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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Suburban Water Systems (U339W) for Authority to Increase Rates Charged for Water Service by $19,971,673 or 19.41% in 2027, by $10,876,890 or 8.91% in 2028, and by $10,831,656 or 8.15% in 2029.	Application 26-01-001

DIRECT TESTIMONY OF JORGE LOPEZ
PUBLIC VERSION

January 2, 2026Corrected May 12, 2026
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TABLE OF CONTENTS

I. INTRODUCTION 1

II. AFFORDABILITY 3

III. DECISION 24-12-030 PROJECT STATUS 4

IV. DECISION 24-12-030 PROJECT CHANGES 21

V. ADVICE LETTER PROJECTS 38

VI. CONSTRUCTION COSTS ESCALATION 41

VII. WILDFIRES & CLIMATE CHANGE 44

VIII. GREEN PROJECTS 54

IX. REDUCING COSTS WITH INTERNAL ENGINEERS 55

X. ADMINISTRATIVE & GENERAL (A&G) SHARED SERVICES 64

XI. 2026 PROPOSED CAPITAL BUDGET 64

XII. 2027 CAPITAL BUDGET 214

XIII. 2028 CAPITAL BUDGET 254

I. INTRODUCTION

Q1 Please state your name, address and place of employment.

A1 My name is Jorge A. Lopez. My business address is 1325 North Grand Avenue, Suite 100, Covina, CA 91724. I work for Suburban Water Systems (Suburban or Company).

Q2 What is your job title and what are your responsibilities?

A2 I am the Vice President of Engineering. I am responsible for the company's planning, design and construction management of capital and developer projects. I am also responsible for Asset Management, Geographic Information Systems (GIS), and Procurement.

Q3 Briefly describe your educational and professional background.

A3 My educational background consists of a Bachelor of Science Degree in Mechanical Engineering from California State University, Los Angeles, and a Master of Business Administration with a concentration in Finance from the University of La Verne. I held operator certifications from the State Water Board, including Distribution Operator 1 and Treatment Operator 2. I have completed many Continuing Education classes and training provided by the American Society of Civil Engineers, and the American Water Works Association, in addition to numerous programs offered by vendors and other industry organizations.

My professional background includes 19 years as a water systems engineer for Suburban. During my career with Suburban, I have worked as a Project Engineer, Engineering Supervisor, Engineering Manager, Director of Engineering, and Vice President of Engineering. I have been the engineer of record for Suburban for over 12 years and completed over $300 million of projects to provide our customers with a safe and reliable water supply. I have presented at various conferences, most recently at the AWWA

Water Education Seminar in 2024 and AWWA Water Infrastructure Seminar in 2024. I am a registered Professional Civil Engineer in California, License number 79691.

My career at Suburban has offered valuable exposure to multiple facets of the water utility industry beyond engineering, including Operations, Production, Water Quality, and Customer Service. Collaborating closely with these departments has deepened my understanding of the full customer experience and strengthened my ability to deliver capital projects that align with operational needs and service expectations.

Q4 What is the purpose of your testimony in this proceeding?

A4 The purpose of my testimony in this proceeding is to sponsor "Utility Plant" in "Suburban Water Systems, Total Company Results of Operations." I will describe the Capital Expenditure plan for the San Jose Hills Service Area; and the Whittier/La Mirada Service Area for the years 2026, 2027 and 2028.

Suburban's capital program objective is to ensure a safe, reliable, and high-quality water service to its customers at a reasonable cost. The proposed projects will enable Suburban to meet our objectives. Meeting these goals requires a thorough understanding of the existing condition of the infrastructure, the risk that each failure represents, and the increased consequences of delaying replacements.

I have also provided separate stand-alone testimony regarding the data driven pipeline replacement program that enables Suburban to replace poor-performing pipelines to reduce the break rate to an acceptable level and minimize water service interruptions for our customers.

This testimony also includes building projects that will increase water supply from the Central Basin aquifer, including wells, pipelines and treatment plants. Lastly the

testimony also addresses PFAS treatment, Green Projects, and reliability projects such as Tanks and Pump Stations.

II. AFFORDABILITY

Q5 Does Suburban consider affordability when it makes its capital project investment decisions?

A5 Yes. Suburban carefully considers the impact of its Capital Investment decisions on customers. To guide project selection, it conducts a screening analysis that evaluates both direct and indirect effects, such as the annualized cost to customer bills, operational expenses, health impacts, alternative water costs, lost wages, business revenue, and fire-related damages. The results of this customer impact analysis are shown below. Suburban President Craig Gott discusses affordability issues in more detail in his testimony.

Project No.	Project Name	Customer Health & Safety	Customer Water Waste Savings	Alternative Water Cost	Lost Customer Business Revenue	Lost Customer Employee Wages	Damage from Flooding	Damage From Fires	Employee Safety
	Pipeline Replacement Program	X		X	X	X	X	X	
P-01-A	Plant 201 PFAS Treatment	X	X	X	X	X		X	X
P-1	SCADA Replacement	X		X	X	X	X	X	X
P-2	Sativa Manganese Treatment Plant	X		X					
P-3	Well Rehabilitation	X		X					
P-4	Plant 121 Electrical							X	X
P-5	Blow Off Replacement	X							
P-6	Plant 167 Road Relocation						X	X	X
P-7	BTM Coupling Replacement	X		X	X	X		X	
P-8	Plant 802 Tank & Pump Station	X		X			X	X	
P-9	Plant 429 Central Basin Well			X					

P-10	Sativa PFAS Treatment Plant	X		X					
P-11	Plant 201 Gas Line Relocation			X	X	X		X	
P-12	Plant 216 Central Basin Well			X					
P-13	Plant 109-R3 Rehabilitation	X		X				X	X
P-14	Plant 115-R2 Rehabilitation	X		X				X	X
P-15	AMI Infrastructure		X						
P-17	Sativa Pipelines	X		X			X	X	
P-18	Tank Safety Harness Replacement								X
R-5	Meter Replacement		X						X
R-25	Vehicles Replacement								X

III. DECISION 24-12-030 PROJECT STATUS

Project Status of Previous Rate Case Budget (D-24-12-030)

Q6 Did Suburban invest the capital funds authorized in Decision 24-12-030 for 2023, 2024, and 2025?

A6 Yes. Not only did Suburban invest the funds authorized in Decision 24-12-030, it invested more; Suburban's capital expenditures in 2023, 2024, and 2025 exceeded the adopted amount, as shown in the exhibit below.

Due to the generationally unprecedented rise in construction costs that followed the global Covid19 pandemic and subsequent global supply chain disruptions, and the fact that the Commission did not issue a decision in Suburban's 2023 GRC until the end of 2024, Suburban could not change the projects it constructed in 2023 and 2024 to align with the adopted capital budget.

Suburban diligently plans capital projects to maximize the customer benefit from the adopted budgets. Planning and constructing the major infrastructure improvement projects in Suburban's capital program takes many years.

Suburban manages its capital projects to the Commission's adopted budget. Occasionally, projects are reprioritized to address a more pressing need requiring project substitution.

The construction of large infrastructure projects is a dynamic process that involves many variables. Suburban must have the flexibility to adjust its program to address evolving situation and actual conditions. Although Suburban implements its projects as efficiently as possible, projects take as long as they take to construct and are not constrained by the calendar. While Suburban plans to start and finish projects in one calendar year, the project may take longer than anticipated to construct due to delays related to permits, weather, materials, contractors, and unexpected conditions, and the project construction scheduled extends into the following year. Suburban needs flexibility to adjust its annual capital budgets to align with the actual progress of its programs.

Suburban was impacted by the prolonged effects of the global COVID-19 pandemic and resulting supply chain disruptions that caused inflation and increased costs of goods and services, and delays in receiving materials and equipment.

Suburban assumed conservative spending levels in 2023 and 2024 that reflected the amount previously approved in the previous GRC for 2022. However, the Commission adopted drastically lower amounts of $13M for 2023 and $16M for 2024 when it issued D.24-12-030 on December 23, 2024, two full years into a three-year major infrastructure construction program.

Q7 Is Suburban completing projects adopted in recent GRC decisions, and are Suburban's customers paying for projects more than once?

A7 Yes, Suburban is completing projects adopted in GRC decisions. No, Suburban's customers are not paying for projects more than once, even if a particular project was proposed in a prior GRC but not completed.

Suburban has prepared the following exhibit that demonstrates the complexity of managing a multiyear capital budget, and how Suburban is completing adopted projects and customers are not paying for projects more than once. Specifically, the exhibit shows:

1. Boxes representing capital projects or programs
2. Columns representing projects constructed or planned for construction from 2023 to 2028.
    a. 2023 and 2024 construction has been completed, and projects are serving customers.
    b. 2025 construction is in progress; the exhibit represents a 7-month actual plus 5-month forecast.
    c. 2026 – 2028 are future years requested in this GRC.
3. Boxes are color coded according to the legend to show:
    a. The year the project was adopted
    b. It was added to address a pressing operations issue
    c. It was requested and completed before the delayed GRC decision 24-12-030 was adopted on December 23, 2024, but denied by that decision
    d. It was adopted in decision 24-12-030 as an advice letter project

Please note the following:

1. All adopted funds have been spent on projects that are needed and are beneficial to customers.
2. All adopted projects are completed or planned to be completed.

3. Due to its size and complexity, the Plant 201 PFAS project is scheduled to take more than one year to construct.

Suburban Water Systems - CAPEX

Chart Guide

a. Boxes represent projects that were constructed or are scheduled to be constructed
b. Columns represent year that construction has or is scheduled to take place
c. Project boxes with same color as year are on GRC adopted schedule
d. Project Boxes with different color to year were rescheduled, added, or not adopted in GRC

Legend

- 2023 Adopted (D.24-12-030)
- 2024 Adopted (D.24-12-030)
- 2025 Adopted (D. 24-12-030)
- 2026 Request
- 2027 Request
- 2028 Request
- Authorized in previous GRC
- Permitting & Design for future year construction
- Requested & denied in GRC, completed prior to decision
- Adopted Advice Letter (D.24-12-030)
- Administrative & General (A&G) Shared Services

Footnotes

[1] Delay - equipment availability: supply chain and demand (Covid19, wildfires, storms)
[2] Delay due to balance CAPEX budget (not used)
[3] Need additional well to produce lowest cost owned CB rights
[4] Treatment upgrade to address arsenic levels that increased over MCL

[5] Constructed pipelines at rate requested in GRC
[6] Project spending at rate requested in GRC

[7] Project pulled forward a year to balance CAPEX budget

[8] Project delayed to balance CAPEX budget
[9] Delayed due to late GRC decision, CEQA permit & SRF loan application
[10] Magnitude of project will take multiple years to construct
[11] Planning, design, permitting take place a head of construction
[12] Not used
[13] Pipelines installed in '23-'25 exceed rate approved in GRC, zero in 2026 to balance

Note: All projects approved in GRC are shown on chart

	Total '23-'25	2023 (Actual)	2024 (Actual)	2025 (Forecast)	2026 (Request)	2027 (Request)	2028 (Request)
Projects	84.35	34.71	33.74	15.90	40.90	85.15	71.04
Advice Letter	12.44	2.44	5.15	4.84	4.45		
Water Rights	1.84	1.14	0.69				
A&G Shared Services				0.71	0.73	0.75	0.78
Subtotal Actual	**98.62**	**38.30**	**39.59**	**21.45**	**46.08**	**85.91**	**71.82**
Adopted	65.88	12.10	13.30	40.48			
Advice Letter	12.44	2.44	5.15	4.84	4.45		
Subtotal Adopted	**78.32**	**14.54**	**18.46**	**45.32**			
Over/(Under) Spent	**20.30**	**23.75**	**21.13**	(23.87)			

Q8 Please provide a more detailed explanation for the timing of the items shown on the exhibit.

A8 The sections below provide more details and an explanation of the timing of items in the exhibit. The section of my testimony describing Projects Completed and Denied, and being requested to be included in Rate Base, justifies these projects.

2023

The table below shows the list of projects built in 2023 and put into service as authorized in Decision 24-12-030. They were authorized for 2023 in Decision 24-12-030 and constructed in 2023.

Description	Adopted Amount ($Millions)
Recurring Projects	6.82
Pipeline Replacements	4.85
Paulsen Pipeline	0.41

The following table shows 2023 costs for projects in planning, design, and permitting to be ready for construction the following year.

Description	Adopted Amount ($Millions)
Planning	0.7

The following table shows projects authorized by Decision 21-10-024. These projects were completed in 2023, after delays resulting from equipment procurement interruptions caused by the global COVID-19 pandemic and subsequent global supply chain disruptions.

Description	Adopted Amount ($Millions)
Plant 109 Generator	0.21
Plant 109 R-2 Recoat	0.13
Plant 413 Electrical Upgrades	0.07
Plant 236 Generator	0.04

The following table shows projects completed in 2023, that were proposed in the GRC application filed on January 3, 2023 and denied in GRC Decision 24-12-030 adopted on December 23, 2024.

Description	Adopted Amount ($Millions)
Recurring Projects	5.29
Pipeline Replacements	15.45
Plant 409 W-1 Arsenic Removal Treatment	0.52
Stage Rd. Test Well	0.22
Water Rights	1.1

The following table shows spending in 2023 on projects that were adopted as Advice Letter projects in GRC Decision 24-12-030. The advice letters will be filed by the end of 2025.

Description	Adopted Amount ($Millions)
Plant 165 Generator	0.28
Plant 506 Generator	0.38
Plant 128 Tank	1.77
Plant 217 Slope Stability	0.22

2024

The table below shows the list of projects built in 2024 and put into service as authorized in Decision 24-12-030. They were authorized in Decision 24-12-030 for 2024 and constructed in 2024.

Description	Adopted Amount ($Millions)
Recurring Projects	8.62
Pipeline Replacements	4.45

The following table shows 2024 costs for projects in planning, design, and permitting to be ready for construction the following year.

Description	Adopted Amount ($Millions)
Planning	1.1

The table below shows the list of projects built in 2024 and put into service as authorized in Decision 24-12-030. They were authorized in 2025 and constructed in 2024.

Description	Adopted Amount ($Millions)
Blow off	0.47

The following table shows projects completed in 2023, that were requested in the GRC application filed on January 2, 2023 and denied in GRC Decision 24-12-030 adopted on December 23, 2024.

Description	Adopted Amount ($Millions)
Recurring Projects	4.38
Pipeline Replacements	11.485
Stage Rd. Production Well	3.29
Water Rights	0.69

The following table shows spending in 2024 on projects adopted as Advice Letter projects in GRC Decision 24-12-030. Suburban filed the advice letter for these projects on May 1, 2025, but it was suspended due to errors in the decision that made it impossible to implement. Some errors were corrected in D.25-07-012, which addressed a Petition for Modification filed by Suburban in January 2025. A second Petition for Modification, filed by the Public Advocates Office in September 2025, is pending.

Description	Adopted Amount ($Millions)
Plant 165 Generator	0.28
Plant 506 Generator	0.38
Plant 128 Tank	1.77
Plant 119 Generator	0.0004

The table below shows the list of projects built in 2025 and put into service as authorized in Decision 24-12-030. They were authorized in Decision 24-12-030 for 2025 and constructed in 2025.

Description	Adopted Amount ($Millions)
Recurring Projects	7.73
Pipeline Replacements	2.13
Plant 162 R-1 Rehab	0.26
Valve Backlog Replace	1.06
Blow Off	0.016
Plant 408 R-3 Tank Reco	0.38
Plant 201 Pfas	0.72
Well Redevelopment	0.38
SCADA Replacement	0.44
Plant 409 R-1 Recoat	0.33
Plant 216 Test Well	0.74

The following table shows 2025 costs for projects in planning, design, and permitting to be ready for construction the following year.

Description	Adopted Amount ($Millions)
Planning	0.02

The following table shows spending in 2025 on projects that were adopted as Advice Letter projects in GRC Decision 24-12-030. The advice letter projects will be completed by Q2, 2026.

Decription	Adopted Amount ($Millions)
Plant 118 Generator	0.13
Plant 235 Generator	0.83
Plant 128 Electrical	2.40
Plant 119 Generator	0.55
Plant 504 Generator	0.51
Plant 140 Electrical	0.02

Q9 Did Suburban spend more on capital projects in 2023 and 2024 than was adopted in GRC decision 24-12-030?

A9 Yes.

GRC decision 21-10-024 adopted Suburban's request to replace 1% per year of its 860 miles of pipe in 2022.

Suburban's total capital budget for 2022 was adopted by the Commission in D.21-10-024 at $35.076M and was used as the basis to set rates in the attrition year 2023. The capital amount for 2023 adopted in Decision 24-12-030 on December 23, 2024, was $12.05M which is far below the attrition year amount, and below the amount that Suburban had already spent on prudent capital projects.

Suburban must construct projects during the attrition year to complete adopted projects in a timely manner, however, under the Commission's Rate Case Plan (D.07-05-062), the projects for the attrition year are not scheduled to be adopted by the Commission until a year after the GRC application is filed. This means that in 2023, which is the attrition year for the prior (2020) GRC, Suburban constructed projects based on the attrition year capital budget from that GRC decision (D.21-10-024), but the approval to include these projects in rate base would come from the 2023 GRC, a decision for which would not be issued, under the Rate Case Plan schedule, until after the 2023 construction was completed. Exacerbating this issue is the fact that the decision in Suburban's 2023 GRC (D.24-12-030) was not issued until December 2024, nearly a year later than scheduled under the Rate Case Plan. This means that Suburban had to complete **two** years of capital construction without the surety of Commission approval of the projects.

Suburban faced a serious dilemma. Suburban could build projects, as it did, complying with the rate case plan ahead of the decision, but bore the risk that they will not be approved, and would require the shuffling of projects in the remaining year to balance spending to adopted levels and attempt to complete outstanding approved projects.

Alternatively, Suburban could have built no projects during the attrition year, or even before a GRC decision is adopted, but then it would not complete the adopted projects in

a timely manner. Suburban put the customers first in its prudent decision to complete projects ahead of the decision. This means that Suburban prudent spent capital on projects without knowing what the Commission would approve.

Q10 Did Suburban spend more on Pipeline Replacements in 2023 and 2024 than was adopted in the GRC decision 24-12-030?

A10 Yes. Previously, in GRC decision 21-10-024, Suburban's request to replace 1% per year of its 860 miles of pipe in 2022 was adopted by the Commission.

As I previously mentioned, Suburban did not receive its GRC decision for the capital projects in 2023, 2024 and 2025 until December 23, 2024, after Suburban had completed necessary projects in 2023 and 2024 and was using them serve customers. Suburban needed to proceed with projects required to address system issues.

Suburban set out to replace 1% of pipelines in 2023 and 2024 to be consistent with the 1% replacement rate adopted in the previous GRC and to be consistent with its GRC application. All construction projects, including replacement pipeline construction experienced massive cost increases resulting from the generationally unprecedented period of inflation that followed the Global Covid19 pandemic and supply chain disruption. The high costs resulted in Suburban replacing fewer pipelines than predicted for the same dollar amount.

Suburban prudently limited the amount of pipe replacement spending to the amount approved for 2022 in D.21-10-024 for $18.1M that was used in the 2023 attrition year and in 2024 prior to receiving the GRC decision. Suburban replaced 0.92% of pipelines in 2023 for $19.4M, and 0.44% of its pipelines in 2024 for $13M. These pipes were in the ground and serving customers in the year they were constructed.

On December 2023, 2024 the decision 24-12-030 adopted $4.851M for 2023, and $4.445M for 2024; these amounts are far lower than the amounts Suburban had spent constructing pipelines in 2023 and 2024 prior to the adoption of the decision.

Q11 Did Suburban purchase water rights to minimize water costs to customers that were not adopted in GRC decision 24-12-030?

A11 Yes, Suburban purchased water rights in 2023 and 2024 when they became available before the December 23, 2024 decision that denied their inclusion in Suburban's rate base. These rights would have provided Suburban's customers with more access to the lowest cost, most reliable and lowest greenhouse gas emitting water source.

Q12 Did Suburban construct a production well in the Central Basin to maximize production of owned water rights to minimize water costs to customers that was not adopted in GRC decision 24-12-030?

A12 Yes. In past GRC's Cal Advocates chided Suburban for not having production capacity to produce all the Central Basin groundwater rights that it owns. Suburban responded by including a project to construct a new Central Basin well in its rate case application filed on 1/3/2023. Well construction was completed in December 2024 ahead of 12/23/24, when Decision 24-12-030 was adopted, denying the project. Customers benefit from this project, however, because water produced from the Central Basin is the lowest cost, is the most reliable, and has lower greenhouse gas emissions than alternate water imported from Northern California and the Colorado River.

Q13 Why is Permitting and Design required every year?

A13 Project permitting and design timelines must be staggered to ensure we always design at least one year before construction because we cannot complete all designs in one year. This approach allows sufficient time for all preparatory activities before a project breaks

ground. However, it's important not to get ahead of ourselves by allocating resources to projects that fall outside the Commission-approved budget or are impacted by decisions from the General Rate Case (GRC).

For example, to manage this balance, we began planning in Spring 2022 for a project expected to begin construction in 2023. Starting in the spring of the prior year typically provides adequate time to complete all necessary pre-construction tasks, assuming no unforeseen delays. These tasks include finalizing design work, securing permits, conducting the bidding process, reviewing bid results, executing contracts, and issuing a project order to confirm the contractor's start date.

By aligning design timelines with budget approvals and regulatory milestones, we ensure that each project is both strategically timed and operationally feasible, minimizing risk while maximizing readiness for construction.

Most projects listed in the Capital Expenditure table, where costs were incurred for permitting and design, have either been constructed or are included in this filing for construction. While Suburban carefully plans its projects, budget management is dynamic, and some schedules are beyond our control. As a result, certain projects incur costs but cannot be constructed within the current rate case. The single situation where this occurred was for the Manzanares pipeline project. In 2024, we began planning the Manzanares pipeline (Work Order 24-4122), spending $58,123 in 2024 and $7,858 in 2025. It was scheduled for construction in 2025 ahead of the City of La Mirada's paving project. However, due to the Decision's reduction to Suburban's pipeline replacement program, the project could not proceed, and the city cannot postpone its paving project, so we will need to reschedule the project until the moratorium expires in 2030.

Q14 Has construction been completed for the Plant 201 PFASF removal project?

A14 No. The PFAS removal project is a complex project that requires extensive permitting and grant funding that have delayed the commencement of construction. Suburban has completed extensive studies and engineering planning to be shovel ready for construction. However, grant fund applications could not start in earnest until the project was approved in D.24-12-030, and construction cannot commence until a California Environmental Quality Act (CEQA) permit is issued.

Q15 Can Suburban start the PFAS project without a CEQA permit and can Suburban control how fast the responsible agency processes the permit request?

A15 No. It would be illegal for Suburban to start the PFAS project without a CEQA permit. The City of Pico Rivera is the lead agency processing the CEQA permit for the Plant 201 project. Suburban submitted a CEQA review request letter on 1/7/2025, about two weeks after the Commission approved the project on D.24-12-030. Approximately four months later the City notified Suburban that the project would be categorically exempt from CEQA. After the CEQA determination, the City notified us that a Precise Plan Design was required to record the CEQA exemption. Suburban has expeditiously returned all data requests to the city. On October 15, 2025 the City provided the draft Notice of Exemption (NOE). The NOE was recorded with LA County on October 27, 2025. Recording the NOE initiates a 35-day statute of limitations, protecting a project from legal challenges. Once the 35-day period has passed without a CEQA lawsuit being filed, the window for challenging the project based on environmental grounds closes. The CEQA NOE must also be submitted with the Environmental Package when applying for SRF funding.

Q16 Should Suburban build this project without pursuing grant funding that would reduce the cost of this project to customers?

A16 No, Suburban should pursue all grant funding available. If received, grant funding will reduce the cost of this project to customers. Grant funding is treated as Contribution In

Aid of Construction (CIAC) and reduces Suburban's rate base. However, grant funding is not guaranteed, and the final amount of grants will not be known until the projects are complete. Suburban is pursuing all available avenues for grant funding. The most recent GRC decision 24-12-030, Page 104, paragraph 1 encouraged Suburban to pursue grant funding for this project and states "*Suburban is expected to aggressively seek grant funding for PFAS projects and accept the grant it has tentatively obtained from the San Gabriel Basin Water Quality Authority*".

Q17 Has Suburban been successful in qualifying for any grant funding for the Plant 201 PFAS removal project?

A17 Yes. To date Suburban has been awarded $1.75M of grant funding from the San Gabriel Valley Water Quality Authority (WQA). The funds will be reimbursed to Suburban after it has demonstrated equivalent spending on the project construction.

Q18 Is the process for applying for grants delaying the commencement of construction of the Plant 201 PFAS removal project?

A18 Yes. Suburban has applied for up to $25 million of grant funding from the Drinking Water State Revolving Fund (DWSRF) program.

Suburban cannot commence construction before the grant is awarded, as shown on page 68, paragraph 4 of the Intended Use Plan. The Intended use plan states "Applicants generally may not initiate project construction unless both the applicant and DFA staff have completed the appropriate environmental review for the project". https://www.waterboards.ca.gov/drinking_water/services/funding/documents/2025/2025-26-dwsrf-iup.pdf. Suburban found it prudent for the benefit of its customers to qualify for the grant before commencing construction. Construction is anticipated to commence in the second quarter of 2026 after receiving the SRF Environmental approval.

There are few shovel-ready projects like Suburban's Plant 201 project so Suburban's grant consultant Carollo Engineers is optimistic the grant funding request will be successful. The funds will be reimbursed to Suburban after it has demonstrated equivalent spending on the project.

Q19 Is grant funding for the Plant 201 PFAS removal project guaranteed?

A19 No, Grant funding is not guaranteed. The upheaval in national politics and state budget challenges could potentially end the grant program leaving no additional grant funding for Suburban's project.

Construction Work In Progress

Q20 Is it reasonable to expect all water system infrastructure projects to be constructed within one year?

A20 No. There really isn't a standard amount of time for completion of water system infrastructure projects, given the diversity of complexity for water system infrastructure project construction. Yes, some projects that are more complicated and require specialized equipment and contractors, and extensive permitting can take a year or longer to complete.

Each project is unique and involves several factors that dictate the length of time required to construct.

The size of the project is the leading indicating of the time required to construct. Small projects can be constructed in days or even months, where larger projects could take months or even years.

Much of the equipment used in construction projects is specialized and often purpose-built for the project. Pumps, treatment vessels, and electrical panels are examples of customer-built equipment. It takes time to order, construct, and deliver these items, often

exceeding four months and even taking years. For example, backup power diesel generators have had lead times exceeding 100 weeks since the global supply chain interruption. Electrical panels still have lead times exceeding nine months. Manufacturing continues to be slow due to factors like tariffs and trade policy uncertainty and labor shortages.

There are a limited number of contractors that are geographically appropriate and have the requisite capacity and experience to construct these projects. Projects cannot commence until the contractors are available. Contractors also work on multiple projects at one time and move resources on and off projects as the construction work progresses, so projects can be delayed with a contractor's crew tied up on another project. Project schedules are at the mercy of the contractor's availability which is beyond the control of owners like Suburban.

It also takes time to secure excavation, right of way, building, planning, CEQA, Army Corps of Engineers 404, Regional Water Quality Control Board 401, and other permits from agencies that have no concern about construction schedules. Permit issuance schedules are beyond the control of utilities like Suburban.

For the reasons discussed, although Suburban uses its best efforts to estimate the amount of time necessary to complete each project, the timing for each project will vary and will be subject to change to factors beyond Suburban's control.

Q21 What projects are in CWIP (construction work in progress) due to planning in design and proposed for construction in this rate case that customers need to ensure a safe and reliable water supply?

A21 The following table shows a summary of the projects in CWIP requested for construction in this General Rate Case.

Project Name	CWIP Amount	GRC Request Amount	Construction Year
Plant 429 Well Piping and Equipping	257,215	5,441,956	2028
Plant 201 Gas Line	86,936	400,000	2028
Plant 201 PFAS Treatment	2,232,813	34,638,934	2026/2027/2028
SCADA Replacement	403,848	700,000	2026
AMI Infrastructure	104,000	2,973,831	2026
Sativa Manganese Treatment Plant	69,980	3,924,000	2026
Plant 804 Treatment Plant	55,000	2,043,407	2028
Sativa Pipeline Phase 2	21,725	4,300,000	2028

These prudent projects are requested in this GRC application detailing the need for the commission's approval.

IV. DECISION 24-12-030 PROJECT CHANGES

Projects Completed After Rate Case Period and Prior to GRC Decision.

Q22 In the previous section, you identified projects from the prior (2020) GRC application 20-03-001 for the period 2020, 2021, and 2022, that that were completed in 2023. Please discuss those projects and the factors that contributed to the delay.

A22 Below are the list of projects from GRC application 20-003-001 for the period 2020, 2021, and 2022 that were constructed and completed in 2023, including a discussion of the factors that contributed to its delay.

Plant 109 and 236 Generators

In GRC application 20-03-001 Suburban requested generators to provide backup power for critical facilities that serve areas prone to fires and were subject to power outages due to Southern California Edison (SCE) conducting Public Safety Power Shutoff (PSPS) during high fire risk weather events. Suburban needs generators to provide customers with reliable water supply for consumption and fire protection during extended power outages. Suburban's facilities were not designed for extended power outages such as these. The following sections provide an overview of the threats to our customers.

PSPS: PSPS events cut off power to Suburban's boosters pumps that provide water for consumption and firefighting during extended outages in during high fire risk weather events; backup power generators are required to at Suburban's plants to provide an alternate source of power to keep pumps running.

Facility Design: Suburban's existing facilities were not designed to operate during an extended power outage and backup power generation capacity is required to ensure there is an adequate supply of water for consumption and firefighting during an extended power outage. The January 7, 2025 fires in the Palisades and Altadena demonstrated the importance that pumps plan in providing a continuous and extended supply of water for firefighting even when electrical power is not available.

Factors Contributing to Delay: These generator projects were delayed due to the Covid-19 global pandemic that resulted in severe supply chain disruptions, and critical labor shortages. Further, this period coincided with ice storms in Texas and hurricanes in Florida that created an incredible demand for backup power generators. The combination of the lack of supply and massive demand resulted in availability lead times that exceed 100 weeks (more than 2 years). Before the Covid-19 pandemic, generator lead times were typically 20 weeks, the same lead time experienced for Suburban's Plant 205 Generator back in 2010. Suburban was able to complete the generators at 109 and 236 in 2023, and the balance of generators were approved as advice letter projects in Decision 24-12-030 and were completed or are in progress.

Plant 109 R-2 Recoating

In GRC application 20-03-001 Suburban requested a project to rehabilitate the 0.5-million-gallon (MG) potable water steel tank at referred to as Plant 109 R-2. The tank was experiencing interior coating failure, corrosion, and metal loss at the center rafters and dollar plate. Left unabated the corrosion and metal loss would continue, the tank

would eventually collapse, reducing supply reliability for customers, and causing collateral damage to neighboring customers located downhill from the tank.

This rehabilitation work ensures the tank's structural integrity and reliability. This project is critical to maintain a safe, reliable, and cost-effective supply of water to the customers served by this reservoir in addition to providing fire protection to customers located in high fire hazard zones. Suburban's customers could not afford for the condition of this tank to worsen and fail.

Factors Contributing to Delay: The Plant 109 R-2 recoating project was delayed due to labor shortage from the great resignation that followed the Covid-19 global pandemic. The tank coating contractors could not retain crews to perform the work, and their availability waned and the schedules lengthened. This resulted in the project being delayed until the contractor had the resources required to complete the work. Suburban could not switch to another contractor because all contractors were facing similar labor shortages, which persisted longer than our best estimates. In 2023, the same year Suburban built this project, the Associated General Contractors (AGC) reported that construction workforce shortages contributed to supply chain disruptions, driving up material costs and delaying deliveries. A 2025 survey from AGC and the National Center for Construction Education and Research (NCCER) indicates this labor shortage persists, with 92% of firms still having difficulty hiring workers. https://news.agc.org/workforce-development/workforce-shortages-delay-projects/.

Plant 413 Electrical Upgrades

The Plant 413 Pump Station and electrical equipment were installed in the 1960s. The electrical equipment reached the end of its useful life and needed to be replaced. The panels were worn and did not seal properly, allowing dust and moisture to enter. This led to corrosion and component failure. Due to the facility's age, parts were unavailable or

difficult to procure, making repairs difficult and less reliable. The panels were outdated and provided a significant risk of an arc flash event that would have caused serious equipment damage or personnel injuries. The electrical panels and their components needed to be completely replaced to ensure customers have a safe and reliable water supply.

Factors Contributing to Delay: The schedule of the Plant 413 was dependent on the manufacture of the custom electrical panel. The manufacture of the panel was delayed due to labor shortage and delays getting electrical components from manufacturers that exceeded 12 months our original schedule. This resulted in the project being delayed until 2023 when the contractor had the resources required to complete the work. Suburban could not switch to another contractor because all contractors were facing similar labor shortages, which persisted longer than our best estimates. Suburban could not switch to another contractor because all contractors were facing similar labor shortages, which persisted longer than our best estimates. In 2023, the same year Suburban built this project, the Associated General Contractors (AGC) reported that construction workforce shortages contributed to supply chain disruptions, driving up material costs and delaying deliveries. A 2025 survey from AGC and the National Center for Construction Education and Research (NCCER) indicates this labor shortage persists, with 92% of firms still having difficulty hiring workers. https://news.agc.org/workforce-development/workforce-shortages-delay-projects/.

Q23 What projects were requested in GRC Application 23-01-001 on January 3, 2023, constructed in 2023 and 2024, and denied later when Decision 24-12-030 was issued on December 23, 2024? Please discuss the justification for those projects.

A23 The following summarizes the projects requested in GRC application 23-01-001, constructed in 2023 and 2024, and later denied when Decision 24-12-030 was issued on December 23, 2024. Also included is a discussion of the justification for those projects.

Central Basin Test Well & Production Well on Stage Rd.

Suburban holds unused groundwater rights in the Central Basin but cannot currently utilize them due to limited production well capacity. These rights represent the most cost-effective water supply for customers. After evaluating options, Suburban determined that drilling a new production well was the most prudent and economical way to maximize use of its Central Basin rights.

According to the California Public Utilities Commission's Decision 21-10-024 (adopted October 21, 2021), page 21, section F, paragraph 4, it is the utility's responsibility to manage its budget to ensure safe and reliable service. In alignment with this directive, Suburban prioritized the construction of a test well to support development of a production well and improve water affordability and reliability for its customers.

In 2022, Suburban drilled a test well at Plant 429 to assess water quality and production capacity before investing in a more expensive production well. Test wells offer a cost-effective and prudent way to confirm a site's viability for supporting a production well. This approach is supported by Decision 24-12-020 (page 101, paragraph 4), which states: "After the test well data becomes available and is analyzed, Suburban can plan for a production well by further reviewing if treatment is necessary and the final design of a new well is beneficial to ratepayers." The results from the test well confirmed that water quality was suitable for treatment at nearby Plant 409's existing treatment facility, and the available quantity of water was sufficient to support a production well, demonstrating that it would benefit customer to drill a production well.

In 2023, Suburban requested approval to construct a production well as part of its General Rate Case (GRC) Application 23-01-001 for the 2023–2025 cycle. The well was completed in 2024. However, the California Public Utilities Commission (CPUC) issued Decision 24-12-030 on December 23, 2024, which denied Suburban's request to

construct the well and the associated equipment needed to produce its Central Basin groundwater rights.

Although the decision denied the well, it was still included in the Water Division's revenue model. To clarify this discrepancy, Suburban submitted a Petition for Modification (PFM). The CPUC adopted the PFM decision on July 24, 2025, confirming that the well had indeed been denied. Both decisions were issued after Suburban had already completed construction of the well.

In this General Rate Case (GRC), Suburban is requesting that the completed test and production wells be included in the rate base (see related section). Additionally, Suburban seeks approval to complete the remaining infrastructure necessary to bring the well into operation. This includes equipment installation, electrical upgrades, piping, and site improvements required to produce water from the well.

Plant 409 Arsenic Treatment Plant

Suburban modified the treatment plant at Plant 409 to remove arsenic from the Plant 409 W-3 well. In August 2020, the Plant 409 W-3 well was taken offline due to arsenic levels exceeding the Maximum Contaminant Level (MCL) to comply with State Water Resources Control Board – Division of Drinking Water (DDW) regulations. Suburban attempted to rehabilitate the well to reduce the arsenic concentration, but within a few months, the concentrations again exceeded the MCL. In June 2021, the well was turned off until a permanent solution was implemented. Taking the well offline reduced Suburban's ability to produce Central Basin groundwater, which is the least costly water source.

Suburban and consultant Hazen and Sawyer innovated a solution to modify the existing Plant 409 color removal process to remove arsenic. The scope of work included installing a ferric chloride tank, pump, analyzer, electrical upgrades, a backwash tank mixing

system, and controls upgrades. This solution cost less than $600,000, which was substantially less than the $2,000,000 cost to build a new arsenic removal treatment plant. This solution minimized costs, ensuring that customers were served the lowest-cost water supply that met stringent water quality requirements.

This project is an excellent example demonstrating the need for Suburban to have flexibility to prioritize its projects to meet the most urgent needs so that it can ensure customers are provided a safe and reliable water supply at a reasonable cost.

Local Water Source Entitlement Purchases

Q24 Can Suburban's customers afford more expensive, less reliable, and higher greenhouse gas emitting imported water when less costly, more reliable, and less greenhouse gas emitting groundwater sources are available?

A24 No. Suburban's customers cannot afford more expensive, less reliable and higher greenhouse gas emitting imported water when less costly, more reliable and less greenhouse gas emitting groundwater sources are available. Suburban needs to take advantage of rare opportunities to purchase entitlement to local groundwater sources to increase access to less costly, more reliable, and less greenhouse gas emitting groundwater.

Q25 Is water produced from local sources less costly than water purchased from imported water sources?

A25 Yes. Water produced from local sources is less costly than water purchased from imported water sources.

Imported Water: Imported water from regional suppliers Central Basin Municipal Water District (CBMWD), and Upper San Gabriel Valley Municipal Water District

(USGVMWD) is provided by regional wholesaler Metropolitan Water District of Southern California (MWD). MWD imports water from the State Water Project (SWP) and the Colorado River Aqueduct (CRA). CBMWD is available in the Whittier / La Mirada (WLM) service area at $1,698/AF, and USGVMWD is available in the San Jose Hills (SJH) service area at $1,498/AF.

California Domestic: Suburban is one of three major shareholders of California Domestic Water Company (CD) that is a local wholesale groundwater supplier. CD water is available in Suburban's Whittier / La Mirada service area. There are smaller shareholders that each own one share. CD limits share trading to existing shareholders; Suburban can purchase shares from other shareholders who no longer wish to own them. The availability of these shares for purchase is rare because they are limited and those who own them seldom sell them. Each share entitles the shareholder to 1.6 AF of water produced, treated, and delivered. The rate for entitlement from owned shares is $354/AF in 2025/2026. This rate is less than the 2026 CBMWD rate of $1,698/AF, representing a cost saving to customers.

Covina Valley Water Company: Suburban is a shareholder of Covina Valley Water Company (CVWC) formally known as Covina Irrigating Company (CIC). CVWC water is available in Suburban's San Jose Hills service area. Suburban can purchase shares from other shareholders who no longer wish to own them. The availability of these shares for purchase is rare because they are limited and those who own them seldom sell them. Each share entitles the shareholder to 1.0 AF of water produced, treated and delivered. The rate for entitlement from owned shares is $497.00/AF. This rate is less than the USGVMD rate of $1,498/AF, representing a cost saving to customers.

Water Cost Comparison: The table below shows that the MWD sources (CBMWD and USGVMWD) are always higher than the local sources (CD and CVWC).

The table below also shows that MWD rates increase every year to pay for regional reliability infrastructure improvements and increasing operations costs. Like purveyors, California's Conservation initiatives have caused MWD's demand to drop causing them to spread fixed costs over a smaller water volume. Conservation is causing MWD's rates to increase. The Tier 1 Treated rates for these regional suppliers are based on MWD's Tier 1 Treated and Untreated rates with the addition of treatment and surcharges to fund their organization.

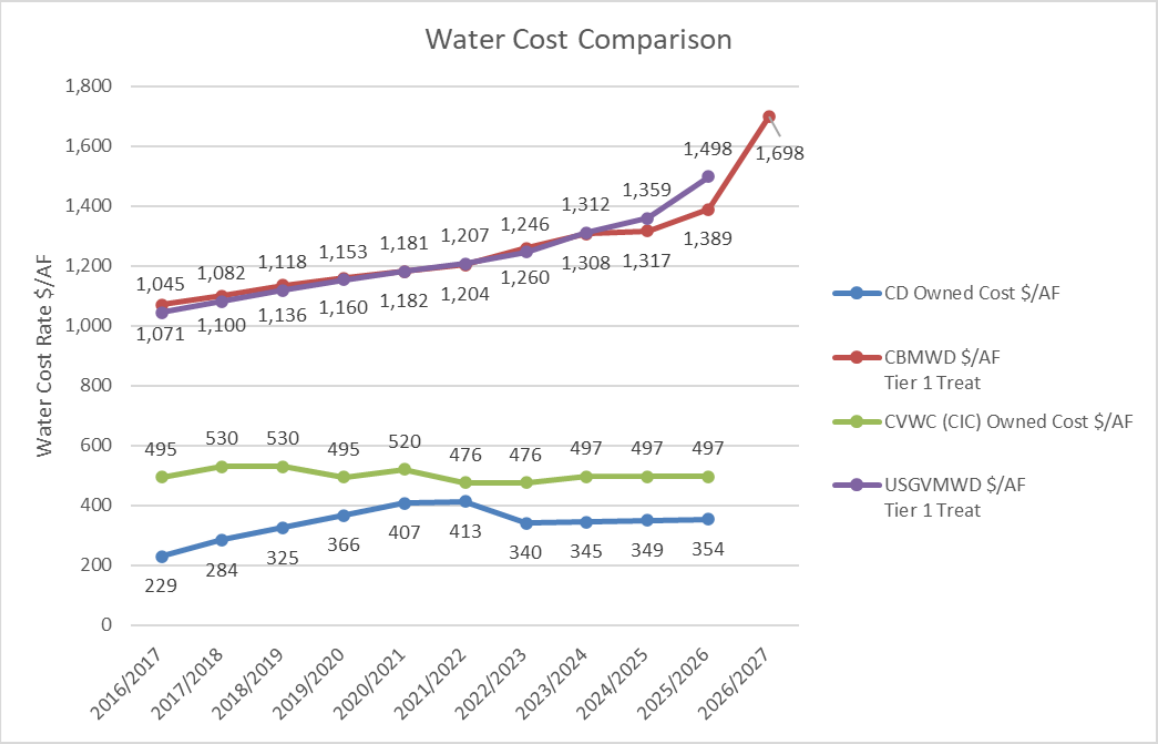


Chart: Water cost comparison of Local vs Imported Water Sources

Q26 Does Suburban use its current entitlements from local water sources?

A26 Suburban currently has insufficient groundwater production capacity to produce all its CB groundwater rights. In this rate case Suburban is proposing the construction of wells to produce all its rights and take advantage of low-cost CB water leases. Production of

currently unused CB water rights will not eliminate the need to purchase imported water to meet demands.

Suburban's production from MSGB is limited by its production capacity that is impacted by groundwater contamination. Suburban historically produces more water from MSGB than it has pumper share (Suburban's portion of the Operating Safe Yield). Suburban annually supplements its MSGB pumpers share by procuring temporary additional entitlement (replacement water, cyclic storage, leases) to cover its production. Suburban will sometimes carry over water from water year to the next if actual production exceeds supplemental entitlement acquired in anticipation of forecasted production. Suburban historically produces its entitlements from CD and CVWC.

Q27 Can Suburban use water entitlement from one local water sources to produce water from another local source?

A27 No. Suburban owns four primary sources of local water entitlement that include: 1. Main San Gabriel Basin water (MSGB) rights, 2. Central Basin (CB) water rights, 3. Covina Valley Water Company (CVWC) shares, and 4. California Domestic Water Company (CD) shares. **Entitlement from these sources cannot be substituted for each other**. For example, Suburban cannot use entitlement from CD or CVWC to produce more water from MSGB or CB from its own wells or use CB or MSGB water rights to purchase more water from CD or CVWC.

Water purchased from CVWC can only be used in Suburban's San Jose Hills system. Water purchased from CD can only be used in Suburban's Whittier / La Mirada system. CB groundwater produced from Suburban's wells can only be delivered to the Whittier / La Mirada system. MSGB groundwater water produced from Suburban's wells can be delivered to both San Jose Hills and Whittier / La Mirada systems, however, the volume

that can be delivered to each system is limited to the production facilities that serve those systems.

Q28 Does Suburban currently have sufficient entitlement to local sources to meet customer demand?

A28 No. Even if Suburban's had sufficient production capacity to produce its entitlements to the local sources listed above, they are insufficient to meet customer demand, requiring Suburban to purchase imported water. Increasing production from local water entitlements reduces imported water purchases and saves customers money.

Q29 Is water produced from local sources more reliable than water purchased from imported water sources?

A29 Yes, water produced from local sources is more reliable than water purchased from imported water sources.

CVWC and CD pump water from the Main San Gabriel Basin (MSGB) groundwater basin. The MSGB groundwater basin holds approximately 8-million-acre feet of water and is a very reliable water supply. The basin is primarily resupplied with local precipitation (rain and snow) from the San Gabriel Mountains and San Gabriel River. The MSGB groundwater basin is a very reliable source. Alternatively, MWD sources its water from The SWP and the CRA.

The SWP captures water in Northern California from the Eastern Sierras and delivers it to Southern California via the California Aqueduct. The SWP relies on earthen levees to pass water across the Sacramento Delta. The levees were constructed in the mid 1800's, are not engineered or constructed to resist seismic motion, and are susceptible to failure

in an earthquake event that is likely in California. If a levee was to fail, sea water from the San Francisco Bay would flood into the delta causing the water quality in the delta and levees to be too salty for drinking or agriculture. This would effectively cut off one of MWD's two sources of supply. It could take months or years for the water quality to return to normal, making SWP an unreliable source.



Photo: Breached Levee from Sacramento Delta Jones Tract Flood of 2004

In the most recent drought, the Eastern Sierra's experienced record low snow precipitation resulting in the Department of Water Resources (DWR) who operates the SWP to cut allocations to 0.0%. This was unprecedented. MWD was required to enforce draconian water use restrictions, including a complete ban on outdoor watering, on parts of its system that are served 100% with water from SWP. Human-caused climate change is leading to longer and more severe droughts that make the SWP an unreliable source.

The CRA transports water from the Colorado River to Southern California. Seven US states entered the Colorado River Compact in 1922 to allocate water from the Colorado River. Later the US entered a treater with Mexico to provide them an allocation from the Colorado River. The river has never delivered the total allocation, and that was not a problem for many years as the western states, except for California were slow to develop.

California used water that was not used by other states. In recent decades population growth in the other western states has dramatically increased their demand on the Colorado River. The oversubscribed river is not keeping up and massive reservoirs behind Hoover Dam and Glen Canyon Dam are seeing levels of water stored falling every year. The western US states and Mexico are currently negotiating to adjust their usage to balance the demand on the river; this will likely lead to California, and therefore MWD, reducing the amount of water that it can get from the Colorado River. The competition for declining water on the Colorado River makes the CRA an unreliable source.

Long-running droughts in the west are continuing to add to the strain on the Colorado River. While California has seen recently experienced some above average rain fall years the Colorado River watershed has not. The lower-than-average inflow is further contributing to the drop of stored water levels in damns on the Colorado River, exacerbating competition for water and making the CRA an unreliable source.

