentially vulnerable water systems. On March 14, 2023, the United States Environmental Protection Agency announced a proposed MCL of 4 ppt for PFOA and PFOS.[146] Water systems would have three years to comply with the MCLs once the MCL is finalized.[147] The US EPA adopted the final MCL on April 11, 2024. SWRCB presented a proposed

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[144] Park's Workpapers, Section 16.

[145] Park's Response to MDR, at A-23, Item G.8.

[146] "Proposed PFAS National Primary Drinking Water Regulation." US EPA website. https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas.

[147] "Proposed PFAS National Primary Drinking Water Regulation FAQs for Drinking Water Primacy Agencies" US EPA website. https://www.epa.gov/system/files/documents/2023-03/FAQs_PFAS_States_NPDWR_Final_3.14.23_0.pdf.

NL of 2 ppt and RL of 20 ppt for another substance, Perfluorohexane Sulfonic Acid ("PFHxS"), on August 16, 2022.

Since 2019 Park has been testing its wells in the Central Basin Division service area for PFAS. Park found that three wells exceeded the PFOA and PFOS NL and PFOA RL. Cal Advocates discusses its recommendations regarding Park's proposed PFAS treatment system at Wells 46C and Wells 41A in Chapter 1 of this report.

IV. CONCLUSION

Cal Advocates reviewed Park's MDR responses and Direct Testimony, DDW Citations and Sanitary Survey Reports, Consumer Confidence Reports, and SWRCB's databases, and concludes that Park's four water systems meet the applicable state and federal water quality standards.

CHAPTER 5 AVR WATER QUALITY

I. INTRODUCTION

This chapter presents Cal Advocates' analyses and recommendations on AVR's water quality for the Apple Valley, Irrigation, and Yermo service areas. AVR requests that the Commission find that AVR complies with all water quality requirements.

II. SUMMARY OF RECOMMENDATIONS

The Commission should find AVR's water systems in compliance with all water quality standards.

III. ANALYSIS

Cal Advocates reviewed AVR's Service Area Operations, Reports and Enforcement Actions by the State Water Resources Control Board Division of Drinking Water ("DDW"), and Future Water Quality Regulations.

A. Service Area Operations

AVR's three main service areas include the Apple Valley, Irrigation, and the Yermo water system that AVR acquired in 2015.[148] The Irrigation water system is a non-potable water system with one well.[149] AVR operates its water systems under permits from DDW. DDW regulates California's public drinking water systems and oversees a variety of drinking water-related activities.

AVR's facilities include three public water systems within two services areas as listed in Table 5-1 below. AVR's fourth water system and third service area, Irrigation, is not a public water system because it does not provide drinking water. AVR's largest public water system is referred to as Apple Valley water system. AVR's Apple Valley water system serves a total population of approximately 61,000.[150] AVR's Yermo water

[148] AVR's Exhibit B Revenue Requirement Report, at 4.

[149] AVR's Exhibit B Revenue Requirement Report, at 9.

[150] AVR's Exhibit D 2020 Urban Water Management Plan, at 3-1.

system serves a total population of approximately 1,050.[151] All of AVR's service areas are located within San Bernardino County.[152]

Table 5-1: AVR's Water Systems and Water Supply

Service Area	Water System	No. of Connections 2022[153]	Groundwater Production 2022 (AF)[154]	Purchased Water 2022 (AF)[155]
Apple Valley	Apple Valley	20,645	9,538	0
	Bellview Heights			
Yermo		296	90	0
Irrigation		161	4,379	0
Total		21,102[156]	14,007	0

AVR draws its water supply exclusively from groundwater well production. The 2022 water supply data for each service area is summarized in Table 5-1 above. Wells in the Apple Valley service area extract groundwater from the Mojave River Basin.[157] The Apple Valley water system has a total of 19 active wells.[158] The Bellview Heights water system has one well.[159] AVR's Yermo water system has three groundwater wells that likewise draw water from the Mojave River Basin.[160] AVR's Irrigation water system has

[151] AVR's Workpapers, Section 19, Permit Amendment No. 05-13-23PA-001, at 1.

[152] AVR's 2020 Urban Water Management Plan, at 2-5 to 2-6.

[153] AVR's Exhibit B Revenue Requirement Report, at 29.

[154] AVR's Exhibit B Revenue Requirement Report, at 9.

[155] 2022 Annual Report of AVR, Schedule D-1.

[156] AVR records a total of 21,288 customers in its Exhibit F Minimum Data Requirements, "AV II.A.1."

[157] AVR's Exhibit B Revenue Requirement Report, at 8.

[158] AVR's Exhibit B Revenue Requirement Report, at 8.

[159] AVR's Exhibit B Revenue Requirement Report, at 88.

[160] AVR's Exhibit B Revenue Requirement Report, at 9.

one well that pumps into lakes. The Irrigation water system then delivers water to a golf course and green belt irrigation from the lakes.[161]

AVR disinfects water produced at the well sites of its water systems. AVR has replaced the liquid chlorine chemical feed pumps to onsite salt generation systems at its largest producing wells. AVR disinfects water from its lower production wells with calcium hypochlorite.[162]

B. DDW Drinking Water Enforcement Actions

AVR's response to Minimum Data Requirements ("MDR") Item G.5 indicates that AVR received a citation for violating nitrate monitoring requirements during the prior GRC cycle.[163] Nitrate is a substance that may be found in untreated water. Federal and state drinking water standards limit the nitrate concentration that is allowed in drinking water. California regulations require that water systems collect one sample annually from each water source, such as a groundwater well, to test for nitrate concentration. The State Water Resources Control Board ("SWRCB") found that AVR failed to conduct the required sampling for nitrate for its Apple Valley water system's Well 34 in 2021.[164] Based on this fact, SWRCB determined that AVR failed to comply with drinking water standards.[165]

Following SWRCB's citation of AVR for a nitrate monitoring violation, SWRCB required AVR to complete a set of directives. SWRCB required AVR to notify each customer served by the water system by mail and by a secondary method such as posting a notice on an internet website. SWRCB also required AVR to collect and report the

[161] AVR's Exhibit B Revenue Requirement Report, at 9.

[162] AVR's Exhibit B Revenue Requirement Report, at 119.

[163] AVR's Exhibit F Response to MDR, p. A-22, Item G.5.

[164] AVR's Exhibit F Citation No. 05-13-22C-006, at 2.

[165] AVR's Exhibit F Citation No. 05-13-22C-006, at 3.

missing nitrate sample results by March 25, 2022, and to subsequently ensure that nitrate monitoring is conducted annually.[166] AVR completed the directives.[167]

As part of DDW's regular inspections of water systems known as Sanitary Surveys, DDW notes deficiencies or issues with water systems. DDW inspects AVR's Apple Valley and Yermo water systems. The San Bernardino County Department of Public Health inspects the Bellview Heights water system. AVR addressed the deficiencies that DDW noted in the 2019 Sanitary Survey for the Apple Valley water system by covering openings and pipes at Well 16 and 22, sealing cracks in the concrete of well pedestals and slabs at others, and by replacing the vent screen at the Mockingbird and Youngstown reservoirs.[168] AVR addressed the deficiencies found during the inspection of the Bellview Heights water system by sealing concrete cracks, replacing a mesh screen for the discharge line at Well 7 and by submitting disinfection by-products sampling results to a state database.[169] AVR corrected the deficiency that DDW found at the Yermo water system by sealing the holes on the back side of the electrical boxes on Marine Well 1 and Helbro Well 4.[170]

C. Water Quality Reports

Cal Advocates reviewed the most recent DDW Sanitary Survey Reports for AVR's water systems.[171] Table 5-2 below shows the dates of the most recent reports.

[166] AVR's Exhibit F Citation No. 05-13-22C-006, at 3-4.

[167] Attachment 3-1: AVR's Response to DR 047-AA, Q.3.

[168] Attachment 3-4: AVR's Response to DR 028-AA, Q.2.a, 2019 Sanitary Survey for System No. 3610003, 2019 Deficiency List.

[169] AVR's Workpapers Section 19, Small Water System Annual Inspection System No. 3600010.

[170] AVR's Workpapers Section 19, 2023 Sanitary Survey of Liberty - Yermo, 2023 Deficiency List.

[171] AVR's Response to MDR, Attachment "AV II.G.6."

Table 5-2: Most Recent DDW Sanitary Survey Reports[172]

Water System	System No.	Report Date
Apple Valley	3610003	September 23, 2019
Bellview Heights	3600010	June 11, 2020
Yermo	3610118	July 19, 2023

The reports conclude that all systems can provide a continuous supply of safe, wholesome, and potable water to customers. In the reports, DDW includes lists of deficiencies and recommendations that the systems should address.

As required by California Health and Safety Code §116470, every public water system should annually prepare a Consumer Confidence Report ("CCR") and mail/deliver a copy of the report to each customer. In the 2022-2023 water quality reports for each of AVR's water systems, AVR stated that the drinking water was in full compliance with all applicable county, state, and federal drinking water regulations in the previous year.[173]

D. Future Water Quality Regulations

In its response to MDR Item G.8, AVR discusses Maximum Contaminant Levels ("MCLs") that may be set or revised within the next five years and the potential impact on AVR's operations.[174]

1. Hexavalent Chromium

The State of California currently does not have a specific MCL for hexavalent chromium also known as chrome-6, using a total chromium MCL instead. The total chromium MCL is the aggregated regulatory limit for multiple chromium substances. In 2014, SWRCB adopted a chrome-6 MCL of 10 parts per billion ("ppb"). However, that MCL was invalidated by the Superior Court of California in 2017. SWRCB has since

[172] AVR's Workpapers Section 19 and AVR's Response to DR 028-AA, Q.2.a.

[173] AVR's Workpapers, Section 16.

[174] AVR's Response to MDR, at A-23, Item G.8.

proposed a new MCL of 10 ppb. AVR tested its wells for chrome-6 between 2021 and 2022, finding chrome-6 at concentrations as high as 7.2 ppb. AVR then estimated potential treatment costs for a hypothetical reduced MCL of 5 ppb. In this hypothetical scenario, AVR estimates that the initial capital cost of treatment systems for two wells could range from $3.6 to $7.8 million.[175]

IV. CONCLUSION

Cal Advocates reviewed AVR's MDR responses and Direct Testimony, DDW Citations and Sanitary Survey Reports, Consumer Confidence Reports, and SWRCB's databases, and concludes that AVR's three public water systems meet the applicable state and federal water quality standards. Although AVR received a citation for not meeting its nitrate monitoring requirements in 2021, AVR completed SWRCB's directives following the citation.

[175] AVR's Exhibit B Revenue Requirement Report, at 121-123.

APPENDIX A

Statement of Qualifications

QUALIFICATIONS AND PREPARED TESTIMONY
OF
ANTHONY ANDRADE

Q.1 Please state your name, business address, and position with the California Public Utilities Commission.

A1. My name is Anthony Andrade, and my business address is 320 West 4th Street, Suite 500, Los Angeles, California 90013. I am a Utilities Engineer in the Water Branch of the Public Advocates Office.

Q2. Please summarize your educational background and professional experience.

A2. I received a Bachelor of Science Degree in Mechanical Engineering from the University of California--Riverside in 2018.

I have been with the Public Advocates Office – Water Branch since 2018. As a witness for Cal Advocates, I have previously provided testimony regarding Utility Plant-in-Service, Depreciation, and Rate Base in San Gabriel Valley Water Company (SGVWC)'s 2022 GRC (A.22-01-001) and 2019 GRC (A.19-01-001) and Liberty Utilities Apple Valley Ranchos Water Corp and Liberty Utilities Park Water Company's consolidated 2021 GRC (A.21-07-003 et al).

I have also provided testimony regarding Utility Plant-in-Service in Suburban Water Systems (Suburban)'s 2023 GRC (A.23-01-001), Golden State Water Company's 2020 GRC (A.20-07-012), Water Quality in Suburban's 2023 GRC and SGVWC's 2019 GRC, and the topic of Storage Capacity in SGVWC's proposed acquisition of the City of Montebello Water System (A.20-10-004).

Q3. What is your responsibility in this proceeding?

A3. I am responsible for the testimony on Utility Plant in Service and Water Quality.

Q4. Does this conclude your prepared direct testimony?

A4. Yes, it does.

APPENDIX B

Supporting Attachments

APPENDIX B

LIST OF ATTACHMENTS FOR CHAPTER 1

Attachment #	Description
1-1	Liberty's Response to Data Request ("DR") SIB-006
1-2	Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024
1-3	United States Construction Market Trends
1-4	DGS California Construction Cost Index CCCI
1-5	A.21-07-003 et al., Park's Exhibit B Excerpt
1-6	A.21-07-003 et al., AVR's Exhibit B Excerpt
1-7	A.18-01-003, Park's Exhibit B Excerpt, at 75.
1-8	Dialog 3G-DS Register Warranty
1-9	A.21-07-003 et al., Park's Response to DR AA9-10
1-10	Park's Response to DR 040-AA
1-11	A.21-07-003 et al., AVR's Workpapers Excerpt
1-12	A.21-07-003 et al., AVR's Response to DR AA9-10
1-13	AVR's Response to DR 042-AA

LIST OF ATTACHMENTS FOR CHAPTER 2	
Attachment #	**Description**
2-1	Park's Response to DR 015-AA
2-2	CPUC Staff Memorandum on CWIP May 11, 1982
2-3	Cal Advocates Workpaper Recorded Costs of Wells
2-4	Liberty's Response to DR 039-ZS
2-5	Park Water Company Water System Master Plan Excerpt
2-6	Liberty's Response to DR 043-KN
2-7	Padilla Announces Funds from Bipartisan Infrastructure Law to Clean up PFAS in California Drinking Water
2-8	3M Settlement with Public Water Suppliers to Address PFAS in Drinking Water Receives Final Court Approval
2-9	PFAS Remediation Program
2-10	WRD PFAS Remediation Program - Status of Projects
2-11	Encumbered Program Funds - Capital - PFAS Remediation Fund.
2-12	Cal Advocates' Photo of Emergency Generator at Plant 19C.

LIST OF ATTACHMENTS FOR CHAPTER 3	
Attachment #	**Description**
3-1	AVR's Response to DR 047-AA
3-2	Cal Advocates' Photos of Well 18 and Well 34
3-3	A.21-07-003 et al., AVR's Response to DR AA9-05
3-4	AVR's Response to DR 028-AA

Attachment 1-1:
Liberty's Response to DR SIB-006

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

February 16, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	SIB-006 (Proposed Project Estimates and Historical Projects)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov
Date Received:	February 6, 2024
Due Date:	February 13, 2024
Extension:	February 16, 2024

REQUEST NO. 1:

SECTION 6 WORKPAPERS Liberty AVR includes Project Justification and Estimates for its proposed projects. These include several line items including Misc, and Misc/Plans/Fedex.

a) Please explain in detail what the Consultant/Design line item includes.
b) How does Liberty AVR estimate its Consultant/Design line item cost?
c) Please explain in detail what the Inspection line item cost includes.
d) How does Liberty AVR calculate its Inspection line item cost?
e) Please explain in detail what the Permits line item cost includes.
f) How does Liberty AVR calculate its Permits line items cost?
g) Please explain in detail what the Misc line item cost includes.

h) How does Liberty AVR calculate its Misc line item cost?
i) Please explain in detail what the Misc/Plans/Fedex line item cost includes.
j) How does Liberty AVR calculate its Misc /Plans/Fedex line item cost?
k) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates, engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

a) The consultant/design line item is the estimated cost for consultants to provide design and engineering services on a capital improvement project. These services include utility research, topographic surveys and geotechnical analysis if necessary. The design plans typically include plan, profile, and detail views.
b) For pipeline design, Liberty AVR estimates the consultant/design line item based on the total footage of the new pipeline installation. Projects with 3,500 linear feet or less of pipeline installation are assigned a design cost of $ 45,000. Projects above 3,500 linear feet are estimated at $60,000 - $75,000. This methodology has been used in prior general rate case cycles.
c) The inspection line item is the estimated cost for a third-party inspector to provide inspection services during construction. In addition, the inspection firm provides GPS data collection, GIS integration, and as-built preparation.
d) The inspection cost is estimated using an inspection rate of $240 per hour. The length of construction is approximated per project. For AVR, an estimate of 275 hours is typically used.
e) The permit line item is the estimated cost to pull a construction permit from the Town of Apple Valley. The permit allows Liberty to cut into the right-of-way and perform construction activities such as main installations and abandonments.
f) The permit fee for the Town of Apple Valley is estimated at $1,200 per project. This amount has been used in past general rate case proceedings.
g) The miscellaneous line item is used for additional work not covered in design or construction. This line item can be allotted for cost estimates such as traffic control plan, electrical work, or site work.
h) The miscellaneous line item is estimated based on the type of activities to be performed. A historical cost estimate may be used or a budgetary number provided by a supplier. No miscellaneous estimates have been added to pipeline cost estimates at this time.

i) The misc/plan/fedex line item is mainly used for printing expense of design plans. Hard copies are provided to the Town, Fire District, contractors, inspectors, operators and engineers involved in a project.
j) An estimated cost of $1,000 is used for each project.
k) Please see the attachments with preface Q1k and Q1k-Q2k for vendor quotes and historical projects data to support consultant design, inspection rates, permits, and miscellaneous charges.

REQUEST NO. 2:

SECTION 6 WORKPAPERS Liberty Park includes Project Justification and Estimates for its proposed projects. These include several line items including Misc, and Misc/Plans/Fedex.

a) Please explain in detail what the Consultant/Design line item includes.
b) How does Liberty Park estimate its Consultant/Design line item cost?
c) Please explain in detail what the Inspection line item cost includes.
d) How does Liberty Park calculate its Inspection line item cost?
e) Please explain in detail what the Permits line item cost includes.
f) How does Liberty Park calculate its Permits line items cost?
g) Please explain in detail what the Misc line item cost includes.
h) How does Liberty Park calculate its Misc line item cost?
i) Please explain in detail what the Misc/Plans/Fedex line item cost includes.
j) How does Liberty Park calculate its Misc /Plans/Fedex line item cost?
k) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates, engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

a) The consultant/design line item is the estimated cost for consultants to provide design and engineering services on a capital improvement project. These services include utility research, topographic surveys and geotechnical analysis if necessary. The design plans typically include plan, profile, and detail views.
b) For pipeline design, Liberty Park estimates the consultant/design line item based on the total footage of the new pipeline installation. Projects with 3,000 linear feet or less of pipeline installation are assigned a design cost of $45,000-$50,000. Projects above 3,000 linear feet are estimated at $75,000. This methodology has been used in prior general rate

case cycles.

c) The inspection line item is the estimated cost for a third-party inspector to provide inspection services during construction. In addition, the inspection firm provides GPS data collection, GIS integration, and as-built preparation.
d) The inspection cost is estimated using an inspection rate of $240 per hour. The length of construction is approximated per project. For Park, an estimate of 320 to 480 hours is used.
e) The permit line item is the estimated cost to pull a construction permit from the City or County the project resides in. The permit allows Liberty to cut into the right-of-way and perform construction activities such as main installations and abandonments.
f) The permit fee is estimated at $6 per linear foot of new pipeline to be installed. This methodology has been used in prior general rate case proceedings.
g) The miscellaneous line item is used for additional work not covered in design or construction. This line item can be allotted for cost estimates such as traffic control plan, electrical work, or site work.
h) The miscellaneous line item is estimated based on the type of activities to be performed. A historical cost estimate may be used or a budgetary number provided by a supplier. No miscellaneous estimates have been added to pipeline cost estimates at this time.
i) The misc/plan/fedex line item is mainly used for printing expense of design plans. Hard copies are provided to the City/County, Fire Department, contractors, inspectors, operators and engineers involved in a project.
j) An estimated cost of $1,000 is used for each project.
k) Please see the attachments with preface Q2k and Q1k-Q2k for vendor quotes and historical costs of projects to support consultant design, inspection rates, permits, and miscellaneous charges.

REQUEST NO. 3:

SECTION 6 WORKPAPERS Liberty AVR includes Project Justification and Estimates for its proposed projects. These include in house, field, and office labor hours.

a) Please explain in detail how Liberty AVR estimates these hours.
b) Please explain in detail how Liberty AVR Estimates the Field Labor w/Burden cost.
c) Please explain in detail how Liberty AVR Estimates the Office Labor w/Burden cost.
d) Please explain in detail what the Trans Clrg Burden cost includes.
e) Please explain in detail how Liberty AVR calculates the Trans Clrg Burden, including the

methodologies or justifications for Liberty AVR's calculations.

f) Please explain in detail what the Tools/Equip Burden includes.
g) Please explain in detail how Liberty AVR calculates the Tools/Equip Burden.
h) Are any of the above costs (a through g) considered capitalized expenses? Please explain in detail.
i) If any of these costs are capitalized expenses, are they removed from the expense forecast? Please explain in detail.
j) Please provide a brief explanation including cell references of how capitalized expenses estimated and removed from expenses in the Results of Operation model.
k) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates, engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

a) Liberty staff utilized engineering judgement in determining payroll hours charged to the individual capital projects per category (field or office). These estimates are in-line with experience of similar sized projects. A MS Excel file is included which provides historical data of payroll hours per capital project. Please see the attachment with preface Q3a-Q4a, tab "AVR".
b) Liberty staff utilized engineering judgement in determining payroll rates charged to the individual capital projects per category (field or office). These estimates are in-line with experience of similar sized projects.
c) See b. above.
d) Transportation clearings burden includes costs associated with operating and maintaining transportation equipment including cars, trucks, vans, and trailers, among other modes of transportation.
e) In general, burdens are calculated by dividing the various expense categories by the salaries based on payroll hours, excluding paid time off. Transportation clearing burden is calculated by taking the prior year of transportation expenses divided by hours worked. The transportation clearing hourly rate is then applied to the total estimated hours and salary hourly for each project to derive the transportation clearing burden amount to be included in each project. This methodology has been used and accepted by the Commission in prior general rate case proceedings.
f) Tools/Equipment clearings burden includes costs associated with operating and

maintaining power operated equipment including equipment used in construction and maintenance work such as trenchers, cranes, backhoes, compressors, etc. and small hand tools such as shovels, wrenches, prybars, power operated saws, jackhammers, etc.

g) The tools/equip burden is calculated by taking the prior year tools and equipment expenses divided by maintenance hours worked. The tools/equip hourly rate is then applied to the total estimated hours and salary rate to derive the tools/equip burden amount to be included in each project.

h) Please see response to Question 3j.

i) Please see response to Question 3j.

j) The direct and indirect capitalized and direct charged expenses are reflected in the Results of Operations (RO) model. The direct expenses consist of payroll, payroll burdens, transportation, tools and stores clearing burdens. Although the amounts reflected in the RO may not totally aligned with the capital improvements, the approach is similar. The primary difference between the RO and the capital improvements is that the RO contained estimates of direct charged payroll to other entities whereas the capital improvements only contained capitalized payroll and payroll related costs charging to capital projects. The RO develops payroll and payroll related expenses by position, where it is estimating a percentage of each position's related costs are capitalized and/or direct charged to other entities, reducing expenses by the capitalized and direct charged payroll and payroll related expenses (consist of benefits, workers' compensation insurance, and payroll taxes). See files "AV25 2024 Payroll CONFIDENTIAL", "AV25 2025 Payroll CONFIDENTIAL", and "AV25 2026 Payroll CONFIDENTIAL" for the development of payroll expenses. For the transportation, tools, and stores clearing burdens, the RO estimates are based on a five-year (2018-2022) recorded average. See file "AV25 Expenses", tab "ExpenseDetail", cells N276:R276, N293:R293, and N308:R308. The RO also reflects the 8% of indirect expenses. See files "AV25 Expenses", tab "ExpenseDetail", cells N467:R467, "IR25 Expenses, tab "ExpenseDetail", cells N60:R60, and "AV25 RCBD", tabs "BURDENCALC (AVR)", cells F17:I17 and "BURDCALC (IRR)", cells F17:I17.

k) Please see the attachment with preface Q3 for the development of the burdens rates used in capital projects.

REQUEST NO. 4:

SECTION 6 WORKPAPERS Liberty Park includes Project Justification and Estimates for its proposed projects. These include in house, field, and office labor hours.

a) Please explain in detail how Liberty Park estimates these hours.
b) Please explain in detail how Liberty Park Estimates the Field Labor w/Burden cost.
c) Please explain in detail how Liberty Park Estimates the Office Labor w/Burden cost.
d) Please explain in detail what the Trans Clrg Burden cost includes.
e) Please explain in detail how Liberty Park calculates the Trans Clrg Burden.
f) Please explain in detail what the Tools/Equip Burden includes.
g) Please explain in detail how Liberty Park calculates the Tools/Equip Burden.
h) Are any of the above costs (a through g) considered capitalized expenses? Please explain in detail.
i) If any of these costs are capitalized expenses, are they removed from the expense forecast? Please explain in detail.
j) Please provide a brief explanation including cell references of how capitalized expenses estimated and removed from expenses in the RO model.
k) Please provide a brief explanation including cell references of how capitalized expenses estimated and removed from expenses in the RO model.

RESPONSE:

a) Liberty staff utilized engineering judgement in determining payroll hours charged to the individual capital projects per category (field or office). These estimates are in-line with experience of similar sized projects. A MS Excel file is included which provides historical data of payroll hours per capital project. Please see the attachment with preface Q3a-Q4a, tab "CB".

b) Liberty staff utilized engineering judgement in determining payroll rates charged to the individual capital projects per category (field or office). These estimates are in-line with experience of similar sized projects.

c) See b. above.

d) Transportation clearings burden includes costs associated with operating and maintaining transportation equipment including cars, trucks, vans, and trailers, among other modes of transportation.

e) In general, burdens are calculated by dividing the various expense categories by the salaries based on payroll hours, excluding paid time off. Transportation clearing burdens are calculated by taking the prior year of transportation expenses divided by hours worked. The transportation burden hourly rate is then applied to the total estimated hours

and salary hourly rate to derive the transportation clearing burdens for each project. This methodology has been used and accepted by the Commission in prior general rate case proceedings.

Please see the attachment with preface Q4e for the development of burdens rates used in capital projects.

f) Tools/Equipment clearings burden includes costs associated with operating and maintaining power operated equipment including equipment used in construction and maintenance work such as trenchers, cranes, backhoes, compressors, etc. and small hand tools such as shovels, wrenches, prybars, power operated saws, jackhammers, etc.

g) The tools and equipment burdens are calculated by taking the prior year tools and equipment expenses divided by maintenance hours worked. The tools and equipment burden hourly rate is then applied to the total estimated hours and salary rates to derive the tools/equip burdens for each project.

h) Please see response to 4k.

i) Please see response to 4k.

j) Please see response to 4k.

k) The direct and indirect capitalized and direct charged expenses are reflected in the Results of Operations (RO) model. The direct expenses consist of payroll, payroll burdens, transportation, tools and stores clearing burdens. Although the amounts reflected in the RO may not totally aligned with the capital improvements, the approach is similar. The primary difference between the RO and the capital improvements is the RO contained estimates of direct charged payroll to other entities whereas the capital improvements only contained capitalized payroll and payroll related costs charging to capital projects. The RO develops payroll and payroll related expenses by position, where it is estimating a percentage of each position's related costs are capitalized and/or direct charged to other entities, reducing expenses by the capitalized and direct charged payroll and payroll related expenses (consist of benefits, workers' compensation insurance, and payroll taxes). See files "PW25 2024 Payroll CONFIDENTIAL", "PW25 2025 Payroll CONFIDENTIAL", and "PW25 2026 Payroll CONFIDENTIAL". For the transportation, tools, and stores clearing burdens, the RO estimates are based on a five-year (2018-2022) recorded average. See file "PW25 Expenses", tab "ExpenseDetail", cells N347:R347, N365:R365, and N377:R377. The RO also reflects the 8% of indirect expenses. See files

"PW25 Expenses", tab "ExpenseDetail", cells R527:N527 and "PW25 RCBD", tab "BURDENCALC", cells E17:I17.

REQUEST NO. 5:

Liberty AVR uses an inflation factor of 6.08% for each year 2024 through 2027.

a) Please explain how Liberty AVR calculated this factor.
b) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, quotes and estimates (performed internally within Liberty Utilities or compiled by a third-party vendor), engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

a) The inflation factor was calculated by taking the five-year average of the California Construction Cost Index (CCCI) from 2018 to 2022. The CCCI is based on the Building Cost Index and takes the average cost markers for San Francisco and Los Angeles. The Building Cost Index is produced by Engineering News Report and is published every month.
b) Please see the attachment with preface Q5b-6b for the historical California Construction Cost Index from 2016 to 2022.

REQUEST NO. 6:

Liberty Park uses an inflation factor of 6.08% for each year 2024 through 2027.

a. Please explain how Liberty Park calculated this factor.
b. Please provide detailed support to substantiate Liberty Park's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates (performed internally within Liberty Utilities or compiled by a third-party vendor), engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

a) The inflation factor was calculated by taking the five-year average of the California Construction Cost Index (CCCI) from 2018 to 2022. The CCCI is based on the Building Cost Index and takes the average cost markers for San Francisco and Los Angeles. The Building Cost Index is produced by Engineering News Report and is published every

month.

b) Please see the attachment with preface Q5-6b for the historical California Construction Cost Index from 2016 to 2022.

REQUEST NO. 7:

Please provide, in Microsoft Excel Format, a list of all electric pumping equipment capital projects Liberty AVR added into plant in service between 2010 and 2018. The list should include the following:

a) Project Name and a specific description of how the equipment is being used.
b) The date the project was completed.
c) The total project cost in dollars.
d) The current status of the project (active or retired), on January 1, 2024.
e) The hour meter reading for each pump on January 1 of each year it has been in service.

RESPONSE:

Cal Advocates granted an extension until February 23, 2024.

REQUEST NO. 8:

Please provide, in Microsoft Excel Format, a list of all electric pumping equipment capital projects Liberty Park added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each pump on January 1 of each year it has been in service.

RESPONSE:

Cal Advocates granted an extension until February 23, 2024.

REQUEST NO. 9:

Please provide, in Microsoft Excel Format, a list of all generator equipment capital projects (including mobile generators, emergency backup generators, etc.) Liberty AVR added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each generator on January 1 of each year it has been in service.

RESPONSE:

Cal Advocates granted an extension until February 23, 2024.

REQUEST NO. 10:

Please provide, in Microsoft Excel Format, a list of all generator equipment capital

projects (including mobile generators, emergency backup generators, etc.) Liberty Park added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each generator on January 1 of each year it has been in service.

RESPONSE:

Cal Advocates granted an extension until February 23, 2024.

REQUEST NO. 11:

Please provide, in Microsoft Excel Format, a list of all flowmeters other than those that meter customer usage for the purpose of customer billing Liberty AVR added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each generator on January 1 of each year it has been in service.

RESPONSE:

Cal Advocates granted an extension until February 23, 2024.

REQUEST NO. 12:

Please provide, in Microsoft Excel Format, a list of all flowmeters other than those that meter customer usage for the purpose of customer billing Liberty Park added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each generator on January 1 of each year it has been in service.

RESPONSE:

Cal Advocates granted an extension until February 23, 2024.

This completes the partial response to Data Request No. SIB-006. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

February 23, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	SIB-006 (Proposed Project Estimates and Historical Projects)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov
Date Received:	February 6, 2024
Due Date:	February 13, 2024
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REQUEST NO. 1:

SECTION 6 WORKPAPERS Liberty AVR includes Project Justification and Estimates for its proposed projects. These include several line items including Misc, and Misc/Plans/Fedex.

a) Please explain in detail what the Consultant/Design line item includes.
b) How does Liberty AVR estimate its Consultant/Design line item cost?
c) Please explain in detail what the Inspection line item cost includes.
d) How does Liberty AVR calculate its Inspection line item cost?
e) Please explain in detail what the Permits line item cost includes.
f) How does Liberty AVR calculate its Permits line items cost?
g) Please explain in detail what the Misc line item cost includes.

h) How does Liberty AVR calculate its Misc line item cost?
i) Please explain in detail what the Misc/Plans/Fedex line item cost includes.
j) How does Liberty AVR calculate its Misc /Plans/Fedex line item cost?
k) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates, engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

The response was submitted on February 16, 2024.

REQUEST NO. 2:

SECTION 6 WORKPAPERS Liberty Park includes Project Justification and Estimates for its proposed projects. These include several line items including Misc, and Misc/Plans/Fedex.

a) Please explain in detail what the Consultant/Design line item includes.
b) How does Liberty Park estimate its Consultant/Design line item cost?
c) Please explain in detail what the Inspection line item cost includes.
d) How does Liberty Park calculate its Inspection line item cost?
e) Please explain in detail what the Permits line item cost includes.
f) How does Liberty Park calculate its Permits line items cost?
g) Please explain in detail what the Misc line item cost includes.
h) How does Liberty Park calculate its Misc line item cost?
i) Please explain in detail what the Misc/Plans/Fedex line item cost includes.
j) How does Liberty Park calculate its Misc /Plans/Fedex line item cost?
k) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates, engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

The response was submitted on February 16, 2024.

REQUEST NO. 3:

SECTION 6 WORKPAPERS Liberty AVR includes Project Justification and Estimates for its proposed projects. These include in house, field, and office labor hours.

a) Please explain in detail how Liberty AVR estimates these hours.
b) Please explain in detail how Liberty AVR Estimates the Field Labor w/Burden cost.
c) Please explain in detail how Liberty AVR Estimates the Office Labor w/Burden cost.
d) Please explain in detail what the Trans Clrg Burden cost includes.
e) Please explain in detail how Liberty AVR calculates the Trans Clrg Burden, including the methodologies or justifications for Liberty AVR's calculations.
f) Please explain in detail what the Tools/Equip Burden includes.
g) Please explain in detail how Liberty AVR calculates the Tools/Equip Burden.
h) Are any of the above costs (a through g) considered capitalized expenses? Please explain in detail.
i) If any of these costs are capitalized expenses, are they removed from the expense forecast? Please explain in detail.
j) Please provide a brief explanation including cell references of how capitalized expenses estimated and removed from expenses in the Results of Operation model.
k) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates, engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

The response was submitted on February 16, 2024.

REQUEST NO. 4:

SECTION 6 WORKPAPERS Liberty Park includes Project Justification and Estimates for its proposed projects. These include in house, field, and office labor hours.

a) Please explain in detail how Liberty Park estimates these hours.
b) Please explain in detail how Liberty Park Estimates the Field Labor w/Burden cost.
c) Please explain in detail how Liberty Park Estimates the Office Labor w/Burden cost.
d) Please explain in detail what the Trans Clrg Burden cost includes.
e) Please explain in detail how Liberty Park calculates the Trans Clrg Burden.
f) Please explain in detail what the Tools/Equip Burden includes.
g) Please explain in detail how Liberty Park calculates the Tools/Equip Burden.
h) Are any of the above costs (a through g) considered capitalized expenses? Please explain in detail.
i) If any of these costs are capitalized expenses, are they removed from the expense

forecast? Please explain in detail.

j) Please provide a brief explanation including cell references of how capitalized expenses estimated and removed from expenses in the RO model.

k) Please provide a brief explanation including cell references of how capitalized expenses estimated and removed from expenses in the RO model.

RESPONSE:

The response was submitted on February 16, 2024.

REQUEST NO. 5:

Liberty AVR uses an inflation factor of 6.08% for each year 2024 through 2027.

a) Please explain how Liberty AVR calculated this factor.

b) Please provide detailed support to substantiate Liberty AVR's responses above. This includes but is not limited to internal communications and memorandums, quotes and estimates (performed internally within Liberty Utilities or compiled by a third-party vendor), engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

The response was submitted on February 16, 2024.

REQUEST NO. 6:

Liberty Park uses an inflation factor of 6.08% for each year 2024 through 2027.

a. Please explain how Liberty Park calculated this factor.

b. Please provide detailed support to substantiate Liberty Park's responses above. This includes but is not limited to internal communications and memorandums, vendor quotes and estimates (performed internally within Liberty Utilities or compiled by a third-party vendor), engineering reports and calculations. Please provide any calculations in Microsoft Excel format with links and formulas intact.

RESPONSE:

The response was submitted on February 16, 2024.

REQUEST NO. 7:

Please provide, in Microsoft Excel Format, a list of all electric pumping equipment capital

projects Liberty AVR added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each pump on January 1 of each year it has been in service.

RESPONSE:

a. Please see the attachment with preface Q7, Columns A and B
b. Please see the attachment with preface Q7, Columns C through L
c. Please see the attachment with preface Q7, Column M.
d. Please see the attachment with preface Q7, Column N. The status of the project provided is as of December 31, 2022. At this point, Liberty's books are not closed as year-end accounting close procedures are ongoing; therefore, the 2023 data is not available. Liberty will provide the 2023 recorded data on April 11, 2024 as allowed in the rate case plan (RCP).
e. Please see the attachment with preface Q7, Columns O through AB. Projects without a meter reading have been left blank.

REQUEST NO. 8:

Please provide, in Microsoft Excel Format, a list of all electric pumping equipment capital projects Liberty Park added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each pump on January 1 of each year it has been in service.

RESPONSE:

a. Please see the attachment with preface Q8, Columns A and B.
b. Please see the attachment with preface Q8, Columns C through L.
c. Please see the attachment with preface Q8, Column M.

d. Please see the attachment with preface Q7, Column N. The status of the project provided is as of December 31, 2022. At this point, Liberty's books are not closed as year-end accounting close procedures are ongoing; therefore, the 2023 data is not available. Liberty will provide the 2023 recorded data on April 11, 2024 as allowed in the rate case plan (RCP).
e. Liberty Park does not log hour meter readings.

REQUEST NO. 9:

Please provide, in Microsoft Excel Format, a list of all generator equipment capital projects (including mobile generators, emergency backup generators, etc.) Liberty AVR added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each generator on January 1 of each year it has been in service.

RESPONSE:

Liberty Apple Valley did not have any generators added into plant in service between 2010 and 2018.

REQUEST NO. 10:

Please provide, in Microsoft Excel Format, a list of all generator equipment capital

projects (including mobile generators, emergency backup generators, etc.) Liberty Park added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The hour meter reading for each generator on January 1 of each year it has been in service.

RESPONSE:

a. Please see the attachment with preface Q10, Columns A and B
b. Please see the attachment with preface Q10, Columns C through L
c. Please see the attachment with preface Q10, Column M.
d. Please see the attachment with preface Q7, Column N. The status of the project provided is as of December 31, 2022. At this point, Liberty's books are not closed as year-end accounting close procedures are ongoing; therefore, the 2023 data is not available. Liberty will provide the 2023 recorded data on April 11, 2024 as allowed in the rate case plan (RCP).
e. Liberty Park does not log hour meter readings for generators.

REQUEST NO. 11:

Please provide, in Microsoft Excel Format, a list of all flowmeters other than those that meter customer usage for the purpose of customer billing Liberty AVR added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The flowmeter reading for each flowmeter on January 1 of each year it has been in service.

RESPONSE:

a. Please see the attachment with preface Q11, columns A and B
b. Please see the attachment with preface Q11, columns C through L
c. Please see the attachment with preface Q11, column M.
d. Please see the attachment with preface Q11, column N. The status of the project provided is as of December 31, 2022. At this point, Liberty's books are not closed as year-end accounting close procedures are ongoing; therefore, the 2023 data is not available. Liberty will provide the 2023 recorded data on April 11, 2024 as allowed in the rate case plan (RCP).
e. Please see the attachment with preface Q11, columns O through AB.

REQUEST NO. 12:

Please provide, in Microsoft Excel Format, a list of all flowmeters other than those that meter customer usage for the purpose of customer billing Liberty Park added into plant in service between 2010 and 2018. The list should include the following:

a. Project Name and a specific description of how the equipment is being used.
b. The date the project was completed.
c. The total project cost in dollars.
d. The current status of the project (active or retired), on January 1, 2024.
e. The flowmeter reading for each flowmeter on January 1 of each year it has been in service.

RESPONSE:

a. Please see the attachment with preface Q12, columns A and B
b. Please see the attachment with preface Q12, columns C through L
c. Please see the attachment with preface Q12, column M.
d. Please see the attachment with preface Q12, column N. The status of the project provided is as of December 31, 2022. At this point, Liberty's books are not closed as year-end accounting close procedures are ongoing; therefore, the 2023 data is not available. Liberty will provide the 2023 recorded data on April 11, 2024 as allowed in the rate case plan (RCP).
e. Please see the attachment with preface Q11, columns O through AB.

This completes the supplemental response to Data Request No. SIB-006. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Attachment 1-2:
Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024

FEBRUARY 12, 2024
BY CONTRIBUTING AUTHOR

Inflationary Pressures Ease for U.S. Water Utilities; Regulatory Policy Looms Large in 2024

| By Audra Dickinson

U.S. water utilities are entering a calmer environment in 2024 as the rate of inflation continues to level off, so much so that Fitch Ratings has moved its sector outlook to neutral from deteriorating.

Much of the improved picture is driven by rates of revenues growth that are keeping pace with the rate of expense increases–a reversal of the prior two years where at many utilities rate adjustments were not fully recovering increased labor, chemical and other operating costs. After peaking at 6.5% in 2022, Fitch forecasts inflation of 3.3% in 2023 and 2.6% in 2024.

GDP growth rose to 1.3% in 3Q, the fastest rate since late-2021 and much higher than the 0.4% increase expected in Fitch's prior global economic outlook. While growth will slow sharply in 2024, Fitch economists no longer forecast a recession for 2024. That said, interest rates will hover at or near their highest levels in over a decade, which will raise financing costs and increase revenue requirements over time for the capital-intensive water and sewer sector. As a result, water utilities have now worked higher operating and capitals costs into their budgets with 2024 budgets reflecting more standard rates of increase around chemicals, labor, supplies and power.

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JULY 16, 2024

With the operating environment now on more stable footing, water and sewer systems seem to have greater certainty around budgeting. That said, cost decreases are not likely, resulting in a new norm for water utilities.

Regulatory Updates to Crystalize in 2024

The U.S. Environmental Protection Agency's (EPA) upcoming rule finalization related to PFAS (per- and polyfluoroalkyl substances) is expected to drive decision-making at many utilities in the short-term as they update capital plans to comply with the finalized rule. While the costs of more stringent PFAS treatment requirements could be significant, the full scope of effects on cost structures and capital investing remain undetermined and will largely hinge upon a utility's existing treatment capabilities and water supply sources. Compliance strategies are likely to affect capital spending initially but would also be expected to increase operating budgets to maintain the new facilities over the longer term.

Separately, the EPA has stated its intention to promulgate the final Lead and Copper Rule Improvements (LCRI) by October 2024. In the interim, utilities are working toward the same October 2024 compliance deadline for identifying and publicly disclosing all lead service lines. As such, strategies for compliance with the finalized LCRI should also emerge in 2024; in addition to any PFAS treatment costs that utilities face, the capital costs of LCRI compliance will also begin to factor into upcoming capital programs.

> "…cost decreases are not likely, resulting in a new norm for water utilities"

Sizeable Gaps Despite Ample Federal Funding

The American Rescue Plan Act (ARPA) and the Bipartisan Infrastructure Law (BIL) provide important funding support to water and sewer utilities to address needed infrastructure improvements and maintenance. Despite the significant infusion of funds, Fitch estimates a


Georgia Environmental Finance Authority's Judy Adler to give keynote at Water Finance Conference
JULY 15, 2024


Stantec announces milestone in Friant-Kern Canal restoration project
JULY 15, 2024

funding gap in excess of $85 billion over the next five years that will need to be covered by pay-go or additional debt.

Sustained above average inflation has had a dampening effect on how far federal and infrastructure funding will stretch. Any funding awarded is expected to cover fewer and a smaller scope of projects as contractor bids increased and drove capital improvement plans higher. A resurgence in inflationary pressures and/or labor availability could shift the sector outlook to deteriorating.

The funding gap between infrastructure needs as assessed by the U.S. EPA and annual state revolving fund allocations, ARPA and BIL funding is likely to widen after ARPA and BIL programs expire. Water utilities may need to tap the debt markets with more frequency or defer discretionary capital projects as remedies. Federal and state financing options may also be available, but most will be in the form of loans instead of grants.

Extreme Weather and Cyber Risk Remain Key Sector Issues

The increased frequency and worsening severity of extreme weather events will continue to be a threat to the sector as utilities work to expand and improve resiliency of water supply and contend with unforeseen expenses that can arise in the aftermath of severe weather events. To date, rating action at water and sewer utilities in the immediate aftermath of a natural disaster has been very limited given the sector's robust liquidity position. Further, costs are often substantially recovered via FEMA reimbursements creating more of a timing mismatch rather than a permanent drawdown of liquidity. On the cyber front, many water and sewer utilities continue to work toward adhering to certain cybersecurity best practices absent any formal regulation. Shorter-term spending would likely focus on conducting cybersecurity assessments, but any identified vulnerabilities or successful breaches at a utility could result in unforeseen capex.

Conclusion

Although headwinds related to general inflationary pressures have eased, water utilities are entering a "new normal" operating environment in 2024. Positively, the rates of increase related to chemical, labor and power costs have normalized and are now generally in line with expected revenue rates of increase. While the threat of inflation has subsided, 2024 is likely to hold significant developments on the regulatory policy front that will likely increase capital programs over the short-term and eventually result in higher operating expenses over the longer-term.

Audra Dickinson is a senior director at Fitch Ratings and sector head for its Water & Sewer Group. She is based in Austin, Texas, and previously served as a senior utility financial analyst for Austin

Attachment 1-3:
United States Construction Market Trends

CBRE

Intelligent Investment

United States Construction Market Trends

2023 Year-End

February 7, 2024 3 Minute Read

Executive Summary

The Current Situation

- **Labor costs and hourly wages continue to rise.** Increasing construction labor costs are a major challenge facing the industry. Companies are competing for a limited pool of skilled workers, which is driving up wages. Sustained demand for skilled construction workers coupled with a lack of qualified candidates to fill the positions has added to the strain. This is due in part to an aging workforce and a lack of interest in trade careers among younger generations.

- **The unemployment rate remains low both nationally and for construction as the overall workforce contracts by 2%.** According to USBLS, there were 374,000 construction industry job openings in December. This is down 4.1% from this time last year, but still relatively high overall showing continued demand.

Supply Chain & Material Availability

- **Fuel costs have plummeted compared with last quarter as freight costs decline from their peak.** The cost of No. 2 diesel fuel was -$0.76/gallon or 16.4% lower than last quarter. Diesel remains key to the supply chain as it is the predominant fuel used for shipping and freight distribution.

- **There were few changes in material availability this past quarter.** Some Electrical equipment continues to have extended lead times and reduced availability.

- **The Environmental Protection Agency is imposing new regulations on the HVAC industry on January 1, 2025, to reduce greenhouse gas emissions due to coolants.** The implications are yet to be fully seen but will certainly impact the industry.

Contractor Confidence & Construction Volume

- **Contractor backlog remains very strong nationally** with an average of 8.6 months as reported by Associated Builders and Contractors (ABC) in December.

- **According to the AIA Construction Consensus Spending Forecast, the outlook for construction volume is negative for most sectors over the next two years.** Volume is also down this quarter for Office, Commercial and Residential construction. According to data from the U.S. Census, private commercial and office construction volume were nearly flat since last quarter and down significantly compared with last year.

- **Construction contractor confidence presents a mixed picture,** reflecting both positive trends and ongoing challenges. Adaptability, innovation, and collaboration will be key for navigating uncertainty and ensuring a resilient future for the industry.

Cost Escalation

- The Consumer Price Index (CPI) rate reached 3.3% in December 2023, compared with the 40-year high 9.1% in June 2022. This is comparable to the 40-year (1983 – 2023) historical US average of 2.8%.

- The Federal Open Market Committee (FOMC) continues fine-tuning interest rates to return inflation to the targeted 2% range.

- The CBRE Construction Cost Index showed a decline in annual escalation compared to the record high 2022. **2023 concluded at 4.9% (± 2%)**. This is still higher than the industry pre-COVID average of 2-5% per year.

Attachment 1-4:
DGS California Construction Cost Index

DGS California Construction Cost Index CCCI

Client agencies can find current construction cost index for California by the Real Estate Services Division.

The California Construction Cost Index (CCCI) is developed based upon Building Cost Index (BCI) cost indices average for San Francisco and Los Angeles ONLY as produced by Engineering News Record (ENR) and reported in the second issue each month.

The current five year CCCI table is updated the 2nd half of the month for the current month. The ENR BCI reports cost trends for specific construction trade labor and materials in the California market and does not reflect current market bidding environment. Prior to July 1991, CCCI was recorded quarterly, all months post July 1991 are calculated based on the ENR BCI reports and recorded for each month.

California Construction Cost Index 2021-2025

Month	2025	2024	2023	2022	2021
January		9680	9246	8151	7090
February		9692	9166	8293	7102
March		9660	9118	8736	7130
April		9688	9026	8903	7150
May		9655	9621	9001	7712
June		9651	9508	8925	7746
July		9646	9526	9110	7892
August			9560	8729	8122
September			9592	8604	7900
October			9654	8712	8080
November			9682	8765	8141
December			9654	8823	8072

Month	2025	2024	2023	2022	2021
Annual % *			9.4%	9.3%	13.4%

**Annual Percentage is calculated from December to December.*

HISTORIC CALIFORNIA CONSTRUCTION COST INDEX

Collapse All

CALIFORNIA CONSTRUCTION COST INDEX 2016-2020

Month	2020	2019	2018	2017	2016
January	6995	6684	6596	6373	6106
February	6945	6700	6596	6373	6132
March	6947	6616	6596	6373	6248
April	6955	6841	6596	6461	6249
May	6958	6852	6596	6455	6240
June	7041	6854	6598	6470	6238
July	6984	6854	6643	6474	6245
August	6988	6823	6613	6620	6244
September	7036	6814	6674	6620	6267
October	7120	6851	6679	6596	6343
November	7123	6895	6679	6596	6344
December	7120	6924	6684	6596	6373
Annual % *	2.8%	3.6%	1.3%	3.5%	4.4%

**Annual Percentage is calculated from December to December.*

CALIFORNIA CONSTRUCTION COST INDEX 2011-2015

CALIFORNIA CONSTRUCTION COST INDEX 2006-2010

CALIFORNIA CONSTRUCTION COST INDEX 2001-2005

CALIFORNIA CONSTRUCTION COST INDEX 1996-2000

QUESTIONS AND RESOURCES

Have questions about the CCCI, please contact us.

CONTACT

Project Management & Development Branch
Department of General Services
Real Estate Service Division

707 Third St, 4th Floor
West Sacramento, California 95605
Phone: (916) 376-1700
Email: DGSRESDGeneralInquiries@dgs.ca.gov (mailto:DGSRESDGeneralInquiries@dgs.ca.gov)

PLEASE DO NOT SUBMIT PERSONALLY IDENTIFIABLE INFORMATION.

Attachment 1-5:
A.21-07-003 et al., Park's Exhibit B Excerpt

LIBERTY PARK WATER

REVENUE REQUIREMENTS REPORT
TEST YEAR 2022

APPLICATION NO._____

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Liberty Park Water will replace the following vehicles with a Ford F-150 utility truck at a purchase price of $36,096:

- Unit No. 89 - a Ford F-150 pickup truck that was purchased in 2008 with a 2021 year-end mileage projection of 124,019

In addition, miscellaneous transportation replacement such as the installation of LED light bars will be added to existing trucks. The light bars provide superior lighting performance and increased visibility of the trucks and enhanced safety for staff working on roadways. The estimated unit costs summarized in the work papers are based on 2020 average unit costs that have been escalated by a 5-year average Construction Cost Index to 2021 replacement unit costs for these vehicle replacements and light bars. For 2021, the total costs are estimated at $325,004.

27. <u>Cost of Removals: $1,057,856</u>

Liberty Park Water will remove miscellaneous production items including galvanized and plastic service lines and water mains that have reached the end of their useful life and are no longer functional. This category also includes the installation of house lines for the water main project described above. These house lines will connect our customers to the relocated water meters in the right of way. For 2021, the cost of removal category is estimated at $1,057,856. The specific projects in this category (and related cost estimate) are listed below.

- CBCOR-1: Harris & Locust: This project will install 64 houseline customer reconnections at a projected cost of $358,216.
- CBCOR-2: Rosecrans - Bradfield: This project will install 58 houseline customer reconnections at a projected cost of $324,633.
- CBCOR-3: Stockwell/136th/137th/Wilmington, Phase 2: This project will install 67 houseline customer reconnections at a projected cost of $375,007.

28. <u>Mesa Crest Water System Budget: $1,601,130</u>

Liberty Park Water acquired the Mesa Crest Water System in 2019. Under its previous ownership, there was a lack of financial resources causing significant deferred maintenance and capital improvements on its facilities. Liberty Park Water plans to continue making water system improvements in 2021 as discussed below. Copies of supporting documents for each of these projects are included in the work papers.

- MCTK-2: Forest Green and Meadow View Tank Anode Systems: This project will install anodes in two steel tank reservoirs in the water system. These tanks

presently do not have sacrificial anodes and there is a significant risk of continued corrosion of the steel tank which could result in leaks causing lost water and a potential for property damage. This anode installation project is estimated at $118,107.

- MCTK-5: Forest Green Tank Active Mixing System: The reservoirs at the Forest Green site struggle to maintain a safe chlorine residual. These mixers will allow us to keep the tanks filled, reduce reservoir water stratification, and maintain a consistent chlorine residual. This project will also include the installation of a chlorine residual analyzer. Keeping the tanks full are especially important during high wind/low humidity events where our electrical provider may implement a PSPS event, rendering our booster pumps unusable except with emergency back-up power supplies. This project will maintain water service and water quality for this pressure zone and it is estimated to cost $90,486.
- MCMN-1: La Canada Irrigation District Interconnect: The Mesa Crest Water System's sole source of water supply is purchased water from the Foothill Municipal Water District (FMWD). FMWD is a wholesaler of purchase water from the Metropolitan Water District of Southern California (Metropolitan). The purchase water connection provides treated surface water to the water systems.

  Under California Water Boards, Drinking Water Programs (DWP), all permitted water systems are required to have an alternate ("back-up") source of water supply. Due to the nature of surrounding mountainous terrain, Mesa Crest is unable to secure groundwater resources.

  As stated above, the Mesa Crest system purchases water from FMWD, a Metropolitan member agency. As a FMWD member agency, Liberty Park Water (Mesa Crest) must comply with Metropolitan's administrative code, including Section 4503(b), stating: "Each member agency shall have sufficient resources such as local reservoir storage, groundwater production capacity, system interconnections, or alternate supply source to sustain a seven-day interruption in Metropolitan deliveries based on annual average demands." Although Metropolitan has not experienced a system-wide outage of imported source of

supply, it has shut down sections of its feeders for extended periods for maintenance or repairs.

Section 4503(b) was primarily adopted to allow for shutdown and work on sections of Metropolitan's feeder pipelines and facilities and for the possibility of an extended service interruption to purchased water connections serving Liberty Park Water's systems. This could occur as a result of major pipeline breaks, power outages, malicious acts, contamination issues, or treatment plant problems.

To comply with Section 4503(b), Liberty Park Water has evaluated options beyond groundwater wells for an emergency alternate source of supply. One option is to install water reservoirs. Although Mesa Crest has 3.5 million gallons of storage in the Mesa Crest system, this water system has an Average Daily Demand of 0.58 million gallons per day. A 7-day outage would require 4.06 million gallons of storage in this system. The existing Mesa Crest water system properties are fully built out and would require significant grading, construction challenges, and public planning processes to swap out an existing tank for one with an increased size. Due to the complexities involved, we are estimating this tank swap would cost over $2.0 million.

Liberty Park Water also evaluated the use of interconnections with other water systems. Liberty Park Water operates a number of interconnections as alternate sources of supply. Liberty Park Water has been in preliminary discussions with La Canada Irrigation District, an adjacent water utility, and believes that being able to purchase water from them is the most cost-effective solution to provide the DWP required alternate source of supply for the Mesa Crest Water System.

The La Canada Irrigation District interconnect project would involve the construction of a meter vault with pressure control valves, a booster pump station, and 800 linear feet of 12" diameter water main. For 2021, the estimate for starting the engineering design, securing property rights, and starting construction is $100,000. The completion of this project will occur in 2022.

- TDMR – Consultant Engineering: Liberty Park Water utilizes engineering consultants to provide design and engineering services on various capital

improvement projects. With the complex nature of regulatory planning and the lack of internal resources to complete these designs in a timely manner, it is more cost effective to utilize design specialists with experience working in a multi-jurisdictional area. These consultants have worked with the various cities and agencies in Liberty Park Water's service area and are able to guide project designs to timely approval. Utilizing these consultants allows Liberty Park Water staff to focus on its area of expertise, namely, project planning and management and meeting approved capital budgets. We are estimating that consultant engineering will cost $51,150 for this year.

- TDVR – Emergency Main Replacement: Liberty Park Water seeks $50,000 in 2021 for replacement of Mesa Crest water mains during an unplanned event such as a water main break. Emergency main replacements are small, non-engineered replacements that are unavoidable, necessary and performed on an as-needed basis and which are an important aspect of operations. These main replacements occur when a water main leak is too large to make a normal repair with a clamp. The section of main is removed and replaced to prevent future property damage, reduce additional service interruptions for the surrounding area and help the integrity of our water quality.
- TDVR – Replacement Valves: Liberty Park Water has 253 valves in its Mesa Crest water system. Liberty Park Water exercises its fire hydrant valves and the water system valves in accordance with the Commission's General Order ("GO") 103-A. Having an active valve exercise program is key to maintaining a safe and reliable water system. Fully functioning valves minimize service interruptions and damage due to leaks. Liberty Park Water's exercise program helps identify irreparable valves that must be replaced.
- As shown in the work papers, Liberty Park Water is proposing replacing eight (8) valves per year in Mesa Crest. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2021 average replacement unit cost of $9,018 per valve. For 2021, the estimated cost for Valve Replacements is $72,141.