CVWC and CD benefit from the reliability of the Main San Gabriel Basin (MSGB), a locally sourced and consistently replenished groundwater supply. In contrast, MWD's imported water from the State Water Project and Colorado River Aqueduct faces increasing risks from drought, seismic vulnerability, and interstate competition. These challenges make MWD's sources less dependable, reinforcing the value of MSGB as a stable and resilient water supply.

Q30 Does water produced from local sources produce less greenhouse gas emissions than water purchased from imported water sources?

A30 Yes, water produced from local sources produces less greenhouse gas emissions than water purchased from imported water sources.

Water pumping in California uses 12% of the state's electricity. Electricity production is a primary contributor to greenhouse gas emissions that are causing human-caused climate change that is leading to extended and more severe droughts, and worsening wildfires. To combat human-caused climate change, organizations and individuals need to reduce their greenhouse gas emissions where they can.

MWD imports water hundreds of miles from Northern California and the Colorado River into its Southern California service area. The CRA uses five massive booster stations to lift the water over mountain ranges for delivery to Southern California. Likewise, the SWP has 20 pump stations, including the Edmonston Pumping Plant that is the highest single lift water pump station in the world. These pump stations consume massive amounts of electricity whose generation contributes to greenhouse gas emissions.



Photo: A. D. Edmonston Pumping Plant, has 14 x 4-stage 80,000 horsepower pumps that lift water 1,925 feet over the mountains and consume 787 MW of electricity

Likewise, groundwater well pumps use electricity to lift water from the groundwater basin into the distribution system. However, the amount of electricity used for pumping groundwater is substantially less than the power used to transport water from SWP and CRA. For this reason, using local sources like MSGB instead of imported water sources

allows Southern California groundwater producers like Suburban to reduce its greenhouse gas emissions and its contribution to human-caused climate change.

Q31 Should CPUC adopt inclusion of Suburban's purchase of 72 CD shares for $1,098,000 in its rate base in this GRC?

A31 Yes. The CPUC should adopt Suburban's purchase of CD shares, summarized in the table below, in its rate base in this GRC.

Date	Name	Price/Stock	Stock	Amount
6/15/2023	Cal Domestic	15,250	72	1,098,000

The 72 CD shares provide Suburban annual entitlement to 115.2 AF of CD water that currently costs $354/AF, a substantial saving when compared to CBMWD that will cost $1,698/AF in 2026. Suburban performed a cost benefit analysis that determined that CD shares save customers $2,461,510 over 40 years with a favorable Internal Rate of Return of 75.22%, achieving break even after 6 years with very low initial cash outflows and substantial positive savings into perpetuity as the CBMWD's higher rate increases at a faster rate than the lower CD rate. This entitlement provides Suburban access to CD water that is sourced from the MSGB which is substantially more reliable than imported water from MWD. This entitlement provides Suburban access to water that requires the emission of less greenhouse gases than alternative imported water sources.

Q32 Should CPUC adopt inclusion of Suburban's purchase of 52 CVCW shares for $755,800 in rate base in this GRC?

A32 Yes. The CPUC should adopt Suburban's purchase of CVWC shares, summarized in the table below, in its rate base in this GRC.

Date	Name	Price/Stock	Stock	Amount
4/11/2023	Covina Irrigating		7	46,800
4/11/2024	Valencia Heights (CIC)	15,800	35	553,000
4/3/2024	Valley County (CIC)	15,600	10	156,000
Total			52	**755,800**

The 52 CVCW shares provide Suburban annual entitlement to 52 AF of CVWC water that currently costs $497/AF, a substantial saving when compared to USGVMWD that costs $1,498/AF. Suburban performed a cost benefit analysis that determined that CVWC shares save customers $466,913 over 40 years. The customer benefit from this purchase increases every year into perpetuity as the USGVWD's higher rate increases at a faster rate than the lower CVCW rate. This entitlement provides Suburban access to CVWC that is sourced from the MSGB which is substantially more reliable than imported water from MWD. This entitlement provides Suburban access to water that requires the emission of less greenhouse gases than alternative imported water sources.

Q33 What projects were completed that were not requested in GRC Application 23-01-001 and not included in Decision 24-12-030?

A33 I discuss these projects below.

Pipeline Replacements

In GRC decision 21-10-024 Suburban's request to replace 1% per year of its 860 miles of pipe in 2022 was adopted.

Suburban did not receive its GRC decision for the capital projects in 2023, 2024 and 2025 until December 23, 2024, after projects in 2023 and 2024 were constructed and

serving customers. Suburban needed to proceed with projects required to address system issues.

Suburban set out to replace 1% of pipelines in 2023 and 2024 to be consistent with the 1% replacement rate adopted in the previous GRC and to be consistent with its GRC application. All construction projects, including replacement pipeline construction experienced massive cost increases resulting from the generationally unprecedented period of inflation that followed the Global Covid19 pandemic and supply chain disruption. The high costs resulted in less pipe being constructed for the same dollar amount.

Suburban prudently limited the amount of pipe replacement spending to limit capital spending to the amount approved in 2022 in D-21-10-024 of $18.1M that was used in the 2023 attrition year and in 2024 prior to receiving the GRC decision. Suburban replaced 0.92% of pipelines in 2023 for $19.4M, and 0.44% of pipelines in 2024 for $13M. These pipes were in the ground and serving customers in the year they were constructed.

On December 23, 2024 Decision 24-12-030 adopted $4.851M for 2023, and $4.445M for 2024; these amounts are far lower than $19.4M and $13.0M that Suburban had spent constructing pipelines in 2023 and 2024 prior to the adoption of the decision.

I discuss pipeline replacements in more detail in separate stand-alone testimony.

Recurring Projects

Suburban did not receive its GRC decision for the capital projects in 2023, 2024 and 2025 until December 23, 2024, after projects in 2023 and 2024 had been constructed and were serving customers. Suburban needed to proceed with projects required to address system issues.

Suburban needed to address emergencies that fall under the recurring replacement projects including but not limited to service line, hydrant and valve replacements. Recurring replacement projects are typically reactive without much time to plan. They are categorized by CPUC asset category to ensure they are tracked and depreciated accurately.

All construction projects, including recurring project construction, experienced massive cost increases resulting from the generationally unprecedented period of inflation that followed the Global Covid19 pandemic and supply chain disruption.

On December 23, 2024, decision 24-12-030 adopted $6.82M for 2023 and $8.62M for 2024; these amounts were lower than the $12.1M and $13.0M Suburban spent in 2023 and 2024, respectively, prior to the decision's adoption.

V. ADVICE LETTER PROJECTS

Q34 What progress has Suburban made in completing projects that were adopted as advice letter projects in Decision 24-12-030?

A34 The following describes Suburban's progress in completing advice letter projects adopted in Decision 24-12-030.

Suburban requested several projects in General Rate Case (GRC) Application 23-01-001 that had been previously approved in the previous GRC Decision 21-10-024 but not been completed due to adopted capital constraints (because the Commission in D.21-10-024 did not adopt the full capital budget necessary to complete all of the projects that Suburban has proposed in that GRC application) and equipment availability delays. Suburban has completed several of these projects and is under contract with vendors to complete the remaining projects.

Decision 24-12-30, issued on 12/23/2024, authorized Suburban to file Tier 2 advice letters for the projects shown in the table below. Suburban is not requesting to add these projects to the rate base in this GRC application and will file separate advice letters as adopted in the Decision. However, for transparency, the following table summarizes Suburban's progress in completing the projects and when the remaining projects are scheduled for completion.

Description	2023	2024	2025	Status
Plant 128 Cost of Removal	$398,908			Completed 2025
Plant 128 Electrical Upgrades		$2,292,188		Completed 2025
Plant 128 Reservoir Replacement	$937,813	$5,055,289		Completed 2024
Plant 506 Generator		$546,535		Completed 2024
Plant 235 Generator		$496,704		Completed 2025
Plant 165 Generator		$496,704		Completed 2024
Plant 118 Generator		$379,068		Generator delivered 10/2025. Project anticpated to be completed Q2, 2026
Plant 119 Generator			$592,202	Completed 2025
Plant 504 Generator			$496,704	Completed 2025
Plant 121 Generator			$852,702	Generator delivery on 05/2026. Anticipate project completion on Q2, 2026.
Plant 201 Generator			$832,827	Generator delivery on 01/2026. Anticipate project completion on Q2, 2025.
Plant 140 Electrical Upgrades			$817,662	Completion anticipated Q2, 2026
Plant 158 Electrical Upgrades			$796,284	Completion anticipated Q2, 2026
Plant 217 Slope Stability			$857,000	Completed 2025
Plant 118 Electrical Upgrade*		$1,145,000		Completion anticipated Q2, 2026
Total	$1,336,721	$10,411,488	$5,245,381	

* Project was not shown in the table on page 75 but authorized on page 96 of D-24-12-30

The generator projects currently under contract are listed below along with their estimated delivery dates. Issuing purchase orders for these projects took additional time due to the need for detailed design work to ensure compatibility with our existing electrical infrastructure.

Site	PO Date Issued	Delivery Status	Delivery Lead Time	Delivery Date
Plant 118	4/11/2023	Pending	57 Weeks	October 2025
Plant 121	2/17/2025	Pending	51 Weeks	June 2026
Plant 201	2/18/2025	Pending	65 Weeks	July 2026

Suburban requested the projects that were expected to be completed in 2023 in GRC Application 23-01-001. Suburban completed as many of these projects as possible in 2023 but limited spending on all projects to stay within the attrition year CAPEX amount for 2023 that was adopted in GRC Decision 21-10-024.

The Decision 24-12-030 for Application 23-01-001 was delayed to 12/23/24 approximately 12 months past the 1/1/24 rate implementation date leaving Suburban without an adopted CAPEX amount to work with in 2024. Suburban completed as many of these projects as possible in 2024 but limited spending on all projects to stay within the attrition year CAPEX amount for 2023 that was adopted in GRC Decision 21-10-024.

Upon receiving Decision 24-12-030 on 12/23/25, that included the adoption of these advice letters projects, Suburban proceeded to work with consultants and vendors to complete the remaining projects that were not already completed in 2023 and 2024. Suburban has completed as many of these projects as possible in 2025. Some of these projects include electrical panels and generators that have very long lead times, resulting in their completion being anticipated in Q2 2026.

Suburban has made great progress completing advice letter projects and will have completed all of them by Q2 of 2026.

VI. CONSTRUCTION COSTS ESCALATION

Q35 What is Suburban doing to ensure that it has enough funding to cover rapidly increasing construction costs to provide a safe and reliable water supply?

A35 Suburban is applying the generally accepted principle of escalating past and future costs. Past costs must be adjusted or escalated to represent current costs when they are used for estimates. The concept of escalation is like inflation except that escalation is specific to an item. While escalation includes inflation, it is also driven by changes in technology, standard practices, and supply and demand. Cost escalation will contribute to a project cost overrun because the past value has increased beyond the estimate. Future costs must also be escalated because the value of items may increase or decrease over time. Recent historical data demonstrates that costs will increase. The construction and building industry are more focused fields that have different cost impacts than the normal economy. As such, the Consumer Price Indices don't accurately apply to the cost escalation of engineering projects. Suburban applied Engineering News Record (ENR)'s Building Cost Index as the escalation factor. ENR is a leading publication and information provider for the construction and engineering industry. ENR's purpose is to provide news, analysis, commentary, and data to construction professionals, to make informed decisions and improve operations. ENR is well known in the industry and the Commission has repeatedly approve its use in determining escalation rates. For example, in D.18-09-017, the Commission stated that ENR was an "industry-recognized tool" used to develop "a realistic estimation rate." (D.18-09-017, p. 137.)

The index uses the skilled labor of bricklayers, carpenters, and structural ironworkers' rates from 20 large cities plus structure steel and shapes, lumber and Portland cement spot cost. The ENR cost indexes provide a weighted average of material costs, expressed as an index number to track trends in the overall cost of building over time. Each component (labor and materials) is multiplied by its respective weight. The results are

then totaled and expressed as an index number. The indexes are not designed to reflect the specific cost of individual projects but rather the general cost environment. The index has a long withstanding reputation, lasting over 100 years. It was originally established in 1913 using 68.38 hours of skilled labor of bricklayers, carpenters, and structural ironworkers. ENR provides 59 additional constructive material costs.

The table below shows the index value or aggregate of each component by month for the last 15 years, from January 2010 through December 2024. An explanation of the index is described in the following section.

In January 2011, the index value was 4,969. Over the course of year, the index increased to 5,115 by December. The average index for 2011 was 5,058. The percent increase from December 2010 to 2011 was 2.92% [(5,115-4,970)/4,970]. The average percentage increase for the same period was 3.58% [(5,058-4,883)/4,883)

The 20-cities average index is generally more appropriate to individual cities because it has more elements incorporated, and it has a smoother trend. Indexes for individual cities are more susceptible to price spikes that might not be suitable for trending. The national index includes cities in the west coast like Los Angeles, San Fracisco, and Seattle. Cities in the Midwest include, Chicago, Detroit, Cleveland, St. Louis. Cities on the east coast include Pittsburg, Boston and Philadelphia. Specific cities may reflect differences in labor productivity and building codes. The 20-cities index averages out the productivity and building codes and smooths out the index. Los Angeles has some of the highest labor costs in the nation, and using the national index is a conservative approach.

Suburban is using the average ENR index to escalate the historical cost to the current 2025 estimate. For 2026, 2027, and 2028 years, the estimation is based on the trend of the previous 10 years average indices. This provides the most probable cost for forecasts using reliable industrial metrics to build an accurate budget for construction.

Below is a table of the 15 years of ENR Construction Cost Index:

Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Dec-Dec	Avg-Avg
2010	4800	4812	4811	4817	4858	4888	4910	4905	4910	4947	4968	4970	4883	3.65 %	2.39%
2011	4969	5007	5010	5028	5035	5059	5074	5091	5098	5104	5113	5115	5058	2.92 %	3.58%
2012	5120	5122	5144	5150	5167	5170	5184	5204	5195	5204	5213	5210	5174	1.86 %	2.29%
2013	5226	5246	5249	5257	5272	5286	5281	5277	5285	5308	5317	5326	5278	2.23 %	2.01%
2014	5324	5321	5336	5357	5370	5375	5383	5390	5409	5442	5468	5480	5387	2.89 %	2.07%
2015	5497	5488	5487	5501	5490	5507	5510	5514	5541	5543	5563	5574	5518	1.72 %	2.43%
2016	5561	5588	5605	5632	5637	5636	5659	5669	5657	5681	5690	5722	5645	2.66 %	2.30%
2017	5734	5742	5789	5802	5816	5826	5844	5862	5873	5867	5902	5914	5831	3.36 %	3.29%
2018	5921	5932	5942	5954	5995	6005	6043	6060	6081	6093	6093	6105	6019	3.23 %	3.22%
2019	6107	6108	6110	6110	6112	6118	6131	6147	6147	6169	6179	6199	6136	1.54 %	1.94%
2020	6214	6217	6218	6234	6239	6247	6258	6268	6300	6344	6392	6445	6281	3.97 %	2.36%
2021	6459	6493	6545	6612	6754	6876	7006	7201	7214	7244	7255	7289	6912	13.10 %	10.05%
2022	7359.09	7457.68	7565.14	7677.45	7785.64	7889.98	7950.39	7952.50	7958.27	7965.04	7966.90	7971.96	7791.67	9.37 %	12.73%
2023	7976.68	7989.84	8000.61	8000.86	8054.43	8095.33	8179.87	8227.44	8240.55	8255.58	8268.19	8272.36	8130.15	3.77 %	4.34%
2024	8277.69	8288.93	8302.79	8305.54	8307.78	8322.09	8331.36	8378.62	8404.89	8404.93	8405.03	8407.35	8344.75	1.63 %	2.64%
2025	8407.47	8436.93	8437.01	8463.02	8520.44	8563.30	8577.82	8601.54	8616.58			8550.00		2.55 %	2.23%
2026														3.91 %	3.41%
2027														4.74 %	4.45%
2028														5.24 %	5.01%

Red values are trended based on the last 10 years that fit the least square method. ENR data is from URL: Building Cost Index History - As of October 2025 | Engineering News-Record

VII. WILDFIRES & CLIMATE CHANGE

Q36 Are you familiar with the recent devastating Palisades and Eaton fires in the Los Angeles area on January 7, 2025?

A36 Yes. On January 7, 2025, Los Angeles County was battered with the most severe windstorm in over a decade. Wind gusts exceeded 100 miles per hour, and a brush fire ignited in the Palisades area within minutes. The fire spread quickly to 200 acres, fueled by dry vegetation from an extremely dry winter. Embers from the fire caused multiple hot spots to ignite, leading to an uncontrollable wildfire throughout the western side of Los Angeles County. The Palisades Fires caused destruction and damage to 7,887 structures and killed 12 individuals.

The same windstorm sparked a wildfire in the San Gabriel Valley, in Altadena and Pasadena. A fire started below a transmission power tower in Eaton Canyon that burned south into neighborhoods, before spreading east and west to destroy homes in the Hastings Ranch area of Pasadena and a large portion of Altadena. The Altadena Fire caused destruction and damage to 10,487 structures and killed 19 individuals.

Q37 Is it possible for a wildfire like the Palisades and Eaton fires to spread to residential neighborhoods in Suburban's service area?

A37 Yes, like many areas of California, Suburban's service area abuts wildland that is categorized as high fire risk; neighborhoods in these service areas could be destroyed in a high wind fire event.

Q38 What issues do water systems have that reduce their ability to fight fires and prevent the loss of customers' homes, possessions, and lives?

A38 Drinking water systems like Suburban's were never designed to fight the firestorms experienced in the Palisades and Eaton fires. This does not mean water systems don't play an important role in fighting these fires. Those fires would have caused more damage and taken more lives if the domestic water systems had not provided reliable and sufficient water to firefighters to stop structures from burning or slow the fires' spread to give residents time to evacuate safely. Undersized pipes, electrical power loss, deteriorating mains, and unavailable water storage tanks restrict or eliminate access to water for firefighting to protect customers' homes, possessions, and their lives.

Undersized Water Mains

The capacity of a pipe to pass water is a function of its internal diameter. The smaller the internal diameter, the smaller the area water has to move through the pipe. This causes the velocity to increase and with it friction, also known as headloss, increases. Headloss consumes available pressure and ultimately the loss of pressure is what limits how much water can pass through a pipe. Small diameter mains restrict fire flows and do not meet LA County Fire Department's minimum requirements.

Undersized pipes are not large enough to support modern 6-inch fire hydrant assemblies that have far greater capacity than the 4-inch fire hydrants that were installed on smaller diameter pipes. Fire hydrants can be upgraded from 4 to 6-inch when smaller pipes are replaced with larger ones. Undersized water mains restrict flows and must be replaced with larger diameter ones to improve flows and support larger capacity fire hydrants to meet fire department requirements.

Electrical Power Loss

Water systems need electricity to power the motors that drive the pumps that supply the system water to provide pressure and fill water tanks. Power supply is subject to interruption in windstorms when falling trees and branches break power lines, when cars hit power poles, and fires burn power poles. When power supply is interrupted, pumps cannot run to supply water from wells or other zones into areas where firefighting takes place. Water tanks store water, they cannot create it, if they are not continuously resupplied, they will eventually be depleted. When firefighters are simultaneously pulling water from multiple fire hydrants the demand is great, and the tank can be depleted quickly. Backup generators are an alternate source of electricity that are necessary to power pumps when the utility power service has been interrupted to ensure that a continuous flow of water is supplied into firefighting areas.

Main Breaks

Aging and deteriorating pipes are more likely to break, especially when they are under stress from high flows and pressure fluctuations that are experienced during firefighting events. When pipes break it bleeds pressure from the system resulting in a depressurization that reduces available fire flow capacity. When pipes break, they leak water that can drain tanks, and force firefighters to compete for water; this can cause water systems to run out of water. When pipes break, they have to be shut off to prevent them from draining the system and to be repaired. When they shut off, they reduce the distribution system's capacity for fighting fires. When water mains are shut off, the fire hydrants that are fed from those mains no longer work. Deteriorating pipes are a liability in a firefighting event because they can break, causing restrictions or the elimination of water available for firefighting, and they should be replaced.

Unavailable Water Storage

Water tanks balance supply and demand for a water system by storing excess water when a water system's supplies exceed its demand and providing water to a system when its demand exceeds its supplies. Water tanks only store water, they cannot create it. If the demands on the system exceed the supplies, the amount of water stored in the tank will run dry. Tanks are also designed to store water for temporary and limited emergency use when supply is interrupted. Again, this temporary supply is limited and will run out if not resupplied. Water tanks are also designed to store water for urban and suburban fires that typically consist of one or two structures. The fire department dictates the fire capacity that is made up of a required flow rate and duration based on the occupancy, use, construction, and size of a structure. Workpapers, Volume VI shows the standard that Suburban abides by to design and upgrade the water system. Water tanks provide a critical source of water for firefighting, however, the amount stored is insufficient for fighting wildfires like the Palisades and Eaton where multiple structures are burning simultaneously, and they need to be supplemented with resilient supplies, or they will run out of water.

Q39 How can Suburban improve its water system to improve its capacity for firefighting ?

A39 To improve its water system's capacity for firefighting, Suburban needs to invest in its water system, including replacing deteriorating and undersized water mains, installing backup power, and ensuring that reservoirs are available and storing water for emergencies.

Pipeline Replacement

To improve its water system to increase its capacity for fighting fires, Suburban needs to replace its undersized and deteriorating pipelines. Suburban has 865 miles of water distribution pipelines, that were mostly installed almost 70 years ago between 1955 and 1965. When these pipes were installed, they were sized to meet the fire flow requirements

and customer demands of the time. In the ensuing seven decades these demands have increased, and the recent fires show that even modern systems need to have larger capacity to simultaneously fight multiple structure fires. Many of Suburban's pipes are now undersized and need to be replaced with larger pipelines.

After seven decades of service these pipelines are deteriorating and many are failing. Suburban's extensive main break repair history is testament to the deterioration of its pipes. As pipes age the pipe wall material corrodes or leaches into the water, eventually the pipe wall weakens so much that it can longer hold the pressure inside, and the pipe breaks. Pipe deterioration cannot be stopped or reversed (see Direct Testimony of Jorge Lopez on Pipeline Replacements, Pipeline Rehabilitation Feasibility section), and replacing these pipes is the most effective way to prevent them from breaking.

Fire Hydrants

Fire Hydrants are essentially really large spigots that allow firefighters to pull large volumes of water from the drinking water system for firefighting. The size of the fire hydrant is the major factor in the amount of water that it can produce; the larger the hydrant the greater the fire flow available. Hydrants are more than the yellow brass fixture on the sidewalk, they are supplied by an underground pipe that connects to the water main. The size of the main that the hydrant is connected to dictates the size limits of the hydrant. 4-inch diameter water mains are too small to support 6-inch fire hydrants. When undersized and deteriorated pipes are replaced with new and larger pipelines, larger higher capacity fire hydrants can be installed that improve firefighting capacity. General Order 103-A, section 3.B. This section states that, when a main requires replacement for other reasons such as pipeline failures, the new main, if used and useful for fire protection purposes, shall be sized to accommodate the governing fire flow standard. When deteriorated and undersized pipes are replaced, the fire hydrants are also upgraded to have higher available fire flow capacity.

Generators

Fixed Backup generators are required to provide an alternative source of electricity to power water pumpers when utility power is not available. An Automatic Transfer Switch (ATS) senses when utility is not available and starts the generator and switches over the power, so the pump station is powered by the generator. Backup generators typically run on diesel fuel and sit upon a diesel storage tank that provides anywhere from 24 hours to 7 days a week of emergency power depending on the electrical load. When the backup power generator is required to run for extended periods, the fuel must be resupplied by a tanker. Backup power generators are required to provide an alternative source of electricity in power outages; they automatically switch on in outages and run on diesel that must be resupplied in extended power outages.

Fixed generators are selected over mobile generators for their vastly superior reliability and service to Suburban's customers. Backup power generators ensure the reliability of critical water supply sources that customers depend on for emergency supply and fire protection during power outages. Reliability is the utmost priority when designing backup power sources to provide fire protection and water service during power outages. Mobile generators are less reliable than fixed generators because of their dependence on delivery. Mobile generators require specialized delivery crews for transportation due to their large size and weight. The generators required to provide backup power to Suburban's plant sites weigh several thousand pounds.

There will be a tremendous demand for mobile generators from other water companies, energy companies such as gas and power, schools, gas stations, commercial buildings, and manufacturers throughout southern California. The specialized delivery crews may

be unavailable to deliver mobile generators to Suburban's plant sites during this demand, which would compromise the water system's ability to provide firefighting water. Furthermore, roads and pathways to the plant site may be compromised by fires, natural disasters, fallen trees or poles, or other unforeseen obstacles, preventing the delivery of the mobile generator. Fixed generators are far more reliable backup power sources for Suburban's critical facilities because they do not require delivery.

Fixed generators turn on automatically when utility power drops out, whereas mobile generators could take several hours to move, fuel, and start-up. The ATS automatically switches the booster pumps and well buildings to backup power when utility power is unavailable and prevents service interruptions. In the event of power outages such as PSPS, Suburban's plant sites will provide continuous service to its customers. In contrast, there can be significant delays for the plant site to receive power while waiting for a mobile generator to be mobilized and connected to the facilities. Unlike mobile generators, fixed generators are also installed in sound-attenuated enclosures that minimize noise transmission to surrounding neighbors. This is a very important consideration for the customers who live adjacent to load generators that will be required to run 24/7 during extended power outages.

Q40 Does the Sativa water system have an elevated fire risk?

A40 Yes, the Sativa water system has an elevated fire risk because it is densely developed with narrow streets that are choked with parked cars.

Q41 Has the available fire flow at Sativa been sufficient to protect customers' homes, possessions, and lives from fire?

A41 No. The Sativa water system that Suburban acquired had insufficient available fire flows from hydrants, had no water storage, no ability to pump stored water and no backup power source to power pumps during an electricity utility outage.

Sativa Water System

In 2022, Suburban acquired the Sativa water system after it had been placed into the care of an administrator due to a failure to address outstanding service issues, including poor water quality and insufficient fire flow. Sativa's densely packed development with structures consuming most of the lots and narrow streets puts it at elevated risk, like being adjacent to a wildland area. The narrow streets will make it difficult to quickly evacuate Sativa so firefighting is critical to save lives. Sativa's aging, deteriorating, and undersized pipes, and lack of water storage and backup power supply put these customers at an elevated risk of fire damage to their homes, possessions, and lives.

Pipeline replacement

Sativa's pipelines were installed 80 years ago and were not sized for modern fire flows, or for the density of development that has occurred in this service area. Sativa's undersized pipes could not deliver the required fire flow to fire hydrants for use in saving homes. Sativa's dense development and narrow streets create a high risk that fires will spread, and firefighters will have difficulty getting engines close enough to fight fires. Having sufficient fire flow at every hydrant is critical for firefighters to be able to put out fires and prevent them from destroying the entire community. It was critical that Suburban strategically replace aging and undersized mains to maximize the fire flow available at Sativa's hydrants. From 2024 to 2025, Suburban replaced 1.5 miles of pipeline in the sativa system. The table below shows that fire flows improved

dramatically after the mains were replaced, giving firefighters a chance to save Sativa's homes in a fire event.

Address	FH No	GPM@20psi before pipeline replacement	GPM@20psi after pipeline replacement
13031 S Vesta Ave.	8936	854	1592
13334 S Largo Ave.	8955	1135	3356

Tanks and pump station

Sativa does not currently have water tanks and has no stored water for fighting fires. Sativa's wells are insufficient size to provide the required fire flow for fighting fires. Water storage tanks are required at Sativa to store water that can be used to fight fires.

Sativa is located on the coast plain and has no elevated land for constructing elevated tanks to gravity supply stored water to the system and instead relies on pumps to supply water. A booster station is required to pump water from the proposed storage tank to provide the system with water for firefighting.

In this GRC Suburban is planning to construct reservoirs and pumping facilities at Plant 802 to ensure Sativa can store and pump water for fire protection. Suburban engaged consulting engineering firm Wood Rodgers, Inc., to evaluate the Sativa water system to determine required improvements to provide sufficient fire flow. The consultants determined that the system needs 1.15 million gallons (MG) of storage. The proposed improvements to Plant 802 will provide pumping and storage capacity required to fight fires.

Back-up power generator

The Sativa system needs a backup power generator to ensure that it can automatically run when utility power is not available. Suburban plans to add a fixed backup power generator in this GRC to ensure that water for fire protection. Portable backup generator doesn't provide the reliability required to supply the water needed for firefights. The Sativa water system has an elevated fire risk because it is densely developed with narrow streets that are choked with parked cars. The Sativa water system that Suburban acquired had insufficient available fire flows from hydrants, had no water storage, no ability to pump stored water and no backup power source to power pumps during an electricity utility outage.

It was critical that Suburban strategically replace aging and undersized mains to maximize the fire flow available at Sativa's hydrants; doing so has dramatically improved fire flows giving firefighters a chance to save Sativa's homes in a fire event. Water storage tanks are required at Sativa to store water that can be used to fight fires. A booster station is required to pump water from the proposed storage tank to provide the system with water for firefighting. The Sativa system needs a backup power generator to ensure that it can automatically run when utility power is not available.

Suburban's service area abuts wildland that is categorized as high fire risk; neighborhoods in these service areas could be destroyed in a high wind fire event.

Water systems face several issues during wildfires that reduce their ability to fight fires and prevent the loss of customers' homes, possessions, and lives. Pipe deterioration cannot be stopped or reversed, and replacing these pipes is the most effective way to prevent them from breaking. When deteriorated and undersized pipes are replaced the fire hydrants are also upgraded to have higher available fire flow capacity. Backup power generators are required to provide an alternative source of electricity in power outages;

they automatically switch on in outages and run on diesel that must be resupplied in extended power outages.

The Sativa water system that Suburban acquired had insufficient available fire flows from hydrants, had no water storage, no ability to pump stored water and no backup power source to power pumps during an electricity utility outage. The Sativa water system has an elevated fire risk because it is densely developed with narrow streets that are choked with parked cars. The planned improvements at Sativa will provide hydrant, pumping, storage and backup power capacity required to fight fires and protect homes, possessions, and lives for the customers of the Sativa service area that has an elevated fire risk.

VIII. GREEN PROJECTS

Q42 Does your testimony include "Green Projects"?

A42 Yes. There are projects designed to reduce greenhouse emissions and support the use of clean energy.

Suburban has included plans in this testimony to replace Gas Engine Vehicles with electric and hybrid vehicles to reduce emissions and carbon footprint, reduce greenhouse gases and improve air quality and public health.

The testimony includes various projects that increase or make more reliable Suburban's local Central Basin groundwater supplies. These sources require significantly less electricity than imported water sources and reduce Suburban's carbon footprint.

This investment in clean vehicles, and local water sources directly supports CPUC's Environment Social and Justice ESJ action plan Goal #2 to invest in clean energy resources that benefit ESJ communities by improving air quality and public health. Testimony demonstrates that it is beneficial to customers to transition to EV's. Additional

information about Suburban's ESJ goals are addressed in Carmelitha Bordelon's direct testimony.

IX. REDUCING COSTS WITH INTERNAL ENGINEERS

Q43 Can Suburban's customers afford to pay more for consulting engineers when internal engineers cost less?

A43 No. Customers cannot afford to pay more for engineering when Suburban can increase its internal engineering capacity that cost less than more costly external consultants.

Q44 Does adding two engineers to Suburban's engineering team reduce project costs that are passed on to customers?

A44 Yes, adding two engineers to Suburban's engineering team, who will be allocated to Suburban's capital projects, will reduce project costs passed on to customers.

Suburban plans to add two Associate Engineers to support the delivery of capital projects to reduce the need for consulting engineers. These engineers will ensure projects are completed efficiently, promptly placed into service, and provide customers with maximum value. By expanding internal engineering capacity, Suburban will reduce reliance on external consultants and lowering project costs that are passed on to customers.

Suburban's current engineering department has insufficient staffing for project execution, and relies on third-party consultants for design and construction management. The following sections outline the advantages of using internal staff over external engineering consultants.

By investing in internal engineering capacity, Suburban will reduce reliance on costly external consultants, improve asset management, and ultimately deliver greater customer value. Suburban requests the addition of two associate engineers starting in 2027 for

$211,536 (50.85*2080*2) annually.

Job Title	Salary + Benefits
Associate Engineer	$171,344
Associate Engineer	$171,344
Total	$342,688

Engineering Consultant Costs

Suburban's internal staff performs engineering work at a lower cost than external consultants. Consultant fees are marked up to generate profit for their firms and include overhead for marketing and corporate costs, making them more expensive. Internal labor does not include profit margins and offers better value over time.

The following table compares the costs of similar roles between internal staff and external consultants, demonstrating the cost saving advantage of using in-house resources. The external rates are based on Carollo Engineers Inc.'s 2025 Fee Schedule that is included as an appendix to this memo.

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To illustrate the significant cost difference between internal and external consultants, consider a scenario where two engineers each work full-time (2,080 hours) on a project for one year. The table below compares the total annual cost of using internal staff versus

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external consultants. By using two internal engineers instead of two external consultants, our customers save $572,512 per year.

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Institutional Knowledge

Consulting engineers do not have institutional knowledge of Suburban's water systems, are not experienced with CPUC asset reporting compliance requirements, and are not fully dedicated to serving Suburban's customers. Suburban's internal engineering staff perform core engineering services such as civil and mechanical design and construction management for capital projects. Specialized engineering services like electrical, structural, and hydrogeologic are outsourced.

Suburban's internal engineering team has extensive experience designing tanks, pipelines, pump stations, and valve stations. They work closely with operations personnel to incorporate lessons learned from past projects into new project designs, avoiding costly construction modifications that result in costly change orders. Suburban's internal staff deliver a superior engineering service due to their institutional knowledge because they are familiar with our water system, standards, and operations, and have established

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relationships with permitting and inspection agencies.

In contrast, external consultants serve multiple clients, are less responsive and less dedicated to our projects than internal engineers that are dedicated solely to our capital projects. Internal engineers are more focused on delivering timely and cost-effective results. The consultant's personnel rotate between projects requiring Suburban engineering staff to repeatedly provide background on how Suburban's water systems work. When new consultants are brought in, they must learn Suburban's design standards, organizational relationships, and operations expectations. This onboarding process takes time and diverts internal staff from their core responsibilities, leading to increased costs and project delays.

Suburban's internal engineering staff have institutional knowledge and greater focus on Suburban's water system and projects that provide greater value to customers than consultants.

CPUC Asset Recording Compliance

Suburban's internal engineering team focuses on delivering projects on time, ensuring efficient closeout, and accurately transferring assets from Construction Work in Progress (CWIP) to Plant in Service. They create detailed bid schedules that categorize assets correctly and collaborate closely with the accounting team to maintain accuracy and efficiency.

In contrast, external consultants lack familiarity with the California Public Utilities Commission (CPUC) asset chart of accounts. As a result, they don't prioritize asset categorization. For example, on a pipeline project internal engineers break down the bid schedule by asset types such as pipelines (343), fire hydrants (348) and services (345).

External consultants instead use categories like excavation, trench bedding, and backfill, which made it more difficult to map asset costs to specific chart of account categories. Suburban's internal engineers are trained to ensure assets are properly identified and recorded saving time and money for customers.

Project closeout also requires coordination with internal departments including Accounting, Inspection and Operations. Suburban's engineers share office space and priorities with these internal departments and collaborate directly to efficiently close out projects. In contrast, external consultants typically work with municipalities that have less critical timelines for closing out projects than investor-owned utilities like Suburban. As a result, consultants are not as responsive or focused on meeting these administrative schedules.

Suburban's internal engineers are focused on closing out projects timely to meet CPUC asset recording compliance requirements, and external consultants are not.

Engineers' Role and Responsibilities

Suburban's internal engineers do not have sufficient capacity to complete all the engineering work required to deliver projects. Suburban's supplements its internal resources with consulting engineers

Suburban's internal engineers handle a wide range of daily responsibilities, including preparing plans and specifications, reviewing submittals, conducting field investigations, and securing permits. Acquiring permits requires more than just filling out a form. Permits require a technical understanding of the projects and experience working with permitting agencies to understand their requirements that include document submittals such as compaction reports, traffic control plans, and noise studies. Suburban's internal

personnel also support construction inspectors by processing change orders, reviewing invoices, and responding to contractor inquiries.

Suburban's engineers collaborate and coordinate closely with internal teams across operations, water quality, production, and accounting to ensure projects are well-coordinated and executed efficiently to minimize impacts on customer service.

Suburban's engineering workload exceeds the existing capacity of its internal staff requiring Suburban to use consultant engineers to supplement its internal staff. With sufficient internal staff Suburban can complete this workload and reduce its need for consultant engineers.

For example, from 2022 through 2024 we spent $4,632,840 on consulting engineers performing work that could have been performed for less cost with internal engineers.

CONSULTANT	2022	2023	2024	TOTAL
CANNON	126,159.70	43,211.32	214,089.34	**383,460.36**
CAROLLO ENGINEERS INC	634,714.23	687,945.41	455,021.03	**1,777,680.67**
CIVILTEC ENGINEERING INC.	200,503.74	128,000.99	327,694.52	**656,199.25**
DRP ENGINEERING INC	214,128.00	185,209.00	156,207.50	**555,544.50**
HAZEN AND SAWYER	123,080.94	52,457.50	0.00	**175,538.44**
INTERA INCORPORATED	114,931.87	84,368.34	210,377.50	**409,677.71**
TETRA TECH INC	175,022.95	5,017.90	198,463.95	**378,504.80**
WOOD RODGERS INC	0.00	29,003.73	267,230.22	**296,233.95**
TOTAL	**1,588,541.43**	**1,215,214.19**	**1,829,084.06**	**4,632,839.68**

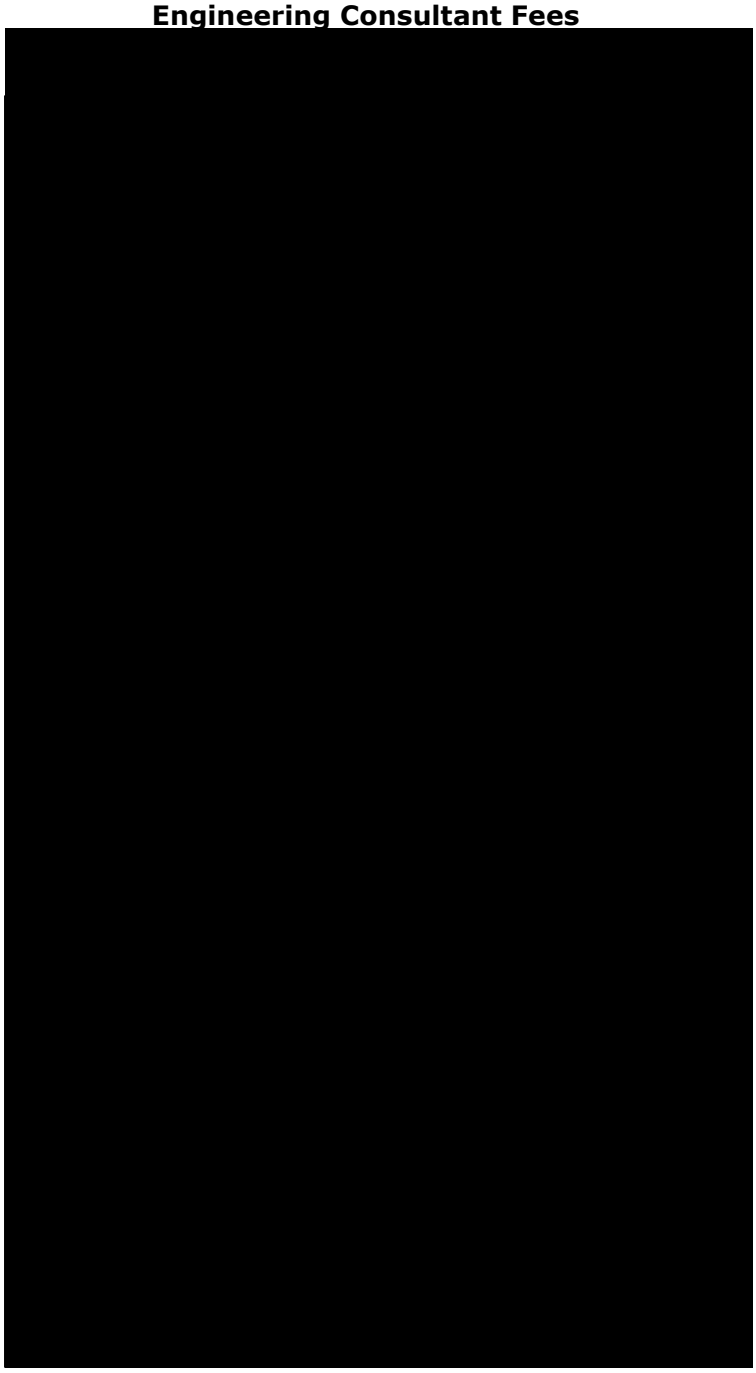
Adding two Associate Engineers to Suburban's internal engineering team will reduce project costs that are passed on to customers, improving efficiency, and ensuring regulatory compliance. Internal engineers offer superior value through their institutional knowledge, responsiveness, and familiarity with CPUC asset requirements. Their ability to collaborate across departments and streamline communication accelerates project

timelines and minimizes delays.

By investing in internal engineering capacity, Suburban will reduce the need for more costly external consultants, improve asset accounting, and deliver greater customer value. Suburban requests the addition of two associate engineers starting in 2027 for $211,536 annually.

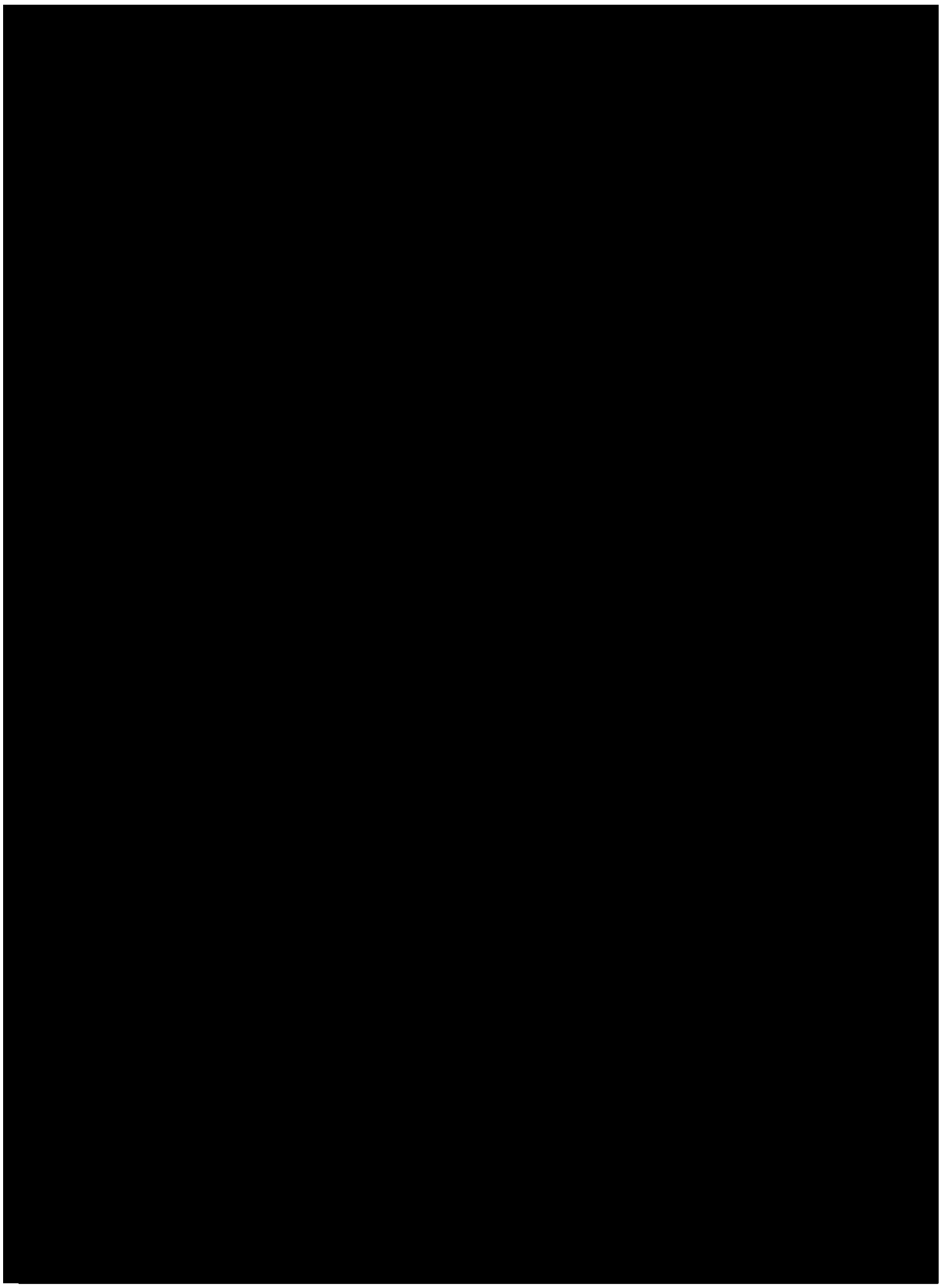
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Engineering Consultant Fees



Page 1 of 2

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X. ADMINISTRATIVE & GENERAL (A&G) SHARED SERVICES

Q45 Does Suburban include Administrative & General (A&G) shared services costs for constructing its capital assets?

A45 Yes, the table below shows the costs by year. Steve Lubertozzi discusses Administrative and General Services costs in more detail in his testimony.

Description	2026	2027	2028
A&G Costs	$ 730,708	$ 753,932	$ 777,195

XI. 2026 PROPOSED CAPITAL BUDGET

The capital projects for 2026 are separated into two categories: (1) Recurring Projects, and (2) Planned Projects.

2026 Recurring Projects - $14,635,871

Q46 What are Recurring Projects?

A46 Recurring projects at Suburban consist of daily, weekly, monthly, and annual system improvement activities to maintain system performance. These efforts include refurbishments, replacements, and upgrades of infrastructure such as pipelines, valves, meters, fire hydrants, and more. These projects support long-term asset reliability, regulatory compliance, and service quality, and are integrated into Suburban's capital planning framework. I explain Suburban's recurring projects below.

(R-1) Service Replacements - $3,675,600

Service Line Replacements is an ongoing annual program. This program intends to replace service laterals that reach the end of useful life and fail. Suburban owns and maintains approximately 78,700 service laterals. Service laterals range in size from 1-

inch to 10-inch. The table below summarizes the materials for service laterals in Suburban's service area.

Material	Notes
Copper	
Galvanized Steel	
Polyethylene	Found in the City of West Covina
High Density Polyethylene (HDPE)	Previous standard. Line failed due to liner.
Steel (CML&L, CML&W)	Greater than or equal to 4-inch
Cross-Linked Polyethylene (PEX)	Current Suburban Standard
Grey Plastic	Found in City of La Mirada

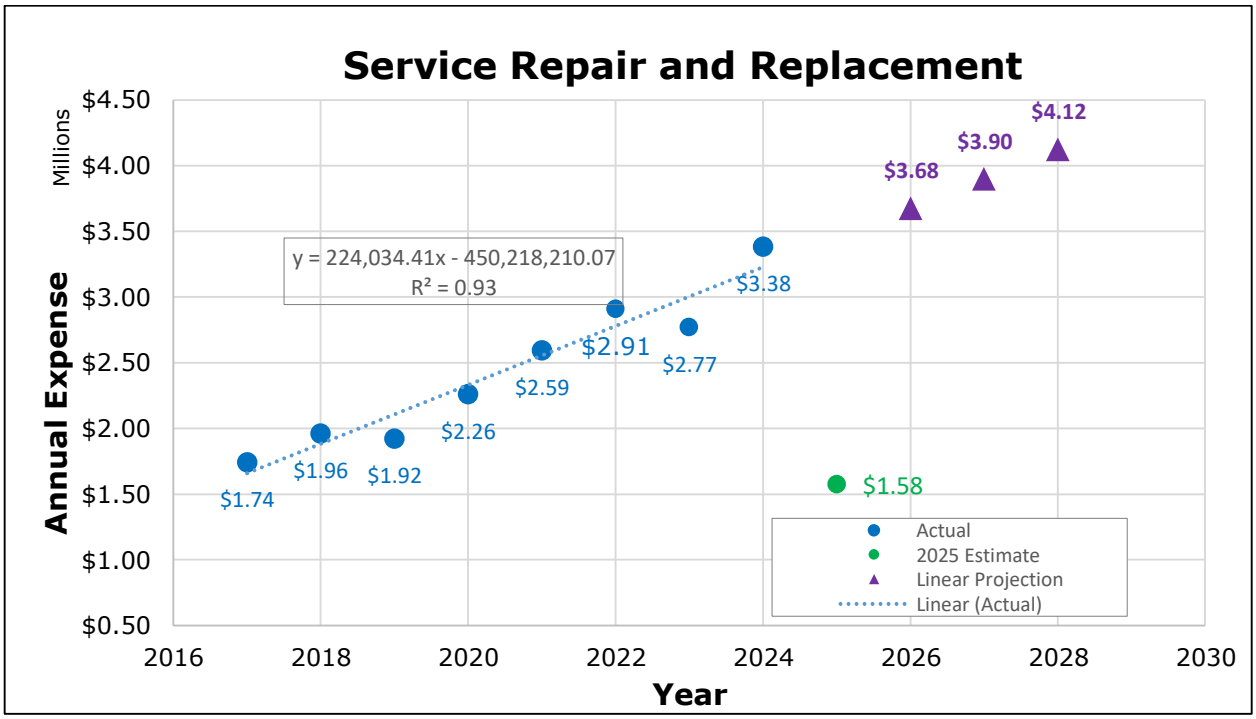
Suburban has experienced an increase of service line failures with two particular materials, Orangeburg SP Polyethylene and Grey Plastic pipe. The City of West Covina installed Orangeburg service lines in the 1970s. Grey Plastic Service lines were installed in the City of La Mirada in the 1950s. Both of these materials are weaker than what is used today; cross-linked Polyethylene (PEX). Suburban has observed plastic services to fail at the connection point at the corporation stop and the angle meter ball valve where the stainless-steel liners cut into the service line. New service lines are now installed with plastic liners to mitigate this issue.

Failures also often occur after Cities or Counties pave streets. Asphalt paving machines may weigh up to 40,000 lbs. The loading and vibration of the paving machines cause breaks to the service laterals. The breaks often occur after the paving is completed. The breaks damage the recently paved streets, and the cost to replace the asphalt pavement is very high. Cities and Counties continue to pave more roads aggressively and, as a result, will lead to continued service breaks.

The Service Line Replacement program benefits customers by ensuring water service is restored promptly.

Basis for Budgeted Cost

Due to the unpredictable occurrence of service lateral failures, linear regression analysis for the last five years (2020-2024) of annual expenses was utilized to forecast the budget. See the analysis chart below. The Table summarizes the results.



Year	Total Cost
2020	$2,260,316
2021	$2,594,531
2022	$2,910,233
2023	$2,770,779
2024	$3,382,820
2026	**$3,675,600**
2027	**$3,899,600**
2028	**$4,123,600**

(R-2) Communication Equipment (SCADA) - $117,600

Communication Equipment (SCADA) is an ongoing annual program. This program is intended to replace the components of the Supervisory Control and Data Acquisition System (SCADA). This telemetry and instrumentation system gathers real-time data from various sensors and devices, providing operators with up-to-the-minute information about the status of their systems. Then operators can use the SCADA system to control equipment and distribution system processes over long distances, such as turning on or off pumps or managing alarms. SCADA systems can improve efficiency, reduce costs, and enhance safety by providing real-time data and control over critical infrastructure. As part of this program, items purchased and installed include Remote Terminal Units (RTU), UPS backup batteries, radio and data phone line communication, and pressure and level sensors.

When SCADA equipment is outdated or fails, Suburban loses the ability to remotely monitor and control its water distribution facilities across our systems. Without a functioning SCADA system, plant operations must rely on maintenance staff being physically present at each site, which limits responsiveness and efficiency. Customers benefit from the ongoing program to replace SCADA components because it ensures a reliable water supply and reduces emergency response time.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Autual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$92,881	103.97%	$124,662
	2021	$125,318	113.10%	$148,723
	2022	$52,840	109.37%	$57,336
	2023	$76,160	103.77%	$79,640
	2024	$156,468	101.63%	$160,990
5-Year Avgerage		$100,733	102.89%	$114,270
Projection	**2026**		102.89%	**$117,600**
	2027		105.86%	**$121,000**
	2028		108.92%	**$124,500**

(R-3) Governmental Projects - $176,300

Governmental Projects is an ongoing annual program. This program funds the adjustment of existing facilities by replacement or relocation to resolve conflicts with and accommodate improvements constructed by Government agencies such as Cities and Counties. Government projects include, but are not limited to, storm drain and sewer modification projects, street widening and parkway improvements such as light pole installations or tree planting. Suburban's franchise agreements with the Cities and Counties require Suburban to modify or relocate its infrastructure to eliminate conflicts and ensure compatibility with public improvement projects..

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.



(R-4) Pump Equipment Replacements - $360,700

Pump equipment replacements is an annual program to fund the replacement of failed pumping equipment used for transmitting and distributing water across the system. This program intends to replace production wells and booster pumping equipment, including pumps, motors, and electrical equipment that has failed due to the end of useful life, has become inefficient or has been identified as a safety hazard. Failure is apparent because the equipment no longer works; bi-annual energy efficiency tests show equipment is inefficient. Operators identify safety hazards as they become apparent and by safety inspections.

Suburban operates over 100 boosters. These boosters have multiple components, including motors, shafts, bearings, windings, electrical breakers, electrical starters, and electrical panels. Many of these boosters were built in the 1950s after World War II when the tracts were built. In addition to the boosters needing to be maintained and replaced, the electrical equipment also must be replaced. Electrical codes have drastically changed since the 1950s, and it is necessary to upgrade equipment to ensure that it is safe for operators. Rather than spending funds to replace complete pump stations, replacing the components that have reached the end of their useful lives is less costly. The following descriptions are methods to deal with maintaining electro-mechanical components:

- Reactive Maintenance – Respond to unplanned downtime 24/7. Suburban's Operations Department mainly uses the funding in this program for reactive maintenance of pump equipment.
- Preventative Maintenance – Perform routine inspections of all assets, replacement of motor lubricants, greasing motors/pumps bearings, packing adjustments, and replacements. This calendar-based program is designed to sustain the reliability of our assets.
- Predictive Maintenance – Collect vibration readings and temperature monitoring of motors and pumps to identify abnormal assembly vibrations associated with bad bearings, misalignments, imbalance, looseness, or increasing temperatures. Data trends identify defects in the equipment. Trends are an essential function for preventing reactive maintenance.
- Corrective Maintenance – Identify defects through our inspections and predictive maintenance activities and schedule, track and prioritize their corrective maintenance work. This activity aims to proactively address imminent failures, thus increasing our reliability and availability of assets.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.



(R-5) Meter Purchase - $3,259,371Executive Summary

Suburban's customers need water meters to accurately measure water consumed by all customers, so they each pay their fair share. High users pay for what they use, and low users are not required to unfairly pay for water consumed by others. Suburban's customers cannot afford aging water meters that under-register usage. Meters become less accurate with age and continue to get less accurate until the meter is replaced. Direct or Direct read meters only indicate the total amount of water used at the time the meter is read. Meters are read monthly and provide a measurement of the amount of water used in that month. Direct meters cannot provide historical hourly-level consumption data for customers to identify when they are unknowingly wasting water unnecessarily costing them more and making their bills unaffordable..

The annual meter replacement program must continue in this rate case period to keep meters accurate and provide all of Suburban's customers access to the benefits of smart meters. Cal Advocates has previously supported California Class A water utilities using a 15-year cycle as a proxy for meter replacements and Suburban will replace meters that are at least 15 years and older.

Direct read meters have a greater opportunity for reading errors that can result in over billing customers. Eliminating misreads by upgrading direct-read meters to smart readers is one of several ways that the meter replacement program benefits the customers and must continue. Leak

detection is an invaluable feature only provided by smart meters. Upgrading customers to smart meters empowers them to conserve water and improves the affordability of their monthly bill.

Suburban must continue its timely replacement of direct read meters with smart meters to ensure compliance with California's Making Conservation a California Way of Life regulation and avoid burdening customers with the cost of fines. The level of transparency for resolving bill disputes that is provided by smart meters must be made available to all customers, and trust must be improved by continuing the annual meter replacement program. Smart meters substantially increase safety for meter readers. The meter replacement program proposed in this report must be approved for Suburban's customers to enjoy these benefits.

The meter replacement program requested in this rate cycle avoids rate shock while ensuring that all customers will receive the benefits of smart meters on an appropriate schedule. The meters across Suburban's service area are divided into books, which are discrete meter reading routes based on geographic proximity that are read every month on the same day. Converting all meters in a book to smart electronic meters to be read through radio signal smart meter technology, rather than leaving a fraction as directly read, must be accomplished. It avoids complex reading routes that create issues for our customers. Suburban must continue to convert entire books to smart meter technology with its meter replacement program. Suburban will upgrade all meters in a book to electronic smart meters by replacing direct read meters that are 15 years old or older, and upgrading those less than 15 years old to have smart meter functionality.

Suburban will replace meters because Suburban's customers cannot afford aging water meters that under-register usage. Suburban will replace meters because they become less accurate with age and continue to get less accurate until the meter is replaced. Electronic meters can provide Suburban's customers with usage information required to understand their water use and to identify situations where they are wasting water, making their bills unaffordable.

Background

Suburban maintains meter accuracy for its customers by replacing aging meters in an annual meter replacement program. Since 2018, the program has been replacing aging and inaccurate direct read meters with electronic meters that are compatible with both Automated Meter Reading (AMR) and Automated Meter Infrastructure (AMI) technology. These meters are known as "smart meters". To date, Suburban has replaced 47,934 direct read meters; now 61% of Suburban's customers are served by smart meters. Table 1 shows the annual meter replacements that Suburban has performed since 2018. As demonstrated by the annual replacement totals, Suburban has successfully implemented its meter replacement program to ensure fair billing for its customers.

Size	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total	Total Meters in System
5/8"	214	450	301	1095	1662	813	542	0	781	781	781	779	8199	8199
3/4"	2441	3210	4024	4969	4796	7664	3131	0	5761	5761	5761	5760	53278	53278
1	1844	1860	596	1628	1581	813	1534	0	934	934	934	934	13592	13592
1.5	174	153	339	187	299	87	85	0	68	68	68	66	1594	1594
2	157	152	160	276	244	77	118	0	85	85	85	85	1524	1524
3	28	25	19	24	22	34	3	0	15	15	14	13	212	212
4	18	14	7	5	15	21	13	0	11	11	10	9	134	134
6	1	2	1	1	0	3	2	0	3	3	3	1	20	20
Total	**4877**	**5866**	**5447**	**8,185**	**8,619**	**9,512**	**5,428**	**0**	**7,658**	**7,658**	**7,656**	**7,647**	**78,553**	**78,553**
Cumulative Total	**4877**	**10743**	**16190**	**24375**	**32994**	**42506**	**47934**	**47934**	**55592**	**63250**	**70906**	**78553**		
% Completed	**6%**	**14%**	**21%**	**31%**	**42%**	**54%**	**61%**	**61%**	**71%**	**81%**	**90%**	**100%**		

Stopping the annual meter replacement program would have negative impacts on customers. Without replacement, aging meters continue to get less accurate resulting in increasingly unfair customer billing because high water users would be increasingly underbilled, causing low users to have to pay more for their share. In addition, halting the meter replacement program would delay the remaining 39% of customers who don't have the benefits provided by smart meters from receiving a fair and equitable level of service. The annual meter replacement program must continue in this rate case period to keep meters accurate and provide all of Suburban's customers access to the benefits of smart meters.

Justification

Replacing Aged Meters

Meters must be replaced based on age to phase out inaccurate and worn-out meters and ensure fair billing. Meter accuracy is critical for the affordability of customers' water bills. Suburban relies on its meters to accurately measure consumption as the basis for charging customers for the usage. Water meters lose accuracy as they age due to wear and tear on their internal mechanical components. Meters will only continue to get less accurate until the meter is replaced. Meter inaccuracy leads to erroneous under-billing, which is unfair to Suburban's customers because customers who use more water than their inaccurate meters register are billed for less than their fair share of the revenue requirement, leaving the other customers, who are often low water users, to unfairly pick up the difference. For these reasons, the annual program of replacing aged meters must continue in this rate case period.

Suburban proposes to replace meters annually that are 15 years or older. Fifteen years has been established as the appropriate age for replacement due to worn parts. This is derived from the CPUC's General Order 103-A (GO 103-A). GO 103-A sets the maximum time that meters are allowed to remain in service before replacement. The general order requires meters greater than 1-inch to be replaced before they reach 10 years of age, meters of 1-inch to be replaced before they reach 15 years of age, and meters less than 1-inch to be replaced before they reach 20 years of age. In the previous GRC, Cal Advocates supported California Class A water utilities using a 15-year cycle as a proxy for meter replacements because most water meters are 1-inch or below. Suburban will replace meters that are 15 years and older.

Upgrading Customers from Direct-Read Meters to Smart Meters

Suburban's annual meter replacement program upgrades customers' direct read meters to smart meters, providing tremendous benefits to the customers' affordability by reducing misreads, empowering conservation, avoiding high bills from leaks, improving customer service, and promoting safety.

Direct read meter reading has become an outdated approach because it has a greater opportunity for reading errors. It requires a field technician to physically visit each meter each month, visually read the consumption directly from its register, and directly enter the data into the customer billing system. Direct read meters have the inherent risk of incorrect reads due to human error from visual obstructions, misreading, and data entry errors. Human error is bound to occur when reading a register located underground in a meter box, often covered with dirt, through a small opening with little light. Meter boxes flood during rain events, making it very difficult to accurately read meters, leading to entry errors that can result in over-billing customers. The ratepayers cannot afford to continue being incorrectly billed due to human error caused by the outdated technology. Direct read meters have a greater opportunity for reading errors that can result in over-billing customers.

One of the many advantages of the updated smart metering technology is that it eliminates the potential for human error in reading a register. Smart meters can be read more efficiently using remote mobile or fixed antennas that don't require a field technician to visit each meter each month. These meters transmit the exact read to antennas, eliminating the potential human error from misreading or mis-entering a read into the customer's billing system. In addition, more accurate reading reduces the time-consuming need to reread meters. Eliminating misreads by upgrading direct-read meters

to smart readers is one of several ways that the meter replacement program benefits the customers and must continue.

One of the most notable benefits of smart meters over direct read meters is its ability to detect leaks. Customers frequently experience leaks in irrigation lines or toilet flush valves that often go undetected or underestimated by customers, resulting in high bills. The software for the smart meters can detect leaks by analyzing usage when the meters are read to identify continuous usage that typically indicates a leak, and sends a notice to Suburban staff, who notify the customer. The detection and notification allow the customer to make repairs, realize cost savings, and reduce water consumption to support conservation efforts. Automated Meter Infrastructure (AMI) does not need to wait for monthly reads to alert customers directly when they have a leak. Leak detection is an invaluable feature only provided by smart meters.

Another key benefit of upgrading direct read meters to smart meters is that it gives customers more detailed consumption data. Direct read meters can only give customers one data point each month for their total usage. Smart meters, on the other hand, can provide customers with hourly consumption data. Customers with smart meters can access their historical hourly consumption data through the software's online customer portal. The data empowers customers by providing information that allows them to review their consumption patterns, identify where they are unknowingly wasting water, and take action to curb consumption and reduce their water bills. For example, the hourly data from smart meters can inform customers how much water they are using at night with their sprinkler system. With this information, the customer can make an informed decision to reprogram their irrigation controller to reduce their sprinkler usage. Without a smart meter, the customers can only see their total usage for the month and are unable to distinguish how much they are using for watering their lawn, taking morning showers, running their dishwasher, etc. The smart meter software can estimate what the customer

is using the water for based on the usage pattern. The online portal gives customers statistics and graphs for how much water they are using in each category. This level of detail allows customers to adjust their usage patterns specific to their household and save water. This benefits the environment and reduces their monthly bill. Upgrading customers to smart meters empowers them to conserve water and improves the affordability of their monthly bill.

Suburban must continue replacing direct read meters with smart readers to facilitate customers meeting California's conservation objectives. Living through droughts is a reality for Southern California residents, and steps must be taken to reduce water loss and consumption through Urban Water Use Objectives (UWOU). An UWUO is an individualized supplier-specific budget for efficient water use in California. Urban water suppliers must calculate their UWOU, report it annually, and demonstrate compliance with the objective as part of California's Making Conservation a California Way of Life regulation. The regulation promotes long-term water efficiency and adaptability to California's water challenges. Water that is not used for agriculture or to support the environment is referred to as "urban water", which includes use for the following:

- Drinking
- Toilets and showers
- Landscaping
- Car washing
- Businesses
- Industrial processes

The Urban Water Use Efficiency program requires water suppliers to submit data to the California Department of Water Resources (DWR) to ensure we use our urban water supplies wisely and are transparent. The UWUO water budget is derived from the sum of the following factors.

- Indoor Residential Water Use
- Outdoor Residential Water Use
- Commercial, Industrial, and Institutional (CII) Landscape Use
- Water Loss
- Variances
- Bonuses for use of recycled water

Determining indoor and outdoor residential water usage is critical to demonstrating compliance. The most accurate way to measure residential water usage is with smart meters. Smart meters allow Suburban to isolate irrigation schedules compared to indoor use. Without replacing direct read meters with smart meters, residential usage will be less apparent, and an unfair allocation of costs will be established. The inability to determine accurate budgets may result in fines of up to $1,000 per day under normal conditions and $10,000 per day during drought years. Fines will be in effect after November 1, 2027. An annual fine of $365,000 during normal conditions may be imposed, much greater than during drought conditions. Suburban must continue its timely replacement of direct read meters with smart meters to ensure compliance with California's Making Conservation a California Way of Life regulation and uphold its values of environmental and financial stewardship.

Replacing direct read meters with smart meters greatly enhances customer service. When customers receive an unexpectedly high bill, they contact Suburban's customer service to ask what caused a dramatic increase in their bill. Customers seek transparency on why their bill is so high. Direct read meters only provide a monthly snapshot of the customer's usage. With such limited information, the customer service representative cannot diagnose the customer's specific issue and can only make generalized suggestions. Smart meters, in contrast, allow the customer service representative to analyze the customer's

usage patterns through the online portal and provide them with specific reasons why their bill is high. Customer service representative and the customer will be looking at the same data with our representative providing an explanation. The level of transparency for resolving bill disputes that is provided by smart meters must be made available to all customers, and trust must be improved by continuing the annual meter replacement program.

A recent example demonstrates how smart meters improve customer service. In July 2025, a residential customer reached out to Suburban's customer service team to inquire why their monthly bills were unexpectedly high. A service technician was sent out to investigate and did not find any visible leaks at the residence. Suburban swapped the customer's direct read meter with a smart meter to collect the hourly data and help identify what was causing their high consumption. The data log showed a recurring high consumption period between 2:00 AM and 8:00 AM [see Exhibit 1]. From this pattern, the customer service team concluded that the customer's high-water bill was a result of an incorrectly programmed irrigation controller that was causing the customer to use an unexpected amount of water from their sprinklers. The customer was notified and adjusted their irrigation controller to avoid future high monthly water bills. The customer's monthly billable usage trend [see Exhibit 2] shows how the customer service team was able to successfully resolve the customer's high usage issue with the smart meter data and help them save on their water bill. Before the customer was notified of their incorrectly programmed irrigation controller, their monthly bill rose as high as $1,179 in July, which is far more expensive than their average bill of $150. After customer service resolved the issue, the customer's monthly bill went back down to $150 in September. This case study exemplifies how smart meters improve customer service over direct read meters.

Exhibit 1 – Sample Hourly Data Log for Residential Customer with High Bill Inquiry

Run Date: 08/05/25 11:02 AM
Meter EID: 1633765
Total Consumption: 9000.00

Data Log

Page No: 8 of 71
Report Period: 6/7/2025-8/5/2025
Reading Period: 1 Hour

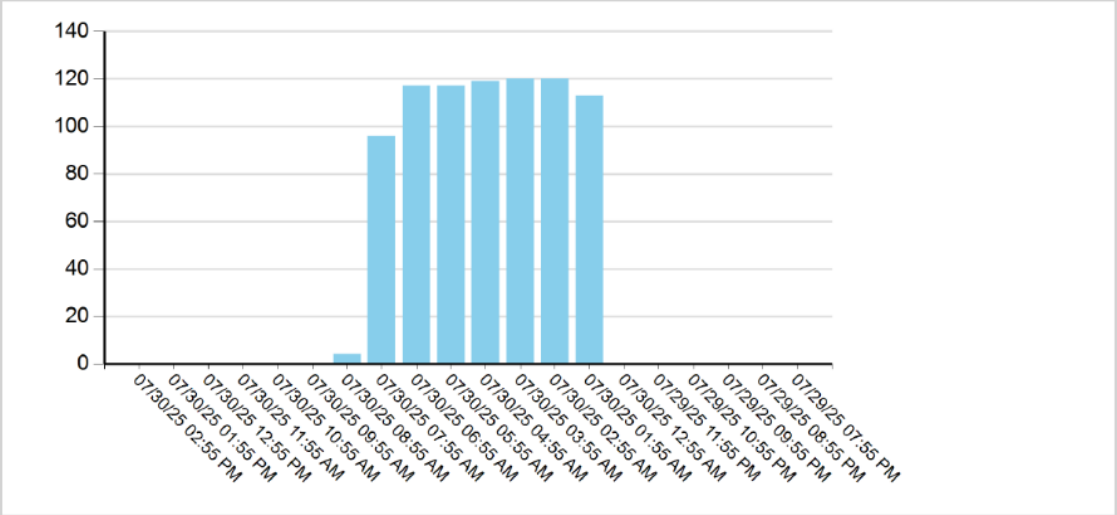


Exhibit 2 – Monthly Bill for Customer with an Incorrectly Programmed Irrigation Controller

Suburban Water Systems

Customer Service: 8:00 AM - 4:30 PM, Mon. - Fri.
Phone: 562-944-8219 Toll-free: 800-203-5430
TTY: 877-405-1710
Email: SuburbanCustomerCare@swwc.com
Website: SuburbanWaterSystems.com

Account #: [redacted]
Invoice #:
Bill Date: 08/25/2025
For Service To: [redacted]
WHITTIER CA 90604

Due Date: 09/15/2025
Total Due: $419.94

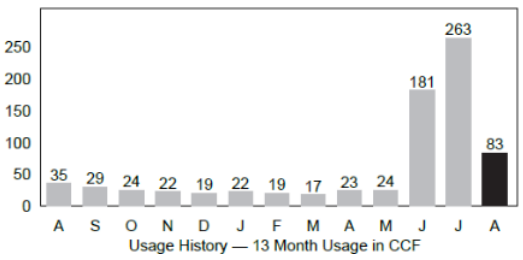
Service	From	To	# of Days	Previous	Current	Usage (CCF)	Meter #
3/4" - R	07/26/2025	08/25/2025	31	33.0	116.0	83.0	[redacted]

Account Details

Previous Balance		**$1,996.11**
Payment Received 08/18/2025 - Thank You		-$1,996.11
Balance Before Current Charges		**$0.00**
Service Charge	(31/31) x 25.22 = 25.22	$25.22
Water Charge	20 @ 3.7030 = 74.06 63 @ 4.0830 = 257.23	$331.29
Water Offset 10	83 x .245	$20.34
Public Purpose Program	83 x .058	$4.81
One Time Surcharge (Covid-19)	83 x 0.074	$6.14
CPUC Surcharge	417.10 x 0.6800%	$2.84
One Time Surcharge (CAP)	83 x 0.135	$11.21
Water Offset 414	67 x 0.27	$18.09
Total Current Charges		**$419.94**
Total Account Balance		**$419.94**

Messages

- As authorized by the California Public Utilities Commission (CPUC), this bill includes purchased water, pump tax, and energy offset surcharges, effective on August 1, 2025, and will continue for approximately 24 months.
- Suburban offers a Customer Assistance Program (CAP) discount of $9.04/month to qualifying customers.
- $13.55 is your average daily cost this period.
- Units: 1 CCF = 100 Cubic Feet = 748 Gallons
- *Moving?* Move-Out Online at https://account.mywater.us. *Address Change?* Email us at SuburbanCustomerCare@swwc.com



Usage History — 13 Month Usage in CCF

Upgrading direct read meters to smart meters also improves safety for Suburban's employees To read some meters directly, Suburban's field operators need to lift heavy lids, which can cause injury. At some locations, two meter readers are required to lift meter vault lids to obtain the meter reads. Employees are required to read meters on sidewalks and medians directly, exposing them to the dangers of high-speed traffic. In some unincorporated parts of LA County, meters are located on streets without curbs or where there are uneven surfaces like elevated sidewalks that expose readers to tripping hazards.

There are also parts of the service area that expose readers to criminal activity, such as hiding illegal drugs and cash in meter boxes; in others, there is exposure to unleashed or unrestrained dogs and injury from dog bites. Some meters are in backyards or behind fences, requiring readers to enter yards, which is disruptive and concerning for customers. In 2024, a Suburban Field Service Technician was carjacked, leading to serious injuries. This type of danger to our team is greatly reduced with smart meters.

Smart meters minimize the number of visits required to each meter and the number of times heavy vault lids need to be lifted, significantly reducing the safety risks for readers. Smart meters provide safer working conditions for Suburban employees and minimize workplace injuries. Workers' compensation premiums are passed on to the customers. Smart meters substantially increase safety for meter readers.

For all the customer benefits listed above, Suburban must continue to replace aging direct read meters with electronic smart meters. In summary, the meter replacement program improves customer affordability because it ensures fair billing with accurate meters, allows customers to be proactively notified of leaks before the unexpected consumption accumulates on their monthly bill, empowers customers to conserve water with detailed consumption data, avoids the costs of non-compliance fines from California conservation

regulations, and improves safety for Suburban's employees. All customers deserve the opportunity to enjoy these benefits. The meter replacement program proposed in this report must be approved for Suburban's customers to enjoy these benefits.

Project Description

The proposed annual meter replacement schedule minimizes rate shock while also providing customers with timely meter upgrades. By the end of this rate case period, approximately 24,900 meters will have reached or surpassed the replacement age of 15 years. This amounts to 32% of the total meters. Suburban wants to avoid the customer rate shock of replacing all 24,900 meters at once. Instead, Suburban proposes a modest, steady replacement of 6,600 meters and 1,050 registers per year in 2026, 2027, and 2028. This amounts to approximately 9% of Suburban's total meters per year. The replacement rate can continue in the next rate case with all the remaining direct read meters in the system replaced with smart meters and electronic registers by 2029. This ensures all Suburban customers will receive outstanding affordability improvements from smart meters in a timely manner. The meter replacement program requested in this rate cycle avoids rate shock while ensuring that all customers will receive the benefits of smart meters on an appropriate schedule.

To successfully implement the annual meter replacement program, Suburban must continue to replace meters by whole books. Suburban's service area is divided into books that represent discrete meter reading routes read every month on the same day. There are 365 of these books arranged for geographic proximity and reading efficiency. Since the original construction of the distribution systems in the 1950's, generations of meters have been installed and replaced, resulting in books containing meters of varying ages. Suburban's goal is to replace direct read meters to provide customers with the benefit of smart meters, while following the 15-year replacement cycle recommended by Cal

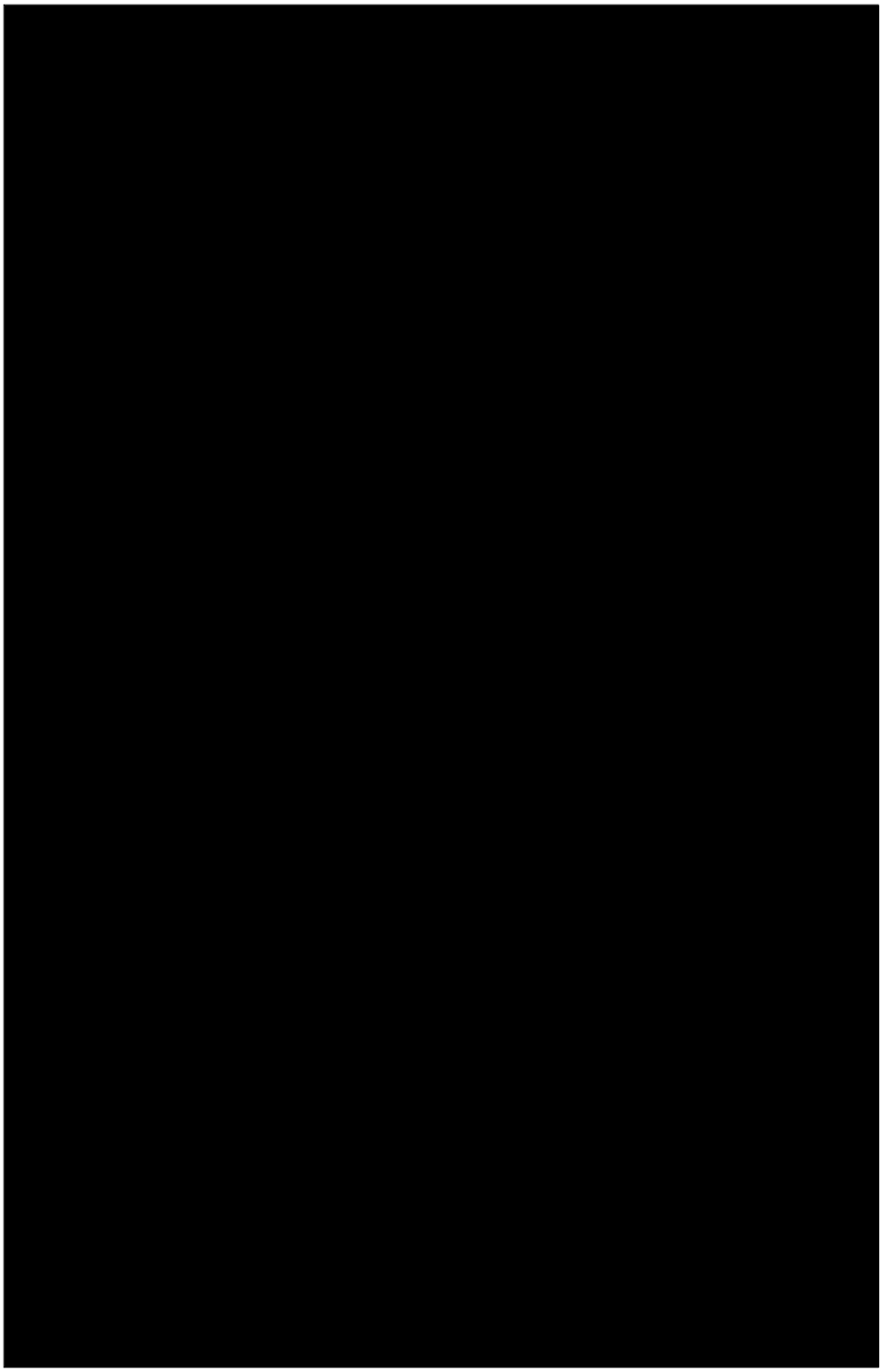
Advocates. The problem is that there isn't a single book in the system where 100% of its direct reading meters meet the 15-year age requirement. As a result, replacing meters strictly based on the 15-year age requirement would result in books combining smart meters and direct read meters. This would result in two types of reading methods in every book, making the meter read routes complicated, inefficient, and susceptible to error. To avoid confusion, wasted effort and errors, all meters in a book need to be read using the same method, whether directly or through radio signal smart meter reads. All the meters in a metering reading route (book) must be converted to electronic meters to minimize problems from having to read some manually and some electronically.

The consequences of having more than one meter reading method in a book must be discussed further. First, it would be unfair for some customers to enjoy the benefits from smart meters, while others with direct read meters cannot. For example, some meters on a given street will be directly read, while the rest are smart meters. This creates issues for both the meter readers and the customers. Since the direct read meters would be scattered throughout the neighborhood, the field technician would need to skip addresses and carefully verify that they are getting the correct reading for the proper address, rather than being able to go house to house in sequential order. This process is susceptible to misreads that lead to customers being incorrectly billed. In addition, customers will experience a greater feeling of unequal service and mistrust in the water utility if their next-door neighbor has access to the benefits of a smart meter while they do not.

The following image illustrates these issues. In the image below book 577 is shown by the orange shaded area. The pink, green and blue circles represent meters that must be replaced during this GRC cycle. The small white circles are meters that are less than 15 years old. The customers with colored circles would have the benefits of smart meters, while customers represented by white circles would not. Converting all meters in a book to smart electronic meters, rather than leaving a fraction as directly read, must be

accomplished. It avoids complex reading routes that create issues for our customers. Suburban must continue to convert entire books to smart meter technology with its meter replacement program.

<< BEGIN CONFIDENTIAL>>



<< END CONFIDENTIAL>>

Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

Suburban has identified a solution to follow the 15-year replacement cycle while maintaining one read method per book. For a given book, Suburban will replace all the meters reaching the 15-year age cycle with a new electronic smart meter. The remaining meters that have not yet reached 15 years will be retrofitted with an electronic register compatible with smart meter reading methods. This avoids premature meter retirement while still converting the entire book to smart meter reading technology. Also, the cost to purchase and install a register is less expensive than a full meter. Suburban will upgrade all meters in a book to electronic smart meters by replacing direct read meters that are 15 years old or older, and upgrading those less than 15 years old to have smart meter functionality.

Recommendation

In this rate case period, Suburban will select the books with the highest percentage of meters 15 years or older for replacement. However, instead of replacing all the meters in the book, only the meters that meet the 15-year age maximum are replaced entirely. The remaining meters in the books only have their register retrofitted and their existing meter kept. This avoids early retirements for meters that have not reached 15 years.

This approach replaces approximately 6,600 meters and retrofits 1,050 registers annually in 2026, 2027, and 2028. With this schedule, all customers would benefit from having a smart meter by 2029. This is the recommended alternative.

The 2026 cost estimate to purchase the meters for this alternative is below.

Figure 3 – 2026 Meter Purchase Cost Estimate for Alternative 3

Meter Size (inch)	Unit Cost	Qty.	Cost
5/8	$ 312.00	781	$ 243,672.00
3/4	$ 334.00	4714	$ 1,574,476.00
1	$ 424.00	934	$ 396,016.00
1.5	$ 735.00	68	$ 49,980.00
2	$ 953.00	85	$ 81,005.00
3	$ 2,225.00	15	$ 33,375.00
4	$ 3,155.60	11	$ 34,711.60
6	$ 5,400.00	3	$ 16,200.00
Retrofit Register	$ 264.00	1048	$ 276,672.00
Subtotal		7659	$ 2,706,107.60
Tax		10.5%	$ 284,141.30
Subtotal			$ 2,990,248.90
G&A		9.00%	$ 269,122.40
Total			$ 3,259,371.00

Suburban plans to move forward with the proposed annual meter replacement program because it:

1. Ensures that aging and increasingly inaccurate meters are replaced and customers are billed fairly for their water use.
2. Provides customers with detailed information to understand their water use, to understand the source of their high bill concerns, and to adjust water use behavior to manage the affordability of their water bills.
3. Maintains the schedule to upgrade all meters to electronic meters and fairly provide all customers the resulting benefits by 2029.
4. Ensures that meter books are only read using one method, mitigating the potential for missed meter reads.
5. Provides fair and equal benefits to all of Suburban's customers.
6. Avoids early meter retirements.

Basis for Budgeted Cost

Estimated project costs have been determined by multiplying the number of meters to be replaced and registers to be retrofitted, based on a 15-year replacement cycle, by the replacement costs of meters and registers determined from 2026 vendor prices.

This budget item is for the direct purchase of the meters and registers, including the General Administration, which considers Suburban's general administrative costs. The installation costs are recorded in a separate line item, "Meter Installations," because the accounting treatment is different.

Conclusion

Suburban's customers cannot afford aging water meters that under-register usage. Meters become less accurate with age and continue to get less accurate until the meter is replaced. Direct read meters cannot provide Suburban's customers with usage information required to understand their water use and to identify situations where they are wasting water, making their bills unaffordable.

The annual meter replacement program must continue in this rate case period to keep meters accurate and provide all of Suburban's customers access to the benefits of smart meters. Cal Advocates has previously supported California Class A water utilities using a 15-year cycle as a proxy for meter replacements and Suburban will replace meters that are at least 15 years and older.

Direct read meters have a greater opportunity for reading errors that can result in over billing customers. Eliminating misreads by upgrading direct-read meters to smart readers is one of several ways that the meter replacement program benefits the customers and must continue. Leak detection is an invaluable feature only provided by smart meters. Upgrading customers to smart meters empowers them to conserve water and improves the affordability of their monthly bill.

Suburban must continue its timely replacement of direct read meters with smart meters to ensure compliance with California's Making Conservation a California Way of Life regulation and avoid burdening customers with the cost of fines. The level of transparency for resolving bill disputes that is provided by smart meters must be made available to all customers, and trust must be improved by continuing the annual meter replacement program. Smart meters substantially increase safety for meter readers. The meter replacement program proposed in this report must be approved for Suburban's customers to enjoy these benefits

The meter replacement program requested in this rate cycle avoids rate shock while ensuring that all customers will receive the benefits of smart meters on an appropriate schedule. Converting all meters in a book to smart electronic meters be read through radio signal smart meter technology, rather than leaving a fraction as directly read, must be accomplished. It avoids complex reading routes that create issues for our customers. Suburban must continue to convert entire books to smart meter technology with its meter replacement program. Suburban will upgrade all meters in a book to electronic smart meters by replacing direct read meters that are 15 years old or older, and upgrading those less than 15 years old to have smart meter functionality.

Suburban will replace meters because Suburban's customers cannot afford aging water meters that under-register usage. Suburban will replace meters because they become less accurate with age and continue to get less accurate until the meter is replaced. Electronic meters can provide Suburban's customers with usage information required to understand their water use and to identify situations where they are wasting water, making their bills unaffordable.

(R-6) Security Upgrades - $194,300

The Security Upgrade Program has been in place since 2004 and is an ongoing response to general security shortcomings identified in the vulnerability report prepared to meet

Environmental Protection Agency ("EPA") requirements. These shortcomings included controlled access points, secure plant sites, and facility fencing. Over the past few years, theft, vandalism, and plant site breaches have increased drastically. Suburban's electrical wires are made out of copper, and several attempts have been made to steal these wires. Electrical equipment for pumping will not work if the wires are stolen. This type of theft will result in the inability to provide a reliable supply source. Physical security and security software are vital for ensuring a safe, reliable source of supply for customers.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$27,710	103.97%	$37,191
	2021	$166,133	113.10%	$197,160
	2022	$97,377	109.37%	$105,663
	2023	$403,378	103.77%	$421,809
	2024	$176,819	101.63%	$181,929
5-Year Average		$174,283	102.89%	$188,750
Projection	**2026**		102.89%	**$194,300**
	2027		105.86%	**$199,900**
	2028		108.92%	**$205,600**

(R-7) Plant Improvements - $531,700

Plant Improvements is an ongoing annual program. This program funds the replacement, renewal, and upgrade of various needs in the Plants throughout the system.

Plants are facilities owned by the Suburban that produce, pump, and store water. Plant facilities also include walls and buildings. Many components often need to be replaced, renewed, and upgraded to extend their useful lives.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.



(R-8) Fire Hydrant Replacements - $930,200

Fire Hydrant Replacements is an ongoing annual program. This program is intended to replace fire hydrants that reach the end of service life, fail, and are damaged by hit-and-run vehicle accidents where there are no opportunities to collect damages from the drivers. Suburban owns and maintains approximately 7,000 fire hydrants throughout the service area.

Fire hydrants serve a critical function in providing fire protection to structures. Fire hydrants provide firefighters with immediate access to pressurized water for fighting fires. They are a crucial component of active fire protection, allowing firefighters to connect hoses and quickly access water for extinguishing fires. When fire hydrants are unavailable, structures are exposed to a greater possibility of damage caused by fire.

Fire hydrants also serve various functions beyond firefighting. They can be used for flushing water mains, conducting fire flow tests, and providing a temporary water source while a section of the system is being repaired or replaced. Additionally, they are useful for attaching pressure gauges and loggers to monitor system water pressure. Fire hydrant replacement is a priority for Suburban.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$811,946	103.97%	$1,089,774
	2021	$632,800	113.10%	$750,984
	2022	$858,904	109.37%	$931,992
	2023	$662,340	103.77%	$692,602
	2024	$1,025,154	101.63%	$1,054,781
5-Year Average		$798,229	102.89%	$904,027
Projection	**2026**		102.89%	**$930,200**
	2027		105.86%	**$957,100**
	2028		108.92%	**$984,700**

(R-9) Valve Replacements - $1,223,700

Valve Replacements is an ongoing annual program. This program intends to replace isolation valves that reach the end of their useful life and fail. Suburban currently has over 20,000 isolation valves in the entire system. These valves must be in good working order to effectively isolate portions of the transmission and distribution system to facilitate maintenance and minimize customer service disruption.

A failure of a valve to fully close significantly lengthens the time it takes to repair a leak. The excavated area must be dry to properly and safely repair a break. The water main is

drained and pumped out of the working area. Draining a line may take several hours. The longer the stretch of a pipe taken out of service due to inoperable valves, the longer it will take to drain. Broken valves extend the time customers are inconvenienced by having low or no pressure, the time that traffic is interrupted, and the time that noisy, heavy equipment is operating near residential structures. Worse, the failure to fully close valves requires repair crews to expand the shutdown area to include more valves, which increases the number of impacted customers.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.



(R-10) Vault Replacements and Refurbishments - $66,100

Vault Replacements and Refurbishments is an ongoing annual program. This program funds the replacement and refurbishment of the existing vaults with structure and safety deficiencies. Vaults are buried concrete structures that provide access to underground piping, pumps, pressure control valves, meters, and fire service backflow devices. Over time, vaults can settle, crack and warp, creating a pedestrian tripping or fall hazard at the

surface. These vaults must be replaced and refurbished to eliminate this public safety hazard.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.



(R-11) Tools, Shop and Garage Equipment - $91,500

Field Equipment is an ongoing annual program. This program funds the purchase of replacements for long-life field equipment such as jackhammers, air compressors, saws, and trash pumps. Replacement is required because existing equipment reaches the end of its useful life and fails.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$76,294	103.97%	$102,405
	2021	$41,026	113.10%	$48,690
	2022	$167,622	109.37%	$181,895
	2023	$40,692	103.77%	$42,554
	2024	$67,110	101.63%	$69,053
5-Year Average		$78,549	102.89%	$88,919
Projection	**2026**		102.89%	**$91,500**
	2027		105.87%	**$94,200**
	2028		108.94%	**$96,900**

(R-12) Office Equipment - $79,500

Office Equipment is an ongoing annual program. This program is intended to purchase capitalized office equipment used at all Suburban office buildings. The office equipment includes, but is not limited to, ergonomic equipment, large-format plotters for engineering plans, printers, fireproof filing cabinets, and projectors.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$33,936	103.97%	$45,548
	2021	$5,669	113.10%	$6,728
	2022	$169,110	109.37%	$183,500
	2023	$52,892	103.77%	$55,309
	2024	$92,278	101.63%	$94,945
5-Year Average		$70,777	102.89%	$77,206
Projection	**2026**		102.89%	**$79,500**
	2027		105.86%	**$81,800**
	2028		108.92%	**$84,100**

(R-13) Water Quality Treatment Improvements - $130,000

Quality Assurance Treatment Equipment is an ongoing annual program. This program funds the purchase and replacement of water treatment equipment, such as valves, chemical dosing pumps, chlorine analyzers, and lab testing equipment such as portable colorimeter and turbimeters. This ongoing replacement is required because the existing equipment reaches the end of its useful life.

Basis for Budgeted Cost

To project the 2027 and 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$42,488	103.97%	$57,027
	2021	$24,522	113.10%	$29,102
	2022	$188,371	109.37%	$204,400
	2023	$181,640	103.77%	$189,939
	2024	$147,021	101.63%	$151,270
5-Year Average		$116,809	102.89%	$126,348
Projection	**2026**		102.89%	**$130,000**
	2027		105.86%	**$133,800**
	2028		108.92%	**$137,700**

(R-14) Blow-off Assembly Replacements – $186,200

Blow-off Assembly Replacements is an ongoing annual program. This program funds the replacement of blow-off assemblies that have reached the end of their life cycle and are leaking. Suburban identifies, inspects, repairs, and replaces blow-off assemblies throughout the system.

A blow-off assembly is a device used to remove sediment, debris, or other unwanted materials from a water main. Blow-off valves help maintain the water quality, prevent blockages in the water mains, and improve residual chlorine levels by flushing out accumulated sediment and other debris. These valves are typically located at low points in the water distribution system or dead ends and cul-de-sacs, where sediment tends to collect.

The State Water Resources Control Board - Division of Drinking Water (SWRCB-DDW) requires flushing the system at the end of pipelines. These pipes are more susceptible to poor water quality due to low turnover resulting in low chlorine residuals and sediment accumulation. Suburban's Water Quality department uses blow-off assemblies to flush the water system. Replacement of leaking, broken, inoperable blow-offs falls in this budget.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$89,707	103.97%	$120,403
	2021	$176,235	113.10%	$209,149
	2022	$172,421	109.37%	$187,093
	2023	$152,146	103.77%	$159,097
	2024	$222,432	101.63%	$228,860
5-Year Average		$162,588	102.89%	$180,920
Projection	**2026**		102.89%	**$186,200**
	2027		105.86%	**$191,600**
	2028		108.92%	**$197,100**

(R-15) Miscellaneous Pipeline Replacements - $1,323,300

Miscellaneous Pipeline Replacements is an annual program to fund reactive pipeline replacements due to water main breaks.

Two types of projects are completed within this program:

- The first type of project is a pipeline with repeated breaks in relatively short periods. Repeat failures indicate that the pipeline has reached the end of its useful life. Further, each repair requires the pipeline to be taken out of service, causing service interruption and inconvenience to customers. Due to the urgent nature of the high potential for near-term repeat failures, these projects are planned, permitted, and constructed on a very short schedule.

- The second type of project is pipeline replacement which has a significant portion of the pipeline that must be replaced during the main break repair. The emergency nature of these repairs does not permit planning or pre-permitting.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$665,839	103.97%	$893,673
	2021	$762,525	113.10%	$904,937
	2022	$1,458,552	109.37%	$1,582,665
	2023	$1,347,810	103.77%	$1,409,392
	2024	$1,593,576	101.63%	$1,639,630
5-Year Average		$1,165,660	102.89%	$1,286,059
Projection	**2026**		102.89%	**$1,323,300**
	2027		105.86%	**$1,361,500**
	2028		108.92%	**$1,400,900**

(R-16) Meter Installations - $740,312

This budget item is for the capitalized installation of the meters. This year's quantity of meters to be replaced correlates to the meter purchase budget. The meter purchase costs are recorded in a separate line item because this cost has a different accounting allocation.