- TDHR – Replacement Hydrants: Liberty Park Water has 79 fire hydrants in its Mesa Crest water systems, each of which is exercised at least once every three years. This exercise program identifies irreparable hydrants that must be replaced. Liberty Park Water also runs hydraulic analyses of local water service areas to determine adequate fire flow availability.
- As shown in the work papers, Liberty Park Water has been is proposing replacing eight (8) fire hydrants per year. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2021 average replacement unit cost of $13,582 per hydrant. For 2021, the estimated costs for Fire Hydrant Replacements is $108,657.
- TDSR – Replacement Water Services Lines: Liberty Park Water will continue to replace Mesa Crest's galvanized and plastic services lines that are old and prone to failure. Liberty Park Water is estimating the replacement of five (5) services per year in Mesa Crest. These must be replaced to minimize interruptions to customers, minimize property damage during leaks and maintain water system operability.
- The estimated replacement water service installation unit costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2021 average replacement water service unit cost of $6,198 per service line. For 2021, Liberty Park Water estimates the Mesa Crest Replacement Service Installation cost at $30,991.
- TDAV – Air Release and Vacuum Stations: Air release and vacuum valves are an integral part of our Mesa Crest water system to remove air and let air into our water mains. Air vacuum and release valves allow the release of trapped air collected at high points of pipelines. The air pockets negatively affect the water system by reducing flow capacity and contributing to water hammer. Air release and vacuum valves also let air into pipelines to facilitate draining and to avoid issues with vacuum during water main breaks. A lack of adequate air vacuum and release valves functioning properly can be a contributing factor in pipeline

failures. Additionally, air release and vacuum valves that have reached the end of their useful life or not installed in compliance with our current standards need to be replaced.

- For budgeting purposes, Liberty Park Water projects that two (2) air release vacuum stations will be installed or replaced each year. The estimated unit costs summarized in the work papers are based on 2020 average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2021 replacement unit cost of $7,530 each. For 2021, Liberty Park Water expects to replace two stations at a project cost of $15,060.
- TDMS – Water System Blow-Offs: Some of Liberty Park Water Mesa Crest's customers are provided water service though dead-end water mains, which are typically located in cul-de-sacs (where looping of water mains is not feasible) and terminate into a blow-off. These blow-offs are similar to a large water service and allow water to escape from the water main at a controlled velocity to clear debris and sediment from the water main. This allows Liberty Park Water to maintain quality water service for these affected customers. These dead-end water mains are regularly flushed through the blow-offs.
- During its routine dead-end flushing program, Liberty Park Water has found that many of the Mesa Crest blow-offs were buried under pavement or broken. These blow-offs are an important part of the water system and this situation must be addressed via replacements. The estimated unit costs for a blow-off replacement summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2021 average new installation unit cost of $5,914 each. For 2021, Liberty Park Water plans to replace ten (10) of these blow-offs for a total estimated project cost of $59,139.
- MCMT-1: Small Meter Replacement: Liberty Park Water will continue to replace Mesa Crest meters to keep up with meter aging and battery failure rates. The detailed small meter replacement schedule and associated costs contained in the work papers are summarized for 2021 as follows: 25 of the 5/8" meters; 20 of the

1" meters; 10 of the 1-1/2" meters; and 10 of the 2" meters. The total costs for small meter replacement in 2021 is $29,953.

- MCPE-2: Electrical Motor Control Center Replacement at Booster Pump Stations: The existing electrical motor control centers (MCC) at each of Mesa Crest's four booster pump stations have reached the end of their useful life. These MCC are not constructed utilizing current solid-state electronic components and they have issues with overheating during hot weather. The panels were not designed to current electrical codes regarding electrical safety and they have some potential security issues. In addition, they do not have transfer switches that allow the use of emergency power during power outages.
- Last year, we experienced a complete failure of an MCC component rendering the pump station unusable. In this case, we were able to have an electrician make a temporary repair and direct wired our emergency back-up power supply cables to return the pump station to service and avoiding depressurization of the water system. However, this is not a long-term solution and our electrician recommended the full replacement of all of the booster pump station MCCs to solid state technology and controls with manual transfer switches for emergency back-up power supplies. Based on the high cost of each MCC station replacement, the project will be spread over four years. For 2021, the first MCC will be replaced at an estimated cost of $350,000.
- MCPE-4: Miscellaneous Control Valves and Piping Improvements: The four Mesa Crest booster pump stations have many valves that isolate the pumps and other pump station components. These valves were not regularly maintained under the previous Mesa Crest ownership and are reaching the end of their useful life. In addition, sections of the piping between valves will likely need to be reconfigured to accommodate the replacement valve change in dimensions or to replace corroded materials. For 2021, we are estimating the cost for this category at $46,292.
- MCWI-2: Generator at Forest Green Site: At the Mesa Crest Forest Green site, there is an existing emergency generator that provides back-up power to the booster pump station that provides water supply to an upper pressure zone. This

generator is a critical component to maintaining water supply during power supply outages. This generator is reaching the end of its useful life. In addition, with continuing changes to Air Quality Management District and California Air Resources Board regulations, it is questionable how long this generator will be in compliance. Based on its remaining useful life, the criticality of its operation, and the future changes in air quality regulations, we are proposing the replacement of this generator in 2021 at an estimated cost of $129,155.

- MCSC-2: Replace/Upgrade Programmable Logic Controllers: The four (4) Mesa Crest booster pump stations have programmable logic controllers (PLC) that monitor activities at each site. The existing system is a Kingfisher system that has reached the end of its useful life. Replacement parts are hard to secure and since it is proprietary and not open architecture for programming, it is difficult to find vendors to service this equipment. This project will replace the existing PLCs with open architecture equipment that accommodates full functional programming at all sites. The communication at all the sites will be accomplished with reliable cellular communications. The Mesa Crest water system is located quite a distance from the rest of Liberty Park Water's water systems. Also, since there are various pressure zones, a risk of loss of electric power, and mountainous fire prone terrain, having reliable PLCs is critical to understand the current state of the water system and be able to control it remotely. Based on this, we are proposing the replacement of all four PLCs at an estimated cost of $350,000.

D. 2022 CAPITAL IMPROVEMENTS

1. Water Mains

As discussed above, Liberty Park Water will continue its new and main replacement program in 2022. The following is a description of the planned water main installation projects for 2022. For additional details about these projects, please refer to the copies of the referenced reports, project estimates, and project alignments included in the work papers for both new and replacement water mains. [WP Section 6 – Mains]

22. Security Equipment: $14,546

Liberty Park Water will continue to replace existing security cameras in its main office yard and at field facilities. For 2022, this category is estimated at $14,546.

23. Tools and Equipment: $22,141

Liberty Park Water will continue to purchase and replace miscellaneous tools and power operated equipment, including jackhammers, clay spades, jacks, etc. For 2022, an appropriate cost estimate for this category is $22,141.

24. Vehicle Replacements: $30,721

Liberty Park Water will continue to replace miscellaneous transportation items to keep its fleet in top operation and safe working condition. This includes purchasing LED light bars for the reasons described earlier. No vehicles are scheduled for replacement in 2022. The estimated unit costs summarized in the work papers are based on 2020 average unit costs that have been escalated by a 5-year average Construction Cost Index to 2022 replacement unit costs for miscellaneous transportation items. For 2022, the estimated cost for this category is $30,721.

25. Cost of Removals: $429,439

Liberty Park Water will remove miscellaneous production items, galvanized and plastic service lines and other various equipment, water mains, and other miscellaneous company items. These items have reached the end of their useful life and are no longer functional. This category also includes the installation of house lines for the water main projects discussed above. These house lines will connect our customers to the relocated water meters. For 2022, the cost of removal category is estimated at $429,439. The specific projects in this category (and related cost estimate) are listed below.

- CBCOR-4: Carlin & Olanda: This project will install 75 houseline customer reconnections at a cost of $429,439.

26. Mesa Crest Water System Budget: $1,849,297

Liberty Park Water plans to continue making Mesa Crest water system improvements in 2022 as discussed below. Copies of supporting documents for each of these projects are included in the work papers.

- MCTK-6: Forest Green Tank 1 Seismic Connection: This project will install a flexible seismic connections on the outlet of Tank 1 at the Mesa Crest's Forest Green site. This tank does not presently have this type of connection. In a seismic

event, the outlet piping could be torn away from the tank, resulting in an uncontrolled discharge of water from the tank and potentially causing significant erosion to the site and property damage to adjacent residents. For 2022, this project is estimated to cost $98,218.

- MCTK-11: Forest Green Tank Level Sensor Installation: The level sensors at the Mesa Crest Forest Green site have reached the end of their useful life and need to be replaced. This is a critical component in operating the reservoir to ensure that the reservoirs do not overflow, which could result in an uncontrolled discharge of water from the tank and potentially cause significant erosion to the site and property damage to adjacent residents. For 2022, this project is estimated to cost $36,055.
- MCMN-1: La Canada Irrigation District Interconnect: The interconnection with the La Canada Irrigation District, booster pump station, and water main extension that was begun in 2021 will be completed in 2022. For 2022, the estimate for completing the construction of this project is $818,400.
- TDVR – Emergency Main Replacement: Liberty Park Water seeks $51,150 in 2022 for replacement of Mesa Crest water mains during an unplanned event such as a water main break. Emergency main replacements are small, non-engineered replacements that are unavoidable, necessary and performed on an as-needed basis, which are an important aspect of operations. These main replacements occur when a water main leak is too large to make a normal repair with a clamp. The section of main is removed and replaced to prevent future property damage, reduce additional service interruptions for the surrounding area and help the integrity of our water quality.
- TDVR – Replacement Valves: Liberty Park Water has 253 valves in its Mesa Crest water system. Liberty Park Water exercises its fire hydrant valves and the water system valves in accordance with the Commission's General Order ("GO") 103-A. Having an active valve exercise program is key to maintaining a safe and reliable water system. Fully functioning valves minimize service interruptions and damage due to leaks. Liberty Park Water's exercise program help identify irreparable valves that must be replaced.

As shown in the work papers, Liberty Park Water is proposing replacing eight (8) valves per year in Mesa Crest. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2022 average replacement unit cost of $9,225 per valve. For 2022, the estimated cost for Valve Replacements is $73,798.

- TDHR – Replacement Hydrants: Liberty Park Water has 79 fire hydrants in its Mesa Crest water systems, each of which is exercised at least once every three years. This exercise program identifies irreparable hydrants that must be replaced. Liberty Park Water also runs hydraulic analyses of local water service areas to determine adequate fire flow availability.

  As shown in the work papers, Liberty Park Water is proposing replacing eight (8) fire hydrants per year. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2022 average replacement unit cost of $13,894 per hydrant. For 2022, the estimated costs for Fire Hydrant Replacements is $111,154.

- TDSR – Replacement Water Services Lines: Liberty Park Water will continue to replace Mesa Crest's galvanized and plastic services lines that are old and prone to failure. Liberty Park Water is estimating the replacement of five (5) services per year in Mesa Crest. These must be replaced to minimize interruptions to customers, minimize property damage during leaks and maintain water system operability.

  The estimated replacement water service installation unit costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2022 average replacement water service unit cost of $6,341 per service line. For 2022, Liberty Park Water estimates the Mesa Crest Replacement Service Installation cost at $31,703.

- TDAV – Air Release and Vacuum Stations: Air release and vacuum valves are an integral part of our Mesa Crest water system to remove air and let air into our

water mains. Air vacuum and release valves allow the release of trapped air collected at high points of pipelines. The air pockets negatively affect the water system by reducing flow capacity and contributing to water hammer. Air release and vacuum valves also let air into pipelines to facilitate draining and to avoid issues with vacuum during water main breaks. A lack of adequate air vacuum and release valves functioning properly can be a contributing factor in pipeline failures. Additionally, air release and vacuum valves that have reached the end of their useful life or not installed in compliance with our current standards need to be replaced.

For budgeting purposes, Liberty Park Water projects that two (2) air release vacuum stations will be installed or replaced each year. The estimated unit costs summarized in the work papers are based on 2020 average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2022 replacement unit cost of $7,703 each. For 2022, Liberty Park Water expects to replace two stations at a project cost of $15,406.

- TDMS – Water System Blow-Offs: Some of Liberty Park Water Mesa Crest's customers are provided water service though dead-end water mains, which are typically located in cul-de-sacs (where looping of water mains is not feasible) and terminate into a blow-off. These blow-offs are similar to a large water service and allow water to escape from the water main at a controlled velocity to clear debris and sediment from the water main. This allows Liberty Park Water to maintain quality water service for these affected customers. These dead-end water mains are regularly flushed through the blow-offs.

  During its routine dead-end flushing program, Liberty Park Water has found that many of the Mesa Crest blow-offs were buried under pavement or broken. These blow-offs are an important part of the water system and this situation must be addressed via replacements. The estimated unit costs for a blow-off replacement summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2022 average new installation unit cost of $6,050

each. For 2022, Liberty Park Water plans to replace seven (7) of these blow-offs for a total estimated project cost of $42,348.

- MCMT-1**:** Small Meter Replacement: Liberty Park Water will continue to replace Mesa Crest meters to keep up with meter aging and battery failure rates. The detailed small meter replacement schedule and associated costs contained in the work papers are summarized for 2022 as follows: 20 of the 5/8" meters; 20 of the 1" meters; 5 of the 1-1/2" meters; and 5 of the 2" meters. The total costs for small meter replacement in 2022 is $20,614.
- MCPE-2: Electrical Motor Control Center Replacement at Booster Pump Stations: This will continue the replacement of the Electrical Motor Control Centers (MCC) at the booster pump sites. For 2022, the second MCC will be replaced at an estimated cost of $358,050.
- MCPE-4: Miscellaneous Control Valves and Piping Improvements: This will continue the replacement of various valves and piping between valves at the booster pump station sites. For 2022, we are estimating the cost for this category at $47,357.
- MCWI-5: Covers for pumps at Meadow View and Starlight Sites: At the Mesa Crest Meadow View and Starlight sites, the booster pumps are uncovered and exposed to the elements. This is not ideal because being exposed to the elements causes erosion, wear and tear, and a shortening of the useful life of the booster pumps. This project will construct a roof over each of the two booster pump station to cover and protect the pumps. For 2022, this project is estimated to cost $75,613.
- MCWT-1: Chlorine Residual Analyzer at Forest Green Site: At the Mesa Crest Forest Green site, this project will install a chlorine residual analyzer and connections to the Supervisory Control and Data Acquisition (SCADA) to report on the chlorine residual being provided to the customers fed from this site. Staff monitors this manually at the site and there have been occasions where the chlorine residual is not sufficient. Having this analyzer and reporting the results to the SCADA system will allow an alarm condition to be sent to the Operator on-call who can quickly take care of this undesirable situation and continue to

maintain a safe and quality source of water supply to our customers. For 2022, this project is estimated to cost $64,311.

- MCSC-1: Miscellaneous SCADA improvements: Liberty Park Water plans to replace various electronic parts of our Mesa Crest SCADA systems, including programmable logic controllers ("PLCs," which are site specific computerized controllers), radios, power supplies, and various field devices, batteries, uninterruptible power supply ("UPS") units, switches, and voltage converters. For 2022, we are estimating this cost at $5,115.

E. 2023 CAPITAL IMPROVEMENTS

1. Water Main

As discussed above, Liberty Park Water will continue its main replacement program in 2023. The following is a description of the planned water main installation projects for 2023. For additional details about these projects, please refer to the copies of the referenced reports, project estimates, and project alignments included in the work papers for water main replacements. [WP Section 6 – Mains]

a) New Water Mains

There are no new water main installations for year 2023.

b) Water Main Replacements

(1) CBMR-8. Alondra-Aprilia: $1,890,971

This project in Liberty Park Water's Compton West Water System will install 2,100 linear feet of 12-inch diameter water main, 2,320 linear feet of 8-inch diameter water main, 124 x 1-inch services and ten (10) fire hydrants. This project will replace aging 4-inch, 6-inch, 8-inch, and 12-inch diameter cast iron mains that were installed in 1950 and which have recently had eleven leaks. Some of the replacement mains will be installed in the street right-of-way and reduce the potential of property damage if a main break were to occur. The addition of fire hydrants along the street right-of-way will bring spacing standards up to current standards. There will also be an associated cost of removal for the installation of house lines.

This project has been identified as a priority for replacement of existing aged and undersized water mains for 2023. The cost for this replacement main project is estimated at $1,890,971 for 0.84 miles of pipeline.

25. Vehicle Replacements: $141,599

As discussed, Liberty Park Water continues its vehicle maintenance program to keep its fleet in top operation and safe working condition. Liberty Park Water will replace the following vehicle with a Ford F-350 utility truck at a purchase price of $72,396:

- Unit No. 28 - a Ford F-250 utility truck that was purchased in 2007 with a 2023 year-end mileage projection of 152,899.

Liberty Park Water will also replace the following vehicle with a Ford F-150 utility truck at a purchase price of $37,776;

- Unit No. 17 - a Ford F-150 truck that was purchased in 2012 with a 2023 year-end mileage projection of 129,762.

In addition, Liberty Park Water will continue to replace miscellaneous transportation items. The estimated unit costs summarized in the work papers are based on 2020 average unit costs that have been escalated by a 5-year average Construction Cost Index to 2023 replacement unit costs for these vehicle replacements. For 2023, the total cost for this category is $141,599.

26. Cost of Removals: $257,732

Liberty Park Water will remove miscellaneous production items, galvanized and plastic service lines, and various other equipment, water mains, and other miscellaneous company items. These items have reached the end of their useful life and are no longer functional. This category also includes the installation of house lines for the water main projects discussed above. These house lines will connect customers to the relocated water meters. For 2023, the cost of removal category is estimated at $257,732. The specific projects in this category (and related cost estimate) are listed below.

- CBCOR-6: Alondra - Aprilia: This project will install 44 houseline customer reconnections at a projected cost of $257,732.

27. Mesa Crest Water System Budget: $1,733,017

Liberty Park Water plans to continue making Mesa Crest water system improvements in 2023 as discussed below. Copies of supporting documents for each of these projects are included in the work papers.

- MCTK-6: Forest Green Tank 2 Seismic Connection: This project will install a flexible seismic connections on the outlet of Tank 2 at the Mesa Crest's Forest Green site. This tank does not presently have this type of connection. In a seismic

event the outlet piping could be torn away from the tank, resulting in an uncontrolled discharge of water from the tank and potentially causing significant erosion to the site and property damage to adjacent residents. For 2023, this project is estimated to cost $100,477.

- MCTK-11: Meadow View Tank Level Sensor Installation: The level sensors at the Mesa Crest Meadow View site have reached the end of their useful life and need to be replaced. This is a critical component in operating the reservoir to ensure that the reservoirs do not overflow, which could result in an uncontrolled discharge of water from the tank and potentially cause significant erosion to the site and property damage to adjacent residents. For 2023, this project is estimated to cost $36,884.
- TDMR – Consultant Engineering: Liberty Park Water utilizes engineering consultants to provide design and engineering services on various capital improvement projects. With the complex nature of regulatory planning and the lack of internal resources to complete these designs in a timely manner, it is more cost effective to utilize design specialists with experience working in a multi-jurisdictional area. These consultants have worked with the various cities and agencies in Liberty Park Water's service area and are able to guide project designs to timely approval. Utilizing these consultants allows Liberty Park Water staff to focus on its area of expertise, namely, project planning and management and meeting approved capital budgets. For 2023, we are estimating that consultant engineering will cost $53,530.
- TDVR – Emergency Main Replacement: Liberty Park Water seeks $52,326 in 2023 for replacement of Mesa Crest water mains during an unplanned event such as a water main break. Emergency main replacements are small, non-engineered replacements that are unavoidable, necessary and performed on an as-needed basis, which are an important aspect of operations. These main replacements occur when a water main leak is too large to make a normal repair with a clamp. The section of main is removed and replaced to prevent future property damage, reduce additional service interruptions for the surrounding area and help the integrity of our water quality.

- TDVR – Replacement Valves: Liberty Park Water has 253 valves in its Mesa Crest water system. Liberty Park Water exercises its fire hydrant valves and the water system valves in accordance with the Commission's General Order ("GO") 103-A. Having an active valve exercise program is key to maintaining a safe and reliable water system. Fully functioning valves minimize service interruptions and damage due to leaks. Liberty Park Water's exercise program helps identify irreparable valves that must be replaced.

  As shown in the work papers, Liberty Park Water is proposing replacing eight (8) valves per year in Mesa Crest. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2023 average replacement unit cost of $9,437 per valve. For 2023, the estimated cost for Valve Replacements is $75,498.

- TDHR – Replacement Hydrants: Liberty Park Water has 79 fire hydrants in its Mesa Crest water systems, each of which is exercised at least once every three years. This exercise program identifies irreparable hydrants that must be replaced. Liberty Park Water also runs hydraulic analyses of local water service areas to determine adequate fire flow availability.

  As shown in the work papers, Liberty Park Water has been is proposing replacing eight (8) fire hydrants per year. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2023 average replacement unit cost of $14,214 per hydrant. For 2023, the estimated costs for Fire Hydrant Replacements is $113,713.

- TDSR – Replacement Water Services Lines: Liberty Park Water will continue to replace Mesa Crest's galvanized and plastic services lines that are old and prone to failure. Liberty Park Water is estimating the replacement of five (5) services per year in Mesa Crest. These must be replaced to minimize interruptions to customers, minimize property damage during leaks and maintain water system operability.

The estimated replacement water service installation unit costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2023 average replacement water service unit cost of $6,486 per service line. For 2023, Liberty Park Water estimates the Mesa Crest Replacement Service Installation cost at $32,433.

- TDAV – Air Release and Vacuum Stations: Air release and vacuum valves are an integral part of our Mesa Crest water system to remove air and let air into our water mains. Air vacuum and release valves allow the release of trapped air collected at high points of pipelines. The air pockets negatively affect the water system by reducing flow capacity and contributing to water hammer. Air release and vacuum valves also let air into pipelines to facilitate draining and to avoid issues with vacuum during water main breaks. A lack of adequate air vacuum and release valves functioning properly can be a contributing factor in pipeline failures. Additionally, air release and vacuum valves that have reached the end of their useful life or not installed in compliance with our current standards need to be replaced.

  For budgeting purposes, Liberty Park Water projects that two (2) air release vacuum stations will be installed or replaced each year. The estimated unit costs summarized in the work papers are based on 2020 average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2023 replacement unit cost of $7,880 each. For 2023, Liberty Park Water expects to replace two stations at a project cost of $15,761.

- MCMT-1**:** Small Meter Replacement: Liberty Park Water will continue to replace Mesa Crest meters to keep up with meter aging and battery failure rates. The detailed small meter replacement schedule and associated costs contained in the work papers are summarized for 2023 as follows: 20 of the 5/8” meters; 20 of the 1” meters; 5 of the 1-1/2” meters; and 5 of the 2” meters. The total costs for small meter replacement in 2023 is $20,977.

- MCPE-2: Electrical Motor Control Center Replacement at Booster Pump Stations: This will continue the replacement of the Electrical Motor Control

Centers (MCC) at the booster pump sites. For 2023, the third MCC will be replaced at an estimated cost of $366,680.

- MCPE-5: Starlight Crest Inlet Manifold: This existing inlet manifold was not adequately maintained to prevent corrosion by the previous owner of the Mesa Crest water system. Liberty Park Water has had to install leak repair clamps on sections of this manifold and believes it is necessary to replace this manifold in its entirety. Failure to replace this section of piping could result in an uncontrolled discharge of water from the reservoir, potentially leading to site erosion and property damage to company facilities and that of adjacent property owners. For 2023, we are estimating the cost for this replacement at $135,164.
- MCWI-3: Drainage at Forest Green Site: At the Mesa Crest Forest Green site, the property needs to be graded to prevent nuisance water build-up from rain sprinklers, etc. from ponding and sitting up against the side wall of one of the sites two reservoirs. This grading is required to prevent possible corrosion of the tank side-wall and will minimize mosquito breeding areas. For 2023, this project is estimated to cost $88,915.
- MCWI-4: Forest Green Site Piping Replacement: At the Mesa Crest Forest Green site, the two reservoir tanks are interconnected. This piping was not adequately maintained to prevent corrosion by the previous owner of the Mesa Crest water system. Liberty Park Water has had to install leak repair clamps on sections of this piping at other Mesa Crest sites and believes it is necessary to replace this piping in its entirety. Failure to replace this section of piping could result in an uncontrolled discharge of water from the reservoir, potentially leading to site erosion and property damage to company facilities and that of adjacent property owners. For 2023, we are estimating the cost for this replacement at $135,164.
- MCWI-6: Pave Meadow View Site: All of the Mesa Crest Reservoirs are tucked into lots that are mostly cut into the hillsides resulting in these sites sitting below the paved public roadway. Access to these sites from the public streets are via a downward graded unpaved access ways. These are very problematic for company and contractor vehicle access to the pump and tank facilities at certain times of the year. Our trucks, portable emergency generators, other trailer equipment/supplies

and contractor vehicles are quite heavy. During the "wet" season, the vehicles and equipment are unable to traverse the soggy and muddy terrain. This is not only a safety issue for personnel, but also a hindrance to perform our work in a timely manner. Thus, we are proposing to pave the Meadow View Reservoir site to improve access to the booster pump station and the tank for our company and contractor vehicles and equipment. For 2023, we estimate that this project will cost $192,977.

- MCSC-1: Miscellaneous SCADA improvements: Liberty Park Water plans to replace various electronic parts of our Mesa Crest SCADA systems, including programmable logic controllers ("PLCs," which are site specific computerized controllers), radios, power supplies, and various field devices, batteries, uninterruptible power supply ("UPS") units, switches, and voltage converters. For 2023, we are estimating this cost at $5,233.

F. 2024 CAPITAL IMPROVEMENTS

1. Water Main

As discussed above, Liberty Park Water will continue its main replacement program in 2024. The following is a description of the planned water main installation projects for 2024. For additional details about these projects, please refer to the copies of the referenced reports, project estimates, and project alignments included in the work papers for water main replacements. [WP Section 6 – Mains]

a) New Water Mains

There are no new water main installations for year 2024.

b) Water Main Replacements

(1) CBMR-7. Excelsior – Crossdale to Gridley $1,023,218

This project in Liberty Park Water's Bellflower-Norwalk Water System will install 2,010 linear feet of 12-inch ductile iron water main. This project will continue an east-west water transmission main that will improve pressure and fire flow capability in the local area. Running Liberty Park Water's hydraulic model with this proposed improvement showed an increase of about 3% in fire flow capacity. This work is estimated at $1,023,218.

26. <u>Mesa Crest Water System Budget: $1,762,851</u>

Liberty Park Water plans to continue making Mesa Crest water system improvements in 2024 as discussed below. Copies of supporting documents for each of these projects are included in the work papers.

- MCTK-8: Starlight Tank Seismic Connection: This project will install a flexible seismic connections on the outlet of the tank at the Mesa Crest's Starlight reservoir site. This tank does not presently have this type of connection. In a seismic event the outlet piping could be torn away from the tanks resulting in an uncontrolled discharge of water from the tank and potentially causing significant erosion to the site and property damage to adjacent residents. For 2024, this project is estimated to cost $102,788.
- MCMR-1: Redwillow to Meadow View Water Main Replacement: This project will install 830 linear feet of 12" diameter mortar lined and coated standard steel pipe from Redwillow Lane to the Meadow View reservoir site. It will replace an existing 8" diameter asbestos concrete water main that was installed in 1961. This main is reaching the end of its useful life. This replacement main will be installed in an existing easement area and will improve water system pressure and fire flow availability in the local area. This project will start in 2024 and will be completed in 2025. For 2024, we are estimating that this project will cost $650,000.
- TDVR – Emergency Main Replacement: Liberty Park Water seeks $53,530 in 2024 for replacement of Mesa Crest water mains during an unplanned event such as a water main break. Emergency main replacements are small, non-engineered replacements that are unavoidable, necessary and performed on an as-needed basis, which are an important aspect of operations. These main replacements occur when a water main leak is too large to make a normal repair with a clamp. The section of main is removed and replaced to prevent future property damage, reduce additional service interruptions for the surrounding area and help the integrity of our water quality.
- TDVR – Replacement Valves: Liberty Park Water has 253 valves in its Mesa Crest water system. Liberty Park Water exercises its fire hydrant valves and the water system valves in accordance with the Commission's General Order ("GO")

103-A. Having an active valve exercise program is key to maintaining a safe and reliable water system. Fully functioning valves minimize service interruptions and damage due to leaks. Liberty Park Water's exercise program helps identify irreparable valves that must be replaced.

As shown in the work papers, Liberty Park Water is proposing replacing eight (8) valves per year in Mesa Crest. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2024 average replacement unit cost of $9,654 per valve. For 2024, the estimated cost for Valve Replacements is $77,234.

- TDHR – Replacement Hydrants: Liberty Park Water has 79 fire hydrants in its Mesa Crest water systems, each of which is exercised at least once every three years. This exercise program identifies irreparable hydrants that must be replaced. Liberty Park Water also runs hydraulic analyses of local water service areas to determine adequate fire flow availability.

  As shown in the work papers, Liberty Park Water is proposing replacing eight (8) fire hydrants per year. The estimated unit replacement costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2024 average replacement unit cost of $14,540 per hydrant. For 2024, the estimated costs for Fire Hydrant Replacements is $116,328.

- TDSR – Replacement Water Services Lines: Liberty Park Water will continue to replace Mesa Crest's galvanized and plastic services lines that are old and prone to failure. Liberty Park Water is estimating the replacement of five (5) services per year in Mesa Crest. These must be replaced to minimize interruptions to customers, minimize property damage during leaks and maintain water system operability.

  The estimated replacement water service installation unit costs summarized in the work papers are based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2024 average replacement water service unit cost of $6,635 per service line. For 2024,

Liberty Park Water estimates the Mesa Crest Replacement Service Installation cost at $33,179.

- TDAV – Air Release and Vacuum Stations: Air release and vacuum valves are an integral part of our Mesa Crest water system to remove air and let air into our water mains. Air vacuum and release valves allow the release of trapped air collected at high points of pipelines. The air pockets negatively affect the water system by reducing flow capacity and contributing to water hammer. Air release and vacuum valves also let air into pipelines to facilitate draining and to avoid issues with vacuum during water main breaks. A lack of adequate air vacuum and release valves functioning properly can be a contributing factor in pipeline failures. Additionally, air release and vacuum valves that have reached the end of their useful life or not installed in compliance with our current standards need to be replaced.

  For budgeting purposes, Liberty Park Water projects that two (2) air release vacuum stations will be installed or replaced each year. The estimated unit costs summarized in the work papers are based on 2020 average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2024 replacement unit cost of $8,061 each. For 2023, Liberty Park Water expects to replace two stations at a project cost of $16,123.

- MCMT-1**:** Small Meter Replacement: Liberty Park Water will continue to replace Mesa Crest meters to keep up with meter aging and battery failure rates. The detailed small meter replacement schedule and associated costs contained in the work papers are summarized for 2024 as follows: 20 of the 5/8” meters; 20 of the 1” meters; 5 of the 1-1/2” meters; and 5 of the 2” meters. The total costs for small meter replacement in 2024 is $21,573.
- MCPE-2: Electrical Motor Control Center Replacement at Booster Pump Stations: This will complete the replacement of the Electrical Motor Control Centers (MCC) at the booster pump sites. For 2024, the fourth and last MCC will be replaced at an estimated cost of $374,710.
- MCPE-9: Install Flow Meters at Reservoir Sites: This project will install flow meters at the Mesa Crest Meadow View, Starlight, and Forest Green Reservoir

sites. Currently no flow meters are installed at the three reservoir sites. This is problematic because our operations staff do not have real-time knowledge of what is occurring at each site in regard to water being provided from each site. At this time the operators must rely on adjacent property owners, their own visual cues, or the master flow meter that is installed at the sole source feeding the water system. To properly manage the water system and to prevent unnecessary property damage to company sites or adjacent property owners, we believe water meters should be installed and connected to the SCADA system to provide real-time alarm notification to the on-call operator if the water system is operating outside of the designated Company parameters. For 2024, we are estimating the cost for this project at $138,273.

- MCWI-6: Pave Starlight Site: All of the Mesa Crest Reservoirs are tucked into lots that are mostly cut into the hillsides resulting in these sites sitting below the paved public roadway. Access to these sites from the public streets are via a downward graded unpaved access ways. These are very problematic for company and contractor vehicle access to the pump and tank facilities at certain times of the year. Our trucks, portable emergency generators, other trailer equipment/supplies and contractor vehicles are quite heavy. During the "wet" season, the vehicles and equipment are unable to traverse the soggy and muddy terrain. This is not only a safety issue for personnel, but also a hindrance to perform our work in a timely manner. Thus, we are proposing to pave the Starlight Reservoir site to improve access to the booster pump station and the tank for our company and contractor vehicles and equipment. For 2024, we estimate that this project will cost $173,759.
- MCSC-1: Miscellaneous SCADA improvements: Liberty Park Water plans to replace various electronic parts of our Mesa Crest SCADA systems, including programmable logic controllers ("PLCs," which are site specific computerized controllers), radios, power supplies, and various field devices, batteries, uninterruptible power supply ("UPS") units, switches, and voltage converters. For 2024, we are estimating this cost at $5,353.

Attachment 1-6:
A.21-07-003 et al., AVR's Exhibit B Excerpt

LIBERTY UTILITIES
(APPLE VALLEY RANCHOS WATER) CORP.

REVENUE REQUIREMENTS REPORT
TEST YEAR 2022

APPLICATION NO. _____

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based on 2020 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2023 average new installation unit cost of $1,627 each. For 2023, Liberty Apple Valley plans to replace one (1) blow-off for a total estimated project cost of $1,627.

11. Small Meter Replacement: $761,223

As discussed above, Liberty Apple Valley is continuing to replace meters at an aggressive rate. The detailed small meter replacement schedule and associated costs contained in the workpapers are summarized for 2023 as follows: 2,531 of the 5/8" meters; 106 of the 1" meters; 14 of the 1-1/2" meters; and 7 of the 2" meters. The total costs for small meter replacements in 2023 is $761,223.

12. Large Meter Replacements: $29,613

As previously discussed, Liberty Apple Valley will continue to replace its large water meters (greater than 2-inch). The detailed large meter replacement schedule and associated costs contained in the workpapers are summarized for 2023 as follows: 1 of the 3" meters; 3 of the 4" meters and 1 of the 6" meters. Replacement cost is based on a 2019 vendor quote for costs for 3-inch to 8-inch meters, plus strainers. For 2023, the estimated cost for large meter replacements is $29,613.

13. Pumping and Motor Equipment: $168,321

As previously discussed, Liberty Apple Valley will continue to replace various pumping equipment that are prone to failure, including deep well vertical turbine pumps, motors, motor controllers, and pump control valves. In addition to the scheduled pump replacements, all failures at a well site or booster pump site are assessed and scheduled for needed repairs. For 2023, Liberty Apple Valley has allocated $168,321 for miscellaneous pump and motor replacements.

14. Miscellaneous Well Site and Structure Improvements: $1,198,561

As previously discussed, Liberty Apple Valley regularly makes various site improvements to its well sites. These improvements include adding road base to the sites to improve vehicle access and minimize dust and weed abatement costs, fencing improvements, roof upgrades and necessary structural repairs of pump and generator buildings, and the addition or replacement of equipment cooling systems. Liberty Apple Valley will continue improving various site and structures prone to such failure. Liberty Apple Valley has budgeted $42,751 in

2023 for miscellaneous well site and structure improvements.

Liberty Apple Valley will fine grade, compact the native soil and apply 70,000 square foot of Class 2 aggregate base material to the Mockingbird Tank site. Placing aggregate base property will eliminate weeds, conserve water, eradicate dust, and promote a more permanent ground cover over native soil. Liberty Apple Valley has budgeted $75,440 in 2023 for this site improvement.

Liberty Apple Valley will be updating the archaic and outdated electrical systems, discharge piping and equipment, disinfection system, and entry gates at Well 18. This deep well pump currently does not have an enclosure. In response to noise complaints from customers, a new block enclosure will be built to provide sound abatement and protection for the equipment. This will help ensure that Well 18 will continue to be an important groundwater sources for the Liberty Apple Valley water system. This is a reliable well and by installing a new building, disinfection equipment, discharge piping and equipment, electrical upgrades and entry gates, Liberty Apple Valley will continue to be able to use this reliable groundwater source, well into the future. This work for Well 18 is estimated to cost $1,080,370 in 2023.

Thus, the total for this project category in 2023 is estimated at $1,198,561.

15. Water Treatment: $107,762

As previously discussed, Liberty Apple Valley will continue replacing various water treatment and disinfection systems and components. Liberty Apple Valley estimates spending $107,762 for miscellaneous water treatment equipment in 2023.

Thus, the total for this project category in 2023 is estimated at $107,762.

16. Supervisory Control and Data Acquisition (SCADA): $121,833

As previously discussed, Liberty Apple Valley plans to continue replacing various electronic parts that operate within its SCADA systems, including cameras, SCADA panel equipment, field devices such as pressure or pressure transducers, and various communication equipment that fail and require replacement. Therefore, Liberty Apple Valley is budgeting $121,833 for SCADA and miscellaneous security equipment in 2023.

17. Communication Equipment Replacements: $7,300

As previously discussed, Liberty Apple Valley will continue to purchase new communication equipment and replace old communication equipment. Liberty Apple Valley estimates costs of $7,300 in 2023 for this category.

failures at a well site or booster pump site are assessed and scheduled for needed repairs. For 2024, Liberty Apple Valley has allocated $172,967 for miscellaneous pump and motor replacements.

15. Miscellaneous Well Site and Structure Improvements: $1,294,736

As previously discussed, Liberty Apple Valley regularly makes various site improvements to its well sites. These improvements include adding road base to the sites to improve vehicle access and minimize dust and weed abatement costs, fencing improvements, roof upgrades and necessary structural repairs of pump and generator buildings, and the addition or replacement of equipment cooling systems. Liberty Apple Valley will continue improving various site and structures prone to such failure. Liberty Apple Valley has budgeted $43,931 in 2024 for miscellaneous well site and structure improvements.

Liberty Apple Valley will be updating the archaic and outdated electrical systems at Well 19. This project includes replacing the motor control center, soft starter, breakers, transfer switch, light fixtures, switches and receptacles. This will help ensure that Well 19 will continue to be important groundwater source for the Liberty Apple Valley water system. This is a reliable well and by installing these electrical upgrades, Liberty Apple Valley will continue to be able to use this reliable groundwater source, well into the future. This work for Well 19 is estimated to cost $140,617 each in 2024.

Liberty Apple Valley will be updating the archaic and outdated electrical systems, discharge piping and equipment, disinfection system, and entry gates at Well 17R. This deep well pump currently does not have an enclosure at this well site. In response to noise complaints from customers, a new block enclosure will be built to provide sound abatement and protection for the equipment. This will help ensure that Well 17R will continue to be an important groundwater source for the Liberty Apple Valley water system. This is a reliable well and by installing a new building, disinfection equipment, discharge piping and equipment, electrical upgrades and entry gates, Liberty Apple Valley will continue to be able to use this reliable groundwater source, well into the future. This work for Well 17R is estimated to cost $1,110,189 in 2024.

Thus, the total for this project category in 2024 is estimated at $1,294,736.

16. Water Treatment: $279,017

As previously discussed, Liberty Apple Valley will install a new Accutab disinfection

Attachment 1-7:
A.18-01-003, Park's Exhibit B Excerpt

LIBERTY PARK WATER

REVENUE REQUIREMENT REPORT

TEST YEAR 2019

APPLICATION NO._____

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average Construction Cost Index to a 2018 replacement unit cost of $4,789 each. For 2018, Park expects to replace one station at a project cost of $4,800. [WP Section 6 – Escalation]

10. Water System Blow-Offs - $22,000

Some of Liberty Park Water's customers are provided water service though dead-end water mains, which are typically located in cul-de-sacs (where looping of water mains is not feasible) and terminate into a blow-off. These blow-offs are similar to a large water service and allow water to escape from the water main at a controlled velocity to clear debris and sediment from the water main. This allows Liberty Park Water to maintain quality water service for these affected customers. These dead-end water mains are regularly flushed through the approximately 69 blow-offs located throughout Liberty Park Water's water systems.

During its routine dead-end flushing program, Liberty Park Water found that many of its blow-offs were buried under pavement or broken. These blow-offs are an important part of the water system and this situation must be addressed via replacements. The estimated unit costs for a blow-off replacement summarized in the workpapers are based on 2017 normalized average unit costs that have been escalated by a 5-year average Construction Cost Index to a 2018 average new installation unit cost of $3,667 each. For 2018, Liberty Park Water plans to replace six (6) of these blow-offs for a total estimated project cost of $22,000. [WP Section 6 – Escalation]

11. AMI and Small Meter Replacement: $1,248,900

Liberty Park Water has completed the installation of Automated Meter Reading ("AMR") equipped meters throughout its water system, with the exception of a few large and problematic meters. The older AMR meters are now in need of replacement due to aged meters and battery failure. Battery failure greatly increases the labor involved with meter reading because it requires meter readers to visually read meters, many of which are located in hard to access back yards. Liberty Park Water is continuing to replace meters at a fairly aggressive rate to keep up with meter aging and battery failure rates.

Consistent with Commission policy and advances in the industry, Liberty Park Water plans to implement Advanced Metering Infrastructure ("AMI"). AMI technology has matured to the point where an AMI system can cost effectively provide customer benefits and new capabilities that will raise the level of service and promote water conservation. AMI provides for daily collection of customer usage data via a communications system and a meter data

management ("MDM") system, without the need for meter readers to either manually read meters or drive around to collect AMR reads. Meter data is automatically collected at the office for use in billing and analysis. One feature of this type of system is that customers can use a customer portal to view the customer's usage on an hourly, daily or monthly basis. AMI systems can also detect leaks and send out an alert regarding the leak. Features like this provide timely information so that repairs and adjustments in water usage can be quickly accomplished to avoid wasted water and unexpected high bills while promoting conservation.

Liberty Park Water has engaged an industry expert consultant to conduct an analysis of the costs and benefits of AMI for both the Liberty Park Water system and that of its affiliate, Liberty Utilities (Apple Valley Ranchos Water) Corp. ("Liberty Apple Valley") and to provide recommendations on how to implement AMI at each water system. The expert's report is included with the workpapers and supports Liberty Park Water's decision to move forward with the implementation of AMI. The implementation of AMI is planned for 2019 and 2020. The network and IT costs are included in the General Plant section of the budget, which consists of $486,700 in each of 2019 and 2020. One-third of the total cost is to build the radio-based data collection network, with the remainder going towards the implementation of a hosted MDM system and associated IT infrastructure and interfaces. These costs are estimates based on detailed information provided by the expert.

Due to aging meters and ongoing battery failures, Liberty Park Water must replace meters at an aggressive rate. This replacement rate warrants the prompt implementation of AMI because the meters can be replaced with those supporting both AMR and AMI communications. The detailed small meter replacement schedule and associated costs contained in the workpapers are summarized for 2018 as follows: 4351 of the 5/8" meters; 75 of the 1" meters; 61 of the 1-1/2" meters; and 84 of the 2" meters. The total costs for small meter replacement in 2018 is $1,248,900. [WP Section 6 – Escalation]

12. <u>Large Meter Replacements: $24,600</u>

Liberty Park Water will continue to replace its large water meters (greater than 2-inch) for large volume customers. Accurate meters are necessary to help ensure water bills properly reflect actual water usage. Through experience, Liberty Park Water has found that the accuracy of these large meters begins to diminish after 20 years of service. Moreover, replacement parts are difficult to obtain and install at a reasonable cost. Liberty Park Water will be replacing large

Attachment 1-8:
Dialog 3G-DS Register Warranty

DIALOG® 3G-DS Component Warranty

DIALOG 3G-DS registers and external transmitters (herein know as "product") are warranted to be free from defects in materials and workmanship for Ten (10) years from date of shipment by Master Meter and at a prorated replacement cost of list price during the following Ten (10) years based on the discounted rate value listing below.

All other 3G-DS System components are warranted to be free from defects in materials and workmanship for One (1) year from date of shipment by Master Meter.

If a product fails to perform as warranted, Master Meter will repair or replace the product, at Master Meter's sole option, at no charge to the customer, subject to the terms of the warranty. This warranty shall not be applicable to products that have been damaged by willful misconduct, negligence, vandalism, act of God, exposure to adverse service conditions or improper installation, use or repair.

Master Meter's liability under this warranty is expressly limited to repair or replacement of the product, at Master Meter's option. The repaired or replacement product will maintain the original meter's warranty based on the original purchase date. The customer must pay for freight cost of the returned product or products to the factory or service center designated by Master Meter. The product replaced becomes the property of Master Meter.

Master Meter further warrants that any 3G register or external transmitter installed shall be free from battery defects in manufacturing and design for a period of ten (10) years from the date of shipment in the relevant DIALOG 3G-DS product (such period is defined as the "Battery Warranty Period"). Master Meter will repair or replace a product that is non-performing due to battery failure free of charge for the first Ten (10) years and at a prorated replacement cost based on the current list price during the remaining Ten (10) years as follows:

Year of Failure	Replacement Cost
1-10	Full Replacement
11	30%
12	35%
13	40%
14	45%
15	50%
16	55%
17	60%
18	65%
19	70%
20	75%

MASTER METER

DISCOUNT PERCENTAGES WILL BE APPLIED AGAINST PUBLISHED LIST PRICES IN EFFECT AT THE TIME THE PRODUCT IS ACCEPTED BY MASTER METER UNDER WARRANTY CONDITIONS. THE WARRANTIES CONTAINED ABOVE HEREOF ARE THE ONLY WARRANTIES WITH RESPECT TO THE LISTED PRODUCTS, AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, BETWEEN THE PARTIES OR ARISING BY LAW. IN PARTICULAR, MASTER METER DISCLAIMS ANY AND ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THESE WARRANTIES SHALL BE VOID IN THE EVENT THAT THE FAILURE OR DEFECT IN THE LISTED PRODUCT HAS ARISEN AS A RESULT OF THE PRODUCT BEING USED FOR ANY PURPOSE OTHER THAN THAT WHICH WAS INTENDED AND APPROPRIATE AT THE TIME OF MANUFACTURE INCLUDING USE IN A CONFIGURATION OTHER THAN AS RECOMMENDED BY MASTER METER OR AS A RESULT OF IMPROPER INSTALLATION OR MAINTENANCE. MASTER METER'S LIABILITY SHALL IN NO EVENT EXCEED THE PURCHASE PRICE. MASTER METER SHALL NOT BE SUBJECT TO AND DISCLAIMS THE FOLLOWING: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY MASTER METER, OR ANY UNDERTAKINGS, ACT OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL, SPECIAL, MULTIPLE, EXEMPLARY, AND PUNITIVE DAMAGES WHATSOEVER.

Attachment 1-9:
A.21-07-003 et al., Park's Response to DR AA9-10

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711
Fax: 562-861-5902

December 22, 2021

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.

A.21-07-004

2022-2024 General Rate Case

Data Request No.: AA9-10 (Plant Meters)

Requesting Party: Public Advocates Office

Originator: Cortney Sorensen Cortney.Sorensen@cpuc.ca.gov
Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Daniel Zarchy Daniel.Zarchy@cpuc.ca.gov

Date Received: December 15, 2021

Due Date: December 22, 2021

REQUEST NO. 1:

For each meter size in Liberty (Park)'s Central Basin division, provide the quantity and total cost for meters that Liberty (Park) installed in years 2018, 2019, and 2020.

RESPONSE:

	2018		2019		2020	
Size	Qty	Cost	Qty	Cost	Qty	Cost
1"	176	$78,461.62	200	$120,207.00	100	$75,747.00
2"	84	$48,766.79	85	$70,361.01	50	$34,300.67
3"	2	$4,265.74	9	$18,290.16	6	$14,381.67
4"	4	$11,189.06	7	$20,695.29	6	$18,792.04
6"	2	$7,836.72				
1 1/2"	61	$27,337.37	60	$38,340.00		
5/8"	5000	$1,018,223.67	641	$390,998.64	2600	$714,700.89
Grand Total	**5329**	**$1,196,080.97**	**1002**	**$658,892.10**	**2762**	**$857,922.27**

This completes the response to Data Request No. AA9-10. If you have any questions, or require additional information, please contact me.

Very truly yours,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachment 1-10:

Park's Response to DR 040-AA

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

May 22, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	040-AA (Park Wells Treatment and Other Plant)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Date Received:	May 15, 2024
Due Date:	May 22, 2024

REQUEST NO. 1:

In its Workpapers, pages 8-2 and 8-4, Liberty (Park) categorizes its Utility Plant-in-Service and Accumulated Depreciation balances by CPUC account number. Provide existing asset data for each of the following well sites in a Microsoft Excel file with a separate tab for each well site. The sites are:

a) Well 28B
b) Well 41A
c) Well 46C
d) Well 4B
e) Well 40D

f) Well 28D

g) Well 6E

h) Well 40B

Each tab should briefly describe the assets, such as land and improvements, at the well site, and identify the CPUC account number (e.g. 31000), the total value in Utility Plant-in-Service, and Accumulated Depreciation per asset as of January 1, 2024. Please make sure to include the value of any asset, including upgrades and rehabilitations, related to the well such as new and replacement variable frequency drives, motors, disinfection equipment, electrical equipment, and well buildings. The following table shows an example of the organization for the requested data.

Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)	Accumulated Depreciation ($)

RESPONSE:

Please see attachment prefaced Q1. The detailed depreciation on individual assets is not available. Depreciation is calculated on a group asset basis, rather than an individual asset assessment.

REQUEST NO. 2:

In Exhibit B, pages 90-93, Liberty (Park) states that it proposes to install a PFAS treatment system at Well 46C and begin design on a second PFAS treatment system at Well 41A. On page 92 of Exhibit B, Liberty (Park) states that it contracted Best Drilling to evaluate Well 46C and that Best Drilling "indicated that the well has sufficient life in it to last the viable life of the proposed treatment equipment."

a) Please identify the full name of the contractor known as "Best Drilling" and the professional services it provides.

b) Please provide documentation showing the results of Best Drilling's evaluation of Well 46C. Please include the entirety of Best Drilling's report as well as any other communications related to Well 46C.

c) Did Best Drilling or another contractor evaluate Well 41A in the same way Best Drilling evaluated Well 46C?

d) What is the viable life of the proposed treatment equipment for Well 46C and Well 41A?

e) Did Best Drilling also evaluate the cost of maintaining Well 46C for the duration of the viable life of the proposed treatment equipment? If so please provide those costs.

f) Provide a cost benefit analysis comparing the ratemaking cost of Liberty's proposed treatment at Well 46C to the alternative of continuing to purchase water.

Please account for ratemaking costs such as depreciation expense and rate of return along with the costs of maintaining Well 46C in the cost benefit analysis.

g) Provide documentation, such as consultant reports or contractor quotes, supporting the cost estimate for Liberty (Park)'s proposed PFAS treatment system at Well 46C.

h) Provide the site drawing for Well 41A.

i) What is the footprint of the PFAS removal system at Well 41A?

j) Explain how Liberty (Park) determined that it is feasible to fit a PFAS treatment system at Well 41A.

k) Has Liberty (Park) applied for alternate sources of funding for its PFAS treatment system, such as the Water Replenishment District of Southern California's (WRD) Remediation Program, the settlement between the U.S. public water suppliers and 3M Company, or federal and state government grant programs?

l) Identify all sources of funding that Liberty (Park) has applied for and the status of Liberty (Park)'s applications regarding PFAS treatment system funding.

RESPONSE:

a) Best Drilling & Pump is a licensed construction company that offers well drilling and pump services. It provides full-service water well drilling for water utilities. These tasks include the installation of the conductor and well casing, aquifer zone sampling, various production (aquifer) testing, and installation of the sanitary seal. In addition, the company provides well abandonment, well rehabilitation, and packer installation services. It also specializes in pump services, such as new pump installation, pump assessment and testing, and pump repair and removal.

b) Best Drilling gave a verbal opinion during discussions with Liberty based on its understanding of the condition of the well casing, which does not show indications of imminent failure.

c) Best Drilling, or another contractor, did not specifically study Well 41A for the purpose of rendering an opinion of how much longer the well is expected to last. It should be noted, however, that the Well 41A well casing is in a similar condition to the casing at Well 46C.

d) The life of the PFOS treatment equipment is estimated at 20 years to match the life used in account 332 for treatment equipment. There is, however, some electrical and mechanical equipment that will likely require replacement or repair within that timeframe. Those items include sensors with electronics, gaskets, valves and valve actuators. The design will have a focus on longevity, ease of maintenance, and the ability to be moved to another site if necessary.

e) Best Drilling did not evaluate the cost of maintaining Well 46C for the duration of the viable life of the proposed treatment equipment.

f) Please see the attachment with preface Q2f for the costs/benefits analysis. This compares the costs of treatment added at Well 46C, and the associated increase in pumped water, to the cost of continuing to use purchased water instead of adding the treatment. This shows savings of $3.4 million, $10.3 million, $21.6 million, and $39.3 million at year 5, 10, 15, and 20, respectively.

g) Attachments prefaced Q2g include the project cost estimate prepared by an engineering consultant in 2020 for PFAS treatment at Well 46C. This estimate includes bench testing, equipment and construction, and engineering design services. Also attached is the 2022 IX treatment system & media quote from a supplier. The cost estimate Liberty provided in the workpapers includes the 2022 quote for the IX treatment equipment and assembly and 2020 estimate for engineering design services. The 2020 estimates for bench testing and construction were adjusted to accommodate inflation and increases in labor and material since 2020. See cost estimate breakdown below:

Well 46C PFAS Treatment System	Cost Estimate	Reference
Engineering Design Service	$300,000	Consultant Estimate from 2020
Bench Testing	$125,000	Consultant Estimate from 2020 (increased)
Filter Equipment & Assembly	$729,000	Vendor Quote 2022
Construction - Site Work/Concrete Pads/Yard Piping/EI&C/Startup	$1,146,000	Consultant Quote from 2020 (increased)
Subtotal	$2,300,000	

h) The attachment prefaced Q2h - 040-AA provides the Well 41A site layout.

i) The footprint of the PFAS removal system at Well 41A will be very similar to the footprint of the Well 46C treatment system. Attached is the general assembly drawing of the IX treatment vessels at Well 46C provided by a water treatment supplier. This drawing was included in the Well 46C PFAS treatment proposal.

j) Liberty has determined it is feasible to fit the IX treatment system by relocating existing facilities at Well 41A. The chlorine shed and radio tower pole will be relocated near the entrance of the property to clear space at the west end of the property for the IX treatment system.

k) Liberty applied for the Water Replenishment District of Southern California's (WRD) Remediation Program. Liberty did not complete the application process because of objections to certain conditions proposed by WRD. Liberty is also in the process of obtaining the data necessary for filing claims in the DuPont and 3M settlements once the claims periods begin.

l) Liberty has not applied for any other sources of funding for PFAS treatment except the two items mentioned in response 2k above.

REQUEST NO. 3:

In Exhibit B, pages 80-81, Liberty (Park) states that it is continuing to replace meters at a rate to keep up with meter aging and battery failures. On page 80, Liberty (Park) states that it provides the detailed small meter replacement schedule, unit cost, and 2023 vendor quote for a 5/8-inch, 1-1/2-inch, and 2-inch meters. In its Workpapers, Section 6, page 6-2, Liberty (Park) shows a Construction Work in-Progress (CWIP) balance of $1,966,123 as of 2022 for Account number 346 Meters. On page 69 of Exhibit B, Liberty (Park) states that it will install new water meters as part of the Cliveden-Broadacres-Grandee main replacement project.

a) Please identify the Workpapers where Liberty (Park) provided the small meter replacement schedule, unit cost, and 2023 vendor quotes. If these Workpapers are not in the current GRC Application, or if the Workpapers were only provided in pdf format, provide them in a Microsoft Excel format.

b) How many total 5/8-inch meters are currently installed at Liberty (Park) Central Basin Division water systems as of January 1, 2024?

c) Explain why Liberty (Park) has a CWIP balance of $1,966,123 for the Account no. 346 Meters. Specify whether this CWIP balance includes the cost of a portion of the 5/8-in

AMR meters that Liberty (Park) installed from 2018 to 2023.

d) Provide the number of 5/8-inch Automated Meter Reading (AMR) meters that Liberty (Park) replaced each year from 2018 to 2023.

e) Did Liberty (Park) install any 5/8-inch AMR meter at a connection for the first time (i.e. an AMR installation where Liberty (Park) did not replace an existing AMR meter) from 2018 to 2023? If yes, provide the number of those 5/8-inch AMR new installations for each year from 2018 to 2023.

f) Identify the number of 5/8-inch AMR meters that Liberty (Park) is proposing to install as part of main replacement projects such as the "Cliveden-Broadacres-Grandee" project for each year from 2024 to 2027.

g) Does Liberty (Park) include the 5/8-inch AMR meters that it proposes to replace as part of main replacement projects in the number of 5/8-inch AMR meter replacements for years 2024 to 2027 that appears in the Workpaper schedule referred to above in this Data Request, Item 3.a?

RESPONSE:

Cal Advocates granted an extension until May 27, 2024.

REQUEST NO. 4:

In Exhibit B, page 89, Liberty (Park) states that it proposes to replace an existing emergency or back-up generator at the Forest Green site in the Mesa Crest water system. In its Workpapers, page 6-58, Liberty (Park) shows that it bases the cost estimate of the proposed Forest Green generator on the "Quinn CAT" unit cost.