Basis for Budgeted Cost

Estimated project costs have been determined by the quantity of meters as detailed in the meter purchase budget in the previous section multiplied by installation estimates obtained from vendors. The total estimated cost includes General Administration which considers Suburban's general administrative costs.

Meter Size (inch)	Unit Cost	Qty.	Cost
5/8	$ 77.48	781	$ 60,513.06
3/4	$ 77.48	4714	$ 365,247.84
1	$ 77.48	934	$ 72,367.73
1.5	$ 233.76	68	$ 15,895.49
2	$ 233.76	85	$ 19,869.37
3	$ 2,167.33	15	$ 32,509.99
4	$ 2,229.26	11	$ 24,521.82
6	$ 2,353.10	3	$ 7,059.31
Retrofit Register	$ 77.48	1048	$ 81,200.62
Subtotal		7659	$ 679,185.23
G&A		9.00%	$ 61,126.67
Total			$ 740,312

(R-17) Air Release Assembly Replacements - $99,200

Air Release Assembly Replacements is an ongoing annual program. This program funds the replacement of air release assemblies that failed and reached the end of their useful life. Suburban identifies, inspects, repairs, and replaces air release valves throughout the system.

An air release valve is a hydromechanical device designed to automatically release trapped air from a pipeline system during filling and operation and admit air during draining. Air release valves are essential components of the water distribution system. Without air release valves, air would accumulate at high points in pipelines, building up pressure and eventually restricting flow in pipelines. Also, trapped air magnifies the damaging effects of water hammer. Further, these valves allow air to enter the piping system when pipelines are dewatered. Without air release valve assemblies, air would not be able to enter the pipeline when it was being drained, creating negative pressure inside the pipeline that could lead to pipeline collapse. Therefore, these valves are crucial for maintaining pipeline efficiency, preventing water hammer, and protecting against potential damage from air pockets.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Autual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$90,123	103.97%	$120,961
	2021	$74,572	113.10%	$88,500
	2022	$29,702	109.37%	$32,229
	2023	$132,302	103.77%	$138,347
	2024	$98,943	101.63%	$101,803
5-Year Average		$85,129	102.89%	$96,368
Projection	**2026**		102.89%	**$99,200**
	2027		105.86%	**$102,100**
	2028		108.92%	**$105,000**

(R-18) Plant Paving Projects - $120,300

Plant Paving Projects is an ongoing annual program. This program is intended to slurry seal existing asphalt surfaces at plant sites to extend the useful life of paved surfaces and make repairs as needed. The current plan is that all plant sites are resealed on a 5-year cycle.

Basis for Budgeted Cost

The cost accounts for ongoing slurry seal requirements at plant sites with asphalt surfaces to extend the pavement's useful life, and unexpected repairs required due to normal wear and tear. Although the quantity of slurry seal work is known, the unit cost continuously changes, and there are unexpected repairs. Therefore, the budget for each plant is based on the plant site that requires resealing on a five-year cycle and the average bids Suburban has received in the past three years. In addition, the budget for 2026-2028 is

escalated using ENR's building index. Additional information about escalating estimates is shown in the escalation discussion of the testimony. The table below summarizes the results.

Plant No.	Year of Last Slurry Seal	2026	2027	2028
119	2018	$6,000		
121	2018	$34,000		
165	2018	$20,000		
504	2019	$6,000		
507	2019	$13,000		
209	2019	$2,000		
214	2018	$3,200		
428	2019	$23,000		
115	2020		$12,000	
118	2022		$10,000	
140	2022		$9,000	
151	2022		$9,000	
162	2022		$10,000	
205	2022		$10,000	
235	2020		$5,000	
236	2022		$9,000	
238	2021		$32,000	
409	2019		$6,000	
129	2022			$26,000
505	2022			$24,000
217	2022			$19,000
221	2022			$9,000
408	2022			$24,000
410	2022			$10,000
Sub-Total		$107,200	$112,000	$112,000
Escalation Index %		2.89%	5.86%	8.92%
Escalation Cost		3,098	6,567	9,994
Sub-Total		$110,298	$118,567	$121,994
G & A %		9.00%	10.01%	10.01%
G & A $		$9,927	$11,869	$12,212
Projection		**$120,300**	**$130,500**	**$134,300**

(R-19) Control Valve (Cla-Val) Refurbishments - $162,800

Control Valve (Cla-Val) Refurbishments is an ongoing annual program. This program funds rebuilding and refurbishing Suburban's pressure and flow control valves to ensure reliable service. Control valves are mechanical devices that constantly adjust and are subject to wear and tear. The control valve's internal components are exposed to corrosive environments that break down metallic and rubber parts. Without refurbishment, their components will fail. Suburban has over 280 control valves that perform critical functions such as pressure reducing, sustaining, relief, flow control, reservoir level control, and pump control. These valves are essential to Suburban's ability to protect the distribution system and the customer's private water systems from over-pressurization. Also, these valves are often critical sources of water for fire protection.

Depending on the application, these valves consist of large cast-iron valve bodies with varying pilot valves and tubing systems. These valves are automatic and operate using hydraulic and electronic controls. They constantly modulate their position (opening and closing to obtain the desired percent of open) to perform the required function. Over time the moving parts in the valve wear out, including but not limited to the stem, diaphragm, and pilot controls. Failure of these parts leads to leakage, a failure to actuate, or worse, an uncontrolled operation where valves no longer protect the distribution system from over-pressurization. These failures can also damage the large globe valve body irreparable, causing it to be replaced at a significantly higher cost. In addition, the valves are often subject to highly corrosive environments such as subgrade vaults. These conditions cause gradual and catastrophic damage to the valve bodies and pilot systems. This corrosion damage can render a valve irreparable, requiring costly replacement, if left unchecked. Components damaged by corrosion are replaced as part of the refurbishment program. This work replaces all valve components, except the large globe valve body.

This work is time-consuming and often requires specialized contractors' high level of expertise.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.



(R-20) Office Furniture - $7,200

Office Furniture is an ongoing annual program. This program is intended to purchase capitalized office furniture used in all Suburban office buildings.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.



(R-21) Meter Boxes & Lids - $59,800

The purchase of Meter Boxes and Lids is an ongoing annual program. This budget is used to purchase and replace broken and stolen lids for meter boxes. Suburban owns and maintains over 78,000 connections where meter boxes and lids are used to protect meters. Meter boxes and lids are placed outdoors adjacent to the curb and are damaged for various reasons, including heavy rain, vehicles parking on the boxes, vandalism, and general wear and tear from opening and closing the lids to read the meters.

Suburban began tracking these assets separately in 2021 to accurately capture these assets for correct depreciation calculations and regulatory reporting.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2021 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2021	$36,541	113.10%	$43,365
	2022	$53,967	109.37%	$58,559
	2023	$58,405	103.77%	$61,073
	2024	$67,243	101.63%	$69,187
5-Year Average		$54,039	102.89%	$58,046
Projection	**2026**		102.89%	**$59,800**
	2027		105.86%	**$61,500**
	2028		108.92%	**$63,300**

(R-22) GIS Model System Upgrades - $353,834

The Geographical Information System (GIS) is the database system that stores and displays information about facilities owned and operated by the Suburban. The database system shows the location of underground facilities, tracks and reports pipe lengths, and shows valves exercised, valve Global Positioning System locations, and valve quantities. The GIS is used to analyze Suburban's pipe, valve, blow offs and appurtenance inventory using asset management principles to determine replacement priority and cost estimates for master planning. Suburban has updated its GIS master plan to provide direction for the development of GIS (see GIS Master Plan in Workpapers Volume IV for details).

Basis for Budgeted Cost

The estimated cost is based on estimates determined from information provided by both vendors and consultants. The total estimated cost includes General Administration and has been escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

TASKS	2026	2027	2028
Purchase Parcels & TaxRoll Data	$500	$500	$500
Capturing and Cleaning Offset dimensions			
Cleaning Miscellaneous Annotations			
Creating Schematic map (Plant site)		$31,200	
Purchase Contour Data		$7,000	
Cleaning up Leak data			
Upgrade of current ArcGIS API			
Develop Atlas Creation Tool		$5,000	
USA - DIG Alert Integration	$10,000		
Automation of .dgn import to ESRI			$10,000
Publish Maps from SQL data			
New Hydraulic Model (Legacy & Latest GIS Data)	$20,000	$20,000	$20,000
SAP - GIS Integration		$45,000	$45,000
Application Development (Forms and Mobile Applications)	$50,000	$50,000	$50,000
ESRI - GIS Roadmap & ArcGIS Utility Network	$50,000		
ESRI - GIS Roadmap & ArcGIS UN App Migration to Experience Builder	$75,000	$25,000	$25,000
GIS Updates	$40,000	$40,000	$40,000
CMMS	$20,000	$20,000	$20,000
Consultant Support	$50,000	$50,000	$50,000
Total Cost (Capital) in 2025 $	**$315,500**	**$293,700**	**$260,500**
Escalation %	**2.89%**	**5.86%**	**8.92%**
Escalation $	**$9,118**	**$17,221**	**$23,244**
Subtotal	**$324,618**	**$310,921**	**$283,744**
General Admin %	**9.00%**	**10.01%**	**10.01%**
General Admin $	**$29,216**	**$31,123**	**$28,403**
TOTAL	**$353,834**	**$342,044**	**$312,147**

(R-23) Personal Computer Hardware - $82,854

IT Hardware Upgrades is an ongoing annual program to purchase replacement computer hardware, printers, and other IT equipment including laptops, field rugged laptops, office printers, and billing center printers. Computers are replaced every four years to ensure

productivity. Using outdated IT hardware slows employee productivity and increases cybersecurity risks. It will ultimately increase costs for our customers.

Basis for Budgeted Cost

The budget is based on the replacement schedule and costs provided by vendors. The total cost has been escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

Description	2026		
	Quantity	Unit Cost	Cost
Precision 3591	19	$2,950	$56,050
Precision 5320	0	$1,600	$0
Desktop 7020	0	$1,365	$0
24 Inch Monitors	5	$165	$825
27 Inch Monitors	0	$200	$0
WD22TB4 dock	1	$300	$300
Printer	0	$300	$0
UPS	0	$7,000	$0
Server	0	$10,000	$0
RGLaptop 5430	3	$2,700	$8,100
27 LCD/wDock	0	$430	$0
24 LCD/wDock	0	$270	$0
SurfacePro 10	6	$2,542	$15,252
Total Cost in 2025 $			$80,527
2026 Escalation	102.89%		
2026 Total Cost			**$82,854**

(R-24) Computer Software - $11,500

IT Software Upgrades is an ongoing annual program. This program purchases computer and printer software for the company's offices and billing center. The new or upgraded software is purchased as the need is determined due to continually improving technology and resulting support limitations for outdated software versions. Using outdated IT software slows down employee productivity and customer service response time,

increases cybersecurity risks, and potentially exposes customer data. Having the most current software protects our customers and ensures they receive reliable customer service.

Basis for Budgeted Cost

To project the 2026 to 2028 budgets, a five-year average of actual costs from 2020 to 2024 was used as a baseline. This average was then escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

	Year	Actual Cost	Cost Index	Escalated Cost
Recorded Year	2020	$4,031	103.97%	$5,410
	2021	$2,558	113.10%	$3,035
	2022	$18,581	109.37%	$20,162
	2023	$0	103.77%	$0
	2024	$26,250	101.63%	$27,009
5-Year Average		$10,284	102.89%	$11,123
Projection	**2026**		102.89%	**$11,500**
	2027		105.86%	**$11,800**
	2028		108.92%	**$12,200**

(R-25) Vehicle Replacement - $652,000

Old and high mileage vehicles are more likely to breakdown and requiring maintenance that takes them off the road making them less available for use in serving customers. The utility vehicles that Suburban's crews use to drive to emergency repairs must be reliable and available so that they can respond to emergency incidents rapidly while transporting the specialized equipment and personnel needed to perform repairs promptly and efficiently. Timely and efficient response to emergency water main and service line breaks protects public health, minimizes property damage, and minimizes service interruptions.

The utility vehicles used by Suburban's field services teams must be dependable and available so that they can respond promptly to customer requests and help maintain a consistently high level of customer service.

The vehicle industry has continuously increased the fuel efficiency of the vehicles it produces. This efficiency increase is due to customer demand and federal and state fuel efficiency regulations. Every vehicle that Suburban replaces is by default more efficient than the vehicle being replaced. Operating an older, less efficient fleet unnecessarily burdens Suburban's customers with cost and makes their water rates less affordable.

Suburban should minimize its greenhouse gas emissions where it can by replacing older vehicles that emit more greenhouse gases with newer vehicles with more stringent emissions controls that emit fewer greenhouse gases. Please see the more detailed summary and project justification below.

Executive Summary

Customers cannot afford extended water service interruptions because utility employees do not have functioning vehicles to respond to water system failures and emergencies. Customers cannot afford to receive poor customer service because utility employees do not have functioning vehicles to respond to customer requests. Suburban should not use vehicles that emit more greenhouse gases when it could be using vehicles that emit fewer greenhouse gases.

Suburban's employees need reliable vehicles to perform the critical activities and respond to customer requests that are required to provide customers with safe, reliable, and affordable water service.

Suburban is replacing vehicles according to the DGS replacement thresholds, which maximize resources by replacing fleet vehicle assets at the most economical mileage and

age thresholds. Suburban's replacement schedule meets the DGS objective in a phased approach that balances capital investment amounts over 3 years, and provides a more stable and sustainable flow of vehicle maintenance and replacement activities in the future

Suburban increases its fleet's fuel efficiency by replacing older, less efficient vehicles with new, more efficient vehicles; it uses less fuel and reduces fuel expenses passed onto customers, improving the affordability of their water bill.

The Commission can directly mitigate the rate of increase in climate change by approving Suburban's vehicle replacement requests. Hybrids and Electric Vehicles directly support CPUC's ESJ Goal #2 to invest in clean energy resources that benefit ESJ communities by improving air quality and public health.

Suburban's vehicle replacement schedule minimizes extended water service interruptions because utility employees will have functioning vehicles to respond to water system failures and emergencies. It will provide excellent customer service because utility employees have functioning vehicles to respond to customer requests. The replacement schedule reduces fuel required, saving the customers money, and reducing greenhouse gases emissions.

Background

HOW SUBURBAN'S VEHICLES ARE USED TO SERVE CUSTOMERS

Suburban's employees use utility vehicles to operate, maintain, and repair the water system that provides safe, reliable, and affordable water service to customers. The following are some examples.

Suburban's Field Service representatives use vehicles to drive to neighborhoods to get the meter reads used to prepare customer water bills. They visit customers to answer questions and resolve customer problems regarding their bills and water service.

Suburban's Operations and Maintenance Technicians (OMT) drive to Suburban's plant sites spread over the expansive service area to perform daily inspections, cleaning, lubricating, and inspecting, to perform preventative and correct maintenance. In emergencies, OMTs drive to all the system and visit plant sites to inspect facilities for damage and report plant status (tank levels, pumps on or off, etc.). These operators respond 24/7/365, and their prompt response is critical for minimizing customer service interruptions.

Suburban's Water Quality department drives to each of Suburban's DDW required water sampling stations and plant sites to take water quality samples and perform tests to ensure that the water served to customers is safe.

Suburban's Construction department responds to problems with the distribution system, including but not limited to main breaks, hit hydrants, and broken customer valves. These operators respond to system issues and emergencies 24/7/365, and their prompt response is critical for minimizing customer service interruptions.

Suburban's employees need reliable vehicles to perform the critical activities and respond to customer requests that are required to provide customers with safe, reliable and affordable water service.

Department of Government Service (DGS) Replacement Threshold

The California State Department of General Services (DSG) vehicle replacement thresholds ensure state agencies maximize resources by replacing state-owned fleet vehicle assets at the most economical mileage and age thresholds. The DGS thresholds

are shown in the table below, which was found at the following website link https://www.dgs.ca.gov/Resources/SAM/TOC/4100/4126.

Suburban agrees with the extensive study and research the DGS completed for the state and plans to replace vehicles using the same DGS threshold used to replace vehicles used by Cal Advocates or Commission staff. The CPUC has previously adopted Suburban's use of the DGS threshold in Decision 24-12-030. The decision states, "We grant Suburban's request to replace high mileage vehicles consistent with the 2017 standards." Suburban is replacing vehicles according to the DGS replacement thresholds that maximize resources by replacing fleet vehicles assets at the most economical mileage and age thresholds.

Vehicle Type	**Age of Vehicle (in months)**	**Vehicle Mileage**
Vehicles with Gross Vehicle Weight Rating (GVWR) up to 8,500 Pounds		
Law Enforcement Vehicles	60	100,000
Sedans	72	65,000
Mini Vans	96	80,000
Cargo Vans	60	65,000
Pickup Trucks	60	65,000
Sport Utility Vehicles	84	85,000
Vehicles with GVWR of 8,501 – 16,000		
Law Enforcement Vehicles	60	100,000
All Trucks, Vans, and SUVs	72	70,000
Vehicles with GVWR of 16,001 – 26,000		
All Trucks, Vans, and SUVs	132	115,000

Fuel Efficiency

Suburban should use the most fuel-efficient vehicles it can to reduce its fuel consumption and resulting fuel costs that are passed on to customers. Fuel is a cost that is passed on to

utility customers, and it is getting more expensive as global oil prices rise and taxes on gasoline increase. Using less fuel means less costs are passed on to customers, making their water bill more affordable.

Vehicles with higher fuel efficiency use less fuel than vehicles with lower fuel efficiency. Suburban's older vehicles have lower fuel efficiency and use more fuel than new Internal Combustion Engine (ICE), hybrid, and electric vehicles. Emissions from new ICE vehicles have been steadily reduced due to new, more effective technologies driven by state and federal regulations. Hybrids get more mileage per gallon of gas, and electric vehicles use less energy to travel the same distance. Suburban replaces each vehicle older, less efficient vehicle with a new one that is more fuel-efficient.

Suburban increases its fleet's fuel efficiency by replacing older less efficient vehicles with new, more efficient vehicles; it uses less fuel and reduces fuel expenses passed onto customers, improving the affordability of their water bill.

Greenhouse Emissions and the Environment

The more efficient a vehicle is, the fewer greenhouse gases it produces for the same amount of driving and use. Each old or high mileage vehicle that Suburban replaces will be more fuel-efficient and use less fuel. For specific replacements, Suburban is proposing using hybrid and electric vehicles. Hybrids are more efficient than gas-only engines because they recover energy for reuse from braking. Electric vehicles are powered by electricity, resulting in significantly less carbon emissions than equivalent gas engine vehicles.

The U.S. Department of Energy shows that the average emissions of a gas engine truck operating in Covina, CA produce a total emission of 410 grams per mile. The total emission from an electric truck is 130 grams per mile, less than one-third of a gas engine

vehicle. The total emissions are determined by summing up the emissions generated from operating the vehicle, producing the energy source, and transporting and distributing the energy source.

The Commission can directly mitigate the rate of increase in climate change by approving Suburban's vehicle replacement requests. Hybrids and Electric Vehicles directly support CPUC's ESJ Goal #2 to invest in clean energy resources that benefit ESJ communities by improving air quality and public health.

Replacement Schedule

Suburban proposes replacing all vehicles projected to exceed the DGS age and mileage thresholds in a phased approach. This alternative complies with DGS vehicle replacement recommendations and Cal Advocates' recommendation to the Commission. Suburban's replacement schedule meets the DGS objective in a phased approach that balances capital investment amounts over 3 years and provides a more stable and sustainable flow of vehicle maintenance and replacement activities in the future.

The table below lists Suburban's vehicle replacement schedule for the next three years.

Unit	Proj Miles	Proj Year	Age at replacement	Existing Make/Model	Proposed Replacement	Sub Total
11-111-1	177,336	2026	15	Ford F150	F150 StandardCab	58,682
10-132-6	151,737	2026	16	Ford F150	F150 StandardCab	56,739
18-142-1	150,131	2026	8	Ford F150	F150 StandardCab	64,408
18-313-6	149,536	2026	8	Chevy Colorad	F150 StandardCab	61,587
18-217-1	144,493	2026	8	Ford F350	F350 XL 145" Chas	110,612
20-304-6	142,569	2026	6	Ford Ranger	Ranger XLT SuperC	60,855
16-218-4	139,360	2026	10	Ford F350	F350 XL 145" Chas	109,809
20-144-1	137,296	2026	6	Ford F150	F150 StandardCab	64,325
20-100-1	137,104	2026	6	Ford F150	F150 StandardCab	64,960
18-208-1	150,460	2027	9	Ford F350	F350 XL 145" Chas	111,189
110033	137,035	2027	16	Ford Ranger	Ford F150 Lightnin	85,556
110036	136,836	2027	16	Ford Ranger	Ford F150 Lightnin	85,556
1094	133,642	2027	17	Toyota Prius	Ford Escape Hybrid	41,792
16-600-4	140,666	2027	11	Ford F350	F350 XL 145" Chas	108,317
10-138-6	133,999	2027	17	Ford F150	Ford F150 Lightnin	81,411
110047	132,931	2027	16	Ford Ranger	Ford F150 Lightnin	85,556
18-309-4	130,603	2027	9	Chevy Colorad	Ranger XLT SuperC	56,330
110006	128,027	2027	16	Ford F150	F150 StandardCab	53,371
10-139-4	126,124	2027	17	Ford F150	F150 StandardCab	56,739
10-700-6	125,462	2027	17	Ford Escape H	Ford Escape Hybrid	47,001
110080	122,566	2027	16	Toyota Prius	Ford Escape Hybrid	41,792
10-140-4	117,385	2027	17	Ford F150	F150 StandardCab	55,609
110040	116,122	2027	16	Ford Ranger	Ford F150 Lightnin	85,556
10-216-4	111,862	2027	17	Ford F350	F350 XL 163" Chas	89,325
110079	110,346	2027	16	Toyota Prius	Ford Escape Hybrid	41,792
10-135-1	113,059	2027	17	Ford F150	F150 StandardCab	55,609
16-213-4	116,467	2027	11	Ford F350	F350 XL 145" Chas	108,317
16-219-1	117,686	2027	11	Ford F350	F350 XL 163" Chas	121,471
21-315-4	113,004	2027	6	Ford Ranger	Ford F150 Lightnin	85,638
110044	104,561	2027	16	Ford Ranger	Ford F150 Lightnin	85,556
20-145-1	104,991	2027	7	Ford F150	F150 StandardCab	64,325
20-104-1	101,376	2027	7	Ford F150	F150 StandardCab	70,660
120011	59,349	2027	15	Ford F450	F450 XL 193" Chas	151,601
06-405-6	55,246	2027	11	Chevy Express	Transit Passenger V	71,438
110064	47,147	2027	16	Ford Ranger	F150 StandardCab	59,755
16-209-4	38,592	2027	11	Ford F450	F450 XL 193" Chas	140,552
16-505-4	38,776	2027	11	Ford F650	F650 Straight Fram	138,163
11-601-1	28,878	2027	16	Ford F450	F450 XL 193" Chas	91,105
16-400-4	24,473	2027	11	Ford F450	F450 XL 193" Chas	116,900
16-507-1	19,607	2027	11	Ford F650	F650 Straight Fram	138,326
16-502-1	18,155	2027	11	Ford F450	F450 XL 193" Chas	113,202
16-506-1	97,384	2027	11	Ford F650	F650 Straight Fram	138,433

Unit	Proj Miles	Proj Year	Age at replacement	Existing Make/Model	Proposed Replacement	Sub Total
16-207-1	105,977	2028	12	Ford F350	F350 XL 163" Chas	77,563
1097	100,192	2028	18	Toyota Prius	Ford Escape Hybrid	41,792
110081	95,751	2028	17	Toyota Prius	Ford Escape Hybrid	41,792
16-122-4	106,456	2028	12	Ford F150	F150 StandardCab	132,181
16-126-4	103,054	2028	12	Ford F150	F150 StandardCab	57,604
21-312-6	114,207	2028	7	Ford Ranger	Ranger XLT SuperC	61,980
16-214-4	104,775	2028	12	Ford F350	F350 XL 145" Chas	107,496
110032	102,623	2028	17	Ford Ranger	Ford F150 Lightnin	85,556
110042	93,501	2028	17	Ford Ranger	Ford F150 Lightnin	85,556
16-401-1	92,592	2028	12	Ford F350	F350 XL 163" Chas	102,347
19-200-1	98,309	2028	9	Ford F350	F350 XL 145" Chas	112,652
18-202-4	92,597	2028	10	Ford F350	F350 XL 145" Chas	110,612
20-306-4	111,504	2028	8	Ford Ranger	Ford F150 Lightnin	85,609
19-301-4	96,543	2028	9	Ford Ranger S	Ford F150 Lightnin	85,556
20-143-1	90,935	2028	8	Ford F150	F150 StandardCab	64,325
19-302-1	92,060	2028	9	Ford Ranger S	Ford F150 Lightnin	85,556
16-128-4	91,523	2028	12	Ford F150	F150 StandardCab	57,604
23-108-4	123,511	2028	5	Ford F150	F150 StandardCab	87,938
21-105-1	82,862	2028	7	Ford F150	F150 StandardCab	62,287
16-221-1	83,776	2028	12	Ford F350	F350 XL 163" Chas	101,330
				2026 Subtotal		**651,976**
				2027 Subtotal		**2,877,943**
				2028 Subtotal		**1,647,338**

The following table summarizes Suburban's vehicle replacement program costs for the rate case period 2026, 2027 and 2028.

SUMMARY - DGS Mileage and Age Threshold - Phased Approach					
Year	# of vehicles	Vehicle and Upfit cost	Escalation	Total	Notes
2026	9	$652,000			Replaces 50% of vehicles > 120k miles
2027	33	$2,877,000			Replaces vehicles > 100k miles or older than 10 yrs
2028	20	$1,647,000			Replaces vehicles > 80k miles
	62	**$5,176,000**			

2026 Planned Projects - $16,707,425

Q47 What are Planned Projects?

A47 Planned projects are high-cost construction efforts that fall outside the scope of our recurring project budget. They are essential to maintaining a safe and reliable water supply for our customers. Typical examples include wells, pumps, and tanks. These projects aim to reduce customer water bills, enhance water treatment to meet regulatory standards, improve system resilience such as backup generators, expand capacity, and integrate advanced technologies like smart meters. I'll discuss Suburban's planned projects below.

(P-1A) Plant 201 PFAS Treatment Plant - $10,210,053

Executive Summary

Suburban's ability to provide a safe and reliable water supply to over 120,000 Whittier-La Mirada customers is being threatened by Per- and Polyfluoroalkyl Substances (PFAS) chemical contamination, particularly perfluorooctanoic acid (PFOA) and perfluorooctanesulfonate (PFOS).

Suburban's most critical water source for the Whittier La Mirada service area, located at Plant 201, currently exceeds the California Response Level and the US EPA MCL for PFOA and PFOS. Without installing treatment, enforceable legislation (US EPA's April 2024 decision on Maximum Contaminant Levels (MCL) for exposure to PFOS and PFOA) prohibits Suburban's continued operation of Plant 201. Suburban is blending with water purchased from California Domestic Water Company, but the final MCL rulings make treatment the only option to reduce PFAS levels to an acceptable range. In the EPA's March 2024 report titled "Best Available Technologies and Small System Compliance Technologies for Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water", they have specified Granular Activated Carbon (GAC), Ion Exchange (IX),

Reverse Osmosis (RO) and Nanofiltration (NF) as the best available treatment technology. Currently, Suburban blends water from Plant 201 with California Domestic, which also has PFAS in its system exceeding EPA MCLs. Suburban would not be able to rely on blending to meet MCL requirements. California has established Public Health Goals, and USEPA has established Health Advisories for PFOA and PFOS, foreshadowing that respective MCLs will be lower than Suburban's blending operation can achieve. If Suburban fails to comply with US EPA MCLs for PFAS, Suburban will be forced to cease operation of Plant 201.

If Suburban cannot use its Plant 201 wells, or a reliable, long-term substitute, the Whittier / La Mirada system would fail to meet the minimum pressure requirements found in DDW's regulations. It would also fail to meet fire flow requirements required by GO 103-A and local fire departments. After extensive water quality testing and engineering design, Suburban recommends that an Ion Exchange (IX) treatment plant is built at Plant 201 to remove PFAS. Planning and Design of the treatment began in 2020 and was completed in 2021 to expedite the resumption of normal operations of this critical source of supply. Construction of the treatment plant and piping is estimated to cost $34,638,934. Suburban has taken steps to begin construction in 2026 through acquiring permitting and applying for grants. Suburban's customers cannot afford nor deserve PFAS in their water, therefore a treatment plant must be constructed immediately to provide a clean, safe, and reliable water source to customers.

Q48 What progress has Suburban made to date constructing this critical PFAS removal project?

A48 Suburban completed extensive engineering and planning to get the project ready for construction. Prior to filing General Rate Case (GRC) GRC Application 23-01-001 Suburban engaged consulting engineer Carollo who specializes in designing PFAS removal system for drinking water systems to perform site specific pilot testing to

determine the lowest life cycle cost treatment system to remove PFAS from Plant 201's wells. Carollo then prepared detailed engineering drawings and specifications to ready the project for bidding. Suburban also engaged Carollo engineers to pursue grant funding to reduce the cost impact of the project of Suburban's customers.

Suburban halted the project after it was initially denied in the GRC Proposed Decision (PD) that was issued on 10/31/24. The Commission issued its final decision (D.24-12-030) in that proceeding on December 23, 2024, which included approval for the Plant 201 PFAS project. There were substantial inconsistencies between the decision's ordering paragraphs and the underlying revenue model that brought into question which capital projects had been approved, and which had been denied. On 1/22/25 Suburban filed a Petition for Modification (PFM) seeking clarification on the decision. On 7/24/25 the CPUC denied Suburban's PFM and clarified differences between the model and ordering paragraphs. The PFM decision finalized the GRC application and cleared the way to resume the Plant 201 PFAS removal project.

Q49 Can Suburban move forward with the Plant 201 PFAS removal project without getting necessary permits?

A49 No. The City of Pico Rivera is the lead agency processing the California Environmental Quality Act (CEQA) permit for the Plant 201 PFAS removal project. Suburban submitted the CEQA Technical Memo to the City of Pico Rivera (City) on September 23, 2024 and has expeditiously responded to data requests from the City. For example, Suburban addressed concerns the City had regarding the impact the project might have on the adjacent Whittier Narrows Dam and the Pico Rivera Sport Arena. The United States Army Corps of Engineers (USACE) and the Sport Area provided a support letter for the project to the City by January 7, 2025. The City and its consultant notified Suburban that the project would qualify as Categorical Exempt from the CEQA process on April 22, 2025. Subsequently, the City informed Suburban that it would now need a Precise Plan of

Design (PPD) permit before it would issue the CEQA permit. Suburban submitted the PPD on May 28, 2025. The City has yet to issue the PPD permit; Suburban cannot commence construction until the permit is issued.

PFAS Grant Funding

Q50 Has Suburban qualified for any grant funding for the Plant 201 PFAS removal project to reduce the cost impact on customers?

A50 Yes. GRC decision 24-12-030 directed Suburban to seek grant funding to reduce the cost impact on customers. In 2023 Suburban secured a $1 million dollar grant from the San Gabriel Valley Water Quality Authority (WQA)WQA. At the end of 2024, Suburban was notified of additional funding from WQA's Federal Funding Program Administration (FFPA). In 2025 Suburban applied to WQA for an additional $1,000,000 grant. Suburban was notified on August 20, 2025, that it had been awarded an additional $750,000 of grant funding. To date, Suburban has been awarded $1.75M of grant funding from WQA. See Appendix 4 for the award letter and the 2023 acceptance letter.

Q51 Is Suburban pursuing other grants to reduce the cost impact on customers?

A51 Yes. Suburban has applied for up to $25 million grant funding from the Drinking Water State Revolving Fund (DWSRF) program. The conditions of the application prevented Suburban from applying for the grant until the CPUC approved the project in Decision 24-12-030 on December 23, 2024

Q52 Is the process for applying for grants delaying the commencement of construction of the Plant 201 PFAS removal project?

A52 Yes. Submitting an SRF grant application is a rigorous process that requires submittal of information from the utility that is divided into three sections: General, Environmental, and Financial. It is time-consuming and has resulted in Suburban submitting over 200 pages of supporting information to the State. Suburban has employed Carollo, a firm with

extensive experience applying for grant funding to prepare and file an application for the grant funding in a process that takes months to complete. Once submitted, the State takes months to review the application documents. Construction cannot commence until the environmental section of the application is approved. If construction begins before approval the grant may be disallowed. For the benefit of its customers, and on the advice of the state and consultant, Suburban is prudently waiting for the environmental section of the grant to be approved before commencing construction. Suburban submitted the environmental information to start the review process on May 15, 2025, and the complete application will be submitted by the end of 2025. The environmental process is anticipated to be reviewed and approved in the second quarter of 2026. The consultant has learned there are a few shovel-ready projects like Suburban's Plant 201 project, and they are optimistic that Suburban's funding request will be successful.

Q53 Is grant funding for the Plant 201 PFAS removal project guaranteed?

A53 No, Grant funding is not guaranteed. The upheaval in national politics and state budget challenges could potentially end the grant program, leaving Suburban's project without additional grant funding.

PFAS Litigation/Settlements

Q54 Is Suburban pursuing other funding sources?

A54 Yes. Suburban has filed a lawsuit against PFAS manufacturers to recover damages. Specifically, in 2021, Suburban filed a complaint in the multidistrict litigation proceeding pending in the U.S. District for the Southern District of South Carolina ("MDL Proceeding"), Suburban Water Systems v. 3M Company, et al., Case No. 2:21-cv-RMG ("PFAS Lawsuit"). In this PFAS Lawsuit, Suburban asserted various claims against the PFAS Manufacturers and sought recovery of costs associated with PFAS contamination as well as the abatement of the ongoing nuisance associated with these chemicals.

In 2023 and 2024, several of the largest PFAS manufacturers – 3M, DuPont, BASF, and Tyco – reached class action based settlements with the owners of drinking water systems, each of which was approved by the court in the MDL Proceeding. 3M settled for up to $12.5 billion, DuPont for $1.185 billion, Tyco for $750 million, and BASF for $316.5 million. Suburban did not opt out of the settlements and is participating in the settlements.

As of September 1, 2025, Suburban has received the first 3M settlement payment of $1,182,028.81, which amount is net of legal fees and costs. Suburban anticipates receiving a second 3M settlement payment and the BASF and Tyco settlement payments in 2025. Suburban also anticipates receiving the DuPont settlement payments in 2025 and 2026. The 3M settlement provides for payouts over a 10-year period. Settlements are received through the Water Contamination Litigation Memorandum Account. Settlement funds are being used to pay lawyer fees and offset project costs for PFAS projects, including the Plant 201 PFAS treatment plant.

PFAS Insurance Claim Litigation

Suburban is an insured under an Environmental Liability – Environment Protect Premises Policy ("Insurance Policy") issued by Allianz Underwriters Insurance Company ("Allianz"). Subject to all applicable terms, conditions, and exclusions, the Insurance Policy potentially provides coverage of up to $10 million for "Own Site Clean-up Costs".

In early 2020, Suburban notified Allianz of potential PFAS related claims based on the detection of PFOS and PFOA above the applicable notification level. On August 3, 2023, Allianz denied coverage for Suburban's claim and, on the same day, also filed a lawsuit against Suburban and its parent company in federal court in Houston, Texas, seeking a declaration that there is no coverage under the Insurance Policy. After Allianz and Suburban agreed to a tolling agreement, in part to allow for further developments in

US EPA PFAS maximum contaminant levels (MCLs), in October 2023, Allianz dismissed the lawsuit without prejudice. Since then, through counsel, Suburban has supplemented its claim for coverage, which Allianz has denied.

After the tolling period expired, in April 2025, Allianz refiled its lawsuit against Suburban in federal court in Houston, Texas, seeking a declaration that there is no coverage under the Insurance Policy for treatment costs related to the PFAS contamination. In August 2025, the court granted Suburban's motion to transfer the case to Los Angeles, California, where it is now pending before a new judge.

The outcome of Suburban's insurance claim, including proceeds, if any, is uncertain.

Plant 201

Plant 201 is Suburban's reliable, long-term water source to supply its Whittier / La Mirada service area customers. There is no viable alternative to offset the loss of production from Plant 201 due to contamination. Treatment must be installed at Plant 201 so that Suburban can continue to use this source to safely and reliably meet the water supply demands of its Whittier / La Mirada customers.

The Plant 201 well field produces a maximum of 10,600 gallons per minute (GPM) from the Main San Gabriel Basin groundwater basin, and provides 67% (13,500AF) of the supply to Suburban's Whittier / La Mirada service area. The balance of the supply is made up of water from California Domestic Water Company (CD), and Suburban's Central Basin wells at Plant 409 and 410. Suburban has an imported water source through a connection with the Central Basin Municipal Water District (CBMWD) and has four short-term emergency connections with Whittier, La Habra Heights, La Habra, and Cerritos. The following describes the limitations that each of Suburban's water sources have in offsetting the loss of production from Plant 201 due to contamination:

CD: Suburban purchases 4,200AFY from CD. CD's other major wholesale customers are the City of Brea and La Habra. CD has limited production capacity and must supply its three major customers proportionately based on share ownership. For this reason, CD has limited capacity to offset the loss of supply from Plant 201 due to contamination. The CD supply is currently used to blend with water produced at Plant 201 to meet regulatory requirements. If the CD supply is interrupted due to planned or unplanned outages, blending will not be possible and production at Plant 201 must be discontinued. This occurred recently in 2025. From February 5th to 7th, Suburban's CD supply was interrupted by a leak in their transmission main. This took away our ability to blend and required purchasing water from City of Whittier and Central Basin Municipal Water District to provide supply. In addition, blending will not be feasible with the finalized USEPA MCL established in April 2024.

Central Basin Wells: Suburban's Central Basin wells are already running to maximize their production. They have no additional capacity to offset the loss of water supply from Plant 201.

City of Whittier: Suburban has an emergency tie-in with the City of Whittier that delivers water into the Bartolo transmission pipeline, which transmits water from Plant 201 well field to Plant 224. The Whittier interconnection is not a reliable, long-term replacement for Plant 201. This connection has an instantaneous capacity of 6,000 GPM; however, the anticipated non-emergency flow is 2,000 GPM, significantly less than the 10,600 GPM provided by Plant 201's well field. The contract with the City of Whittier is that the interconnection addresses short-term emergencies, supplying water when they have excess water available, which they do not during the high-demand months. Therefore, this interconnection is not a reliable, long-term replacement to offset the loss of water supply from Plant 201.

Other Emergency Connections: As mentioned previously, Suburban has three other small emergency connections with neighboring water systems. These interconnections do not have the capacity to serve large portions of the Whittier / La Mirada system, and the short-term emergency contracts governing these interties limit usage to times when excess water is available, which is unlikely to be available during peak demands. For these reasons, these emergency sources cannot reliably replace the loss of water from Plant 201.

CBMWD: Suburban can purchase water from CBMWD supplied indirectly by the Metropolitan Water District of Southern California (MWD). MWD sources its water from Northern California through the State Water Project (SWP) and the Colorado River through the Colorado River Aqueduct (CRA). Long-running droughts in Northern California and in the Colorado River, watershed have significantly reduced the reliability of these sources.

This imported water has a large, embedded energy component and a carbon footprint due to the significant amount of electricity required to lift water from the Sacramento-San Joaquin Delta or the Colorado River over mountains in the statewide conveyance systems. This project supports the CPUC's Environmental and Social Justice (ESJ) Action Plan by reducing the carbon footprint. Maximizing production from a local aquifer is critical for Suburban to minimize its carbon footprint.

This source is the most expensive in the Whittier / La Mirada service area and is considered the last resort for water supply due to the cost. The Plant 201 PFAS removal project provides the lowest rates for customers in support of CPUC's ESJ goal for water customer resilience, item 3.2.2, acting on the affordability of water rates.

Lastly this project supports goal 4 of the ESJ plan by improving climate resiliency in disadvantaged communities by reducing the dependency on imported water that has been drastically impacted by years of droughts.

The CBMWD connection has a large capacity, but it is not large enough to meet the Maximum Day Demand (MDD) of Whittier / La Mirada. In addition, this connection is located down the gradient of Plant 224, making it physically difficult and expensive to boost to higher elevation pressure zones. This connection's limited capacity and the noted hydraulic limitations constrain Suburban's ability to meet emergency fire flow demands in some pressure zones relying on this connection alone.

Lastly, this source is controlled by MWD system operators, who will make flow rate changes once every 24 hours. This connection does not provide Suburban's operators with the flexibility to meet varying system demands throughout the day or for the system to automatically respond to emergency supply needs due to fire.

This source's high cost, carbon footprint, limited capacity, and hydraulic limitations exclude it from consideration as a long-term replacement to offset the water loss from Plant 201.

Suburban does not have a reliable, long-term replacement water source to offset the loss of production from Plant 201 due to contamination. Treatment must be installed at Plant 201 so that Suburban can continue to use this source to safely and reliably meet the water supply demands of its Whittier / La Mirada customers.

Per- and Polyfluoroalkyl Substances (PFAS)

Per- and Polyfluoroalkyl (PFAs) substances are a group of man-made synthetic chemicals that includes perfluorooctanoic acid (PFOA) and perfluorooctanesulfonate (PFOS). The compounds were previously used extensively in consumer products such as carpets,

clothing, furniture fabric, food packaging, nonstick cookware, and firefighting foams. PFAS is found in drinking water near specific facilities such as manufacturers, wastewater treatment plants, or firefighting training facilities.

While current drinking water concerns focus on PFOS and PFOA, over 6,000 PFAS compounds exist. The State of California currently has approved drinking water test methods for 18 such compounds. The California Office of Environmental Health Hazard Assessment (OEHHA) is exploring the potential toxicity of other PFAS chemicals, emphasizing chemicals that can be reliably detected in drinking water. OEHHA is exploring toxicity predictions based on chemical structure, toxicokinetic, biological activity and their similarity to other PFAS chemicals, using so-called "read-across" approaches.

There is substantial information showing that ingesting PFAS can adversely affect human health. In particular, studies dating back to 1974 suggest that consuming PFAS has adverse effects on human health. U.S. EPA has specifically stated: "[S]tudies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), thyroid effects and other effects (e.g., cholesterol changes)."

The current crisis surrounding PFAS contamination is rooted in the U.S. EPA's May 2016 decision to issue a Lifetime Health Advisory (LHA) for exposure to PFOS and PFOA at concentrations greater than or equal to 40 ppt and 10 ppt, respectively. This was a reduction from the 2009 provisional health advisory of 0.4 ug/L for PFOA and 0.2 ug/L for PFOS. U.S. EPA's action happened in conjunction with the release of UCMR3 data showing a considerable number of occurrences of PFOS and PFOA in drinking

water sources, not only in California, but nationwide. In June 2022, the EPA drastically reduced the LHA even further, down to 0.02 ppt for PFOS and 0.004 ppt for PFOA (US EPA – Technical Fact Sheet, Document EPA 822-F-22-002, June 2022)

Since U.S. EPA reduced the LHA in 2016, many States, including California, have initiated administrative or legislative action to address the health threat posed by PFAS. Specifically, Connecticut, Massachusetts, Michigan, Minnesota, New Jersey, New York, Rhode Island, and North Carolina have established, or are in the process of establishing, enforceable drinking water standards for PFAS. All of these actions are predicated on health effects information that post-dates the U.S. EPA health advisory and that indicates adverse health effects could result from consuming PFAS at concentrations significantly lower than the LHA level of 70 parts per trillion.

In California, on August 23, 2019, the State Water Resources Control Board's Division of Drinking Water ("DDW") reduced the Notification Levels from 14 parts per trillion (ppt) to 5.1 ppt for PFOA, and from 13 ppt to 6.5 ppt for PFOS. The revised Notification Levels are based on updated health recommendations by OEHHA. These Notification Levels could be further reduced by DDW in the future. On February 6, 2020, DDW reduced the Response Levels for PFOA and PFOS to 10 ppt and 40 ppt respectively, based on a quarterly running annual average.

On August 23, 2019, DDW also announced that it requested OEHHA to develop Public Health Goals (PHGs) for both PFOA and PFOS. Setting a PHG is one of the first steps in the process of establishing a Maximum Contaminant Levels (MCL) applicable to drinking water. In 2021, OEHHA set the cancer health-protective PHGs for PFOS and PFOA at 1 ppt and 0.007 ppt, respectively, in its first public review draft of its PHG report.(https://oehha.ca.gov/water/report/perfluorooctanoic-acid-pfoa-and-perfluorooctane-sulfonic-acid-pfos-drinking-water#FirstPubDraft)

Notification Level / Response Level

Notification Levels are precautionary health-based advisory levels for concentrations of contaminants in drinking water. DDW encourages public water systems to test their water for contaminants with Notification Levels, and in some circumstances DDW may order a public water system to test for such contaminants. When the systems conduct tests – whether voluntarily or by DDW order – the water system is required to report results that exceed the Notification Level to the local governing agencies, and DDW recommends that utilities report this information to customers. For Commission-regulated water utilities, the water system is required to report the exceedance to the Public Utility Commission.

Response Levels are health-based concentrations at which DDW recommends that a water system remove a source from service pending further action by the water system such as providing treatment. Response Levels are set higher than Notification Levels. While DDW regulations and the Health and Safety code recommend water systems remove a water source from service if the water contains contaminants over a Response Level, a water system may continue to use the source if it is beneficial to continue operating that source. In such cases, DDW requires public notifications of the continued use of the source, the health effects of the contaminant, as well as increased frequency of water quality monitoring.

While Response Levels are an unequivocal statement by drinking water regulators that water should not be consumed, the effect of a Notification Level should not be overlooked. Upon a customer being notified that a contaminant is in their drinking water, and that adverse health effects could result from consuming that water, some customers might substitute bottled water for tap water under the belief that bottled water does not contain that contaminant. Bottled water is significantly more expensive than tap water, even with the costs of wellhead treatment added to water rates, adversely affecting

household budgets and having an overall negative impact on confidence in the water distribution system. This is particularly problematic for disadvantaged communities that can ill-afford the higher water costs associated with substituting bottled water due to distrust of the significantly lower cost utility water system. This project will ensure levels are kept below the Notification Levels and trust in the water system is maintained. This supports CPUC's ESJ Goal #3 - water affordability and access to high-quality water and Goal #6 - ensuring consumer protection and safety for all, especially for ESJ communities.

It is important to note that some action that is "recommended" pursuant to Health and Safety Code section 116455 for contaminants with Notification Levels and Response Levels are mandatory for PFOS and PFOA exceedances pursuant to Health and Safety Code section 116378.

The establishment of the notification and response levels for PFAS were the precursor to the eventual establishment of MCLs.

EPA MCL Ruling

In April 2024, USEPA finalized its ruling on PFOS, PFOA, which set MCL's on the contaminants (https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas). Their ruling includes a grace period timeline before sampling and enforcement. USEPA has ruled that initial monitoring must be completed by the start of 2027. Below is the table of the enforceable MCLs for six PFAS contaminants listed in the April 2024 ruling:

Table 1 – EPA PFAS MCL Requirements

Compound	Final MCLG	Final MCL (Enforceable)
PFOA	Zero	4.0 parts per trillion (ppt)
PFOS	Zero	4.0 ppt
PFHxS	10 ppt	10 ppt
PFNA	10 ppt	10 ppt

HFPO-DA	10 ppt	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index	1 (unitless) Hazard Index

In May 2025, USEPA rescinded the PFHxS, PFNA, and HFPO-DA regulations and is currently reconsidering regulatory determinations. The MCLs for PFOA and PFOS remain in place. Additionally, USEPA extended the deadline for compliance implementation to 2031. Suburban's work planning, permitting, and pursuing grant funding now, will ensure that the Plant 201 PFAS removal equipment is constructed and in service ahead of the compliance deadline. Suburban's customers cannot afford to have service interrupted due to a loss of the primary source of water to the system. Further, Suburban's customers cannot afford to drink water contaminated with PFAS. For this reason the plant needs to be installed as soon as possible. Further delays will drive up costs, as demand for equipment and contractors is expected to rise as the MCL deadline approaches.

Environmental Permitting

Prior to any construction for the project, Suburban has acted to obtain the necessary environmental permitting for the treatment Plant. The following sections will go deeper into the two parties involved in environmental permitting in the area.

City of Pico Rivera

The City of Pico Rivera is the lead agency to receive California Environmental Quality Act (CEQA) permit approval. Suburban submitted to City of Pico Rivera the CEQA Technical Memo on September 23, 2024. Suburban made contacts with US Army Corp of Engineer (USACE) and Pico Rivera Sport Arena to obtain their comments on the proposed treatment plant. Supportive position letters were received by January 7, 2025, and a letter was sent to the City of Pico Rivera to complete a CEQA determination. City

of Pico Rivera consulted with its consultant and provide a Categorical Exemption determination on April 22, 2024. Suburban and its consultant proceeded to submit the Precise Plan of Design (PPD) on May 28, 2025 and is waiting for Pico Rivera to record the CEQA decision with LA County Registrar.

US Army Corp of Engineers

The Plant 201 well field is located behind Whittier Narrows Flood Control Dam, which is operated by the Army Corps of Engineers. This poses several challenges for constructing and operating water facilities. The first challenge is flooding when water is impounded behind the dam during storm events. The second challenge is environmental permitting resulting from the proximity to the San Gabriel River. To mitigate flooding, Suburban has constructed earthen mounds to elevate well heads and electrical equipment above the flood plain. The Army Corps does not permit the import of earthen material behind the dam because it reduces the dam's storage capacity. Therefore, earthen material must be borrowed from pits on site. The earthen material at the Plant 201 well field is primarily sand with a 50% shrinkage ratio; when compacted, the material shrinks to half its volume, resulting in the need for the borrow pit to be double the size of the mound to be constructed. This increases the area of the borrow pit. The construction of the mound and borrow pit is disruptive to the habitat at the plant site. This area behind the Whittier Narrows dam is considered environmentally sensitive because it is a potential nesting area for the endangered Least Bell's Vireo bird species. The sensitivity of this area results in the need for several state and federal permits that take significant time and expense to acquire. Also, the licenses come with mitigation requirements, including replacing distributed habitat at 10:1 ratio. The mitigation area is ten times the size of the disturbed area. The habitat restoration includes planting native species, and irrigation and monitoring for five or more years after completion of the project. Another permit requirement will limit construction outside of the Viero's mating season. Suburban

engaged an environmental consultant to determine an acceptable location for the treatment plant. The consultant surveyed Suburban's Plant 201 property and recommended construction on the north side of the property. The property's north side is not a riparian habitat area where protected species live. The exhibit below shows the area surveyed by the environmental consultant. The site on the north side also slopes up as it gets away from the dam and requires the least amount of earthwork to stay above the flood area. It is confirmed that no permit with the US Army Corp is required, however USACE is aware of the planned project and will receive a courtesy notification when construction is about to begin.

<< BEGIN CONFIDENTIAL>>



<< END CONFIDENTIAL>>

Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

Sample Results

PFAS has been detected in Suburban's Plant 201 wells. Based on DDW's requirement, as well as the significant public controversy and health concerns relating to PFAS in drinking water, Suburban identified and tested the wells at Plant 201 based on the potential vulnerability of these wells to this type of contamination because of their proximity to a landfill and wastewater treatment plant.

The following tables, Table 2 & 3, summarize results of testing for PFOS & PFOA in Suburban's Bartolo well field wells and the outflow at Plant 224 which has been used for blending since testing for PFAS began in 2019. The test results show that these wells exceed the current Notification Levels and USEPA MCL's for both PFOS and PFOA, triggering governing bodies notification requirements as discussed above and potential consequences from USEPA. Consequences can range from fines, penalties, or even court orders. The following tables summarize the PFOA and PFOS for the Plant 201 wells and Plant 224 outflow.

Treatment equipment is required at Plant 201 to remove PFAS chemicals so that water complies with State and Federal requirements and is safe for customers to consume.

Table 2 – PFOS Q1 2024 – Q2 2025

Bartolo Well	PFOS ng/L	PFOS ng/L	PFOS ng/L	PFOS ng/L	PFOS ng/L	PFOS ng/L
	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025
201W-7	15.00	17.33	13.67	15.67	15.67	13.67
201W-8	16.67	14.67	15.00	16.00	15.67	14
201W-9	20.33	19.67	22.67	20.00	21.33	18.33
201W-10	19.33	17.00	21.00	21.33	21.00	19.33
Plant 224 Outflow	13.67	12.67	15.00	12.33	14.33	14.33

Table 3 – PFOA Q1 2024 – Q2 2025

Bartolo Well	PFOA ng/L	PFOA ng/L	PFOA ng/L	PFOA ng/L	PFOA ng/L	PFOA ng/L
	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025
201W-7	7.36	8.57	8.53	7.93	8.67	7.3
201W-8	9.3	9.47	9.53	8.97	9.03	7.60
201W-9	9.80	11.00	11.67	10.33	9.37	9.40
201W-10	8.07	8.63	8.20	8.60	8.67	7.70
Plant 224 Outflow	6.90	6.97	6.90	6.90	7.77	6.93

Based on the most recent four consecutive quarters of water quality sampling data, Wells 7, 8, 9, and 10 exceeded the MCL for PFOA: > 4.0 ppt. USEPA posted "Our Current Understanding of the Human Health and Environmental Risks of PFAS" in November 2024 of the growing scientific evidence that PFAS can have adverse effects on human health, and the available information shows those adverse effects occur at lower levels than previously known, and from a broader range of PFAS compounds.

If Suburban serves water from Plant 201 for human consumption without treatment, Suburban will not comply with General Order 103-A, specifically Section II.2.A.(1), which requires a utility serving potable water to provide water that is not harmful or dangerous to health. In addition, such service would violate Public Utilities Code Section 770 insofar as such service would be inconsistent with the Division of Drinking Water requirement, which recommend that water sources exceeding the Response Level be taken out of service pending treatment.

Project Cost Increases

Costs for installing a PFAS treatment will continue to increase the longer Suburban waits to construct it. In Suburban's first budget for the project in the 2019 GRC, Suburban estimated costs to be $19,671,881. In this GRC the cost increased by more than 75% to

$34,638,934 . This is due to inflation costs impacting supply chains globally during the pandemic. And in this GRC, the costs have again increased due to inflation. Suburban must install a PFAS treatment immediately to avoid increased costs that our customers will need to bear.

Treatment Is the Only Option

While Suburban has thus far been able to implement interim mitigation measures to reduce the PFOA concentrations in water served to customers below 10 nanograms per liter by blending with other sources, as described in Section 2, this will no longer be possible due to the updated MCLs. The water used for blending does not meet the EPA's MCLs of 10 ppt for PFOS and PFOA, therefore no amount of blending with water from Plant 201 will result in acceptable risk to SWRCB.

In addition, a water source with zero concentration of PFOA would be required to blend down PFOA at about a 1,500 to 1 or 2,500 to 1 ratio to meet the PFOA PHG or HA levels of 0.004 and 0.007, respectively. In other words, to produce 10,000 GPM for consumption, Plant 201 can only produce less than 10 GPM while requiring 9,990 GPM of blend water with no concentration of PFOA to meet these requirements. Therefore, blending is not an acceptable alternative to removal of contaminates from the water. Blending is not considered a treatment technique.

Lastly, the location of certain interconnections relative to the system's hydraulics make it physically impossible for Suburban to replace the supplies provided by Plant 201 by purchasing water through those interconnections while also meeting pressure and fire flow standards throughout the Whittier / La Mirada system. Thus, Suburban would violate other standards of service imposed by General Order 103-A without treated water from Plant 201.

Blending and replacement sources cannot solve the PFAS problem and instead treatment equipment must be constructed at Plant 201 to remove PFAS.

Alternative Treatment Methods

In 2020 Suburban sent out a Request for Proposal to select a consultant to evaluate the PFAS removal treatment options. Carollo Engineering was selected, and they indicated that there are three treatment methods that have been found to remove PFAS from drinking water. The methods include the use of Granular Activated Carbon (GAC), Ion Exchange (IX), and high-pressure membranes such as Reverse Osmosis (RO). Although RO has been proven successful, the high cost of energy and operational challenges with handling the brine discharge do not make this alternative feasible. The following sections describe the two options evaluated, GAC and IX, that will provide customers with a clean, safe, and reliable source of supply.

Rapid Small-Scale Column Testing (RSSCT)

GAC and IX are phase-transfer technologies effective at removing PFAS from drinking water sources. Both treatment alternatives are well-established, and as such have multiple media and equipment sources available. The effectiveness of GAC and IX for PFAS adsorption depends on several factors, including media properties and empty bed contact time (EBCT). RSSCTs were used to compare PFAS adsorption characteristics for GAC media and IX resin on groundwater samples from Suburban's wells 201-W7 and 201-W8.

A total of six RSSCT's were performed. Rapid Small-Scale Column Testing (RSSCT) is performed in laboratory testing to determine contaminant effectiveness by anion-exchange resins like IX or granular activated carbons in a short time frame compared to pilot testing. For RSSCT's the particle size is reduced by grinding the particle, allowing

for increased mass transfer and water throughput. RSSCT testing was conducted at Arizona State University (ASU) to evaluate the effectiveness of granular activated carbon (GAC) adsorption and ion exchange (IX) resin for removal of PFAS from Suburban's groundwater. Both IX resins, Dowex PSR2+ and Purolite PFA694E, had a later breakthrough than the GAC media and, thus, performed better. (Hazen and Carollo PDR – Appendix A – Technical Memorandum RSSCT, August 2022). The summary is shown in Table 5 and 6 of Carollo's PDR - Appendix A, included in the appendix.

Granular Activated Carbon (GAC)

GAC adsorption is an effective treatment for the removal of PFAS in drinking water. GAC is made from organic materials with high carbon content such as wood, lignite and coal. Research demonstrated that GAC can remove up to 100% of PFOS and PFOA. Adsorption is the physical and chemical process of accumulating or adhering of atoms, ions or molecules from a gas, liquid or dissolved solid to a surface. Activated carbon is an effective adsorbent because it is highly porous and provides a large surface area to which contaminants adsorb.

Ion Exchange (IX)

IX treatment has also been proven to be an effective treatment process for removing PFAS in drinking water. IX acts like a magnet by which a positively charged anion exchange resin (AER) removes negatively-charged PFAS contaminants through attraction or by which a negatively charged cationic exchange resin (CER) removes positively-charged PFAS contaminants through attraction. PFAS also adsorbs to the resin, so both removal processes are present in the treatment process. Compared to GAC, IX has a faster reaction time and operates with a low empty bed contact time (EBCT) and high hydraulic loading rate that requires a smaller footprint than the GAC systems. Less media is required to treat the same volume of water, and it lasts longer than GAC.

Although the media is more expensive than GAC, less media will be needed compared to GAC during the life on an IX system reducing the lifetime cost.

Centralized Treatment versus Wellhead Treatment

There are four active wells at Plant 201. Each well was designed with the ability to produce about 3,300 GPM each on average, such that running three of them together would produce approximately 10,000 GPM with the fourth well for reliability. A 10,000 GPM is the maximum capacity of the Bartolo Transmission Main. Suburban has detected PFAS in all its active Plant 201 wells and they all require treatment (see Table 2 & 3). The following discusses whether the treatment should be centralized at one location or distributed at each well head.

If treatment vessels were installed at each well, more vessels would be required. In the centralized approach, 16 vessels (8 trains in lead-lag configuration) would be installed to treat 10,600 GPM (Table 2.3, Carollo PDR, August 2022). In the distributed approach 6 vessels (3,300 GPM / 1,325 GPM per train = 3 trains or 6 vessels) would need to be installed at each of the 4 wells resulting in 24 vessels.

Table 2.3 Comparison of PFAS Treatment Technology Alternatives[1]

Parameter	GAC	IX
Vessel Diameter (ft)	12	12
Vessel Rated Capacity (lb GAC)[2]	40,000	20,000
EBCT per Train (min)	20	4.7
Maximum Flow Rate per Train (gpm)	883	1,325
Maximum Loading Rate (gpm/sq ft)	7.8	11.7
Pressure Loss (psi/ft)	0.22-0.36	1
Number of Trains	12	8
Total Number of Vessels	24	16
Changeout Frequency (yr)	0.38-0.66	0.61-0.98
Capital Cost ($MM)[3][4]	19.4-20.6	13.8-14.8
Annual O&M Cost ($MM)[3][4]	1.8-2.6	1.6-1.9
Life-Cycle Cost ($MM)[3][4]	50-63	41-45

Abbreviations:
ft = foot/feet, EBCT = empty bed contact time, gpm/sq ft = gallons per minute per square foot,
psi/ft = pounds per square inch per foot, $MM = million dollars
Notes:
(1) Parameter values are based on RSSCT results, Blue Plan-it® modeling, and vendor coordination.
(2) Vessel rated capacity is typically expressed in pounds of GAC for a full fill of GAC. Vessels can be partially or fully filled with media to achieve the desired EBCT.
(3) The estimated capital, O&M, and life-cycle costs vary based on the GAC or IX media selected. The GAC media tested include Calgon Filtrasorb 400, Norit GAC 400, and AqueoUS Vets AV1240 PFAS. The IX media tested include Purolite PFA694E and Dowex PSR2+.
(4) Refer to Appendix A – Detailed Construction Cost Estimate for assumptions used in the cost estimate.

In addition, other support equipment needed to operate the treatment plant such as sand separators, electrical, instrumentation and controls, and SCADA would all need to be built at each well. The existing pads are not large enough to install vessels at each well head and the existing pad would need to be widened or a new pad would need to be built to accommodate the treatment facility. Lastly, when the wells reach the end of their useful lives and are abandoned, similar to how wells 1, 2, 3, 5, and 6 have been, the assets would be stranded and new well head treatment would need to be built with each new well. Distributed treatment would cost more now and guarantees additional capital costs in the future when replacement wells are constructed.

A possible alternative to lower costs of well-head treatment would be to limit construction of well-head treatment to only select wells with the highest concentrations and blend with the remaining wells below the MCL. This would help mitigate the cost of building individual treatment plants at each well by reducing the number of well-headed treatment plants, however there are two issues with this option. First, when the well with the treatment plant reaches the end of its useful life, the well head treatment will be abandoned along with the well and need to be rebuilt at another well, incurring additional capital cost. Second, DDW does not allow blending in pipelines as a treatment option, and the water would still need to be sent to blend at the terminal reservoir at Plant 224. This alternative does not resolve the issue of providing harmful and dangerous water as required by GO 103-A and discussed in Sections 1.2 & 1.3.

Constructing a centralized plant provides flexibility in the future as Suburban's replacement wells would feed into the existing treatment plant and would not require the construction of new well head treatment. To construct a centralized plant a pipeline will need to be constructed that picks up flow from each well and delivers it to the treatment plant. The pipeline cost estimate is included in Project Cost Table below. The construction of any future well would only require a short lateral to tie into this transmission pipeline and would incur no additional costs for PFAS treatment infrastructure. The construction of a centralized plant provides the most flexibility and the lowest construction cost.

For these reasons Suburban has designed and plans to construct a centralized treatment plant to treat water from the Plant 201 wells before being delivered to the Bartolo Transmission Main. The project scope of work is unchanged from D-24-12-030.

Modeling Results

Carollo estimated media changeout frequency for the full- scale system based on RSSCT breakthrough curves obtained. The IX resin, Dowex PSR2+, had the highest overall predicted bed life of 11.8 and 14.8 months. The best performing GAC media (Norit GAC 400) had a predicted bed life of 8 months and 11.8 months. Media change out or replacement represents the largest O&M cost for a treatment plant. IX exchange offers the lowest O&M costs. Additional information about Carollo's RSSCT is shown in appendix A of Carollo's PDR, included in this report's appendix.

Alternatives

Alternative #1 - Do Nothing

Alternative #1 is to do nothing to address PFAS at Plant 201. The Whittier La Mirada water system serves a population of nearly 120,000 residents. The system's most crucial facility is Plant 201 that supplies 67% of the water. The system has various sources of supply, however even with these other sources operating at maximum capacity the system cannot reliably meet the supply needs during the high demand period. US EPA's and OEHHA's latest LHA and PHG further increases the likelihood of not being able to meet operational requirements because Suburban will not be able to feasibly blend at Plant 224. Not installing a treatment facility is not an option. Suburban's customers cannot afford the Do Nothing alternative because it doesn't remove the adverse health effects of PFAS, and it leaves them vulnerable to running out of water.

Alternative #2 - Build Treatment at Plant 224/216

Alternative #2 is to build the PFAS treatment plant at Plant 224 or Plant 216. The transmission line from Plant 201 terminates at the Plant 224 Reservoirs before being boosted to other system areas. However, there are multiple turnouts from the line before

reaching Plant 224. If treatment were installed at Plant 224/216 instead of Plant 201, the locations served by the turnouts would not receive treated water before reaching their distribution areas. A 3-mile-long pipeline on Whittier Blvd would need to be installed to supply these connections, costing substantially more to take treated water from Plant 224/216 to the takeoff points. Additionally, Plant 224 and Plant 216 are in the City of Whittier along Whittier Blvd., where in 2015 the City adopted The Whittier Boulevard Specific Plan (WBSP). The WBSP specifies zoning requirements along Whittier Blvd. The plan intends to put the best of Whittier on display, reflected by the design, aesthetics, and architecture of the structures built. A water treatment plant with 16 steel vessels 12-feet in diameter and 40 feet tall would not be permitted at this location. Suburban has also committed Plant 216 to a land swap with CD for the property that Plant 224 occupies. Upon execution of the contract, Suburban would own only a small portion of the lot at Plant 216 which is committed to a future production well and small manganese treatment vessel. For the reasons noted above, these sites are not viable.

Alternative #3 - Build Treatment Facility at Plant 201

Alternative #3 is to build the PFAS treatment plant at Plant 201. The treatment facility should be located where there is available land and where it can treat water before it reaches turnouts in the transmission system. The Plant 201 well field pumps water into a 7-mile-long transmission pipeline referred to as the Bartolo Transmission Main. The Bartolo Transmission Main terminates in the Plant 224 reservoirs, where the water is then boosted up gradient to the Friendly Hills service areas, and down gradient to the valley portion of the Whittier and La Mirada portions of the service area. Along the Bartolo Transmission Main and before reaching the terminus at Plant 224, turnouts are provided to supply various pressure zones through Plant 208, 207, 205 and 209 pump stations and the Painter and Lambert valve station. These booster stations and valve stations are located on very small parcels or in sidewalk vaults adjacent to commercial and residential

development where the construction of treatment facilities is not feasible. The water from Plant 201 must be treated before it gets to these booster plants to ensure safe and reliable supply to Suburban's customers. The following discusses consideration of plant location alternatives:

Purchase Commercial Property: Suburban could consider purchasing commercial property south of Whittier Narrows Dam. However, no property is currently available, and Suburban would need to pay above market value to convince current owners to sell. The very high cost of land acquisition makes this alternative not viable.

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SCE Right of Way: There is a Southern California Edison (SCE) right of way adjacent to the Whittier Narrows dam. This site is large enough. However, SCE would likely not want to lease this property for the construction of permanent treatment equipment. Typically, SCE leases their rights of way to nurseries and other temporary uses. Also,

Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

leasing this land would result in additional lease expenses for Suburban's customers. For these reasons this site is not viable.

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Plant 201: Suburban owns the Plant 201 plant site that is approximately 90 acres and would be suitable for the construction of a treatment facility. This option does not incur land acquisition or lease costs. Because of this, Plant 201 is the most viable option.

Recommendation:

Suburban has considered the benefits and constraints of each of the alternatives for dealing with PFAS at Plant 201. Suburban's customers cannot afford to Do Nothing. The PFAS must be removed from the water because alternative supplies are insufficient in

Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

quantity and vital reliability, and PFAS has been determined to be harmful to customers' health. There is no land available to construct treatment equipment at Plant 216/224. Further, constructing a plant downstream of the transmission pipeline would eliminate Suburban's ability to distribute water to the distribution using connections along the transmission pipeline. There is available land at Plant 201 for constructing the treatment plant. Constructing treatment Plant 201 would allow

water to be distributed to Suburban's distribution system from connections along the transmission pipeline. Constructing the treatment equipment at Plant 201 is the only viable option. Suburban has selected the Plant 201 well field as the appropriate site to construct the treatment plant.

Project Costs

Project Bid Proposals

Suburban sent the project out to bid in October 2025 and will receive proposals on December 15, 2025. The bid proposal is shown in Appendix 2. Construction is expected to begin in June 2026 as soon as the permits are received and the grant funding is approved.

Procurement Lead Times

Equipment procurement must be done as soon as possible due to long lead times potentially impacting the construction schedule. Carollo has previously reached out to manufacturers on lead times for equipment, including sand separators, cartridge filers, and the ion exchange vessels. Lead times range from 8 weeks to more than 28 weeks. Failing to immediately procure equipment for the treatment plant will cause delays in construction and must be purchased as soon as possible.

Conclusion

Suburban's Plant 201 wells are the primary source of supply for the Whittier / La Mirada system and they are contaminated with PFAS above State and Federal regulated levels. Suburban's customers cannot afford to postpone the removal of PFAS until 2031 or have the reliability of their service degraded. Suburban must construct PFAS removal equipment at Plant 201 to provide a clean, safe, and reliable water source for its customers.

Suburban has completed extensive water quality testing, engineering design, and permitting. The project was halted on 10/31/24 when the proposed decision in the previous GRC denied it and restarted when the GRC was finalized on 7/24/25 with the resolution of the PFM.

Suburban has secured $1.75M of grant funding from WQA, and pursuing $25M of grant funding from the SRF program. Suburban is pursuing lawsuits against PFAS manufacturers and a claim against its environmental insurance policy. These additional sources of funding will reduce the cost impact of the project on customers but are not guaranteed.

Construction of the project will commence as soon as the environmental section of the grant application is approved, and the City of Pico Rivera approves the CEQA and PPD permits.

Human consumption of PFAS chemicals has been shown to have adverse health effects, resulting in US EPA finalizing MCLs for several PFAS chemicals. Suburban's wells at Plant 201 exceed both the PFOA & PFOS MCLs. Without the necessary investments in treatment facilities, Suburban will fail to meet the MCL and will lose a critical source of water supply at Plant 201.

Suburban's water system does not have an alternative long-term, reliable source of supply that can meet customer demands and or provide sufficient emergency fire flow capacity. Suburban must construct PFAS removal equipment at Plant 201 to address its legal exposure.

Suburban will construct an IX Water Treatment Facility at Plant 201 as soon as possible. Suburban selected IX because it will have better performance, require less costly capital investment, and have lower annual operating expenses.

Solicitation of bids and commitment of funds for the construction of the treatment plant must begin immediately due to anticipated challenges and time required to execute an agreement, obtain permits, procure long lead time materials such as vessels and build the treatment plant. The following schedule has been developed to ensure this source of supply continues to reliably operate when the PFAS MCL is established.

Suburban's customers cannot afford to have PFAS in the water or have poor water system reliability. The construction of treatment equipment at Plant 201 will ensure that Suburban can continue to supply a clean, safe and reliable source of supply to the 120,000 people who are served by the Whittier/La Mirada water system.

Appendices

Appendix 1 – Carollo Preliminary Design Report (2022)

Appendix 2 – Pacific Hydrotech Corporation Proposal (2025)

Appendix 3 - Carollo Construction Management Cost Proposal (2025)

(P-1) SCADA System Implementation – $589,518

Suburban must complete the SCADA replacement project in 2026, that was authorized in Decision 24-12-030 (D-24-12-030) on 12/23/24 and started in 2025.

Executive Summary

Suburban relies on its SCADA system to reliability and efficiently run its water system. Suburban's current SCADA software system needs to be replaced, and Suburban has selected VTScada as the replacement software. Suburban is many years into a program to upgrade its SCADA system to make it more reliable, resistant to cybersecurity threat, and not reliant on a single integrator. Suburban completed pilot implementation of the new SCADA software in its Sativa service area in 2025 and plans to complete the roll out for the remaining 5 service areas in 2026 for an estimated cost of $589,518. Suburban's customers cannot afford the poor service and cybersecurity risk that will occur if the current SCADA system is not replaced.

Background

Suburban needs a scalable SCADA platform that experienced SCADA professionals support. The SCADA system is the brain and nerves of the water distribution system. It is critical for the water systems operations. The SCADA system consists of hardware and instruments at plant sites including Program Logic Controllers (PLC), flow meters, chlorine residual and tank and pressure transmitters. It also consists of a communication network that communicates between plants sites and with the system control stations. Finally, SCADA's software system pulls the system together. The software allows operators to monitor the system, turn equipment on and off, and to collect historical operations data.

As recommended in the SCADA Master Plan (Workpaper, Volume III, P-1), communication equipment was upgraded from hardwire-based (phone) communication to a radio system in 2016. Hardware upgrades to current industry standards with firewalls have been completed. Suburban will integrate these standards into future designs. The SCADA application software has not been upgraded, but Suburban has made significant

progress towards completing it. Suburban currently uses BIF3800 for its SCADA software. It is a proprietary system owned by one person, the main integrator, with one other person to support and maintain the system in the United States. This platform is over 30 years old and is not scalable like modern platforms. BIF3800 integrator is nearing retirement, and when that happens Suburban will not be able to maintain or improve its SCADA software. If Suburban does not replace its SCADA system it will experience SCADA system failures that it cannot recover from, and it will not be able to remotely monitor and control the water system.

Suburban's long-term plan to ensure a reliable and effective SCADA program has been thoroughly evaluated. In 2018, an assessment and report, "Suburban Water Systems – Preliminary SCADA Assessment Report," dated 10/31/18 (Workpaper, Volume III, P-1), was prepared by engineering consultant Cannon that identified both hardware and software deficiencies. The assessment demonstrated a need to evaluate the system further. In 2019, Cannon prepared a Master Plan providing further detail and proposed phasing and timeline for the improvements recommended in the assessment. Upon receipt of the Master Plan, Suburban began another phase of capital improvements in 2020 by integrating the recommended hardware, infrastructure modernization, and security plans into its routine operations and maintenance practices. This portion of the Master Plan focused on improving existing hardware infrastructure by standardizing Modicon PLC components in designs and upgrading existing PLCs. This phase also included the installation of redundant or backup Gateways at master sites to ensure remote areas are always visible. Cal Advocates did not contest the SCADA replacement project, which was authorized in Decision 24-12-030. D-24-12-30 delayed decision prevented Suburban from commencing the project on time, and it could not be completed in 2025. An agreement has been executed with an integrator to perform the work. Suburban started the project in 2025 and will complete it in 2026. Completion of the SCADA replacement

project is necessary to protect customers and provide a safe and reliable water supply. Suburban has diligently taken the necessary steps to upgrade the SCADA system to a modern platform systematically. This phase to replace the SCADA software needs to be completed to have a reliable and effective SCADA platform.

Justification

Assessment Results

The SCADA Master Plan, prepared by Canon, identified two critical reliability concerns: hardware and software. Many hardware concerns have been addressed, and the recommended standards outlined in the Master Plan have been met. Software concerns involve consistency of logic from site to site and redundancy in outside support for programming and troubleshooting.

Consistency of Logic

To address the logic's consistency, a programming template was developed as a standard to minimize downtime when the system crashes and needs to be re-established. The template will also reduce installation time when the system is expanded. A pilot project was initiated to develop the template in the Sativa water system. The Sativa Water system was selected because it did not have SCADA, and it was a small system with very few inputs which facilitated the development of the template. The pilot project addressed this critical issue using the current BIF3800 processes in the software platform VT Scada, which is discussed in the below section VTScada. This is also beneficial for staff turnover because a template reduces reliability in institutional knowledge and dependency on specific staff who understand how the system is utilized. Screens were developed and vetted by Suburban staff. This ensures that they are comfortable with the

setting and are familiar with the icons. The templates and settings have been standardized and will be extended to the system-wide rollout of the SCADA system.

BIF 3800

Although SCADA is working satisfactorily now, the current integrator/programmer, has announced his retirement plans. The current integrator/programmer has been the sole integrator/programmer for 30 years. He and his customers have all identified and acknowledged that a succession plan is required to transition into a new platform. He is working with his other customers to transition them to a new platform. The risk of downtime when BIF3800 is no longer supported is too great, and waiting for the day when the integrator retires before implementing the transition is short-sighted. The integrator/programmer is the only one who knows and understands BIF3800. Without the programming expertise of this integrator, a system would be forced to operate without SCADA. A reliable integrator to support the SCADA platform is crucial to the water system's operations. The current integrator/programmer assisted in the transition to new SCADA software by documenting the current BIF3800 process and laying out the programming logic of the Suburban SCADA System.

Operating without SCADA

Suburban employs a SCADA system to monitor and control water distribution facilities throughout its six water systems. The system monitors 65 remote sites in the service area. Two of the sites serve as master sites that collect data from all other locations and communicate with the operator interface, providing real-time data that enables decision making and changes to the operation of facilities by computer, eliminating the need for staff to be physically present on site. This is particularly effective during non-working hours when the team may take several hours to respond to the site. In contrast, an on-call technician can respond via a secure and dedicated internet within minutes. For example, a

major main break or sheared hydrant causes an increase in demand in the system, and the system alerts the operators of a sudden drop in pressure or tank levels. The operator can shut down pumps within minutes to prevent further water loss, preserve storage for fire events, and minimize damage caused by flooding. Without an active SCADA system, plant operation would depend on the physical presence of maintenance staff at the plant sites. Suburban has 9 wells, 24 reservoir sites, 2 treatment plants and 37 booster stations. All these sites will need to be staffed and monitored around the clock. Suburban has insufficient staff to run the water system without a functioning SCADA system. The SCADA system is essential for maintaining public safety because it minimizes emergency response times by allowing a high level of control to be performed remotely and in real-time.

Site Security

The SCADA system serves as an integral part of Suburban's site security strategy. The SCADA monitors the water system and other physical security systems (access, hatch limit switches, etc.) at water utility facilities that alert operators to unauthorized plant site access. Our potable water treatment and storage facilities are susceptible to acts of terrorism and vandalism, and this system provides additional security and visibility for the sites.

Cybersecurity

A cybersecurity attack would negatively impact Suburban's customers. Threats such as hacking, ransomware, nation-state attacks and exploitation of remote access are constant. If successful, one incident could damage the reputation of an organization and even harm customers. In October 2024, American Water suffered a week-long outage of its billing system and call center. Moody's Ratings said it viewed the incident as credit negative. Cyber threats put strains on employees and operations. In January 2024, a hack into

several Texas cities' SCADA systems overflowed one of the tanks. In April 2024, Tipton, Indiana, saw an unintended modification to operation control, resulting in employees switching to manual operations to safeguard the water system. In January 2024, Veolia North America experienced a degradation of its billing system and had to take the system down to protect the information. The need for effective cybersecurity is real and requires Suburban to implement a secure SCADA system that will protect the organization's reputation, finances, and strain on employees.

VTScada

Suburban chose VTScada for its SCADA software platform. It is used by many water agencies like the City of Sacramento Department of Utilities and Antelope Valley East Kern Water District. VTScada is a modern platform with unlimited scalability, a historian to support business processes, and advanced cybersecurity monitoring. This software is widely used in various industries such as water, oil, gas and food manufacturing. Converting from BIF3800 to VTScada will transition Suburban from relying on sole proprietor to a widely accepted SCADA standard. The system is beneficial due to industry recognition, proven technology, and a large pool of integrators that can install the design and provide technical support. This system eliminates the risk of a single integrator/programmer without a viable backup. In selecting VTScada, Suburban can rely on over 200 integrators in North America, with 13 of them in California, and 6 integrators have staff within Southern California to assist the organization. Many of these nationwide integrators are well-known engineering firms like CDM Smith, Arcadis US, Enterprise Automation, and Carollo Engineers. VTScada is a Platform deployed worldwide and has hundreds of systems in the US. Over 200 integrators support them well and have established programmers whom they can rely upon. VTScada, the new SCADA software platform chosen by Suburban, will provide the scalability and security needed by Suburban.

Suburban initiated a pilot project in March 2025 to connect SCADA at the Sativa system plant site to the System Control center at the Covina office using VTScada. Staff worked with our SCADA Integrator to understand the screen settings, industrial trends, standards, and icons that will help with the transition and setup. The owner of BIF3800 assisted the integrator in helping with decoding and encoding the processes to a standard SCADA system. Suburban worked with the integrator to configure the software and program the operation processes. Staff tested the roll-out of the program in the Sativa system; VTScada, and BIF3800 are running simultaneously. This project was completed in September 2025. Suburban will award another contract to the SCADA Integrator to convert the remaining five water systems to VTScada. The pilot project demonstrated the feasibility of transitioning to the new SCADA system and provided a plan for rolling out system wide.

Alternatives

Alternative #1 – Do not finish the SCADA Replacement Program

This alternative exposes Suburban to the tremendous risk of not being able to operate the water system due to the imminent termination of support from the existing SCADA programmer. Suburban's 300,000 customers would rely on an entirely manual process that could not be maintained with existing staffing until a new SCADA support team could be assembled and the existing infrastructure integrated with new software. Customer service would diminish, leading to water system violations. Not completing the transition is an irresponsible and imprudent option.

This alternative also leaves our entire service area vulnerable to extended service interruptions due to the inability to operate the SCADA system. This may result in delays in service restoration during natural disasters, diminishing the ability to provide fire protection and potable water in times of crisis. This also leaves the system

susceptible to cybersecurity threats because it is not updated and protected. With today's environment, where hacking is prevalent, it is critical to protect the water system and services that run its operations. Without a SCADA system, Suburban cannot be assured that the water system is managed effectively and efficiently in producing wholesome water.

Alternative #2 – Install and implement VTScada

This alternative is installing a new software package, VTScada by Trihedral, including additional hardware and software upgrades to meet current industry standards for operation, functionality, and security. With this option, the existing BIF3800 will be phased out, and the SCADA system will be operated solely off the new VTScada platform. This will provide reliability, serviceability, and standardization to software used and supported in many industries, including water. Suburban's SCADA system will be on a secure and dedicated communication line.

Below is the cost estimate for the implementation of the new SCADA platform.

Description		Amount
Master Polling Update (2025 Budget)		$68,013
Sativa System Design (2025 Budget)		$25,355
Sativa System Integration (2025 Budget)		$74,610
Phase 0: Common Design (2025 Budget)		$156,266
Subtotal (2025 Budget)		$324,244
General Administration 2025	9.00%	$29,182
Subtotal Cost in 2025		$353,426
Phase 1: WLM Integration (2026 Budget)		$262,201
Phase 2: SJH Integration (2026 Budget)		$278,641
Subtotal (2026 Budget)		$540,842
Subtotal Cost in 2026 $		$540,842
General Administration 2026	9.00%	$48,676
Total in Cost of Project in 2026		$589,518

The basis for Budgeted Cost:

The estimated project cost is based on Enterprise Automation's proposal included in Appendix 4 (Workpaper, Volume III, P-1) and includes hardware, software, Engineering and General Administration. Developing the system's architecture referred as Phase 0, Common Design will be completed by December 31, 2025. The total projects costs in 2025 are ESTIMATED TO BE $353,426. The cost to complete the project in 2026 is $589,518 and the total combined cost from 2025 and 2026 is $913,762.The budget cost of the SCADA project is less than the adopted amount in Decision 24-12-030 (D-24-12-030) of $996,300.

Alternative Review

Alternative #1 exposes Suburban to extended service interruptions due to evolving cybersecurity threats and a lack of programming support. Alternative #2 increases the reliability by building the infrastructure and framework necessary to have VTScada in place where the current support structure is no longer available. This provides a safety net and allows for gradual implementation and testing in parallel of all new systems while the existing system is still running, ensuring no gaps in SCADA operationality Suburban plans to move ahead with alternative 2 because it provides a viable solution to ensure Suburban has scalable, secure platform for its SCADA system.

Project Conclusion

Suburban relies on its SCADA system to reliability and efficiently run its water system. Suburban's current SCADA software system needs to be replaced, and Suburban has selected VTScada as the replacement software. Suburban is many years into a program to upgrade its SCADA system to make it more reliable, resistant to cybersecurity threat, and

not reliant on a single integrator. Suburban completed pilot implementation of the new SCADA software in its Sativa service area in 2025, and plans to complete the roll out for the remaining 5 service areas in 2026 for an estimated cost of $589,518. Suburban's customers cannot afford the poor service and cybersecurity risk that will occur if the current SCADA system is not replaced.

Appendices (Workpaper Volume III, P-1)

Appendix 1 – SCADA Assessment

Appendix 2 – SCADA Master Plan

Appendix 3 – SCADA Sandbox Implementation Report

Appendix 4 – Enterprise Automation Proposal

(P-2) Sativa Manganese Treatment Plant - $3,927,656

Q55 Can Sativa water system customers afford to consume colored, poor-quality water from Well 5 contaminated with high concentrations of Manganese?

A55 No. Sativa's customers cannot afford to consume colored, poor-quality water from Well 5 that is contaminated with high concentrations of Manganese. Prior to Suburban acquiring Sativa, these customers suffered for more than decade with brown and black water that they could not drink or cook with, they had to buy more expensive bottled water for their basic needs. Further, there are other costs when you don't trust your water supply including having to leave the system to bathe in clean water and washing clothes at laundromats. The manganese removal treatment plant must be constructed to provide Sativa customers with clean, reliable and affordable water.

Q56 Can Sativa water system customers afford to pay more for water from neighboring purveyors when a lower cost source is available?

A56 No. The Sativa water systems customers cannot afford to pay more for water purchased from neighboring water purveyors that is substantially more expensive than producing water from Sativa's own Central Basin wells. The manganese removal treatment plant must be constructed to provide Sativa customers with the lowest cost water that is clean, reliable and affordable.

Q57 Are Sativa water system customers second class citizens that only get water when neighboring purveyors don't need it?

A57 No. The customers in the Sativa' water system do not deserve to be last in line for water when neighboring purveyors shut off connections to Sativa when they need the water in their own systems. The Sativa customers have suffered from poor quality and unreliable water service for far too long. They pay a fair price for water service like everyone else and have a right to be first in line to receive safe, clean, and reliable water service. They are not second-class citizens that only get water when the neighboring purveyors don't need it. The manganese removal treatment plant must be constructed to provide Sativa customers with the lowest cost water that is clean, reliable and affordable.

Executive Summary

Sativa water system customers cannot afford to consume colored, poor-quality water from Well 5 contaminated with high concentrations of Manganese. Sativa water system customers afford to pay more for water from neighboring purveyors when a lower cost source is available. Sativa water system customers are not second-class citizens that only get water when neighboring purveyors don't need it.

The manganese treatment plant is required to provide clean and reliable water to Sativa's customers and Suburban is obligated to reimburse LAPWC for a portion of the manganese removal treatment plant costs not covered by the $2.25M grant. The original project cost estimate of $2.25M underestimated the eventual cost to construct the

manganese treatment plant, as unforeseen inflation and administrative overhead costs emerged later in the project timeline.. The estimated total final project cost is now $5.8M and Suburban is required to pay $3.92M which is the difference between the total final project cost and the grant amount, including general admission. Suburban is required to pay LACPW for the Sativa Well 5 land, well, and treatment plant in Q2 2026 when the project is completed and LACWP conveys the property to Suburban.

Water from neighboring purveyors is substantially more expensive than water produced from Sativa's wells. The manganese treatment plant makes the water from Well 5 clean and reliable for Sativa's customers. Water from neighboring purveyors is not reliable because the interconnection connections have provision that allow them to turn off the water if they need the water in their system.

The Sativa manganese treatment plant is required to provide customers with clean, safe, and reliable water service, and Suburban is required to pay LACPW for the balance of the total cost, less the grant funding, when the project is complete.

Background

Suburban was selected to provide the Sativa water system customers with clean, reliable and affordable water service and is contractually obligated to pay for balance of the manganese removal plan not funded by the grant.

The Sativa Water District of Los Angeles (Water District) was established in 1938. In recent decades the Water District could not provide its customers with safe, clean and reliable water service. After years of mismanagement and water quality violations from the California State Water Resources Control Board - Division of Drinking Water (DDW), legislation (AB1577 Gipson), and action from the Los Angeles Local Area Formation Committee (LAFCO), the Los Angeles County Public Works (LACPW) as the

administrator to address immediate service issues at Sativa and transition it to a long term owner owner in 2018.

The County identified the need for a manganese remove plant to resolve the long running colored water issue. The County was awarded Proposition 1, round 1 Integrated Regional Water Management (IRWM) grant, which included $2.2 million to construct a manganese treatment plant, shown as project 8. However, subsequent to the COVID-19 pandemic, and global supply chain interruption, and an unprecedented period of macroeconomic inflation, construction was delayed, and project cost is now estimated to be $5.8M.

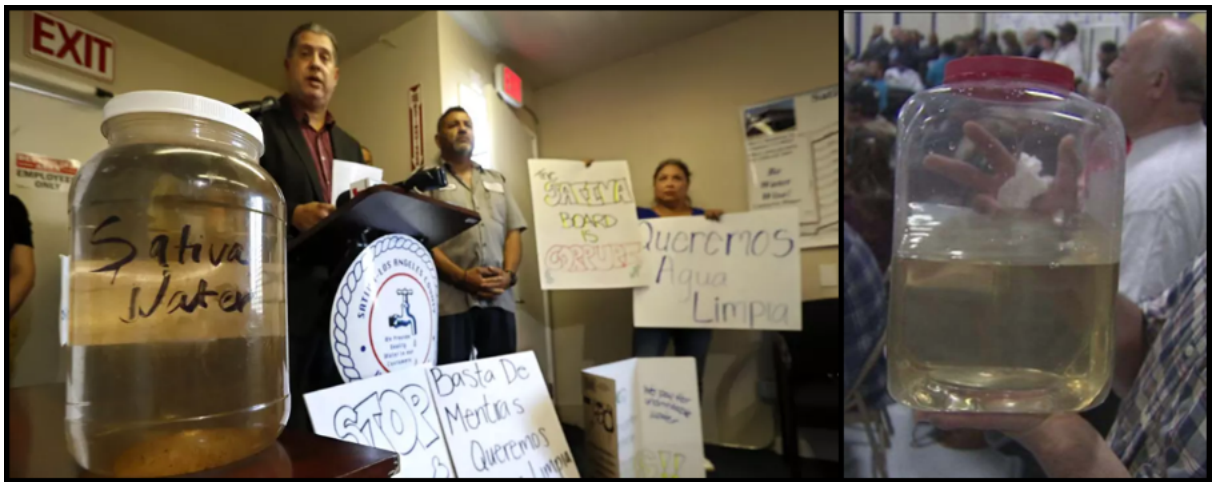
In December 2022, Suburban Water Systems (Suburban) became the new owner of the Sativa water system. As required by the Asset Purchase Agreement (APA), Page 10, Section 3.D.3, included with Suburban's application for acquisition A-21-08-011, and approved by CPUC decision D.22-04-010, Suburban is responsible for the balance of the total project cost minus the proceeds from the $2.25 million dollar grant. The figure below includes the APA section describing Suburban's (buyer) reimbursement responsibilities. This amount is estimated to be $3.92M.

> 3. If an Interim Period Capital Improvement has not been completed as of the Closing and/or anticipated Grant Funding for an Interim Period Capital Improvement has not been received by County as of the Closing ("**Post-Closing County Capex Project**"), County and Buyer will cooperate to supervise the completion of each such Post-Closing County Capex Project in accordance with the Contract(s) for such project. County shall be responsible for paying all amounts due under such Contract(s), subject to Buyer reimbursing County for the actual and documented capital expenditures for each such project minus the Grant Funding. Upon (i) the completion of each such Post-Closing County Capex Project, (ii) County's receipt of all anticipated Grant Funding for the project, and (iii) the conclusion of any grant application process for Grant Funding for such Post-Closing County Capex Project:

Suburban will assume ownership of and responsibility for operating the treatment plant when it is completed and commissioned. This transfer is anticipated to occur in Q2 of

2026. The manganese treatment plant is required to provide clean and reliable water to Sativa's customers and Suburban is obligated to reimburse LAPWC for a portion of the manganese removal treatment plant costs not covered by the grant.

Photo: Sativa Water District customers protesting the colored water served by the water system from the well that has naturally high levels of manganese



Project Cost

The enclosed June 2021 preliminary design report by Tetra Tech was used to determine the grant amount of $2.2M awarded through Proposition 1 Round 1 IRWM funding for the Sativa Manganese Treatment Plant. While WRD managed the project and Suburban will eventually own and operate the facility, Suburban was not involved in its planning or design. Due to COVID-19 pandemic-related inflation and supply chain disruptions, actual construction costs have exceeded the original estimates, and the grant funding is not sufficient to cover the full cost. LA County has notified Suburban that its share of the cost is $3.6 million, or $3.92 million including general administration.

Los Angeles County Flood Control District entered into an agreement with the Department of Water Resources (DWR) to fund the Sativa Manganese Treatment Plant. The grant was issued as part of Proposition 1 Round 1 Integrated Regional Water Management (IRWM) implementation grant.

The Water Replenishment District (WRD) is the largest groundwater agency in California. WRD assisted LA County with procuring the grant for the Manganese Treatment Plant. WRD was selected as the project manager for the construction of the

project. WRD selected Butier Engineering to oversee the day-to-day construction activities representing WRD. Suburban is the eventual owner and operator of the treatment plant after its completion. Suburban was not involved in the project's planning, including the design and grant procurement, because Suburban was not the owner of Sativa before the agreement for these services was executed. Similarly, Suburban has had a limited role in the project's construction because Suburban does not own these facilities.

This project's cost increased well above the Engineer's estimate due to the COVID-19 global pandemic, which created unprecedented global demand, severe supply chain disruptions, and critical material and labor shortages causing sharp rise in inflation from the time the project cost estimated to construction.

The original project cost estimate of $2.25M underestimated the cost to construct manganese treatment plant due to inflation and administrative overhead costs. The estimated project cost is now $5.8M and Suburban is required to pay $3.92M, which is the balance of the project cost and the grant amount (see Workpaper Volume III-D, P-2, Appendix 6).

Task		Cost
Planning		$290,637
Design		$190,000
Construction		$5,372,717
Sub Total		$5,853,354
Grant		$2,250,000
Difference (Subtotal - Grant)		$3,603,354
General Admission	9%	$324,302
Grand Total Cost for Suburban		$3,927,656

21

22

Schedule

Although construction of the Sativa Manganese Treatment Plant began in February 2023 and is largely complete, delays in electrical service planning by Southern California Edison (SCE) have pushed final completion to mid-2026, extending the timeline well beyond the original 9-month schedule.

Construction of the treatment plant began in July 2023. The project was scheduled to last approximately 12 months. The project was delayed to January 29, 2025, due to electrical equipment, which took 9 months to procure. However, as of September 2025, most of the facility's construction has been completed. See the photo below showing construction progress. The project could have been easily completed months ago, but SCE has not prepared the electrical service plans for installing the electrical transformer. The SCE planner indicated that they could not provide the electrical service plans because planners have been focused on issuing permits for Altadena Fire victims rebuilding. We anticipate receiving the plans by October, and our experience working with SCE shows that Q2, 2026, will complete the project.

Photo: Sativa Manganese Treatment Plant



After the project is completed, LA County must prepare the necessary documentation to convey the facilities, including the land, well, and treatment plant. Experience with the County when purchasing the Sativa System showed that several months will be required for this process to ensure that the transaction is scheduled on the board of directors' agenda and voted on. When LA County is ready to transfer the facilities, Suburban must pay the balance to LA County.