On page 96 of Exhibit B, Liberty (Park) states that it plans to purchase a 400 kilowatt (kW) emergency generator to power "newer and larger facilities that cannot be supported by our existing generator fleet." In its Workpapers, page 6-65, Liberty (Park) describes the 400 kW emergency generator as a replacement with a cost estimate of $278,952.

a) Provide documentation from a vendor or contractor that shows the "Quinn CAT" unit cost for the proposed Forest Green generator.

b) Please identify all emergency or back-up power generators that Liberty (Park) currently has in Rate Base. For each generator, specify the year Liberty (Park) acquired it, the power rating in kilowatts, and whether the generator is mobile or stationary.

c) What is the expected service life of the back-up generators that Liberty (Park) normally purchases?

d) Provide the power rating for the proposed Forest Green generator and explain why Liberty (Park) does not plan to use one of Liberty (Park)'s existing mobile generators at the Forest Green site.

e) Identify the newer and larger facilities that Liberty (Park) states cannot be supported by the existing generator fleet. Explain if there are any more reasons why the existing generators cannot support these facilities besides power rating.

f) Explain whether Liberty (Park) proposes that 400 kW generator should be a mobile generator or a permanent generator stationed at a specific site. If Liberty (Park) proposes a permanent generator, explain why a mobile generator could not be used.

g) Provide documentation, in Microsoft Excel format, that shows a breakdown for the $278,952 cost estimate. Also provide documentation from a vendor or contractor that shows the unit cost that Liberty (Park) used to develop the $278,952 cost estimate.

h) Please explain whether Liberty (Park) is required to report the number of hours that back-up generators operate throughout the year to a regulatory agency, such as an Air Quality Management District (AQMD). Please provide copies of any permits AQMD or otherwise that Liberty has for the generators.

i) Provide records, such as reports to an AQMD or another agency, that show the number of hours that Liberty (Park) has used each back-up generator from 2014 to 2023.

j) What year did Liberty (Park) begin to acquire and operate back-up generators for its water systems?

k) From 2014 – 2023, please identify, in excel format, each occasion in which Liberty (Park) has used more than one generator at a time including the incident date, cause, and duration.

l) Please provide a detailed explanation of the occasion when Liberty (Park) has had to use the greatest number of back-up generators at the same time.

RESPONSE:

a) Please see attachment prefaced Q4a.

b) Please see attachment prefaced Q4b.

c) The backup generators Liberty purchases have an expected service life of approximately 15 years.

d) The existing generator at Forest Green has a power rating of 75 kW. A proposed new generator for this site will require approximately the same power output for backup power. The new generator will be dedicated for this site only and set as a stationary generator in the building, similar to the setup of the existing generator at the site. A stationary generator is critical at this facility due to reoccurring power outages triggered by weather related occurrences and public safety power shutoffs. Power loss must be limited at this site because it operates a hydro pneumatic tank that supplies water to properties at higher elevations than the Forest Green tanks.

e) Well 12C, Reservoir and BPS 10A, and the newly constructed Well 28D cannot be fully powered by any of the existing portable generators owned by Liberty (Park) due to the higher power demand at these sites.

f) The new 400kW generator will be a mobile generator used at sites which require a higher power demand. Liberty Park has added a new tank and booster station in the Lynwood System along with a new well in the Bellflower Norwalk System. The new generator will supply backup power to these facilities.

g) Please see attachment prefaced Q4g for the documentation in Microsoft Excel format. Please note the vendor documentation is the same as the quote from Q4a.

h) Liberty has two classifications of generators – mobile and stationary. The mobile generators are permitted by the California Air Resources Board (CARB), and the stationary generators are permitted by the South Coast Air Quality Management District (SCAQMD). CARB requires reporting of the total hours of operation for the year in the permitting process. SCAQMD requires that a monthly record of hours of operation is maintained for each generator. This data is not required to be submitted in the permitting process. Please see attachments prefaced Q4h for the generator permits.

i) Please see attachment prefaced Q4i.

j) Liberty began acquiring and using generators in 1985.

k) Park has not been tracking generator use other than annual hours. While there have been several times in the Apple Valley system when multiple generators were used because of SCE power issues, Park has only had one instance during which multiple generators were used. That event occurred in 2022 when SCE power was out for an extended period

without warning. That event prompted Park to set up three mobile generators to quickly move water from the source to the higher elevation pressure zones. Generators were used at the Hampton BPS (the source), Meadowview BPS, and Starlight BPS. That was required to get water to the highest elevation Forest Green pressure zone.

l) As noted in the response to question 4k, the most generators Park used at one time was the event in 2022 when Park had to use three generators in the Mesa Crest system.

REQUEST NO. 5:

In its Workpapers, page 6-65, Liberty (Park) shows a cost estimate of $1,125,297 in 2026 for "EV Stations/ Infrastructure for 2030 EV Initiative." On the following page 6-66, Liberty (Park) shows one "Chevy Bolt EV" in its "Liberty Utilities – Central Basin – Vehicle List."

a) Did Liberty (Park) provide any testimony supporting the "EV Stations/ Infrastructure" capital project? If yes, identify the document and page numbers.

b) Identify all electric vehicles (EVs) that Liberty (Park):

   i) In Utility Plant-in-Service as of January 1, 2024, and

   ii) Planned as capital additions in the years 2024 to 2027.

c) Provide documentation, in Microsoft Excel format, that shows a breakdown for the $1,125,297 cost estimate. Also provide documentation from a vendor or contractor that shows the unit costs that Liberty (Park) used to develop the $1,125,297 cost estimate.

d) Identify and explain all annual savings that will result from the "EV Stations/ Infrastructure" capital project. Identify the file, tab, and cell numbers where the reduced expenses appear in Liberty (Park)'s current Results of Operations (RO) Model.

e) Provide a cost-benefit analysis for the "EV Stations/ Infrastructure" capital project that, at least, identifies the expected service life of the infrastructure, estimated initial and annual costs and savings, and break-even point for the project.

f) Is Liberty (Park) pursuing any grants or incentives by the federal, state, or local governments, the electric utility, or organization for the "EV Stations/ Infrastructure" capital project. If yes, identify the grants or incentives and the status of Liberty (Park)'s applications for the grants.

g) Does Liberty (Park)'s RO Model in the current GRC Application offset the cost estimate of the "EV Stations/ Infrastructure" project with grants, incentives, or other contributions? If yes, identify the file, tab, and cell numbers where this calculation occurs

in the RO Model.

RESPONSE:

a) No. This was an inadvertent omission. In order to accommodate changing the fleet to EVs, additional charging capacity is needed. Level 2 fast charging stations are needed in addition to more level 1 charging stations. To accommodate the additional load for EV charging, additional power needs to be obtained. Because the existing 800A service does not have enough capacity to serve additional charging stations, an additional 600A electrical service needs to be added. That size is required to provide power for 6 level 2 fast chargers and additional level 1 chargers. Additional capacity is required as the first step toward adding more charging capacity. The cost estimate includes bringing in the additional power and installing electrical feeds and panels to accommodate the chargers. One fast charger and 4 additional level 1 chargers are anticipated with this project. More chargers will then be added in the future as the EV fleet is built out.

b)

i. As of January 1, 2024, Liberty has one electric vehicle, 2020 Chevrolet Bolt.

ii) Liberty does not have any EV vehicles planned for 2024 to 2027.

c) Please see the attachment with preface Q5c for the rough cost estimate. Note that an error was made in the cost of this project due to neglecting to escalate the cost by one year. The cost of $1,125,297 as submitted is in 2025 dollars, but the cost of the project in 2026 dollars comes to $1,193,715 to account for annual escalation of costs.

d) Liberty has not calculated annual savings for using EVs. Liberty is pursuing the use of EV vehicles, where practical, to comply with State of California initiatives to use EVs.

e) Liberty did not perform a cost benefit analysis for the use of EVs.

f) While Liberty is pursuing other grants, it has not found a good opportunity for a grant for implementation of EVs.

g) No

This completes the partial response to Data Request No. 040-AA. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

May 28, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	040-AA (Park Wells Treatment and Other Plant)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Date Received:	May 15, 2024
Due Date:	May 22, 2024
Extension:	May 27, 2024

REQUEST NO. 1:

In its Workpapers, pages 8-2 and 8-4, Liberty (Park) categorizes its Utility Plant-in-Service and Accumulated Depreciation balances by CPUC account number. Provide existing asset data for each of the following well sites in a Microsoft Excel file with a separate tab for each well site. The sites are:

a) Well 28B
b) Well 41A
c) Well 46C
d) Well 4B
e) Well 40D

f) Well 28D

g) Well 6E

h) Well 40B

Each tab should briefly describe the assets, such as land and improvements, at the well site, and identify the CPUC account number (e.g. 31000), the total value in Utility Plant-in-Service, and Accumulated Depreciation per asset as of January 1, 2024. Please make sure to include the value of any asset, including upgrades and rehabilitations, related to the well such as new and replacement variable frequency drives, motors, disinfection equipment, electrical equipment, and well buildings. The following table shows an example of the organization for the requested data.

Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)	Accumulated Depreciation ($)

RESPONSE:

Please see the attached preface Q1a-h for the utility plant-in-service details as of January 1, 2024, organized by well site. This revision includes the previously missing assets provided on May 22, 2024. Additionally, as stated in the response on May 22, 2024, accumulated depreciation is not available for individual assets. Depreciation is recorded on asset groups rather than individual assets.

Please see the attachment with preface Q4 of Data Request #039-ZS for the complete list of the utility plant-in-service assets as of January 1, 2024.

REQUEST NO. 2:

In Exhibit B, pages 90-93, Liberty (Park) states that it proposes to install a PFAS treatment system at Well 46C and begin design on a second PFAS treatment system at Well 41A. On page 92 of Exhibit B, Liberty (Park) states that it contracted Best Drilling to evaluate Well 46C and that Best Drilling "indicated that the well has sufficient life in it to last the viable life of the proposed treatment equipment."

a) Please identify the full name of the contractor known as "Best Drilling" and the professional services it provides.

b) Please provide documentation showing the results of Best Drilling's evaluation of Well 46C. Please include the entirety of Best Drilling's report as well as any other

communications related to Well 46C.

c) Did Best Drilling or another contractor evaluate Well 41A in the same way Best Drilling evaluated Well 46C?

d) What is the viable life of the proposed treatment equipment for Well 46C and Well 41A?

e) Did Best Drilling also evaluate the cost of maintaining Well 46C for the duration of the viable life of the proposed treatment equipment? If so please provide those costs.

f) Provide a cost benefit analysis comparing the ratemaking cost of Liberty's proposed treatment at Well 46C to the alternative of continuing to purchase water.

Please account for ratemaking costs such as depreciation expense and rate of return along with the costs of maintaining Well 46C in the cost benefit analysis.

g) Provide documentation, such as consultant reports or contractor quotes, supporting the cost estimate for Liberty (Park)'s proposed PFAS treatment system at Well 46C.

h) Provide the site drawing for Well 41A.

i) What is the footprint of the PFAS removal system at Well 41A?

j) Explain how Liberty (Park) determined that it is feasible to fit a PFAS treatment system at Well 41A.

k) Has Liberty (Park) applied for alternate sources of funding for its PFAS treatment system, such as the Water Replenishment District of Southern California's (WRD) Remediation Program, the settlement between the U.S. public water suppliers and 3M Company, or federal and state government grant programs?

l) Identify all sources of funding that Liberty (Park) has applied for and the status of Liberty (Park)'s applications regarding PFAS treatment system funding.

RESPONSE:

The responses were provided on May 22, 2024.

REQUEST NO. 3:

In Exhibit B, pages 80-81, Liberty (Park) states that it is continuing to replace meters at a rate to keep up with meter aging and battery failures. On page 80, Liberty (Park) states that it provides the detailed small meter replacement schedule, unit cost, and 2023 vendor quote for a 5/8-inch, 1-1/2-inch, and 2-inch meters. In its Workpapers, Section 6, page 6-2, Liberty (Park) shows a Construction Work in-Progress (CWIP) balance of $1,966,123 as of 2022 for Account number

346 Meters. On page 69 of Exhibit B, Liberty (Park) states that it will install new water meters as part of the Cliveden-Broadacres-Grandee main replacement project.

a) Please identify the Workpapers where Liberty (Park) provided the small meter replacement schedule, unit cost, and 2023 vendor quotes. If these Workpapers are not in the current GRC Application, or if the Workpapers were only provided in pdf format, provide them in a Microsoft Excel format.

b) How many total 5/8-inch meters are currently installed at Liberty (Park) Central Basin Division water systems as of January 1, 2024?

c) Explain why Liberty (Park) has a CWIP balance of $1,966,123 for the Account no. 346 Meters. Specify whether this CWIP balance includes the cost of a portion of the 5/8-in AMR meters that Liberty (Park) installed from 2018 to 2023.

d) Provide the number of 5/8-inch Automated Meter Reading (AMR) meters that Liberty (Park) replaced each year from 2018 to 2023.

e) Did Liberty (Park) install any 5/8-inch AMR meter at a connection for the first time (i.e. an AMR installation where Liberty (Park) did not replace an existing AMR meter) from 2018 to 2023? If yes, provide the number of those 5/8-inch AMR new installations for each year from 2018 to 2023.

f) Identify the number of 5/8-inch AMR meters that Liberty (Park) is proposing to install as part of main replacement projects such as the "Cliveden-Broadacres-Grandee" project for each year from 2024 to 2027.

g) Does Liberty (Park) include the 5/8-inch AMR meters that it proposes to replace as part of main replacement projects in the number of 5/8-inch AMR meter replacements for years 2024 to 2027 that appears in the Workpaper schedule referred to above in this Data Request, Item 3.a?

RESPONSE:

a) Please see the attachments with preface Q3a.
b) There are 25,990 5/8-inch meters installed as of January 1, 2024.
c) Yes, a portion of the $1,966,123 for account number 346 Meters included the cost of the 5/8" meters installed from 2018 to 2023.
d) Number of meters replaced each year:

2018	2019	2020	2021	2022	2023
3,479	1,585	1,963	4,063	2,512	608

e) Yes.

2018	2019	2020	2021	2022	2023
7	11	6	15	27	13

f) The table below provides the number of 5/8" meters to be installed at all the proposed water main replacement projects from 2024 to 2027.

Project	Year	5/8" Meters to Be Installed
CBMR-10 Cliveden - Broadacres - Grandee	2025	137
CBMR-16 Area 41 & Target - Phase 2	2025	0
CBMR-5 Carlin & Olanda	2025	93
CBMR-7 Excelsior - Crossdale to Gridley	2025	50
CBMR-8 Alondra - Aprilia	2026	124
CBMR-9 Aprilia - Caldwell - Central	2026	205
CBMR-11 Liggett - Rosecrans	2026	8
CBMR-6 Clark - Rosecrans to Faywood	2027	0
CBMR-12 Jersey - Rosecrans - Liggett	2027	89

g) No, the 5/8" meters to be installed for the proposed water main replacement projects between 2024 to 2027 are not included in the meter replacement schedule.

REQUEST NO. 4:

In Exhibit B, page 89, Liberty (Park) states that it proposes to replace an existing emergency or back-up generator at the Forest Green site in the Mesa Crest water system. In its Workpapers, page 6-58, Liberty (Park) shows that it bases the cost estimate of the proposed Forest Green generator on the "Quinn CAT" unit cost.

On page 96 of Exhibit B, Liberty (Park) states that it plans to purchase a 400 kilowatt (kW) emergency generator to power "newer and larger facilities that cannot be supported by our existing generator fleet." In its Workpapers, page 6-65, Liberty (Park) describes the 400 kW emergency generator as a replacement with a cost estimate of $278,952.

a) Provide documentation from a vendor or contractor that shows the "Quinn CAT" unit cost for the proposed Forest Green generator.

b) Please identify all emergency or back-up power generators that Liberty (Park) currently has in Rate Base. For each generator, specify the year Liberty (Park) acquired it, the

power rating in kilowatts, and whether the generator is mobile or stationary.

c) What is the expected service life of the back-up generators that Liberty (Park) normally purchases?

d) Provide the power rating for the proposed Forest Green generator and explain why Liberty (Park) does not plan to use one of Liberty (Park)'s existing mobile generators at the Forest Green site.

e) Identify the newer and larger facilities that Liberty (Park) states cannot be supported by the existing generator fleet. Explain if there are any more reasons why the existing generators cannot support these facilities besides power rating.

f) Explain whether Liberty (Park) proposes that 400 kW generator should be a mobile generator or a permanent generator stationed at a specific site. If Liberty (Park) proposes a permanent generator, explain why a mobile generator could not be used.

g) Provide documentation, in Microsoft Excel format, that shows a breakdown for the $278,952 cost estimate. Also provide documentation from a vendor or contractor that shows the unit cost that Liberty (Park) used to develop the $278,952 cost estimate.

h) Please explain whether Liberty (Park) is required to report the number of hours that back-up generators operate throughout the year to a regulatory agency, such as an Air Quality Management District (AQMD). Please provide copies of any permits AQMD or otherwise that Liberty has for the generators.

i) Provide records, such as reports to an AQMD or another agency, that show the number of hours that Liberty (Park) has used each back-up generator from 2014 to 2023.

j) What year did Liberty (Park) begin to acquire and operate back-up generators for its water systems?

k) From 2014 – 2023, please identify, in excel format, each occasion in which Liberty (Park) has used more than one generator at a time including the incident date, cause, and duration.

l) Please provide a detailed explanation of the occasion when Liberty (Park) has had to use the greatest number of back-up generators at the same time.

RESPONSE:

The responses were provided on May 22, 2024.

REQUEST NO. 5:

In its Workpapers, page 6-65, Liberty (Park) shows a cost estimate of $1,125,297 in 2026 for "EV Stations/ Infrastructure for 2030 EV Initiative." On the following page 6-66, Liberty (Park) shows one "Chevy Bolt EV" in its "Liberty Utilities – Central Basin – Vehicle List."

a) Did Liberty (Park) provide any testimony supporting the "EV Stations/ Infrastructure" capital project? If yes, identify the document and page numbers.

b) Identify all electric vehicles (EVs) that Liberty (Park):

   i) In Utility Plant-in-Service as of January 1, 2024, and

   ii) Planned as capital additions in the years 2024 to 2027.

c) Provide documentation, in Microsoft Excel format, that shows a breakdown for the $1,125,297 cost estimate. Also provide documentation from a vendor or contractor that shows the unit costs that Liberty (Park) used to develop the $1,125,297 cost estimate.

d) Identify and explain all annual savings that will result from the "EV Stations/ Infrastructure" capital project. Identify the file, tab, and cell numbers where the reduced expenses appear in Liberty (Park)'s current Results of Operations (RO) Model.

e) Provide a cost-benefit analysis for the "EV Stations/ Infrastructure" capital project that, at least, identifies the expected service life of the infrastructure, estimated initial and annual costs and savings, and break-even point for the project.

f) Is Liberty (Park) pursuing any grants or incentives by the federal, state, or local governments, the electric utility, or organization for the "EV Stations/ Infrastructure" capital project. If yes, identify the grants or incentives and the status of Liberty (Park)'s applications for the grants.

g) Does Liberty (Park)'s RO Model in the current GRC Application offset the cost estimate of the "EV Stations/ Infrastructure" project with grants, incentives, or other contributions? If yes, identify the file, tab, and cell numbers where this calculation occurs in the RO Model.

RESPONSE:

The responses were provided on May 22, 2024

This completes the response to Data Request No. 040-AA. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
10013107	WELL #28B 16" REGENTVIEW	31400	7,851.93
10048009	CASING, VIDEO LOG REGENTVIEW	31400	1,091.50
10089799	LOCK BASKET FOR SOUNDER COLUMN	31400	152.4
82284	MOTION DETECTOR, OUTDOOR	32100	278.85
82285	MOTION DETECTOR, INDOOR	32100	105.86
82286	INDOOR BOX	32100	793.06
82287	POWER SUPPLY FOR CAMERAS	32100	510.05
82288	BACK PANEL FOR CAMERAS	32100	126
82289	WALLMOUNT FOR FLEXIDOME CAMERA	32100	169.53
85617	CAMERA MOUNT	32100	260.3
85618	POLE ADAPTER	32100	274.47
85619	POWER SUPPLY FOR CAMERA	32100	273.55
85620	MOTION DETECTOR, OUTDOOR	32100	2,013.24
85621	CAMERA POLE (EXTERNAL)	32100	407.88
123791	LANDSCAPING, BASE ROCK	32100	5,654.00
123792	LANDSCAPING, CONCRETE CURBING	32100	2,540.21
131136	EMERGENCY EYEWASH/SHOWER	32100	1,335.72
163472	LIGHTING (POLES)	32100	3,293.15
10066226	DRIVEWAY, CONCRETE REGENTVIEW	32100	2,585.51
10073896	LIGHT, SECURITY,28B	32100	1,264.58
10073897	SENSOR, MOTION, 28B	32100	449.76
10089473	FENCING, WROUGHT IRON 6'X 6'	32100	458.98
10089775	FENCING, WROUGHT IRON 38'X 6'	32100	3,254.60
10089776	FENCING, WROUGHT IRON 38'X 6'	32100	3,254.60
10089777	GATE, WROUGHT IRON 4'X 6'	32100	417.28
10089778	GATE, WROUGHT IRON 22'X 6'	32100	2,002.83
10089779	GATE, WROUGHT IRON 20'X 6'	32100	1,752.48
10089780	FENCING, CHAIN LINK 22'X 6'	32100	542.43
10089781	FENCING, CHAIN LINK 106'X 6'	32100	2,670.44
10089782	CEMENT STRIP, 20' X 12" X 12	32100	1,585.58
10089783	CEMENT STRIP, 20' X 12" X 6	32100	751.06
10099937	GRADING AND CONCRETE FOR LOT	32100	16,473.99
6227	INSTALL POSI LOCK PANEL	32500	3,935.35
57227	ISOLATION TRANSFORMER	32500	9,151.03
73567	SOFT START (EMERSON)	32500	5,203.51
77328	HOUR METER, WELL 28B	32500	251.69
101390	METER TEST CORP, 1	32500	192.08
145279	VFD	32500	32,713.85
145280	ELECTRICAL PANEL, SVC PEDESTAL	32500	34,826.23
145281	CONTROL PANEL, SCADA	32500	10,583.89
149757	BLOWER MOTOR	32500	999.58
152957	2" COUPLING	32500	748.08
163471	EXHAUST FAN	32500	882.74
165221	VAULT, METER 4' X 5'	32500	56,884.83
10024741	VALVE 10" FLG 28B REGENTVIEW	32500	1,315.00
10024742	VALVE 6" FLG 28B REGENTVIEW	32500	250
10024743	TEE, 6" CI 28B REGENTVIEW	32500	1,273.00
10024744	CLA-VALVE 8" 28B REGENTVIEW	32500	5,381.00
10024745	CLA-VALVE 6" 28B REGENTVIEW	32500	6,829.00
10024746	DIFFUSER,BLOW-OFF 10"X 6" 28B	32500	3,804.00
10024748	SPOOL,10"X 4" INSIDE PUMPHOUSE	32500	568
10024749	PIPING,REDUCING 10"X 8" - 28B	32500	1,023.53
10024750	PIPING,REDUCING 10"X 8" - 28B	32500	1,023.53
10024754	PIPING,3/4"PVC FOR EYE WASH	32500	100
10048012	COLUMN,PUMP SUCTION 10" W/STRN	32500	351.75
10048013	AIRLINE, 1/4" S.S. #28B	32500	315
10048014	MOTOR, PUMP 125HP 28B	32500	8,558.51
10048016	BOWLS, PUMP 12" 5 STGS	32500	5,138.84
10048017	COLUMN, PUMP 10" #28B	32500	5,190.29
10048018	SHAFT,PUMP 416 S.S 1.5" #28B	32500	5,725.54

10048019	PUMP,HEAD #28B REGENTVIEW	32500	2,669.17
10048020	HOOK-UP, EMERGENCY GENERATOR	32500	4,283.10
10048346	SEEPAGE PIT (2) 24	32500	18,123.26
10048347	PIPING, DUAL BLOW-OFF 6	32500	7,619.02
10048348	CURBING,CONCRETE AROUND PIT	32500	2,091.39
10048349	ROCK,FOR DRAINAGE IN PIT	32500	499.06
10067301	PIPING, 10 STL PUMP DISCHARGE	32500	39,229.35
10067302	PIPING, 10 DIP PUMP DISCHARGE	32500	3,500.00
10070015	REGULATOR, PRESSURE #28B	32500	1,511.60
10070016	SWITCH, MERCOID #28B	32500	595.82
10070803	LIGHT,"CITY POWER"VERIFICATION	32500	828.99
10073856	SENSOR, VIBRATION FOR WELL 28B	32500	2,406.09
10099938	PUMP HOUSE	32500	86,726.94
10099939	CONCRETE FOR PUMP HOUSE	32500	3,193.82
10099940	ELECTRICAL FOR PUMP HOUSE	32500	12,550.63
10099941	PRESSURE SWITCH	32500	748.1
10099942	PRESSURE TRANSDUCER	32500	2,494.49
10099943	PRESSURE CHART RECORDER	32500	1,496.77
10099944	ELECTRICAL CONDUITS (6)	32500	3,741.64
11024744	CLA-VALVE,WIRING & CONDUIT(8")	32500	284
11024745	CLA-VALVE,WIRING & CONDUIT(6")	32500	284
8888	CHLORINE MONITORING SYSTEM	33200	1,186.85
8889	CHLORINE MONITORING SYSTEM	33200	1,119.90
8890	CHLORINE MONITORING SYSTEM	33200	453.39
8891	CHLORINE MONITORING SYSTEM	33200	1,296.76
8892	CHLORINE MONITORING SYSTEM	33200	63.48
8893	CHLORINE MONITORING SYSTEM	33200	61.21
17300	BELLOWS PUMP	33200	610.76
66375	BRINE TANK, 55 GAL BLACK	33200	257.49
79854	ELECTRICAL FOR SATURATOR	33200	4,892.38
80661	AB MICROLOGIX PLC	33200	5,649.66
82197	6" COLOR TOUCH SCREEN	33200	1,622.81
82198	STAINLESS STEEL PANEL	33200	3,113.38
82199	PANEL MOUNT DISCONNECT	33200	1,247.14
82200	24 VDC POWER SUPPLY	33200	3,212.77
82201	2.4 KVA STEP DOWN	33200	6,234.54
82202	20 PPD CELL	33200	4,667.57
82203	4-20ma TRANSDUCER	33200	747.61
82204	DC BRIDGE RECTIFIER W/FAN	33200	1,993.37
82205	WATER/BRINE ROTAMETERS	33200	603.85
82206	ANALOG WATER FLOW SENSOR	33200	603.85
82207	OPTICAL LEVEL SWITCH	33200	603.86
82208	TEMPERATURE SENSOR	33200	603.86
82209	WATER/BRINE SOLENOID VALVE	33200	275.14
82210	BRINE PUMP	33200	996.37
82211	HYDROGEN DILUTION BLOWER	33200	1,645.47
82212	METERING PUMP	33200	996.37
82213	INVERTER DUTY MOTOR	33200	3,154.26
82214	VARIABLE FREQUENCY DRIVE	33200	238.44
82215	PULSATION DAMPENER	33200	690.98
82216	PRESSURE RELIEF VALVE	33200	618.88
82217	BACK PRESSURE VALVE	33200	618.88
82218	PUMP STAND	33200	238.21
82219	PRESSURE GAUGE	33200	431.88
82220	PLUMBING	33200	2,584.56
84756	FLUORIDE ANALYZER	33200	9,551.39
85885	FLUORIDE MIXER	33200	866.8
95612	PVDF INJECTION QUILL	33200	323.83
105980	PRESSURE REGULATOR	33200	1,321.52
129365	VFD FOR METERING PUMP	33200	1,049.89
134226	FLUORIDE PROBE	33200	1,254.34

134227	RE - ELECTRODE	33200	217.42
134228	RESISTANCE THERMOMETER	33200	200.7
166865	SODIUM FLORIDE PUMP	33200	6,211.95
10094066	SERVICE 1" COP FOR CL2 SHED	33200	1,119.76
10099945	CHLORINE SHED	33200	1,927.75
10099946	CONCRETE FOR CHLORINE SHED	33200	3,193.82
10099947	ELECTRICAL FOR CHLORINE SHED	33200	3,242.20
10099948	ELECTRICAL CONDUITS (3 @ 45FT)	33200	1,812.49
10099949	RESIDUAL WATER LINE	33200	250.02
10099954	DOWN STREAM RESIDUAL SENSOR	33200	3,351.73
10099956	FILTER UNIT	33200	2,032.72
10099957	CHLORINE/BRINE PUMP	33200	677.57
10099958	HOLDING TANK	33200	763.4
10099960	METERING PUMP AND STAND	33200	4,331.95
10099963	FAN FOR CHLORINE SHED	33200	1,308.37
79785	ELECTRICAL FOR ANALYZER	33200	3,203.40
79786	PLUMBING FOR ANALYZER	33200	3,162.54
79787	FLUORIDE BUILDING	33200	2,425.65
79788	FLUORIDE BUILDING SLAB	33200	4,044.65
79789	FLUORIDE TANKS (2 X 55 GAL)	33200	771.73
79790	FLUORIDE METERING PUMP	33200	1,929.33
79791	LOW LEVEL SWITCH	33200	643.11
79792	HIGH LEVEL SWITCH	33200	643.11
79793	SOLENOID VALVE	33200	385.87
79794	FLOW REGULATOR	33200	578.8
79795	VACUUM BREAKER	33200	450.18
79796	SATURATOR MANIFOLD	33200	1,028.98
79797	PLUMBING FOR SATURATOR	33200	11,164.18
79798	FILTER	33200	1,217.65
79799	FRP PANEL W/CONTAINMENT	33200	1,929.33
79800	ELECTRIC PANEL	33200	3,284.13
10073797	WATER QUALITY MONITOR 28 B	34300	5,060.83
82290	4 CHANNEL ENCODER	39700	3,359.08
82291	FLEXIDOME CAMERA	39700	957.87
82292	MINI DOME CAMERA	39700	957.87
85616	FLEXIDOME CAMERA	39700	2,639.17
105988	4 CHANNEL ENCODER	39700	1,030.05
71146	ANTENNA POLE	39710	16,196.19
71296	ANTENNA POLE CONDUIT	39710	8,098.09
71297	ANTENNA POLE CABLEING	39710	8,098.09
71298	36"COAX JUMPER(TNC TO TYPE N)	39710	127.05
71299	iNET II 900 ETHERNET REMOTE	39710	2,546.15
71300	SURGE PROTECTOR	39710	154.36
71301	TY-900 YAGI ANTENNA	39710	283.05
71302	UN-MANAGED SWITCH	39710	302.59
71303	TILT MOUNT BRACKET	39710	96.13
71304	DIGI ETHERNET SERIAL BRIDGE	39710	1,002.84
86398	TSUNAMI MP8100 SUBSCRIBER UNIT	39710	2,802.27
86399	SUBSCRIBER ANTENNA	39710	805.42
86400	VDC CONVERTER	39710	368.22
106760	MICROLOGIX PLC	39710	6,988.13
135905	REMOTE PROXIM RADIO UPGRADE	39710	2,514.23
145282	PANEL, SCADA	39710	42,577.89
181482	UPGRAD RADIO CONNECTION	39710	26,064.05
10065411	PRESSURE TRANSDUCER	39710	5,000.00
10065412	PHONE LINES,POLE TO PUMP HOUSE	39710	4,399.80
10065413	INTRUSION SWITCH (PUMP HOUSE)	39710	1,500.00
10065414	INTRUSION SWITCH (CL2 HOUSE)	39710	1,500.00
10073798	SCADA MODIF FOR WATER MONITOR	39710	24,848.94
10073857	SCADA MODIF, VIBRATION SENSOR	39710	2,545.87
10073900	SCADA,ANALOG INPUT MODULE	39710	3,515.00

10084333	SCADA SOFTWARE IMPROVEMENTS	39710	233.04

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
10000483	WELL #41A-16" 527' 12312 CURT-	31400	5,731.52
10089804	LOCK BASKET FOR SOUNDER COLUMN	31400	152.4
11000483	DISCHARGE PIPING	31400	775.5
57977	PUMP HOUSE	32100	78,280.39
57978	PUMP HOUSE FOUNDATION	32100	2,249.90
57979	PUMP HOUSE ELECTRICAL	32100	9,775.14
66407	ENCODER, SECURITY	32100	2,445.73
66408	CARD READER, SECURITY	32100	317.38
66409	READER PANEL, SECURITY	32100	2,669.76
66410	READER ENCLOSURE, SECURITY	32100	283.78
66411	READER POWER SUPPLY	32100	756.09
66412	LOCK POWER SUPPLY	32100	224.87
66413	MORTISE LOCK, SECURITY	32100	873.74
66414	POWER TRANSFER HINGE	32100	168.02
66415	MOTION DETECTOR, SECURITY	32100	102.68
66416	VIDEO ANALYTICS, SECURITY	32100	606.75
66417	ARMORED SPEAKER, SECURITY	32100	89.61
66418	MICROPHONE, SECURITY	32100	290.54
66525	SECURITY SWITCH	32100	167.99
106938	CURBING FOR SEEPAGE PITS	32100	11,422.46
106940	CONCRETE SLAB	32100	32,907.14
106960	ELECTRICAL FOR SEEPAGE PITS	32100	16,545.70
131132	EMERGENCY EYEWASH/SHOWER	32100	1,335.72
165226	LIGHTING/MOTION SENSORS	32100	2,206.34
165332	EXHAUST FAN FOR PUMP HOUSE	32100	907.06
10044603	DRIVEWAY, CONCRETE TO 41A	32100	3,170.00
10070019	LIGHT,SECURITY 32 WATT	32100	1,750.53
10070020	LIGHT,SECURITY 32 WATT	32100	1,750.53
10084102	THERMOSTAT FOR FAN	32100	424.96
10084125	H.O.A. SWITCH, 41-A	32100	422.08
10093562	DRIVEWAY, APPROACH TO PUMP LOT	32100	16,048.72
10094038	FENCING, CHAIN LINK, 34' X 8'	32100	1,107.23
10094039	FENCING, CHAIN LINK, 68' X 8'	32100	2,435.92
10094040	FENCING, CHAIN LINK, 68' X 8'	32100	2,435.92
10094041	GATE, WROUGHT IRON 20' X 8'	32100	2,768.12
10094042	FENCING, WROUGHT IRON 14' X 8'	32100	2,325.20
6230	INSTALL POSI LOCK PANEL	32500	3,935.35
77330	HOUR METER, WELL 41A	32500	251.69
101389	METER TEST CORP, 1	32500	192.08
106942	VALVE, 6" CONTROL	32500	11,719.39
106943	VALVE, 8" CHECK	32500	2,418.23
106944	VALVE, 8" GATE	32500	3,145.92
106945	VALVE, 6" GATE	32500	2,477.04
106946	VALVE, 6" CHECK	32500	1,448.00
106948	PIPING, 8" DISCHARGE	32500	41,234.99
106949	METER, 8" FLOW	32500	7,093.00
106952	COPPER LINE, 3/4	32500	5,789.84
106953	PIPING, 6" SUMP DISCHARGE	32500	32,355.87
106954	SEEPAGE PIT (EAST PIT)	32500	28,575.48
106956	SEEPAGE PIT (WEST PIT)	32500	28,575.48
111516	DISCHARGE HEAD	32500	7,756.19
134238	MOTOR STARTER	32500	7,508.05
149758	BLOWER MOTOR	32500	900.22
165966	SUMP PUMP AND PIPING	32500	
168474	SEEPAGE PIT	32500	33,266.44
168475	PIPING FOR SEEPAGE PITS	32500	3,227.78
10044608	MOTOR, PUMP 100 HP 41A CURTIS	32500	6,952.55
10044609	COLUMN, 10" X 10' @ 41A	32500	6,753.57
10044610	SHAFT, PUMP 1-3/16"X 10' @41A	32500	6,753.58
10044611	VALVE, 8" CHECK SWING 41-A	32500	1,813.56
10044612	BOWLS,PUMP 12"MB 5 STAGES	32500	4,715.18
10044613	AIRLINE, COP 5.5 41-A	32500	367.5
10044614	PIPE, SUCTION 10" X 10' 41A	32500	351.75
10044617	HOOK-UP, EMERGENCY GENERATOR	32500	5,008.25
10044618	PANEL, PUMP CONTROL 41A	32500	28,368.73
10070800	LIGHT,"CITY POWER"VERIFICATION	32500	828.99
11044618	FRAME FOR CONTROL PANEL 41A	32500	1,155.75
12044618	WIRING FOR CONTROL PANEL 41A	32500	2,481.25
13044618	WIRING FOR CONTROL PANEL 41A	32510	986
10140	BOOSTER PUMP	33200	433.3
66376	BRINE TANK, 55 GAL BLACK	33200	257.5
79856	ELECTRICAL FOR SATURATOR	33200	4,892.38
82188	PRESSURE RELIEF VALVE	33200	618.88
82189	BACK PRESSURE VALVE	33200	618.88

82190	PUMP STAND	33200	238.21	
82548	BOOSTER PUMP	33200	1,598.50	
82549	STORAGE TANK, 30 GAL	33200	1,401.83	
83654	EXHAUST FAN (CL2 ROOM)	33200	181.07	
84757	FLUORIDE ANALYZER	33200	10,794.36	
86536	FLUORIDE MIXER	33200	607.1	
101384	4-20ma TRANSMITTER	33200	1,418.84	
105982	PRESSURE REGULATOR	33200	1,321.52	
111408	PVDF INJECTION QUILL	33200	316.31	
111409	PVDF INJECTION QUILL	33200	316.3	
166864	BRINE PUMP	33200	7,562.98	
10020287	TANK, POLY 150GAL 41A CURTIS	33200	461.61	202129
10073903	CHLORINE HOUSE,10' X 12' VINYL	33200	7,844.58	107228.6
10073904	CONCRETE SLAB FOR CL2 HOUSE	33200	6,929.17	94900.39
10073907	DRAIN, IN CL2 HOUSE	33200	381.74	
10073908	PIPING FOR CL2 HOUSE	33200	825.34	
10073910	LIGHTING IN CL2 HOUSE	33200	525	
10073911	ELECTRICAL TO CL2 HOUSE	33200	9,274.45	
10077953	400 GALLON STORAGE TANK	33200	780.74	
10077955	BY-PASS VALVE ASSEMBLY	33200	341.02	
10077957	HYDRAULIC METERING PUMP	33200	4,486.98	
10077959	MOTOR, 1/2 HP, 3 PHASE AC	33200	358.96	
10077961	VFD, 1/2 HP, 1 PHASE, 230 VOLT	33200	1,373.21	
10077963	PULSATION DAMPENER	33200	1,157.69	
10077965	CORP STOP, 1" INJECTION	33200	448.7	
10100086	DMTa TRANSMITTER	33200	941.49	
10100087	IN LINE HOUSING	33200	383.57	
10100089	PANEL ASSEMBLY	33200	1,011.23	
11007762	SHED, CL2-CONSULTAT'N W/ROEBUK	33200	262.5	
79817	ELECTRICAL FOR ANALYZER	33200	3,203.40	
79818	PLUMBING FOR ANALYZER	33200	3,162.54	
79819	FLUORIDE BUILDING	33200	2,425.65	
79820	FLUORIDE BUILDING SLAB	33200	4,044.65	
79821	FLUORIDE TANKS (2 X 55 GAL)	33200	771.73	
79822	METERING PUMP	33200	1,929.33	
79823	LOW LEVEL SWITCH	33200	643.11	
79824	HIGH LEVEL SWITCH	33200	643.11	
79825	SOLENOID VALVE	33200	385.87	
79826	FLOW REGULATOR	33200	578.8	
79827	VACUUM BREAKER	33200	450.18	
79828	SATURATOR MANIFOLD	33200	1,028.98	
79829	PLUMBING FOR SATURATOR	33200	11,164.18	
79830	FLUORIDE FILTER	33200	1,217.65	
79831	FRP PANEL W/CONTAINMENT	33200	1,929.33	
79832	ELECTRIC PANEL	33200	3,284.13	
152360	HYPOCHLORITE GENERATOR	33200	94,900.39	
154162	6" GATE VALVE, 6" 41MV117	34300	5,787.22	
66405	FIXED CAMERA, SECURITY	39700	1,796.02	
66406	DOME CAMERA, SECURITY	39700	847.59	
71148	ANTENNA POLE	39710	16,823.75	
71315	ANTENNA POLE CONDUIT	39710	8,411.86	
71316	ANTENNA POLE CABLEING	39710	8,411.86	
71317	36"COAX JUMPER (TNC TO TYPE N)	39710	127.05	
71318	iNET II 900 ETHERNET REMOTE	39710	2,546.15	
71319	SURGE PROTECTOR	39710	154.36	
71320	TY-900 YAGI ANTENNA	39710	283.05	
71321	UN-MANAGED SWITCH	39710	302.59	
71322	TILT MOUNT BRACKET	39710	96.13	
71323	DIGI ETHERNET SERIAL BRIDGE	39710	1,002.84	
86396	TSUNAMI MP8150 SUBSCRIBER UNIT	39710	1,876.66	
86397	VDC CONVERTER	39710	767.84	
106761	MICROLOGIX PLC	39710	6,988.13	
111518	CONTROL PLC UPGRADE	39710	901.97	
135903	REMOTE PROXIM RADIO UPGRADE	39710	2,514.23	
10065441	SCADA PANEL	39710	8,000.00	
10065443	9 RACK HOLDER	39710	1,500.00	
10065444	INPUT CARD	39710	1,500.00	
10065445	OUTPUT CARD	39710	1,500.00	
10065446	ANALOG CARD	39710	1,500.00	
10065449	PRESSURE TRANSDUCER	39710	5,000.00	
10065450	PHONE LINES,POLE TO PUMP HOUSE	39710	4,961.55	
10065451	INTRUSION SWITCH (PUMP HOUSE)	39710	1,500.00	
10065452	INTRUSION SWITCH (CL2 HOUSE)	39710	1,500.00	
10067235	SCADA CONSULTATIONS	39710	1,212.29	
10073902	SCADA,ANALOG INPUT MODULE	39710	3,515.00	

10084336	SCADA SOFTWARE IMPROVEMENTS	39710	233.04

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
10016649	WELL #46C (728'X16") HALCOURT	31400	9,528.30
10016663	LINER, WELL CASING 14-1/2"OD	31400	2,843.66
10077686	WELL DEVELOPMENT	31400	19,324.42
10089805	LOCK BASKET FOR SOUNDER COLUMN	31400	152.4
15842	GATES, WROUGHT IRON 3' X 7'	32100	1,015.45
78717	MOTION DETECTOR, OUTDOOR	32100	457.36
78718	MOTION DETECTOR, INDOOR	32100	337.81
78720	INDOOR BOX	32100	841.84
78721	POWER SUPPLY FOR CAMERAS	32100	634.29
78722	BACK PANEL FOR CAMERAS	32100	352.61
78805	WALLMOUNT FOR FLEXIDOME CAMERA	32100	384.51
86060	CONCRETE DRIVEWAY	32100	10,700.45
105525	CONSERVATION LANDSCAPING	32100	25,402.44
105526	IRRIGATION SYSTEM	32100	8,021.82
124016	EXHAUST FAN IN PUMPHOUSE	32100	1,737.84
131134	EMERGENCY EYEWASH/SHOWER	32100	1,335.72
165227	LIGHTING/MOTION SENSORS	32100	3,891.19
165331	EXHAUST FAN FOR CL2 ROOM	32100	966.4
10016667	SIDEWALK,ON LEFFINGWELL 4X107'	32100	547.94
10077687	CONCRETE PEDESTAL FOR PUMP	32100	1,176.72
10077689	PUMP HOUSE,CONCRETE SLAB	32100	4,880.48
10077690	PUMP HOUSE,CURBING	32100	980.54
10077691	PUMP HOUSE,ELECTRICAL	32100	3,265.52
10077713	FENCING, CHAIN LINK, 84' X 8'	32100	3,413.76
10077714	FENCING, CHAIN LINK, 37' X 3'	32100	563.88
10077715	FENCING, CHAIN LINK, 63' X 8'	32100	2,560.32
10077716	FENCING,WROUGHT IRON 84' X 8'	32100	8,484.79
10077717	FENCING,WROUGHT IRON 22' X 3'	32100	1,083.16
10077718	FENCING,WROUGHT IRON 25' X 3'	32100	1,263.69
10077719	FENCING,WROUGHT IRON 17' X 3'	32100	726.21
10077720	FENCING,WROUGHT IRON 43' X 8'	32100	4,332.66
10077721	GATES, WROUGHT IRON 8'X 10'	32100	1,805.28
10079067	SENSOR, MOTION, 46C	32100	741.51
10079071	SENSOR, MOTION, 46C	32100	741.51
10079073	LIGHT, SECURITY,46C	32100	1,439.40
10079074	SENSOR, MOTION, 46C	32100	741.51
10079075	LIGHT, SECURITY,46C	32100	1,439.40
10084126	H.O.A. SWITCH, 46-C	32100	422.08
10084445	BACKFLOW FOR IRRIGATION SYSTEM	32100	804.73
10084447	SERVICE, 1" COP FOR IRRIGATION	32100	883.74
10084448	CONCRETE,DRIVEWAY,(400 SQ FT)	32100	1,351.71
10084449	CONCRETE, 142'x 1.5"x 4	32100	3,802.05
10084450	CONCRETE, 12.5 x 8 x .5	32100	6,629.10
10084451	CONCRETE, 20 x 8 x .5	32100	1,632.78
10084452	CONCRETE, 40 x 1 x 1	32100	1,650.27
10084453	CONCRETE, POSTS, (REMOVABLE)	32100	1,447.34
10084454	PUMPHOUSE,GALV.STEEL	32100	72,388.29
11077691	PUMP HOUSE,ELECTRICAL	32100	10,243.45
11084454	COATING OF PUMPHOUSE	32100	3,634.09
6231	INSTALL POSI LOCK PANEL	32500	3,935.35
66398	SOFT START MOTOR	32500	4,319.71
77331	HOUR METER, WELL 46C	32500	251.69
95620	6" CLA-VALVE	32500	7,333.17
101388	METER TEST CORP, 1	32500	192.08
124119	WELL CONVERSION TO VFD	32500	40,255.19
124122	METER, 8" ULTRA MAG FLOW	32500	26,266.99
129919	COLUMN PIPE, 10" X 250 FT	32500	16,544.82
129920	LINE SHAFT, 1.5" X 250 FT	32500	10,420.25
129921	AIRLINE, 1/4" STAINLESS STEEL	32500	1,469.50
129922	DIRECT READ GAUGE ASSEMBLY	32500	336.51

129923	PUMP BOWLS, 5 STAGE 12	32500	10,050.21
129924	SUCTION PIPE, 10" X 10 FT	32500	549.61
129925	CONE STRAINER, 10	32500	643.06
129926	HEAD SHAFT, 416 SS	32500	1,022.25
129927	BRONZE RETAINERS, 10" X 1.5	32500	6,169.10
129928	TBE LANDING NIPPLE, 10" X 5 FT	32500	314.07
129929	PVC FLUSH THREAD 1" X 10 FT	32500	583.39
129984	PVC FLUSH THREAD 1.25" X 10 FT	32500	793.37
149755	BLOWER MOTOR	32500	1,001.76
175287	METER VAULT	32500	8,590.72
175288	SPRING ASSISTED VAULT LID 3"X5	32500	6,645.59
10004067	MOTOR 150-HP-US REBUILT	32500	11,371.09
10008114	PANEL, PUMP CONTROL 46C	32500	5,711.31
10018747	SWITCH, 400 AMP. DBLE THROW	32500	6,880.00
10018748	GENERATOR, HOOKUP FROM WELL 6G	32500	2,293.33
10018760	AMMETER,TO CHECK MOTR AMPS	32500	3,140.00
10020280	VALVE, 8" CLA VALVE	32500	7,612.58
10032536	VALVE,AMES 6" 985A FOR SEEPAGE	32500	2,982.07
10070801	LIGHT,"CITY POWER"VERIFICATION	32500	828.99
10077711	SEEPAGE PIT, (NORTH PIT)	32500	18,227.77
10077712	SEEPAGE PIT, (SOUTH PIT)	32500	18,227.77
10077722	VALVE, 8" SS LEFFINGWELL ST AT	32500	2,675.49
10077723	PIPING, PUMP DISCHARGE 8" 46C	32500	36,717.67
10077725	VICTALIC COUPLING, 8" 46C	32500	296.37
10077915	PROBE ASSEMBLY	32500	2,872.95
10077919	PUMP HEAD	32500	1,723.75
10077920	ELECTRICAL FOR PUMP	32500	23,168.61
10077921	LEVEL TRANSDUCER	32500	861.87
11004067	INSTALLATION OF MOTOR FROM 6G	32500	6,108.28
11018748	CONNECT GENERATOR HOOKUP	32500	3,265.52
11018831	CONTROLS FOR CLA-VALVE 46C	32500	1,205.48
8894	CHLORINE MONITORING SYSTEM	33200	1,186.85
8895	CHLORINE MONITORING SYSTEM	33200	1,119.91
8896	CHLORINE MONITORING SYSTEM	33200	453.4
8897	CHLORINE MONITORING SYSTEM	33200	1,296.76
8898	CHLORINE MONITORING SYSTEM	33200	63.48
8899	CHLORINE MONITORING SYSTEM	33200	61.22
29447	CHLORTEC POWER UNITS (4)	33200	8,317.56
66377	BRINE TANK, 55 GAL BLACK	33200	257.5
78630	ELECTRICAL FOR SATURATOR	33200	4,892.38
84758	FLUORIDE ANALYZER	33200	9,551.39
86537	FLUORIDE MIXER	33200	607.09
94312	AB MICRO LOGIX PLC	33200	7,248.26
95553	6" COLOR TOUCH SCREEN	33200	5,433.57
95554	STAINLESS STEEL PANEL	33200	3,624.11
95555	ELECTRICAL DISCONNECT	33200	725.86
95556	24 VDC POWER SUPPLY	33200	1,088.79
95557	EMERGENCY STOP PUSH BUTTON	33200	362.93
95558	STAINLESS STEEL ENCLOSURE	33200	3,624.11
95559	2.4 KVA STEP DOWN	33200	7,248.22
95560	DC BRIDGE RECTIFIER W/FAN	33200	5,433.57
95561	PANEL MOUNT DISCONNECT	33200	731.04
95563	304 STAINLESS STEEL FRAME	33200	2,146.47
95565	STAINLESS STL BRINE GEAR PUMP	33200	3,219.70
95566	WATER/BRINE ROTAMETERS	33200	534.02
95567	ANALOG WATER FLOW SENSOR	33200	534.02
95568	OPTICAL LEVEL SWITCH	33200	534.02
95569	TEMPERATURE SENSOR	33200	534.02
95570	HYDROGEN DILUTION BLOWER	33200	554.76
95571	HYPOCHLORITE PLUMBING	33200	4,329.23
95614	PVDF INJECTION QUILL	33200	323.83

101385	4-20ma TRANSMITTER	33200	1,418.85
105983	PRESSURE REGULATOR	33200	1,321.52
134229	FLUORIDE PROBE	33200	1,254.34
134230	RE - ELECTRODE	33200	217.42
134231	RESISTANCE THERMOMETER	33200	200.71
144936	FLUORIDE PROBE	33200	1,186.69
144937	TRANSMITTER	33200	265.59
153109	20 LEGACY PPD CELL	33200	3,246.50
166857	Sodium Hypochlorite Gen System	33200	138,084.45
166858	HYDROGEN DETECTOR SENSOR	33200	1,885.56
166859	HYDROGEN CALIBRATION KIT	33200	913.84
166860	SHED FOR CHLORINATOR	33200	1,665.54
10077696	CHLORINE HOUSE	33200	6,996.84
10077697	CHLORINE HOUSE, ELECTRICAL	33200	3,265.51
10077699	CHLORINE HOUSE, DRAIN	33200	2,940.88
10077922	BUILT IN AB PLC	33200	2,265.63
10077923	TWO LINE LCD DISPLAY	33200	1,019.52
10077925	DSA TITANIUM ELECTRODES (2)	33200	15,104.18
10077928	STORAGE TANK, 400 GALLON	33200	657.03
10077929	BY-PASS VALVE ASSEMBLY	33200	286.98
10077930	ULTRASONIC LEVEL INDICATOR	33200	1,223.46
10077931	HYDRAULIC METERING PUMP	33200	3,776.04
10077932	MOTOR, 1/2 HP 3 PHASE AC	33200	317.2
10077933	VFD, 1/2 HP 1 PHASE 230 VOLT	33200	1,155.46
10077934	PULSATION DAMPENER	33200	974.21
10077935	CORP STOP, 1" INJECTION	33200	392.7
11074127	PIPING FOR CL2 HOUSE EYE WASH	33200	1,209.31
79833	ELECTRICAL FOR ANALYZER	33200	3,203.39
79834	PLUMBING FOR ANALYZER	33200	3,162.54
79835	FLUORIDE BUILDING	33200	2,425.65
79836	FLUORIDE BUILDING SLAB	33200	4,044.65
79837	FLUORIDE TANKS (2 X 55 GAL)	33200	771.73
79838	METERING PUMP	33200	1,929.33
79839	LOW LEVEL SWITCH	33200	643.11
79840	HIGH LEVEL SWITCH	33200	643.11
79841	SOLENOID VALVE	33200	385.87
79842	FLOW REGULATOR	33200	578.8
79843	VACUUM BREAKER	33200	450.18
79844	SATURATOR MANIFOLD	33200	1,028.98
79845	PLUMBING FOR SATURATOR	33200	11,164.15
79846	FLUORIDE FILTER	33200	1,217.65
79847	FRP PANEL W/CONTAINMENT	33200	1,929.33
79848	ELECTRIC PANEL	33200	3,284.13
165091	6" HYDRANT, #46-018	34800	16,212.99
78719	4 CHANNEL ENCODER	39700	3,197.93
78723	FLEXIDOME CAMERA	39700	909.2
78724	MINI DOME CAMERA	39700	909.2
10078537	TELEPHONE CONNECTION	39700	1,082.09
71149	ANTENNA POLE	39710	15,996.28
71324	ANTENNA POLE CONDUIT	39710	7,998.15
71325	ANTENNA POLE CABLEING	39710	7,998.15
71326	36"COAX JUMPER (TNC TO TYPE N)	39710	127.05
71327	iNET II 900 ETHERNET REMOTE	39710	2,546.15
71328	SURGE PROTECTOR	39710	154.36
71329	TY-900 YAGI ANTENNA	39710	283.05
71330	UN-MANAGED SWITCH	39710	302.59
71331	TILT MOUNT BRACKET	39710	96.13
71332	DIGI ETHERNET SERIAL BRIDGE	39710	1,002.84
86393	TSUNAMI MP8100 SUBSCRIBER UNIT	39710	3,352.68
86394	SUBSCRIBER ANTENNA	39710	963.63
86395	VDC CONVERTER	39710	440.52

106762	MICROLOGIX PLC	39710	6,988.12
124124	SCADA PANEL	39710	73,288.61
125186	ANALYTIC CONVERTER	39710	935.11
131650	BELF/NWLK ZONE CONTROLLER	39710	74,673.25
135904	REMOTE PROXIM RADIO UPGRADE	39710	2,514.23
181480	PROXIM RADIO W INTERNAL ANTENN	39710	26,064.05
10065207	AB L32E PROCESSOR (PLC)	39710	5,000.00
10065399	PRESSURE TRANSDUCER	39710	5,000.00
10065401	INTRUSION SWITCH (PUMP HOUSE)	39710	1,500.00
10065402	INTRUSION SWITCH (CL2 HOUSE)	39710	1,500.00
10065426	INTRUSION SWITCH (CL2 HOUSE)	39710	1,500.00
10077709	SCADA SETUP OF ASSETS FROM 6G	39710	6,840.78
78725	FLASH DRIVE FOR CAMERAS	39800	97.91

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
6224	INSTALL POSI LOCK PANEL	32500	3,935.38
66396	SEEPAGE PIT (EAST)	32500	23,563.85
66397	SEEPAGE PIT (WEST)	32500	23,563.85
77327	HOUR METER, WELL 04B	32500	251.69
83656	METER MAIN FUSED SWITCH	32500	4,724.85
91198	PRESSURE RECORDER (7 DAY)	32500	693.57
91314	VALVE, 8" FLG (DISCHARGE)	32500	3,004.67
101391	METER TEST CORP, 1	32500	192.09
149760	BLOWER MOTOR	32500	886.3
156641	PIPING, PUMP DISCHARGE	32500	6,262.76
165222	CLA-VAL 8" VALVE CONTROLLER	32500	18,993.53
165330	PUMP CONTROL UNIT	32500	3,540.89
165358	EXHAUST FAN	32500	
172735	8" Gate Valve Replacement	32500	6,091.78
10007788	PUMP CONTROL PANEL UPGRADE	32500	8,388.45
10011475	MOTOR,PUMP GE 75HP 4B	32500	1,305.08
10011476	PUMP HEAD	32500	508.9
10011481	PUMP FOUNDATION	32500	42.4
10011483	FILTER, UNIMAZE	32500	15.31
10020746	PIPING, PUMP DISCHARGE	32500	7,645.20
10022600	CLAVALVE, 4" 81G-02 300# FLG	32500	2,087.32
10043217	METER,8" WATER SPECIALTIES	32500	2,704.00
10068981	COLUMN, PUMP 8"ID	32500	11,835.43
10068982	COLUMN,SUCTION,PUMP 8" W/STRNR	32500	618.73
10068983	SHAFT, PUMP 1-11/16	32500	8,907.41
10068984	AIRLINE,1/4" SS	32500	1,814.18
10068985	BOWLS, 5-STAGE ASSEMBLY	32500	9,218.77
10068986	VIDEO LOG - 4B	32500	1,864.18
10068987	DISCHARGE HEAD	32500	915.89
10070017	MERCOID SWITCH	32500	595.83
11007788	ELECTRICAL J-BOX RELOCATED	32500	206.57
11011475	PUMP INSTALLATION	32500	290.39
11022599	CRD PRESSURE REDUCING PILOT	32500	820.01
12020746	PIPING,PUMP DISCHARGE 04B	32500	1,117.20
13020746	PIPING,PUMP DISCHARGE 04B	32500	1,341.26
14020746	PIPING,PUMP DISCHARGE 10"X8	32500	3,079.26