While most construction is complete, final delivery of the Sativa Manganese Treatment Plant remains delayed due to outstanding electrical service plans from SCE, and Suburban's financial obligation will be triggered once LA County completes the formal transfer of the facilities, anticipated to occur in Q2, 2026.

High Neighbor Water Costs

Sativa's wells have historically been the system's primary water source because they cost far less than purchasing water from neighboring water utilities. The Liberty Utilities

interconnection can provide a maximum of 1,500gpm. Liberty has demonstrated its preference not to supply water to Sativa by charging $3,600/AF for water, which is almost three times the price of City of Compton and five times the price of using Sativa's water right in the Central Basin. Liberty Utilities dramatically increased this rate when Suburban Water Systems acquired the Sativa water system. The City of Compton (Compton) Water interconnection has a maximum capacity of 500 GPM. Compton's water cost is $1,200/AF. Water from neighboring purveyors is substantially more expensive than water produced from Sativa's wells. The manganese treatment plant makes the water from Well 5 clean and reliable for Sativa's customers.

Unreliable Neighbor Water Supply

Below is the screenshot of Liberty and Compton's water supply agreement with conditions indicating that water supply is not guaranteed and water may be shut off without warning. On December 19, 2022, the Liberty Utilities interconnection shut off water to Sativa's system for 4 hours. Liberty Utilities experienced a main break that triggered a pressure drop at the interconnection and therefore shut off the valve supplying water to Sativa.

> 3.2. Protection of City System. The City is not obligated to provide water to Suburban, if in the judgment of the City, such service would jeopardize the health, safety and welfare of the City's residents, or cause damage to the City's water system.

5.2. Liberty Park Water will supply only such water at such pressure as may be available from time to time from the operation of its water system. The Parties understand and agree that, in the event Liberty Park Water cannot deliver water to Suburban without negatively affecting Liberty Park Water customers, Liberty Park Water may reduce or suspend indefinitely service under the Agreement until such time as Liberty Park Water deems it appropriate to restore water delivery under this Agreement. Liberty Park Water will attempt to provide no less than twelve (12) hours written notice of its intent to interrupt or curtail such service and will restore such service to Suburban as soon as practicable. Both Parties acknowledge that Liberty Park Water does not have any obligation to provide any guaranteed amounts of water to Suburban and that Liberty Park Water will undertake reasonable commercial efforts to do so when requested by Suburban.

5.3. Although Liberty Park Water will make reasonable efforts to provide water to the Sativa Water System through this connection consistently and as needed, water delivery to Suburban pursuant to this Agreement may be denied, limited, curtailed, or terminated if Liberty Park Water, in its sole discretion, determines that conditions within its water system warrant such a denial, limitation, curtailment, or termination. Liberty Park Water shall have the right to close the Interconnection upon giving five business days' notice to Suburban. Once such conditions are remedied Liberty shall restore normal flow.

Destructive fires that spread in residential areas are becoming increasingly frequent due to climate change. The Sativa neighborhood is a dense all-residential community with little separation between properties. Consequently, a fire at one property could quickly spread to adjacent homes and then engulf the neighborhood if proper fire flow is not available. Sufficient fire flow needs to be available to put out fires and prevent them from spreading and burning down the whole neighborhood.

This problem is magnified when multiple fire engines are pulling from the system at one time and multiplied further when there are multiple structures on fire. This devastation was demonstrated on January 7, 2025, in the Pacific Palisades where hydrants ran dry because there were too many fire engines pulling water from the system simultaneously fighting thousands of structure fires. If a water system's available fire flow capacity is really low, it might only be able to support one house, or one engine and that might not be enough to fight the fire. If this occurs in the Sativa and neighboring systems, both systems are equally at risk, but Sativa will be last in line to receive fire protection and will not stand a chance to extinguish any structures.

Inadequate fire flow capacity poses a serious threat to public safety, as it limits firefighters' ability to control fires, protect property, and save lives—especially during large-scale emergencies. The devastating events in Pacific Palisades underscore the consequences of insufficient water supply during firefighting efforts. To prevent similar tragedies, water systems must have enough capacity to support multiple engines and structures simultaneously. Ensuring robust fire flow is not optional—it is a critical safeguard for communities.

Water from neighboring purveyors is not reliable because the interconnection connections have provisions that allow them to turn off the water if they need the water in their system.

Conclusion

Sativa water system customers cannot afford to consume colored, poor-quality water from Well 5 contaminated with high concentrations of Manganese. Sativa water system customers cannot afford to pay more for water from neighboring purveyors when a lower-cost source is available. Sativa water system customers are not second-class citizens who only get water when neighboring purveyors don't need it.

The manganese treatment plant is required to provide clean and reliable water to Sativa's customers. Suburban is obligated to reimburse LAPWC for the portion of the manganese removal treatment plant costs not covered by the grant. The original project cost estimate of $2.2M underestimated the cost to construct a manganese treatment plant due to inflation and administrative overhead costs. The estimated project cost is now $5.8M, and Suburban is required to pay $3.92M, which is the balance of the project cost and the grant amount plus general administration. Suburban is required to pay LACPW for the Sativa Well 5 land, well, and treatment plant in Q2 2026 when the project is completed and LACWP conveys the property to Suburban.

Water from neighboring purveyors is substantially more expensive than water produced from Sativa's wells. The manganese treatment plant makes the water from Well 5 clean and reliable for Sativa's customers. Water from neighboring purveyors is not reliable because the interconnection connections have provisions that allow them to turn off the water if they need the water in their system.

Completing the Sativa Manganese Treatment Plant ensures customers receive clean, reliable, and affordable water. Sativa residents should not be forced to consume discolored water from Well 5, nor should they bear the financial burden of purchasing more expensive water from neighboring purveyors—especially when a lower-cost, local source is available. Moreover, relying on interconnections with neighboring systems is not a sustainable solution, as those supplies can be cut off at any time. Suburban is committed to fulfilling its financial obligation to LA County for the treatment plant and associated facilities, recognizing that this investment is critical to protecting public health and delivering equitable service to all customers. Sativa customers deserve the same quality and reliability of water service as any other community.

(P-3) 2026 Well Rehabilitation Plan - $632,900

Executive Summary

Suburban's customers cannot afford to pay for purchased water or less reliable water from neighboring purveyors when less costly well water is available. Customers cannot afford to have wells to lose capacity and deteriorate beyond repair. Each well is unique, and it is vital that we understand their unique condition so that they can be maintained and not lost. Routinely inspecting, evaluating, and rehabilitating will restore and maintain

water production capacity, improve water quality, and extend the well and its components' useful life expectancy.

Suburban's recent inspections at Plant 201 W-8 and Plant 410 W-1 were beneficial because they improved their wells' production capacity and reliability. Rehabilitation using brushing and bailing was required at Plant 201 W-8 to remove the scaling and clogging and rehabilitate the well's production capacity. The rehabilitation work at Plant 201 W-8 included brushing and baling, and chemical treatment, restoring the production capacity of the well, and providing customers with a reliable and affordable water source. The pump deficiencies were identified, and repairs were completed to ensure the mechanical components of the well work as intended and provide reliable and affordable service to customers. Video inspection of the Plant 410 W-1 well casing concluded that the well casing was not causing the production decline issue, and further inspection was required. The well inspection identified the source of the loss of production and led to the replacement of the pump and column to restore the well's production capacity and improve its energy efficiency, reducing costs to customers.

The alternative of doing nothing is not recommended because it does not address declining production, worsening energy efficiency, or declining reliability, and will not prolong the need for costly well replacement. The alternative to drilling new wells is not recommended until lower-cost rehabilitation efforts have been exhausted to minimize costs to customers. This alternative to perform inspection and rehabilitation maximizes production and energy efficiency, extends the life of the well, and ensures customers have the most reliable and affordable water service. Inspecting and rehabilitating wells maximizes the amount of water produced from the lowest cost source, and reduces the amount that customers pay for purchased water and less reliable water from neighboring purveyors. Inspection and rehabilitation prolong the capacity and condition of the well, prolonging the need to replace a well.

Project Background

Suburban owns and operates 10 active and 3 standby water production wells that provide customers with affordable, good-quality, and reliable water. The wells were drilled in different years, are located in different zones, drilled to and screened at different depths and diameters, and use pumps with varying design parameters. Each well is unique, and it is vital that we understand its unique condition so that it can be maintained and not lost.

Deterioration of wells and their components is inevitable over time, but routine inspection, evaluation, and rehabilitation of water quality and production capacity are maintained, and the useful life of the well is extended. If the wells are not inspected or rehabilitated, they will deteriorate and eventually fail. Suburban measures and monitors the well's flow rate, draw down, specific capacity, and water quality, and routinely inspects the above-ground equipment. Well inspection, evaluation and rehabilitation should be performed when the well's specific capacity is declining, there is unacceptable water quality, or signs of mechanical issues. A Penn State University article (https://extension.psu.edu/water-well-maintenance-and-rehabilitation) recommends that well rehabilitation should be performed when Specific Capacity falls by 25% to restore water production capacity. The article noted that a delay in rehabilitation work would significantly increase the cost of future maintenance and possibly even make future rehabilitation impossible. Routinely inspecting, evaluating, and rehabilitating will restore and maintain water production capacity, improve water quality, and extend the well and its components' useful life expectancy.

Suburban completed a preliminary desktop study, which includes age and well profile, and an intermediate well assessment that provides specific capacity, sand production determination, work history, and water quality results. To complete the evaluation, a video inspection of the wells is required. Suburban had video inspection performed at two

wells, Plant 201 W-8 and Plant 410 W-1, as part of the inspection and rehabilitation program in 2025. The investigation revealed that the wells required rehabilitation of the well casing, and repair or replacement of the pump and other equipment due to deterioration. These inspections were beneficial; the following sections demonstrate the benefits of executing the well inspection and rehabilitation program.

Project Justification

Suburban has performed inspections and rehabilitation that have improved production capacity and water quality, which benefit customers. Ignoring and delaying inspections results in lost production, poor water quality, and may result in higher costs for customers if a new well needs to be drilled or if water is purchased from a neighboring water purveyor. The following sections discuss case studies where well inspection and rehabilitation have improved the well's production capacity and reliability.

Plant 201 Well 8 - Declining Specific Capacity

In 2025, Suburban flagged Plant 201 W-8 for inspection because it was identified as a well that had experienced a significant Specific Capacity reduction of 49.67% since its construction in 2006. The video inspection completed in April 2025 showed severe scaling and clogging of the perforations (Figure 1). Rehabilitation using brushing and bailing was required to remove the scaling and clogging and rehabilitate the well's production capacity.

Louvers are fixed and precise slots on the well casing that allow water to enter from the surrounding aquifer formation. They allow water to enter the well from the aquifer and are optimally located to maximize flow rate and water quality. When louvers are clogged, the water path is reduced in size, and the pump must work harder, using more electricity to pull the water up, using more energy to produce less water. Clogged louvers increase

energy costs that are passed on to customers. Further, when clogged, louvers let less water in the well, reducing its capacity and increasing the need to purchase more costly and less reliable alternative sources. The louvers need to be unclogged to minimize cost to customers.

The first step in rehabilitation is to brush and bail the well to clear debris from the louvers and remove it from the well to allow for a visual inspection of the steel casing and louvers. The pump must be removed from the well to perform a brush and bail. A large steel or nylon brush is lowered into the well to remove hard scaling from the casing wall and louvers. The stiffness of the brush material is determined based on the condition of the well from the video survey. A Bail removes all the loose debris previously removed from the walls of the well casing that accumulates at the bottom of the well. Video inspection is done before and after the brush and bail work. The post-rehabilitation video showed that the brush and bail work did not remove the hard scaling from the steel casing (see Figure 2), and chemical treatment was required to unclog the louvers.

Suburban's vendor performed the chemical treatment and then performed another video inspection to verify that the louvers had been cleared and were functioning correctly. Figure 3 shows the major improvement of the louvers after the well was treated with chemicals to remove the buildup that remained after the brushing work. The unclogged louvers now allow for more water to flow into the well and require less energy to pump the water into the system. The rehabilitation work at Plant 201 W-8 that included brushing and baling, and chemical treatment, restored the production capacity of the well, providing customers with a reliable, and affordable water source.

Figure 1 *– Plant 201 Well 8 louvers not visible due to build-up (Before Brush & Bail)*

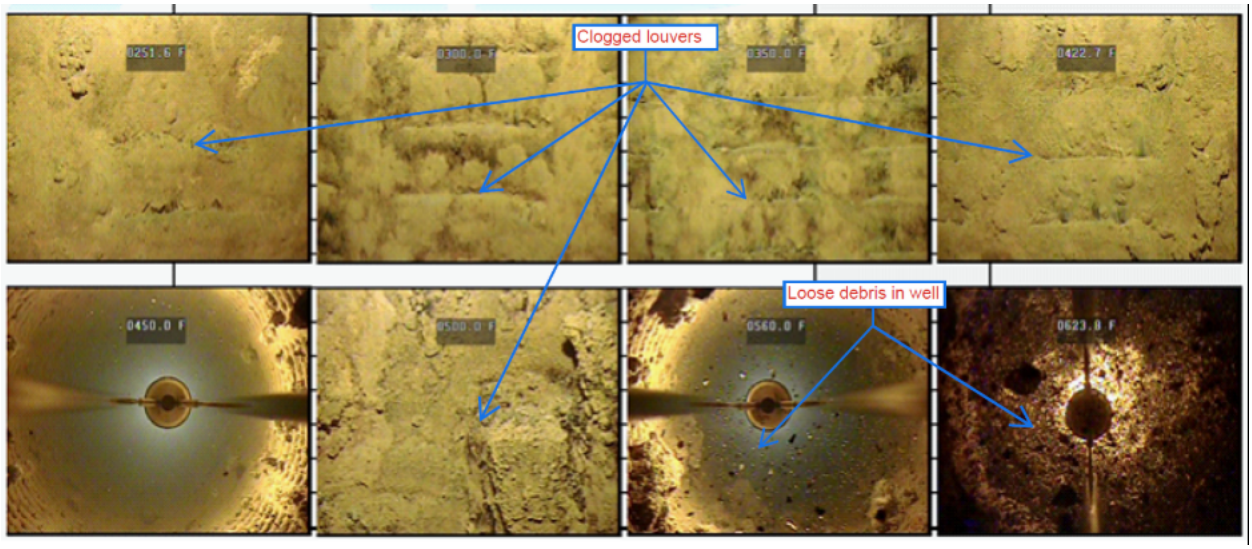


Figure 2 *-Plant 201 Well 8 louvers not visible due to build-up (After Brush & Bail)*

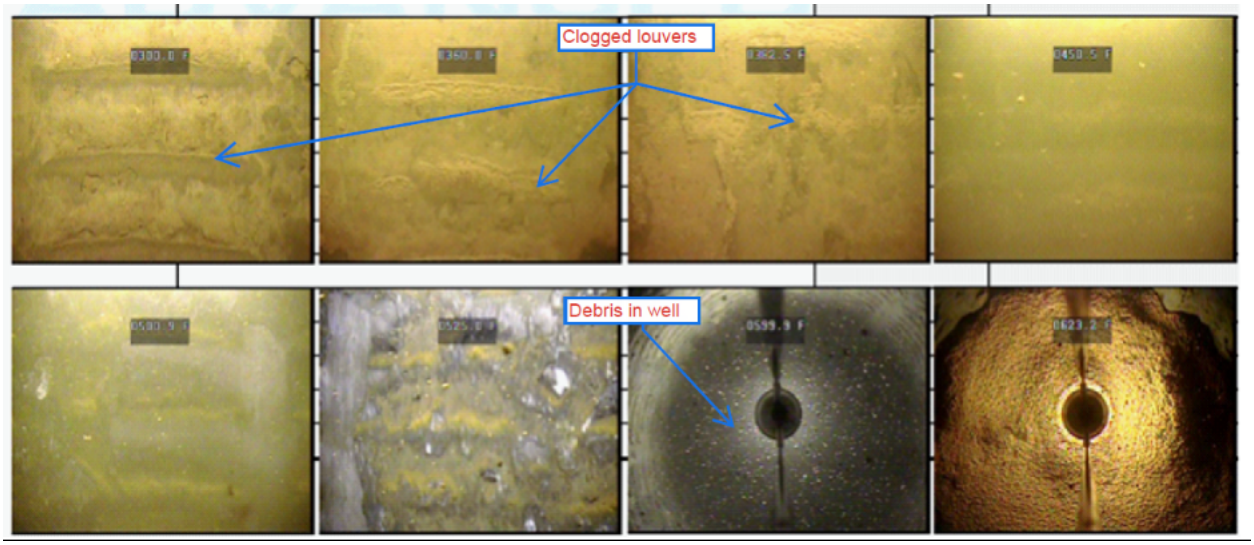
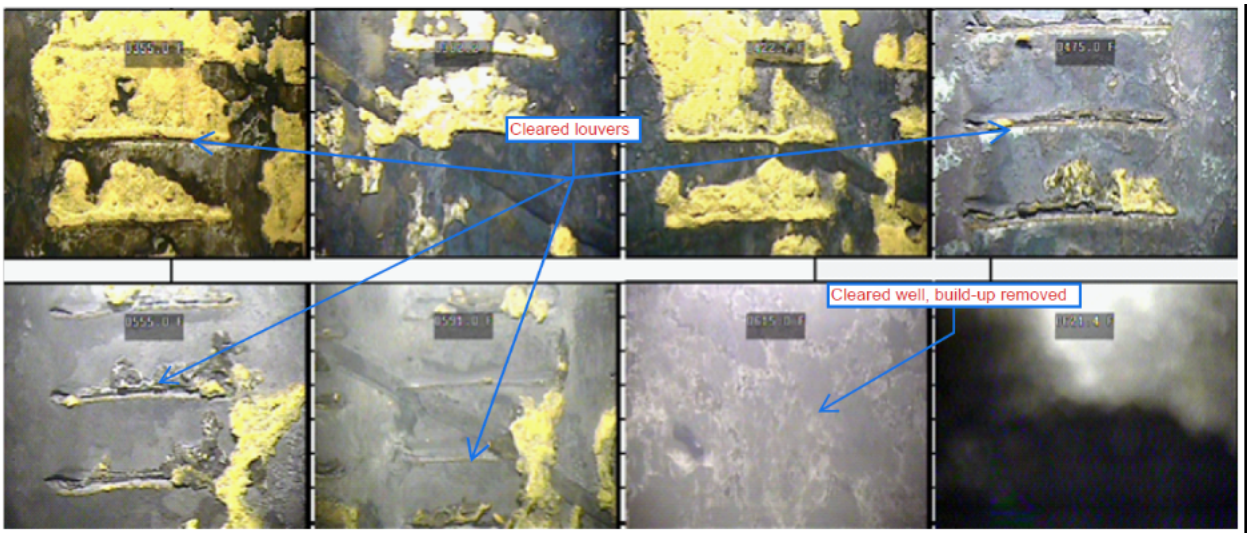


Figure 3 *– Plant 201 Well 8 louvers after chemical treatment*



The well's pump was removed to perform the video inspection and rehabilitation work, providing an opportunity to inspect the pump and determine required repairs. The inspection revealed that several pump sections, including the impellers and shaft couplings, were corroded and pitted and had experienced metal loss (Figures 4 & 5).

Corrosion of the pump components can lead to structural failure and higher energy consumption. The drive shaft and couplings take rotating power from the motor on the surface to more than 300 feet below the surface to turn the pump impellers. A corroded shaft and its couplings lose strength and can snap due to the torque applied by the motor. It is time-consuming (more than a day) and costly ($27,570) to remove a pump from the well to replace a broken shaft. Also, the well will be out of service for some time because components like shafts are not standard items and need to be fabricated. Figure 4 below shows corrosion and pitting on the shaft and couplings on the Plant 201 W-8 pump found during the rehabilitation work.

A pump impeller spins inside the pump bowl to lift water. These components are precisely machined to achieve the desired pumping characteristics (total dynamic head and flow) while maximizing pump efficiency. Pitting on the pump impeller or bowls

increases the space between components reducing the pump's ability to produce total dynamic head and flowrate and dramatically reducing efficiency. This results in lower production from the well while using more energy. Figure 5 below shows pitting on the Plant 201 W-8 pump impellers that was found during the rehabilitation work. The pump deficiencies were identified, and repairs were completed to ensure the mechanical components of the well work as intended and provide reliable and affordable service to customers.

Figure 4 *– Plant 201 Well 8 Pump Drive Shaft Corroded and Pitted*

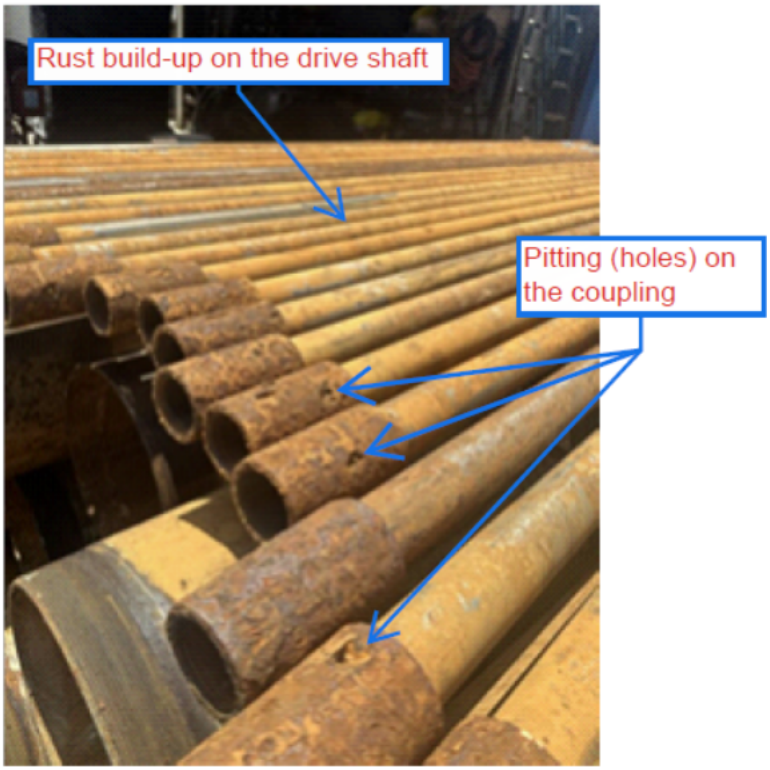
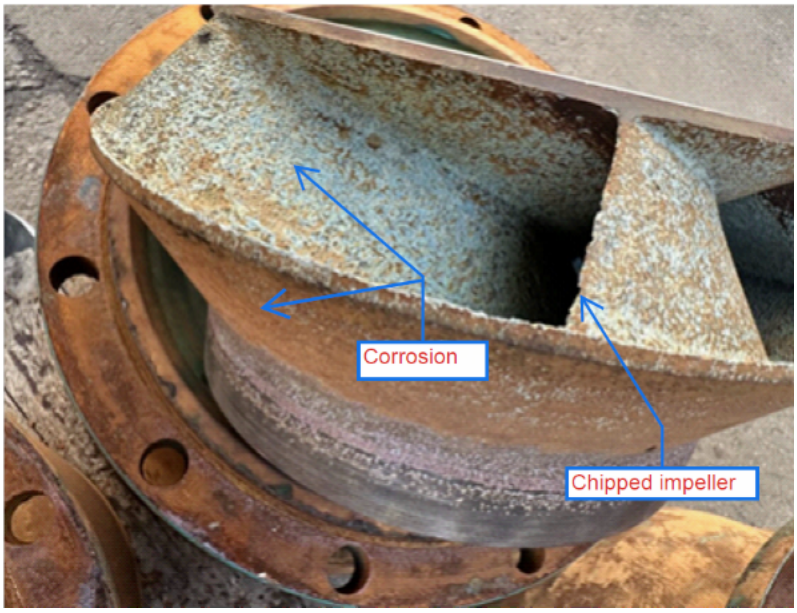


Figure 5 *– Plant 201 Well 8 Corroded and chipped*



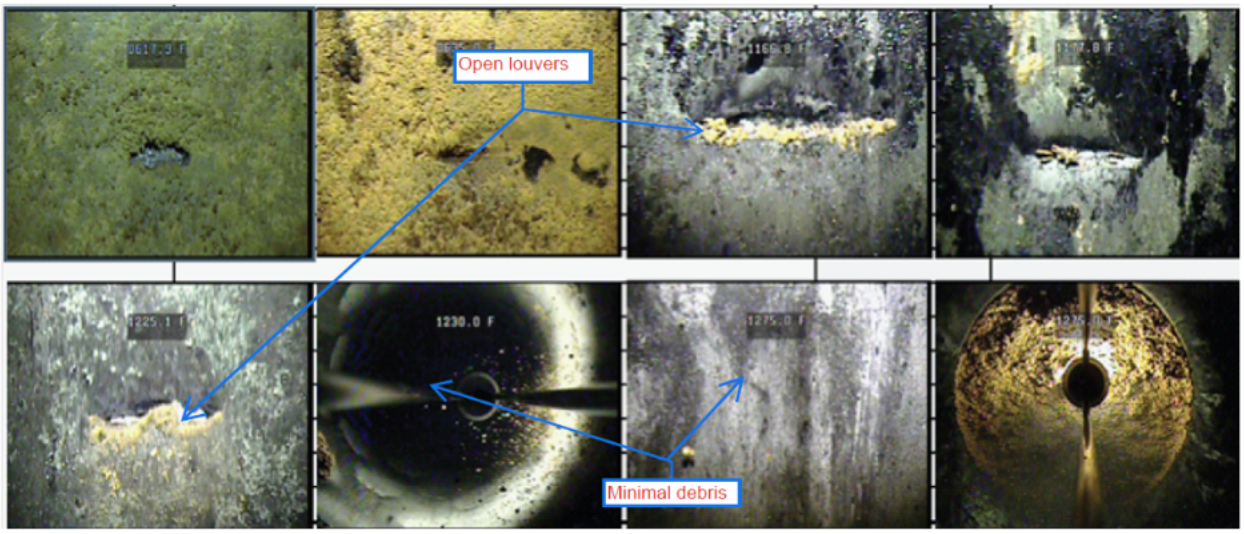
Plant 201 W-8 declining specific capacity flagged the well for necessary inspection and potentially rehabilitation work to extend the well's life cycle and improve its performance and operations. Video inspection of the well and visual inspection of the pump identified

several areas in need of rehabilitation to bring the well's production capacity back to normal. Brush and bail work, chemical treatment, and pump repairs were made to extend the life cycle and quality of the well. The inspection and rehabilitation of Plant 201 W-8 demonstrated the need to inspect wells proactively. If this critical well had been ignored, the well or pump could have failed during high-demand months, leading to a loss of reliability or the need to purchase costly water.

Plant 410 Well – Production Decline

In 2025, Suburban observed Plant 410 W-1 production declining; the inspection of this well became a priority because we need to maximize the production of our Central Basin Water Rights to customers with reliable and affordable water service. Video inspection (figure 6) of the well showed spalling of the casing wall, and some plugged louvers (Figure 6); however, these issues were not significant enough to require brushing and bailing or chemical treatment. Video inspection of the well casing concluded that the well casing was not causing the production declining issue and further inspection was required.

Figure 6 *– Plant 410 well Still Images of Plant 410 Well casing*



The Plant 410 W-1 pump was removed from the well for visual inspection to determine the cause of the production loss. The inspection revealed there were holes in the column pipe that lifts water from the pump to the surface. The holes allowed water to leak out of the column pipe back into the well rather than flowing to the system. This is an inefficient use of electricity, because energy is being added to lift water that is falling back into the well. Further, while the pump was producing water, it was not making it to the system, resulting in reduced well capacity and the need to purchase alternate water. The pump was observed to have deteriorated due to severe metal loss, requiring substantial repair and replacement parts. Metal loss on the pump and casing results from metal corrosion after years of being submerged in water. The photos below (Figures 7, 8 & 9) show the condition, including the holes in the column pipe caused by corrosion. The pump was replaced, and the well was put back in service. The well inspection identified the source of the loss of production and led to the replacement of the pump and column to restore the well's production capacity and to improve its energy efficiency, which will reduce costs to customers.

***Figure 7** – 410 Well Casing Pipe & Threads*



***Figure 8** – 410 Well shaft & Bearing*



***Figure 9** – Plant 410 Well column pipe and casing*





Alternatives

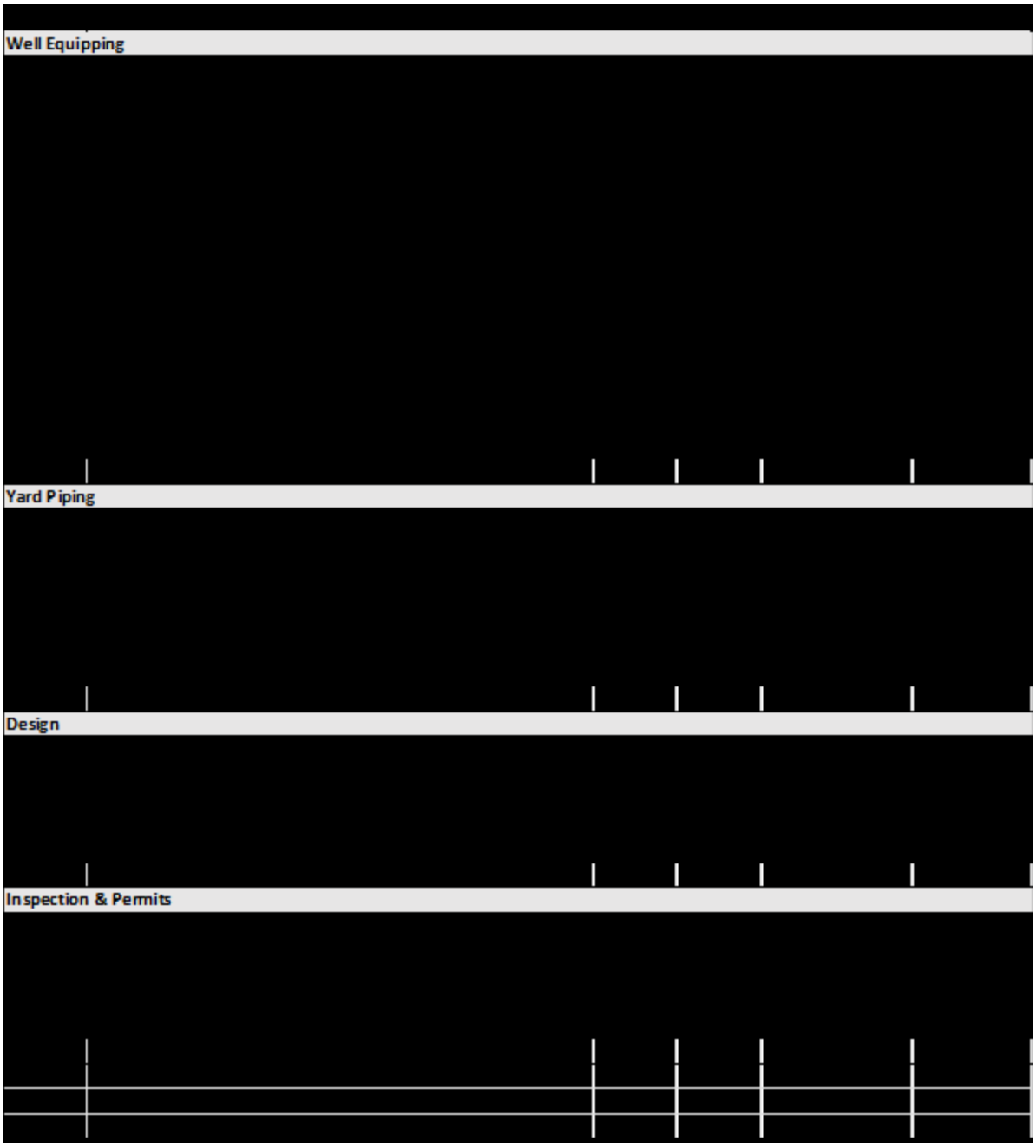
Alternative 1: Do nothing

The alternative to performing routine well inspection and rehabilitation is instead operating until total failure occurs. This is not a prudent or responsible way to manage wells because Suburban failing to do so reduces the lowest cost production from wells requiring more costly alternative water, uses more energy for pumping, and reduces affordability of water service for customers. Further, this is not prudent because the wells will become unproductive sooner requiring costly replacement at additional cost to customers. The alternative to do nothing is not recommended because it does not address declining production, worsening energy efficiency, or declining reliability, and will not prolong the need for costly well replacement.

Alternative 2: Drill new wells

Construction of new wells to compensate for lost production over time is an alternative is required if rehabilitation efforts have been exhausted. However, replacing a well is significantly more costly than rehabilitating a well to optimize performance and extend its life. It costs more than $3,600,000 to construct a new well in 2025 based on costs from the Plant 429 Well drilling project, See table 1. This option should be considered if rehabilitation efforts are unsuccessful. This alternative to drill a new well is not recommended until lower-cost rehabilitation efforts have been exhausted to minimize costs to customers.

Table 1 *– New Well Project Cost Estimate*



Alternative 3: Continue Well Inspection and Rehabilitation

The examples above demonstrate the value of inspection and rehabilitating wells to improve production capacity and energy efficiency before they fail catastrophically. Rehabilitation extends the wells productive life and maximizes the production of the least

costly water source for Suburban's customers. Routing inspection also identifies wells reaching the end of their service life and allows planning for their eventual retirement and replacement. Maintaining and rehabilitating wells improves reliability and ensures we continue to provide affordable water for our customers. The success of the program warrants continuing it. It identified major issues that could be addressed under planned conditions and not as an emergency. This alternative to perform inspection and rehabilitation maximizes production and energy efficiency, extends the life of the well, and ensures customers have the most reliable and affordable water service.

The following table shows the schedule and scope of well inspection and rehabilitation planned for 2026, 2027 and 2028.

Table 2 *- Well Rehabilitation Schedule*



The forecasted program cost estimate for 2026, 2027 and 2028 was determined by escalating the contractor's actual cost from 2025 using a factor derived from ENR's building index. The testimony's escalation discussion in the Construction Cost Escalation section provides additional information about escalating estimates.

Table 3 – Well Rehabilitation Project Cost Estimate

Item No.	2026 Wells - Bid Items	QTY	Unit	Unit Cost	Cost
1	Well Video Logs, and Pump Inspection, Brush & Bail	2	Lump Sum	$ 28,962	$ 57,925
2	Pump Repairs	2	Lump Sum	$ 146,081	$ 292,162
3	Well Chemical Treatment	2	Lump Sum	$ 98,094	$ 196,188
4	Motor Repairs	2	Lump Sum	$ 8,183	$ 16,366
5	Internal Inspection Services	32	Hours	$ 53	$ 1,692
	Subtotal				**$ 564,333**
	Escalation from 2025 to 2026			**2.89%**	$ 16,309
	Subtotal				**$ 580,642**
	General Administration			**9.00%**	$ 52,258
	Subtotal				**$ 632,900**

Conclusion

Suburban's customers cannot afford to pay for purchased water or less reliable water from neighboring purveyors when less costly well water is available. Customers cannot afford for wells to lose capacity and deteriorate beyond repair.

Each well is unique, and it is vital that we understand their unique condition so that they can be maintained and not lost. Routinely inspecting, evaluating, and rehabilitating will restore and maintain water production capacity, improve water quality, and extend the well and its components' useful life expectancy.

Suburban's recent inspections at Plant 201 W-8 and Plant 410 W-1 were beneficial because the work improved the production capacity and reliability. Rehabilitation using brushing and bailing was required at Plant 201 W-8 to remove the scaling and clogging and rehabilitate the well's production capacity. The rehabilitation work at Plant 201 W-8 also included chemical treatment that restored the production capacity of the well, providing customers with a reliable, and affordable water source. The pump deficiencies were identified, and repairs were completed to ensure the mechanical components of well work as intended and provide reliable and affordable service to customers.

Video inspection of the Plant 410 W-1 well casing concluded that the well casing was not causing the production declining issue and further inspection was required. The well inspection identified the source of the loss of production and led to replacement of the pump and column to restore the well's production capacity and to improve its energy efficiency, reducing costs to customers.

The alternative to do nothing is not recommended because it does not address declining production, worsening energy efficiency, or declining reliability, and will not prolong the need for costly well replacement. This alternative to drill a new well is not recommended until lower-cost rehabilitation efforts have been exhausted to minimize costs to customers. This alternative to perform inspection and rehabilitation maximizes production and energy efficiency, extends the life of the well, and ensures customers have the most reliable and affordable water service. Inspecting and rehabilitating wells maximizes the amount of water produced from the lowest cost source, and reduces the amount that customers pay for purchased water and less reliable water from neighboring purveyors. Inspection and rehabilitation prolong the capacity and condition of the well in place of replace with a new well.

(P-4) Plant 121 Main Switchgear Replacement - $755,194

Executive Summary:

Suburban's customers cannot afford to lose water service and fire protection during power outages. Plant 121 is a critical site and requires a backup generator so it can continue to run and service customers with safe and reliable water during power outage events. Suburban is proceeding with construction of the generator adopted in Decision 24-12-030 and now must replace the main switchgear panel to complete the installation in early 2026.

The existing electrical switch gear needs to be replaced to safely accommodate the conduits and conductors required to connect the ATS to ensure this critical facility has the required backup power. Replacing this panel to accommodate the ATS also replaces this aging equipment before it fails or injures an employee. This replacement represents a substantial increase in reliability for customers and safety for employees.

Alternative 1 to do nothing does not replace the switchgear and is not viable because it results in no backup power at Plant 121. Suburban is moving forward with Alternative 2 to replace the main switchgear because it provides backup power to Plant 121 and addresses the reliability challenges presented by the existing main switchgear. Suburban will replace the main switch gear so the new generator and ATS can be connected to the Plant 121 pump station to provide back power and ensure reliable service to customers.

Project Background:

Plant 121 provides critical water supply to 165,000 people in the San Jose Hills service area. Power outages are caused by unexpected events like windstorms, downed trees, vehicles colliding with utility poles, fires, and earthquakes. A generator is required to ensure the booster station pumps water during a power outage. Suburban is proceeding with the installation of a generator but needs to do additional work to replace the main switch gear to accommodate the new generator.

Plant 121 is a critical plant site because its booster station pumps 10,080 gpm into the 547 Zone representing 73% of the supply to the Zone. Water pumped from Plant 121 is used by customers for drinking and cooking, sanitation and irrigation. Water pumped from Plant 121 is an incredibility important source of water for firefighting in a zone that has critical customers like a large regional hospital that requires 5,000 gpm for 5 hours. Power outages at Plant 121 take the pump station out of service. Climate change is a major factor in the increasing risk of wildfires that spread to urban neighborhoods, as

detailed in the Wildfire section of Jorge Lopez's testimony. It is critical that the Plant 121 booster station be able to pump water even when there are power outages.

Plant 121 is an important plant for providing safe drinking water to customers. Water produced from Suburban's wells 121 W-1, 142 W-2, and 151 have varying levels of Nitrate, Trichloroethylene (TCE), Chlortetracycline (CTC), Perchlorate, and N-nitrosodimethylamine (NDMA). Water produced from these wells is blended in the storage tanks at Plant 121 with treated water from the Baldwin Park Operable Unit (BPOU) Sub-Area 1 (SA-1) treatment plant operated by Valley County Water District to reduce these concentrations to acceptable levels before it is pumped out to customers. Plant 121 facility must run even during power outages because it blends water from different sources to produce water quality that meets State and Federal drinking water requirements. Plant 121 is a critical site that requires a backup generator so it can continue to run and provide customers with safe and reliable water during power outages.

Suburban is proceeding with a previously adopted project to install a generator at Plant 121. Decision 24-12-030 issued on 12/23/2024 authorized an Advice Letter project for Suburban to construct a backup power generator at Plant 121. Suburban waited to order the generator until the GRC decision was adopted. It has now been ordered and will be delivered and installed in early 2026. An ATS is the electrical equipment that automatically switches between utility service and the generator. Suburban's detailed design for the generator project discovered that the existing main switchgear does not have enough space to accommodate the electrical conduits that connect the ATS to the main switchgear.

Together, the generator and ATS will provide Suburban's customers with an uninterrupted water service from this critical facility. The switchgear panel at Plant 121

needs to be replaced in 2026 to coincide with the delivery and installation of the generator and ATS.

Suburban is proceeding with the construction of the generator adopted in Decision 24-12-030 and now must replace the main switchgear panel to complete the installation in early 2026.

Project Justification

Insufficient Space in Switchgear to Connect ATS:

There must be sufficient space in the switchgear to accommodate the conduits and conductors required to connect the generator to Plant 121's electrical system. Suburban engaged a third-party electrical engineer, Canon, to prepare the detailed Plant 121 generator and ATS design. Canon found there is insufficient space in the existing main switch panel to accommodate the conduits and conductors required to connect the ATS. Specifically, the existing space is too small to comply with the National Electrical Code (NEC) 312.8(A) requirements. NEC requires electrical enclosures to have sufficient space for conductors to prevent overheating and damage and ensures adequate working space around electrical equipment for safe access and maintenance.

Cannon's planning and design work (See P-4 Workpapers, Appendix 1) found that eight 3-inch conduits are required to terminate in the main switch panel: Four conduits from the main circuit breaker to the ATS, and four conduits from the ATS to the distribution panel and the generator. Cannon consulted and confirmed with an experienced and respected electrical contractor that installing eight new 3-inch conduits in the existing main switch panel is impossible. It would be unsafe and an NEC violation to attempt to forcibly install the additional eight 3-inch conduits in the existing main switch panel.

The existing electrical switch gear needs to be replaced to safely accommodate the conduits and conductors required to connect the ATS to ensure this critical facility has the required backup power.

Deterioration of Existing Panel:

The main switch is a giant circuit breaker that protects the plant's electrical equipment from surges by using thermal and magnetic elements that break the circuit when overload occurs. Like all mechanical equipment, this switch has a limited life before it fails and will not hold a circuit. Replacement parts are large, expensive, and not something kept on the shelf; it would take the vendor a long time to procure and replace these parts. Suburban customers cannot afford Plant 121 to be offline while waiting for replacement parts.

Cannon inspected the condition of the existing electrical switchgear at Plant 121. Cannon's investigation (See P-4 Workpapers, Appendix 1) found that the switch gear has been constantly used and exposed to the elements for over 35 years. As the switchgear ages, maintenance will become unsustainable, and the equipment is more likely to fail. Aging equipment requires replacement parts that the manufacturer is expected to discontinue, are hard to find, and or expensive to replace; all of which delay repairs and increase downtime.

Deteriorated electrical equipment has dangerous consequences. An arc flash is an electrical explosion that can occur spontaneously due to excessive corrosion, dust buildup, equipment failure, or malfunction. The risk and damage from arc flash is increased as voltage is increased; Plant 121 operates at an elevated energy level of 460 volts. Aging electrical components cause an increased risk of electrical fires, arc flashes, or other hazards for personnel. The utility service pull section, which is inaccessible for maintenance and cleaning, collects conductive dust that can cause an arc flash or fire. The

aging panel has deteriorated insulation within the conductors, aging connections that are difficult to tighten, and corrosion, poses an elevated safety hazard condition that could cause an arc flash, fire or severe injury (https://www.warrenforensics.com/2020/09/04/the-demise-of-insulation-on-electrical-wiring/). The replacement of Plant 121's aging main switchgear panel will reduce the potential for dangerous arc flash events making it safe for Suburban's employees.

Replacing this panel to accommodate the ATS also replaces this aging equipment before it fails or injures an employee. This replacement represents a substantial increase in reliability for customers and safety for employees.

Alternatives:

Alternative 1 – Do Nothing: This alternative does not replace the main switchgear. If the main switch panel is not replaced, the adopted generator and ATS cannot be connected to the pump station to provide backup power, and the existing switchgear will continue to degrade and become unreliable and more dangerous. This critical facility will not have a backup supply, resulting in supply interruptions and reduced protection for life and property. This alternative does not replace the switchgear panel and is not viable because the backup power generator is required to provide customers with safe and reliable water.

Alternative 2 – Replace the switchgear: This alternative replaces the switchgear. The replacement switchgear will accommodate the necessary conduits and conductors required to connect the ATS equipment and emergency generator. The new switchgear will meet NEC code standards. The new switchgear will replace aging and deteriorating electrical panels with new panels that are safer for operators to work in. This alternative replaces the main switchgear provides customers with required water service reliability for domestic, irrigation, and fire protection services even during an electrical power outage.

Cost Estimate:

Item No.	Plant 121 - Bid Items	QTY	Unit	Unit Cost	Cost
1	**Electrical Panel upgrades**	1	Lump Sum	$638,102	$638,102
2	Construction Inspector (In house)	60	Hours	$53	$3,172
3	Consultant Full Time Inspector	1	Lump Sum	$28,000	$28,000
4	City Building permits and inspection	1	Lump Sum	$4,103	$4,103
	Subtotal				**$673,378**
	Escalation from 2025 to 2026			**2.89%**	$19,461
	Subtotal				**$692,838**
	General Administration			**9.00%**	$62,355
	Total				**$755,194**

Alternative Analysis

Suburban reviewed alternatives to connect the ATS and Generator to the switchgear.

Alternative 1 does not replace the switchgear panel and is not viable because the backup power generator is required to provide customers with safe and reliable water. Alternative 1 does not address the reliability challenges posed by the aging existing switch gear.

Alternative 2 replaces the main switchgear and provides customers with required water service reliability for domestic, irrigation, and fire protection services even during an electrical power outage. Alternative 2 addresses the reliability challenges posed by the aging existing switch gear.

Suburban is moving forward with Alternative 2 to replace the main switchgear because it provides backup power to Plant 121 and addresses the reliability challenges presented by the existing main switchgear.

Conclusion:

Suburban's customers cannot afford to lose water service and fire protection during power outages. Plant 121 is a critical site and requires a backup generator so it can continue to run and service customers with safe and reliable water during power outage events. Suburban is proceeding with construction of the generator adopted in Decision 24-12-030 and now must replace the main switchgear panel to complete the installation in early 2026.

The existing electrical switch gear needs to be replaced to safely accommodate the conduits and conductors required to connect the ATS to ensure this critical facility has the required backup power. Replacing this panel to accommodate the ATS also replaces this aging equipment before it fails or injures an employee. This replacement represents a substantial increase in reliability for customers and safety for employees. Alternative 1 to do nothing does not replace the switchgear is not viable because it results in no backup power at Plant 121. Suburban is moving forward with Alternative 2 to replace the main switchgear because it provides backup power to Plant 121 and addresses the reliability challenges presented by the existing main switchgear. Suburban will replace the main switch gear so the new generator and ATS can be connected to the Plant 121 pump station to provide back power and ensure reliable service to customers.

(P-5) 2026 Blow-off Replacement Program - $592,105

Executive Summary

Suburban's customers cannot afford to consume stagnant, unsafe, and poor-quality water due to inoperable or missing blow-offs. Aging, deteriorating, and inoperable blow-offs will not fix themselves. DDW expects that dead-end pipes be eliminated or retrofitted with blow-offs. Suburban's inspections and records demonstrate a need to replace 252

blow-offs to provide customers with clean drinking water. The cost for replacing blow-offs has increased due to inflation, and cost estimates consider the complexity of replacing blow-offs. Doing nothing is unacceptable because it harms customers and they can't afford it. Looping dead-end pipes is impractical and very costly. Replacing and installing blow-offs on dead-end pipes is an affordable and effective solution. Replacing 252 blow-offs at one time is not affordable for customers. Suburban plans to replace 17 blow-offs per year so that dead-end mains can be flushed to ensure safe and high-quality drinking water for customers while maintaining affordability.

Project Background and Justification

Suburban plans to replace 17 blow-offs per year, from 2026 through 2028, to replace broken blow-offs and install blow-offs on dead-end pipes that do not have blow-offs. Blow-offs are required to flush stagnant water from dead end mains to ensure customers do not have poor water quality. Poor water quality happens at dead ends because water does not turn over and becomes stagnant, which can lead to color leaching from pipes, sediment accumulation, and even the transmission of waterborne diseases. Suburban Whitter water system 2024 DDW Sanitary Survey Inspection Report strongly recommends that Suburban flush all dead-ends annually and eliminate as many dead ends as possible, as shown below.

> Reportedly, SWS-Whittier has a program in place to identify and prioritize locations where blow-offs are required. However, reportedly, the number of blow-offs installed each year is constrained by funding availability. The funding for this program is also used to replace existing blow-offs that are no longer functional.
>
> **During 2021 - 2023, SWS-Whittier has been only flushing less than 50 percent of its distribution system's dead ends annually. The Division strongly recommends SWS-Whittier to flush all dead-ends at least annually and eliminate as many dead ends as possible by looping the system. A flushing valve or blow off must be provided at the end of each newly installed dead-end water main.**

Suburban identifies inoperable blow-offs by routinely inspecting, exercising, and flushing of blow-offs. Suburban's operators record information on the blow-off's condition on the GIS. Suburban's Water Quality Department flushes dead-end pipes and inputs the flushing results into the GIS. If the blow-offs are inoperable, they are noted on the GIS form. The GIS program presents a graphical representation and an Excel-formattable database that shows the status of all blow-offs for analysis and planning.

Suburban has identified blow-offs that need to be replaced and developed a plan to replace them. Suburban's original goal of replacing 33 blow-offs per year was presented and approved in 2019 GRC decision 19-05-029, and Suburban replaced blow-offs. Suburban's blow-off replacement plan was again presented in 2022 and approved in GRC decision 24-12-030. The following table shows the number of blow-offs that were replaced and installed from 2020 to 2025. As of 2025, Suburban has identified 252 dead ends where a blow-off needs to be replaced or installed.

Year	Blow-offs Installed
2020	19
2021	26
2022	3
2023	0
2024	14
2025	11

Table 1. Blow-offs designed and installed from 2020 to 2025

It would be too costly to replace 252 blow-offs in one year. Using a high-level estimate of $30,000 per blow-off, the cost would be $7,560,000. Balancing affordability with the water quality risks, Suburban is spreading the replacement cost out over 15 years to reduce the impact on the customers while ensuring that dead-end pipes can be flushed. Suburban has averaged 12 blow-off replacements per year due to inflation of construction

costs, the unique complexities of each blow-off replacement, permitting delays, and Suburban's capital spending discipline.

The average cost for labor and material per blow-off in 2019 was $16,400.77, and in 2024 was $30,183.99; this inflation is attributed to the global inflation that the construction industry and the macroeconomy have experienced since 2019. Table 2 shows the average blow-off replacement cost per year from 2019 to 2024 demonstrating the impact of inflation.

Year	Average Cost per Blow-off
2019	$16,400.77
2020	$21,372.36
2021	$23,004.09
2022	$27,272.25
2023	None Installed
2024	$30,183.99

Table 2. Average Cost Per Blow-off Replacement from 2019 to 2024

Each dead-end pipe is unique, and the existing surrounding improvements like customer driveways, sidewalks, and street trees dictate how a replacement or new blow-off needs to be installed. Oftentimes, the dead-end pipe's thrust blocks must be removed, and the end of the AC pipe must be cut off leaving enough pipe length to install a new restrained end cap with an outlet for the blow-off. In most situations, service taps near the end of the pipe need to be replaced to accommodate the new end cap. Exhibit 2 shows a typical plan of the extensive work needed to replace a blow-off.

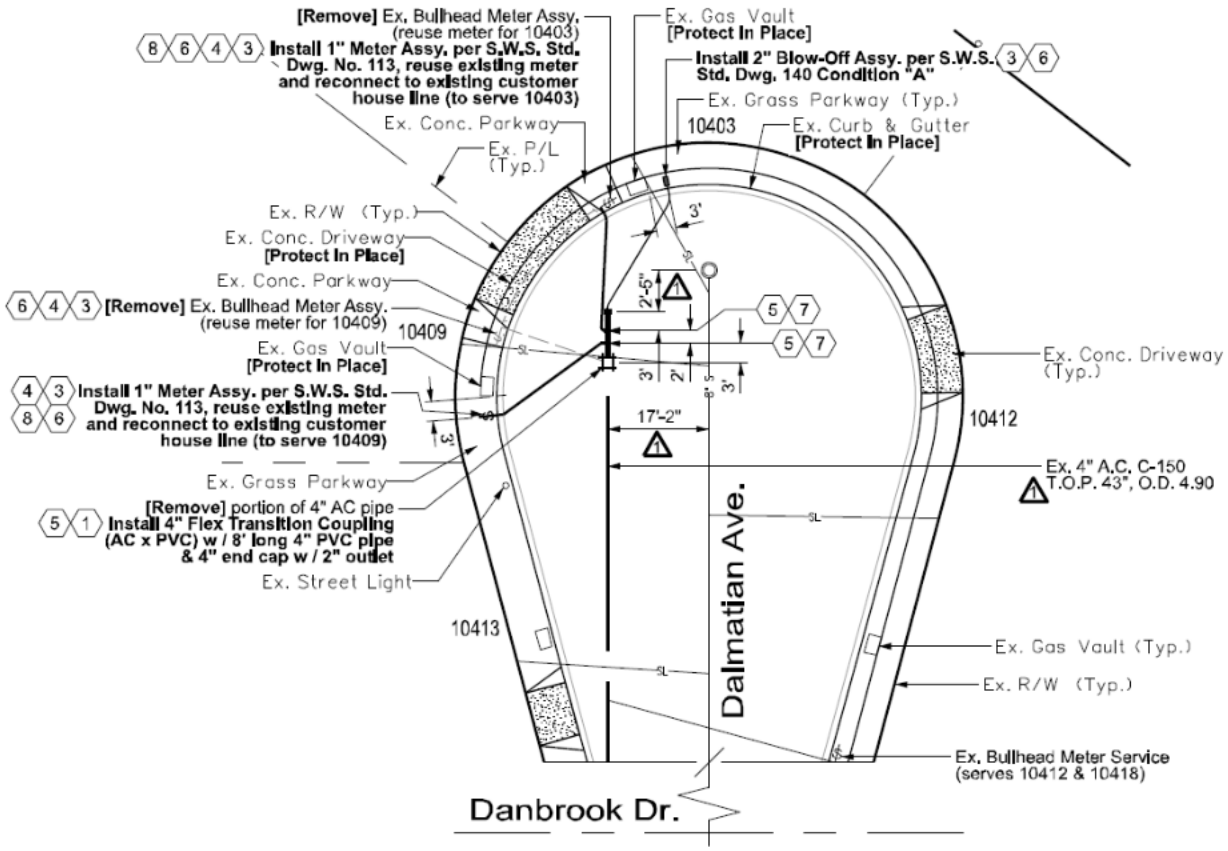


Exhibit 2. Typical Blow-off installation.

Blow-off replacements in La Mirada and Unincorporated LA County require permits with the County. Each blow-off location requires its own separate permit. Historically, the lengthy LA County permitting process delayed the project and made replacing a large batch of blow-offs within a year difficult. However, beginning in 2025, Suburban was approved to use a significantly faster online permitting process for blow-off replacements that approves permits within one day of application. This will greatly improve Suburban's ability to replace the requested number of blow-offs per year.

Suburban has a long history of spending discipline demonstrated by spending to its adopted CAPEX amount. This is made difficult when CAPEX amounts approved in GRC decisions after the attrition year are lower than the amount recovered in rates and lower than the construction that has been completed and serving customers. This was the case in 2023. This is made difficult when delayed rate case decisions adopt lower numbers

after the second year of the GRC and construction of projects in that second year have been completed. This was the case in 2024. Limiting spending to the adopted CAPEX amount is also made difficult when macroeconomic inflation dramatically increases construction costs. Suburban was required to postpone or reduce the scope of projects to prevent total CAPEX spending from exceeding the adopted amount. For these reasons the number of blow-offs replaced was limited, like many other programs, to manage the CAPEX budget.

In this GRC application Suburban proposes to replace 17 blow-offs per year. At this pace the backlog of 252 locations identified by teams and recorded in the GIS that require replacement will be completed within 15 years. The proposed schedule will eliminate water quality concerns for customers caused by the inability to flush dead-ends promptly and meet DDW's expectations for all dead ends having blow-offs. This replacement rate manages the affordability of the program. This replacement rate considers the cost of each blow-off, the unique circumstances of dead-end pipe locations, and Suburban's responsibility to maintain capital program discipline. Replacing 17 blow-offs per year reflects an achievable number of replacements considering the challenges Suburban has recently faced due to increased goods and services costs and the complexity of the projects.

Improvement Alternative's Summary

Alternative #1 - Do nothing: This alternative does not eliminate dead-end pipes that currently do not have a blow-off or have inoperable blow-offs. Dead end mains cannot be flushed, and Suburban will continue to fall short of DDW expectations. Suburban's customers cannot afford to have poor water quality due to inoperable or missing blow-offs, so this alternative is not recommended.

Alternative #2 – Install Piping to Loop at Dead-ends: This alternative requires the construction of pipeline from one dead-end pipe back to another pipe to allow water to circulate and prevent the stagnation of water. This alternative supports DDW expectation that Suburban will eliminate as many dead ends as possible by looping the system. However, looping the system is not feasible because most dead-ends are on cul-de-sacs and easements are required to build pipelines through private properties to reach other pipes and complete a circuit. Exhibit 3 shows an example of the looping pipe required to eliminate a dead-end pipe on a cul-de-sac. Obtaining easements from customers is not feasible, they do not want utility pipe on their property, an easement encumbering and devaluing their property, and they don't want to have the landscaping and hardscaping disturbed during pipe construction. Finally, this alternative is far more costly than installing a blow-off. Due to the cost and unlikeliness of acquiring easements, this alternative is not recommended.

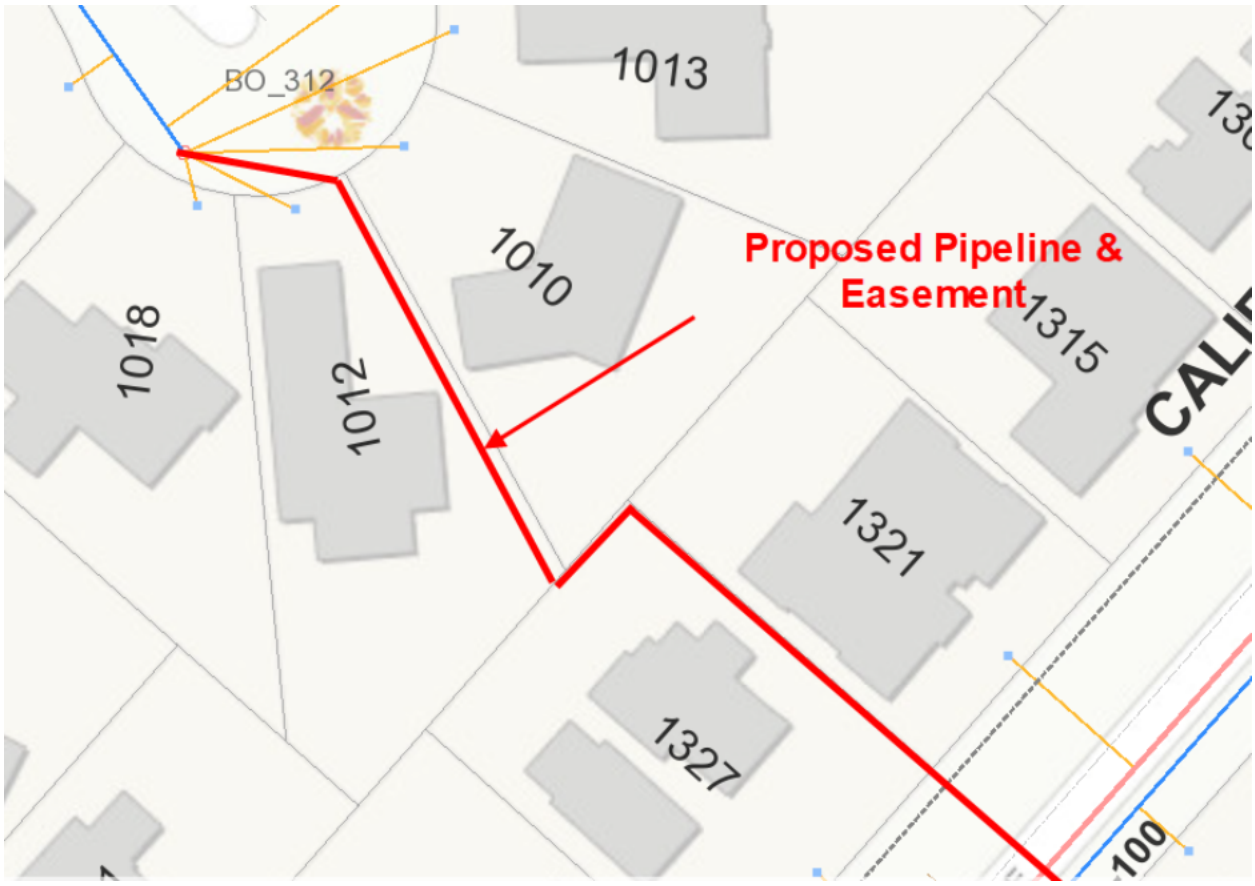


Exhibit 3. Typical cul-de-sacs in Suburban's system.

Alternative #3 – Replace 17 Blow-offs per year over the next 15 years: This alternative replaces or installs 17 blow-offs per year over the next 15 years to completely replace the backlog of 252 blow-offs in Suburban's water systems. This option will improve the overall water quality for customers served by dead-end pipes. This alternative enables Suburban to meet SWRCB-DDW expectations for flushing dead-end mains with blow-offs annually. This replacement rate reflects a realistic number of blow-offs that can be replaced per year, it manages the affordability of the program cost, while considering the impact of recent inflation on construction costs. For these reasons, this is the recommended alternative.

Basis for Budgeted Cost

To estimate the cost of blow-off replacement or installations the full scope of work required to install the blow off must be considered and included. Most existing dead-end pipes have several services installed close to the end of the pipe to serve the homes at the end of the cul-de-sac. Experience with blow-off installations completed from 2020 to 2025 has shown that a blow-off replacement project typically includes replacing service assemblies at the end of the main to make room on the pipe to install the blow-off. Suburban's cost estimate for replacing blow-offs includes these costs.

The average cost for labor and material per blow-off in 2024 was $30,184. Table 3 shows the estimated cost to replace 17 blow-offs in 2024. Table 4 shows the estimated cost to replace 17 blow-off assemblies in2026 using the escalation factor. The testimony's escalation discussion in the Construction Cost Escalation section provides additional information about escalating estimates. Suburban is requesting $592,105 to replace 17 blow-offs in 2026.

Table 3 – Cost Estimate for 17 Blow-off Replacements in 2024 Based on Average Cost

Description	Unit Cost	Qty.	Cost
Replace 2" Blow-off Assembly (2024)	$ 30,184	17	$ 513,128
Subtotal			**$ 513,128**

Table 4 – Escalated Cost to Replace 17 Blow-offs in 2026

Year	Description	Cost
2024	Replace (17) 2" Blow-off Assemblies	$ 513,128
	Escalation from 2024 to 2025 (2.89%)	$ 14,829
2025	Replace (17) 2" Blow-off Assemblies	$ 527,957
	Escalation from 2025 to 2026 (2.89%)	$ 15,258
2026	Replace (17) 2" Blow-off Assemblies	$ 543,215
	G&A (9.00%)	$ 48,889
	Total	**$ 592,105**

Conclusion

Suburban's customers cannot afford to consume stagnant, unsafe, and poor-quality water due to inoperable or missing blow-offs. Aging, deteriorating and inoperable blow-offs will not fix themselves. DDW expects that dead-end pipes be eliminated or retrofitted with blow-offs. Suburban's inspections and records demonstrate a need to replace 252 blow-offs to provide customers with clean drinking water. The cost for replacing blow-offs has increased due to inflation, and cost estimates consider the complexity of replacing blow-offs. Doing nothing is unacceptable because it harms customers and they can't afford it. Looping dead-end pipes is impractical and very costly. Replacing and installing blow-offs on dead-end pipes is an affordable and effective solution. Replacing 252 blow-offs at one time is not affordable for customers. Suburban plans to replace 17 blow-offs per year so that dead end-mains can be flushed to ensure safe and high-quality drinking water for customers while maintaining affordability.

(P-5A) Sativa Water System Land Purchase

Executive Summary

Suburban's Sativa water system is currently facing critical space limitations at Plant 803 which restricts regular safe maintenance access, chemical deliveries, vehicle and

equipment storage, and space for future development. The adjacent lot to Plant 803 is currently on sale and Suburban plans to acquire it. Without the lot, oversized equipment and necessary deliveries will continue to block streets and sidewalks, creating safety risks and service disruptions for the community.

Background

The customers of Suburban's Sativa water system have a unique and timely opportunity to benefit from increased customer service and reduced expenses. The owner of the properties adjacent to Suburban's Plant 803 has indicated they are selling their lots and prefer to sell them to Suburban to serve the Sativa customers instead of listing them on the public real estate market. Suburban has had the property appraised at $660,000 by Colliers International.

The sale of the property provides an opportunity for Suburban to resolve issues regarding limited space and access at Plant 803. The property shares a lot line with Plant 803, a well and manganese removal facility built on a small footprint. The property for sale is 6,500 square feet (sq-ft) in size, and most lots in the Sativa service area are only 25 feet wide and 2,500 sq-ft in size. The construction of equipment required to treat the water at Plant 803 is nearing completion. This equipment has consumed all available space on the plant site leaving no provision for access for large equipment and vehicles needed to maintain the well and treatment system.

Further, water quality monitoring has discovered rising PFAS levels at the nearby well at Plant 802; it is reasonable to expect that PFAS will be found at Plant 803 when the new treatment equipment is commissioned, and the well is returned to service. The adjacent property will be critical to provide the required space for additional treatment equipment.

The primary opportunity is that the property is available and immediately adjacent to the existing well site. Suburban would pay a premium to purchase a property from another owner that is not looking to sell. Further, spreading facilities throughout the neighborhood is disruptive to the community, and facilities should instead be consolidated where they can.

The customers of the Sativa water system have suffered for more than 80 years with inferior water service due to the utility having insufficient space to construct and maintain facilities required to produce, treat, and store water to provide customers with safe and reliable water service. Suburban's Sativa customers cannot afford unsafe or unreliable water service.

Justification

The Need for More Space at Plant 803

The current layout of Plant 803 highlights the significant lack of space and safety issues caused by the site's limited size. The red lines on the layout show the outline of a well rig needed to access the well for redevelopment and maintenance. Note that the rig outline crosses into the public right-of-way blocking the sidewalk and even the street. This is disruptive for the Sativa customers who use the sidewalk and drive on the already narrow streets. Also, note how little space there is around the rig for operators to safely move around the site. There is no space for support equipment for well-redevelopment that includes roll-off storage tanks for pretreatment before discharge to the sewer, chemical storage, power generators, pickup trucks, worker facilities (portable toilet, tool storage, project management) Without the additional land, essential maintenance and future development will continue to cause inconveniences to the community and compromise safe and effective operations.

Plant 803 requires regular well maintenance that needs space, which is currently not available for Suburban's employees. The following is an example of maintenance work that requires space for access. During the construction of the treatment plant, the well's existing pump block was found to not meet current [Division of Drinking Water] DDW standards. The substandard well block could threaten the quality of water in the well and customer safety. When the treatment plant construction is completed, Suburban must upgrade the block. This type of activity is required from time to time and requires space for oversized construction equipment. The property located immediately east of Plant 803 would allow the well drilling contractor to access the well without having any portion of their rig in the public right-of-way blocking the sidewalk and street, eliminating the disruption to the public associated with this work.

Figure 1: Overhead View of Plant 803



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Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

Figure 3 – Photo of drill rig at Plant 216 demonstrating large size of rig



Without additional property, cranes and other large equipment required to maintain the well and treatment facility must be parked on Aranbe Ave. and reach over the plant. Aranbe Ave. is a narrow street that is only 29 feet wide. The Sativa community relies heavily on its street parking, and it is typical to have cars parked on both sides of the street. A 12-foot-wide rig will obstruct or even completely block traffic and may lead to collisions of customer's vehicles. The photos below show how narrow Aranbe Ave. and Stockwell St. are. A 12-feet wide oversized vehicle will encroach into one of the driving lanes and will require a lane closure on the two-lane street.

Figure 4: Street View Facing South on Aranbe Ave. Adjacent to Plant 803



Figure 5: Street View Facing West on Stockwell St. Adjacent to Plant 803



Chemicals required for the water treatment process are also delivered weekly. Chemicals are delivered using a 41-foot-long and 8.5-foot-wide chemical tanker truck. Plant 803 does not have enough space for these trucks to pull completely inside the plant, the tanker would either need to partially pull into the lot blocking the sidewalk and a portion of the street, or park entirely in the street blocking traffic creating dangerous conditions for motorists and pedestrians. Further, hoses would also need to be extended from the truck

to the tanks, crossing sidewalks creating tripping hazards or requiring the blockage of sidewalks.

Figure 6 – Chemical Delivery Tanker Truck



Figure 7 is a photo taken from the driveway looking into Plant 803 shows; it shows how little space there is inside the treatment facility.

Figure 7: Little Available Space in Plant 803



If Suburban does not acquire the adjacent property, essential maintenance and chemical deliveries at Plant 803 will result in unsafe traffic conditions, disrupt the community, and limit Suburban's ability to reliably serve Sativa customers.

Maintenance Vehicles

The Sativa service area suffers from a high rate of vandalism and break and entry crimes. The secure storage of vehicles and equipment is paramount to ensuring they are available to maintain the system in emergency situations like main breaks or other water outages that disrupt service to customers. There is currently insufficient space to park the maintenance vehicles and store the equipment used to provide customer service to Suburban's Sativa water service area customers. Currently, maintenance equipment is stored in the Plant 802 equipment storage building. This storage building is scheduled to be demolished so that Suburban can construct a reservoir and pump station to provide much needed water storage capacity in the system. Due to this, maintenance vehicles, such as valve trucks, backhoes, and excavators, would have to be brought over from other sites. This greatly impacts our ability to address issues quickly in Sativa. Storing maintenance vehicles locally allows Suburban to respond faster to breaks and other emergencies and reduce water service interruptions for our customers who have endured a below satisfactory level of service for too long.

On-site Parking

There is currently no space to park utility and vendor utility vehicles inside Plant 803, requiring vehicles to park along the curb if a space is available. Parking outside of the plant increases the risk of damage or tampering with the vehicle and injury to the employee. Specifically, in 2024, a Suburban employee's vehicle was hijacked during a routine field investigation, resulting in serious injury to the employee. Operating the manganese treatment plant will require Suburban staff to visit the site throughout the day

to troubleshoot issues, and parking in the street exposes our employees to unnecessary risks. Parking on site on the property adjacent to Plant 803 provides a safer environment for employees and vendors to complete their work.

Emergency Generator

A backup power generator is required at the wells to provide uninterrupted service to customers during power outage events. Sativa is served by two groundwater wells that rely on electricity from the utility provider to operate. In the event of a utility power loss the system will depressurize. Power outage events can occur when powerlines are damaged in storms, or by vehicles hitting poles. Water service is most critical during fire events that can damage poles and electrical transmission equipment. There is currently no back up power generator at Plant 803. Installing one at the current site would consume the only remaining open space on site. The space provided by acquiring the neighboring property would be sufficient to install a generator. Further, generators require diesel fuel deliveries that would currently require the tanker truck to block the streets while parking to make deliveries. The additional space provided by acquiring the property would provide sufficient space to make fuel deliveries onsite. Additional space is required to install a backup power generator to ensure customers have uninterrupted service, and fuel deliveries can be made without disrupting traffic.

PFAS Treatment

Future water quality challenges at Plant 803 require planning and sufficient space for treatment capacity. The well at Plant 803 has been offline since 2018 when it was shut off due to high levels of manganese. In the meantime, a manganese removal treatment plant is being constructed, and is expected to come online sometime in 2026. PFAS sampling has not been possible while the well has been offline. PFAS has been detected nearby at Plant 804 well, and there is a high likelihood it will be detected at Plant 803. There is

insufficient space in Plant 803 to construct PFAS removal equipment. Without the property next door to Plant 804, the treatment equipment to treat water from Plant 803 would need to be constructed at Plant 803 which is 1,900 L.F. away requiring a pipeline estimated to cost $828,551. If treatment can be installed on the property next to Plant 804 then the pipeline would not need to be constructed, saving Suburban's customers money.

Transmission Main Cost Estimation

Description	Quantity	Unit	Unit Cost	Cost
Construct 12-inch PVC	1900	L.F.	$240	$456,000
Construct all tie-ins	2	Each	$10,580	$21,160
Test Head for testing	1	LS	$5,300	$5,300
Potholing	1	LS	$57,040	$57,040
AC Removal and Replacement	1900	L.F.	$70	$133,000
Guard underground services	1	LS	$21,540	$21,540
Material Subtotal				**$694,040**
Consultant Inspector	240	Hours	$215.00	$51,600
In-House Inspector	240	Hours	$52.87	$12,689
Subtotal				**$758,329**
Escalation from 2025 to 2026		2.89%		$ 21,916
Subtotal				**$ 780,245**
General Administration			9.00%	$70,222
Total				**$828,551**

Impact of Deferral

If Suburban does not acquire this property, it will have insufficient plant site space to perform the required maintenance on its critical water source. Without the required space the customers of Sativa will suffer from blocked streets and sidewalks for extended periods while large equipment and trucks are parked in the streets. It is not only dangerous for employees of Suburban and its vendors to be in the street, but also for Sativa service area customers who are exposed to greater risk of trip and fall, getting hit by cars, and having vehicle collisions.

The availability of this property is unprecedented and not likely to be repeated. Not acquiring the property now would lead to substantially higher costs in the future, if it is

even possible to convince a future owner to sell to Suburban. Doing nothing is an undesirable option because it does not address the existing issue of limited space for maintaining the necessary infrastructure to provide a reliable and adequate supply of pure, wholesome, healthful, and potable water in the system.

Conclusion

Suburban recommends acquiring this uniquely located and available land to provide the space needed for routine and planned maintenance activities at the facility that is the source of safe and reliable water supply for Suburban's Sativa service area customers. The customers of the Sativa water system have suffered for more than 80 years with inferior water service due to the utility having insufficient space to construct and maintain facilities required to produce, treat, and store water to provide customers with safe and reliable water service. Suburban's Sativa customers cannot afford unsafe or unreliable water service.

Appendix

Appendix 1 – Colliers Appraisal (2025)

XII. 2027 CAPITAL BUDGET

Q58 Would you identify the capital budget replacement projects included in the capital budget for 2027?

A58 The capital projects for 2027 are separated into three categories: (1) Pipeline Replacement Projects, (2) Recurring Projects, and (3) Planned Projects.

2027 Pipeline Projects - $30,723,000

The following projects have been identified for immediate replacement due to their high Project Risk Core, as outlined in the Direct Testimony of Jorge Lopez on Pipeline

Replacements and the Suburban Water Systems Water Main Renewal Technical Memorandum prepared by HDR in 2025 (Workpapers Volume IV). The table below summarizes the pipeline replacement projects scheduled for implementation in 2027.

Project #	Project Name	Amount	Replacement Length	PRS
M-1	Ashgrove & Watkins	$7,553,000	12,660	65.52
M-2	Glenhope & Ruthcrest	$9,913,000	14,370	60.40
M-3	Goldendale & Tanfield	$3,675,000	4,750	60.19
M-4	Scott & Lashburn	$4,729,000	7,500	58.92
M-5	Wing & Lidford	$4,853,000	8,400	57.43
	Total	$30,723,000	47,680	

2027 Recurring Projects (R-Projects) - $17,401,571

(R-26) Service Line Replacements - $3,899,600

Refer to the Service Line Replacements testimony in R-1 in 2026 for a detailed description of the work covered by this budget.

(R-27) Communication Equipment (SCADA) - $121,000

Refer to the Communication Equipment (SCADA) testimony in R-2 in 2026 for a detailed description of the work covered by this budget.

(R-28) Governmental Projects - $181,400

Refer to the Governmental Projects testimony in R-3 in 2026 for a detailed description of the work covered by this budget.

(R-29) Pump Equipment Replacements - $371,100

Refer to the Pump Equipment Replacements testimony in R-4 in 2026 for a detailed description of the work covered by this budget.

(R-30) Meter Purchase - $3,390,263

For the discussion and testimony related to the R-30 2027 Meter Purchase, please refer to the testimony provided in the R-5 2026 Meter Purchase.

The 2027 cost estimate to purchase the meters is below.

Figure 3 – 2027 Meter Purchase Cost Estimate

Meter Size (inch)	Unit Cost	Qty.	Cost
5/8	$ 321.50	781	$ 251,091.50
3/4	$ 344.00	4714	$ 1,621,616.00
1	$ 437.00	934	$ 408,158.00
1.5	$ 757.50	68	$ 51,510.00
2	$ 982.00	85	$ 83,470.00
3	$ 2,325.00	15	$ 34,875.00
4	$ 3,310.00	11	$ 36,410.00
6	$ 5,605.00	3	$ 16,815.00
Retrofit Register	$ 272.20	1047	$ 284,993.40
Subtotal		7658	$ 2,788,938.90
Tax		10.5%	$ 292,838.58
Subtotal			$ 3,081,777.48
G&A		10.01%	$ 308,485.93
Total			$ 3,390,263.00

Basis for Budgeted Cost

Estimated project costs have been determined by multiplying the number of meters to be replaced and registers to be retrofitted, based on a 15-year replacement cycle, by the replacement costs of meters and registers determined from 2027 vendor prices.

This budget item is for the direct purchase of the meters and registers, including the General Administration, which considers Suburban's general administrative costs. The installation costs are recorded in a separate line item, "Meter Installations," because the accounting treatment is different.

(R-31) Security Upgrades - $199,900

Refer to the Security Upgrades testimony in R-6 in 2026 for a detailed description of the work covered by this budget.

(R-32) Plant Improvements - $547,100

Refer to the Plant Improvements testimony in R-7 in 2026 for a detailed description of the work covered by this budget.

(R-33) Fire Hydrant Replacements - $957,100

Refer to the Fire Hydrant Replacements testimony in R-8 in 2026 for a detailed description of the work covered by this budget.

(R-34) Valve Replacements - $1,259,100

Refer to the Valve Replacements testimony in R-9 in 2026 for a detailed description of the work covered by this budget.

(R-35) Vault Replacements and Refurbishments - $68,000

Refer to the Vault Replacements testimony in R-10 in 2026 for a detailed description of the work covered by this budget.

(R-36) Tools, Shop and Garage Equipment - $94,200

Refer to the Tools, Shop and Garage Equipment testimony in R-11 in 2026 for a detailed description of the work covered by this budget.

(R-37) Office Equipment - $81,800

Refer to the Office Equipment testimony in R-12 in 2026 for a detailed description of the work covered by this budget.

(R-38) Water Quality Treatment Improvements - $133,800

Refer to the Water Quality Treatment Improvements testimony in R-13 in 2026 for a detailed description of the work covered by this budget.

(R-39) Blow-off Assembly Replacements – $191,600

Refer to the Blow-off Assembly Replacements testimony in R-14 in 2026 for a detailed description of the work covered by this budget.

(R-40) Miscellaneous Pipeline Replacements - $1,361,500

Refer to the Miscellaneous Pipeline Replacements testimony in R-15 in 2026 for a detailed description of the work covered by this budget.

(R-41) Meter Installations - $768,677

Refer to the Meter Installations testimony in R-16 in 2026 for a detailed description of the work covered by this budget. Basis for Budgeted Cost

Estimated project costs have been determined by the quantity of meters as detailed in the meter purchase budget in the previous section multiplied by installation estimates obtained from vendors. The total estimated cost includes General Administration which considers Suburban’s general administrative costs.

Meter Size (inch)	Unit Cost	Qty.	Cost
5/8	$ 79.72	781	$ 62,261.89
3/4	$ 79.72	4714	$ 375,803.51
1	$ 79.72	934	$ 74,459.16
1.5	$ 240.51	68	$ 16,354.87
2	$ 240.51	85	$ 20,443.59
3	$ 2,229.97	15	$ 33,449.52
4	$ 2,293.68	11	$ 25,230.50
6	$ 2,421.11	3	$ 7,263.33
Retrofit Register	$ 79.72	1047	$ 83,467.60
Subtotal		7658	$ 698,733.96
G&A		10.01%	$ 69,943.27
Total			$ 768,677

(R-42) Air Release Assembly Replacements - $102,100

Refer to the Air Release Assembly Replacements testimony in R-17 in 2026 for a detailed description of the work covered by this budget.

(R-43) Plant Paving Projects - $130,500

Refer to the Plant Paving Projects testimony in R-18 in 2026 for a detailed description of the work covered by this budget.

(R-44) Control Valve (Cla-Val) Refurbishments - $167,500

Refer to the Control Valve (Cla-Val) Refurbishments testimony in R-19 in 2026 for a detailed description of the work covered by this budget.

(R-45) Office Furniture - $7,400

Refer to the Office Furniture testimony in R-20 in 2026 for a detailed description of the work covered by this budget.

(R-46) Meter Boxes & Lids - $61,500

Refer to the Meter Boxes & Lids testimony in R-21 in 2026 for a detailed description of the work covered by this budget.

(R-47) GIS Model System Upgrades - $342,044

Refer to the GIS Model System Upgrades testimony in R-22 in 2026 for a detailed description of the work covered by this budget.

(R-48) Personal Computer Hardware - $75,586

Refer to the Personal Computer Hardware testimony in R-23 in 2026 for a detailed description of the work covered by this budget.

Basis for Budgeted Cost

The budget is based on the replacement schedule and costs provided by vendors. The total cost has been escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

Description	2027		
	Quantity	Unit Cost	Cost
Precision 3591	15	$2,950	$44,250
Precision 5320	0	$1,600	$0
Desktop 7020	0	$1,365	$0
24 Inch Monitors	3	$165	$495
27 Inch Monitors	0	$200	$0
WD22TB4 dock	4	$300	$1,200
Printer	0	$300	$0
UPS	0	$7,000	$0
Server	0	$10,000	$0
RGLaptop 5430	2	$2,700	$5,400
27 LCD/wDock	4	$430	$1,720
24 LCD/wDock	2	$270	$540
SurfacePro 10	7	$2,542	$17,794
Total Cost in 2025 $			$71,399
2027 Escalation	105.86%		
2027 Total Cost			**$75,586**

(R-49) Computer Software – $11,800

Refer to the Computer Software testimony in R-24 in 2026 for a detailed description of the work covered by this budget.

(R-50) Vehicle Replacements - $2,877,000

The testimony of Vehicle Replacements is shown fully in (R-25) in 2026.

2027 Planned Projects - $26,848,324

(P-1A) Plant 201 PFAS Treatment Plant - $24,428,881

Refer to the Plant 201 PFAS Treatment Plant testimony in P-1A for a detailed description of the work proposed in 2027.

(P-3) 2027 Well Rehabilitation Plan - $657,225

Refer to the 2026 Well Rehabilitation testimony in P-3 for a detailed description of the work proposed in 2027

The forecasted cost estimate for 2027 was determined by escalating the contractor's actual cost from 2025 using a factor derived from ENR's building index. The testimony's escalation discussion in the Construction Cost Escalation section provides additional information about escalating estimates.

Table 3 *– Well Rehabilitation Project Cost Estimate 2027*

Item No.	2027 Wells - Bid Items	QTY	Unit	Unit Cost	Cost
1	Well Video Logs, and Pump Inspection, Brush & Bail	2	Lump Sum	$ 28,962	$ 57,925
2	Pump Repairs	2	Lump Sum	$ 146,081	$ 292,162
3	Well Chemical Treatment	2	Lump Sum	$ 98,094	$ 196,188
4	Motor Repairs	2	Lump Sum	$ 8,183	$ 16,366
5	Internal Inspection Services	32	Hours	$ 53	$ 1,692
	Subtotal				**$ 564,333**
	Escalation from 2025 to 2027			**5.86%**	$33,090
	Subtotal				**$597,423**
	General Administration			**10.01%**	$59,802
	Subtotal				**$657,225**

(P-5) 2027 Blow-off Replacement Program – $614,861

For the discussion and testimony related to the P-5 2027 Blow-off Replacement Program, please refer to the testimony provided in the P-5 2026 Blow-off Replacement Program.

The average cost for labor and material per blow-off in 2024 was $30,184. Table 3 shows the estimated cost to replace 17 blow-offs in 2024. Table 4 shows the estimated cost to replace 17 blow-off assemblies in 2027 using the escalation factor. The testimony's escalation discussion in the Construction Cost Escalation section provides additional information about escalating estimates. Suburban proposes replacing 17 blow-offs in 2027 for $615,000.

Table 3 – Cost Estimate for 17 Blow-off Replacements in 2024 Based on Average Cost

Description	Unit Cost	Qty.	Cost
Replace 2" Blow-off Assembly (2024)	$ 30,184	17	$ 513,128
Subtotal			**$ 513,128**

Table 4 – Escalated Cost to Replace 17 Blow-offs in 2027

Year	Description	Cost
2024	Replace (17) 2" Blow-off Assemblies	$ 513,128
	Escalation from 2024 to 2025 (2.89%)	$ 14,829
2025	Replace (17) 2" Blow-off Assemblies	$ 527,957
	Escalation from 2025 to 2027 (5.86%)	$ 30,957
2027	Replace (17) 2" Blow-off Assemblies	$ 558,914
	G&A (10.01%)	$ 55,947
	Total	**$ 614,861**

(P-6) Plant 167 Road Realignment - $819,911

Q59 Can Suburban's customers who live in a very high fire danger area afford to lose fire protection when the hillside erodes, causing a catastrophic pipeline failure?

A59 No. Suburban's customers cannot afford to allow the pipeline to fail catastrophically. The resulting catastrophic failure would result in the loss of critical water stored for fighting fires leading to property damage and even loss of life. The pipeline needs to be relocated to protect customers.

Q60 Can Suburban's customers who live downhill afford the life and property damage that will occur when the hillside erodes, resulting in a destructive flood?

A60 No. Customers cannot afford the damage that a wave of flood water will cause to their property and even threaten their lives when the hillside erodes, causing catastrophic pipeline failure that instantly releases millions of gallons of stored water to run downhill

and collide with customers' houses. The pipeline needs to be relocated to protect customers.

Executive Summary

Suburban's customers cannot afford to allow the pipeline to fail catastrophically. The resulting catastrophic failure would result in the loss of critical water stored for fighting fires, leading to property damage and even loss of life. The pipeline needs to be relocated to protect customers. Customers cannot afford the damage that a wave of flood water will cause to their property and even threaten their lives when the hillside erodes, causing catastrophic pipeline failure that instantly releases millions of gallons of stored water to run downhill and collide with customers' houses. The pipeline needs to be relocated to protect customers.

Plant 167 is critical to serving Suburban's customers. Without this pipe the tank would be disconnected from the distribution system and Suburban's Hacienda Heights customers would not have access to stored water that is critical for domestic, irrigation, emergency, and fire protection service. Left unbated, erosion will remove the roadway supporting the pipeline connecting the Plant 167 water tank to the drinking water system.

Plant 167's site and roadway's proximity to fault lines puts it at risk of failing due to earthquakes. Waiting for the hillside to fail due to undermining from the unstable hillside is unacceptable and irresponsible because it will cause flood damage to homes located downhill. If the hillside that supports the pipeline that delivers water from the Plant 167 tank to the drinking water system below fails, the ability to fight fires in this very high fire danger area will be severely limited and damage and loss will be increased. A geotechnically stable access road is essential for providing access to the reservoir and maintaining the system in operation.

The alternative to relocate the roadway and pipe away from the eroding hillside addresses the concerns caused by the eroding hillside, is the least costly alternative, and is the alternative Suburban has selected. Relocating the pipeline prevents the pipeline from failing catastrophically and prevents the loss of critical water stored for fighting fires, leading to property damage and even loss of life. Relocating the pipeline prevents damage, loss, and injury that a wave of flood water will cause to the downhill neighbors' property.

Project Background

Plant 167 R-1, a 1.5 million-gallon (MG) water storage steel tank, was built in 1974 and serves the Hacienda Heights customers. Plant 167 is a critical facility because it supplies drinking, domestic, irrigation, and firefighting water to seven (7) gravity zones. The reservoir was built on the mountain ridgeline to ensure it can provide water storage to all the zones. Plant 167 is critical to serving Suburban's customers.

Figure 1: *Aerial Map of Plant 167*



A 16-inch Asbestos Cement transmission line was installed in a winding, narrow, paved access road to connect the tank to the distribution system. This pipe was installed on the

paved road to the reservoir and follows the roadway alignment (See Figure 2). This pipeline is critical because it is the only way to move water in and out of the tank. Without this pipe the tank will be disconnected from the distribution system and Suburban's Hacienda Heights customers would not have access to stored water that is critical for domestic, irrigation, emergency, and fire protection service.

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Over time, the hillside adjacent to and supporting the roadway has experienced erosion caused by stormwater runoff (See Figure 3). Rainfall, earthquakes, landslides, and a lack of vegetation will continue the erosion that will eventually cause the pipeline to move and break. The break will immediately and uncontrollably drain 1.5 million gallons of water from Plant 167 R-1 down the hill into houses, threatening life and property. Photos of the road surface show cracking and separation that indicate that erosion is already causing the roadway to move (See Figure 4). Left unabated, the hillside will continue to erode, and the road and the pipe will fail.

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Figure 3: *Cracking Roadway*



Figure 4: *Cracking Roadway*



Project Justification:

Heavy rainfall, earthquakes, and landslides will continue to erode the hillside that supports Plant 167 road and pipeline. The consequences of the pipeline and roadway failure will be catastrophic, including flooding, damage to property, possible loss of life, reduced fire protection service, loss of water services, and very expensive repair costs. Customers cannot afford to delay the relocation of the pipeline and roadway.

Erosion- Rainfall:

Heavy rains erode and wash away the hillside that supports the roadway and pipeline. The west side of the access road and pipe has eroded due to the surface flow from a drainage channel owned and maintained by the LA County Department of Public Works. The roots of vegetation, which hold soil together, have eroded with previous rainfall. The steep slopes with sparse vegetation are prone to more erosion (see Figures 5 & 6). Over the last 50 years, the hillside erosion has inched closer to the access roadway. The edge of the unstable hillside is now approximately less than 2 feet from the roadway, and roadway undermining is impending.

Figures 5 & 6 *Plant 167 Roadway and Hillside*





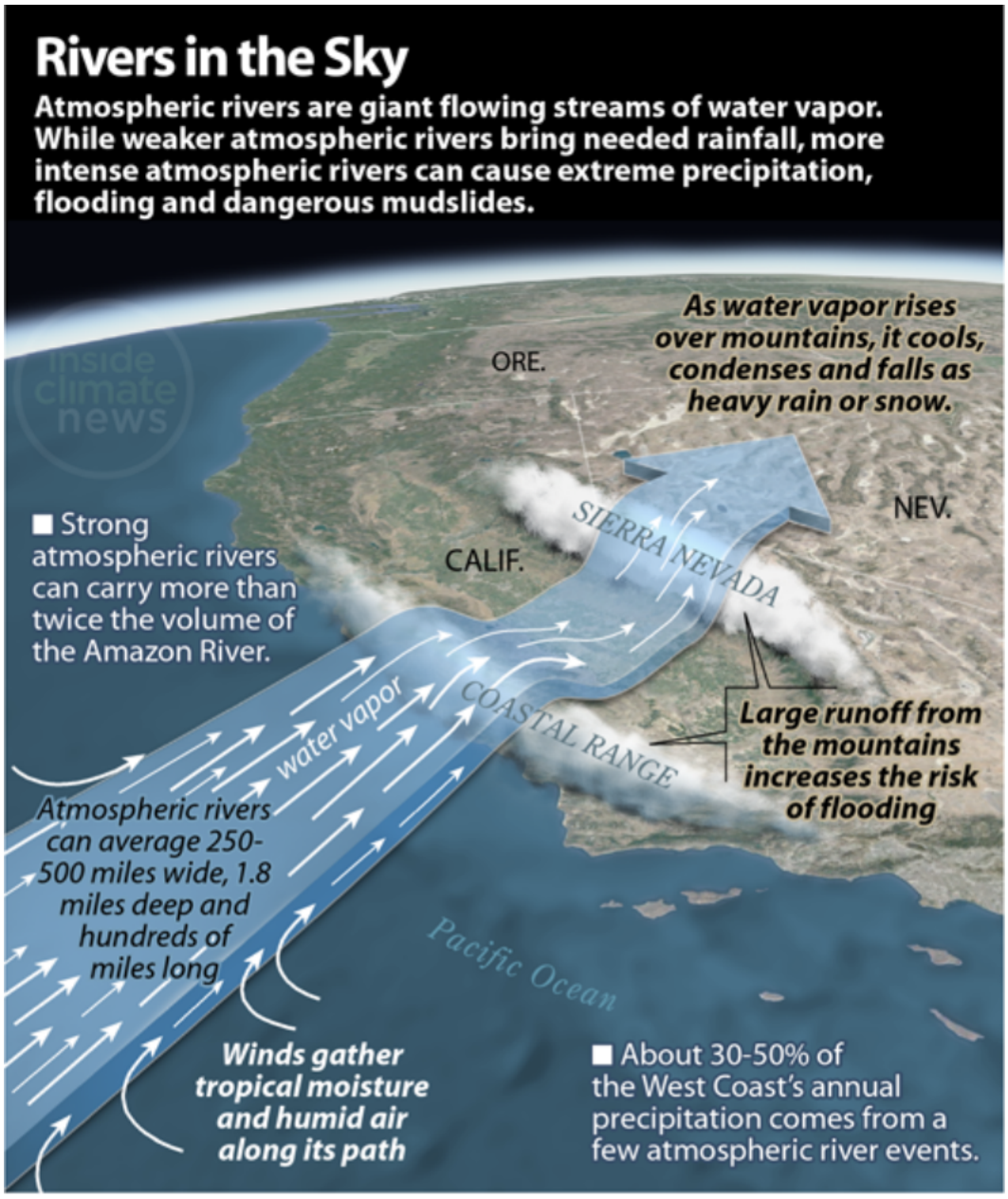
In southern California, climate change has increased the frequency and intensity of rain events, further exacerbating the likelihood of erosion. California Climate Adaptation Strategy states, "California's increasingly long and intense drought conditions are punctuated by more intense storms and higher flood flows that can overwhelm stormwater and wastewater systems. More precipitation falls as rain instead of snow, leading to higher volumes of runoff, while proliferating wildfires further raise California's flood risk by reducing water absorption through the soil" (https://climateresilience.ca.gov/overview/impacts.html/#:~:text=California%20has%20the%20most%20variable,or%20state%20small%20water%20systems.)