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
10016687	WELL #40D 606'x 16" (DRILLED	31400	9,845.30
10028218	REDEVELOP WELL 40D HANWELL	31400	45,380.45
10089801	LOCK BASKET FOR SOUNDER COLUMN	31400	152.4
11016687	WELL #40D REDEVELOPED HANWELL	31400	19,343.00
12016687	LINER FOR WELL 40D HANWELL	31400	33,810.52
82275	MOTION DETECTOR, OUTDOOR	32100	311.72
82276	MOTION DETECTOR, INDOOR	32100	122.73
82277	INDOOR BOX	32100	919.5
82278	POWER SUPPLY FOR CAMERAS	32100	511.6
82279	BACK PANEL FOR CAMERAS	32100	146.11
82280	WALLMOUNT FOR FLEXIDOME CAMERA	32100	196.54
105529	CONSERVATION LANDSCAPING	32100	22,577.52
105530	IRRIGATION SYSTEM	32100	7,525.84
122237	EXHAUST FAN (INSTALLED)	32100	1,208.52
131135	EMERGENCY EYEWASH/SHOWER	32100	1,335.72
140429	ELECTRICAL UPGRADE	32100	9,687.13
165232	LIGHTING/MOTION SENSORS	32100	8,803.94
188595	1" RP Backflow w Concrete Slab	32100	
10000343	DRIVEWAY, CONCRETE TO CODE...	32100	2,887.51
10024734	FENCE,WROUGHT IRON SS/PUMP 40D	32100	1,230.00
10024735	FENCE,WROUGHT IRON SS/PUMP 40D	32100	1,148.00
10024736	FENCE,WROUGHT IRON S/ENTRY	32100	410
10024737	FENCE,WROUGHT IRON - N/ENTRY	32100	205
10024738	GATE,WROUGHT IRON,ENTRY (2X10'	32100	827.95
10024739	HOUSE, PUMP 40D HANWELL 12915	32100	25,166.01
10025683	SLAB,CONCRETE 11' X 11' 40D	32100	2,500.00
10032498	FENCE,CHAIN LINK 35'X 6'	32100	672.35
10032499	FENCE,CHAIN LINK 81'X 6'	32100	1,556.39
10032500	FENCE,BLOCK WALL 60'X 6'	32100	1,570.00
10073893	SENSOR, MOTION, 40D	32100	449.76
10084124	H.O.A. SWITCH, 40-D	32100	422.08
11024739	ROOF, PUMPHOUSE (REMOVABLE)	32100	7,500.00
11032498	SLATS,PVC FOR CHAIN LINK FENCE	32100	181.65
11032499	SLATS,PVC FOR CHAIN LINK FENCE	32100	420.3
6229	INSTALL POSI LOCK PANEL	32500	3,935.35
55831	PUMP COLUMN, 8	32500	14,703.88
55832	PUMP BOWLS, 11 CHC	32500	9,929.76
55833	HEAD SHAFT, 416 SS	32500	1,079.38
55834	STRAINER, 8" CONE	32500	1,134.07
55835	AIRLINE, 1/4" SS	32500	514.11
55836	SHAFT COUPLINGS	32500	1,610.92
77329	HOUR METER, WELL 40D	32500	251.69
78685	MERCOID SWITCH	32500	1,007.45
101387	METER TEST CORP, 1	32500	192.08
149756	BLOWER MOTOR	32500	967.8
165233	VAULT, 82" X 57.5	32500	42,803.63
165361	FLOWMETER,10	32500	
175290	MOTOR SOFT STARTER 40D	32500	6,591.75
10016691	PUMP HEAD 40D HANWELL 12915	32500	499.58
10020334	PANEL, PUMP CONTROL 40D HANWEL	32500	5,577.13
10020335	SWITCH, 400 AMP 40D DBLE-THROW	32500	6,692.55
10020336	GENERATOR, 40D-EMRGENCY HOOKUP	32500	2,230.85
10020338	AMMETER 40D TO CHK MOTOR AMPS	32500	3,046.27
10025314	CLA-VALVE 4" HANWELL 12915	32500	4,822.00
10025315	PIPING FOR PIT 4"STL HANWELL	32500	5,500.00
10025317	COLUMN,TUBE 8"X 5' HANWELL	32500	130.2
10025678	PUMP SHAFT 1.5"X 10' 416 SS	32500	5,981.20

10025687	REDUCER,10" X 6" HANWELL 12915	32500	425	
10025690	FLANGE,SLIP-ON 10" 150# 40D	32500	150	
10025692	TEE, 6"X 4" FLG 40D HANWELL	32500	700	
10025696	CLA-VALVE 6" 40D HANWELL	32500	4,022.00	
10025698	STANDS, PIPE (2) 40D HANWELL	32500	150	
10025700	BREAKER, CONTROL PANEL 200 AMP	32500	1,000.00	
10025702	CABLE,FRM CONTRL PANL TO MOTOR	32500	330	
10025705	LIGHTING (1 SET 2 BULB) 12915	32500	2,000.00	
10025714	PIPING,8"PVC FRM E VLV IN PMPH	32500	3,500.00	
10025717	BEND, 6" FLG 90 HANWELL 12915	32500	95	
10025718	VALVE 6" FLG TO FLUSH TO OPEN	32500	250	
10025719	PIPING,6"STL FRM PUMPHOUSE TO	32500	8,750.00	
10025726	LINE FOR EYEWASH 1"PVC(SCH.80)	32500	1,000.00	
10025727	LINE FOR MERCOID 1/2"COP	32500	1,000.00	
10025728	LINE FOR CHLORINE 1.25"PE	32500	741.94	
10025730	PIT,SEEPAGE WELL 40D UPGRADE	32500	17,346.00	
10070804	LIGHT,"CITY POWER"VERIFICATION	32500	828.99	
10072351	SOFTSTART, SAFETRONICS EZ6	32500	9,058.09	
11016691	MOTOR, PUMP 75HP-HANWELL 12915	32500	1,521.91	
11020335	PAD, CONCRETE 40D-FOR SWITCH-	32500	300	
11025681	AIRLINE GAUGE HANWELL 12915	32500	126	
11025696	CRL RELIEF CONTROL PILOT	32500	943.54	
11025714	VALVE, MAIN 6" IN PUMPHOUSE	32500	250	
11025719	VALVE,MAIN 6" HANWELL 12915	32500	250	
66378	BRINE TANK, 55 GAL BLACK	33200		257.50
74314	CHLORINE ANALYZER	33200		5,817.54
79801	ELECTRICAL FOR ANALYZER	33200		3,203.40
79802	PLUMBING FOR ANALYZER	33200		3,162.54
79803	FLUORIDE BUILDING	33200		2,425.65
79804	FLUORIDE BUILDING SLAB	33200		4,044.65
79805	FLUORIDE TANKS (2 X 55 GAL)	33200		771.73
79807	LOW LEVEL SWITCH	33200		643.11
79808	HIGH LEVEL SWITCH	33200		643.11
79809	SOLENOID VALVE	33200		385.87
79810	FLOW REGULATOR	33200		578.80
79811	VACUUM BREAKER	33200		450.18
79812	SATURATOR MANIFOLD	33200		1,028.98
79813	PLUMBING FOR SATURATOR	33200		11,164.18
79814	FLUORIDE FILTER	33200		1,217.65
79815	FRP PANEL W/CONTAINMENT	33200		1,929.33
79816	ELECTRIC PANEL	33200		3,284.13
79855	ELECTRICAL FOR SATURATOR	33200		4,892.38
80637	FLUORIDE ANALYZER	33200		7,596.97
85622	INJECTION PUMP, GRUNDFOS	33200		3,512.64
86535	FLUORIDE MIXER	33200		607.10
91040	TRANSDUCER	33200		185.93
95613	PVDF INJECTION QUILL	33200		323.83
105981	PRESSURE REGULATOR	33200		1,321.52
129526	EXHAUST FAN	33200		354.80
135908	HYPOCHLORITE GENERATOR	33200		5,028.35
136082	AB MICRO LOGIX PLC	33200		8,408.61
136083	6" COLOR TOUCH SCREEN	33200		6,303.45
136084	STAINLESS STEEL PANEL	33200		4,204.31
136085	ELECTRICAL DISCONNECT	33200		842.06
136086	24 VDC POWER SUPPLY	33200		1,263.10
136087	EMERGENCY STOP PUSH BUTTON	33200		421.03
136088	STAINLESS STEEL ENCLOSURE	33200		4,204.31
136089	2.4 KVA STEP DOWN	33200		8,408.61

136090	DC BRIDGE RECTIFIER W/FAN	33200		6,303.45
136091	PANEL MOUNT DISCONNECT	33200		842.06
136092	4-20ma TRANSDUCER	33200		842.06
136093	304 STAINLESS STEEL FRAME	33200		2,490.10
136094	20 PPD CELL	33200		3,729.14
136095	S.S BRINE GEAR PUMP	33200		3,735.16
136096	WATER/BRINE ROTAMETERS	33200		619.52
136097	ANALOG WATER FLOW SENSOR	33200		619.52
136098	OPTICAL LEVEL SWITCH	33200		619.52
136099	TEMPERATURE SENSOR	33200		619.52
136100	HYDROGEN DILUTION BLOWER	33200		643.58
140812	FLUORIDE PUMP	33200		3,049.63
152360	HYPOCHLORITE GENERATOR	33200		94,900.39
175286	Chemical Pump 100 PSI 7bar	33200		3,798.85
10024740	SHED, CL2 40D HANWELL 12915	33200		13,204.65
10048352	METER, K.W. 40D, 12915 HANWELL	33200		989.00
Unassigned	Well 40D Backflow Install	33200		9,520.56
122238	EXHAUST FAN (PORTABLE)	39400	58.64	
82281	4 CHANNEL ENCODER	39700	3,258.65	
82282	FLEXIDOME CAMERA	39700	926.48	
82283	MINI DOME CAMERA	39700	926.48	
71147	ANTENNA POLE	39710	15,079.83	
71305	ANTENNA POLE CONDUIT	39710	7,539.91	
71306	ANTENNA POLE CABLEING	39710	7,539.91	
71307	36"COAX JUMPER(TNC TO TYPE N)	39710	127.05	
71308	iNET ll 900 ETHERNET REMOTE	39710	2,546.15	
71309	SURGE PROTECTOR	39710	154.36	
71310	TY-900 YAGI ANTENNA	39710	283.05	
71311	UN-MANAGED SWITCH	39710	302.59	
71312	TILT MOUNT BRACKET	39710	96.13	
71313	DIGI ETHERNET SERIAL BRIDGE	39710	1,002.84	
86386	TSUNAMI MP8100 SUBSCRIBER UNIT	39710	4,091.96	
86387	SUBSCRIBER ANTENNA	39710	1,176.10	
86388	VDC CONVERTER	39710	537.68	
135906	REMOTE PROXIM RADIO UPGRADE	39710	2,514.23	
10065427	SCADA PANEL	39710	8,000.00	
10065428	PLC 503	39710	5,000.00	
10065429	9 RACK HOLDER	39710	1,500.00	
10065430	INPUT CARD	39710	1,500.00	
10065431	OUTPUT CARD	39710	1,500.00	
10065432	ANALOG CARD	39710	1,500.00	
10065435	PRESSURE TRANSDUCER	39710	5,000.00	
10065436	PHONE LINES,POLE TO PUMP HOUSE	39710	3,365.60	
10065437	INTRUSION SWITCH (PUMP HOUSE)	39710	1,500.00	
10065438	INTRUSION SWITCH (CL2 HOUSE)	39710	1,500.00	
10065439	CL2 FLOW MONITOR	39710	1,500.00	
10067234	SCADA CONSULTATIONS	39710	1,212.29	
10073901	SCADA,ANALOG INPUT MODULE	39710	3,515.00	
10084335	SCADA SOFTWARE IMPROVEMENTS	39710	233.04	

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
131117	131117,LAND RIGHTS, WELL 28D,10438 ALONDRA,131117,LR ,LR5, , , , , ,28 ,,,BELF ,	306	317,449.19
181483	181483,UPGRAD RADIO CONNECTION,WELL 28D POINTING TO 46C,181483,TM ,CM2, , , , , ,	376	26,064.05
181485	181485,CISCO ETHERNET SWITCH - 2000 S,WELL 28D,181485,TM ,CM2, , , , , , ,COMMUNIC	376	5,527.58

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
10012881	WELL, #6E EXCELSIOR 11518	31400	2,887.67
10089797	LOCK BASKET FOR SOUNDER COLUMN	31400	152.4
10089798	LOCK BASKET FOR SOUNDER COLUMN	31400	152.4
105527	CONSERVATION LANDSCAPING	32100	24,234.23
105528	IRRIGATION SYSTEM	32100	8,963.35
10012897	HOUSE,PUMP #6E EXCELSIOR 11518	32100	1,786.22
10012899	FAN, EXHAUST #6E EXCELSIOR	32100	169.3
10073886	LIGHT, SECURITY,06E	32100	1,264.58
10073887	SENSOR, MOTION, 06E	32100	449.76
10078538	ELECTRIC METER MAIN ASSEMBLY	32100	4,069.22
10078539	ELECTRIC DISCONNECT	32100	2,375.50
10078540	ELECTRIC TRANSFORMER	32100	2,323.91
10078541	ELECTRIC LOAD CENTER	32100	2,349.76
10084115	H.O.A. SWITCH, 06-E	32100	422.08
10094053	FENCE,CHAIN LINK 35'X 8'	32100	1,900.19
10094054	FENCE,CHAIN LINK 74'X 8'	32100	2,007.75
10094055	FENCE, WROUGHT IRON 74' X 8'	32100	6,721.87
10094056	FENCE, WROUGHT IRON 5' X 8'	32100	454.19
10094057	FENCE, WROUGHT IRON 10' X 8'	32100	908.36
10094058	GATE, WROUGHT IRON 20' X 8'	32100	1,964.58
11012897	LEAD ABATEMENT & STRUCTURE	32100	7,094.71
10012883	MOTOR, PUMP 50HP #6E EXCELSIOR	32500	846.14
10012884	PUMP HEAD EXCELSIOR 11518 #6E	32500	439.66
10012885	COLUMN, PUMP EXCELSIOR 11518	32500	783.1
10012886	AIRLINE, GALV 1/4" #6E	32500	27.32
10012887	PIPING, PUMP DISCHARGE #6E	32500	90.94
10012889	FILTER, UNIMAZE & FT. VALVE 6E	32500	20.63
10012890	PANEL, PUMP CONTROL #6E	32500	2,195.97
10012891	BOWLS, PUMP 12" LB 5 STG	32500	1,742.67
10012892	SHAFT, PUMP 1.5" EXCELSIOR	32500	393.49
10012893	TUBE, PUMP 2.5" EXCELSIOR	32500	426.27
10012894	CLA - VALVE 4" #6E EXCELSIOR	32500	1,067.29
10012895	VALVE, PRESS & AIR RELIEF #6E	32500	151.87
10012896	METER,6" LINE #6E EXCELSIOR	32500	853.9
10012900	VALVE, PRESSURE RELIEF W/POS	32500	400.73
11012883	PUMP INSTALLATION EXCELSIOR	32500	187.96
11012885	COLUMN, 8" PUMP SUCTION #6E	32500	88.44
11012887	PIPING, PUMP DISCHARGE #6E	32500	637.97
12012885	STRAINER, SUCTION CONE - GALV	32500	57.23
181045	IRRIGATION LINE	32800	4,817.81
57235	CHEMICAL INJECTION PUMP	33200	2,651.46
57236	PULSATION DAMPENER	33200	661.41
57237	PRESSURE RELIEF VALVE	33200	592.39
57238	PIPING	33200	994.48
57239	HDPE 80 GAL STORAGE TANK	33200	659.03
57240	PUMP STAND	33200	706.61
10020435	PUMP, DUAL HEAD CL2	33200	1,576.20
10020488	CHLORINATOR,DUAL HEAD	33200	1,591.28
181040	1" COPPER SERVICE	34500	4,553.61

Asset Number	Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)
10016713	WELL #40B 1052'X 16" (DRILLED	31400	13,340.71
10089800	LOCK BASKET FOR SOUNDER COLUMN	31400	152.4
103211	WROUGHT IRON FENCE, 6FT HIGH	32100	4,969.28
103212	WROUGHT IRON FENCE, 3FT HIGH	32100	5,733.79
103213	CONCRETE MOW STRIP, 65 FT	32100	2,038.68
105521	BOLLARDS AT ENTRANCE TO 40B	32100	1,521.08
105523	CONSERVATION LANDSCAPING	32100	21,731.32
105524	IRRIGATION SYSTEM	32100	7,635.33
10044604	DRIVEWAY, CONCRETE TO 40B	32100	3,080.00
10073894	LIGHT, SECURITY,40B	32100	1,264.58
10073895	SENSOR, MOTION, 40B	32100	449.76
10084123	H.O.A. SWITCH, 40-B	32100	422.08
10088111	FENCING, CHAIN LINK WITH VINYL	32100	3,573.65
10088112	FENCING, CHAIN LINK WITH VINYL	32100	2,243.03
10088113	FENCING, CHAIN LINK WITH VINYL	32100	2,737.26
10088114	GATE, WROUGHT IRON 20FT DOUBLE	32100	1,800.85
10088115	FENCING, WROUGHT IRON WEST OF	32100	1,529.98
10088116	FENCING, WROUGHT IRON EAST OF	32100	1,771.55
10088117	MOW STRIP, 73 FT OF 6" WIDE	32100	1,350.62
10094217	PUMP HOUSE	32100	5,989.06
10094218	PUMP HOUSE SLAB	32100	2,119.59
10094222	CONCRETE CURBING	32100	2,824.22
10094223	ELECTRICAL SYSTEMS	32100	18,085.50
10016717	PUMP HEAD 40B LINDALE 9937	32500	518.29
10016718	COLUMN, PUMP 10" LINDALE 9937	32500	1,146.96
10016719	TUBE, PUMP 2.5" LINDALE 9937	32500	525.9
10016720	SHAFT,PUMP 1.5" LINDALE 9937	32500	485.71
10016721	PUMP INSTALLATION 40B LINDALE	32500	330.38
10016722	PUMP FOUNDATION 40B LINDALE	32500	40.64
10016723	AIRLINE, 1/4" GALV 40-B LNDALE	32500	19.97
10016724	SAMPLING STATION 40B LINDALE	32500	53.51
10016725	PRESSURE SWITCH 40B LINDALE	32500	40.72
10016726	BOWLS, 12" MB 5 STG	32500	1,610.22
10016727	VALVE, 8" SURGE CONTROL	32500	347.66
10016728	RESERVOIR,OIL 2GAL W/DRIP REG	32500	88.81
10016729	PANEL, PUMP CONTROL 40B	32500	2,255.77
10016732	PIPING, PUMP DISCHARGE 40B	32500	6,862.22
10020737	VALVE, 6" AMES CLA-VALVE	32500	2,547.41
10020738	VALVE,2"AIR-RELIEF APCO 800	32500	757.84
10020739	METER,6"McCROMETER FLG MW 500	32500	1,507.82
11016717	MOTOR,PUMP 100HP LINDALE 9937	32500	2,014.94
11016718	COLUMN, SUCTION W/STRAINER 8	32500	86.71
11016732	PIPING, PUMP DISCHARGE 40B	32500	1,829.93
11020737	VALVE,6"AUTO-CONTROL AMES	32500	3,414.75
12016732	PIPING, PUMP DISCHARGE 40B	32500	2,287.41
12020737	ELECTRICAL FOR AMES VALVE 40B	32500	249.82
180693	BACKFLOW DEVICE FOR IRRIGATION	32800	6,854.07
57727	CHEMICAL INJECTION PUMP	33200	2,651.48
57731	PULSATION DAMPENER	33200	661.39
57735	PRESSURE RELIEF VALVE	33200	592.4
57739	PIPING	33200	994.47
57743	HDPE 80 GAL STORAGE TANK	33200	659.01
57747	PUMP STAND	33200	706.59
10017016	WASH, EYE/FACE @ 40B LINDALE	33200	233.01
10094224	CHLORINE HOUSE	33200	2,216.35
10094225	CHLORINE HOUSE SLAB	33200	1,589.68

Liberty Utilities - Central Basin Misc. T & D and Meters- 2024-2028

California Construction Cost Index 2016-2022

	2016	2017	2018	2019	2020	2021	2022
Annual Percentage Increase	4.40%	3.50%	1.30%	3.60%	2.80%	13.40%	9.30%
Current Five Year Average/ Current Approximation 2018-2022							6.08%

		2024					2025					2026				
Projected Replacement Meters	Unit Cost in 2023	Qty	Escalated Unit Cost	Unit Cost plus 10% Sales Tax	Unit Cost plus 8% admin Burden	Total escalated to 2024	Qty	Unit Cost	Unit Cost plus 10% Sales Tax	Unit Cost plus 8% admin Burden	Total escalated to 2025	Qty	Unit Cost	Unit Cost plus 10% Sales Tax	Unit Cost plus 8% admin Burden	Total escalated to 2026
5/8" Meters	**$293**	2300	$311	$342	$369	$849,008	2300	$330	$363	$392	$900,628	2300	$350	$377	$407	$935,844
1" Meters	**$304**	50	$322	$355	$383	$19,153	50	$342	$376	$406	$20,317	50	$363	$391	$422	$21,112
1-1/2" Meters	**$451**	35	$479	$527	$569	$19,902	40	$508	$559	$603	$24,128	40	$539	$580	$627	$25,071
2" Meters	**$516**	20	$547	$602	$650	$13,005	20	$581	$639	$690	$13,796	20	$616	$664	$717	$14,335
3" Meters	**$4,137**	5	$4,388	$4,827	$5,213	$26,067	5	$4,655	$5,121	$5,530	$27,652	5	$4,938	$5,321	$5,747	$28,733
4" Meters	**$4,239**	3	$4,497	$4,946	$5,342	$16,026	3	$4,770	$5,247	$5,667	$17,001	3	$5,060	$5,452	$5,889	$17,666
6" Meters	**$5,832**	2	$6,187	$6,805	$7,350	$14,699	2	$6,563	$7,219	$7,797	$15,593	2	$6,962	$7,501	$8,101	$16,203
8" Meters	**$8,072**	0	$8,563	$9,419	$10,173	$0	0	$9,083	$9,992	$10,791	$0	0	$9,636	$10,383	$11,213	$0
						$957,861					$1,019,115					$1,058,965

2027					2028				
Qty	Unit Cost	Unit Cost plus 10% Sales Tax	Unit Cost plus 8% admin Burden	Total escalated to 2027	Qty	Unit Cost	Unit Cost plus 10% Sales Tax	Unit Cost plus 8% admin Burden	Total escalated to 2028
2300	$371	$408	$441	$1,013,474	2300	$393	$433	$467	$1,075,093
50	$385	$423	$457	$22,863	50	$408	$449	$485	$24,253
45	$571	$629	$679	$30,545	45	$606	$667	$720	$32,402
20	$653	$719	$776	$15,524	30	$693	$762	$823	$24,702
5	$5,239	$5,762	$6,223	$31,117	5	$5,557	$6,113	$6,602	$33,009
3	$5,368	$5,905	$6,377	$19,131	3	$5,694	$6,264	$6,765	$20,294
1	$7,385	$8,124	$8,773	$8,773	0	$7,834	$8,618	$9,307	$0
0	$10,222	$11,244	$12,143	$0	0	$10,843	$11,927	$12,882	$0
				$1,141,428					$1,209,753

Description	Date Acquired	Power Rating in Kilowatts	Mobile or Stationary
EMERGENCY GENERATOR - OFFICE BUILDING GENERAC 180 KW	8/7/2009	180 kW	Stationary
GENERATOR, 408kW - WELL 19C	5/19/2012	408 kW	Stationary
GENERATOR - FOREST GREEN	1986	75kW	Stationary
EMERGENCY GENERATOR - GENERAC 180 KW	8/7/2009	180 kW	Mobile
EMERGENCY GENERATOR - GENERAC 180 KW	8/7/2009	180 kW	Mobile
MAGNUM GENERATOR MMG205 - GENERAC 205 KW	12/5/2012	205 kW	Mobile
EMERGENCY GENERATOR - UNIT 117	6/6/2013	205KW	Mobile
CATERILLAR MODEL XQ230 TOWABLE	5/25/2021	182kW	Mobile

Attachment 1-11:
A.21-07-003 et al., AVR's Workpapers Excerpt

LIBERTY APPLE VALLEY

Workpapers

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Section 6
Plant

Liberty Utilities - Apple Valley 2015 - 2019 Historical Data - 2020 Normalization

Engineering News Record **Construction Cost Index History**

CCI - Annual Percent Increase

	Los Angeles	Denver	20-City Average		LA	Denver	20 Cities Average
YEAR		Denver					
2014	10,748	7,074	9,936				
2015	11,117	7,074	10,152		3.43%	0.00%	2.17%
2016	11,555	7,366	10,530		3.94%	4.13%	3.72%
2017	11,936	7,412	10,873		3.30%	0.62%	3.26%
2018	12,012	7,514	11,186		0.64%	1.38%	2.88%
2019	12,034	7,536	11,381		0.18%	0.29%	1.74%
Current Five Year Average/ Current Approximation					2.30%	1.28%	2.76%

	2015			2020	2016			2020	2017			2020	2018			2020	2019			2020	Normalized Average 2020 Unit Price	5 Year Average
	Qty	Total	Unit Price	Normalized	Qty	Total	Unit Price	Normalized	Qty	Total	Unit Price	Normalized	Qty	Total	Unit Price	Normalized	Qty	Total	Unit Price	Normalized		
Meters																						
3/4" Meters	227	$51,203	$226	$258	1,244	$268,165	$216	$242	2,033	$388,473	$191	$207	3,100	$618,901	$200	$209	2,310	$633,232	$274	$279	$232	1783
1" Meters	100	$28,446	$284	$326	213	$66,342	$311	$349	164	$41,034	$250	$270	480	$119,010	$248	$260	400	$147,381	$368	$375	$314	271
1-1/2" Meters	7	$3,490	$499	$571	5	$2,609	$522	$585	15	$6,001	$400	$432	40	$17,347	$434	$454	57	$30,930	$543	$552	$508	25
2" Meters	0	$0	$0	$0	9	$6,217	$691	$774	25	$13,160	$526	$569	40	$21,930	$548	$574	44	$30,251	$688	$699	$635	24
3" Meters	5	$8,113	$1,623	$1,859	0	$0	$0	$0	0	$0	$0	$0	4	$7,912	$1,978	$2,070	1	$2,067	$2,067	$2,103	$1,968	2
4" Meters	2	$5,467	$2,734	$3,131	10	$15,018	$1,502	$1,684	0	$0	$0	$0	2	$5,479	$2,739	$2,867	2	$5,601	$2,801	$2,849	$2,158	3
6" Meters	3	$10,059	$3,353	$3,841	0	$0	$0	$0	0	$0	$0	$0	0	$0	$0	$0	2	$8,848	$4,424	$4,501	$4,105	1
8" Meters	0	$0	$0	$0	0	$0	$0	$0	0	0	$0	$0	2	26567.04	$13,284	$13,904	0	0	$0	$0	$0	0

0

Attachment 1-12:
A.21-07-003 et al., AVR's Response to DR AA9-10

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711
Fax: 562-861-5902

December 22, 2021

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.

A.21-07-004

2022-2024 General Rate Case

Data Request No.: AA9-10 (Plant Meters)

Requesting Party: Public Advocates Office

Originator: Cortney Sorensen Cortney.Sorensen@cpuc.ca.gov
Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Daniel Zarchy Daniel.Zarchy@cpuc.ca.gov

Date Received: December 15, 2021

Due Date: December 22, 2021

REQUEST NO. 1:

For each meter size in Liberty (Park)'s Central Basin division, provide the quantity and total cost for meters that Liberty (Park) installed in years 2018, 2019, and 2020.

RESPONSE:

	2018		2019		2020	
Size	Qty	Cost	Qty	Cost	Qty	Cost
1"	176	$78,461.62	200	$120,207.00	100	$75,747.00
2"	84	$48,766.79	85	$70,361.01	50	$34,300.67
3"	2	$4,265.74	9	$18,290.16	6	$14,381.67
4"	4	$11,189.06	7	$20,695.29	6	$18,792.04
6"	2	$7,836.72				
1 1/2"	61	$27,337.37	60	$38,340.00		
5/8"	5000	$1,018,223.67	641	$390,998.64	2600	$714,700.89
Grand Total	**5329**	**$1,196,080.97**	**1002**	**$658,892.10**	**2762**	**$857,922.27**

This completes the response to Data Request No. AA9-10. If you have any questions, or require additional information, please contact me.

Very truly yours,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachment 1-13:

AVR's Response to DR 042-AA

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

May 24, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	042-AA (AVR Wells 2 and Other Plant)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Date Received:	May 17, 2024
Due Date:	May 24, 2024

REQUEST NO. 1:

In Exhibit B, page 88, Liberty (AVR) states that it proposes to construct a well building for the existing Well 34. On the same page, Liberty (AVR) states that the existing well is located adjacent to an existing housing tract that, when developed, will surround Well 34 with homes. Liberty (AVR) further states that the well building will enhance security of the site, protect the well from the environment, and abate noise issues. Liberty (AVR) also states that it plans to replace Well 34's electrical system. On page 89 of Exhibit B, Liberty (AVR) makes similar statements regarding its project to construct a well building at Well 18.

a) Please identify and provide documentation for any noise complaints that Liberty (AVR) has received for Well 34 or Well 18 from 2014 to 2023.

b) Please identify and provide documentation for any security incidents where a trespasser damaged Liberty (AVR)'s wells or equipment at Well 34 or Well 18 from 2014 to 2023.

c) Does Liberty (AVR) have security cameras installed at the Well 34 or Well 18 sites?

d) What equipment, for example electrical cables, is usually damaged by trespassers during security incidents in the Apple Valley water system in general from 2014 to 2023?

e) Are any electrical cables currently exposed at Well 34 or Well 18? If yes, provide photos of the electrical cables for both Well 34 and Well 18.

f) What damage or other issues has Liberty (AVR) observed and what rehabilitation has Liberty (AVR) completed to address environmental damage to wells without an enclosing building in the Apple Valley water system?

g) Has Liberty (AVR) conducted a cost-benefit analysis comparing the cost of the well building to any benefits of a well building, such as increased expected service life? If yes, provide documentation of that cost-benefit analysis.

h) Does Liberty (AVR) plan to install a permanent back-up generator at the site of Well 34 or Well 18?

i) Does Liberty (AVR) know in what year the developer of the housing tract will begin building homes? If yes, provide documentation of communication with the developer showing when home construction begins.

j) What is the age and expected service life of the existing electrical equipment at Well 34?

k) Does Liberty (AVR) replace Well electrical equipment according to a schedule or after observing operational issues with the equipment? If yes, provide documentation of Liberty (AVR)'s replacement schedule for well electrical equipment or recorded operational issues of the electrical equipment at Well 34.

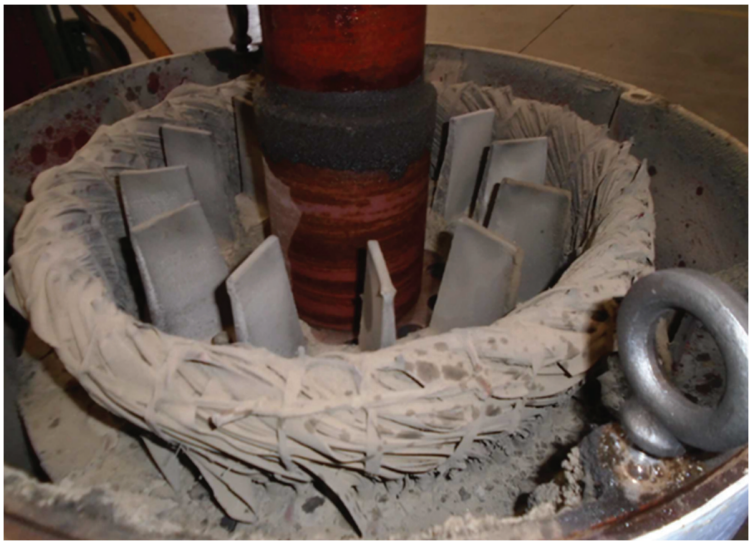
RESPONSE:

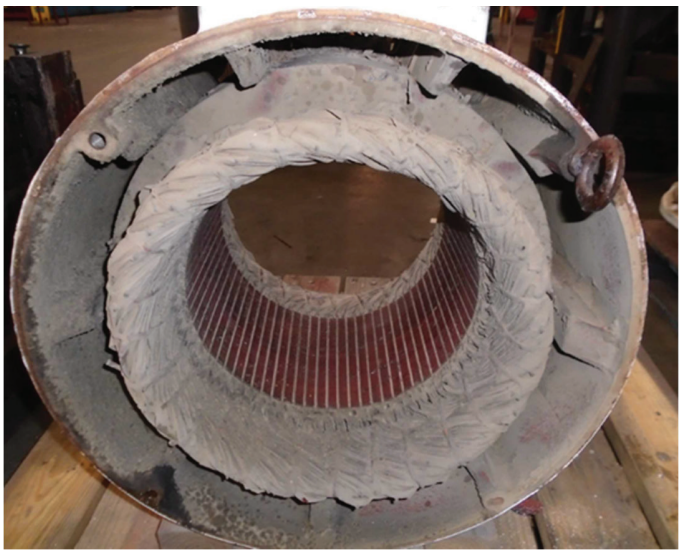
a) Liberty does not have documentation of noise complaints from 2014 to 2023 for Wells 34 and 14. Customer complaints were handled verbally via telephone. There have been historical complaints from the housing tract to the east of the Well site.
b) Aside from tagging of perimeter signs, Liberty has been fortunate not to have had any physical breaches. These wells supply drinking water into our system. A sturdy enclosure provides protection against vandalism, theft and terrorism or tampering. Liberty is much better able to secure facilities in a structure that is not easily breached.
c) Both Well 34 and Well 18 have cameras.
d) Fortunately, Liberty has not had any major damage except for fencing and tagging at its facilities. Liberty prefers to take a proactive approach and design its facilities to have the best chance of avoiding significant damage should such events occur. It should be noted

that examples of theft and damage that happen prior to 2014 include: chain link fence stolen, generator destroyed for copper, and destruction of a main breaker at a well site.

e) No, all electrical cables are either in panels, below grade or in rigid or flex conduits.

f) Liberty has observed electrical motor damage to equipment that is outside exposed to the elements. With the winds in the high desert, dust buildup in the motor windings and bearings can cause premature failure paired with other damage to motor. (See pic of Liberty's Well 20R pump motor that had to be rewound below). Additionally, the U.S. Department of Homeland Security and the U.S.E.P.A. require water systems to conduct periodic vulnerability assessments. Well facilities that are outside with minimal protection are more vulnerable to attack than those in secure enclosures. Consequently, Liberty is working to provide secure structures for all its wells. Lastly, Apple Valley is subject to extreme temperatures throughout the year – from high temperatures in excess of 110 degrees in the summer to single-digit low, freezing temperatures in the winter. Maintaining pumping and disinfection equipment in a sturdy weather tight structure minimizes facility deterioration and failures from those extreme temperatures and exposure to the elements (sun, wind, rain and snow); it also extends the useful life of that equipment. In the past Liberty has utilized chain link fence with heavy duty tarps as protection from vandalism and the elements. This requires frequent replacement and offers minimal protection against both vandalism and the outside elements.





g) No.

h) Liberty does not plan to install permanent backup generation at either of these sites. However, Well 18 does have existing connections for portable generator hookup.

i) Liberty has reviewed plans for the housing Tract 18763 that will surround the Well 34 site. The fact that the developer has prepared plans for the housing tract indicates that the development will happen. Liberty does not know the timing of building the housing tract

j) Liberty AVR uses 25 years as the expected life of pump electrical equipment. The VFD was replaced in 2017, and SCADA panel was installed in 2007. All other electrical equipment was installed prior to 2007.

k) Electrical equipment is usually replaced and/or upgraded after operational issues occur. In most cases, once equipment has failed, the existing equipment is no longer

manufactured or supported therefore upgrades are necessary.

REQUEST NO. 2:

In Exhibit B, page 84, Liberty (AVR) states that it proposes to replace the existing natural gas engine that powers Well 19 and replace it with an electrical system. Liberty (AVR) states that due to the age of the current Waukesha L3711 12-cylinder natural gas engine, it is difficult to secure replacement parts and expensive to maintain it. Liberty (AVR) further states that operation of Well 19 is limited by the local air resources control board due to byproducts of natural gas combustion.

a) When did Liberty (AVR) install the current natural gas engine?

b) What was the expected service life of the current natural gas engine when Liberty (AVR) installed it?

c) What vendor(s) are Liberty (AVR) currently using to replace parts of the natural gas engine.

d) When did the local air resources control board begin to limit the operation of Well 19? Provide documentation of the relevant rules, orders, or communications where the local air resources control board limited the operation of Well 19 from 2014 to 2023.

e) Provide documentation from a vendor or contractor that shows the unit costs that Liberty (AVR) used to develop the cost estimate for the project at Well 19.

RESPONSE:

a) The natural gas engine was installed in 1970.

b) For depreciation, the expected life is 25 years for other pumping equipment. It is not known what the life expectancy of the natural gas engine was. However, the 50+ years it has been in service has likely surpassed estimations.

c) Liberty currently uses Support Product Services, Power Plus, and Duthie Power Services.

d) Well 19 is not limited on run times. However, if operating hours exceed 100 hours annually, air quality monitoring is required per MDAQMD District Rule 1160(C) See attached permit (Liberty AV - Well #19 (Facility #1391) Permit)

e) Liberty used costs derived from work on other wells.

REQUEST NO. 3:

In Exhibit B, page 86, Liberty (AVR) states that it proposes to construct a new well building and update the electrical systems, discharge piping and equipment, disinfection system, and entry gates at Well 12.

a) Has Liberty (AVR) completed the design of Well 12 as of May 16, 2024?

b) Please explain the progress that Liberty (AVR) has made to complete its proposed project at Well 12 over the period of January 1, 2018 to May 16, 2024?

RESPONSE:

a) Yes, the design plans for Well 12 are complete as of May 16, 2024.

b) Liberty has completed the building design of Well 12. Liberty has also been issued a conditional use permit by the Town of Apple Valley, provided a road dedication to the Town, and received the SCE design plans for a new service installation. On May 8, 2024, Liberty was issued the building permit by the Town to proceed with construction.

REQUEST NO. 4:

In Exhibit B, pages 80-81, Liberty (AVR) states that it is continuing to replace meters at a rate to keep up with meter aging and battery failures. On page 80 of Exhibit B, Liberty (AVR) states that battery failure increases the labor involved with meter reading. In its Workpapers, Section 6, page 6-2, Liberty (AVR) shows a Construction Work in-Progress (CWIP) balance of $1,440,161 as of 2022 for Account number 346 Meters. In its Workpapers, page 6-62, Liberty (AVR) provides a meter replacement schedule with unit costs for 5/8-inch meters and meters of other sizes.

a) Please provide vendor quotes for the 5/8-inch, 1-1/12, and 2-inch meters that Liberty (AVR) proposed to install. Also provide the meter replacement schedule on page 6-62 in a Microsoft Excel format.

b) How many total 5/8-inch meters are currently installed at Liberty (AVR)'s water systems as of January 1, 2024?

c) Did Liberty (AVR) change vendors for 5/8-inch Automated Meter Reading (AMR) meters after it discovered the battery failures of existing AMR meters? If yes, provide the year when Liberty (AVR) changed vendors.

d) Explain why Liberty (AVR) has a CWIP balance of $1,440,161 for the Account no. 346

Meters. Specify whether this CWIP balance includes the cost of a portion of the 5/8-in AMR meters that Liberty (AVR) installed from 2018 to 2023.

e) Provide the number of 5/8-inch AMR meters that Liberty (AVR) replaced each year from 2018 to 2023.

f) Did Liberty (AVR) install any 5/8-inch AMR meter at a connection for the first time (i.e. an AMR installation where Liberty (AVR) did not replace an existing AMR meter) from 2018 to 2023? If yes, provide the number of those 5/8-inch AMR new installations for each year from 2018 to 2023.

g) Does Liberty (AVR) plan to replace any 5/8-inch AMR meters as part of main replacement projects? If yes, does Liberty (AVR) include the 5/8-inch AMR meters that it proposes to replace as part of main replacement projects in the number of 5/8-inch AMR meter replacements for years 2024 to 2027 that appears in the schedule on page 6-62 of Liberty (AVR)'s Workpapers?

RESPONSE:

a) See attachments prefaced Q4a.

b) There are 18,473 5/8" meters installed as of January 1, 2024.

c) Yes, Liberty changed vendors in 2019.

d) Yes, a portion of the $1,440,161 for the account number 346 Meters includes the cost of the 5/8" meters installed from 2018 to 2023

e) Number of meters replaced each year

2018	2019	2020	2021	2022	2023
1840	1842	1413	2890	2326	843

f) Number of new meters installed for each year

2018	2019	2020	2021	2022	2023
101	82	100	125	81	46

g) No, Liberty AVR does not have plans to replace any 5/8" meters as part of the main replacement projects.

REQUEST NO. 5:

In Exhibit B, page 84, Liberty (AVR) states that it proposes to replace an existing emergency or back-up generator at the Helbro Well site in the Yermo water system. In its Workpapers, page 6-77, Liberty (AVR) shows that it bases the cost estimate of the proposed Helbro generator on a base unit cost of $70,000.

a) Provide documentation from a vendor or contractor that shows the $70,000 unit cost for the proposed Helbro generator. Please note that this is not a replacement generator. There is currently no generator at this site.

b) Please identify all emergency or back-up power generators that Liberty (AVR) currently has in Rate Base. For each generator, specify the year Liberty (AVR) acquired it, the power rating in kilowatts, and whether the generator is mobile or stationary.

c) What is the expected service life of the back-up generators that Liberty (AVR) normally purchases?

d) Provide the power rating for the proposed Helbro generator and explain why Liberty (AVR) does not plan to use one of Liberty (AVR)'s existing mobile generators at the Helbro Well site.

e) Explain whether Liberty (AVR) proposes that Helbro generator should be a mobile generator or a permanent generator stationed at a specific site. If Liberty (AVR) proposes a permanent generator, explain why a mobile generator could not be used.

f) Please explain whether Liberty (AVR) is required to report the number of hours that back-up generators operate throughout the year to a regulatory agency, such as an Air Quality Management District (AQMD). Please provide copies of any permits AQMD or otherwise that Liberty has for the generators.

g) Provide records, such as reports to an AQMD or another agency, that show the number of hours that Liberty (AVR) has used each back-up generator from 2014 to 2023.

h) What year did Liberty (AVR) begin to acquire and operate back-up generators for its water systems?

i) Please identify, in excel format, each occasion in which Liberty (AVR) has used more than one generator at a time including the incident date, cause, and duration from 2014 to 2023.

j) Please provide a detailed explanation of the occasion when Liberty (AVR) has had to use

the greatest number of back-up generators at the same time.

RESPONSE:

a) This cost was based off Liberty's purchase of the existing generator at Marine Well 1 in the Yermo System. See attached quotes prefaced Q5a.

b) See table below:

Liberty Generator Data

Location	Stationary/Portable	Year	Gen Set	kW
Portable	Portable	1997	Gen-01	350
Portable	Portable	1998	Gen-02	350
Portable	Portable	1998	Gen-03	350
Office	Stationary	1998	Gen-04	80
Portable	Stationary	1998	Gen-05	20
Portable	Stationary	1998	Gen-06	20
Stoddard	Stationary	1998	Gen-07	180
DK Tanks	Stationary	1994	Gen-08	50
Well 22	Stationary	2001	Gen-10	800
Well 26	Stationary	2001	Gen-11	800
Well 29	Stationary	2003	Gen-12	800
Corwin BPS	Stationary	2005	Gen-13	230
Well 33	Stationary	2006	Gen-14	500
Well 36	Stationary	2007	Gen-15	500
Stoddard BPS	Stationary	2007	Gen-16	200
Marine Well 1	Stationary	2016	Gen-17	80
Well 35	Stationary	2019	Gen-18	600

c) The expected service life of backup generators that Liberty purchases is approximately 15 years.

d) Liberty plans to equip the Helbro Well site with an 80kW unit like the Marine Well 1 site. The Yermo system is a 45-minute drive from where Liberty's portable units are stored, and, if there is an outage in the system and Liberty's single generator does not start, the entire system runs the risk of being out of water, which could also create high potential for contamination.

e) Please reference response to 5d above.

f) Yes, Liberty is required to submit generator usage to Mojave Desert Air Quality

Management District on an annual basis. Attached are copies of all the generator permits.

g) The generator usage data are provided in the attachments from year 2014 to 2023.

h) Liberty began acquiring and operating backup generators since 1997.

i) See generator usage spreadsheets provided in response h. The spreadsheets log the incident date, cause and duration of each generator used by year from 2014 to 2023.

j) In 2020, Liberty utilized 6 backup generators to relieve the grid when California declared an Energy Emergency Alert 3 during a week-long heat wave that swept the state.

REQUEST NO. 6:

In its Workpapers, page 6-91, Liberty (AVR) shows a cost estimate of $3,000,000 in 2026 and $2,065,170 in 2027 for "AV Campus Solar," for a total of $5,065,170.

a) Did Liberty (AVR) provide any testimony supporting the "AV Campus Solar" capital project? If yes, identify the document and page numbers.

b) Besides solar panels, please explain if the "AV Campus Solar" project would require other capital additions such as structures to support the solar panels. If the project does require more capital additions, are the cost estimates for these additions included in the $5,065,170 total?

c) Identify the site for the "AV Campus Solar" project and provide site drawings showing how Liberty (AVR) would fit the "AV Campus Solar" plant at the site.

d) Provide documentation, in Microsoft Excel format, that shows a breakdown for the $5,065,170 cost estimate. Also provide documentation from a vendor or contractor that shows the unit costs that Liberty (AVR) used to develop the $5,065,170 cost estimate.

e) Identify and explain all annual savings that will result from the "AV Campus Solar" capital project. Identify the file, tab, and cell numbers where the reduced expenses appear in Liberty (AVR)'s current Results of Operations (RO) Model.

f) Provide a cost-benefit analysis for the "AV Campus Solar" capital project that, at least, identifies the expected service life of the project, estimated initial and annual costs and savings, and break-even point for the project.

g) Is Liberty (AVR) pursuing any grants or incentives by the federal, state, or local governments, the electric utility, or other organization for the "AV Campus Solar" capital project. If yes, identify the grants or incentives and the status of Liberty (AVR)'s

applications for the grants.

h) Does Liberty (AVR)'s RO Model in the current GRC Application offset the cost estimate of the "AV Campus Solar" project with grants, incentives, or other contributions? If yes, identify the file, tab, and cell numbers where this calculation occurs in the RO Model.

RESPONSE:

a) Liberty included testimony for the solar project in the Revenue Requirement Report Chapter VI.D.3 Site and Structure Improvements (page 89).

b) The cost estimate includes the cost of all facilities required to construct the solar project, including support structures.

c) A site drawing showing the proposed locations for the solar panels is provided as an attachment.

d) A rough cost estimate is included with the response.

e) The solar project will cover all SCE usage charges for generation and delivery at the site. The estimated savings for power cost is $70,000 per year.

f) Liberty has not prepared a cost-benefit analysis for this project. The primary reason for this project is to reduce the use of power from the grid by replacing that with solar power, while at the same time providing shade from the intense desert environment. The project is intended to help pursue state green initiatives.

g) No.

h) No.

REQUEST NO. 7:

In Exhibit B, page 95, Liberty (AVR) states that it "intends to submit an Application early next year requesting recovery of the Apple Valley office building project which is currently in the construction phase." Following discussions between the staff of the Public Advocates Office and Liberty (AVR) during the Public Advocates Office's site visit of the Apple Valley water system on March 19, 2023, it was the understanding of Public Advocates Office staff that the Apple Valley Office Building has a cost estimate of approximately $20 million. Does the $20 million cost estimate for the Apple Valley Office Building project include the $5 million cost estimate of the "AV Campus Solar" project?

RESPONSE:

No.

This completes the response to Data Request No. 042-AA. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Attachment 2-1:

Park's Response to DR 015-AA

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

March 14, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	015-AA (Well 28D)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Date Received:	March 7, 2024
Due Date:	March 14, 2024

REQUEST NO. 1:

In Exhibit B p. 50, Liberty (Park) states that the recently completed Well 28D cannot be used as a source of water supply for the Bellflower/Norwalk water system. On the same page, Liberty (Park) states that it discovered water quality issues after it drilled the well and conducted initial zone sampling. Liberty (Park) states that the State of California will not allow Well 28D "to be put into full operation without a treatment system being installed for manganese removal" on lines 24-26 of Exhibit B p. 50.

a) Provide documentation of all water samples that show a detection of manganese for Well 28D with the corresponding sampling dates.

b) When did Liberty (Park) become aware of the presence of manganese at concentrations of at least 50% of the Maximum Contaminant Level ("MCL") at the Well 28D site? Please provide supporting documentation of Liberty (Park)'s answer.

c) How did Liberty decide on the location for Well 28D?

d) What studies did Liberty perform before proposing Well 28D?

e) Please provide copies of all studies, technical memoranda, internal or external communications, and other documents related to Well 28D planning, construction, and operation.

f) After initial zone sampling, how does Liberty (Park) sample for substances such as manganese specifically for a proposed well site?

g) Aside from samples that Liberty (Park) collected during initial zone sampling, did Liberty (Park) collect any samples for manganese that were below 50% of the MCL?

h) Did Liberty (Park) account for the possibility that the water supply that Liberty (Park) pumps from the Well 28D site would require treatment at a time before Liberty (Park) drilled the well and installed the well equipment?

(i) If yes, please explain how Liberty (Park) accounted for possible water quality issues at the Well 28D site.

(ii) If no, please explain why Liberty (Park) did not account for possible water quality issues.

i) Did Liberty (Park) consider drilling a test well to collect samples for water quality issues before completing the Well 28D construction? Please explain in detail.

j) Can Liberty (Park) collect samples for water quality issues after drilling a well but before installing the well equipment?

RESPONSE:

a) Please see the attachments with preface Q1a. The following water quality reports are provided with dates:

Isolated Aquifer Zone Sampling – 06.13.18

Depth Specific Groundwater Sampling – 07.26.18

Final Depth Specific Groundwater Sampling – 10.04.18

Final Well Blend – Non Compliance Title 22 – 08.23.18

Title 22 (1000 gpm) – 10.28.20

Title 22 (2000 gpm) – 10.28.20

Title 22 (2000 gpm) – 10.29.20

Title 22 Well 28D (fully constructed) – 09.26.22

Title 22 (1000 gpm) – 05.03.23

Title 22 (1500 gpm) – 05.04.23

Well 28D – 02.15.24

Title 22 – 02.15.24

b) Liberty first became aware through water quality sampling test results dated 06/13/2018.

c) In 2015, Liberty contracted with a real estate agent to find property within its Bellflower/Norwalk water system area that was adequately sized for a groundwater well facility. The agent was only able to find this site and Liberty moved forward and closed escrow on this property in June 2015.

d) Liberty hired Richard C. Slade and Associates to provide hydrogeologic services to evaluate a new proposed well site and to prepare a preliminary groundwater well design for the Company's Well 28D project.

e) Please see the attachments preface Q1e. The following documents for Well 28D are provided:

Summary of Well Construction Operation Report (SOWCO)

Well Completion Report

Drinking Water Source Assessment and Protection Program Report (DWSAP)

Geotechnical Report

Addendum Geotechnical Report

Hydrogeologic Sensitivity Analysis – Technical Memorandum

Low Impact Development Plan (LID)

Well 28D Building, Facilities, and Equipment Design Plans

SCADA Drawings

Technical Specifications

Standard Drawings

O&M Plan – Sodium Hypochlorite Generation System

f) After zone testing from the pilot hole and the decision to proceed for full installation of the well casing is made, water quality test sampling is not conducted until the well

is fully constructed, hydraulically developed, and pumping equipment is installed. Once this is done, DDW Title 22 samples are taken to add the new water production facility to Liberty's DDW permit to operate the water system.

g) No.

h) Yes.

(i) Liberty contracted the services of a hydrogeologic consultant to complete a Final Well Design Memorandum for Well 28D. This memorandum included a geologic log of drill cuttings and a downhole geophysical survey of the pilot hole of the new well. It summarized the results of the downhole isolated aquifer zone testing from the pilot hole (field water level and pumping measurements; field water quality measurements; and results of analysis of water quality measurements). It had a sieve analysis from selected depth-specific drill cuttings, and it included the technical specifications for the construction of the new water well.

The memorandum included the following text:

> "*The elevated detected concentrations of Al and Fe likely due to the presence of colloidal clays in the groundwater samples that were digested for the analysis of these analytes. The detections of aluminum coincide with some of the higher detections of iron, manganese, and arsenic. It is highly probable that once the new well is thoroughly developed and a final well blend sample collected, the concentrations of Al, As, Fe and Mn concentrations could be at acceptable values. It should be noted that turbidity will also likely be at an acceptable value after the new well is thoroughly developed and a final well blend sample collected. It should be noted that RCS is recommending a final well design (as described below) that does not include perforating the earth materials that were tested in Zone Nos. 1, 5 and 6, whose zone samples yielded some of the higher elevated concentrations of Al, As and Mn.*
>
> *However, it is possible that Al, As, Fe and Mn concentrations could be detected in groundwater pumped from the new well. Further, over time, Al, As, Fe and Mn concentrations could change, although the direction of this change (an increase or decrease) cannot be ascertained at this time. Treatment may or may not be needed eventually at the well site for these constituents.*
>
> *In previous experience with isolated aquifer zone tests in other water well*

construction projects, RCS has observed similar patterns of detection of trace metals. In many cases where Fe and/or Mn were detected in those zone tests, the subsequent well blend samples from the newly constructed wells (for these two trace metals) were observed to decrease toward lower or even non-detected concentrations. Thus, it is possible that the final detected concentration of Fe and/or Mn could be lower than the concentrations detected in the zone tests in the final well blend sample from Well No. 28D."

The full construction of the Well 28D casing proceeded based on the hydrogeologic consultant's report, which noted that based on their experience, well blend samples from fully completed and hydrogeologically developed wells yield test results that tend to decrease toward lower or even non-detect concentrations. Thus, it is possible that the final detected concentration of Fe and/or Mn could be lower than the concentrations detected in the zone tests in the final well blend sample from Well No. 28D.

i) The construction of the groundwater casing portion of this project first required the drilling of a pilot hole for the full casing depth. Once this was completed, the drilling contractor conducted isolated aquifer zone testing through the open pilot hole. Once the test results were analyzed and reviewed, the decision was made to proceed with the full reaming of the pilot hole to the required diameter and installation of the well casing and gravel pack proceeded. It is a standard practice in the industry to use the pilot bore for water quality testing rather than drilling a completely separate test well.

j) Yes, a temporary pump and piping can be installed at the well for samples to be collected and tested.

In October 2020 Liberty installed a temporary pump and pulled water samples to determine if PFAS/PFOA is in the well. This activity was performed before the equipping of Well 28D.

REQUEST NO. 2:

Regarding Well 28D, Liberty (Park) further states that it "continues to evaluate the viability of treatment options for this well, which are not expected to be performed during this GRC cycle" on lines 26-27 of Exhibit B p. 50.

a) Please provide a definition of "evaluate," as Liberty (Park) uses the term in the quoted text.

b) What treatment options has Liberty (Park) evaluated since the manganese detection?

c) What treatment options does Liberty (Park) plan to evaluate during the current GRC cycle?

d) Explain why Liberty (Park) does not expect to perform the treatment options during the current GRC cycle.

e) What year does Liberty (Park) now expect to place Well 28D in service?

f) Aside from manganese, has Liberty (Park) detected other substances with concentrations near drinking water standards, such as Maximum Contaminant Levels?2

RESPONSE:

a) Liberty's definition of "evaluate" is determining an appropriate solution for a problem by studying different options and utilizing the most cost-effective solution.

b) The sample that exceeded the manganese MCL was a blend of water from all the different aquifers along the well casing. Liberty decided to perform zone testing at Well 28D to see if it could install packers at high manganese contributing aquifers and obtain a remaining blend that would meet all MCLs. If the zone sampling is successful and packers were installed, then no water treatment would likely be required. However, if the zone sampling revealed levels that exceeded MCLs at every aquifer zone, a treatment plant would be required to meet water quality regulations.

   The zone testing was completed in February 2024. Liberty recently received the water quality sample test results which indicated manganese levels exceeding the MCL at every aquifer zone. Liberty is now required to install a water treatment system that will remove manganese. The most cost-effective solution to remove manganese is typically some form of catalytic oxidation. Liberty is beginning to look into the options for this type of treatment.

c) See b) above.

d) Liberty has limited internal resources and must contract design of a treatment plant to a consulting firm. The consulting firm will need to work with State regulators on developing a pilot test of various filter media types to determine the most economic option. Once the pilot bench test results are approved by the State, full design of the system and sourcing of vessels and other equipment can occur.

e) Assuming that everything proceeds without delay, including design, contracting, construction, and permitting by the City and State DDW, Liberty estimates having the system to be online in 2028 and will be included in the next GRC.

f) Yes, recent sampling has revealed arsenic levels above the MCL.

REQUEST NO. 3:

Liberty (Park) stated on p. 37, lines 2-4 of its Rebuttal Testimony in its 2022 GRC, A.21-07-003 et al, that: "Well 28D is forecast at a total cost of over $4M. This cost is for the construction of the well, the pump house, and site improvements, and the installation of the pumping and treatment equipment. What is not included in this cost was the purchase of the land." On p. 36, lines 24-25 of the same testimony, Liberty (Park) stated that to use Well 28D: "the least cost alternative was to construct a transmission main…."

a) Explain whether Liberty (Park) includes the recorded costs of Well 28D in the rate base forecast for Test Years 2025 and 2026 of the current GRC including: the $4 million for the improvements at the Well 28D site, the cost of the land purchase, and the cost of the transmission main.

b) If yes to question 3.a, identify the values (in detail) and locations of all these recorded costs in the Results of Operation ("RO") model. In Liberty (Park)'s response, please include the cell references for the excel version of the RO model.

c) Aside from any proposed plant that Liberty (Park) will consider after it evaluates treatment options, did Liberty (Park) complete construction of Well 28D, related site improvements, and the transmission main connecting the well to the water system? If yes, provide the date when the construction was completed, such as when Liberty (Park) filed a Notice of Completion for work at this site.

d) Explain whether there are any plant improvements at the Well 28D site that Liberty (Park) currently uses or plans to use in the current GRC cycle for any purpose besides producing water from Well 28D.

e) Does Liberty (Park) currently use or plan to use in the current GRC cycle the transmission main that Liberty (Park) installed to connect Well 28D for any purpose besides transmitting the water production from Well 28D?

RESPONSE:

a) The total cost of Well 28D, excluding land, was $6,073,567 (includes transmission cost of $2,140,252), which is included in the 2022 year-end construction work in-progress (CWIP) balance. Please see file "PW25 CApEX", tab "CB – Budget Detail", line 82. The land was purchased in the amount of $317,449 and closed in 2015 in utility plant Account #306.

b) Please see the response to 3a.

c) Yes, this project was completed in August 2022. As an IOU, Liberty is not required to file a Notice of Completion for any of its company-funded construction projects.

d) Yes, Liberty uses this site as a demonstration garden for native plants and rainwater capture for its customers. Liberty also uses the SCADA tower, SCADA radios, and SCADA equipment inside the well building, which serves as a radio pathway for Liberty's other remote water production facilities. Liberty has also utilized this site for storage of equipment and materials during construction projects.

e) This water transmission main is in service and provides a source of water that meets water quality standards for customers along the south side of Alondra Boulevard, as well as a source of supply for the Well 28D property.

This completes the response to Data Request No. 015-AA. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Attachment 2-2:
CPUC Staff Memorandum on CWIP May 11, 1982

State of California

M E M O R A N D U M

Date : May 11, 1982
(For June 2 Conference)

To : THE COMMISSION

From : M. Abramson, Acting Director, Revenue Requirements Div.
W. R. Ahern, Director, Util. Div.
B. Barkovich, Director, Policy Div.

Subject: Policy for Including CWIP in Rate Base for Water Utilities

RECOMMENDATION: It is recommended that the current policy of including construction work in progress (CWIP) in rate base for water utilities be continued. This should not lead the Commission to endorse a similar policy for energy and telecommunications utilities where construction time often exceeds one year.

SUMMARY: Water utility construction projects require on the average about 4 months to complete. This is a considerably shorter period of time than comparable energy utilities. Approximately 69% of new construction is company funded. New construction approximates 6% of the total plant in service and the amount of company funded CWIP, carried into a succeeding year, is only about 0.4%. Thus the perceived disbenefits of CWIP for ratepayers of (1) reduction in utility risk and thus management efficiency, and (2) intertemporal equity shifts, are minimized for water utilities. The financial benefit of disallowing CWIP in rate base is very small, and would, in the long run, be reduced and made even smaller, by the offsetting revenue requirement increase associated with the interest charges.

DISCUSSION: There are nearly 400 water jurisdictions (companies and districts) under regulation. Because of the inherent difficulty of studying a large number of districts, it was decided that to analyze typical construction projects, a few districts would be chosen as representative of the many systems throughout California. The data came from eight water districts representing

five water companies (see below). The data is from 1980 company records. Our choice was based on readily available data and a desire to include districts of various sizes, water sources and geographical locations.

Name	No. of Customers	County
Asuza Valley Water	15,467	Los Angeles
California American Water		
Monterey	33,090	Monterey
California Water Service		
East Los Angeles	27,618	Los Angeles
Oroville	3,724	Butte
Selma	3,550	Fresno
South San Francisco	15,395	San Mateo
San Jose Water	187,195	Santa Clara
Southern California Water		
Calipatria - Niland	1,030	Imperial

Water Utility Construction

Water projects with significant construction periods fall into five major categories: 1) miscellaneous structures, 2) tanks and reservoirs, 3) transmission and distribution mains, 4) treatment facilities and 5) wells. Transmission and distribution mains represent the largest on-going construction projects. Treatment facilities are usually major projects but are infrequently constructed and as a result the dollar impact in any given year is minimal. The average construction time and project costs for 1980 as a percentage of total plant by categories are:

Category	Construction Time	% of Plant
Miscellaneous Structures	3.1 months	1.2%
Tanks and Reservoirs	6.2	.2
Trans. and Distribution Mains	3.9	4.0
Treatment Facilities	8.3	.5
Wells	2.5	.1

It should be noted that for each category of plant that: 1) the actual construction time is well under a year and 2) the relative cost when compared to total plant is small. The inference here is that the amount of CWIP carried over from one year to the next and the interest earned prior to placing the plant in service are both relatively small. These points are examined later in the discussion.

Plant additions as a percent of total plant averaged 6% for the eight districts. The amount of contributions-in-aid-of-construction as a percentage of plant additions was 9% and the amount of advances for construction represented 22% of plant additions. Therefore, on the average, the companies funded 69% of the plant additions for the year.

The amount of CWIP at year end as a percentage of total plant additions for the year averaged 10%. Viewed another way, the amount of CWIP at year end was about 0.6% of total plant. It is reasonable to assume that the percentage of year-end CWIP that is company funded would approximate the 69% mentioned previously for plant additions in general. Therefore, any company funded CWIP carry-over into a succeeding year would be about 0.4% (69%x 0.6% = 0.4% approx.) of total plant.

Small Water Utilities Compared to Large Water Utilities

Although this study focuses primarily on Class A water utilities, the results also apply to CWIP inclusion into rate base for the smaller Class B, C and D water utilities. This follows because the types of construction, discussed earlier, are the same for all classes of water utilities. However, the average time to complete construction projects for smaller water utilities would be less, because the projects are smaller. As previously discussed, CWIP carry-over into a succeeding year, the major concern for ratemaking, is minimal for Class A's and would be less for Class B's, C's and D's. A further consideration is the lack of sophistication of many of the smaller water utilities; the burden of adding interest to projects as they are being constructed (i.e., keeping AFUDC accounts), would overwhelm many of them. Therefore, it is concluded that this study applies equally well to all water utilities.

Water Utilities Compared With Energy Utilities

To put water utility CWIP in perspective a comparison with energy utility CWIP is useful. Based on 1980 recorded information for the three largest combination electric and gas utilities the most significant fact is that on the average, CWIP carried over from one year to the next approximates 37% of total plant. This compares with the previously mentioned 0.4% for water utilities. This large year to year carry-over for energy utilities is principally due to the tremendous costs and construction times for electric generation facilities. It is the source of widespread concern (and the basis for current Commission policy disallowing CWIP in rate base for other utilities) that placing CWIP in rate base both (1) reduces utility risk and therefore the incentive to minimize costs, and (2) creates intertemporal equity problems (i.e., current ratepayers pay for plant that benefits later ratepayers).

It is interesting to note that even with the large CWIP carry-over, the average plant additions as a percent of total plant for energy utilities is 7% versus the 6% for water. For the gas operations only, the CWIP carry-over approximates 1.7%, a figure more in line with that for water utilities. This similarity is as expected since both use similar plant such as pumping, storage and transmission facilities.

If the Commission continues to allow CWIP in rate base for water utilities it should make clear that this situation does not lead the Commission to endorse a similar policy for energy and telecommunications utilities.

Commission Policy on Water Utility CWIP

An exhaustive search of past Commission decisions on water utility CWIP in rate base yielded very little in the way of a guide on the subject. The few decisions that were found tended to support traditional thinking, which is based on the argument that the short construction times coupled with relatively small amounts in CWIP for most water construction projects does away with the need for interest during construction. Hence, water utility CWIP has and is being placed directly into rate base for ratemaking.

Although interest bearing CWIP is not allowed in the ratemaking rate base, California American Water Company, Citizen Utilities Company, CP National and Pacific Gas and Electric Company at times have booked interest for major construction projects. These projects were not considered for ratemaking until placed into service. Though all of these water utilities have been in for rate increases in the last 5 years, CWIP in rate base has not been an issue.

Impact of Denying CWIP

To determine the financial impact of denying CWIP in rate base, two recent rate decisions for California Water Service (Bear Gulch and Hermosa-Redondo) were analyzed. In water utility rate proceedings, rates are designed for 3 years (two test years and an attrition year). Because the analysis herein requires a full summary of earnings, only the two test years were analyzed. The attrition year was not examined because no forecast is made of its summary of earnings. However, the result in the attrition year should approximate that of the second test year. The assumptions used in the analysis were: simple interest at 10% per annum on all company funded construction projects, an average construction time of 4 months per project, and the amount of CWIP funded by the company is 69%.

In the Bear Gulch proceeding, D.93845, dated December 15, 1981, the Commission authorized amounts of $462,600 (or 9.6%) in 1982 and $268,400 (or 5.0%) in 1983. A recalculation of the adopted results, to reflect the denial of CWIP in rate base yields a reduction in gross revenue requirement of $43,600 (or 0.9%) in 1982 and $43,600 (or 0.8%) in 1983.

In the Hermosa-Redondo proceeding, D.820151, dated January 5, 1982, the Commission authorized amounts of $599,500 (or 12.4%) in 1982 and $207,700 (or 3.8%) in 1983. A recalculation of the adopted results to reflect the denial of CWIP in rate base yields a reduction in gross revenue requirements of $25,700 (or 0.5%) in 1982 and $21,800 (or 0.4%) in 1983.

In these two districts, the impact of removing CWIP from the rate base results in an insignificant reduction, less than 1%, in gross revenues for each of the two test years 1982 and 1983. It is understood that the results are unique to these districts. However, given the short duration of the typical water project and the dollar amounts actually financed by the utility it is reasonable to conclude that similar results would be obtained in most water jurisdictions.

One consideration which we cannot, at this time, give a hard figure for, is the long-term impact of the build-up in interest charges if CWIP is disallowed in rate base for ratemaking. This interest will definitely cause the rate base to be larger than it would be if CWIP is allowed. The revenue requirements for this increase in rate base would tend to reduce the already small benefit of disallowing CWIP in rate base.

WF:wp

Attachment 2-3:
Cal Advocates Workpaper Recorded Costs of Wells

	A	B	C	D	E	F	G	H	I	J	K
1	**Cal Advocates Analysis of Recorded Costs at Wells**										
2											
3										**Compton**	
4	**CPUC Account Number**	**Account Description**	**Well 28B**	**Well 41A**	**Well 46C**	**Well 4B**	**Well 40D**	**Well 28D**	**Well 12C**	**East Well**	
5	30600	Land and Land Rights	$ 611	$ 502	$ 500	$ 384	$ 448	$ 317,449	$ 468,972	$ 831,456	
6	31400	Wells	$ 9,096	$ 6,659	$ 31,849	$ 7,202	$ 108,532	$ -	$ -	$ -	
7	32100	Pumping Structures & …	$ 55,500	$ 199,266	$ 201,158	$ 200,757	$ 100,494	$ -	$ 1,232,691	$ -	
8	32400	Pumping Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ 942,911	$ -	
9	32500	Electric Pumping Equipment	$ 398,097	$ 287,422	$ 303,859	$ 161,027	$ 173,940	$ -	$ -	$ -	
10	32510	-	$ -	$ 986	$ -	$ -	$ -	$ -	$ -	$ -	
11	33200	Water Treatment Equipment	$ 135,208	$ 202,129	$ 306,147	$ 128,956	$ 245,414	$ -	$ 562,686	$ -	
12	34200	T&D Reservoirs & Tanks	$ -	$ -	$ -	$ 3,868	$ -	$ -	$ -	$ -	
13	34300	T&D Mains	$ 5,061	$ 5,787	$ -	$ 13,921	$ -	$ -	$ -	$ -	
14	34500	T&D Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
15	39400	Tools, Shop, & … Equipment	$ -	$ -	$ -	$ -	$ 59	$ -	$ -	$ -	
16	39700	Communication Equipment	$ 8,944	$ 2,644	$ 6,098	$ 4,750	$ 5,112	$ -	$ -	$ -	
17	39710	Telemetry Equipment	$ 162,567	$ 83,130	$ 247,066	$ 76,160	$ 79,818	$ -	$ 249,927	$ -	
18	39800	-	$ -	$ -	$ 98	$ 99	$ -	$ -	$ -	$ -	
19	**Total**		**$ 775,084**	**$ 788,526**	**$ 1,096,774**	**$ 597,123**	**$ 713,816**	**$ 317,449**	**$ 3,457,186**	**$ 831,456**	
20											
21			**Total of Wells**	**Land at Well**	**Total of Well**	**Compton**					
22	**CPUC Account Number**		**28B, 41A, 4B, and 40D**	**28D**	**12C**	**East Well**					
23	30600	Land and Land Rights	$ 1,945	$ 317,449	$ 468,972	$ 831,456					
24	31400	Wells	$ 131,488		$ -						
25	32100	Pumping Structures & …	$ 556,016		$ 1,232,691						
26	32400	Pumping Other Equipment	$ -		$ 942,911						
27	32500	Electric Pumping Equipment	$ 1,020,486		$ -						
28	32510	-	$ 986		$ -						
29	33200	Water Treatment Equipment	$ 711,707		$ 562,686						
30	34200	T&D Reservoirs & Tanks	$ 3,868		$ -						
31	34300	T&D Mains	$ 24,769		$ -						
32	34500	T&D Services	$ -		$ -						
33	39700	Communication Equipment	$ 21,449		$ -						
34	39710	Telemetry Equipment	$ 401,676		$ 249,927						
35	39400	Tools, Shop, & … Equipment	$ 59		$ -						
36	39800	-	$ 99		$ -						
37	**Total**		**$ 2,874,549**	**$ 317,449**	**$ 3,457,186**	**$ 831,456**					
38											
39	**Well 28D Recorded CWIP**			**$ 6,101,232**							
40											
41	**Well 28D Total Calculation**			**$ 6,418,681**							

Notes:

The Source for Land Data is Liberty's Response to DR 039-ZS, Q.4.

The RO Model does not use an Account 32510

The RO Model does not use an Account 39800

Attachment 2-4:

Liberty's Response to DR 039-ZS

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

May 10, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	039-ZS (Recorded Plants)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Zaved Sarkar Zaved.Sarkar@cpuc.ca.gov
Date Received:	May 3, 2024
Due Date:	May 10, 2024

REQUEST NO. 1:

Please provide in an Excel format the details of the projects completed and placed in service for the years 2021 to 2023. Include all projects that Liberty (AVR) records a cost for in its Workpaper file, AV25 Ratebase.xlsx, tab "TOTAL." For each project, please provide the project name, NARUC account number, work order number, completion date, and recorded cost. Project names should contain plant site or street names where applicable.

RESPONSE:

Please see the attachments with preface Q1.

REQUEST NO. 2:

Please provide in an Excel format the details of the projects completed and placed in service for the years 2021 to 2023. Include all projects that Liberty (Park) records a cost for in its Workpaper file, PW25 Ratebase.xlsx, tabs "CB Plant". For each project, please provide the project name, NARUC account number, work order number, completion date, and recorded cost. Project names should contain plant site or street names where applicable.

RESPONSE:

Please see the attachments with preface Q2.

REQUEST NO. 3:

In AVR Section 6 Workpapers, page 2, Liberty (AVR) categorizes its Domestic division's utility plant-in-service balance by CPUC and NARUC account number. For the accounts listed in the table, provide an excel document identifying all plant-in-service that Liberty (AVR) records as of December 31, 2023, its recorded cost, and the year it was added to utility plant-in-service. Include a site or street name to identify each plant addition.

RESPONSE:

Please see the attachment with preface Q3.

REQUEST NO. 4:

In Park Section 6 Workpapers, page 2, Liberty (Park) categorizes its Central Basin division's utility plant-in-service balance by CPUC and NARUC account number. For the accounts listed in the table, provide an excel document identifying all plant-in-service that Liberty (Park) records as of December 31, 2023, its recorded cost, and the year it was added to utility plant-in-service. Include a site or street name to identify each plant addition.

RESPONSE:

Please see the attachment with preface Q4.

This completes the response to Data Request No. 039-ZS. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Attachment 2-5:
Park Water Company Water System
Master Plan Excerpt

LIBERTY UTILITIES – DOWNEY WATER SYSTEM

Liberty™

FEBRUARY 2024

WATER SYSTEM MASTER PLAN

BELLFLOWER / NORWALK

COMPTON WEST

COMPTON EAST

STETSON ENGINEERS INC.

Northern California • Southern California • Arizona • Colorado • Oregon

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APPENDICES:

LIST OF TABLES

Table 3.2 Groundwater Wells Data

Well Name	Year of Well Casing Installed	Casing Depth (ft)	Screen Intervals (Feet below Ground Surface)	Nominal Capacity (gpm)	Available Capacity (gpm)	Ground Elevation (ft)	Static GW Depth (ft)	Pumping GW Depth (ft)	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Bellflower/Norwalk System									
Well 6E	1949	270	122/146	597	517	80	90	105	Standby
Well 28B	1950	644	568/612	1,223	1,063	90	105.3	115.6	Offline
Well 28D	2018	1,000	601/689; 721/839; 859/979	2,000	2,000	76	112	147	Not Yet Permitted
Well 40B	1950	1,052	565/596; 608/899; 909/932	619	619	85	101	106	Standby
Well 40D	1950	606	546/572	750	590	85	99.4	115.5	**Active**
Well 41A	1948	527	269/279; 462/475; 482/500	950	820	98	105.6	133.7	Offline
Well 46C	1950	728	626 /631; 643/688	1,200	708	85	103.5	111.3	Offline
Compton East System									
Well 4B	1952	423	363/389	720	795	75	100.9	131.5	**Active**
Well 9D	1999	600	450/500; 560/580	1,200	1,200	59	92.3	108.8	**Active**
Compton West System									
Well 12C	2015	650	0/435; 435/650	2,500	675	90	125	131	**Active**
Well 19C	2010	850	600/640; 660/700; 735/760	2,000	1,593	90	137	195.2	**Active**

Data sources:

- Columns (2), (3), (4), and (7): Well data sheets provided by Liberty.
- Column (5): Engineering Report - Lynwood/Rancho Dominguez System, May 4, 2022.
- Column (6), (8), and (9): Recent SCE pump tests (except for Wells 12C, 28D, 6E, and 40B for which wells data sheets were used).

Note on well size: All wells are 16" in diameter.

Note on Well 12C capacity: The much lower available capacity of W12C (675 gpm) than nominal capacity (2,500 gpm) is due to packers installed to address stinky water (hydrogen sulfide).

CHAPTER 7 – EXISTING SYSTEM EVALUATION

The purpose of this Chapter is to evaluate Liberty's existing distribution system under various operating conditions using the performance evaluation criteria described in Chapter 6 and the existing system demands analyzed in Chapter 4. This chapter presents the existing system evaluation results and improvement projects to address the identified deficiencies.

7.1 Water Supply Capacity Analysis

Liberty's Downey potable water distribution system is supplied from groundwater wells producing water from the Central Basin and imported treated surface water purchased from MWD through CBMWD. A more detailed description of the historical and existing water supplies, as well as the existing groundwater treatment facilities, is described in Chapter 3 and Chapter 5.

A water supply capacity analysis was conducted for each of the three separate systems using the supply capacities presented in Table 3.2 of Chapter 3 and the existing demands presented in Table 4.5 of Chapter 4. As it is not realistic to assume that all supply sources are available at all times due to operational requirements, maintenance needs, temporary outages, water quality changes, mechanical failures, and the availability/reliability of the imported water from MWD, the firm supply capacity in each pressure zone (i.e., each individual system) was used. The firm supply capacity is defined as the total treated supply capacity with the largest well or supply source out of service in a pressure zone. For Liberty's Downey water system, imported water purchased from MWD is the largest supply source and is assumed to be unavailable. Imported water can have availability and reliability concerns, especially during drought years[20]. Under this assumption, the adequacy of the existing supply capacity of groundwater wells was evaluated using the recommended performance criteria in Chapter 6 which are summarized below:

[20] MWD has an annual entitlement (or "Table A Entitlement") to receive imported water from the State Water Project (SWP). The California Department of Water Resources (DWR) establishes annual Table A allocations (or a percentage of the maximum Table A Entitlement amount) that will be available for each year, as well as through the course of the year depending on hydrological and water supply conditions. On April 20, 2023, DWR set the Table A allocation at 100 percent. Over the past 10 years (from 2014 through 2023), the Table A allocation has averaged 40 percent. The most recent year that DWR set the Table A allocation at 100 percent was in 2006. However, DWR has set the Table A allocation as low as 5 percent in 2014, 2021, and 2022.

MWD also imports Colorado River water from the Colorado River Aqueduct. The Department of the Interior announced in May 2023 that an agreement had been reached to reduce Colorado River water use (of at least 3 million acre-feet) over the next three years to prevent reservoirs from falling to critically low levels. In response, MWD indicated in May 2023 that the consensus alternative agreed to would produce needed short-term stability to the Colorado River system. In addition, MWD will continue to develop long-term, post-2026 solutions to the Colorado River.

In addition to SWP and Colorado River reliability, MWD conducts periodic shutdowns (lasting from several days to more than several weeks) in order to perform pipeline maintenance and repairs. During these periods, access to imported water from MWD is reduced or limited.

In pressure zones with storage:

- Provide firm supply capacity equal to MDD; meet peak hour demand (PHD) and fire flow requirement during MDD from a combination of supply sources and storage[21].

In pressure zones without storage:

- Provide firm supply capacity equal to PHD or MDD plus fire flow, whichever is larger.

All three separate systems (Bellflower/Norwalk, Compton East, and Compton West) have storage reservoirs and, therefore, only the first criterion above was applied in the supply capacity analysis.

Table 7.1 shows the results of firm supply capacity analysis under existing MDD conditions with the assumption of the MWD connection out of service. The firm supply capacity analysis indicates all three systems have inadequate groundwater well supply capacity with deficit numbers under existing MDD conditions summarized below:

- Bellflower/Norwalk: deficit: -5,940 gpm
- Compton East: deficit: -536 gpm
- Compton West: deficit: -440 gpm

Note that the firm supply capacity analysis for the Compton East system considered Liberty's plan to replace the old Well 4B (795 gpm; drilled in 1952) which has reached the end of its useful life (see Sections 7.4.1 and 7.4.2). Without Well 4B, the Compton East system would have a deficit of 536 gpm in firm supply capacity under existing MDD conditions. However, the deficit in the Compton East system would be resolved with the addition of Liberty's planned replacement well (i.e. Rosecrans well).

An additional analysis regarding Liberty's future water supply capacity conditions is provided in Section 8.1.

Based on the existing system water supply capacity analysis presented in Table 7.1, the following improvements are recommended to address the water supply capacity deficiency for Bellflower/Norwalk and Compton West systems under MDD conditions:

Bellflower/Norwalk:

- Reactivate all the offline wells (28B, 28D, 41A, and 46C) and the standby wells (6E and 40B) by installing appropriate water treatment facilities. With this recommendation, the total available supply capacity would be 6,317 gpm, and the deficit in the Bellflower/Norwalk system would be reduced to 213 gpm for meeting the required existing MDD of 6,530 gpm (6,530 – 6,317 = 213 gpm). Given the groundwater quality conditions beneath the Bellflower/Norwalk system, construction of newer wells would most likely

[21] In pressure zones with storage, given the firm supply capacity equal to MDD, the peak hour demand (PHD) and/or fire flow requirement during the MDD will be met by both the water supply facilities and outflow from reservoir storage. The performance criterion here is intended to evaluate if the existing water supply facility have sufficient firm capacity to meet the MDD. If not, additional water supply facilities would be needed. The evaluation here inherently assumes that the reservoir storage has sufficient volume to provide the demand higher than the MDD by gravity and/or pumping. The adequacy of storage capacity and pumping capacity will be analyzed in Section 7.2 and Section 7.3, respectively.

require treatment anyway. Reactivating the offline wells and the standby wells and installing water treatment facilities would be considered more cost effective.

- Refurbish the Well 40D pump as recommended in Section 7.5 based on the energy efficiency analysis and restore its operating capacity (590 gpm) to its original nominal (design) capacity (750 gpm). This recommendation would further reduce the deficit from 213 gpm to 53 gpm.

Compton East:

- Replace Well 4B with a new well with a capacity of at least 850 gpm to meet both the required existing and projected future MDDs. With this recommendation, the total available supply capacity in the Compton East system would be 2,050 gpm, and there would be a surplus of 314 gpm for meeting the required existing MDD of 1,736 gpm and also adequate for meeting the required future (2045) MDD (see Section 8.1). Liberty has already secured the property at 2301 E. Rosecrans Ave, Compton for the replacement for Well 4B which is adjacent to the Compton East Reservoir and Booster Pump Station 10A site. This location allows the replacement well (i.e. Rosecrans well) to efficiently pump directly into the adjacent reservoir.

Compton West:

- Install a new well with a capacity of 900 gpm to resolve both existing and projected future MDD deficits. With this recommendation, the total available supply capacity in the Compton West system would be 3,168 gpm, and there would be a surplus of 460 gpm for meeting the required existing MDD of 2,708 gpm and also adequate for meeting the required future (2045) MDD (see Section 8.1).

Table 7.1 Water Supply Capacity Analysis – Existing Demand Conditions
(Assuming the largest supply source of imported water from MWD is unavailable)

System	Well Name	Existing Available Capacity (gpm)	Well Status	Existing MDD (gpm)	Surplus (+) or Deficit (-) (gpm)
Bellflower/ Norwalk	Well 6E	517	Standby		
	Well 28B	1,063	Offline		
	Well 28D	2,000	Not Yet Permitted		
	Well 40B	619	Standby		
	Well 40D	590	**Active**		
	Well 41A	820	Offline		
	Well 46C	708	Offline		
	Total Active Available Capacity	**590**		**6,530**	**-5,940**
Compton East	Well 4B	-	To Be Replaced		
	Well 9D	1,200	**Active**		
	Total Active Available Capacity	**1,200**		**1,736**	**-536**
Compton West	Well 12C	675	**Active**		
	Well 19C	1,593	**Active**		
	Total Active Available Capacity	**2,268**		**2,708**	**-440**

Notes on existing MDD (see Table 4.5):

- Bellflower/Norwalk: MDD: 9.4 MGD or 6,530 gpm
- Compton East: MDD: 2.5 MGD or 1,736 gpm
- Compton West: MDD: 3.9 MGD or 2,708 gpm

7.2 Storage Capacity Analysis

The storage analysis evaluates Liberty's existing reservoir storage capacities based on the performance evaluation criteria listed in Chapter 7 under existing MDD conditions. These storage criteria include three components, namely operational storage, fire storage, and emergency storage, which are summarized below:

Storage Component	Recommended Performance Criteria
Operational Storage:	In pressure zones with continuous water supply • 4 hours of PHD In pressure zones without continuous water supply • 100% MDD
Fire Storage:	Waived; Fire flows will be supplemented by the high capacity MWD connections and/or emergency interconnections.
Emergency Storage:	Waived; Emergency flows will be supplemented by the high capacity MWD connections and/or emergency interconnections.
Total Storage Required:	Operational storage + Fire Storage + Emergency Storage

Liberty's Downey system has continuous water supply with groundwater wells in all pressure zones. So, the first criterion above for determining operational storage applies.

The analysis compares the total available and total required storage for each of the three separate systems and is summarized in Table 7.2. The existing storage capacity analysis indicates the Bellflower/Norwalk system currently has inadequate storage capacity and the other two systems have adequate storage capacity. This result is reasonable since the Bellflower/Norwalk system is the largest system but has the least existing storage. The storage capacity surplus and deficit numbers are summarized below:

- Bellflower/Norwalk: deficit: -1.89 MG
- Compton East: surplus: 0.02 MG
- Compton West: surplus: 0.37 MG

An additional analysis regarding Liberty's future water storage capacity conditions is provided in Section 8.2.

Based on the existing system storage capacity analysis presented in Table 7.2, the following improvements are recommended to address the storage capacity deficiency for the Bellflower/Norwalk system.

Bellflower/Norwalk:

Install a new storage reservoir with a capacity of 1.9 MG at an appropriate location.

Table 7.2 Reservoir Storage Capacity Analysis (MG) – Existing Demand Conditions

System	Storage Tank Name	Existing Operating Capacity	Required Storage				Surplus (+) or Deficit (-)
			Equalization Storage (4 hours of PHD)	Fire Storage (4,000 gpm for 4 hours)	Emergency Storage (25% MDD)	Total Required Storage	
Bellflower / Norwalk	Res. 29J	0.44					
	Total	**0.44**	2.33	waived	waived	**2.33**	**-1.89**
Compton East	Res. 10A	0.65					
	Total	**0.65**	0.63	waived	waived	**0.63**	**0.02**
Compton West	Tank 16A	0.22					
	Res. 19B	1.12					
	Total	**1.34**	0.97	waived	waived	**0.97**	**0.37**

Notes on existing MDD and PHD (see Table 4.5):

- Bellflower/Norwalk: MDD: 9.4 MGD; PHD: 14.0 MGD
- Compton East: MDD: 2.5 MGD; PHD: 3.8 MGD
- Compton West: MDD: 3.9 MGD; PHD: 5.8 MGD

Attachment 2-6:

Liberty's Response to DR 043-KN

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

May 24, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	043-KN (General Expense)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Katherine Nguyen Katherine.Nguyen@cpuc.ca.gov
Date Received:	May 17, 2024
Due Date:	May 24, 2024

REQUEST NO. 1:

Refer to the 100 Day Update, Workpaper PW25 Expense.xlsx Tab "ExpenseDetail", for each accounts mentioned below please provide a description of the account and a detailed explanation for the recorded year requested:

a. Account 7717.601 Oth-S/S Oper Labor/Exp. Explain the increase expense recorded in 2020.

b. Account 7717.603 Oth-S/S Op Miscellaneous. Explain the increase in expense recorded in 2020.

c. Account 7717.624 Oth-Pump Op Labor/Exp. Explain the increase expense recorded in 2020.

d. Account 7717.665 Oth-T&D Op Misc Exp. Explain the increase unaudited expense in 2023.

e. Account 7762.660 Suppl/Parts-T&D Oper S/E. Explain the increase unaudited expense in 2023.

f. Account 7770.665 Permits-T&D Misc. Explain the increase unaudited expense in 2023.

g. Account 7780 Uniforms. Explain the increase unaudited expense in 2023.

h. Account 7060.2 Customer-Other. Explain the increase expense recorded in 2019.

i. Account 7717.905 Oth-Misc Cust Account. Explain the zeroed expense from 2021 to 2023.

j. Account 7717.910 Oth-Sales Promotion. Explain the increase in expense in 2019.

k. Account 7717.930 Oth-Misc General Exp. Explain the increase in expense in 2022.

l. Account 7762.902 Suppl/Parts-Cust Acct Mtr R. Explain the increase in unaudited expense 2023.

m. Account 7714.932 Equip Mt-General Plant. Explain the increase in expense in 2021 and 2022.

n. Account 7714.672 Paint/Coat-T&D Mt Distrb Reser. From 2022-2023, Park records a decrease in expenses. Please provide an explanation.

   i. Please provide the general ledger to this account from 2019-2021.

   ii. Please provide the work plans Park has for this account during the test year.

o. Account 7761.633 Inventory-Pump Mt Pump Equip. Explain the increase in expense for 2021.

p. Account 7761.673 Inventory-T&D Mt Mains. Explain the increase in expense in 2022.

q. Account 7310. Please explain the quadruple increase from 2018 to 2022.

r. Account 7200.50 Other General Consulting. Explain the increase in expense in 2021 and 2023.

RESPONSE:

a. Temporary workers were hired in 2020 due to extended absences of two employees. Please see attachment prefaced Q1a for the general ledger transactions detail.

b. The costs recorded in this account are mainly for the maintenance of cla-valves on an as-needed basis. Please see attachment prefaced Q1b for the general ledger transactions detail.

c. The 2020 increase is related to with meter wiring-related expenses and a valve that had to be relocated for a safety issue. Please see attachment prefaced Q1c.
d. Cal Advocates granted an extension until May 31, 2024.
e. Cal Advocates granted an extension until May 31, 2024.
f. Cal Advocates granted an extension until May 31, 2024.
g. Cal Advocates granted an extension until May 31, 2024.
h. Autopay mailers were sent to encourage customers set up autopay as a part of the increased community outreach in 2019. Please see attachment prefaced Q1h for the general ledger transactions detail.
i. Cal Advocates granted an extension until May 31, 2024.
j. This account captures promotional items used for community events on an as-needed basis. Please see attachment prefaced Q1j for the general ledger transactions detail.
k. Cal Advocates granted an extension until May 31, 2024.
l. Cal Advocates granted an extension until May 31, 2024.
m. This account records the ongoing maintenance costs associated with the Downey office building. This includes yard maintenance, pest control, janitorial services, office equipment and electrical maintenance. Please see attachment prefaced Q1m for the general ledger transactions detail.
n. Cal Advocates granted an extension until May 31, 2024.
o. This account records the inventory used for maintenance of pumping equipment. The amount recorded in 2021 was a result of an inventory true-up. Please see attachment prefaced Q1o for the general ledger transactions detail.
p. This account records inventory used for main repairs. The increase in 2022 was a result of inventory true-up as well as increases to inventory stock due to supply chain challenges and a need for available stock for emergency repairs. Please see attachment prefaced Q1p for the general ledger transactions detail.
q. Cal Advocates granted an extension until May 31, 2024.
r. Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 2:

Refer to the 100 Day Update, Workpaper AV25 Expense.xlsx Tab "ExpenseDetail", for each accounts mentioned below please provide a description of the account and a detailed explanation for the recorded year requested:

a. Account 6152 Gas or Diesel Fuel. Explain the increase in expenses in 2020 and 2022.

b. Account 6500.624 Temp Labor-Pump Labor/Exp. Explain the increase in expense between 2021 and 2023.

c. Account 7762.642 Suppl/Parts-Wtr Tr Op Lb/Ex. Explain the increase in expense in 2020.

d. Account 6500.903 Temp Labor-Cust Acct Rec/Coll. Explain the increase in expense in 2019.

e. Account 7060.2 Customer-Other. Explain the increase expense recorded in 2019.

f. 7762.908 Supplies/Parts Conservation. Explain why AVR forecasts for this account in the TY. Is Account 7717.908 cover for conservation supplies?

g. Account 7762.9301 Suppl/Parts-Inst/GW Advert. Explain the increase in expenses in 2019 and 2020.

h. Account 6500.673 Temp Labor-T&D Mt Services. Explain the increase in expenses in 2020 and 2021.

i. Account 7717.675 Oth-T&D Mt Services. Explain the expense increase in years 2019 and unaudited year 2023.

j. Account 7761.676 Inventory-T&D Mt Meters. Explain the expense increase in 2020.

k. Account 7761.677 Inventory-T&D Mt Hydrants. Explain the expense increase in unaudited year 2023.

l. Account 7762.614 Suppl/Parts-S/S Mt Well/Spr. Explain the expense increase in unaudited year 2023.

m. Account 7762.652 Suppl/Parts-Wtr Tr Mt Equip. Explain the expense increase in years 2020 and 2021.

n. Account 7762.676 Suppl/Parts-T&D Mt Meters. Explain the expense increase in 2019.

o. Account 7762.932 Suppl/Parts-Mt General Plt. Explain the expense increase in 2019 and 2020.

p. Account 7714.617 Equip Mt-S/S Mt Misc Wtr. Explain the expense increase in unaudited year 2023. Please provide the work plans for the test year.

For questions 1 & 2 above, please provide detailed support to substantiate Liberty's responses above. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any

other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

RESPONSE:

a. In 2020, the State declared an energy emergency and allowed Liberty to utilize backup generators to reduce strain on the grid. Six generators were used during that time. In 2022, the generators were run due to a Southern California Edison (SCE) outage as well as all generators were topped off for full tanks. Please see attachment prefaced Q2a.
b. Cal Advocates granted an extension until May 31, 2024.
c. The account records maintenance of disinfection units, water quality supplies and consumables, as well as annual subscriptions for water quality data. Please see attachment prefaced Q2c.
d. This account did not have an increase in 2019. In addition, there is a $0 request for the test year. Please see attachment prefaced Q2d.
e. Autopay mailers were sent to encourage customers to set up autopay as part of the increased community outreach in 2019. Please see attachment prefaced Q2e.
f. Account No. 7717.908 Other-Conservation is used to record the costs associated with the conservation programs. This account is also used to forecast the conservation programs costs for the test year.
g. This account records the costs associated with the community outreach events. Liberty increased community outreach in 2019. Please see attachment prefaced Q2g for the general ledger transactions detail.
h. The account records the costs of temporary labor assisting with operations while employees are out on vacation or family leave. Temporary labor is utilized on an as-needed basis. Please see attachment prefaced Q2h for the general ledger transactions detail.
i. Cal Advocates granted an extension until May 31, 2024.
j. In 2020, there were some costs associated with the inventories used for main repairs inadvertently recorded to this account. These should have been recorded to Account 7761.673 Inventory-T&D Mt Mains. Please see attachments prefaced Q2j for the general ledger transactions detail of Account Nos. 7761.676 and 7761.673.
k. Cal Advocates granted an extension until May 31, 2024.
l. Cal Advocates granted an extension until May 31, 2024.
m. This account records treatment parts and supplies. In 2020, there were two large MIOX upgrades with parts purchased and recorded to this account. Please see attachment

prefaced Q2m.

n. This account records the costs associated with the maintenance of meters. The increase in 2019 was primarily due to the Automatic Meter Reading (AMR) battery failures, requiring purchases of registers. Please see attachment prefaced Q2n for the general ledger transactions detail.

o. The difference in this account is not a substantial increase. Please see attachment prefaced Q2o.

p. Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 3:

Park provided the general ledger per DR SIB1. Please provide a detailed breakdown for Account 7718.601 Commun Serv-S/S Op Oth. in excel format for the years 2019 to 2023.

Date	Description	Explanation	Actual Amount	

Please provide detailed support to substantiate Liberty's responses in Question 3. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 4:

AVR provided the general ledger per DR SIB1. Please provide a detailed breakdown for Account 7718.601 Commun Serv-S/S Op Oth. in excel format for the years 2019 to 2023. Please provide a detailed explanation for a 13 fold increase in 2023.

Date	Description	Explanation	Actual Amount	

Please provide detailed support to substantiate Liberty's responses to Question 4. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 5:

For Park and AVR: Please explain what the following expenses are and why the negative expenses are not forecasted in the test year. Please identify any other negative expense that Liberty did not forecast in the test year.

a. Park: For accounts-
   - "Inventory-T&D Mt Hydrants" line 292
   - "Gen'l Plant - P/R Burden" line 313
   - "Other-ToolsWk Cl Offset" line 320
   - "Other-Stores Cl Offset", line 379
   - "Other-Trans Cl Offset" line 381
   - "Engineering Payroll to CWIP" line 416,
   - "A&G Transferred Credit" line 529 to 534
   - "Deposit Over and Under" line 183

b. AVR: For accounts-
   - "Other-Stores Cl Offset" line 310
   - "Other-Trans Cl Offset" line 312
   - "Other-Tools/Wk Cl Offset" line 314
   - "Engineering Payroll to CWIP" line 350
   - "Non Service PBOP Cost" line 376 Account 6650.26
   - "Engineering PR Burdens to CWIP" line 381 Account 6650.99
   - "A&G Transfer Credit Total" line 469 to 475 Account 7585 Total.

c. For requests 5.a. and 5.b. Please provide detailed support to substantiate Liberty's responses. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format links and formulas intact.

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 6:

There are some locations within the PW25 Expense.xlsx and AV25 Expnse.xlsx 100 days update

that do not have a forecast, please provide a detailed explanation for the missing forecast. For example:

- Account 6330, 6320 Clearings.
- Account 7310 Insurance.

For Question 6, please provide detailed support to substantiate Liberty's responses. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format links and formulas intact.

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 7:

Per Liberty's response to Cal Advocates' Data Request #09-KN (O&M Expenses), the attachment Q2b 009-KN PW G Oth-TD Op Meter Exp 7717.663 showed that Park hired an outside contractor in years 2018 and 2019. Then in 2020 to 2022, this account was zero or minimal. In 2023, Park recorded $140,088 in this account.

a. Park noted that there is a need for an outside contractor during the test year to assist with the meter replacement program. How many meters will Park replace during the test year that will require an outside contractor?

b. In 2018, 2019, and 2023, how many meters did the outside contractor replace?

c. Between 2018 to 2023, how many meters per year were emergency replacements that needed an outside contractor?

d. Please provide the invoice, bids, receipts to support Park's hiring an outside contractor for its meter replacement.

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 8:

For account "Uninsured Prop Damage" line 397 AVR, please explain these expenses and why they are not covered under AVR's insurance policies. Please explain the negative $227,646 in

2021 and the $570,394 in 2022 in uninsured prop damage.

a. Please provide detailed support to substantiate Liberty Park's responses above. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 9:

Account 7310 Total for Park and AVR. Please explain why the premium from 2021 increased eight folds from 2020. Please provide detailed support to substantiate Liberty Park and AVR's responses above. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 10:

For account "Oth-Inst/GW Advertise" line 159 (Park) and line 134 (AVR), please explain what this account is and why the expense increased in 2023 and 2020.

a. Please also provide the advertising campaigns these costs are associated with, for example, Liberty can provide the advert posted.

b. Please provide the advertisements sent to customers for the years 2020 to 2023.

c. Please provide the general ledger similar to attachment Q1a 010-KN PW 2022 GL 7717 908.xlsx from "DR 10-KN3 Conservation Account"

RESPONSE:

Cal Advocates granted an extension until May 31, 2024.

REQUEST NO. 11:

Per Liberty's response to Cal Advocates' Data Request #10-KN (Conservation Account), Attachment Q1a 010-KN PW 2022 GL 7717 908.xlsx and Q1a 010-KN AV 2022 GL 7717 908.xlsx.

a. Please provide the same formatting for the years 2019, 2020, 2021, and 2023 for AVR and Park.

b. Please explain the Remark (Column P), "portable restrooms", "inner utility agreement","bicycle fog light", "pet water bowl", "sunglasses", "plane glider".

   i. How does each expense, "portable restrooms" for example, fit in with the conservation account?

   ii. Which conservation measure from the Water Use Efficiency (WUE) plan does each of the above remarks belong to?

   iii. Please provide detailed support to substantiate Liberty Park's responses 11.b.i to 11.b.ii. This includes but is not limited to internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

c. For the following remarks: "Socal NewsPaper", "advertising" from The Norwalk Patriot, and Creative Concepts Media, "display ad", and "notices".

   i. Please provide a detailed explanation for the above remarks (display ad, notices, Socal NewsPaper, ad, advertisement, advertising).

   ii. Does Liberty have an analysis based on the cost and how many customers the adverts have been able to reach?

   iii. Please provide detailed support to substantiate Liberty Park's responses 11c.i and 11c.ii. This includes but is not limited to internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

   iv. Provide product for each of the above remarks from the general ledger. For example, Liberty posted an advertisement in the Norwalk Patriot, please provide this advert.

v. Please also explain which measures from the Water Use Efficiency Plan the above expenses falls under.

RESPONSE:

a. Cal Advocates granted an extension until May 31, 2024.

b.

i. "Portable restrooms" listed on both attachments are invoices for the toilet replacement program. These invoices are for the toilets that were delivered and installed for customers. "Inner utility agreement" listed on Q1a 010-KN PW 2022 GL 7717 908 are invoices for the SoCal Gas Partnership. The program run with SoCal Gas replaces existing high water wasting clothes washers with the delivery and installation of a new high efficiency clothes washer, low-flow showerheads, faucet aerators, thermostatic shower valve, and thermostatic tub spouts in residential homes. "Bicycle fog light", "pet water bowl", "sunglasses", and "plane glider" are items utilized at community events to increase customer participation at water conservation booths.

ii. "Portable restrooms" – Toilet Replacement Program; "Inner Utility Agreement" – Fixture Rebate with SoCal Gas; "Bicycle fog light", "pet water bowl", "sunglasses", and "plane glider" - Public Information and Outreach

iii. Please see attachments beginning with "Q11.b.iii".

c.

i. "Display Ad" and "Ad" are the costs for advertisement in The Norwalk Patriot. "Notices" is the cost for translating, printing, and mailing notices for the state declared water shortage stage 2. "Socal NewsPaper" is cost for advertising with SoCal News Group. "Advertising" is for cost of advertisement in The Norwalk Patriot and costs for digital ads. See 11.c.iv for examples.

ii. Liberty has data on people reached, impressions, and links clicked for digital advertisements, radio advertisements, and emails sent from Liberty.

iii. Please see attachment beginning with "Q11.c.iii".

iv. Please see attachments beginning with "Q11.c.iv".

v. Public Information and Outreach

REQUEST NO. 12:

Per attachments Q1a 010-KN AV/PW Description-Cost Detail and Q1 010-KN AV/PW Programs Summary, as part of Liberty's response to Cal Advocates' Data Request #10-KN, Liberty has consistently had success with approximately 8 measures from the Water Use Efficiency Plan.

a. The WUE plan on pg. 12-7 (Park) highlights 20 different measures. Please provide detailed explanation for Liberty Park and AVR only being able to perform 8/20 measures consistently since 2018.

RESPONSE:

Liberty provided a program summary that included programs that have costs associated with the conservation budget. Liberty implements additional conservation measures that do not have program costs associated with them aside from internal staff time. Those measures include Water Loss, Water Waste Enforcement, Landscape & Irrigation Codes for Park and AVR. Provided are descriptions of those programs.

- Water Loss: Work together between operations, conservation, and finance staff to maintain a thorough annual accounting of water production, sales by customer class and quantity of water produced but not sold. In conjunction with system accounting, include audits that identify and quantify known legitimate uses of non-revenue water in order to determine remaining potential for reducing water losses. This work is completed annually with annual water loss reports and verified through E-Source. Costs for E-Source are not reflected in the conservation budget.
- Water Waste Enforcement: This measure involves assisting customers to reduce water waste and operating under CPUC-approved rules that include Rule No. 14.1. If water waste is observed, door tags are left. If a customer calls in with a concern about water waste, the issue is investigated and the property with water waste is notified. List of water waste behaviors is included in conservation communications that are reflected in the Public Information & Outreach measure budget.
- Landscape & Irrigation Codes: This is an existing Model Water Efficient Landscape Ordinance (MWELO), which establishes specific outdoor water efficiency requirements. Outdoor water efficiency requirements and tips are included in conservation communications that are reflected in the Public Information & Outreach measure budget.
- Residential Water Budgets: This measure is provided to customers upon request. Most customers do not want a water budget but prefer to discuss with water efficiency staff ways to save water and what programs are available to assist them.

The below measures have been available, but have not had consistent customer participation.

- Turf Removal / Cash for Grass: This measure is run through third parties, Mojave Water Agency (AVR) and SoCAL Water Smart in partnership with Central Basin Municipal Water District and Metropolitan Water District (Park). This measure is marketed in conservation communications but does not always receive customer participation and is contingent upon program availability with the third parties.

- CII Weather Based Irrigation Controller & CII Incentives: These two commercial measures are available but do not always receive customer participation.
- School Landscape Equipment Retrofit: This measure requires a large amount of time and coordination between Liberty, the school participating in the measure, and the vendors conducting the work. A retrofit is not always completed within one reporting year.
- Spray Rinse Nozzle Distribution: This measure provides free spray rinse nozzles to restaurants and commercial kitchens. This measure is available but does not receive consistent customer participation.

Provided below are measures that have not been implemented.

- AMI Customer Reporting: AMI has not been installed yet so the conservation measure tied to AMI cannot be implemented until it is installed.
- Emergency Leak Repair Program (Park only): COVID postponed being able to launch this program because vendors could not go inside home to fix leaks followed by prolonged customer concern over COVID exposure when restrictions were being lifted. After that period, a new search had to be conducted for a vendor that could implement the program. A vendor has been found, and the program will be implemented in 2024.

One measure that was not included in the program summaries but is active for Park and AVR is the Public Information & Outreach measure. The Public Information & Outreach measure includes:

- Printed water conservation information available in the lobby
- Providing conservation information through communication mediums including newsletter, bill inserts, website, social media, digital and print ads
- Community events with water conservation booths
- Conservation workshops

REQUEST NO. 13:

Refer to attachment Q1 010-KN AV/PW Programs Summary, as part of Liberty's response to Cal Advocates' Data Request #10-KN, to respond to the following requests:

a. Since 2018, the Toilet replacement program cost per # of fixtures/rebate provided to customers has gone from $147.26 to $483.91. Please provide a detailed explanation for the increase. Please also provide the receipts outlining cost for material and labor per customer for the toilets replacement.

b. Why did the conservation kit double in cost since 2021 to 2022.

c. Please also provide the receipts outlining cost for material and labor per customer for the WBIC Controller / Irrigation Nozzle work in 2020. Expense ($18,323 avg per fixture).

RESPONSE:

a. Costs for toilet replacement program in 2018 and 2022 attached. The increase in costs includes increases in product costs, offering different models of toilets to fit more customers' bathrooms and needs, and repair costs that are needed to install the toilet. In 2021, Liberty modified the program's installation eligibility to be inclusive of all customers. Please see the attachments with preface Q13a.
b. In May 2022, Liberty expanded the number of options of conservation kits from one to four in PW and one to five in AVR to be more effective and efficient for customers' conservation needs. The expanded options for PW included an indoor kit, outdoor kit, drip irrigation kit, and leak kit. The expanded options for AVR included an indoor kit, outdoor kit, drip irrigation kit, leak kit, and weatherization kit. Customers can request any combination of kits or all to meet their needs.
c. In 2020, one residential customer participated in the WBIC Controller / Irrigation Nozzle program at a cost of $2,035 for 3 controllers. In 2020, one commercial customer participated in the WBIC Controller / Irrigation Nozzle Program at a total cost of $71,257 for 50 controllers and parts for installation. The commercial customer was a community clubhouse that received irrigation retrofits for their greenbelt. Invoices included.

REQUEST NO. 14:

Please provide the percentage at which AVR and Park's customers are currently signed up for paperless billing and/or email subscription.

RESPONSE:

AVR: 19%

Park: 18%

REQUEST NO. 15:

For Account 7719.903 Mailing Service in AVR and Park, please provide a detailed description for this account.

RESPONSE:

This account primarily records the costs associated with customers' billing services. Liberty utilizes an outside vendor for bill processing services, such as printing and mailing of customers' bills and notices. For Park, this account also records the costs associated with the armored transport services provided by RT Lawrence Corp., whereas AVR records these costs in Account

No. 7717.903 Oth-Cust Acct Rec/Coll.

Please see the attachments with preface Q15 for the general ledger transactions details.

REQUEST NO. 16:

Liberty Park and AVR closed CEMA since February 2022. Are there any COVID-19 related expenses that were recorded in any expense accounts after the CEMA closed? If so please provide the expenses and their associated accounts in Microsoft Excel format.

RESPONSE:

No.

REQUEST NO. 17:

Please refer to Liberty AVR's (line 151-157) and Park's (line 179-185) Workpapers AV25 Expenses.xlsx and PW25 Expenses.xlsx, tab Expense Detail, to respond to the following questions:

a. Explain the increase in Account 7820 Uncollectible in 2020 and 2022 for Park and AVR.

b. In 2019 and 2021, there were negative expenses for "Provision for Uncollectible". Please provide in detail the negative expenses. Has Liberty Park and AVR forecasted for the negative expense in the test year?

c. For account "Uncollectible Exp-Bankruptcy", recorded 2022 data shows a $20,814 expense. Please provide an explanation for the expense.

d. Refer to AV25 and PW25 Uncol&Fran.xlsx. Both Park and AVR had an increase in % of uncollectible for 2020 and 2022. Please provide a detailed explanation for the increase.

e. Please provide detailed support to substantiate Liberty Park and AVR's responses for 15.a to 15.d above. This includes but is not limited to claims submitted, police reports, invoices, receipts, internal communications and memorandums, vendor receipt, quotes, and estimates, and any other relevant evidence that supports Liberty's Data Response. Please provide in Microsoft Excel format with links and formulas intact.

RESPONSE:

a. The fluctuations in this account between the years 2020 through 2022 were primarily due to the anticipation of the Water and Wastewater Arrearage Payment Program, instituted by the State Water Resources Control Board (SWRCB). The purpose of the program was

to help customers with past-due water bill balances for specific periods. As a result, certain customer accounts written-off in 2020 were reinstated in 2021, thereby reducing the uncollectible expenses in 2021. Please see the attachments with preface Q17e for the general ledger transactions detail.

b. The purpose of this account is to accrue the estimated uncollectible expense for a specific period. The negative expenses in 2021 were mostly resulting from the arrearage program described in response to Question 15a. The provisions took into account the estimated amounts of payment from the arrearage program, which reduced the accounts receivable balance, therefore reducing the estimated uncollectible expense in 2021, causing the negative uncollectible expenses. The test year estimate is inadvertently based on the actual uncollectible expenses recorded in Account No.7820.1 Actual Write-Offs. It should be based on the total uncollectible expenses. Please see the attachments with preface Q15e for the revised uncollectible expense rate.
c. This account records the amount of uncollectible expenses written-off for those customers who filed bankruptcy. Please see the attachment with preface Q15e for the general ledger transactions detail.
d. Please see the response to Questions 15a through 15c.
e. Please see the attachments with preface Q15e.

REQUEST NO. 18:

According to Liberty's Water Resources Plan (Arcadis Consulting) June 2016, part of workpaper Section 16 in the previous GRC. On page 16-16, Well 12C built in 2016 has a capacity of 2,500 gpm which equates to approximately 4035 AF/year. However, Park is only forecasting 530.45 AF/year for the test year and does not forecast purchased water for the Compton West System.

a. Based on the recorded supply mix data provided in response to DR 25-KN Purchased Water II "Q1-025-KN Attachment 1 Sample Spreadsheet", the Compton West System can be fully supplied by Well 19C alone. Liberty Park designed Well 12C to have 500 more gpm despite this fact. Please explain Park's reasoning for such a high capacity design in detail.

b. Historically Well 12C has never produced anywhere near its design capacity. Please explain in detail why the well has such low yields.

c. Per the February 2024 Water System Master Plan (pg. 9 and 40), Well 12C's well casing was installed in 2015. Then it had hydrogen sulfide issues. When were these issues uncovered? Please explain in detail the timeline of Well 12C's design and construction

including when any problems impacting yield were discovered and when production from the well actually started.

d. Please provide Well 12C's report for detailed explanation of packers' installation mentioned on pg. 9 of the 2024 Water System Master Plan.

RESPONSE:

a. Although Well 19C can fully supply the water demands of the Compton West water system, additional and alternate sources of water supply are necessary to maintain a reliable water system. Well 12C's capacity contributes to this water system reliability. Well 12C supplies the water needs of the system during higher peak demands and also provides fire flow protection during an emergency. Well 12C will also help reduce the wear and tear of Well 19C and most importantly it can be used as an alternate water supply when Well 19C is under maintenance or offline.
b. Well 12C has low yields because a pump packer was installed in the well casing to limit the amount of hydrogen sulfide being pumped and going into the distribution system. The hydrogen sulfide in the water creates an unpleasant odor and generates customer complaints of odor and taste. The installation of the pump packer closed off the upper section of the well where higher levels of hydrogen sulfide were detected in the aquifer during zone testing. This resulted in a decrease of well capacity at Well 12C.
c. Well 12C was drilled in 2015 and the construction of the building and well equipment were completed in 2018. Liberty was issued a permit to operate the well by Department of Drinking Water in July 2019. After Well 12C was put online, aesthetic water quality issues from customers increased in the neighborhoods surrounding Well 12C. This prompted Liberty to perform water quality testing in November 2019 which confirmed presence of hydrogen sulfide in the groundwater. A zone study was conducted in December 2019 with a recommendation to install pump packers to block out the groundwater production from the upper section of the well. The installation of the pump packer was completed in August 2020.
d. Please see report prefaced Q18d.

REQUEST NO. 19:

Since 2019, 19C has been able to provide water for the Compton West System and provide water for Sativa.

a. Since 2015 to 2018, Well 19C produced up to 1,202AF/year. But from 2019 on, Well

19C had 2x the production. Please provide a detailed explanation for the increase in Well 19C production.

RESPONSE:

In 2019, Liberty began supplying water to the Sativa water system via an interconnection. The water demand from the Sativa system increased production from our Well 19C. In addition, Liberty reduced its purchase of water from Metropolitan Water District and relied mainly on the groundwater wells to supply water to the Compton West system. This change in water system operation also contributed to the increase of pumped groundwater from Well 19C. Also, please see the response to Data Request 022-KN, Questions 1 and 2.

REQUEST NO. 20:

Does Liberty reward/incentivize its staff by providing any physical rewards, not including direct monetary compensation such as bonuses, based on length of service or any other performance metric? If so please explain the program in detail and include a detailed description of the rewards and the metrics necessary to receive them. If the program exists, are its costs included in rates? If so please specify which account and where exactly in the RO model these costs are included.

RESPONSE:

Liberty does not have physical rewards or incentive programs beyond the bonus program.

REQUEST NO. 21:

In its Workpapers, pages 8-2 and 8-4, Liberty (Park) categorizes its Utility Plant-in-Service and Accumulated Depreciation balances by CPUC account number. Provide existing asset data for Well 12C in a Microsoft Excel file.

The file should briefly describe the assets, such as land and improvements, at the well site, and identify the CPUC account number (e.g. 31000), the total value in Utility Plant-in-Service, and Accumulated Depreciation per asset as of January 1, 2024. Please make sure to include the value of any asset, including upgrades and rehabilitations, related to the well such as new and replacement variable frequency drives, motors, disinfection equipment, electrical equipment, and well buildings. The following table shows an example of the organization for the requested data.

Asset at Site	CPUC Account Number	Utility Plant-in-Service ($)	Accumulated Depreciation ($)

RESPONSE:

Please see the attachment prefaced Q21.

This completes the partial response to Data Request No. 043-KN. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

	A	B	C	D
1	**Asset Number**	**Asset at Site**	**CPUC Account Number**	**Utility Plant-in-Service ($)**
2	4293425	157127,WELL 12C STRUCTURE,1513 N. G	32100	$1,114,335.57
3	4289867	157128,WELL 12C ELECTRIC PUMPING EQ	32400	$942,910.94
4	4278978	157129,WELL 12C WATER TREATMENT EQU	33200	$562,685.75
5	4286259	157130,WELL 12C TELEMETRY EQUIPMENT	39710	$249,927.26
6	4297319	167721,Gravel Feed Tube,Well 12C,16	32100	$55,541.37
7	4272072	167722,Discharge Pipe,Well 12C,1677	32100	$62,813.98

Attachment 2-7:
Padilla Announces Funds from Bipartisan Infrastructure Law to Clean up PFAS in California Drinking Water

FEBRUARY 14, 2023

Padilla Announces Funds from Bipartisan Infrastructure Law to Clean up PFAS in California Drinking Water

Padilla encourages California communities to apply for federal funding for clean drinking water projects

WASHINGTON, D.C. — U.S. Senator Alex Padilla (D-Calif.) today encouraged communities across California to apply for newly announced federal funding to address emerging contaminants, like Per- and Polyfluoroalkyl Substances (PFAS) in drinking water. The $2 billion allocation is being made available through President Biden's *Bipartisan Infrastructure Law (https://www.padilla.senate.gov/newsroom/press-releases/first-padilla-bills-signed-into-law-in-historic-infrastructure-package/)*, which Padilla voted to pass and drafted as a member of the Senate Environment and Public Works Committee. The funds will be distributed to each state through EPA's Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) Grant Program and made available to communities as grants and will promote access to safe and clean water in small, rural, and disadvantaged communities while supporting local economies.

"Toxic PFAS chemicals are polluting our air, our food, and our water, especially in our rural and more poorly resourced areas," **said Senator Padilla.** "As the Bipartisan Infrastructure Law continues to deliver for Americans, I encourage California communities to apply for these funds that can help us remove harmful PFAS chemicals and build healthier, more prosperous communities."

"Too many American communities, especially those that are small, rural, or underserved, are suffering from exposure to PFAS and other harmful contaminants in their drinking water," **said EPA Administrator Michael S. Regan.** "Thanks to President Biden's leadership, we are investing in America and providing billions of dollars to strengthen our nation's water infrastructure while safeguarding people's

health and boosting local economies. These grants build on EPA's PFAS Strategic Roadmap and will help protect our smallest and most vulnerable communities from these persistent and dangerous chemicals."

The *Bipartisan Infrastructure Law* is investing $10 billion over five years to help communities address PFAS in drinking water, with $5 billion being distributed through the State Revolving Loan Funds and $5 billion through the EC-SDC Grant Program. This initial allotment of $2 billion through EC-SDC can be used to prioritize infrastructure and source water treatment for pollutants, like PFAS and other emerging contaminants, and to conduct water quality testing.

EPA is also releasing the Emerging Contaminants in Small or Disadvantaged Communities Grant Implementation document. The implementation document provides states and communities with the information necessary to use this funding to address local water quality and public health challenges. These grants will enable communities to improve local water infrastructure and reduce emerging contaminants in drinking water by implementing solutions such as installing necessary treatment solutions.

Padilla has been active in addressing PFAS contamination in California and across the country. He introduced (https://www.padilla.senate.gov/newsroom/press-releases/padilla-gillibrand-announce-new-legislation-to-clean-up-pfas-at-military-installations-with-highest-levels-of-contamination/) the *Clean Water for Military Families Act*, which would require the Department of Defense to conduct investigations and remediate PFAS contamination within and surrounding DOD installations in the U.S. and state-owned National Guard facilities. He also introduced (https://www.padilla.senate.gov/newsroom/press-releases/padilla-shaheen-introduce-bill-to-limit-air-pollution-from-toxic-pfas-chemicals/) the *Prevent Release of Toxics Emissions, Contamination, and Transfer Act*, or the *PROTECT Act* to add certain PFAS chemicals to the Environmental Protection Agency's list of Hazardous Air Pollutants (HAPs), thereby requiring their regulation under the *Clean Air Act*.

For more information about the grants, visit EPA's website here (https://www.epa.gov/dwcapacity/emerging-contaminants-ec-small-or-disadvantaged-communities-grant-sdc).

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Related Issues

ENERGY AND ENVIRONMENT (HTTPS://WWW.PADILLA.SENATE.GOV/ABOUT/ISSUES/ENVIRONMENT/)

Attachment 2-8:
3M Settlement with Public Water Suppliers to Address PFAS in Drinking Water Receives Final Court Approval

3M News Center

3M Settlement with Public Water Suppliers to Address PFAS in Drinking Water Receives Final Court Approval

Agreement includes pre-tax present value commitment of up to $10.3 billion payable over 13 years
Supports PFAS remediation for U.S. public water suppliers (PWS) across the country that have detected any form of PFAS at any level or may do so in the future

ST. PAUL, Minn., April 1, 2024 /PRNewswire/ -- 3M today announced that on Friday, March 29, the company's previously announced settlement agreement with U.S. public water suppliers (PWS) received final approval from the U.S. District Court in Charleston, South Carolina.

The now-finalized agreement will support PWS that detect PFAS at any level or may do so in the future and will benefit U.S.-based PWS that provide drinking water to Americans across the country. The agreement received overwhelming support and participation from U.S. PWS, and the court resolved the small number of objections that were raised in favor of the settlement.

"This is yet another important step forward for 3M as we continue to deliver on our priorities. The final approval of this settlement and continued progress toward exiting all PFAS manufacturing by the end of 2025 will further our efforts to reduce risk and uncertainty as we move forward," said 3M chairman and CEO Mike Roman.

As previously disclosed, 3M recorded an accrual of $10.3 billion for this matter, which reflects the pre-tax present value of the expected payments over 13 years under the agreement. Payments under the agreement are scheduled to begin in the third quarter of 2024, provided there are no pending appeals of the final approval order. 3M also continues to actively engage in insurance recovery activities.

The table below sets forth the expected pre-tax payments that 3M would make assuming the nominal $12.5B settlement cap is reached.

Pre-Tax Payments ($B)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	Total
PFAS PWS Settlement	0.1	2.9	1.8	0.4	2.6	1.6	0.6	0.6	0.6	0.5	0.4	0.2	0.2	0.2	12.5

Additional details of the agreement, including the agreed-upon payment schedule, are available on the Settlement Administrator's website and in 3M's filings with the Securities and Exchange Commission.

Forward-Looking Statements

This news release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. You can identify these statements by the use of words such as "plan," "expect," "aim," "believe," "project," "target," "anticipate," "intend," "estimate," "will," "should," "could," "would," "forecast" and other words and terms of similar meaning in connection with any discussion of future operating or financial performance or business plans or prospects. Forward-looking information is based on management's estimates, assumptions, and projections, and is subject to significant uncertainties and other factors, many of which are beyond 3M's control. Important risk factors could cause actual future results and other future events to differ materially from those currently estimated by management, including, but not limited to, whether the court approved PWS Settlement will be appealed, the filing of additional, or the outcome of any other pending or future, litigation relating to PFAS or related products or chemistries, costs of remediation obligations relating to PFAS or related products or chemistries, whether the Company's insurance recovery activities will be successful, changes in related laws or regulations, or the impact of the settlement, any litigation or related matters on 3M's financial condition. Additional important risk factors that could cause future actual results or events to differ materially are the following: (1) worldwide economic, political, regulatory, international trade, geopolitical, capital markets and other external conditions and other factors beyond the Company's control, including inflation, recession, military conflicts, natural and other disasters or climate change affecting the operations of the Company or its customers and suppliers; (2) foreign currency exchange rates and fluctuations in those rates; (3) risks related to certain fluorochemicals, including liabilities related to claims, lawsuits, and government regulatory proceedings concerning various PFAS-related products and chemistries, as well as risks related to the Company's plans to exit PFAS manufacturing and discontinue use of PFAS across its product portfolio; (4) legal proceedings, including significant developments that could occur in the legal and regulatory proceedings described in the Company's Annual Report on Form 10-K for the year ended Dec. 31, 2023 and any subsequent quarterly reports on Form 10-Q (the "Reports"); (5) competitive conditions and customer preferences; (6) the timing and market acceptance of new product and service offerings; (7) the availability and cost of purchased components, compounds, raw materials and energy due to shortages, increased demand and wages, supply chain interruptions, or natural or other disasters; (8) unanticipated problems or delays with the phased implementation of a global enterprise resource planning (ERP) system, or security breaches and other disruptions to the Company's information technology infrastructure; (9) the impact of acquisitions, strategic alliances, divestitures, and other strategic events resulting from portfolio management actions and other evolving business strategies; (10) operational execution, including the extent to which the Company can realize the benefits of planned productivity improvements, as well as the impact of organizational restructuring activities; (11) financial market risks that may affect the Company's funding obligations under defined benefit pension and postretirement plans; (12) the Company's credit ratings and its cost of capital; (13) tax-related external conditions, including changes in tax rates, laws or regulations; (14) matters relating to the spin-off of the Company's Health Care business; and (15) matters relating to Combat Arms Earplugs ("CAE"), including those relating to, the August 2023 settlement that is intended to resolve, to the fullest extent possible, all litigation and alleged claims involving the CAE sold or manufactured by the Company's subsidiary Aearo Technologies and certain of its affiliates and/or 3M. Changes in such assumptions or factors could produce significantly different results. A further description of

these factors is located in the Reports under "Cautionary Note Concerning Factors That May Affect Future Results" and "Risk Factors" in Part I, Items 1 and 1A (Annual Report) and in Part I, Item 2 and Part II, Item 1A (Quarterly Reports). The Company assumes no obligation to update any forward-looking statements discussed herein as a result of new information or future events or developments.

About 3M

3M (NYSE: MMM) believes science helps create a brighter world for everyone. By unlocking the power of people, ideas, and science to reimagine what's possible, our global team uniquely addresses the opportunities and challenges of our customers, communities, and planet. Learn how we're working to improve lives and make what's next at 3M.com/news.

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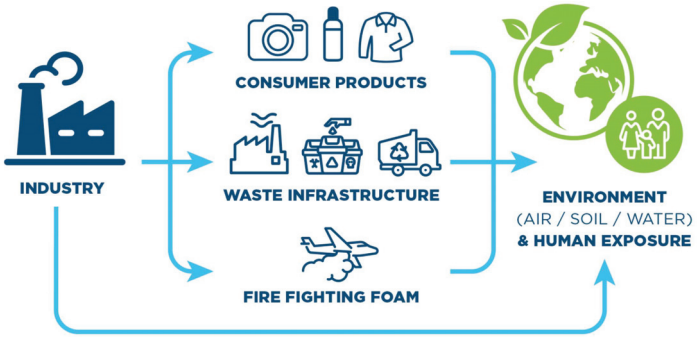
Attachment 2-9:
PFAS Remediation Program

(https://www.wrd.org/)

PFAS Remediation Program

What are PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a large group of man-made compounds, which include perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), that have been manufactured and used around the globe since the 1940s. Because of their strong chemical bonds, PFAS were used in a variety of industries and consumer products, such as electroplating, firefighting foams (aqueous film-forming foam [AFFF]), food packaging, non-stick cookware (Teflon™), clothing (Gore-Tex ®), fabric



protectant (Scotchgard™), stain-resistant carpet and furniture, and personal care products. Due to widespread use and unauthorized industrial releases, PFAS are found in the air, soil, drinking water supplies, water bodies, and livestock. PFAS are persistent in the environment, can accumulate within the human body over time, and can be toxic.

PFAS can be found in:

► Workplace, including production facilities or industries (e.g., chrome plating, electronics manufacturing, or oil recovery) that use PFAS.

► Drinking water, typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).

► Living organisms, including fish, animals and humans, where PFAS can build up and persist over time.

Certain PFAS have been phased out of manufacturing in the United States. Although PFOA and PFOS are no longer manufactured in the United States, they are still produced internationally and can be imported in consumer goods such as carpet, leather and apparel, textiles, paper and packaging, coatings, rubber, and plastics.

(Source: United States Environmental Protection Agency)

On April 10, 2024, the United States Environmental Protection Agency (EPA) established (https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas#Webinars) national drinking water standards, i.e. Maximum Contaminant Levels (MCLs), for six PFAS, including PFOA, PFOS, perfluorohexane sulfonic acid (PFHxS), perfluorobutane sulfonic acid (PFBS), perfluorononanoic acid (PFNA), and hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX Chemicals). An MCL of 4 parts per trillion (ppt) was established for PFOA and PFOS individually, and an MCL of 10 ppt was established for PFHxS, PFNA, and HFDO-DA, individually. In addition, a Hazard Index of 1.0 (unitless) was established for mixtures containing two or more of PFHxS, PFBS, PFNA, and HFPO-DA. These MCLs are legally enforceable limits in drinking water and all public water systems must monitor for these PFAS. Public water systems that have PFAS in drinking water which exceed one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to their customers/consumers of the violation.

PFOA and PFOS have been detected above MCLs in multiple drinking water wells located within the Central Basin, specifically within the Montebello Forebay. In response, the WRD Board of Directors launched the PFAS Remediation Program in August 2020, where currently over $60 million in grant funding has been established for water purveyors seeking to install treatment systems for drinking water wells located in the Central Basin and West Coast Basin that contain PFAS above MCLs. This program is one of the first in the State of California to administer grants specifically for the remediation of PFAS-impacted wells. Water purveyors interested in applying for the WRD PFAS Remediation Program may download the Initial Application here:

PFAS Remediation Program Initial Application.pdf (/files/828d1b5e6/PFAS+Remediation+Program+Initial+Application.pdf)

The PFAS Remediation Program is an essential part of WRD's commitment to managing and protecting local groundwater resources for over four million residents living in the 43 cities within Southern Los Angeles County. By acting quickly and supporting water purveyors in their remediation of PFAS-impacted wells, we not only provide safe drinking water, but also prevent unwanted substances from spreading throughout our vital drinking water aquifers and ensure an uninterrupted supply of high-quality groundwater at affordable rates. In addition, WRD continues to work with our State and Federal partners to secure funding to provide treatment for contaminated drinking water sources, especially for underserved communities, where well closures can significantly increase the cost of tap water.

PFAS can be treated by various methods, with the most common ones being ion exchange (IX), granular activated carbon (GAC), and reverse osmosis (RO). These treatment technologies have been accepted by the State Water Resource Control Board's Division of Drinking Water (DDW) for the removal of PFAS. The cost to treat wells impacted by PFAS varies based on the level of PFAS contamination, the quantity of water being treated, and the technology selected. In 2021, WRD completed two pilot tests to evaluate the performance and life cycle costs for various IX and GAC media. Results from these pilot tests may aid water purveyors in the design of their PFAS treatment systems. The pilot test reports may be downloaded below.

Well # 7 Pilot Test Report.pdf (/files/2fa7739ef/Well+%23+7+Pilot+Test+Report.pdf)

Well # 10 Pilot Test Report.pdf (/files/dac0aebbb/Well+%23+10+Pilot+Test+Report.pdf)

Frequently Asked Questions (FAQs)

How are people exposed to PFAS?

Does recycled water contain these chemicals?

How is WRD addressing PFAS?

What happens if these chemicals are found in my water supply?

Can you treat PFAS?

Is groundwater impacted by PFAS?

Is WRD pursuing legal action against the manufacturers of PFAS?

Who is representing WRD in its lawsuit against PFAS manufacturers?

Additional Resources

WRD

WATER REPLENISHMENT DISTRICT

PFAS REMEDIATION PROGRAM

A grant program for water purveyors in the Central Basin and West Coast Basin seeking to remediate drinking water wells that have been impacted by per- and polyfluoroalkyl substances (PFAS).

PFAS REMEDIATION PROGRAM

PFAS REMEDIATION PROGRAM BROCHURE

READ MORE »
(/pfas-remediation-program-brochure)

Attachment 2-10:
WRD PFAS Remediation Program - Status of Projects

MEETING OF THE
GROUNDWATER QUALITY COMMITTEE
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
11:00 AM, TUESDAY, FEBRUARY 14, 2023

AGENDA

Pursuant to Assembly Bill 361, this meeting will be conducted via teleconference to minimize the spread of COVID-19. Members of the public may access this meeting telephonically and have the opportunity to provide comment by calling the following number and entering the Conference ID.

Zoom Meeting
Join on your computer or mobile app
https://wrdsocal.zoom.us/my/publicmeetings

Or call in (audio only)
(213) 338-8477
Meeting ID: 562-275-4300#

Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt a minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Items listed as "For information" or "For discussion" may also be the subject of an "action" taken by the Board or a Committee at the same meeting.

1. **DETERMINATION OF A QUORUM**

2. **PUBLIC COMMENT**
   Pursuant to Government Code Section 54954.3
   To make a Public Comment, press the "Raise Your Hand" icon in Zoom. If you are joined to the meeting audio on a phone, press Star 9 to raise your hand and when recognized press Star 6 to be un-muted. Please announce your name and affiliation for the record. All Public Comments are limited to three minutes consistent with Section 6.2 of the District's Administrative Code.

3. **ENVIRONMENTAL SITES REVIEW**
   Recommendation: For discussion and possible action.

4. **SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM UPDATE AND OUTREACH REPORT**
   Recommendation: For discussion and possible action.

5. **PFAS REMEDIATION PROGRAM UPDATE**
   Recommendation: For discussion and possible action.

6. CONSIDERATION OF RESOLUTION 23-1198 - A RESOLUTION OF THE BOARD OF DIRECTORS OF THE WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA AUTHORIZING AND DESIGNATING A REPRESENTATIVE TO ENTER INTO A FUNDING AGREEMENT WITH THE STATE WATER RESOURCES CONTROL BOARD FOR THE PROPOSITION 68 GROUNDWATER - DRINKING WATER TREATMENT OPERATIONS AND MAINTENANCE FUNDING PROGRAM

Recommendation: The Groundwater Quality Committee recommends that the Board of Directors adopt Resolution 23-1198 and authorize and designate a representative to enter into a funding agreement with the State Water Board for the Proposition 68 Groundwater - Drinking Water Treatment Operations and Maintenance Funding Program, subject to approval as to form by District Counsel.

7. STAFF ANNOUNCEMENTS

8. DIRECTORS' REPORTS, INQUIRIES AND FOLLOW UP OF DIRECTIONS TO STAFF

9. ADJOURNMENT

The Committee will adjourn to the next regular meeting currently scheduled for March 14, 2023 at 11:00 A.M.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Deputy Secretary at (562) 921-5521 for assistance to enable the District to make reasonable accommodations.

All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 4040 Paramount Boulevard, Lakewood, California 90712.

Agendas are available at the District's website, www.wrd.org.

EXHAUSTION OF ADMINISTRATIVE REMEDIES – If you challenge a District action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Deputy Secretary at, or prior to, the public hearing. Any written correspondence delivered to the District office before the District's final action on a matter will become a part of the administrative record.

WATER REPLENISHMENT DISTRICT

MEMORANDUM

ITEM NO. 5

DATE:	**FEBRUARY 14, 2023**
TO:	**GROUNDWATER QUALITY COMMITTEE**
FROM:	**STEPHAN TUCKER, GENERAL MANAGER**
SUBJECT:	**PFAS REMEDIATION PROGRAM UPDATE**

SUMMARY

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals, which include perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorobutane sulfonic acid (PFBS) that have been manufactured and used in a variety of industries around the globe and the region since the 1940s. The State Water Resource Control Board, Division of Drinking Water (DDW) established Response Levels (RLs) of 10 parts per trillion (ppt) for PFOA, 40 ppt for PFOS, and 5,000 ppt for PFBS. Assembly Bill 756, codified as Health and Safety Code Section 116378 which became effective January 1, 2020, requires that community water systems, including groundwater pumpers, either notify their customers of PFAS detections exceeding RLs or remove from service drinking water sources with PFAS exceeding RLs. In response, the WRD Board of Directors established the PFAS Remediation Program (the Program) on August 20, 2020, to provide either grants for water purveyors (i.e., groundwater pumpers) to install their own treatment systems (referred to as Funding Support Projects), or for WRD to design and construct treatment systems for the pumpers (referred to as Turnkey Projects) to remediate their PFAS-impacted production wells.

An initial application for participation in this Program was issued to pumpers in late 2020 and 15 applications were received. Thirteen applications were considered qualified for the Program, and a Funding Agreement was developed with input from pumpers in the West Coast and Central Groundwater Basins. A monthly update will be provided to the Groundwater Quality Committee regarding the status of Funding Agreements and associated projects with the individual pumpers.

FISCAL IMPACT

None

RECOMMENDATION

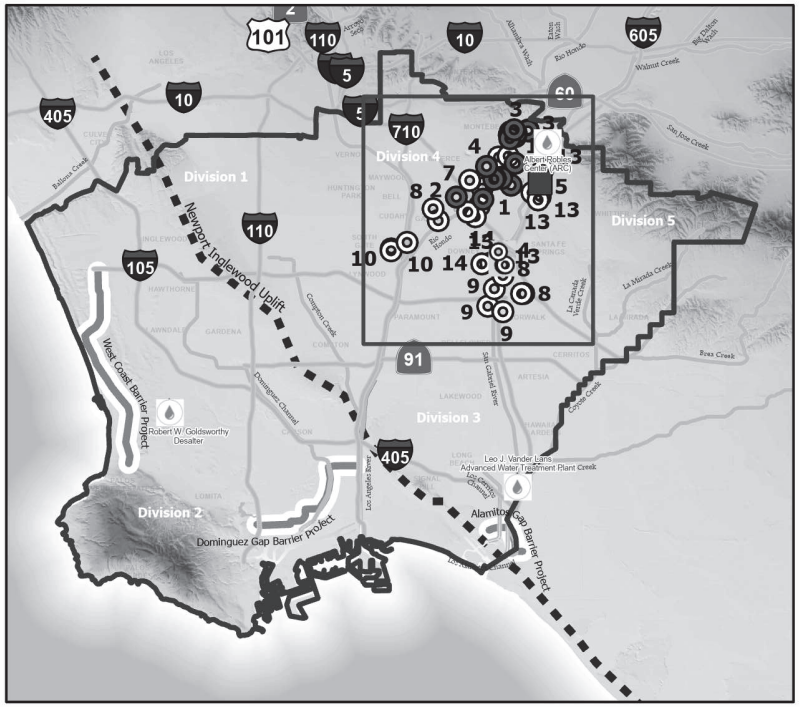
For discussion and possible action.

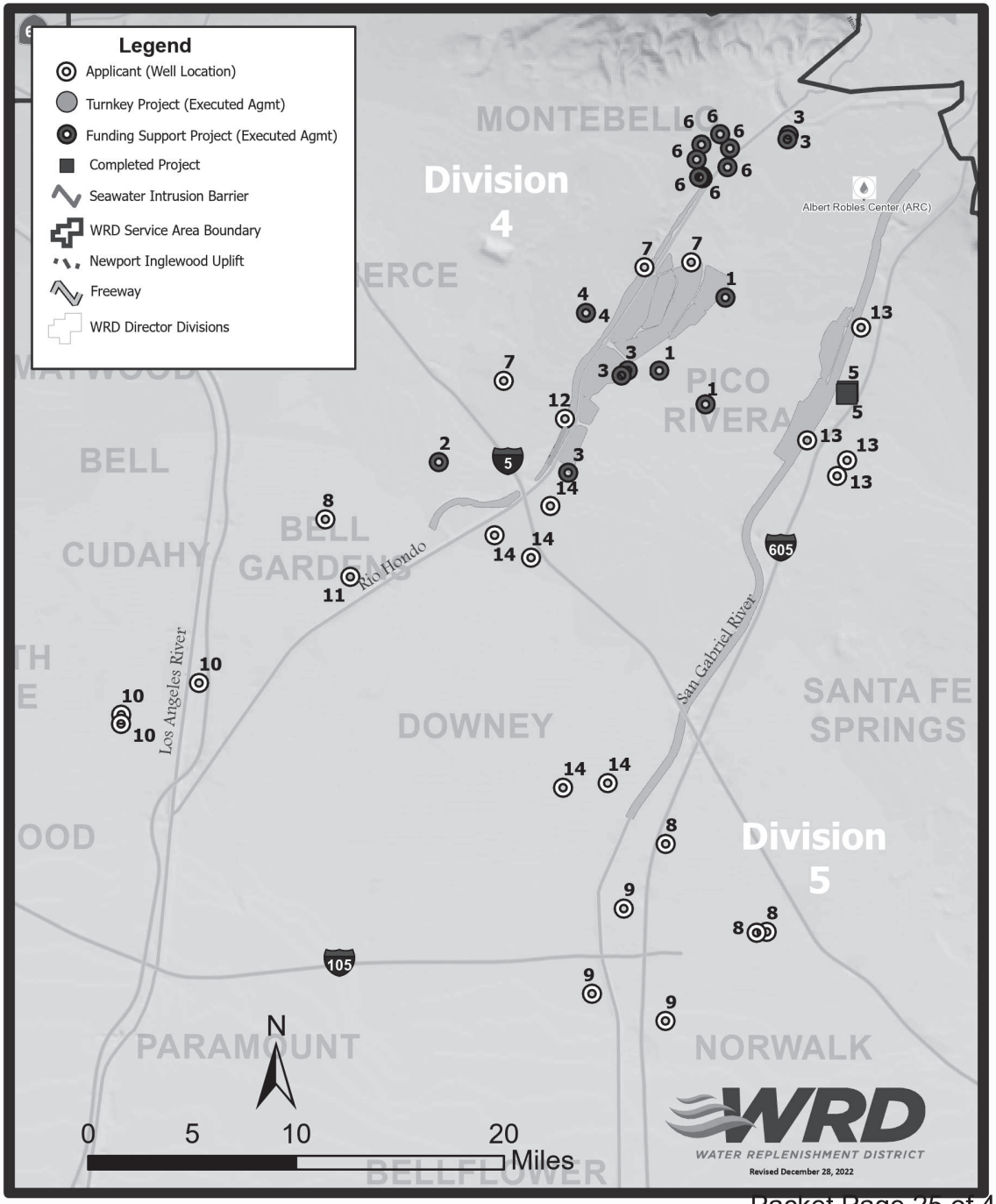
WRD PFAS Remediation Program - Status of Projects

No.	Pumper	Type of Funding Requested	PFAS-Impacted Wells	Quantity of Proposed PFAS Treatment Systems	Pumper's Estimated Total Project Cost	Program Funding Amount ($1k/AFY)	Executed Funding Amount	Status
1	Pico Water District	Funding Support	Total of 3 wells: Wells 11, 8, 5A	3	$4.7M	NA	$4.2M	Funding Agreement executed on 9/23/21. WRD processing monthly reimbursements.
2	City of Commerce	Funding Support	Only 1 well: Well 7-01	1	$2.5M	NA	$2.5M	Funding Agreement executed on 1/20/22. Reimbursement anticipated after construction completion in March 2023.
3	City of Pico Rivera	Funding Support	Total of 5 wells: Wells W1, W2, W3, W4, W5	3	$10.7M	NA	$5.85M	Funding Agreement executed on 4/7/22. WRD processing monthly reimbursements.
4	California Water Service Company (Cal Water), East Los Angeles (ELA)	Funding Support	Only 1 well: Well 63-01	1	$4.2M	NA	$4.2M	Funding Agreement executed on 6/2/22. Pumper preparing reimbursement request.
5	San Gabriel Valley Water Company (SGVWC)	Funding Support	Total of 2 wells: Wells W6C, W6D	1	$4.0M	NA	$4.0M	Funding Agreement executed on 8/18/22. Project and funding by WRD has been completed. Pumper preparing Annual Reports.
6	Montebello Land and Water Company (MLWC)	Funding Support	Total of 7 wells: Wells 7, 8A, 9, 10, 12, 14, 15	1	$9.6M	NA	$6.5M	WRD Board approved Funding Agreement on 11/17/22. Pumper preparing monthly reimbursement requests.
7	South Montebello Irrigation District (SMID)	Funding Support	Total of 3 wells: Wells 3, 5, 8	1	$6.2M	$1.8M	TBD	WRD reviewing Funding Application submitted by Pumper.
8	Golden State Water Company (GSWC)	Funding Support	Total of 4 wells: Wells Clara 2, Imperial 2, Imperial 3, Studebaker 3	3	$6.3M	$3.0M	TBD	WRD reviewing Funding Application submitted by Pumper.
9	Liberty Utilities	Turnkey	Total of 3 wells: Wells 28B, 41A, 46C	3	TBD	TBD	TBD	WRD has not yet received Funding Application from Pumper.
10	City of South Gate	Turnkey	Total of 3 wells: Wells 14, 18, 24	2	TBD	TBD	TBD	WRD has not yet received Funding Application from Pumper.
11	City of Bell Gardens	TBD	Only 1 well: Well 1	1	TBD	TBD	TBD	Pumper pursuing amendment on existing State grant agreement. WRD has not yet received Funding Application from Pumper.
12	City of Montebello	Funding Support	Only 1 well: Well MONT1	1	TBD	TBD	TBD	WRD has not yet received Funding Application from Pumper.
		TOTAL:	34 wells	>21	>$48.2M	>$4.8M	$27.3M	

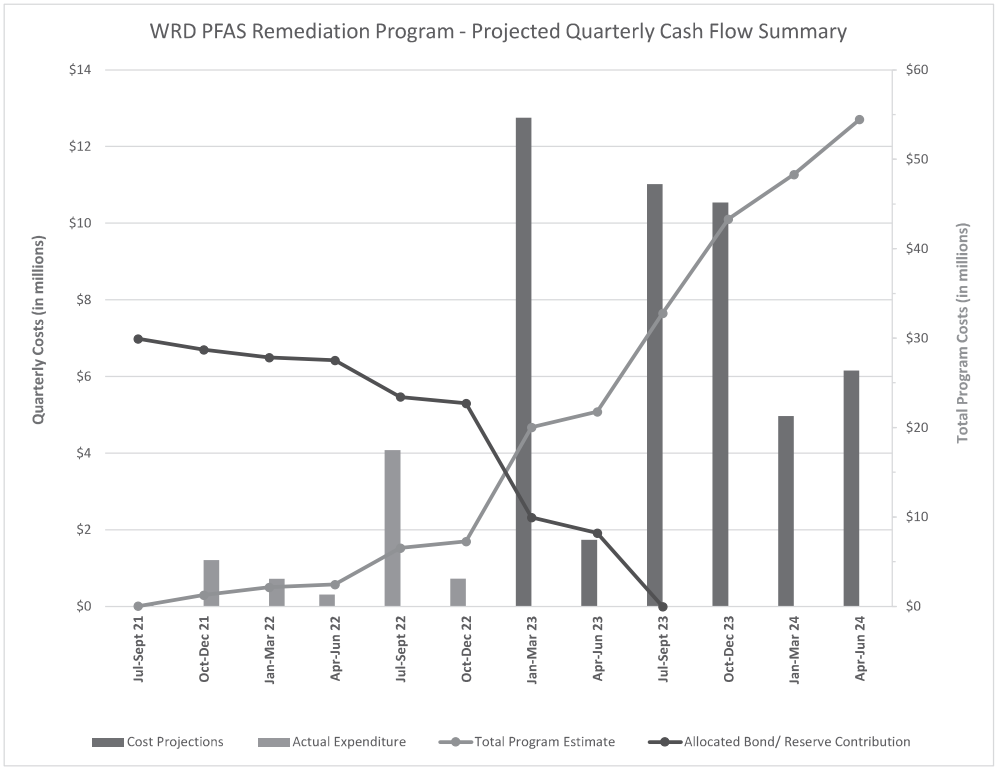
WRD PFAS REMEDIATION PROGRAM

PROJECT NO.	PUMPER	CITY
1	Pico Water District	Pico Rivera
2	City of Commerce	Commerce
3	City of Pico Rivera	Pico Rivera
4	California Service Water Company	East Los Angeles
5	San Gabriel Valley Water Company	West Whittier
6	Montebello Land and Water Company	Montebello
7	South Montebello Irrigation District	Montebello
8	Golden State Water Company	Bell Gardens/Norwalk
9	Liberty Utilities	Bellflower/Norwalk
10	City of South Gate	South Gate
11	City of Bell Gardens	Bell Gardens
12	City of Montebello	Montebello
13	Orchard Dale Water District	West Whittier
13	La Habra Heights County Water District	West Whittier
14	City of Downey	Downey





WRD PFAS Remediation Program Projected Quarterly Cash Flow



Fiscal Year	Actual Expenditures	Projected Costs	Estimated Total Cost
FY21-22	$2.5M		$2.5M
FY22-23	$5M	~$14.5M	~$20M
FY23-24	-	~$33M	~$33M
FY24-25	-	~$5M	~$5M
TOTAL:	$7.5M (To Date)	~$52.5M	~$60M

Attachment 2-11:
Encumbered Program Funds
- Capital - PFAS Remediation Fund

MEETING OF THE
FINANCE/AUDIT COMMITTEE
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BLVD. LAKEWOOD, CA 90712
3:00 PM, WEDNESDAY, FEBRUARY 21, 2024

AGENDA

Members of the public may access this meeting and have the opportunity to provide comments in person, via zoom, or telephonically.

Zoom Meeting
Join on your computer or mobile app
https://wrdsocal.zoom.us/my/publicmeetings

Or call in (audio only)
(213) 338-8477
Meeting ID: 562-275-4300

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1. DETERMINATION OF A QUORUM

2. PUBLIC COMMENT
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3. DIRECTORS' EXPENSES
Recommendation: The Finance/Audit Committee approves Directors' expenses.

4. DEMANDS – DECEMBER 2023
Recommendation: The Finance/Audit Committee recommends that the Board of Directors receives and files the monthly demands for December 2023.

5. **FINANCIAL STATEMENTS – DECEMBER 2023**
Recommendation: The Finance/Audit Committee recommends that the Board of Directors approve the financial statements for December 2023.

6. **RESERVES, CASH, AND INVESTMENT REPORT – DECEMBER 2023**
Recommendation: The Finance/Audit Committee recommends that the Board of Directors approve the Reserves, Cash and, Investment report for December 2023.

7. **TRUST FUND REPORT – DECEMBER 2023**
Recommendation: The Finance/Audit Committee recommends that the Board of Directors approve the monthly trust fund report for December 2023.

8. **AGING AND ACCOUNTS RECEIVABLE REPORTS**
Recommendation: For discussion and possible action.

9. **FISCAL YEARS 2024 MID-YEAR PROJECTION AND 2025 BUDGET REVIEW**
Recommendation: For discussion and possible action.

10. **STAFF ANNOUNCEMENTS**

11. **DIRECTORS' REPORTS, INQUIRIES AND FOLLOW-UP OF DIRECTIONS TO STAFF**

12. **ADJOURNMENT**
The Committee will adjourn to the next regular meeting currently scheduled for March 20, 2024 at 3:00 P.M.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Deputy Secretary at (562) 275-4300 for assistance to enable the District to make reasonable accommodations.

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WATER REPLENISHMENT DISTRICT

MEMORANDUM

ITEM NO. 6

DATE:	**FEBRUARY 21, 2024**
TO:	**FINANCE/AUDIT COMMITTEE**
FROM:	**STEPHAN TUCKER, GENERAL MANAGER**
SUBJECT:	**RESERVES, CASH, AND INVESTMENT REPORT – DECEMBER 2023**

SUMMARY

The Finance Department reports the District's restricted and unrestricted reserve balances as well as cash activities to the Finance/Audit Committee for subsequent approval by the Board of Directors. The Reserves, Cash and Investment Report for December 2023 is presented in the attachment documents.

FISCAL IMPACT

None

RECOMMENDATION

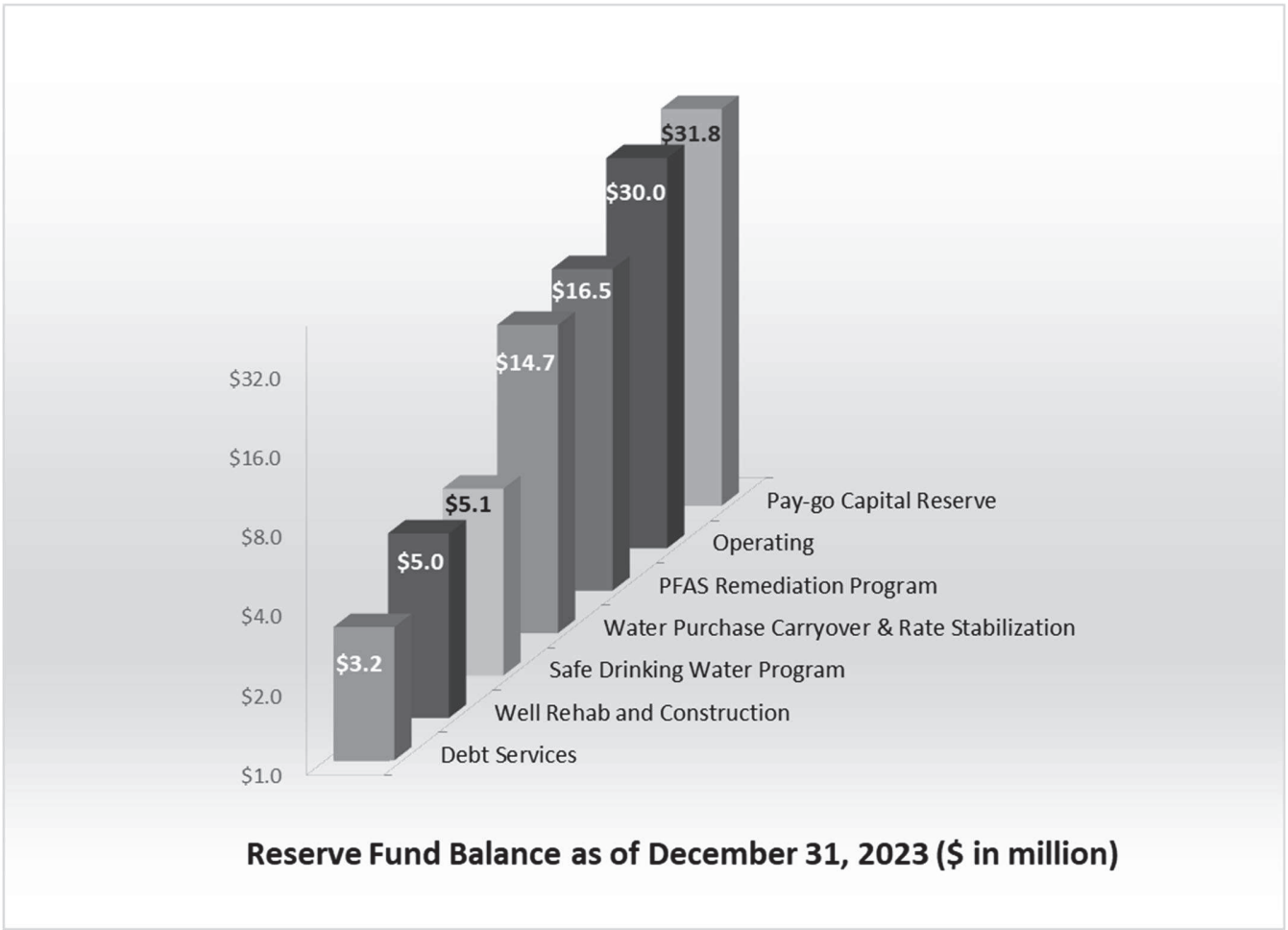
The Finance/Audit Committee recommends that the Board of Directors approve the Reserves, Cash, and Investment report for December 2023.

Reserves, Cash and Investment Report – December 2023

As of December 31, 2023, the District has $106,268,000 in Cash and Reserve Funds. This includes $3,200,000 of Restricted Reserves, $44,700,000 in Unrestricted Reserves and $58,368,000 in Encumbered Program Funds. The following pages provide a detailed breakdown of the District's reserve funds.

The District's reserve balances are summarized as follows:

Debt Services (Restricted)	$3.2M
Water Carryover and Rate Stabilization Fund	$14.7M
Unrestricted Operating Reserves	$30.0M
Encumbered Program Funds - Capital	$58.4M
Total	**$106.3M**



RESTRICTED RESERVE FUNDS

Debt Service Reserve – established pursuant to the covenants in WRD's State Revolving Fund (SRF) Loan. The District is required to maintain one year of debt service in reserve as security for the SRF loan.

Source of Funds: Replenishment Assessment
Use of Funds: Debt Service
Reserved for Debt Service **$3.2M**

UNRESTRICTED OPERATING RESERVE FUNDS

1. **Water Purchase Carryover & Rate Stabilization Reserve** – to ensure WRD's ability to acquire or develop water supplies to replenish the Central and West Coast groundwater basins and to stabilize rates.

   Source of Funds: Replenishment Assessment
   Use of Funds: Acquire or Develop Water Supplies
   Reserved for Water Purchase Carryover & Rate Stabilization **$14.7M**

FY 2024 Groundwater Pumping					
	December 2023				
Description	Actual	Budget	Variance	YTD AF/RA	YTD Variance
Groundwater Extraction (AF)	12,210	17,083	(4,873)	79,162	(23,338)
RA Revenue Collected ($)	$ 5,018,458	$ 7,016,689	$ (1,998,231)	$ 32,531,575	$ (9,568,557)
Storage Extraction (AF)	3,754	1,320	2,434	20,119	12,199
Storage Extraction Cost at Prior Year RA ($)	$ 1,512,850	$ 531,940	$ 980,910	$ 8,108,026	$ 4,916,383
Storage Extraction Cost at Current RA ($)	$ 1,541,879	$ 542,148	$ 999,732	$ 8,263,607	$ 5,010,721
Year over Year Variance ($)	$ (29,029)	$ (10,207)	$ (18,822)	$ (155,581)	$ (94,338)
Total Groundwater & Storage Extraction (AF)	**15,964**	**18,403**	**(2,439)**	**99,281**	**(11,139)**

Note:
1) FY 2024 pumping projection – 205,000 AF @$411/AF
2) FY 2023 Replenishment Assessment @403/AF
3) Do not include $12 RA collection for PFAS Remediation program.

2. **Operating Reserve** - to provide needed working capital and to help ensure against unforeseen events, including lower than expected sales, unbudgeted expenses, emergencies (e.g., earthquakes or other natural disasters), and other unforeseen events. The Operating Reserve is equal to three months of the cost of operations, including annual debt services, in the current year budget.

   Source of Funds: Replenishment Assessment
   Use of Funds: Non-Recurring Operating Expenses
   Reserved for Operating **$30.0M**

ENCUMBERED PROGRAM FUNDS - CAPITAL

3. **Safe Drinking Water and Disadvantaged Community Fund** - to account for, and fund loans and grants to help clean up the groundwater basin.

Source of Funds: Replenishment Assessment, Loan Repayment and Grants
Use of Funds: Safe Drinking Water and Disadvantaged Community Projects

Reserved for Safe Drinking Water Program **$5.1M**

Funds encumbered as of December 31, 2023 for the following projects:

Safe Drinking Water – Misc. Capital	$0.5M
Walnut Park Meter Replacement Project	$0.1M
City of Norwalk Well 10 Treatment Project	$2.0M

4. **Well Rehabilitation & Construction Loan Fund** - to provide zero interest loans to help finance well construction and rehabilitation to increase pumping capacity in the basin.

Source of Funds: Replenishment Assessment
Use of Funds: Well Rehabilitation Program

Reserved for Well Rehabilitation & Construction **$5.0M**

0% interest loans to the Cities of Vernon and Signal Hill – Loan balance	$2.4M

5. **Pay-Go Capital Fund** - to fund pay-go various capital projects and periodic replacement of assets with expected useful life of three to twenty years.

Source of Funds: Replenishment Assessment
Use of Funds: Miscellaneous Capital Projects
Reserved for Miscellaneous Capital Projects **$31.8M**

Funds encumbered as of December 31, 2023 for the following projects:

0010600 LVL Inland Injection Well	$3.7
0011100 LVL SCADA Upgrade Project	$0.5
0011400 MF System Upgrades	$0.4
0020800 Brewer Well Connection Project	$0.5
0020900 Goldsworthy Desalter Small CIP (<250k)	$0.2
0331200 ARC Treatment Facility Small CIP (<$250k)	$1.3
0331000 ARC Admin and Learning Center Small CIP (<$250k)	$0.4
LVL other projects	$1.1
Goldsworthy Desatler other projects	$0.5
Montebello Forebay Recharge Project	$0.5
WRD Facilities	$3.4

Annex Building	$3.2
Capital improvements – various projects/programs	$2.5

6. **PFAS Remediation Fund** - to fund PFAS Remediation Projects

Source of Funds: PFAS Assessment
Use of Funds: PFAS Remediation Projects
Reserved for PFAS Remediation Program **$16.5M**

Funds encumbered as of December 31, 2023 for the following projects:

Pico Water District	$0.3M
City of Pico Rivera	$2.1M
Montebello Land and Water Company	$4.1M
California Water Service Company	$4.2M
City of Commerce	$2.5M
Engineering service contracts	$2.4M
South Montebello Irrigation District	TBD
Liberty Utilities	TBD
Golden State Water Company	TBD

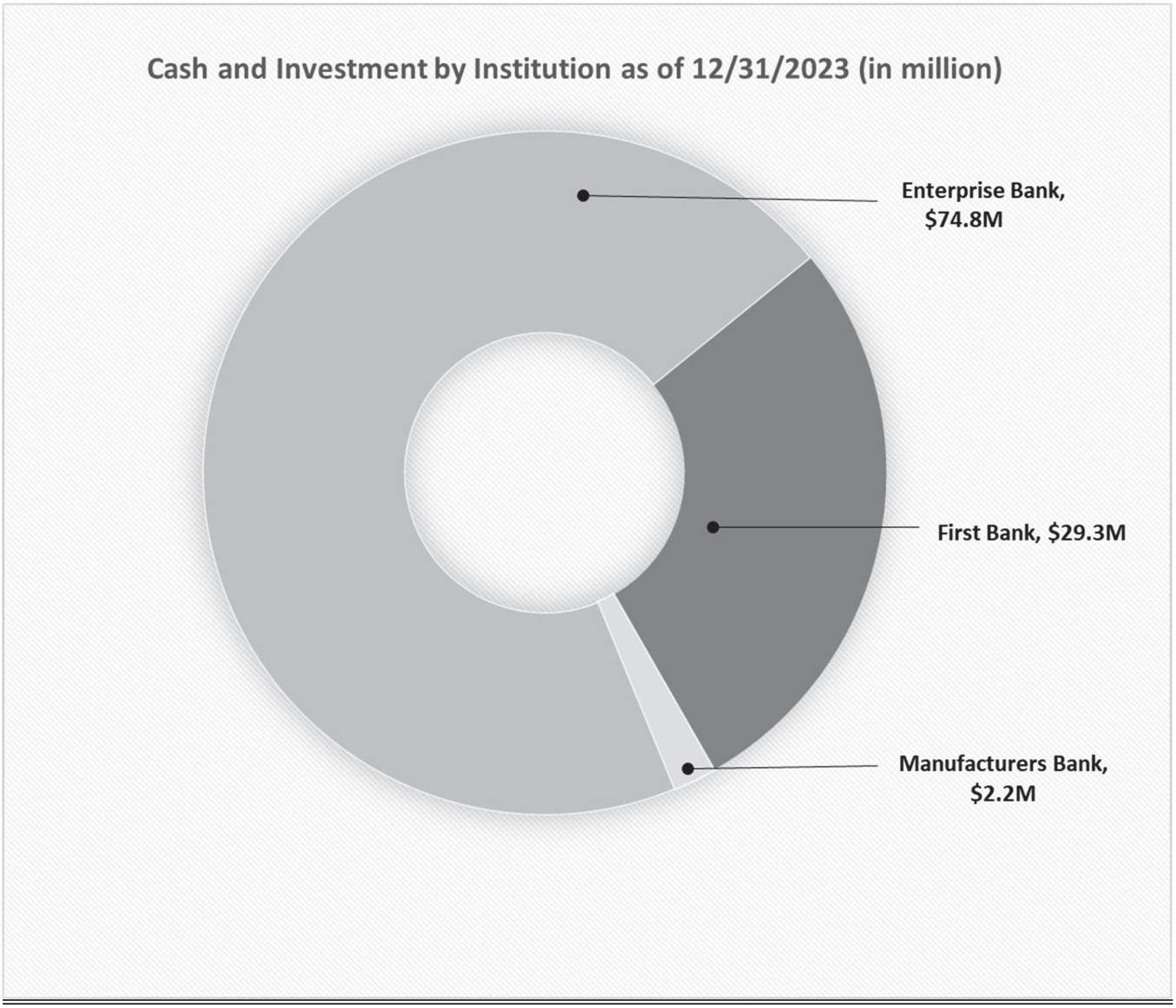
CASH AND INVESTMENTS

The tables and charts below provide a detailed breakdown of the District's cash and investments.

Cash and Investments by Institution as of December 31, 2023

(Rounded to the nearest thousand)

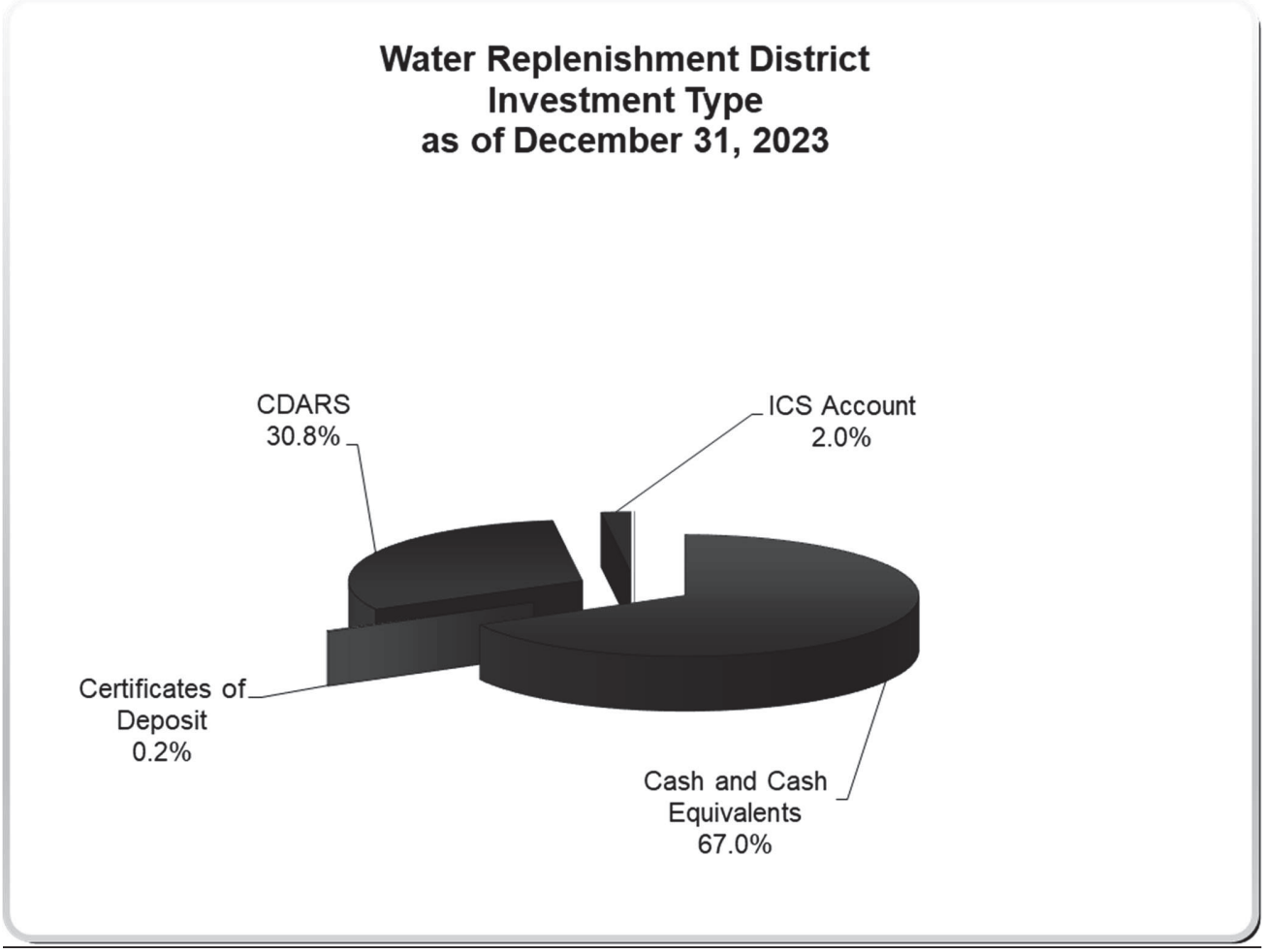
Enterprise Bank	$74.8M
First Bank	29.3M
Manufacturers Bank	2.2M
	$**106.3M**



Cash and Investments by Type as of December 31, 2023

(Rounded to the nearest thousand)

Cash and Cash Equivalents	$71.1M	67.0%
Certificates of Deposit	$0.3M	0.2%
CDARS	$32.7M	30.8%
ICS Account	$2.2M	2.0%
	$106.3M	**100.0%**



Footnotes:
Cash & Cash Equivalents and Certificates of Deposit: Amounts are either insured by the Federal Deposit Insurance Corporation (FDIC) or secured by the bank's assets. Funds are also held in Certificate of Deposit Account Registry Service (CDARS) and Insured Cash Sweep (ICS); a safe way to invest funds while continuing to be FDIC insured.

Any slight differences are due to rounding. For presentation purposes, staff has rounded dollar values to the nearest thousand.

Water Replenishment District of Southern California
Cash and Investment Report
December 31, 2023

Banking Institution	Beginning Balance	Deposits	Interest Income	Disbursements/ Others	Ending Balance
First Bank	$ 29,016,929.01	$ -	$ 151,106.91	$ 65,342.88	$ 29,233,378.80
Manufacturers Bank	2,201,741.65	-	5,515.32	-	2,207,256.97
Enterprise Bank (formerly known as First Choice Bank)	78,030,727.66	7,063,344.61	207,396.42	($10,473,808.67)	74,827,660.02
Total Cash Balances	$ 109,249,398.32	$ 7,063,344.61	$ 364,018.65	$ (10,408,465.79)	$ 106,268,295.79

I hereby certify that all investment actions executed since the last report have been made in full compliance with the District's Investment Policy. As Treasurer of the Water Replenishment District of Southern California, I hereby certify that sufficient investment liquidity and anticipated revenue are available to meet estimated expenses.

Sergio Calderon, Treasurer

Date

Attachment 2-12:
Cal Advocates' Photo of Emergency Generator at Plant 19C

Cal Advocates' Photo of Emergency Generator at Plant 19C

Attachment 3-1:

AVR's Response to DR 047-AA

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

July 10, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	047-AA (AVR Wells 3 and Other Plant)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Date Received:	July 2, 2024
Due Date:	July 10, 2024

REQUEST NO. 1:

In Exhibit B, page 88, Liberty (AVR) states that it proposes to construct a well building for the existing Well 34. Liberty (AVR) proposes another project with a new well building at Well 18 with the same cost estimate as Liberty (AVR)'s proposed project at Well 34. In its Workpapers, Section 6, page 6-78, Liberty (AVR) provides a list of items that comprise a "Materials" cost estimate of $1,195,234 for the proposed Well 34 project. Liberty (AVR) notes on this page that the $1,195,235 cost estimate for materials is based on the recorded costs of a previous project at Well 16.

a) Please explain whether Wells 18 and 34 generate sound that violates any noise ordinance that applies to Liberty (AVR)'s sites. Identify the applicable noise ordinances and provide any records or documentation that show that violations have occurred.

b) What is the materials cost estimate for specifically the new well buildings that Liberty proposes at Wells 18 and 34?

c) Provide documentation of the recorded costs for the Well 16 project that breaks down the $1,195,235 total into the recorded costs for each item that is listed on Liberty (AVR)'s Workpapers, page 6-78, such as "HDU – Construction," and "KSM – Building Electrical."

RESPONSE:

a. A copy of Chapter 9.73 Noise Control from the Apple Valley, CA Code of Ordinances is attached. Per Table 9.73.060-A, the maximum decibel noise levels for stationary equipment at night is 50 decibels for single-family homes; 65 for multi-family homes; and 70 for commercial areas.

   Attached is a copy of decibel test results of various Liberty Apple Valley production productions facilities. Well 34 had a decibel reading of 78 and Well 18 had a reading of 72. Thus, both sites are in violation of the Town's noise ordinance.

b. The types of materials to be used in the construction of the pumphouses and site work at Well 18 and Well 34 will be the same as the materials used in the construction that occurred for the Well 16 pumphouse and site work. The data for Well 16 is provided in Item c below.

c. A copy of the Transaction Analysis for the Well 16 construction, project number 41202001 is attached. This is a financial report on all costs associated with Well 16. In addition, copies of the detailed bids showing work items from HDU and KSM have been attached. While the cost of work from HDU and KSM comprised most of this project's overall total cost, there were many other miscellaneous vendors and material suppliers that did work or provided equipment for this project. These are detailed in the various purchase orders that are attached.

REQUEST NO. 2:

In its Workpapers, Section 6, page 6-2, Liberty (AVR) lists "Main New 1" with a Construction Work-in-Progress (CWIP) cost estimate of $58,138 in years 2022, 2024, 2025, 2026, and 2027. On the same page, Liberty (AVR) also lists "Main New 2" and "Main New 3" with CWIP cost estimates of $14,927 and $5,500 respectively in years 2022 and every year from 2024 to 2027. Under the column labeled "Close" on the same page, Liberty (AVR) shows the same cost estimates for Main New 1, 2, and 3 in year 2023 and the same cost estimates but negative in year 2024. In its Workpapers, pages 6-19 and 6-20, Liberty (AVR) shows a capital budget estimate of "$0" for the "Main New" category in years 2024 to 2027.

a) Please explain what plant additions Liberty (AVR) proposes that correspond with the

Main New 1, 2, and 3 cost estimates that Liberty (AVR) lists in its Workpapers, page 6-2.

b) Explain how Liberty (AVR) proposes to transfer the proposed cost estimates for Main New 1, 2, and 3 from CWIP to Utility Plant-in-Service

RESPONSE:

a) Main New 1, 2, and 3 are anticipated to be closed to plant in 2024. The CWIP shown for years 2024, 2025, 2026, and 2027 was an entry error, should be zero balance. Liberty proposes total 2024 plant additions of $70,662, $18,143, and $6,684 for Main New 1, 2, and 3 respectively.

b) Please see the attachment with preface Q2b. This provides instructions and screenshots of the revisions.

REQUEST NO. 3:

In Exhibit F, page 32, Liberty (AVR) states that it provides a copy of a citation that the State Water Resources Control Board (SWRCB) issued to Liberty AVR. Liberty AVR includes the citation, a Nitrate Monitoring Violation for year 2021, as attachment II.G.5 to Exhibit F. On page 3 of the citation, the SWRCB lists six directives that Liberty (AVR) should complete after receiving the citation. Explain whether Liberty (AVR) has completed the SWRCB's directives and provide documentation of the directives that Liberty (AVR) has completed.

RESPONSE:

Please see attachments prefaced Q3.

This completes the response to Data Request No. 047-AA. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

Chapter 9.73 - Noise Control

9.73.010 - Purpose

A. **Purpose.**

The purpose of this Chapter is to reduce unnecessary, excessive and annoying noise and vibration within the Town. The Town Council finds that this Chapter is necessary to prohibit such noise and vibration generated from or by all sources as specified in this Chapter. Further, the Town Council finds that this Chapter is necessary to maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the Town where noise levels are above acceptable values.

The Town Council also finds that certain noise levels and vibrations are detrimental to the public health, safety and welfare, and are contrary to the public interest. Therefore, the Town Council does ordain and declare that creating, maintaining, causing or allowing to be created, caused or maintained, any noise or vibration in a manner prohibited by or not in conformity with the provisions of this Chapter, shall be an infraction or misdemeanor and shall be punishable as such.

9.73.020 - Definitions

A. **Definitions.** All terminology used in this ordinance, not defined below, shall be in conformance with applicable publications of the American National Standards Institute (ANSI) or its successor body.

The following words, phrases and terms as used in this Chapter shall have the meaning as indicated below:

1. **A Weighted Sound Level.** The sound level in decibels as measured on a sound level meter using the A-weighting network. The level so read is designated dBA.
2. **Agricultural Property.** A parcel of real property of not less than ten (10) contiguous acres in size, which is undeveloped for any use other than agricultural purposes.
3. **Ambient Noise Level.** The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal of existing level of environmental noise at a given location.
4. **Commercial Area.** Property which is zoned for commercial purposes, including, but not limited to, retail and wholesale businesses, personal services, and professional offices.

5. **Construction.** Any site preparation, assembly, erection, substantial repair, alteration, or similar action, for or of public or private rights-of-way, structures, utilities or similar property.
6. **Cumulative Period.** An additive period of time composed of individual time segments which may be continuous or interrupted.
7. **Decibel.** A unit for measuring the amplitude of a sound, equal to twenty (20) times the logarithm to the ratio of the sound measured to the reference pressure, which is 20 micropascals.
8. **Demolition.** Any dismantling, intentional destruction or removal of structures, utilities, public or private rights-of-way surfaces, or similar property.
9. **Emergency Work.** Any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.
10. **Fixed Noise Source.** A stationary device which creates sounds while fixed or motionless, including, but not limited to, residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners, and refrigeration units.
11. **Gross Vehicle Weight Rating (GVWR).** The value specified by the manufacturer as the recommended maximum loaded weight of a single motor vehicle. In cases where trailers and tractors are separable the gross combination weight rating, which is the value specified by the manufacturer as the recommended maximum loaded weight of the combination vehicle, shall be used.
12. **Impulsive Sound.** Sound of short duration, usually less than one (1) second, with an abrupt onset and rapid decay. Examples of sources of impulsive sound include explosions, drop forge impacts, and the discharge of firearms.
13. **Industrial Area.** Property which is zoned for manufacturing and related uses.
14. **Intrusive Noise.** That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency and time of occurrence, tonal or informational content, as well as the prevailing ambient noise level.
15. **Licensed.** The possession of a formal license or a permit issued by the appropriate licensing or permitting agency; or, where no licenses or permits are issued, the sanctioning of the activity by such agency as noted in public record.
16. **Mobile Noise Source.** Any noise source other than a fixed source.
17. **Motor Vehicle.** Motor vehicle shall include any and all self-propelled vehicles as defined in the California Motor Vehicle Code, including all on-highway type motor vehicles subject to registration under said Code, and all off-highway type motor vehicles subject to identification under said Code.
18.

Motorboat. Any vessel propelled by machinery, whether or not such machinery is the principal source of propulsion, but shall not include a vessel which has a valid marine document issued by the Bureau of Customs of the United States government or any Federal agency successor thereto (Section 651(d), Harbors and Navigation Code).

19. **Muffler or Sound Dissipating Device.** A device consisting of a series of chambers or baffle plates, or other mechanical design, for the purpose of receiving exhaust gas from an internal combustion engine, and effective in reducing noise.
20. **Noise Control Officer (NCO).** Person or persons designated by the Director of Community Development as responsible for the enforcement of this Chapter.
21. **Noise Disturbance.** Any sound which, as judged by the NCO, (a) endangers or injures the safety or health of human beings or animals, or (b) annoys or disturbs reasonable persons of normal sensitivities, or (c) endangers or injures personal or real property, or (d) violates the factors set forth in Section 9.73.040 of this Chapter. Compliance with the quantitative standards as listed herein shall constitute elimination of a noise disturbance.
22. **Noise Sensitive Zone.** Any area designated in accordance with Section 9.73.060 of this Chapter for the purpose of ensuring exceptional quiet.
23. **Noise Zone.** Any defined areas or regions of a generally consistent land use wherein the ambient noise levels are within a range of five (5) dBA.
24. **Person.** Any individual, association, partnership, or corporation, and includes any officer, employee, department, agency or instrumentality of a State or any political subdivision of a State.
25. **Powered Model Vehicle.** Any self-propelled, airborne, waterborne, or landborne plane, vessel, or vehicle, which is not designed to carry persons, including, but not limited to, any model airplane, boat, car, or rocket.
26. **Public Right-of-Way.** Any street, avenue, boulevard, highway, sidewalk or alley or similar place which is owned or controlled by a governmental entity.
27. **Public Space.** Any real property, or structures thereon, which are owned or controlled by a governmental entity.
28. **Pure Tone.** Any sound which can be judged as audible as a single pitch or a set of single pitches by the Noise Control Officer. For the purposes of this Chapter, a pure tone shall exist if the one-third (1/3) octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of the two (2) contiguous one-third (1/3) octave bands by five (5) dBA for center frequencies of 500 Hz and above, and by eight (8) dBA for center frequencies between 160 and 400 Hz, and by fifteen (15) dBA for center frequencies less than or equal to 125 Hz.

29. **Real Property Boundary.** An imaginary line along the ground surface, and its vertical extension, which separates the real property owned by one person from that owned by another person, but not including intra-building real property divisions.
30. **Residential Area.** Property which is zoned for residential uses.
31. **Sound Amplifying Equipment.** Any device for the amplification of the human voice, music, or any other sound, excluding standard automobile radios when used and heard only by the occupants of the vehicle in which the radio is installed, warning devices on authorized emergency vehicles, or horns or other warning devices on any vehicle used only for traffic safety purposes.
32. **Sound Level Meter.** An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement of sound levels. Such instrument shall meet or exceed the pertinent requirements for type S2A meters contained in the American National Standards Institute specifications for sound level meters, S1.4-1971, or the most recent revision thereof.
33. **Sound Truck.** Any motor vehicle or any other vehicle, regardless of motive power, whether in motion or stationary, having mounted thereon, or attached thereto, any sound amplifying equipment.
34. **Vibration Perception Threshold.** The minimum ground- or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hz.
35. **Weekday.** Any day, Monday through Friday, which is not a legal holiday.

9.73.030 - Noise Control Officer

A. **Authority and Duties of the Noise Control Officer (NCO)**
   1. **Lead Agency.** The Director shall designate a Noise Control Officer (NCO) who shall be responsible for administering the noise control program established by this Chapter.
   2. **Powers.** In order to implement and enforce this Chapter and for the general purpose of noise abatement and control, NCO shall have, in addition to any other vested authority, the power to:
      a. Conduct, or cause to be conducted, studies, research, and monitoring related to noise, including joint cooperative investigation with public or private agencies, and the application for, and acceptance of, grants;
      b. Review all public and private projects which are likely to cause noise in violation of this ordinance and which are subject to mandatory review or approval by other departments.
         1) Review for compliance with the intent and provisions of this ordinance.

2) Require sound analyses which identify existing and projected noise sources and associated noise levels.

3) Require the usage of adequate mitigation measures to avoid violation of any provision of this ordinance.

c. Upon presentation of proper credentials, enter and/or inspect any private property, place, report, or records at any time when granted permission by the owner or by some other person with authority to act for the owner. When permission is refused or cannot be obtained, a search warrant may be obtained from a court of competent jurisdiction upon a showing of probable cause to believe that a violation of this ordinance may exist. Such inspection may include the administration of any necessary tests.

d. Prepare recommendations, based upon noise survey data and analytical studies, to be approved by the Town Council, for the designation of zones of similar ambient environmental noise within regions of generally consistent land use. These zones shall be identified in terms of their day and nighttime ambient noise levels and their land use classifications as given in Table 9.73.050-A.

9.73.040 - General Noise Regulations

A. **General Noise Regulations.** Notwithstanding any other provision of this chapter, and in addition thereto, it shall be unlawful for any person to willfully or negligently make or continue, or cause to be made or continued, any loud, unnecessary, or unusual noise which disturbs the peace and quiet enjoyment of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitivity residing in the area.

The factors which shall be considered in determining whether a violation of the provisions of this section exists shall include, but not be limited to, the following:

1. The sound level of the objectionable noise;
2. The sound level of the ambient noise;
3. The proximity of the noise to residential sleeping facilities;
4. The nature and zoning of the area within which the noise emanates;
5. The number of persons affected by the noise source;
6. The time of day or night the noise occurs;
7. The duration of the noise and its tonal, informational or musical content;
8. Whether the noise is continuous, recurrent, or intermittent;
9. Whether the noise is produced by a commercial or noncommercial activity.

B. **Noise Measurement Procedure**

1. **Receipt of Complaint.** Upon receipt of a complaint from a citizen, the NCO shall, equipped with the appropriate sound level measurement equipment, investigate the complaint. The investigation shall consist of a measurement of the offending noise and the gathering of data to adequately define the noise problem and shall include the following:
   a. Type of noise source;
   b. Location of noise source relative to complainant's property;
   c. Time period during which noise source is considered by complainant to be intrusive;
   d. Total duration of noise produced by noise source;
   e. Date and time of noise measurement survey.
2. **Noise Measurement Procedure**
   a. Utilizing the "A" weighting scale of the sound level meter and the "slow" meter response (use "fast" response for impulsive type sounds), the noise level shall be measured at a position or positions at any point on the receiver's property.
   b. In general, the microphone shall be located four to five feet above the ground; ten feet or more from the nearest reflective surface where possible. However, in those cases where another elevation is deemed appropriate, the latter shall be utilized. If the noise complaint is related to interior noise levels, interior noise measurements shall be made within the affected residential unit. The measurements shall be made at a point at least four feet from the wall, ceiling, or floor nearest the noise source, with windows in the normal seasonal configuration. Calibration of the measurement equipment, utilizing an acoustic calibration, shall be performed immediately prior to recording any noise data.

9.73.050 - External and Internal Noise Standards

A. **External Noise Standards**

1. **Maximum Permissible Sound Levels by Receiving Land Use**
   a. The noise standards for the various categories of land use identified by the Noise Control Officer as presented in Table 9.73.050-A shall, unless otherwise specifically indicated, apply to all such property within a designated zone.
   b. No person shall produce or cause to be produced any sound at any location within the incorporated Town or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property, either incorporated or unincorporated, to exceed:

1) The noise standard for that land use as specified in Table 9.73.050-A for a cumulative period of more than thirty (30) minutes in any hour; or
2) The noise standard plus five (5) dBA for a cumulative period of more than fifteen (15) minutes in any hour; or
3) The noise standard plus ten (10) dBA for a cumulative period of more than five (5) minutes in any hour; or
4) The noise standard plus fifteen (15) dBA for a cumulative period of more than one (1) minute in any hour; or
5) The noise standard plus twenty (20) dBA or the maximum measured ambient level, for any period of time.

c. If the measured ambient level differs from that permissible within any of the first four noise limit categories above, the allowable noise exposure standard shall be adjusted in five (5) dBA increments in each category as appropriate to encompass or reflect said ambient noise level.

   In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

d. If the measurement location is on a boundary between two different zones, the noise level limit applicable to the lower noise zone plus five (5) dBA shall apply.

e. If possible, the ambient noise shall be measured at the same location along the property line utilized in paragraph 9.73.050.A.1.b of this Chapter with the alleged offending noise source inoperative. If, for any reason, the alleged offending noise source cannot be shut down, the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance such that the noise from the source is at least ten (10) dBA below the ambient in order that only the ambient level be measured. If the difference between the ambient and the noise source is five (5) to ten (10) dBA, then the level of the ambient itself can be reasonably determined by subtracting a one decibel correction to account for the contribution of the source.

2. **Correction for Character of Sound.** In the event the alleged offensive noise, as judged by the NCO, contains a steady, audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering or riveting, or contains music or speech conveying informational content, the standard limits set forth in Table 9.73.050-A shall be reduced by five (5) dBA.

Table 9.73.050-A Exterior Noise Limits

EXTERIOR NOISE LIMITS (Levels Not To Be Exceeded More Than 30 Minutes In Any Hour)

Receiving Land Use Category	Time Period	Noise Level (dBA)
Single Family Residential	10 p.m. - 7 a.m. 7 a.m. - 10 p.m.	40 50
Multiple Dwelling Residential, Public Space	10 p.m. - 7 a.m. 7 a.m. - 10 p.m.	45 50
Limited Commercial & Office	10 p.m. - 7 a.m. 7 a.m. - 10 p.m.	55 60
General Commercial	10 p.m. - 7 a.m. 7 a.m. - 10 p.m.	60 65
Light Industrial Heavy Industrial	Any Time Any Time	70 75

B. **Interior Noise Standards**

1. **Maximum Permissible Dwelling Interior Sound Levels**

a. The interior noise standards for multi-family residential dwellings as presented in Table 9.73.050-B shall apply, unless otherwise specifically indicated, within all such dwellings with windows in their normal seasonal configuration.

Table 9.73.050-B Interior Noise Limits

INTERIOR NOISE LIMITS

Noise Zone	Type of Land Use	Time Interval	Allowable Interior Noise Level (dBA)
All	Multi-Family	10 p.m. - 7 a.m.	35
	Residential	7 a.m. - 10 p.m.	45

b. No person shall operate or cause to be operated within a dwelling unit any source of sound or allow the creation of any noise which causes the noise level, when measured inside a neighboring receiving dwelling unit, to exceed:
   1) The noise standard as specified in Table 9.73.050-B for a cumulative period of more than five (5) minutes in any hour; or
   2) The noise standard plus five (5) dBA for a cumulative period of more than one (1) minute in any hour; or
   3) The noise standard plus ten (10) dBA or the maximum measured ambient, for any period of time.

c. If the measured ambient level differs from that permissible within any of the noise limit categories above, the allowable noise exposure standard shall be adjusted in five (5) dBA increments in each category as appropriate to reflect said ambient noise level.

2. **Correction for Character of Sound.** In the event the alleged offensive noise, as judged by the NCO, contains a steady, audible tone such as a whine, screech, or hum, or is a repetitive noise such as hammering or riveting, or contains music or speech conveying informational content, the standard limits set forth in Table 9.73.050-B shall be reduced by five (5) dBA.

9.73.060 - Prohibited Noise and Vibration

No person shall unnecessarily make, continue, or cause to be made or continued, any noise disturbance. The following acts, and the causing or permitting thereof, are declared to be in violation of this ordinance:

A. Operating, playing or permitting the operation or playing of any radio, television, phonograph, drum, musical instrument, or similar device which produces or reproduces sound:
   1. Between the hours of 10 p.m. and 7 a.m. in such a manner as to create a noise disturbance across a residential or commercial real property line or at any time to violate the provisions of Section 9.73.050.A.1., except for cases in which an exception has been issued by the Town.

2. In such a manner as to exceed the levels set forth for public space in Table 9.73.050-A, measured at a distance of at least fifty (50) feet from such device operating on a public right-of-way or public space.

B. Using or operating for any purpose any loudspeaker, loudspeaker system, or similar device between the hours of 10 p.m. and 7 a.m., such that the sound therefrom creates a noise disturbance across a residential real property line, or at any time violates the provisions of Section 9.73.050.A.1., except for any noncommercial public speaking, public assembly or other activity for which an exception has been issued by the Town.

C. Offering for sale, selling anything, or advertising by shouting or outcry within any residential or commercial area or noise sensitive zone of the Town except by variance issued by the Town. The provisions of this Section shall not be construed to prohibit the selling by outcry of merchandise, food, and beverages at licensed sporting events, parades, fairs, circuses, or other similar licensed public entertainment events.

D. Owning, possessing or harboring any animal or bird which frequently or for long duration, howls, barks, meows, squawks, or makes other sounds which create a noise disturbance across a residential or commercial real property line or within a noise sensitive zone. This provision shall not apply to public zoos.

E. Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects between the hours of 10 p.m. and 7 a.m. in such a manner as to cause a noise disturbance across a residential real property line or at any time to violate the provisions of 9.73.050.A.1.

F. **Construction/Demolition**

1. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7 p.m. and 7 a.m., or at any time on weekends or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance issued by the Town.

2. **Noise Restrictions at Affected Properties.** Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties will not exceed those listed in the following schedule:

Table 9.73.060-A Maximum Noise Levels

AT RESIDENTIAL PROPERTIES

Mobile Equipment: Maximum noise levels for nonscheduled intermittent, short-term operation (less than 10 days) of mobile equipment:			
	TYPE I AREAS SINGLE-FAMILY RESIDENTIAL	**TYPE II AREAS MULTI-FAMILY RESIDENTIAL**	**TYPE III AREAS SEMI-RESIDENTIAL/ COMMERCIAL**
Daily, except Sundays and Legal Holidays, 7 a.m. to 7 p.m.	75 dBA	80 dBA	85 dBA
Daily, 7 p.m. to 7 a.m. and all day Sunday and Legal Holidays	60 dBA	65 dBA	70 dBA
Stationary Equipment: Maximum noise levels for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:			
	TYPE I AREAS SINGLE FAMILY RESIDENTIAL	**TYPE II AREAS MULTI-FAMILY RESIDENTIAL**	**TYPE III AREAS SEMI-RESIDENTIAL/ COMMERCIAL**

Daily, except Sundays and Legal Holidays, 7 a.m. to 7. p.m.	60 dBA	65 dBA	70 dBA
Daily, 7 p.m. to 7 a.m. and all day Sunday and Legal Holidays	50 dBA	55 dBA	60 dBA
Mobile Equipment: Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment: Daily, including Sundays and legal holidays, all hours: maximum of 85 dBA.			
Stationary Equipment: Maximum noise levels for repetitively scheduled and relatively long-term operation of stationary equipment:			
Daily, including Sundays and legal holidays, all hours: maximum of 75 dBA.			

3. All mobile or stationary internal combustion engine powered equipment or machinery shall be equipped with suitable exhaust and air intake silencers in proper working order.

G. **Vibration.** Operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at one hundred fifty (150) feet (46 meters) from the source if on a public space or public right-of-way.

H. **Powered Model Vehicles.** Operating or permitting the operation of powered model vehicles:

1. Between the hours of 7 p.m. and 7 a.m. so as to create a noise disturbance across a residential or commercial real property line or at any time to violate the provisions of paragraph 9.73.050.A.1.
2. In such a manner as to exceed the levels set forth for public space land use in Table 9.73.050-A, measured at a distance not less than 100 feet from any point on the path of a vehicle operating on public space or public right-of-way.

I.

Stationary Nonemergency Signaling Devices

1. Sounding or permitting the sounding of any electronically-amplified signal from any stationary bell, chime, siren, whistle, or similar device, intended primarily for nonemergency purposes, from any place for more than 10 seconds in any hourly period. Houses of religious worship shall be exempt from this provision.
2. Sound sources covered by this provision and not exempted under subsection 1 above may be exempted by an exception issued by the Town.

J. **Emergency Signaling Devices**

1. The intentional sounding or permitting the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle, or similar stationary emergency signaling device, except for emergency purposes or for testing. as provided in subsection 2 below.
2. **Testing**
   a. Testing of a stationary emergency signaling device shall not occur before 7 a.m. or after 7 p.m. Any such testing shall use only the minimum cycle test time. In no case shall such test time exceed 60 seconds.
   b. Testing of the complete emergency signaling system, including the functioning of the signaling device and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall not occur before 7 a.m. or after 10 p.m. The time limit specified in subsection b.(1) above shall not apply to such complete system testing.
3. Sounding or permitting the sounding of any exterior burglar or fire alarm or any motor vehicle burglar alarm unless such alarm is terminated within 15 minutes of activation.

K. **Noise Sensitive Zones**

1. Creating or causing the creation of any sound within any noise sensitive zone, so as to exceed the specified land use noise standards set forth in Section 9.73.050.A.1., provided that conspicuous signs are displayed indicating the zone; or
2. Creating or causing the creation of any sound within or adjacent to any noise sensitive zone containing a hospital, nursing home, school, court or other designated area, so as to interfere with the functions of such activity or annoy the occupants in the activity, provided that conspicuous signs are displayed indicating the presence of the zone.

L. **Domestic Power Tools, Machinery**

1. Operating or permitting the operation of any mechanically powered saw, sander, drill, grinder, lawn or garden tool, or similar tool between 10 p.m. and 7 a.m., so as to create a noise disturbance across a residential or commercial real property line.
2.

Any motor, machinery, pump, such as swimming pool equipment, etc., shall be sufficiently enclosed or muffled and maintained so as not to create a noise disturbance in accordance with Section 9.73.050.

M. **Residential Air-Conditioning or Air-Handling Equipment.** Operating or permitting the operation of any air-conditioning or air-handling equipment in such a manner as to exceed any of the following sound levels:

Table 9.73.060-B Air Conditioning/Air Handling Equipment

Measurement Location	Units Installed Before 1-1-80	Units Installed On Or After 1-1-80
Any point on neighboring property line, 5 feet above grade level, no closer than 3 feet from any wall	60 dBA	55 dBA
Center of neighboring patio, 5 feet above grade level, no closer than 3 feet from any wall	55 dBA	50 dBA
Outside the neighboring living area window nearest the equipment location, not more than 3 feet from the window opening, but at least 3 feet from any other surface	55 dBA	50 dBA

N. **Places of Public Entertainment.** Operating or permitting the operation or playing of any loudspeaker, musical instrument, motorized racing vehicle, or other source of sound in any place of public entertainment that exceeds 95 dBA as read on the "slow" response of a sound level meter at any point normally occupied by a customer, without a conspicuous and legible sign stating: "WARNING! SOUND

LEVELS WITHIN MAY CAUSE HEARING IMPAIRMENT!"

9.73.070 - Motor Vehicles Operating on Public Right-Of-Way

Motor vehicle noise limits on a public rights-of-way are regulated as set forth in the California Motor Vehicle Code, Sections 23130 and 23130.5. Equipment violations which create noise problems are covered under Sections 27150 and 27151. Any peace officer of any jurisdiction in California may enforce these provisions. Therefore, it shall be the policy of the Town to enforce these sections of the California Motor Vehicle Code.

A. **Refuse Collection Vehicles**

1. No person shall collect refuse with a refuse collection vehicle between the hours of 7 p.m. and 7 a.m. within or adjacent to a residential area or noise sensitive zone.
2. No person authorized to engage in waste disposal service or garbage collection shall operate any truck-mounted waste or garbage loading and/or compacting equipment or similar device in any manner so as to create any noise which exceed4ing 80 dBA's. the following levels, measured at a distance of fifty (50) feet from the equipment in an open area.
    a. New equipment purchased or leased on or after December 24, 1994: 80 dBA.
    b. New equipment purchased or leased on or after September 24, 1994: 75 dBA.
    c. Existing equipment, on or after June 24, 1999: 80 dBA.

B. **Motor Vehicle Horns.** It is unlawful for any person to sound a vehicular horn except as a warning signal (Motor Vehicle Code, Section 27001).

C. **Motorized Recreational Vehicles Operating Off Public Rights-of-Way.** No person shall operate or cause to be operated any motorized recreational vehicle off a public right-of-way in such a manner that the sound levels emitted therefrom violate the provisions of paragraph 9.73.050.A.1 of this Chapter. This Section shall apply to all motorized recreational vehicles whether or not duly licensed and registered, including but not limited to commercial or noncommercial racing vehicles, motorcycles, go carts, amphibious craft, campers, snowmobiles and dune buggies, but not including motorboats.

D. **Motorboats.** Operating or permitting the operation of any motorboat in any lake, river, stream, or other waterway in such a manner as to cause a noise disturbance across a residential or commercial real property line or at any time to violate the provisions of paragraph 9.73.050.A.1 of this Chapter.

E.

Standing Motor Vehicles. No person shall operate or permit the operation of any motor vehicle with a gross vehicle weight rating (GVWR) in excess of ten thousand (10,000) pounds, or any auxiliary equipment attached to such a vehicle, for a period longer than fifteen (15) minutes in any hour while the vehicle is stationary, for reasons other than traffic congestion on a public right-of-way or public space within 150 feet of a residential area or designated noise sensitive zone, between the hours of 10 p.m. and 7 a.m.

9.73.080 - Exemptions

The following activities shall be exempted from the provisions of this Chapter:

A. The emission of sound for the purpose of alerting persons to the existence of an emergency;

B. The emission of sound in the performance of emergency work;

C. Warning devices necessary for the protection of public safety; for example, police, fire and ambulance sirens, and train horns;

D. Regularly scheduled school bands, school athletic and school entertainment events between the hours of 8:45 a.m. and 10:00 p.m., provided a Special Events permit is obtained for band activities on Town streets;

E. Regularly scheduled activities conducted on public parks, public playgrounds, and public or private school grounds. However, the use of public address or amplified music systems is not permitted to exceed the exterior noise standard of adjacent property at the property line;

F. All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions;

G. Mobile noise sources associated with agricultural operations, provided such operations take place on Monday through Friday, excepting legal holidays, between the hours of 7:00 a.m. and 6:00 p.m., or on holidays and weekends between the hours of 9:00 a.m. and 6:00 p.m. All other operations shall comply with this chapter;

H. Any activity to the extent that regulation thereof has been preempted by State or Federal law.

9.73.090 - Exceptions

A. The NCO is authorized to grant exceptions from any provision of this ordinance, subject to limitations as to area, noise levels, time limits, and other terms and conditions as the NCO determines are appropriate to protect the public health, safety, and welfare from the noise emanating therefrom. This Section shall in no way affect the duty to obtain any permit or license required by law for such activities.

B.

Any person seeking an exception to this Section shall file an application with the NCO. The application shall contain information which demonstrates that bringing the source of sound or activity for which the exception is sought into compliance with this ordinance would constitute an unreasonable hardship on the applicant, on the community, or on other persons. The application shall be accompanied by a fee. A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership, or several fixed sources on a single property, may be combined into one application. Notice of an application for an exception shall be noticed according to Town Code. Any individual who claims to be adversely affected by allowance of the exception may file a statement with the NCO containing any information to support his claim. If at any time the NCO finds that a sufficient controversy exists regarding an application, such application shall be scheduled for a public hearing by the Planning Commission.

C. In determining whether to grant or deny the application, the NCO shall balance the hardship on the applicant, the community, and other persons of not granting the variance against the adverse impact on the health, safety, and welfare of persons affected, and any other adverse impacts of granting the variance. Applicants for exceptions and persons contesting exceptions may be required to submit such information as the NCO may reasonably require. In granting or denying an application, the NCO shall keep on public file a copy of the decision and the reasons for denying or granting the exception.

D. Exceptions shall be granted by notice to the applicant containing all necessary conditions, including a time limit on the permitted activity. The exception shall not become effective until all conditions are agreed to by the applicant. Noncompliance with any condition of the exception shall terminate such exception and subject the person holding it to those provisions of this ordinance for which the exception was granted.

E. An exception shall expire 365 days from the date on which it was granted. Application for extension of time limits specified in exceptions or for modification of other substantial conditions shall be treated like applications for initial exceptions under subsection B above.

Liberty Utilities Apple Valley Noise Survey, locations, conditions and levels 04-22-15

Location	Conditions	Noise Level	Necessary Actions
well 7	Motor Running	**< 74**	**None**
well 9	Motor Running	**85**	**None if unit is off and time is less than 8 hrs**
	Outside	**60**	**None**
	Miox room	**84**	**None**
Well 11	Motor Running	**86**	**None if unit is off and time is less than 8 hrs**
	Outside	**70**	**None**
	Miox room	**88**	**None if unit is off and time is less than 8 hrs**
Well 12	Motor Running at pump	**82**	**None**
	10'	**76**	**None**
	out side	**46**	**None**
Well 16	Motor Running at pump	**72**	**None**
	10'	**> 66**	**None**
	outside	**44**	**None**
Well 17	Motor Running	**81**	**None**
	Miox Shed	**82**	**None**
Well 18	Motor Running	**72**	**None**
	Miox shed	**88**	**None if unit is off and time is less than 8 hrs**
Well 19	Motor Running	**96**	**recommend hearing protection during extended operation**
Well 20	Motor Running	**82**	**None**
	Miox Shed	**76**	**None**
Well 21	Motor Running at pump	**74**	**None**
	10'	**70**	**None**
Well 22	Motor Running	**97**	**None if unit is off and time is less than 8 hrs**
	Miox room	**88**	**None if unit is off and time is less than 8 hrs**
Well 25	Motor Running at pump	**77**	**None**
	outside	**68**	**None**
Well 26	Motor Running	**85**	**None**
	Miox Shed	**88**	**None if unit is off and time is less than 8 hrs**

Well 28	Motor Running	**< 85**	**None if unit is off and time is less than 8 hrs**
	Miox room	**88**	**None if unit is off and time is less than 8 hrs**
Well 29	Motor Running	**86**	**None if unit is off and time is less than 8 hrs**
	Miox room	**88**	**None if unit is off and time is less than 8 hrs**
Well 30	Motor Running	**67 - 80**	**None**
Well 33	Motor Running out side	**< 64**	**None**
	at pump	**< 88**	**None if unit is off and time is less than 8 hrs**
	Miox room	**< 86**	**None if unit is off and time is less than 8 hrs**
Well 34	Motor Running	**78**	**None**
	10'	**72**	**None**
	Miox room	**90**	**None if unit is off and time is less than 8 hrs**
Well 35	Motor Running		
	10'		
	Miox room		
Well 36	Motor Running	**< 84**	**None**
	Miox room	**86**	**None if unit is off and time is less than 8 hrs**
JR hill top Tank and Fire Boosters	Boosters in Operation	**76 - 82**	**None**
Mockingbird Booster Station	Hatch open Motors running	**92**	**None if unit is off and time is less than 8 hrs**
Desert knolls Booster station at Desert knools tank	Door Closed Booster running	**80**	**None**
	out side	**66**	**None**
	inside compressor running	**83**	**None**
Kasson Booster	inside	**< 88**	**None if unit is off and time is less than 8 hrs**
	Outside	**70**	**None**

Corwin booster station	Door Closed Booster running	**89**	**None if unit is off and time is less than 8 hrs**
	out side	**66**	**None**
Stoddard Booster station	Door Closed Booster running	**90**	**None if unit is off and time is less than 8 hrs**
	out side	**< 68**	**None**
Youngs Town Booster Station	Door Closed Booster running	**76**	**None**
	out side	**61**	**None**

BID FORM (PROPOSAL) TO

LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.

FOR THE CONSTRUCTION OF

WELL 16 BUILDING, EQUIPMENT AND PIPING
JOB NO. 41202001

Name of Bidder: HIGH DESERT UNDERGROUND, INC.

Business Address: 13355 OSAGE COURT, APPLE VALLEY, CA 92308

Phone No. 760-247-8999

Pursuant to and in compliance with your Notice Inviting Sealed Proposals (Bids) and the other documents relating thereto, the undersigned bidder, being fully familiar with the terms of the Contract, the character, quality, quantities, and scope of the work, and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated in the Contract, including all of its component parts and everything required to be performed, and to furnish any and all the labor, material, tools, equipment, transportation, services, permits, utilities, and all other items necessary to perform the Contract and complete in a workmanlike manner, all of the work required in connection with the construction of said work all in strict conformity with the plans and specifications and other Contract Documents, including addenda Nos. 01 and _____, for the prices hereinafter set forth.

The undersigned as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any persons firm or corporation; and the undersigned bidder proposes and agrees, if the proposal is accepted, that it will execute a Contract with Liberty Utilities (Apple Valley Ranchos Water) Corp. (hereafter "Liberty Utilities Apple Valley ") in the form set forth in the Contract Documents and that it will accept in full payment thereof the following prices:

SCHEDULE OF WORK ITEMS
BID SCHEDULE
WELL 16 BUILDING, EQUIPMENT AND PIPING
JOB NO. 41202001

BID ITEM NO.	APPROX. QTY	DESCRIPTION		TOTAL AMOUNT
1	1 LS	Site Work		$ 33,264.00
2	1 LS	Exterior Piping		$ 111,856.95
3	1 LS	Well Building		$ 409,452.75
4	1 LS	Discharge Piping		$ 137,684.00
			Total *	$ 692,257.70

It is understood that the foregoing quantities are approximate only and are solely for the purpose of facilitating the comparison of bids, and the Contractor's compensation will be computed upon the basis of the actual quantities in the completed work, whether they be more or less than those shown.

Contractor's time to complete project will be _60_ working days. If this time period differs from the inspectors estimated time of completion the contractor will be responsible for the costs of inspection for the remaining of the job. A preliminary final inspection will be done and all corrections will be done by the contractor in a timely manner. Before there can be a final inspection all correction will be completed, cost accounting data, as-builts and compaction test (if applicable) will be submitted to Liberty Utilities - Apple Valley.
The Contractor bidding shall hereinafter list the subcontractor(s) who will be the subcontractor(s) on the job for each particular trade or subdivision of the work and will state the firm name and principal location of the mill, shop, or office of each.

DIVISION OF WORK OR TRADE	NAME OF SUBCONTRACTOR/SUPPLIER	LOCATION OF MILL, SHOP, OR OFFICE
PIPE/APPURTENANCES	INLAND WATER WORKS	SAN BERNARDINO, CA
CONCRETE / STRUCTURES	CONCO CONSTRUCTION	APPLE VALLEY, CA

SCHEDULE OF WORK ITEMS

ASSET MANAGEMENT BREAKDOWN FORM

WELL 16 BUILDING, EQUIPMENT AND PIPING PROJECT
JOB # 41202001

ITEM NO.	APPROX QTY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
Bid Item #1 Site Work				
1	LS	Remove Existing Drive Gate and Walk Gate Fence & Replace with Wrought Iron Fencing	$ 14,796.00	$ 14,796.00
2	LS	Relocate Existing Communication Pole (See Sheet L1)	$ 8,991.00	$ 8,991.00
3	LS	Remove and Relocate Existing Storage Container	$ 675.00	$ 675.00
4	LS	Remove Existing Chain Link Fence Around Pump	$ 1,836.00	$ 1,836.00
5	LS	Remove Existing Discharge Piping and Equipment	$ 3,483.00	$ 3,483.00
6	LS	Remove Concrete Around Current Well	$ 3,483.00	$ 3,483.00
		Total		$ 33,264.00
Bid Item #2 Exterior Piping				
1	300 LF	Waste Water Storage Chamber (See Addendum)*	$ 277.20	$ 83,160.00
2	LS	Install 4" Sch.40 PVC Drain Pipe (See Sheet P1)* Should be on A1	$ 5,994.00	$ 5,994.00
3	LS	4" Sch. 40 PVC- Underground (See Sheet P1)	$ 2,700.00	$ 2,700.00
4	LS	Trench drain with trench grate (See Sheet P1)	$ 19,237.50	$ 19,237.50
5	5 Each	Floor drains (See Sheet P1)	$ 85.05	$ 425.25
6	2 Each	4" Clean-out (See Sheet P1)	$ 85.05	$ 170.10
7	2 Each	4" swing check valve (See Sheet P1)	$ 85.05	$ 170.10
		Total		$ 111,856.95
Bid Item #3 Well Building				
1	1 Each	Evaporative Cooler Unit (See Sheet A1)	$ 10,125.00	$ 10,125.00
2	1 set	60"x80" Double Doors w/ Louvers (See Sheet A1)	$ 24,347.25	$ 24,347.25
3	2 Each	80"x80" Roll Up Doors (See Sheet A1)	$ 8,590.00	$ 17,180.00
4	2 Each	30"x80" Single Doors (See Sheet A1)	$ 14,175.00	$ 28,350.00

ITEM NO.	APPROX QTY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
5	1 Each	30"x68" Single Doors (See Sheet A1)	$ 14,175.00	$ 14,175.00
6	LS	Concrete Sidewalk (See Sheet A2)	$ 8,950.50	$ 8,950.50
8	2 EA	Roof Skylight (See Sheets A2 & A4)	$ 4,725.00	$ 9,450.00
10	LS	Ceiling Lid with Insulation (See Sheet A4, Hex Note 10)	$ 16,475.00	$ 16,475.00
11	5 Each	8"x16" Wall Vents (See Sheet A2, Note 12)	$ 945.00	$ 4,725.00
12	1 Each	Ceiling Exhaust Fan (See Sheet S1)	$ 3,700.00	$ 3,700.00
13	LS	Concrete Pad and Building Walls (See Sheet S1)	$ 228,525.00	$ 228,525.00
14	LS	2 Part Epoxy floor coating (See Sheet 1), 1 course up wall	$ 43,450.00	$ 43,450.00
		Total		$ 409,452.75

ITEM NO.	APPROX QTY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
Bid Item #4 Discharge Piping - *200psi+ rating				
		PLEASE REFER TO DISCHARGE PIPING DIAGRAM		
1	1 Each	2" Weld-O-Let (Note 10)	$ 2,000.00	$ 2,000.00
2	8 each	1" Weld-O-Let (See Discharge Diagrahm)	$ 1,000.00	$ 8,000.00
3	2' LF	8" Standard Steel Pipe FLGxFLG	$ 900.00	$ 1,800.00
4	2 Each	8"x8"x6" Standard Steel Tee FLGxFLGxFLG	$ 6,500.00	$ 13,000.00
5	1 Each	8" Cla-Val Wafer Check	$ 10,500.00	$ 10,500.00
6	5 LF	8" Standard Steel Pipe FLGxFLG	$ 750.00	$ 3,750.00
7	LS	Install E&H Mag Meter (Supplied by Liberty Utilities)	$ 405.00	$ 405.00
8	5' LF	8" Standard Steel Pipe FLGxFLG	$ 648.00	$ 3,240.00
9	1 Each	8" Butterfly Valve with Hand Wheel Operator FLGxFLG	$ 4,995.00	$ 4,995.00
10	1 Each	8" 45 degree Standard Steel Bend FLGxFLG -blue epoxy coated	$ 3,375.00	$ 3,375.00
11	10 LF	8" CML/C Pipe PExPE	$ 1,200.00	$ 12,000.00
12	1 each	6" Deep Well Pump Control Valve FLGxFLG Cla-Val 61-02	$ 25,255.00	$ 25,255.00
13	1 each	6" Surge Anticipator Valve FLGxFLG Cla-Val 52-03	$ 27,850.00	$ 27,850.00
14	1 each	6" Silent Wafer Check Valve FLGxFLG Cla-Val Series 580	$ 8,150.00	$ 8,150.00
15	LS	Thrust Block	$ 2,902.50	$ 2,902.50
16	3 Each	6" Butterfly Valves with Hand Wheel Operator FLGxFLG	$ 2,430.00	$ 7,290.00
17	1 Each	8" 45 degree CML/C pipe PExPE	$ 3,171.50	$ 3,171.50
		Total		$ 137,684.00
Total Bid Amount for Bid Items 1 - 4			$	**692,257.70**

The names of all persons interested in the foregoing proposals as principals are as follows: (NOTICE - If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a general partnership, state true name of firm, also names of all individual partners composing firm; if a limited partnership, the names of all general partners and limited partners; if bidder or other interested person is an individual, state first and last names in full; if the bidder is a joint venture, state the complete name of each venture).

JILL SANDWICK - CEO

DERRICK SANDWICK - CFO

BLANE SANDWICK - COO

CASS SANDWICK - VP / SAFETY DIRECTOR & SETH SANDWICK - VP / TRANSPORTATION DIRECTOR

It is Liberty Utilities Apple Valley's intent that the term "plans" shall mean the construction Contract Documents, which include both the drawings and the specifications.

Bidder hereby confirms that it has all appropriate classification of licenses and permits required by federal, state, and local statutes, regulations, and ordinances. The following are the Contractor's applicable license numbers (add pages if needed):

Contractor's License No.	Expiration Date
444032	10/31/2023

I state under penalty of perjury that all information submitted in this Bid is true and correct.

Signature of Bidder: 

Title: BLANE SANDWICK, COO

Dated: 03/04/2022

Attachment 3-2:
Cal Advocates' Photos of Well 18 and Well 34

Cal Advocates' Photos of Well 18

Figure 1. Well 18 with insulation on piping.

Figure 4. View of Well 18 lot.

Figure 2. Well 18 Fencing.

Figure 3. Disinfection Equipment Container for Well 18.

Cal Advocates' Photos of Well 34

Figure 4. Well 34 with chain-link enclosure.

Figure 5. Well 34 with insulation on piping.

Figure 6. Disinfection Equipment Container for Well 34.

Attachment 3-3:
A.21-07-003 et al., AVR's Response to DR AA9-05

Liberty Utilities (Apple Valley Ranchos Water) Corp.
21760 Ottawa Road
Apple Valley, CA 92308-6533
Tel: 760-247-6484
Fax: 760-247-1654

September 17, 2021

DATA REQUEST RESPONSE

LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.21-07-003
2022-2024 General Rate Case

Data Request No.:	AA9-05 (Plant Wells)
Requesting Party:	Public Advocates Office
Originator:	Cortney Sorensen Cortney.Sorensen@cpuc.ca.gov Anthony Andrade Anthony.Andrade@cpuc.ca.gov Daniel Zarchy Daniel.Zarchy@cpuc.ca.gov
Date Received:	September 10, 2021
Due Date:	September 17, 2021

REQUEST NO. 1:

In its Exhibit B, pages 92, 116, and 131, Liberty (AVR) states that it plans to replace the "archaic and outdated" electrical systems, discharge piping and equipment, disinfection system, and entry gates for Wells 12, 16, 18, and 17R. On page 131, Liberty (AVR) also states that it plans to replace the "archaic and outdated" electrical systems for Well 19 in 2023.

a. How did Liberty (AVR) determine that the above equipment and facilities are "archaic and outdated" for Wells 12, 16, 18, 17R, and 19?

b. Has Liberty (AVR) or its consultants conducted a condition assessment or other engineering analysis that studies the condition of the equipment and facilities for the above well sites? If yes, provide a document with that assessment.

c. Provide the year when Liberty (AVR) first placed the equipment and facilities to be replaced at the above well sites.

RESPONSE:

a. The term "archaic and outdated" was used in reference to equipment that has reached the end of its useful life, is obsolete (does not meet current electric code standards or public health standards) or overall condition based on number of repairs, lack of available replacement parts, and required modifications.
b. No. Liberty has not conducted a formal written condition assessment at this time. The age of the equipment is known, the condition is visible, and when parts are no longer available for repairs, equipment must be replaced in order to keep the facilities operational.
c. Well 12: Well drilled in 1966. Discharge piping replaced 1994; electrical panel (MCC) replaced in 1999. This facility has no structure. Disinfection system installed in 2008 and is now obsolete; parts are no longer available for repairs.
Well 16: Well drilled in 1968. Discharge piping and electrical panel replaced in 1995. Facility has no structure. Disinfection system installed in 2011 and is now obsolete; parts are no longer available for repairs.

Well 17R: Well drilled in 2004. Discharge piping and electrical panel are original equipment. Facility has no structure. Existing disinfection system will remain in place.

Well 18: Drilled in 1969. Discharge piping and electrical panel replaced in 2011. Facility has no structure. Existing disinfection unit will remain in place but requires some component upgrades (disinfection pump replacement) for improved efficiency.

Well 19: Drilled in 1969. Electrical system is original, with repairs and additions over the years. Disinfection unit is the only site in our system using sodium hypochorite; pump is at least 20 years old. Will replace sodium hypochlorite system with simpler and safer Accutab packaged disinfection system which utilizes calcium hypochlorite.

REQUEST NO. 2:

In its Exhibit B, page 92, 116, and 131, Liberty (AVR) states that "[i]n response to noise complaints from customers, a new block enclosure will be built to provide sound abatement and protection for the equipment" at Wells 12, 16, 18, and 17R.

a. Complete the following table by providing the number of noise complaints that Liberty (AVR) received and the date when customers made the complaints for each well.

Well	Number of Noise Complaints	Dates of Complaints
12		
16		
18		
17R		

b. Provide documents showing the original records of the complaints included in Liberty (AVR)'s response to Question 2.a.

c. Provide all the reasons why the new equipment at Wells 12, 16, 18, and 17R requires protection.

d. What disadvantages did Liberty (AVR) experience while operating the existing equipment at Wells 12, 16, 18, and 17R without the block enclosures' protection?

RESPONSE:

A customer who lives near Well 16 made repeated complaints regarding noise from the well in 2019. The email chain of the original call and follow-up from July 2019 is attached as "Response to 2b". Liberty has also received occasional calls from a neighbor near Well 12 regarding noise and site condition. These calls have been addressed verbally and were not documented.

Liberty is building structures to enclose the well and disinfection equipment at Wells 12, 16, 18 and 17R for a variety of reasons:

1. Site Security: These wells supply drinking water into our system. A sturdy enclosure provides protection against vandalism, theft and terrorism or tampering. Liberty is much better able to secure facilities in a structure that is not easily breached. The U.S. Department of Homeland Security and the U.S.E.P.A. require water systems to conduct periodic vulnerability assessments. Well facilities that are outside with minimal protection are more vulnerable to attack than those in secure enclosures. Consequently, Liberty is working to provide secure structures for all of its wells.
2. Exposure to elements: Apple Valley is subject to extreme temperatures throughout the year – from high temperatures in excess of 110 degrees in the summer to single-digit low, freezing temperatures in the winter. Maintaining pumping and disinfection equipment in a sturdy weather tight structure minimizes facility deterioration and failures from those

extreme temperatures and exposure to the elements (sun, wind, rain and snow); it also extends the useful life of that equipment.

3. Noise and appearance: Noise is mostly a concern in areas with homes in close proximity, such as Well 12 and Well 16. A sturdy enclosure around pumping facilities allows Liberty to be a better neighbor in those areas by minimizing noise from operating equipment. It also makes the site neater and allows it to blend better with the surrounding neighborhood.

The disadvantages of not having enclosure include:

1. Exposure to elements and extreme temperatures – Equipment deteriorates more quickly; may require more maintenance due to heat, sand, freezing conditions.
2. Site security is more vulnerable than at locations where facilities are enclosed and secured.
3. Occasional noise complaints from customers in close proximity (i.e., Well 16, Well 12).
4. Unattractive or industrial-looking appearance in residential neighborhoods.

REQUEST NO. 3:

In its Workpapers, pages 6-88, 6-135, 6-252, 6-299, Liberty (AVR) states that it plans to "[e]rect new block building to enclose pump and on-site chlorine generation unit." In the cost estimate on the same pages, Liberty (AVR) lists a construction cost of $528,703 for "HDU – CONSTRUCTION" and another cost of $185,785 for "KSM – Building Electrical." On pages 6-117, 6-164, 6-281, 6-329, Liberty (AVR) shows a schedule of work items that includes both a "Well Building" and a "Generator Building." On pages 6-132, 6-179, 6-296, 6-344, Liberty (AVR) shows a historical quote that includes an item for "Conduit and wire / Well room and Miox room."

a. Does Liberty (AVR) plan to construct two separate buildings for its well equipment and chlorine generator at each well?

b. If yes to Question 3.a, are there technical limitations that prevent Liberty (AVR) from housing the well equipment and chlorine generator in the same building?

c. If no to Question 3.b, explain if there are other benefits to housing the well equipment and chlorine generator in separate buildings.

RESPONSE:

a. Liberty does not intend to construct separate buildings for the well equipment and disinfection equipment. The reference to "Generator Building" refers to a building for a back-up power generator, not for chlorine generator/disinfection unit.

REQUEST NO. 4:

In its Workpapers, pages 6-244 to 6-245, Liberty (AVR) shows it cost estimate for its planned upgrades to Well 19 based on a historical quote. Does Liberty (AVR) currently house the well equipment in an existing building?

RESPONSE:

Yes. Well 19 has an existing, suitable, building.

REQUEST NO. 5:

In its Workpapers, pages 6-24 to 6-25 and others, Liberty (AVR) lists capital projects scheduled for construction in 2025. However, Liberty (AVR) does not describe these projects in its Exhibit B Revenue Requirement Report. Does Liberty (AVR) intend for the Commission to review the reasonableness of the projects scheduled for 2025 during the current general rate case?

RESPONSE:

2025 capital projects were inadvertently included in certain part of the workpapers. Please disregard as those capital projects are not part of this rate cycle.

This completes the response to Data Request No. AA9-05. If you have any questions, or require additional information, please contact me.

Very truly yours,

LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
562.923.0711
Tiffany.Thong@libertyutitilies.com

Attachment

From: Adam Ambrose
To: Carol Thomas-Keefer
Subject: FW: After hours call :)
Date: Monday, July 15, 2019 8:55:28 AM

This guy called after hours to complain. Below is the noise levels.

Running at motor
2015 = 72 dB
2019 = 87 dB

Running at street
2015 = 44 dB
2019 = 47 dB

Motor off at street 2019
45 dB

At street Car driving on Sitting Bull / Harley Motorcycle / car on Tawya
Sittingbull = 55 dB
Harley on Sittingbull = 76 dB
Tawya = 69 dB

Adam Ambrose | Liberty Utilities (California) | Operations Supervisor, Production
P: 760-240-8332 | C: 760-559-1411 | E: Adam.Ambrose@libertyutilities.com

From: Ashley Zamora
Sent: Monday, July 15, 2019 8:12 AM
To: Adam Ambrose <Adam.Ambrose@libertyutilities.com>
Subject: After hours call :)

Hey Adam,

This came through the after hours.

FOR:|OFC |
FROM:|RANDY DECL LAST |
CO NAME:|NA |
A/C FON:|760 900 7690 |
ADDR:|SITTING BULL
X-STREET:|DECL |
CITY:|APPLE VALLEY |
|OFF FOR NON PAY OR NEW SVC?: |

|FEES QUOTED? Y/N?: |
MESSAGE:|PUMP NUM 16 ON SITTING BULL
MAKING A LOT OF NOISE WILL BE GETTING
NEIGHBORHOOD SIGNATURES FOR COMPLAINT|

7609007690 CID**

Ashley Zamora | **Liberty Utilities** (California) | Specialist, Customer Service
P: 760-240-8326 E: Ashley.Zamora@libertyutilities.com
21760 Ottawa Road, Apple Valley, CA 92308

Attachment 3-4:
AVR's Response to DR 028-AA

Liberty Utilities (Park Water) Corp.
9750 Washburn Road
Downey, CA 90241-7002
Tel: 562-923-0711

April 26, 2024

DATA REQUEST RESPONSE

LIBERTY UTILITIES (PARK WATER) CORP.
A.24-01-002
LIBERTY UTILITIES (APPLE VALLEY RANCHOS WATER) CORP.
A.24-01-003

Test Year 2025 General Rate Case

Data Request No.:	028-AA (AVR Wells 1)
Requesting Party:	Public Advocates Office
Originator:	Suliman Ibrahim Suliman.Ibrahim@cpuc.ca.gov Peter Chau Peter.Chau@cpuc.ca.gov Anthony Andrade Anthony.Andrade@cpuc.ca.gov
Date Received:	April 19, 2024
Due Date:	April 26, 2024

REQUEST NO. 1:

In Exhibit B p. 88, Liberty (AVR) states that to "help ensure the system can always meet the maximum daily demand," Liberty (AVR) plans to drill a new well for the Liberty Apple Valley water system. Liberty (AVR) also states that it has abandoned four wells and put two wells in inactive status in the last 10 years, and that five of the active wells were constructed in the 1950s or 60s.

In its Workpapers, Section 14, Liberty (AVR) provides an AVR Technical Report from June 2013. On p. 14-15 of this Technical Report, Liberty (AVR) provides a Customer Demand Table for the years 1998 to 2012. On p. 14-16, Liberty (AVR) provides a Well Data table showing the capacity of existing wells as of 2012.

a) Please provide a Customer Demand Table for years 2013 to 2023 (if data is not available for 2023, provide the table up to year 2022) in Microsoft Excel format with

any formulas kept active. The Customer Demand Table should identify the total production in millions of gallons, Average Day Demand in gallons per minute ("GPM"), Maximum Day Demand in GPM, and Peak Hour Demand in GPM for each year from 2013 to 2023.

b) Provide a Well Data Table for Liberty (AVR)'s existing wells as of 2023 in Microsoft Excel format. The Well Data Table should identify the well name or number, status, year of installation, and capacity in gallons per minute ("GPM") for each of Liberty (AVR)'s existing wells.

c) Identify all wells and their existing well capacity in GPM that Liberty (AVR) or a predecessor installed in the Apple Valley water system since 2010.

RESPONSE:

a) As requested, the Customer Demand Table is provided in an attached spreadsheet called "Q1a AVR Demand Data".

b) As requested, the Well Data Table is provided in an attached spreadsheet called "Q1b AVR Well Data".

c) The wells installed in the AVR system since 2010 consist of one well. That well is Well 35, with a current capacity of 3,112 GPM.

REQUEST NO. 2:

In Exhibit B p. 88, Liberty (AVR) explains that the Bellview Heights water system is not connected to the Apple Valley water system. In its Workpapers, Section 19, Liberty (AVR) provides Annual Inspection reports from 2020 and 2021 and a Sanitary Survey report from 2021 for the Bellview Heights water system. On p. 3 of the 2021 Sanitary Survey, the San Bernardino County Department of Public Health analyzes the Bellview Heights water system's source capacity.

a) Please provide the two most recent Sanitary Surveys for the Apple Valley water system with Water System No. 3610003.

b) Does the Apple Valley water system (No. 3610003) meet all federal, state, and local water supply and fire flow requirements? For example, does this water system meet the source capacity requirements set by California Code of Regulations, Title 22, §64554?

RESPONSE:

a) The two most recent Sanitary Surveys for the AVR system are from 2019 and 2013. Copies of those documents are attached as "Q2a 2019 Sanitary Survey Permit Amendment" and "Q2a 2013 sanitary survey edits".

b) The AVR system currently meets water supply and fire flow requirements.

REQUEST NO. 3:

In its Workpapers, Section 6, p. 6-79, Liberty (AVR) provides a Project Justification and Estimate page for the new well project, which it identifies as "AVWI-15." Liberty (AVR) states under the justification section of this page that it is abandoning Well 21. Under the estimate section, Liberty (AVR) states that it has escalated the Well 35 recorded cost of $4.1 million from 2019 to estimate the cost of the new well. On this page, Liberty (AVR) also adds $2,000 for permits and $5,000 for "Misc/Plans/Fedex" to the cost estimate.

a) Please explain the current operational status of Well 21, including whether the well is in service or if Liberty (AVR) has retired the well.

b) Provide documentation from the contractors who completed Well 35 that breaks down the $4.1 million in recorded costs into enough detail to show, at minimum, the individual costs of the well building, including the cost for each room, well drilling, well equipment, and fencing.

c) Provide all receipts that Liberty (AVR) received for the $4.1 million in costs that Liberty (AVR) recorded for Well 35.

d) Provide supporting documentation for Liberty (AVR)'s estimate of $2,000 for permits and $5,000 for "Misc/Plans/Fedex."

RESPONSE:

a) The current operational status of Well 21 is inactive. The pump and motor have been pulled and the well is not being used. Poor water quality, poor production capacity and facilities at the end of their useful life prompted the decision to put the well in inactive status. Although it would take some effort, this well can be brought back online if needed for a long-term emergency, such as the failure of another well. Once source capacity reliability is improved, by adding a new well, the plan is to abandon this well. As submitted in the GRC, the well is currently scheduled for abandonment in 2028.

b) Two documents are attached to satisfy this request. "Q3b Well 35 Cost breakdown by asset" provides the cost of the various assets that make up the Well 35 Project. "Q3b Well 35 Transaction Analysis of all cost" report includes information on what contractor did what work on the project.

c) There are 162 invoices that we have provided for this project. A folder was created called "Q3c Well 35 Invoices". In that folder you will find five zipped groups of invoices that contain all the requested invoices.

d) The estimate of $2,000 for permits and $5,000 for miscellaneous is a low estimate. The costs incurred for these items on Well 35 can be found in the "Q3b Well 35 Transaction Analysis of all cost" file provided in response to question 3b. Permits and miscellaneous costs can be found on page 40 under account 0023.1552. There are also additional permitting and miscellaneous costs as can be found on page 42 under Account 0023.1564. Note that costs associated with the Town of Apple Valley are for permits and plan-check fees.

REQUEST NO. 4:

In its Workpapers, Section 6, pp. 6-10 and 6-65, Liberty (AVR) forecasts a planned capital expenditure of $1,394,762 in 2025 that it describes as "Land for New Well."

a) Please explain Liberty (AVR)'s reasons for proposing this new land acquisition.

b) Explain whether Liberty (AVR) intends to purchase this land for the well project it plans to drill and equip in this GRC cycle, AVWI-15.

c) Has Liberty (AVR) determined which plot of land it plans to acquire? If yes, identify the address of the proposed land purchase and the current asking price.

d) Explain how Liberty (AVR) estimated the cost, $1,394,762, of the land acquisition. Provide any supporting documentation that Liberty (AVR) used to develop the cost estimate.

e) Explain whether Liberty (AVR) has determined that it cannot use available land at any of its existing well sites or other plant sites.

f) Provide any studies, investigations, research, or other supporting documents that Liberty (AVR) used to determine whether it could use its existing land for the new well it proposes to acquire land for.

g) Would Liberty (AVR) incur additional costs for pipeline to connect any new well on the

proposed purchased land? If yes, provide the pipeline cost estimate and explain whether Liberty (AVR) has forecasted the pipeline cost estimate in the current GRC.

RESPONSE:

a) In order to construct and operate a well, a site the size of a typical Apple Valley residential lot is needed. This size provides room for all the facilities associated with the well and leaves room for large trucks and cranes to access the site to work on the well or deliver materials.

b) The land purchase in this rate case is for the new well that is also in this rate case.

c) Liberty has not yet determined which plot of land it will acquire.

d) Land costs vary in Apple Valley. The amount in the rate case is an amount to cover a high-cost site or a lower cost site with an allowance for a pipeline to connect to an adequate transmission main.

e) Liberty is considering the use of existing well sites but wants to point out that the system will lose some source capacity if an existing well site is chosen. Two well sites being considered are Well 9 and Well 25. Well 9 is a large site at the south end of the system. It has a casing that has deteriorated to the point where the well could fail at any time. Well 25 is a poor producing well. Abandoning that well and drilling a new well on the same site could be a good solution. If Liberty abandons Well 9, Liberty loses 740 GPM of source capacity. If Liberty abandons Well 25, Liberty loses 442 GPM of source capacity. Using either well site results in these source capacity reductions that would reduce the gain in source capacity from drilling the new well. Purchasing a new site is the preferred approach.

f) The reasoning discussed in part e of this question is the primary reasoning why a new site is the best solution.

g) Most sites being considered are adjacent to a large water main. One of the sites has a 16" water main passing through an easement on the site. On these sites, significant additional funds for a pipeline are not required. As noted in part d of this question, site costs vary considerably. The intent of the funds requested for land is to cover the land purchase and any potential significant pipeline to get from the well site to a transmission main. For this reason, a site adjacent to or near a transmission main will be chosen.

This completes the response to Data Request No. 028-AA. If you have any questions, or require additional information, please contact me.

Sincerely,

LIBERTY UTILITIES (PARK WATER) CORP.

/s/ Tiffany Thong

TIFFANY THONG
Manager, Rates and Regulatory Affairs
(562) 923-0711
Tiffany.Thong@libertyutilities.com

Attachments

	A	B	C	D	E	F	G	H	I	J	K	L
1	**AVR Demand Data**											
2												
3		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
4												
5	Annual Production (AF)	11,720.10	12,258.25	9,568.16	9,245.09	9,457.64	9,528.27	9,359.34	10,021.60	10,032.11	9,525.85	9,398.00
6	Annual Production (MG)	3,819.0	3,994.4	3,117.8	3,012.5	3,081.8	3,104.8	3,049.8	3,265.5	3,269.0	3,104.0	3,062.3
7	Average Day Demand (MGD)	10.46	10.94	8.54	8.25	8.44	8.51	8.36	8.95	8.96	8.50	8.39
8	Average Day Demand (GPM)	7,266.0	7,599.6	5,931.9	5,731.6	5,863.4	5,907.1	5,802.4	6,213.0	6,219.5	5,905.6	5,826.4
9	Maximum Day Demand (MGD)	24.4	18.0	11.9	14.0	12.2	14.0	14.2	14.0	14.0	14.0	13.5
10	Maximum Day Demand (GPM)	16,944.0	12,517.0	8,232.2	9,737.0	8,478.9	9,741.7	9,885.0	9,716.7	9,689.0	9,754.1	9,358.3
11	MDD Factor	2.33	1.65	1.39	1.70	1.45	1.65	1.70	1.56	1.56	1.65	1.61
12	Peak Hour Demand (GPM)	25,383.0	18,775.5	12,348.2	14,605.5	12,718.3	14,612.6	14,827.5	14,575.1	14,533.5	14,631.2	14,037.5
13	PH Factor	3.49	2.47	2.08	2.55	2.17	2.47	2.56	2.35	2.34	2.48	2.41
14												
15	Customers (Year End)	19,323	19,520	19,970	20,119	20,322	20,447	20,504	20,691	20,736	20,823	20,980
16	Customers (Ave. for Year)	19,233	19,422	19,745	20,045	20,221	20,385	20,476	20,598	20,714	20,780	20,902
17	ADD per Ave. Customer (GPM)	0.378	0.391	0.300	0.286	0.290	0.290	0.283	0.302	0.300	0.284	0.279
18												
19	ADD & MDD are based on actual demands using daily production data.											
20	PH is calculated based on CA Waterworks Standard method for having only daily data.											

Table 2
AVRWC Well Data

	A	B	C	D	E	F	G	H	I	J	K	L
1	**2023 Update - AVRWC Well Data**											
2												
3	WELL	Status	YEAR	ADDRESS/LOCATION	STATE WELL #	COMMENTS	CASING	HORSE-	ELEV.		STATIC	CAPACITY
4	No.		OF INST				DIA. (IN)	POWER	(FT)		WATER	(GPM)
5	**Main Zone**										(FT)	
6	4	Abandoned 2015	1953	21760 OTTAWA RD	CA3610003_002_002	NG						
7	9	Active	1953	11029 SARATOGA	CA3610003_004_004	WL, SS, GH	14	125	3025		244	740
8	11R	Active	1991	11776 JAMACHA	CA3610003_008_008	SS, GH	18	250	2998		218.9	1402
9	12	Active	1962	OTTAWA RD	CA3610003_009_009	WL, SS	16	150	2858		99.8	940
10	16	Active	1966	SITTING BULL RD	CA3610003_011_011	WL, GH	16	150	2851		86	1183
11	17R	Active	2003	NOKOMIS RD	CA3610003_030_030	WL	16	125	2780		60.8	640
12	18	Active	1969	14510 RIVERSIDE RD	CA3610003_013_013	WL, GH	16	200	2805		73.1	1135
13	19	Active	1969	21308 SITTING BULL	CA3610003_014_014	NG, WL	16	300	2967		173	663
14	20R	Active	2008	CHICKASAW RD	CA3610003_036_036	WL, ST	16	150	2824		88.5	531
15	21	Inactive	1984	21292 POWHATTAN	CA3610003_016_016	WL, SS	20	250	2953			0
16	22	Active	1987	21090 OTTAWA RD	CA3610003_017_017	SS, GA	20	350	2961		189.9	1916
17	23	Abandoned 2018	1987	15302 AV RD	CA3610003_018_018							
18	24	Abandoned 2018	1985	21493 WAALEW RD	CA3610003_019_019	WL, SS, GH						
19	25	Active	1990	18555 TUSCOLA RD	CA3610003_020_020	SS	16	150	2775		61	442
20	26	Active	1991	18588 SENECA RD	CA3610003_021_021	WL, SS, GA	20	350	2820		85.5	949
21	27	Abandoned 2018	2004	21271 Waalew Road	CA3610003_031_031							
22	28	Active	1987	15310 Riverside Dr.	CA3610003_025_025	WL, SS, GH	18	200	2756			910
23	29	Active	2003	19237 Yucca Loma Rd.	CA3610003_029_029	WL, SS, GA	20	450	2832		80.4	2270
24	33	Active	2006	12189 Apple Valley Road	CA3610003_033_033	WL, SS, GA	20	400	2861		98.1	2485
25	34	Active	2006	12500 Geronimo Road	CA3610003_032_032	WL, SS, GH, VFD	16	250	2933		149	1450
26	35	Active	2015	12691 Apple Valley Rd.	CA3610003_038_038	WL, SS, GA	20	500	2868		93.3	3112
27	Zone Total											20768
28	**Jess Ranch Zone**											
29	30	Active	1984	11401 AV RD (HILLTOP)	CA3610003_024_024	WL, SS	14	60	2877		106.1	1520
30	31	Inactive	1988	APPLE VALLEY MALL	CA3610003_027_027	WL, SS	14	60	2838			0
31	36	Active	2007	19739 Tussing Ranch Rd.	CA3610003_035_035	WL, SS, GA	20	400	2861		92.2	2730
32	Zone Total											4250
33	**Combined Jess Ranch and Main Zone**											
34	Grand Total											25018
35												
36	**Bellvue Zone**											
37	7	Active	1956	Dante Road, VV	CA3600010_001_001	GA	14.0	30	2720		69.2	251
38	Zone Total											251
39												
40	Company Total											25269
41												
42	NOTES AND LEGEND:											
43	NG - EQUIPPED WITH NATURAL GAS ENGINE											
44	GH - EQUIPPED WITH GENERATOR HOOKUP											
45	GA - EQUIPPED WITH STATIONARY AUTOMATIC GENERATOR											
46	SS - EQUIPPED WITH SOFTSTART											
47	ST - EQUIPPED WITH A SAND TRAP											
48	WL - EQUIPPED WITH WATER LUBED PUMP SHAFT											
49	VFD - VARIABLE FREQUNCY DRIVE											
50	All other well capacities are based on test results and reported in Annual PUC report.											

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

August 28, 2014

Jeff Kinnnard
Production Supervisor
Apple Valley Ranchos Water Company
PO Box 7005
Apple Valley, CA 92307

2013 SANITARY SURVEY OF APPLE VALLEY RANCHOS WATER COMPANY– (SYSTEM NO. 3610003)

Dear Mr. Kinnard:

On November 14 and December 5, 2013, Mrs. Brenda Pauli, an engineer with this office, completed a sanitary survey of Apple Valley Ranchos Water Company (herein after Company) domestic water supply facilities and operations. Mr. Jeff Kinnard, Production Supervisor, and Jeremy Caudell, operator, accompanied Mrs. Pauli during the survey. Enclosed you will find a copy of the completed sanitary survey report which documents the findings made during the survey. A deficiency list is also attached which identifies the deficiencies found. This letter will briefly describe findings during the sanitary survey and any deficiencies noted.

Sources

Apple Valley Rancho Water Company maintains twenty (20) active vertical wells and one (1) standby well. All wells were found to be properly drained, adequate well-head elevation, and security precautions. AVR's source capacity is 40 MGD (27,737-gpm) and is greater than the MDD of 26.87 MGD (18,660 gpm) and is therefore in compliance with source capacity requirements of the Waterworks Standards. The Peak Hour Demand (PHD) is also adequately met with source capacity and storage capacity.

Disinfection

Chlorination facilities are maintained in good condition and ANSI/NSF 60 approved chemicals are used for direct additives. Please be aware that the new Waterworks Standards, in 22 CCR Section 64591 also requires that all indirect chemical additives, such as pump lubricants, to be ANSI/NSF 61 certified.

Storage

AVR maintains eleven (11) storage reservoirs and two (2) hyrdronmmatic tanks. Two (2) underground reservoirs are sized at 8.0-MG and 2.0-MG. The remaining four (4) reservoirs are welded steel and are sized 3.2-MG, 1.0-MG, 0.60-MG and 0.10-MG. Reservoir sanitary and safety conditions are adequate. All welded steel reservoirs have been inspected, coated, and cleaned within the last five (5) years, and are therefore generally in good condition. No deficiencies were noted for maintenance, conditions, or safety concerns. Overall, reservoir facilities are well maintained and secure. Peak Hour Demand (PHD) is adequately meet, with source capacity and storage capacity.

* AVRWC DOES NOT HAVE UNDERGROUND STORAGE RESERVOIRS PLEASE SEE ATTACHED RESERVOIR DATA SHEETS FOR CAPACITIES

Distribution

The distribution system consists of sixteen (16) pressure zones with eleven ~~(11)~~ 8 booster stations. AVR does have a main line replacement program in place based on system leaks an pipe age. All main replacement and repairs are done in accordance with AWWA standards. System, dead-end flushing and valve exercise programs are adequately maintained, with records available for review. Valve exercising, system flushing, and dead-end flushing are conducted annually, as a minimum. The distribution system is in satisfying conditions, no immediate concerns were noted.

Monitoring

AVR's water quality monitoring is outstanding. The system does have a water quality monitoring schedule, which outlines all source and distribution monitoring requirements. The system conducts minimum monitoring for all sources as follows: General Mineral, General Physical, Nitrite, EDB and DBCP once every three (3) years, Volatile Organic Chemical (VOC) once every six (6) years, and Gross Alpha monitoring once every nine (9) years for most sources, except Wells 11R and 21. Synthetic Organic Chemicals (SOC) monitoring has been issued a three (3) year waiver for 2014-2016. Distribution system monitoring such as lead and copper is on a reduced schedule of once every three (3) years and TTHM & HAA5 monitoring is required annually from one sample site.

Operations and Maintenance

AVR's knowledgeable and certified staff maintain all aspects of the water system adequately. The chief operator is certified as a D5. The system is operated by about thirty (30) certified shift operators ranging between a D5 and D1 certification. All physical water system components are adequately maintained and operated. Ongoing water quality monitoring and reporting is in good standing. Overall the system is adequately maintained and operated. See Appendix A, listing deficiencies noted during the facilities inspection and the file review.

Overall Appraisal

Overall, the water system is adequately maintained and operated. The Company meets Waterworks Standards for source storage capacities. The Company's operation and maintenance program is operated by qualified personnel.

There are no specific areas of concern at this time but please ensure all source monitoring including TTHM and HAA5 monitoring is reported via Electronic Data Transfer (EDT).

Please review the enclosed sanitary survey report and provide comments that you may have by September 20, 2014.

The Division greatly appreciates the assistance provided during the inspection. If you have questions regarding this letter and sanitary survey report, please contact Brenda Pauli at (909) 383-6029.

Sincerely,

Sean F. McCarthy, P.E.
Senior Sanitary Engineer
Division of Drinking Water
San Bernardino District

Cc: General Manager at Apple Valley Ranchos WC

Enclosures
1. 2013 Sanitary Survey Report

State Water Resource Control Board
Division of Drinking Water
Sanitary Survey Report

Purveyor: Apple Valley Ranchos Water Company **System No**. 3610003
Person(s) Contacted/Position: Jeff Kinnard Production Supervisor and Jeremy Caudell WQ Control Specialist
Date of inspection: November 14, 2013 and December 5, 2013 **Reviewing Engineer**: Brenda Pauli
Last Annual Inspection Date: September 29, 2008 **District Engineer:** Sean McCarthy, P.E.

A. INTRODUCTION

1. Permit Status (Date Issued/Amendment Purpose)

Full: February 17, 1993
Amendments:One(1)permit letter and six(6) permit amendments have been issued as presented in **Table 1**

Table 1: Permit Amendments issued to Apple Valley Ranchos WC

Amendment	Number Issued	Date Issued	Reason
Letter	--	February 14, 2000	Add Well 28 and Town of Apple Valley facilities
1	No. 1	July 9, 2003	Add Well 29
2	No. 2	July 19, 2004	Add Well 17R
3	05-13-05PA-002	April 6, 2005	Add Well 27
4	05-13-06PA-003	March 21, 2006	Add Well 34
5	05-13-06PA-022	June 2, 2006	Add Well 33
6	05-13-07PA-035	July 25, 2007	Add Well 36, Mockingbird Tank
7	05-13-08PA-038	July 23, 2008	Add Well 20R

Are the permit provisions complied with? Yes, all permit provisions are complied with.
Is the permit up to date? Yes
List Data Sheets on file (permit, files, etc.) Well and chlorination data sheets area available in system records. Reservoir datasheets must be completed by the system and returned to the Division by **September 20, 2014**, see ***Appendix E*** for template.

2. Changes in System

a) Since last annual inspection:
No major changes to the water system have been made. Regular maintenance such as mainline pipe replacement and added chlorine analyzers have been made.

b) Planned future changes:
Pending use of a Mojave Water Agency well and the addition of Yermo WC.

3. Consumer and Production Data

No. of service connections: 19,545 total (19,112 Residential, 44 Commercial, 2 industrial, 165 landscape Irrigation and 222 other type of service connections (Per 2013 Annual Report)
No. with meters: 19,545
Approx. population served: 61,720

Water produced during recent 12-month period: January 1st to December 31st 2013
Amount: 5,587.52 Million Gallons (MG) produced
Maximum month: July with 631.83 MG
Maximum day: 22.82 MG
Description of service area: The Apple Valley Ranchos Water Company, an investor owned utility, serves the Town of Apple Valley in San Bernardino County. Residential is the largest customer class and is comprised mainly of single family homes. The area is located in the Mojave Desert 46 miles north of San Bernardino.

Table 2: GW Production Data for Last 10 years (2004-2013)

	Produced				Sold			
Year	Maximum Day, (MG)	Maximum Month, (MG)	Month	Annual Total, (MG)	Maximum Day, MG	Maximum Month, (MG)	Month	Annual Total, (MG)
2013	22.82	631.83	July	5,587.52				
2012	20.12	503.50	July	4,058.21				
2011	21.48	512.40	July	4,066.30				
2010	23.23**	578.71	August	4,327.60				
2009	23.9**	611.80	July	4,808.46				
2008	NA							
2007	23.55*	730.2	July	5,667				520.3
2006	21.34*	661.66	July	5,448.8				485.9
2005	26.87*	833	July	7,013				2,214
2004	21.42*	664	July	5,237				--

NA: Not available
* : estimated by dividing maximum month by 31days
** : verified production data via water system email. AR data was incorrect
Sold Water to Golden State Water Company
Source: Annual Reports submitted to the Division

B. SOURCE DATA

Table 3: List of Sources

Source	Status	Capacity (gpm)*	Notes/Comments
Groundwater			
Well 04	Active	1,126	Natural gas engine with LPG backup. Will be destroyed in the near future.
Well 07	Inactive	292	Owned by Company but not system well. Part of Jupiter LPA system.
Well 09	Active	942	MIOX chlorination
Well 11R	Active	1,976	MIOX chlorination. Pumps into Main Zone.

Source	Status	Capacity (gpm)*	Notes/Comments
Well 12	Active	960	MIOX chlorination. Pumps into Main Zone.
Well 16	Active	1,267	MIOX chlorination
Well 17R	Active	598	MIOX chlorination
Well 18	Active	1,042	MIOX chlorination. Located on bank of Mojave River.
Well 19	Active	987	Natural gas engine with LPG backup. Liquid Sodium Hypochlorite disinfection.
Well 20R	Active	585	Added 2008 to replace Well 20. ~~Sodium~~ CALCIUM Hypochlorite disinfection via Accu-tab.
Well 21	Active	710	Pumps into Main Zone. Liquid Sodium Hypochlorite disinfection.
Well 22	Active	1,991	MIOX chlorination. Diesel generator onsite. Pumps into Main Zone.
Well 23	Active	541	Liquid Sodium Hypochlorite disinfection. Pumps into Main Zone
Well 24	Inactive	~~799~~	~~MIOX chlorination. Pumps into Main Zone.~~
Well 25	Active	365 MIOX	~~Liquid Sodium Hypochlorite~~ disinfection. Pumps into Main Zone
Well 26	Active	1,269	Rehab. MIOX chlorination. Diesel generator onsite.
Well 27	Standby	452	
Well 28	Active	770	MIOX chlorination
Well 29	Active	2,270	MIOX chlorination
Well 30 (Hilltop)	Active	1,505 CALCIUM	~~Sodium~~ Hypochlorite disinfection via Accu-tab. Pumps to Jess Ranch Zone.
Well 33	Active	2,446	MIOX chlorination
Well 34	Active	1,618	MIOX chlorination
Well 36	Active	3,256	MIOX chlorination
	TOTAL	**27,737 gpm (40 MGD)**	Excludes Well 7 and Well 27
Surface Water		**NONE**	
Connections with other systems			
Golden State Water Company- Apple Valley South	Active – Deliver Only		6 inch one way connection. Used to meet summer demand.
Golden State Water Company – Apple Valley North	Emergency – Deliver Only		6 inch one way connection. Emergency use.
Victorville	Emergency – Receive Only		6 inch one way connection. Emergency use.
TOTAL CAPACITY		**27,737 gpm (40 MGD)**	**Maximum Day Demand – 2005 est. 26.87 MGD (18,660 gpm).**

Note: Capacities determined using SCE March 2013 pump efficiency test

Discussion and Appraisal: (i.e. Does source capacity comply with Waterworks Standards?):

In the Waterworks Standards Section 64554 (a) of Title 22, California Code of Regulations (22 CCR) requires that at all times a public water system shall meet the Maximum Day Demand (MDD) with source capacity alone. The MDD is defined as the highest day demand in the previous ten (10) years and if unavailable, an estimate may be made using the maximum month, as described in Title 22 CCR Section 64554 (b) (2), or maximum annual usage, as described in Title 22 CCR Section 64554 (b).

For compliance determination, the source production is considered equal to system demand. System demand is the water needed to supply customers and it includes customer demand, system losses, and maintenance activities (i.e flushing). Available production information from the Annual Reports submitted in the previous ten years is summarized in **Table 2**. The maximum day demand (MDD) for Apple Valley Ranchos WC in the last ten years varies between 21.42 MG and 26.87 MG. The highest MDD occurred in 2006 at 26.87 MGD (18,660 gpm). A source capacity of 40 MGD successfully meets the MDD of 26.87 MGD alone.

Per Section 64554 (b) of Title 22, California Code of Regulations (22 CCR) good industry practice includes the reliability to be able to meet four (4) hours of peak hourly demand (PHD) with source capacity, storage capacity, and/or emergency source connections. The PHD can be estimated by determining the average hourly flow during the MDD and multiplying by a peaking factor of 1.5. The PHD using the 2006 MDD of 26.87 MGD is 1.68 -MG/hr (26.87-MGD/24hr x 1.5). The PHD during 4 hours equals a total of 6.72-MG (1.68-MG x 4-hr). The available source capacity of 6.67-MG (40-MGD/24hr x 4hr) and storage capacity of 11.67-MG combined successfully meet the four (4) hour PHD of 6.72-MG. Apple Valley Ranchos WC's source capacity, storage capacity and emergency connection capacity meet the PHD Water Works Standards.

C. TREATMENT

1. **Surface Water Sources**: None

2. **Groundwater Sources**
   Is continuous disinfection provided? Yes

   Describe facilities: Wellhead chlorination at 14 wells is provided via MIOX ~~501~~ chlorine generators and use Morton ~~Crystal Solar Salt~~. Well head disinfection at 4 wells is achieved via Univar Chemicals 12.5% liquid sodium hypochlorite. Wellhead chlorination at 2 well is provided via Accu-Tab® calcium hypochlorite tablets produced by Univar Chemicals. See ***Appendix C*** for updated chlorination datasheets.

   If disinfection is not provided, are provisions and connections for emergency chlorination provided per Deivision guidelines? ANSI/NSF 60 certified ~~Accu-Tablet~~ are accessible for disinfection emergencies.

   Discussion & Appraisal: Sites are inspected daily and a chlorine usage and residual log is kept. Chlorine is added to maintain a target residual of 0.~~3~~ ppm in the distribution system assuring a detectable residual. The chlorine and salt used are ANSI/NSF 60 certified for use in drinking water. The sites are well maintained and adequately housed to prevent degradation due to sun exposure or temperature.

3. **Other Treatment or Blending facilities**
   Describe facilities and parameters treated/blended: (i.e. iron and manganese, fluoridation, nitrate, corrosion control, organics, etc. Non

4. **Treatment System Classification:** There is no treatment classification needed for the system.

D. STORAGE DATA

Table 4: List of Reservoirs

Reservoir	Type	Capacity (MG)	Receives From	Delivers To	Notes/Comments
Bell Mountain Tank	Welded Steel	1.0	Main Zone Wells	Bell Mountain Zone	Constructed 1988. Inspected and cleaned 1/2014
Corwin Tank	Welded Steel	1.5			Constructed 2005. Inspected and cleaned 1/2014
Corwin Hydro.	Welded Steel	0.0015	Corwin Booster	Choco Hydro. Zone	
Del Oro Tank	Welded Steel	0.286		Jess Ranch via Del Oro Bstr.	Constructed 1987. Inspected and cleaned 1/2014
Desert Knolls 1	Welded Steel	2.0	Main Zone Wells	Main Zone – Gravity	Constructed 1968. Inspected and cleaned 1/2014
Desert Knolls 2	Welded Steel	1.0	Main Zone Wells	Main Zone – Gravity	Constructed 1988. Inspected and cleaned 1/2014
Desert Knolls Hydro.	Welded Steel	0.003	Desert Knolls Res.1 via Bstr.		
Hilltop 1	Welded Steel	1.5	Main Zone Wells	Main Zone – Gravity	Constructed 1949. Inspected and cleaned 1/2014
Hilltop 2	Welded Steel	1.5	Main Zone Wells	Main Zone – Gravity	Constructed 1987. Inspected and cleaned 1/2014
Jess Ranch Hilltop	Welded Steel	0.250	Well 30	Jess Ranch Zone	Constructed 1988. Inspected and cleaned 1/2014
Mockingbird Tank	Welded Steel	1.5	Wells 30 and 36	Jess Ranch Zone	Constructed 2006. Inspected and cleaned 1/2014
Stoddard Tank	Welded Steel	1.0	Bell Mountain Zone	Stoddard Zone via Booster	Constructed 1988. Inspected and cleaned 1/2014
Youngstown Tank	Bolted Steel	0.125	Youngstown Booster	Youngstown Zone	Constructed 1991. Inspected and cleaned 1/2014
Total Storage		**11.66**		**Total Storage excludes hydro. tanks**	

Does storage capacity comply with Waterworks Standards? Yes, storage capacity is in compliance with Water work Standards. Section 64554 (a)(1) of Title 22, CCR specifies that a system with greater than 1,000 service connections shall be able to meet four (4) hours of peak hourly demand (PHD) with source capacity, storage capacity, and/or emergency source connections.

Currently, the water system can produce 40-MGD, which includes twenty (20) potable active sources. The PHD, estimated in *Page 4* of this report, is 2.67 MG/hr or 10.66-MG for 4-hours. The available PHD source capacity is 6.67-MG (40-MGD/24hr x 4hr) and storage capacity is 11.66-MG successfully meet the four (4) hour PHD of 10.66-MG. Apple Valley Rancho WC's source capacity and storage capacity meet Water Works Standards.

Are all data sheets completed and on file? No, data sheets have not been completed for all of AVR's reservoirs. Therefore a reservoir datasheet template is attached in ***Appendix D*** please complete (for all reservoirs) and return to the Division no later than ***September 20, 2014.***

Discussion and Appraisal: (i.e., were reservoirs coated, cleaned and/or inspected last year? Plans for recoatings, cleanings and/or inspections? AVR reservoirs were found to be adequately coated on the exterior and interior, most were recently rehabbed, recoated, and/or patched. Water clarity in the reservoirs was clear with no debris. Access hatches were locked and secured, enclosed area with fence and locked, roof vents properly screened. No deficiencies were noted.

E. TRANSMISSION FACILITIES

Describe transmission facilities: All sources pump directly to the distribution system. There is 1.5 miles of 12 inch transmission main from Well 28 to main zone.

Discussion and Appraisal: Transmission mains are reported to be in good condition. AVR's Engineering Department maintains distribution system maps updated, with repair information, leak information, etc, in order to maintain and replace proactively.

F. DISTRIBUTION SYSTEM

1. Pressure Zones

Describe or tabulate

Table 5: Pressure Zones

Pressure Zone Name	Pressure Range (psi)	Receives From	Delivers to*
Main	50-170	Desert Knolls 1, Desert Knolls 2, Hilltop 1, and Hilltop 2	Pressure Zone M
Youngstown	60-100	Youngstown Tank	Pressure Zone Y
Aztec	88	Main	Pressure Zone A
Riverside	80	Main	Pressure Zone G
High Country	55-90	Main	Pressure Zone H
Tract 15250	80	NIS	NIS Pressure Zone T
Desert Knolls	70	Desert Knolls 1 & 2	5 Connections above Pressure Zone D
Jess Ranch	60-90	Jess Ranch Hilltop/Mockingbird Tank	Pressure Zone J
Stoddard	130	Main	Pressure Zone S
Bell Mountain	35	Main	Pressure Zone B
Corwin	80	Main	Pressure Zone C
Fairview Valley	NIS	Main	NIS Pressure Zone E
Fairview Valley Reduced	NIS	Main	NIS Pressure Zone F
Mandan	60-68	Main	Pressure Zone M
Reduced Corwin	32-52	Main	Pressure Zone R
Bellview	65-90	Well 7 Hydropnuematic Tank	Pressure Zone Z

Please provide a hydraulic schematic if available.

Booster or Reducing Stations
Describe or tabulate

Table 6: Booster and Reducing Stations

Station	No.	Capacity	Status	From Zone	To Zone
Youngstown Booster	1 -- 2	~~230 gpm (-- hp)~~ 10 HP 10 HP	Active	Main	Youngstown
* LEGALLY DESTROYED Choco Booster	~~1~~	~~75 gpm (-- hp)~~	~~Active~~	~~Main~~	~~Choco Hydro. Zone~~
	~~2~~	~~--~~	~~Active~~		
Tract 4286 (Otoe Road)	1	PRV	Active	Main	Aztec
	2	PRV	Active		
Tract 5409	1	PRV	Active	Main	High Country
	2	PRV	Active		
	3	PRV	Active		
	4	PRV	Active		
Tract 4928	1	PRV	Active	Main	High Country
	2	PRV	Active		
	3	PRV	Active		
Sterling Tract	--	PRV	Active	Main	Sterling Tract
Desert Knolls Booster	1	250 gpm (15 hp)	Active	Main	Future Hydro. Zone
	2	--	--		
Hilltop Booster	1	340 gpm (-- hp)	Active	Hilltop Tank	Jess Ranch
	2	1,300 gpm (-- hp)	Standby	Hilltop	Fire Flow
	3	1,300 gpm (-- hp)	Standby	Hilltop	Fire Flow
Del Oro Booster	1	280 gpm (-- hp)	Active	Del Oro Tank	Jess Ranch
	2	470 gpm (-- hp)	Active		
Stoddard Booster	1	-- gpm (50 hp)	Active	Zone ~~H~~ B	Zone ~~J~~ S
	2	-- gpm (50 hp)	Active		
	3	-- gpm (75 hp)	--		
Kasson	1	~~127 gpm (15 hp)~~ 100 HP	Active	Zone J	Zone K (Hydro. Tank)
	~~2~~	~~153 gpm (15 hp)~~	Active		
	~~3~~	~~1192 gpm (75 hp)~~	Active		

Source: 2007 Annual Report

CORWIN	1) 100 HP	ACTIVE	MAIN	ZONE C
	2) 100 HP	ACTIVE		

2. **Mains**
   Describe or Tabulate

Table 7: Water Main Composition

Material	Amount @ %	Size	Class/Gage	Condition
Cement Asbestos	10.2	6"-12"	N/A	
Welded Steel	32.5	6"-12"	N/A	1.7% of main total is less than 4"
Ductile Iron	6.07	>12""	350	
PVC	51.2	< 6"	New is C900 class 200	0.4% of main total is less than 4"

N/A: Information not available

3. **Distribution System Classification:** The Company is classified a D5 system per the revised system classification appended to this report, see ***Appendix E.***

4. **Discuss leak history** during past 12 months (mains and connections):
   According to the 2013 Annual Report submitted to the Division there were 453 mainline breaks/leaks and 553 service breaks/leaks experienced in 2013. See **Table 8** for system breaks and/or leaks in the past ten (10) years. The cause of the large number of leaks is reported to be pipe age, most pipes are from the 1950-1960's. Service line breaks/leak have doubled in the last three years but mainline breaks/leaks show a decreasing trend. AVR currently uses a break/leak mapping system for mainline replacement. AVR repairs/replaces main lines in concurrence with California Code of Regulations Section §64580 and AWWA standards. The Division finds the AVR'S main replacement and repair program to be adequate.

Table 8: Breaks/Leaks in Distribution System

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Service Connection Breaks/Leaks	249	199	265	254	NA	267	297	420	474	553
Main Breaks/Leaks	1,269	1,053	938	747	NA	645	630	621	511	453

NA: Information not available

5. **Are Distribution facilities constructed in accordance with Waterworks standards?**
   AVR repairs/replaces main lines in concurrence with California Code of Regulations Section §64580 and AWWA standards All new mains are constructed according to waterworks standards for sizing, material, water main separation, installation standards, proper disinfection and all other applicable waterworks standards. In accordance with AWWA standards, the mains are properly disinfected with hypo-chlorite after repairs, and replacement/new lines are chlorinated with either gas chlorine or hypochlorite.

6. **Describe water main and sewer line/sewage disposal separation practices**
   New and existing mains are constructed in accordance with the California Code of Regulations Section §64572. Specifically, maintaining a 10 foot horizontal separation from sewage lines.

7. **Does the system have low head lines and what is their program to eliminate them?**
No low head lines reported. The lowest pressure in the system is 30 psi.

8. **Extent of lead pipes, joints, and/or lead solder used in distribution system and present policy**: No known use of lead pipes or lead solder joints.

9. **Discussion and Appraisal:** AVR distribution system seems to be in fair condition as breaks/leaks fluctuate from year to year. Life expectancy for mains varies depending on material but typically ranges between 35-40 years. AVR has a formal proactive mainline replacement program and repairs are also made as needed.

G. WATER QUALITY AND MONITORING

1. **Bacteriological** (Distribution and Sources)
Description of program: AVR is required to collect a minimum of eighteen (18) bacteriological samples per week. AVR regularly collects twenty (20) samples per week (80 samples per month). There are forty (40) sample site locations spread throughout the sixteen (16) pressure zones, and sample collection is rotated accordingly.
Sampling plan approved and current (do we have a copy) Yes, AVR operates using an amended bacteriological sample siting plan dated July 27, 2012. Source monitoring is conducted weekly, the day after bacteriological distribution system monitoring and therefore covers the Groundwater Rule, based on source collection within 24 hours a (positive) routine.
Population: 61,720
Samples/Week? 20 per week
MCL violations in past year? No TCR MCL violations have occurred in the last two (2) years

Compliance and Appraisal: A bacteriological sample siting plan amendment, with the Groundwater Rule implementation, was submitted and is available in Division records. The bacteriological sample siting plan meets all bacteriological monitoring requirements.

2. **Chemical Monitoring** (Sources)
Description of Program: Monitoring is conducted in accordance to the nine year source water quality monitoring guideline sent to the system February 14, 2011, effective through the end of 2019. All wells are classified as non-vulnerable sources and therefore have non-vulnerable monitoring frequencies. The last monitoring dates for various chemical groups shown in the Division's database are listed in **Table 9,** the table might not include recent data (in the last quarter). All wells are on a minimum of three (3) year monitoring frequency for General Mineral and General Physical, and Inorganic Chemicals. Volatile Organic Chemical (VOC's) monitoring is on a once every six (6) year frequency, and Synthetic Organic Chemical's (SOC's) monitoring is on a once every three (3) year frequency. However, AVR received a 3 year SOC monitoring waiver valid for 2014-2016, dated February 24, 2014. The SOC monitoring waivers are scheduled to expire on December 31, 2016 at which point they will be reevaluated. The waiver does not include DBCP and EDB and must be monitored on a three (3) year frequency. Nitrate (NO_3) is required annually from all sources. Radiological frequency for all wells, except Wells 11R and 21, is once every nine (9) years for Gross Alpha. Wells 11R and 21 have a radiological frequency of once every six (6) years for Gross Alpha. If Gross Alpha results are more than 5pCi/L a Uranium analysis is required from that same water sample or during the same quarter. **Table 9** represents the last source water quality monitoring dates, and **Table 10** represents the water quality monitoring source frequencies.

Table 9: Last Source Monitoring Dates

Source	PS-Code	General Mineral/ Physical	Inorganic Chemicals	Nitrate	Nitrite	Radio-activity (GA)	VOC's	DBCP &EDB
Well 04	3610003-002	**6//2011***	**6/2011***	**7/2013***	**6/2011***	3/2012	9/2013	**4/2011***
Well 09	3610003-004	6/2013	6/2013	6/2013*	6/2013	3/2013	9/2012	**4/2011***
Well 11R	3610003-008	6/2012	6/2012	7/2013*	6/2012	5/2013	9/2013	**4/2011***
Well 12	3610003-009	**6/2011***	**6/2011***	**7/2013***	**6/2011***	8/2010	9/2012	**4/2011***
Well 16	3610003-011	**6/2011***	**6/2011***	**7/2013***	**6/2011**	8/2010	9/2012	**4/2011***
Well 17R	3610003-030	6/2013	6/2013	**6/2013***	6/2013	3/2014	9/2012	2/2013
Well 18	3610003-013	6/2012	6/2012	**7/2013***	6/2012	3/2012	9/2012	**4/2011***
Well 19	3610003-014	**6/2011***	**6/2011***	**7/2013***	**6/2011***	3/2011	8/2009	**4/2011***
Well 20R	3610003-036	6/2012	6/2012	**7/2013***	6/2012	3/2012	9/2012	**4/2011***
Well 21	3610003-016	**6/2011***	**6/2011***	**7/2013***	**6/2011***	3/2013	10/2013	10/2012
Well 22	3610003-017	6/2012	6/2012	**7/2013***	6/2012	3/2012	9/2012	**4/2011***
Well 23	3610003-018	6/2012	6/2012	**7/2013***	6/2012	3/2012	9/2012	**4/2011***
Well 25	3610003-020	**6/2011***	**6/2011***	**7/2013***	**6/2011***	3/2011	9/2012	**4/2011***
Well 26	3610003-021	6/2012	6/2012	**7/2013***	6/2012	3/2013	9/2012	**11/2008***
Well 27 **Standby**	3610003-031	6/2011	6/2011	**7/2013***	6/2011	3/2014	9/2012	9/2012
Well 28	3610003-025	6/2013	6/2013	**6/2013***	6/2013	3/2012	9/2013	**4/2011***
Well 29	3610003-029	6/2013	6/2013	**6/2013***	6/2013	3/2012	9/2013	**4/2011***
Well 30 (Hilltop)	3610003-024	6/2013	6/2013	**6/2013***	6/2013	3/2011	9/2013	**4/2011***
Well 33	3610003-033	**6/2011***	**6/2011***	**7/2013***	**6/2011***	11/2007	9/2013	**4/2011***
Well 34	3610003-032	**6/2011***	**6/2011***	**7/2013***	**6/2011***	5/2008	9/2013	10/2012
Well 36	3610003-035	6/2012	6/2012	**7/2013***	6/2012	5/2008	9/2013	2/2013

Note: dates in **bold** and with an * are due for monitoring this year (2014)

Table 10: Source Monitoring Frequencies

Source	General Mineral/ Physical	Inorganic Chemicals	Nitrate	Nitrite	Radio-activity (GA)	VOC's	DBCP &EDB
Well 04	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 09	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 11R	1/3 years	1/3 years	annually	1/3 years	1/6 years	1/6 years	1/3 years
Well 12	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 16	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 17R	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 18	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 19	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 20R	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 21	1/3 years	1/3 years	annually	1/3 years	1/6 years	1/6 years	1/3 years
Well 22	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 23	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 25	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 26	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 27 (Standby)	1/9 years	1/9 years	annually	1/9 years	1/9 years	1/9 years	1/9 years
Well 28	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 29	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 30 (Hilltop)	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 33	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 34	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years
Well 36	1/3 years	1/3 years	annually	1/3 years	1/9 years	1/6 years	1/3 years

3. Inorganic Chemicals

Description of Program: AVR is required to monitor each well triennially for inorganic chemicals. Nitrate shall be monitored annually, and nitrite triennially for all active AVR sources. Inorganic chemical monitoring is due this year (2014) from Wells 4, 12, 16, 19, 21, 25, 33, and 34. Well 27, a standby source has a monitoring frequency of once every nine (9) years for all source water quality, except annually for nitrate.

4. Organic Chemicals

Description of program: Regulated VOCs are required to be monitored once every six years. VOC monitoring is in compliance.

All Synthetic Organic Chemicals (SOC) including Ethylene-dibromide (EDB) and Dibromochloropopane (DBCP)are required to be monitored every three (3) years from all sources. However, AVR received a 3 year SOC monitoring waiver for 2014-2016, dated February 24, 201. The SOC monitoring waivers are scheduled to expire on December 31, 2016 at which point they will be reevaluated. The SOC waiver does not include DBCP and EDB monitoring and should continue monitoring for these constituents on a three (3) year frequency.

5. Radionuclides

Description of program: AVR completed the initial radiological monitoring for all sources. Monitoring frequencies have been assigned based on Gross Alpha initial quarterly averages for each source. The Gross Alpha/ radiological frequency for most wells is once every nine (9) years. Gross Alpha monitoring for Wells 11R and 21 is once every six (6) years. Note the revised frequencies for radiological chemicals for Wells 33, 34, and 36 in **Table 10.**

If gross alpha results are above 5pCi/L, the system shall monitor for uranium in that same quarter.

6. Disinfection By-Product Rule (DBPR) Monitoring

Description of program: AVR is current on Stage 2 DDBP monitoring, see **Table 12** for results. **AVR's Stage 2 DBPR reduced monitoring requires a minimum of one (1) dual sample set per year from a point in the distribution system with the highest TTHM and HAA5 results.** AVR received a 40/30 waiver for TTHM results below 0.040-mg/L and HAA5 results below 0.030-mg/L. This waiver granted the system permission to proceed to Stage 2 DBPR "Reduced" monitoring, requiring two (2) dual sample sets annually, one (1) sample set from the location during the quarter from the site with the highest TTHM single measurement and one (1) sample set from the location and during the quarter with the highest HAA5 single measurement. Both the highest TTHM and HAA5 sample results were from Site 36: 20374 Flint Rd. However, the system elected to sample TTHM and HAA5 during the 3rd and 4th of every year from Site 36, as noted in Apple Valley Ranchos WC Stage 2 Monitoring Plan. AVR is in compliance with Stage 2 of the D/DBP rule. Please ensure that TTHM and HAA5 monitoring is Electronically Data Transferred (EDT'd), per assigned PS-Code.

Table 11: Stage 2 DBPR Monitoring

	4thQ-2013	3rdQ-2013	4thQ-2012	3rdQ-2012	*Locational Running Annual Average*
Site 36 (3610003-601)					
TTHM	18 ppb	8.5 ppb	5.7 ppb	20.0 ppb	13 ppb
HAA5	ND	ND	< 1.0 ppb	1.6 ppb	ND

ND: Non-Detect

6. Additional Monitoring

Description of Program: (Physical quality of distribution system, corrosion, lead monitoring, etc.) No additional monitoring is conducted or necessary based on ground water quality analysis. On July 1, 2014, a

California MCL of 0.010mg/L (ppm) for hexavalent chromium became effective. Public Water Systems classified as community water systems (CWS) or non-transient non-community water systems must comply with the new MCL. **Initial hexavalent chromium compliance monitoring must be conducted by January 1, 2015, from every source.** A water system may use hexavalent chromium data collected two years prior to the effective regulation date to comply with initial monitoring, For more information please see http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chromium6.aspx.

7. Lead and Copper Monitoring

Available records indicate that the Company is on reduced triennial monitoring which requires at least 30 lead and copper distribution samples every three (3) years. Lead and copper monitoring conducted since the previous inspection is shown in **Table 12**. All 90th percentile results have been well below the lead action level of 0.015 mg/L and the copper action level of 1.3 mg/L. The Company is in compliance with lead and copper monitoring. **AVR is next due to complete triennial lead and copper monitoring between June and September of 2016.**

Table 12: Lead and Copper Monitoring Results

Date of Monitoring	Monitoring Frequency	No. of Samples	90th Percentile Lead (mg/L)	90th Percentile Copper (mg/L)	Monitoring Frequency Next Due
6/24/2010	5th Triennial	30	0.00	0.057	6th Triennial
9/30/2013	6th Triennial	30	0.00	0.059	**7th Triennial Due by Sept. 2016**

Is an approved water quality **monitoring plan** on file (i.e. Briefly summarize plan, date, and needed additions) AVR does have a complete water quality monitoring plan which includes sampling frequencies for the chemical groups and next due dates, in spreadsheet format. The plan will need to be updated to include the revised frequencies for radiological chemicals for Wells 33, 34, and 36. Well 27 is a "standby" source and is on a once every nine year frequency.

H. OPERATION AND MAINTENANCE

1. Personnel and Planning

Are system improvements made in accordance with the Waterworks Standards?
Yes, all improvements are in accordance with Waterworks Standards
Does the utility have up-to-date distribution system maps? Yes
Is up-to-date copy of system schematic on file: Yes, dated July 26, 2012
List or tabulate certified personnel: Per Title 22 §64413.3 of the California Code of Regulations, water systems are designated distribution classification based upon population size and other distribution system related factors. Overall, AVR's is a Distribution 5 (D5) water system. The systems qualified personal must include a grade 5 Distribution (D5) chief operator and a shift operator with a grade 4 Distribution (D4) certificate. AVR's current chief operator holds a D5 certification. CCR Title 22 Section 64413.5 - 7 states (a) each water supplier shall designate at least one chief operator that meets the requirements for each treatment and/or distribution system utilized by the water system; (b) Each water supplier shall designate at least one shift operator that meets the requirements for each treatment and/or distribution system each

operating shift; (c) The chief operator or shift operator shall be on-site or able to be contacted within one hour.

AVR's distribution certified personnel consists of 2 Grade 5, 5 Grade 4, 6 Grade 3, 15 Grade 2, and 2 Grade 1. As per the certified personnel, AVR meets the minimum qualified personnel for water treatment; see **Table 13** for some of the certified personnel.

Table 13: Certified Personnel

Name	Certification Nos. Treatment/ Distribution	Treatment Grade and Expiration Date	Distribution Grade and Expiration Date
Adam Ambrose	26133 28390	T2 / January 1, 2017	D5 / June 1, 2017
Jeff Kinnard	14907 6552	T2/ October 1, 2014	D5 / June 1, 2016
Mark Beppu	22338 14132	T2 / May 1, 2016	D3 / March , 1, 2016
Mike Cinko	19189 14133	T2 / November 1, 2016	D3 / March 1, 2016
Dan Best	31379 35780	T2 / February 1, 2016	D3 / March 1, 2016
Jeremy Caudell	29476 34494	T2 / July 1, 2015	D3 / June 1, 2017
Brian Keith	59779 14141	T2 / February 1, 2017	D4 / March 1, 2016

Note: not all certified operators are listed in this table

2. Cross-Connection Control Program

Name of Cross-connection control inspector(s): Adam Ambrose, FCCCHR USC
Does the utility have a Cross- Connection Control Ordinance on file? Yes, the Company has a policy dated January 1989

Discussion and Appraisal: The 2013 Annual Report to the Drinking Water Program lists 791 active tested backflow preventers. The system has a total of 825 backflow devices in the system, including 34 inactive backflow devices and 12 new installs. Annual backflow checks are completed by customers and reported to the Company. The Company submitted a Cross Connection Control Program survey, dated March 3, 2008 that reports that water users are responsible for installation and testing of devices. All backflow device requirements reported on the survey are in compliance with Title 17 regulations. In 2007 Brown and Caldwell conducted a comprehensive cross connection control survey and the Company has maintained an ongoing survey with cross connection specialists. The Company has a very good cross connection survey program. Testing is ongoing and performed by in-house personnel or other providers after notification from AVR via letter. Backflow devices are tested when a change in ownership, management, or type of usage and whenever a new service is installed.

3. Complaints

Discuss Complaint Program: AVR maintains a detailed complaint log system on Customer Information System (CIS) software. All customer complaints are received by the main office, which then put out service orders for maintenance employees. Complaints are typically received at the front office where a service

order is generated. Complaints are documented on cards and via CIS, which identifies the problem and resolution. Service order records are compiled by year and kept in system records.

4. Emergency Response

a) Includes notification to Division of significant system problems? Yes.

b) Emergency response plan: AVR has an Emergency Response Plan (ERP) and was last revised August 2012

c) Discussion and Appraisal: The Emergency Notification Plan includes different methods for the Company to notify its customers in case of an emergency. It is estimated that Company can notify its customers within one-half hour. The Company has a very thorough Emergency Response Plan and Recovery Plan that incorporates the Standardized Emergency Management System (SEMS). The plan also includes a standard response plan for various events as well as boil water orders and other public notification templates.

d) Up-to-date emergency notification plan on file? No, please complete the attached ENP, see ***Appendix B*** make a copy for your records, and return the original via mail to this office by **September 20, 2014.**

5. Main Disinfection Program

Describe main disinfection program (i.e. method, contact time, chlorine residual, bacti. tests, records) for new and repaired mains: AVR attempts to repair all main leaks under pressure. When this is not possible the main is shut down, repaired, chlorinated, flushed and then sampled for Bac-t., per AWWA standards After a new main is installed and pressure tested, it is also disinfected and samples for Bacti, per AWWA standards. Only after receiving negative sample results and low HPC from the lab is the main put into service.

Does the main disinfection program comply with AWWA standards? Yes, AVR follows the Waterworks Standards.

Discussion and appraisal: Program is adequate.

6. Valve Maintenance Program

Describe Program:. The system has approximately 8,030 valves and about 90% were exercised in 2013, as reported in the 2013 Annual Report. AVR's tracking software details valve locations, distribution system map, and number of turns for up keep of the valve exercising schedule. All valves are intended to be exercised annually.

Is number and location of valves satisfactory? (i.e. mainline, ARVR, blow off valves, etc.) Yes

Discussion and appraisal: (i.e. are valves recorded on maps available to field crews? Are all valves located with valve covers raised to grade?) There are 8,030 valves in the system ranging from 2" to 12". In 2013about 90% were exercised. AVR maintains software with a mapping system highlighting valve locations and records of exercise/maintenance procedures. Valves are exercised annually as work and time allows.

7. Flushing

Describe flushing program: (i.e. dead-ends, records, etc.): Dead-ends are flushed quarterly and the entire system is flushed at least once per year.

Approx. No. of dead ends: ~353 Percent with flushing valves? 100%

Discussion and Appraisal Dead-ends are flushed quarterly and the entire system is flushed at least once per year. A software is used to track valve maintenance and system flushing.

8. Recycled Water

Are there recycled water projects in the service area? (irrigation, industrial, dual-plumbed, etc.): No recycled water projects in the Apple Valley Ranchos Water Company service area.
Does the utility have an approved ordinance for using recycled water? NA
Discussion and Appraisal: NA

I. OVERALL SYSTEM APPRAISAL

Sources: The highest MDD occurred in 2006 at 26.87 MGD (18,660 gpm). A source capacity of 40 MGD successfully meets the MDD of 26.87 MGD alone. Per Section 64554 (b) of Title 22, California Code of Regulations (22 CCR) good industry practice includes the reliability to be able to meet four (4) hours of peak hourly demand (PHD) with source capacity, storage capacity, and/or emergency source connections. The PHD during four (4) hours equals a total of 6.72-MG (1.68-MG x 4-hr). The available source capacity of 6.67-MG (40-MGD/24hr x 4hr) and storage capacity of 11.67-MG combined successfully meet the four (4) hour PHD of 6.72-MG. Apple Valley Ranchos WC's source capacity, storage capacity and emergency connection capacity meet the PHD Water Works Standards.

Disinfection: Chlorination facilities are maintained in good condition and ANSI/NSF 60 approved chemicals are used for direct additives. Please be aware that the new Waterworks Standards, in 22 CCR Section 64591 also requires that all indirect chemical additives, such as pump lubricants, to be ANSI/NSF 61 certified.

Storage: AVR maintains eleven (11) storage reservoirs and two (2) hydropneumatic tanks. Two (2) underground reservoirs are sized at 8.0-MG and 2.0-MG. The remaining four (4) reservoirs are welded steel and are sized 3.2-MG, 1.0-MG, 0.60-MG and 0.10-MG. Reservoir sanitary and safety conditions are adequate. All welded steel reservoirs have been inspected, coated, and cleaned within the last five (5) years, and are therefore generally in good condition. No deficiencies were noted for maintenance, conditions, or safety concerns. Overall, reservoir facilities are well maintained and secure. Peak Hour Demand (PHD) is adequately meet, with source capacity and storage capacity.

8 STATIONS

Distribution: The distribution system consists of sixteen (16) pressure zones with eleven (11) booster stations. AVR does have a main line replacement program in place based on system leaks an pipe age. All main replacement and repairs are done in accordance with AWWA standards. System, dead-end flushing and valve exercise programs are adequately maintained, with records available for review. Valve exercising, system flushing, and dead-end flushing are conducted annually, as a minimum. The distribution system is in satisfying conditions; no immediate concerns were noted.

Monitoring: AVR's water quality monitoring is outstanding. The system does have a water quality monitoring schedule, which outlines all source and distribution monitoring requirements. The system conducts minimum monitoring for all sources as follows: General Mineral, General Physical, Nitrite, EDB and DBCP once every three (3) years, Volatile Organic Chemical (VOC) once every six (6) years, and Gross Alpha monitoring once every nine (9) years for most sources, except Wells 11R and 21. Synthetic Organic Chemicals (SOC) monitoring has been issued a three (3) year waiver for 2014-2016. Distribution system monitoring such as lead and copper is on a reduced schedule of once every three (3) years and TTHM & HAA5 monitoring is required annually from one sample site. Please see **Table's 9-12** for all minimum water quality frequencies.

Operations and Maintenance: AVR's knowledgeable and certified staff maintain all aspects of the water system adequately. The chief operator is certified as a D5. The system is staffed by about thirty (30) certified shift operators ranging between a D5 and D1 certificate. All physical water system components are adequately maintained and operated. Ongoing water quality monitoring and reporting is in good standing. Overall the system is adequately maintained and operated. See **Appendix A**, listing deficiencies noted during the facilities inspection and the file review.

J. APPENDIX

Appendix A: Deficiency List
Appendix B: Emergency Notification Plan
Appendix C: Chlorination Datasheets
Appendix D: Reservoir Datasheet template
Appendix E: Distribution System Classification

Report Prepared by: Brenda Pauli Date: August 28, 2014

Signature

Appendix A

Deficiency List

STATE WATER RESOURCE CONTROL BOARD
DIVISION OF DRINKING WATER

DEFICIENCY LIST

System Name: Apple Valley Ranchos Water Comany **System No.** 3610003
Source of Information: Files and field survey
Updated by: Brenda Pauli **Date:** August 15, 2014

Date Found	Description of Deficiency	Order of Hazard	Date Corrected - Reported	Date Corrected – Confirmed
	REPORTING			
8/15/2014	TTHM and HAA5 – Ensure all TTHM and HAA5 montoring is also submitted via EDT, using PS-Code 3610003-601	NA		

ORDER OF HAZARD

A. CRITICAL HEALTH HAZARD - CORRECTIVE ACTION MUST BE TAKEN IMMEDIATELY

B. SERIOUS HEALTH HAZARD - ACTION MUST BE TAKEN AS SOON AS POSSIBLE

C. POTENTIAL HEALTH HAZARD - MUST BE CORRECTED AS WORK LOAD PERMITS

D. SYSTEM OR OPERATIONAL DEFECT RESULTING IN POOR WATERWORKS PRACTICE

N/A. NOT APPLICABLE