Atmospheric rivers are large, moist air which flow into the Western United States from the tropics, bringing intense rainfall when they reach land (Figure 7). Researchers have found that changes in the weather, including increasingly warmer weather, intensify the atmospheric rivers and subsequently the rainfall. According to Duane Waliser, chief

scientist with the NASA Jet Propulsion Lab Earth Science and Technology Directorate, the number of atmospheric rivers has decreased, but they are increasing in size and duration and will continue to increase as the temperatures increase in the ocean (InsideClimateNews.org). "In the new study, researchers with the Scripps Institution of Oceanography at the University of California San Diego and the U.S. Army Corps of Engineers analyzed 40 years of data from the National Flood Insurance Program. They found that storms associated with atmospheric rivers caused more than 99 percent of all flood damage in parts of coastal Oregon and California. The 10 most extreme atmospheric rivers caused nearly half of all the flood damage in the West between 1978 and 2017, about $23 billion, the study concluded." (https://insideclimatenews.org/news/05122019/atmospheric-rivers-climate-change-flood-mudslide-risk-rising-california-west/). Atmospheric rivers may have decreased in quantity, but the warming oceans release more moisture in the air are bringing California more intense and longer rain events.

With intense rain events, the steep, narrow canyon slopes will continue to erode and become less stable, unable to support the roadway and underground pipeline. Without intervention, the roadway will eventually collapse and inevitably cause a disastrous water system failure, including loss of water reliability for customers and danger to the neighborhood in the flow path.

***Figure 7**: Atmospheric Rivers Exhibit*



Earthquakes and Landslides:

Southern California has an elevated risk of earthquakes which can cause hillsides to collapse. There are 300 faults capable of producing an earthquake of magnitude six and larger, according to the United States Geological Survey (USGS.gov). Regional geologic mapping shows that the existing access road crosses a mapped landslide (See Figure 8 &

9). According to the USGS Landslide Susceptibility map, Plant 167 is very likely to experience a landslide again. The Whittier fault line cuts across Hacienda Heights (See Figure 10) and is part of a fault zone comprising multiple strands of complex interactions. The fault has the potential to produce an earthquake of a magnitude 7.8. The last major earthquake recorded on the Whittier Fault zone was in 1987, which had a 5.9 magnitude and caused significant damage. The Plant 167 roadway's proximity to fault lines puts it at risk of failing due to earthquakes.

Figure 8: *Regional geologic maps (Dibblee, 2005) mapped landslide*

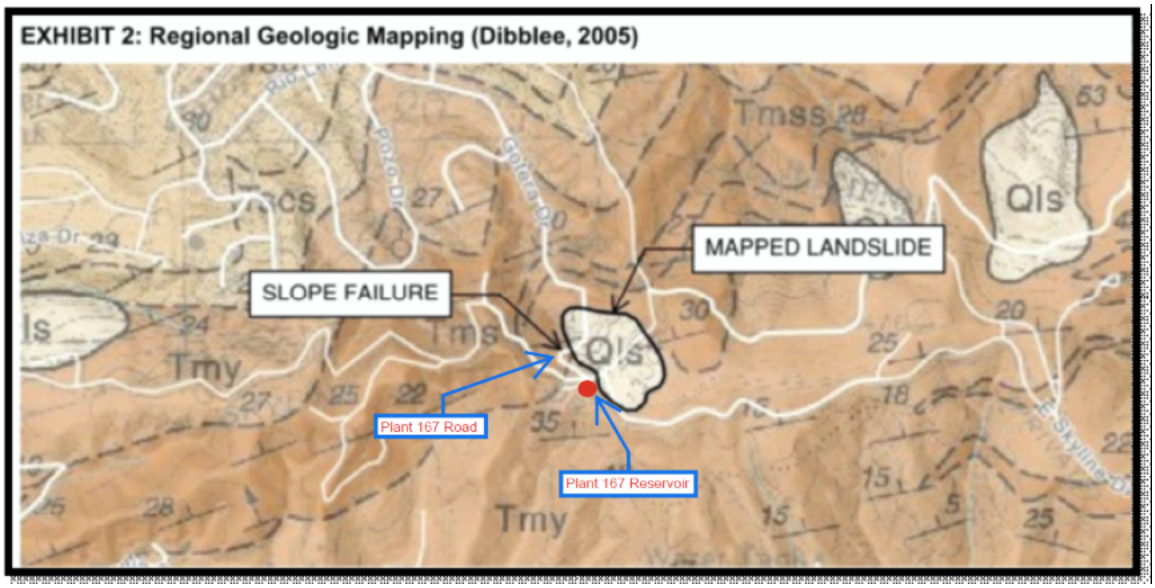


Figure 9: *USGS Landslide Susceptibility Map*

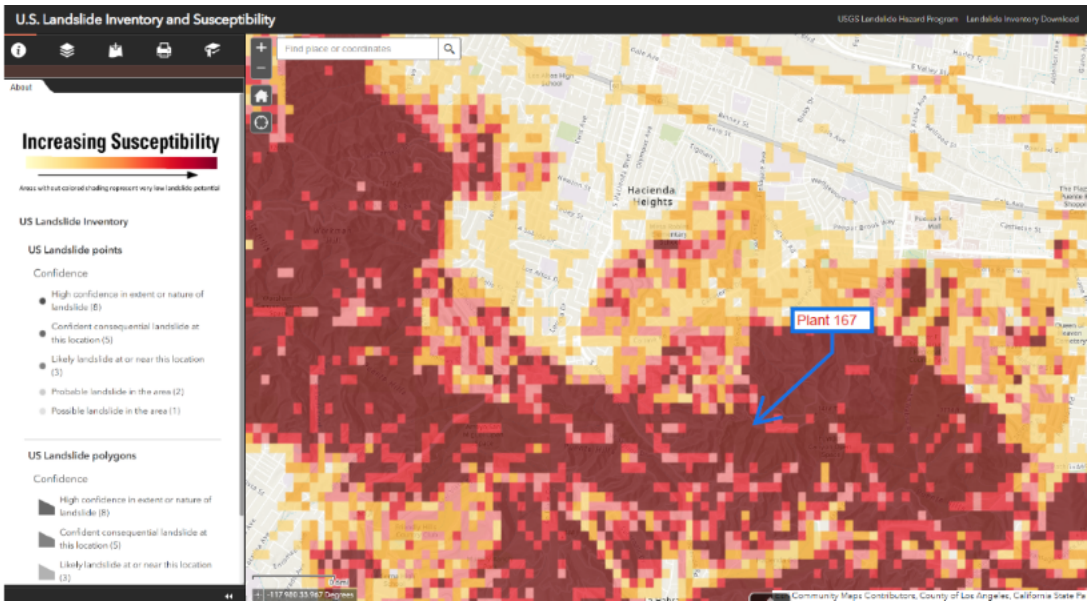


Figure 10: *Southern California Major Fault Lines*

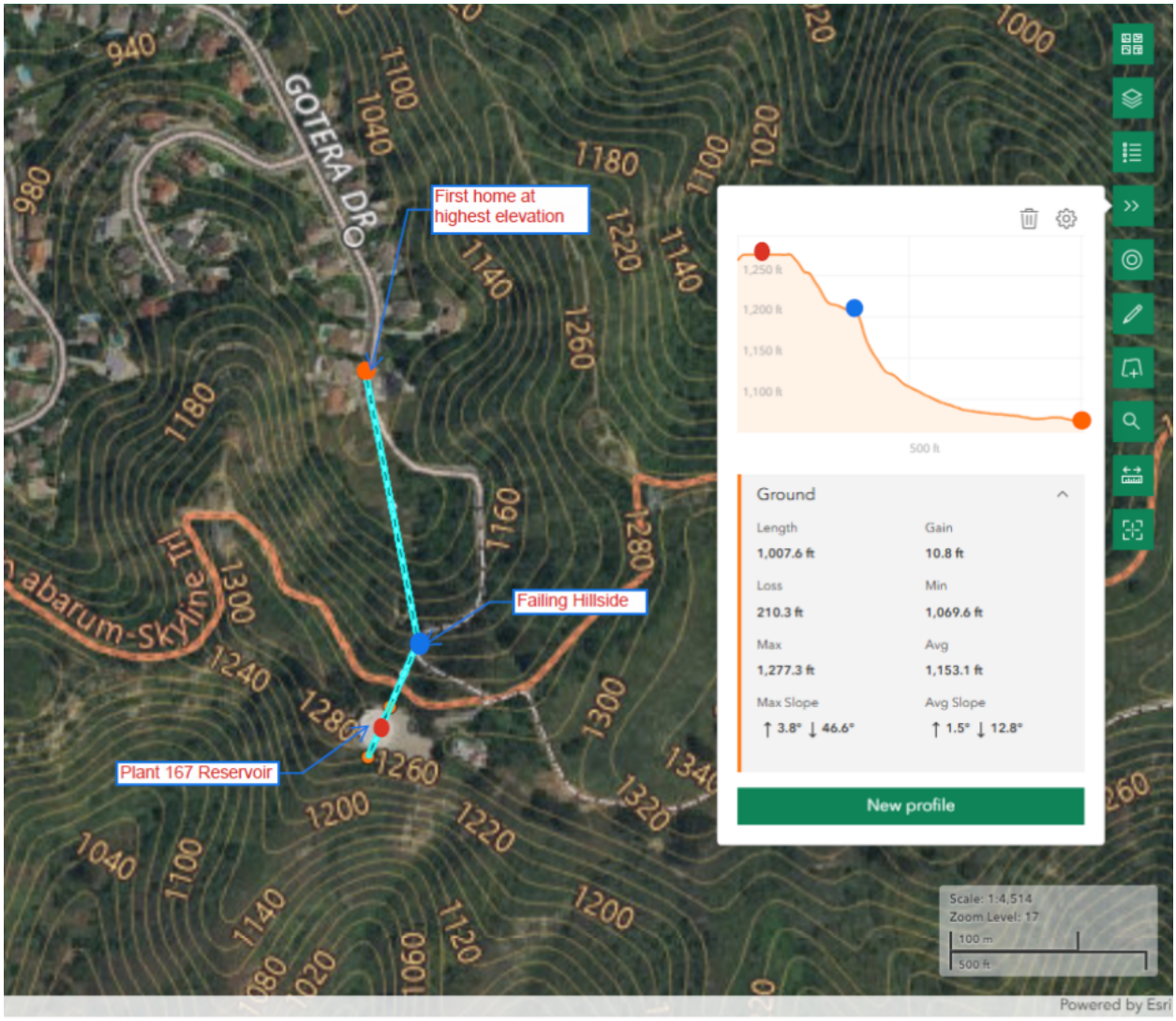


Consequences of failure:

Flood Damage:

Flooding from a catastrophic failure and break of the pipe that connects Plant 167 R-1 to the water system below would be devastating for neighboring customers. Plant 167 sits at an elevation of 1,278 ft, more than 200 ft higher than the nearest home, as shown in Figure 11. If the pipe were to break, a flood of water would rapidly travel downhill towards homes, causing mudslides and flood damage to property, and even injury or death to residents. Imagine if this happened at night while you were sleeping in your bed.

Figure 11: *USGS Topo Map of Plant 167 (https://apps.nationalmap.gov/viewer/)*



In 2025, the Grampians Wimmera Mallee Water (GWMWater) Tank, in Australia collapsed and flooded surrounding homes (https://www.abc.net.au/news/2025-03-12/nhill-water-tank-flood-damages-home-structures/105043482).

Figure 12: *Damage after GWMWater Tank Failure*



Another similar incident was when the 5 MG tank, near the Westminster neighborhood in California, failed catastrophically leaving six people injured and at least 30 people temporarily homeless. Residents scrambled to help their pets and loved ones to evacuate as water filled homes. Waiting for the hillside to fail due to undermining from the unstable hillside is unacceptable and irresponsible because it will cause flood damage to homes located downhill

Fire Protection

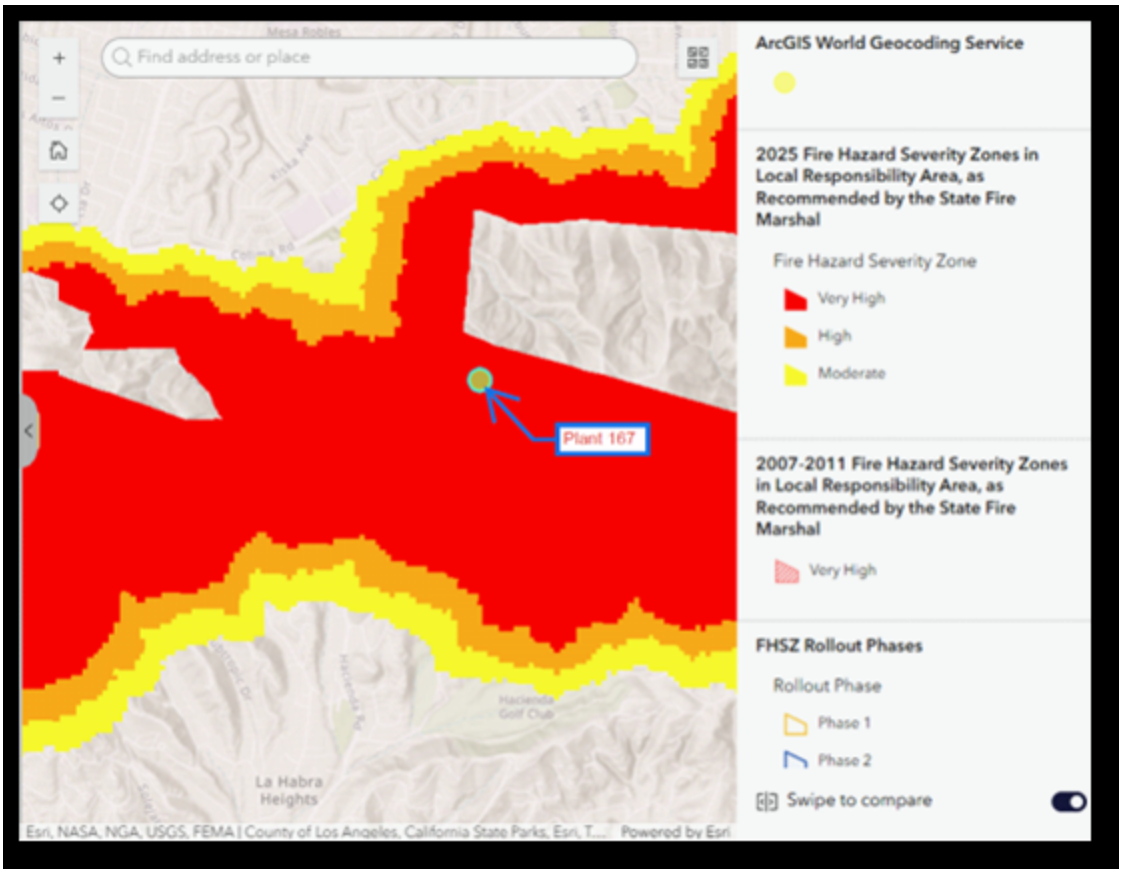
The Plant 167 reservoir stores 1.5MG of water; if the 16-pipeline fails, this critical water reserve would not be available for firefighting. In 2025, California experienced some of the worst fires in history, burning over 200 acres in high-density urban areas. In January, the Pacific Palisades area experienced a devastating wildfire that destroyed over 6,800 homes and caused 12 deaths (Figure 12). Firefighters bravely fought the fire with water

from the drinking water system but eventually ran out when reservoirs ran dry. Much of the Hacienda Heights area is considered a Very High risk in both the CPUC Fire map and the Fire Hazard Severity Zone 2025 map by Cal Fire. Water for fire protection is critical in high fire danger areas. (See Figure 13 – Figure 16). High winds can push a wildfire into areas previously not considered a high fire danger zone. If the hillside that supports the pipeline that delivers water from the Plant 167 tank to the drinking water system below fails, the ability to fight fires in this very high-risk fire area will be severely limited, and damage and loss will increase.

Figure 12: *Pacific Palisades Fire Damage Jan. 27, 2025 (AP Photo/Jae C. Hong)*



Figure 13: *Cal Fire Map*

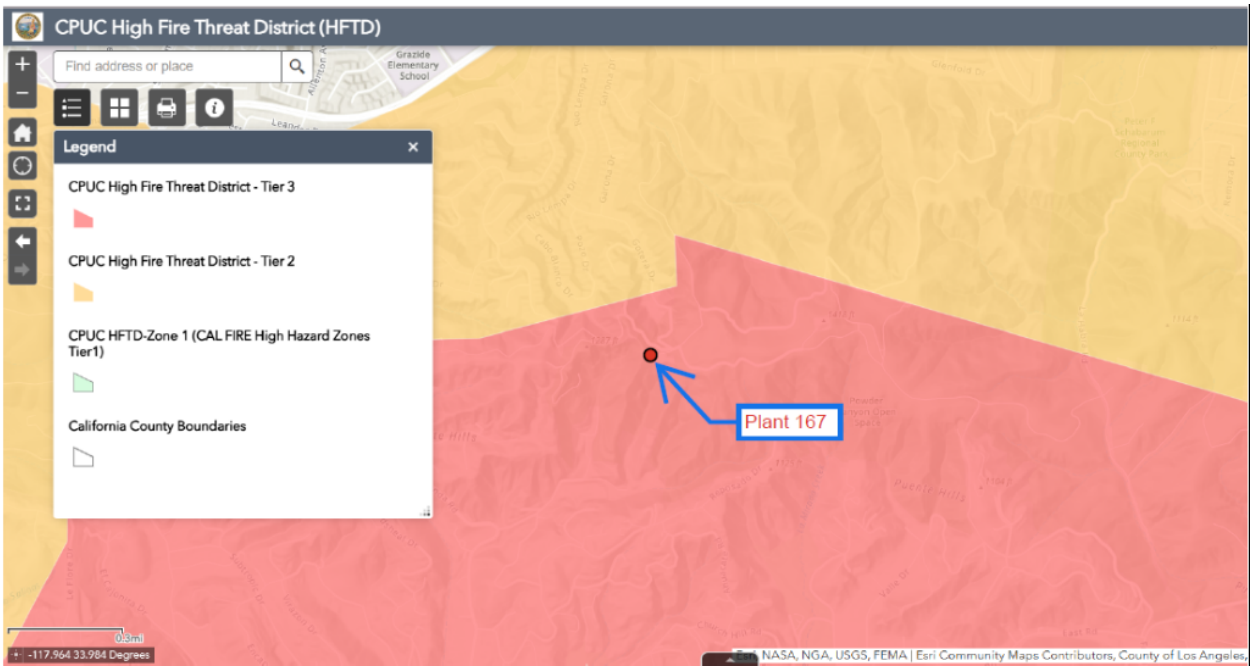


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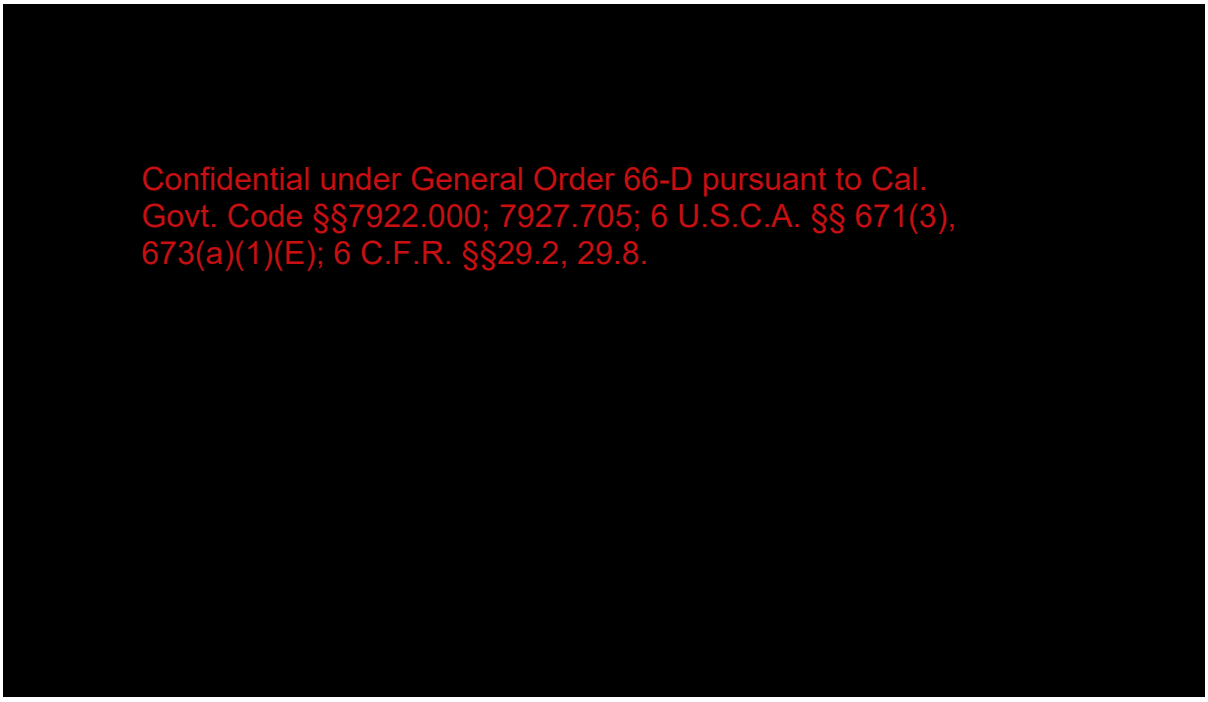
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Figure 15: *CPUC Fire Map*



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Access Road:

This roadway is the only all-weather surface road to access tank site and without it, operators could not access the plant site for normal or emergency operations. For example, when the tank was refurbished in 2016, large vehicles such as lifts and flatbeds carrying blasting material and equipment were required. The large utility trucks and other heavy equipment that are required to maintain the tank need a safe road that doesn't create a risk of driving off the steep cliff when the road collapses. The weight and vibration of these vehicles, which include dump trucks, backhoes, lifts, and cranes, could contribute to the collapse of this geotechnically unstable road, resulting in a loss of life and damage to equipment. A geotechnically stable access road is essential for providing access to the reservoir and maintaining the system in operation.

Figure 17: *Plant 167 Roadway*



Alternatives

Our customers cannot afford to ignore the failing hillside that will eventually cause the road and pipeline to collapse resulting in service disruptions, and catastrophic flooding damage to life and property to those living downhill from the tank. The following is a review of alternatives for providing a stable roadway to support the pipe.

Alternative 1 – Do nothing

Doing nothing means waiting for the inevitable erosion to cause the collapse of the roadway, breaking the pipeline and sending 1.5 million gallons of water downhill into the neighborhood to damage property, and cause injury or even loss of life. This alternative does not mitigate the problem of how losing the pipeline and water stored in the tank would leave customers without a critical firefighting resource that will increase the damage and loss from a wildfire event. This alternative does not mitigate the risk of flood damage to neighboring homes. This alternative does not provide a safe and reliable access road for maintaining and repairing the tank. The alternative to do nothing is unacceptable because it does not address the pressing risk of the road collapsing.

Alternative 2 – Replace the Roadway and Pipeline

This alternative involves the construction of a new roadway, 60 feet to east of the eroding hillside, to provide a geotechnically stable access road to support a realigned pipe. The section of roadway and pipe threatened by erosion would be abandoned. This alternative ensures access to a supply of stored water for firefighting in a high fire danger area. This alternative addressed the risk of flood damage to neighboring properties. This alternative provides a safe and reliable access road for maintaining and repairing the tank. This is the least costly alternative to resolve concerns that the pipe will break due to hillside erosion. The alternative to relocate the roadway and pipe away from the eroding hillside addresses the concerns caused by the eroding hillside and is the least costly alternative.

Cost Estimate:

Table 1: *Plant 167 Cost Estimate*

Item No.	Plant 167 Road - Bid Items	QTY	Unit	Unit Cost	Cost
1	Roadway Construction	1	Lump Sum	$325,000	$325,000
2	16-inch Pipeline Construction	200	L.F.	$930	$186,000
3	16-inch Tie-in	2	Each	$25,050	$50,100
5	Construction Inspector (In house)	60	Hours	$53	$3,172
6	City Building permits and inspection	1	Lump Sum	$4,103	$4,103
7	Design Cost	1	Lump Sum	$135,650	$135,650
	Subtotal				**$568,376**
	Escalation from 2025 to 2027			**5.78%**	$32,852
	Subtotal				**$601,228**
	General Administration			**10.01%**	$60,183
	Total				**$661,411**

Alternative 3 – Reinforce the hillside

The final option would be civil and geotechnical construction to reinforce the hillside and stabilize the slope to prevent future erosion. This approach would require the construction of retaining walls or anchoring that would be far more expensive than simply relocating the roadway and pipeline.

This alternative involves substantial geotechnical earthwork, like retaining walls and anchoring, to reinforce and retain the hills side from further collapse. The section of roadway and pipe threatened by erosion would be left in place in a road supported by the new earthwork. This alternative ensures access to a supply of stored water for firefighting in a high fire danger area. This alternative addressed the risk of flood damage to neighboring properties. [info] This alternative provides a safe and reliable access road for maintaining and repairing the tank. This option is the costliest option to resolve concerns that the pipe will break due to hills erosion. The alternative to reinforce the eroding hillside addresses the concerns caused by the eroding hillside but is the costliest alternative.

Alternative Recommendation:

Review of the alternatives revealed the following. The alternative to do nothing is unacceptable because it does not address the pressing risk of the road collapsing. The alternative to reinforce the eroding hillside addresses the concerns caused by the eroding hillside but is the costliest alternative. The alternative to relocate the roadway and pipe away from the eroding hillside addresses the concerns caused by the eroding hillside, is the least costly alternative, and is the alternative Suburban has selected.

Project Conclusion

Suburban's customers cannot afford to allow the pipeline to fail catastrophically. The resulting catastrophic failure would result in the loss of critical water stored for fighting fires leading to property damage and even loss of life. The pipeline needs to be relocated to protect customers. Customers cannot afford the damage that a wave of flood water will cause to their property and even threaten their lives when the hillside erodes, causing catastrophic pipeline failure that instantly releases millions of gallons of stored water to run downhill and collide with customers' houses. The pipeline needs to be relocated to protect customers.

Plant 167 is critical to serving Suburban's customers. Without this pipe the tank would be disconnected from the distribution system and Suburban's Hacienda Heights customers would not have access to stored water that is critical for domestic, irrigation, emergency, and fire protection service. Left unbated, erosion will take away the roadway that supports the pipeline that connects the Plant 167 water tank to the drinking water system. Plant 167's roadway proximity to fault lines puts it at risk of failing due to earthquakes. Waiting for the hillside to fail due to undermining from the unstable hillside is unacceptable and irresponsible because it will cause flood damage to homes located downhill. If the hillside that supports the pipeline that delivers water from the Plant 167 tank to the drinking water system below fails, the ability to fight fires in this very high fire danger area will be severely limited and damage and loss will be increase. A stable geotechnically stable access road is essential for providing access to the reservoir and maintaining the system in operation.

The alternative to relocate the roadway and pipe away from the eroding hillside addresses the concerns caused by the eroding hillside, is the least costly alternative, and is the alternative Suburban has selected.

Relocating the pipeline prevents the pipeline from failing catastrophically and prevents the loss of critical water stored for fighting fires leading to property damage and even loss of life. Relocating the pipeline prevents damage, loss and injury that a wave of flood water will cause to downhill neighbor's property.

(P-7) Bartolo Transmission Main Coupling Replacement - $327,445

Q61 Can customers afford to lose the most critical water supply due to a predictable pipeline failure?

A61 No. Customers cannot afford to lose the Bartolo Transmission Main (BTM) again due to a coupling failure that caused the loss of its primary water supply, limiting customers'

domestic use and reducing fire protection capacity required to protect customer lives and property. The consequences of the pipeline failing again threatens the loss of life and catastrophic property damage due to insufficient supply that other sources cannot replace.

Q62 How can Suburban ensure that loss of this supply due to coupling failures on the BTM can be avoided?

A62 Suburban can replace the other coupling installed at the same time as the one that failed. The replacement will prevent this coupling from its inevitable failure, service to customers won't be interrupted, and fire protection will be available to protect customers' lives and property.

Executive Summary

Customers cannot afford to lose their most critical water supply due to a predictable pipeline failure. Suburban can prevent this loss by proactively replacing couplings that are likely to fail.

A coupling failure on the BTM, Suburban's most critical transmission, occurred because it was not designed with restraints to resist pipe expansion. The likelihood that the second identical coupling will fail is very high. Knowing that there is a similar coupling still in service and understanding the consequences of a coupling failure on the BTM, it would be irresponsible not to replace the other coupling to avoid these consequences, which include significant interruption of supply, creation of the potential for contamination of the water system, water waste, challenges acquiring repair parts, and long periods of street closures which inconvenience customers traffic. Delaying the replacement of this coupling increases the likelihood of failure and the consequences that include service interruption, contamination, and damage.

Customers cannot afford to lose their most critical water supply due to a predictable pipeline failure. Suburban can prevent his loss by proactively replacing couplings that are likely to fail.

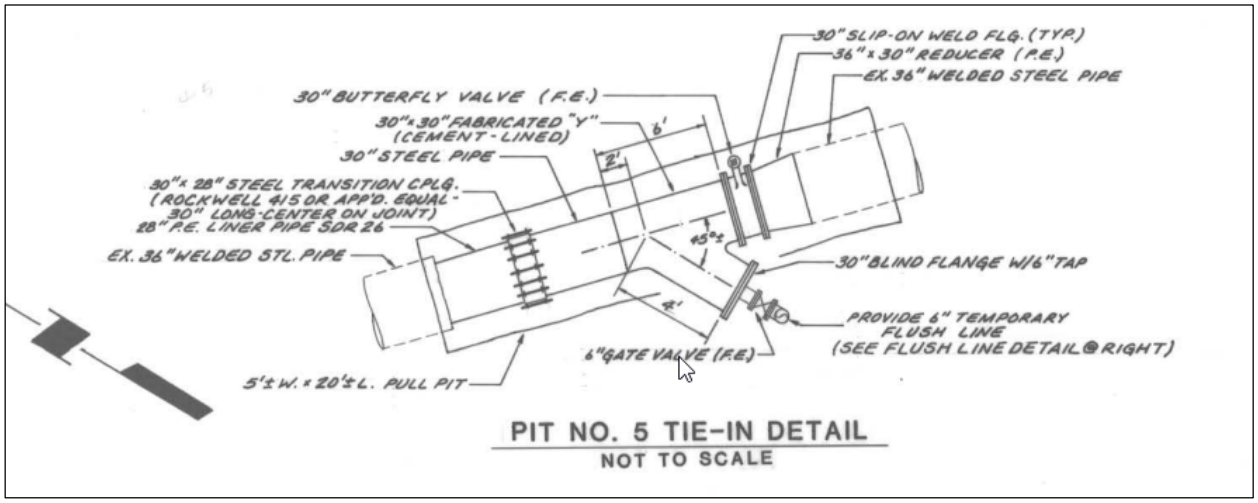
Project Background

One unrestrained flexible transition coupling on the Bartolo Transmission Main failed in June 2023. It is highly probable that the other unrestrained coupling installed by the same contractor, at the same time, using the same construction methods, will fail soon.

Bartolo Transmission Main (BTM) is the most critical pipeline in Suburban's transmission and distribution system. BTM is seven miles long and takes water from Plant 201 Well Field to Plant 224. Over 120,000 customers rely on water from the well field for drinking, domestic, irrigation, and firefighting. The BTM's diameter ranges from 20" to 36", and was constructed in phases between 1959 and 1994 using pipe made from steel, asbestos cement (AC), high-density polyethylene (HDPE), ductile iron (DI), and reinforced concrete cylinder pipe (RCCP).

From 1986 to 1994, Suburban replaced approximately 5 miles of the old BTM to maintain the integrity of this crucial asset and extend its service life. The entire construction was divided into 6 Phases. In Phase II in 1989, 4,300 LF of old 36" concrete pipe was rehabilitated with an HDPE liner. The ends of the HDPE liner are connected to 30" DI pipe using a 30"x28" transition coupling. Figure 1 shows the as-built for the connection.

Figure 1 As-Built for Original Installation



On June 12, 2023, a break occurred on the flexible transition coupling where the south end of 28" HDPE connects to 30" Ductile Iron Pipe (DIP). The break occurred because the HDPE line pulled away from the push on the ductile iron pipe.

HDPE is prone to expansion and contraction with temperature changes. Expansion is significant in piping systems where the length of the pipeline magnifies expansion. Over time, with weather changes, the coupling can no longer hold the connection and fails. To avoid HDPE from disconnecting, a rigid connection must be made. The repair of this large pipeline was complicated and took nine days to complete.

The original coupling was not restrained and pulled apart. The newly replaced restrained coupling is specifically designed to mechanically grip and lock two different pipe materials together, preventing joint separation from internal pressure or external forces.

A coupling on the BTM, Suburban's most critical transmission, occurred because it was not designed with restraints to resist pipe expansion.

Figures 2 and 3 show the broken coupling. Figure 4 shows as-built for the replaced coupling, and Figure 5 is the picture at the construction site when the coupling was replaced.

Figure 2 Failed Coupling - 1



Figure 3 Failed Coupling- 2

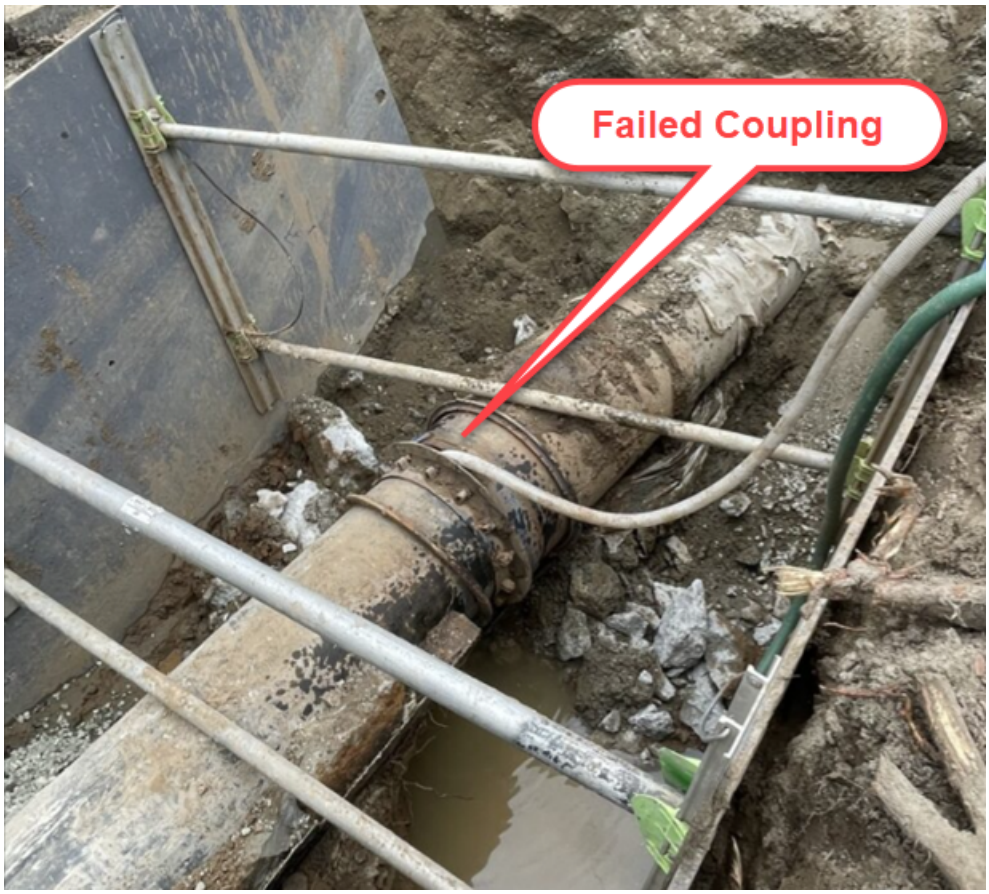


Figure 4 As-Built for Coupling Replacement

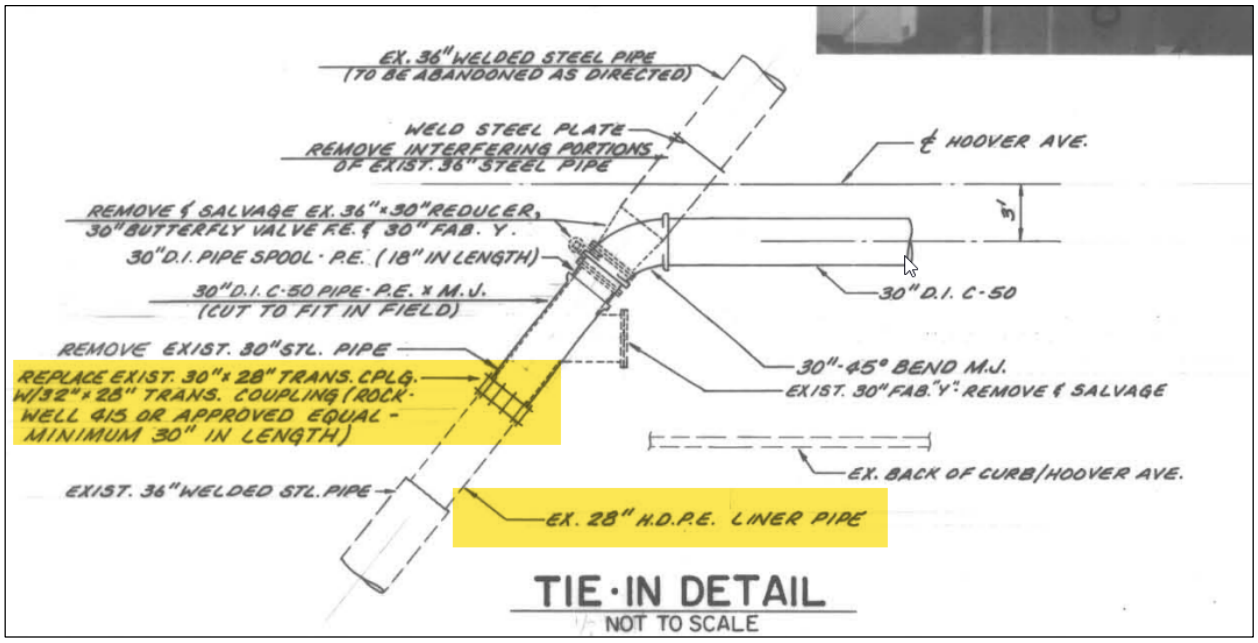


Figure 5 Replaced Coupling



Likelihood of Failure

Identical couplings were installed on each end of the section of HDPE pipe, and they have the same life expectancy.

The same contractor installed the two couplings using identical materials and methods. Figure 4 shows the As-built of the coupling. The failure occurred on the coupling the south end of this pipe segment in 2023. The likelihood that the second identical coupling will fail is very high.

Consequence of Failure

The consequences of the failure of this coupling on BTM are substantial.

The failure of the BTM coupling on the north end of the pipe segment resulted in the following consequences:

- The shutdown of BTM required to replace the failed coupling directly cut the supply from the Plant 201 wells to the Whittier and La Mirada District for nine days, reducing service availability and reliability to over 120,000 customers who rely on this water source for drinking, domestic, irrigation, and firefighting. Fortunately, this break did not occur during the highest demand period in summer because Suburban could not meet customer water demands without this source.
- The BTM needed to be dewatered to install the new coupling. Dewatering the pipe allowed contaminants like bacteria, viruses, and other pathogens from the surrounding soil to enter the system. Sickness from contaminants could have impacted 120,000 people. After the repair, Suburban was able to reestablish a chlorine residual that provided confidence that the water was not impacted by contamination.
- BTM has few isolation valves, so long sections of the pipeline between valves needs to be shut down to perform repairs. A substantial amount of water had to be drained to waste from approximately 12,000 L.F. section of 28-inch to 30-inch pipe that was dewatered to replace the broken coupling. The total water loss due to the drain was estimated to be 422,700 gallons.
- The failed coupling was replaced with an HDPE flanged reducer with a flanged mechanical joint adapter and mechanical sleeve. The rarely used specialized HDPE fitting needed to be shipped from the manufacturer in Texas, which prolonged the repair of the pipe and the duration that this source was offline.
- During the 9 days it took to place the line back in service, the entire street width was closed to maintain a safe construction area for our team and customers; a larger pit was required with a shoring box for the fusing machine; and over 30 yards of slurry were used to backfill the trench. Figures 6 and 7 show the construction site during the repair. The excavation and street closure resulted in major inconvenience for customers.
- The cost to perform an emergency replacement on the coupling was $302,260.29. It would have cost less if the project were planned and competitively bid. Further, the break damaged

a larger portion of the street, which would have been required if the project had been planned.

Understanding the consequences of a coupling failure on the BTM, it would be irresponsible not to replace the other coupling to avoid these consequences which include significant interruption of supply, creation of the potential for contamination of the water system, water waste, challenges acquiring repair parts, and long periods of blocking vehicle traffic.

Figure 6 Street Excavation for the Coupling Replacement



Figure 7 Construction Site for Coupling Replacement



Cost Estimate

Table 1 is the estimated cost for the planned replacement of the remaining BTM coupling.

Table 1 Cost Estimate for Coupling Replacement

Line Item	Quantity	Units	Unit Cost	Cost
Remove and Replace 30"x28" transition coupling	1	L.S.	$257,380	$257,380
Street and Landscape Restoration	1	L.S.	$8,732	$8,732
Design - Project Manager	8	Hour	$220	$1,760
Designer	16	Hour	$179	$2,864
Construction Management and Inspection	40	Hour	$210	$8,400
City of Whittier Permit	1	LS	$1,500	$1,500
Internal Inspection	10	Hour	$53	$529
Subtotal Cost in 2025 $				$281,164
Escalation Factor 2027			5.86%	$16,486
Subtotal Cost in 2027 $				$297,650
General Administration 2027			10.01%	$29,795
Total in Cost of Project in 2027				**$327,445**

Basis for Cost:

The cost estimate includes Design and Inspection, General Administration, and Escalation Factor. The Design and Inspection accounts for the estimated direct cost required to plan, design, and inspect the project, permit fees, and the cost of internal

labor. The General Administration factor is considered in Suburban's general administrative expenses. The Escalation Factor is based on the Engineering News-Record Building Cost Index. Further details on escalating estimates are available in the testimony's escalation discussion.

Impact of Deferral

The coupling continues to age and deteriorate, and every day it is left in place brings it closer to its inevitable failure. Delaying the replacement of this coupling increases the likelihood of failure and its consequences, which include service interruption, contamination, and damage.

Conclusion

Customers cannot afford to lose the most critical water supply due to a predictable pipeline failure. Suburban can ensure that loss of this supply due to coupling failures on the BTM can be avoided by proactively replacing the coupling.

A coupling on the BTM, Suburban's most critical transmission, occurred because it was not designed with restraints to resist pipe expansion. The likelihood that the second identical coupling will fail is very high. Having recently experienced firsthand the consequences of a coupling failure on the BTM, it would be irresponsible not to replace the other coupling to avoid these consequences that include significant interruption of supply, creation of the potential for contamination of the water system, water waste, challenges acquiring repair parts, long periods of blocking vehicle traffic. Delaying the replacement of this coupling increases the likelihood of failure and the consequences that include service interruption, contamination, and damage.

Customers cannot afford to lose their most critical water supply due to a predictable pipeline failure. Suburban can prevent this loss by proactively replacing the coupling we are aware of and highly likely to fail.

XIII. 2028 CAPITAL BUDGET

Q21. Would you identify the capital budget replacement projects included in the capital budget for 2025?

A21. The capital projects for 2028 are separated into three categories: (1) Pipeline Replacement Projects, (2) Recurring Projects, and (3) Planned Projects.

2028 Pipeline Projects - $29,983,000

The following projects have been identified for immediate replacement due to their high Project Risk Core, as outlined in the Direct Testimony of Jorge Lopez on Pipeline Replacements and the Suburban Water Systems Water Main Renewal Technical Memorandum prepared by HDR in 2025 (Workpapers Volume IV). The table below summarizes the pipeline replacement projects scheduled for implementation in 2028.

Project #	Project Name	Amount	Replacement Length	PRS
M-6	Hurley wo Azusa	$1,519,000	1,510	56.81
M-7	Valinda btw Maplegrove & Doublegrove	$2,052,000	2,100	55.95
M-8	Willow & Alwood	$2,581,000	4,160	67.26
M-9	Orange & Sherway	$3,173,000	5,360	67.26
M-10	1st Ave & Lashburn	$5,401,000	8,900	79.02
M-11	Golden Lantern & Groveland	$6,168,000	10,400	71.70
M-12	Near Tree & San Ardo	$7,248,000	12,260	67.93
M-14	Avington	$779,000	670	63.99
M-15	Sunkist	$1,062,000	1100	57.65
	Total	$29,983,000	46,460	

2028 Recurring Projects - $16,674,823

(R-51) Service Replacements - $4,123,600

Refer to the Service Line Replacements testimony in R-1 in 2026 for a detailed description of the work covered by this budget.

(R-52) Communication Equipment (SCADA) - $124,500

Refer to the Communication Equipment (SCADA) testimony in R-2 in 2026 for a detailed description of the work covered by this budget.

(R-53) Governmental Projects - $ 186,600

Refer to the Governmental Projects testimony in R-3 in 2026 for a detailed description of the work covered by this budget.

(R-54) Pump Equipment Replacements - $381,900

Refer to the Pump Equipment Replacements testimony in R-4 in 2026 for a detailed description of the work covered by this budget.

(R-55) Meter Purchase - $3,482,967

For the discussion and testimony related to the R-55 2028 Meter Purchase, please refer to the testimony provided in the R-5 2026 Meter Purchase.

The 2028 cost estimate to purchase the meters is below.

Figure 3 – 2028 Meter Purchase Cost Estimate

Meter Size (inch)	Unit Cost	Qty.	Cost
5/8	$ 331.00	781	$ 258,511.00
3/4	$ 354.00	4714	$ 1,668,756.00
1	$ 450.00	934	$ 420,300.00
1.5	$ 780.50	68	$ 53,074.00
2	$ 1,012.00	85	$ 86,020.00
3	$ 2,395.00	14	$ 33,530.00
4	$ 3,400.00	10	$ 34,000.00
6	$ 5,775.00	3	$ 17,325.00
Retrofit Register	$ 280.50	1047	$ 293,683.50
Subtotal		7656	$ 2,865,199.50
Tax		10.5%	$ 300,845.95
Subtotal			$ 3,166,045.45
G&A		10.01%	$ 316,921.15
Total			$ 3,482,967.00

Basis for Budgeted Cost

Estimated project costs have been determined by multiplying the number of meters to be replaced and registers to be retrofitted, based on a 15-year replacement cycle, by the replacement costs of meters and registers determined from 2028 vendor prices.

This budget item is for the direct purchase of the meters and registers, including the General Administration, which considers Suburban's general administrative costs. The installation costs are recorded in a separate line item, "Meter Installations," because the accounting treatment is different.

(R-56) Security Upgrades - $205,600

Refer to the Security Upgrades testimony in R-6 in 2026 for a detailed description of the work covered by this budget.

(R-57) Plant Improvements - $562,900

Refer to the Plant Improvements testimony in R-7 in 2026 for a detailed description of the work covered by this budget.

(R-58) Fire Hydrant Replacements - $984,700

Refer to the Fire Hydrant Replacements testimony in R-8 in 2026 for a detailed description of the work covered by this budget.

(R-59) Valve Replacements - $1,295,500

Refer to the Valve Replacements testimony in R-9 in 2026 for a detailed description of the work covered by this budget.

(R-60) Vault Replacements and Refurbishments - $70,000

Refer to the Vault Replacements testimony in R-10 in 2026 for a detailed description of the work covered by this budget.

(R-61) Tools, Shop and Garage Equipment - $96,900

Refer to the Tools, Shop and Garage Equipment testimony in R-11 in 2026 for a detailed description of the work covered by this budget.

(R-62) Office Equipment - $84,100

Refer to the Office Equipment testimony in R-12 in 2026 for a detailed description of the work covered by this budget.

(R-63) Water Quality Treatment Improvements - $137,700

Refer to the Water Quality Treatment Improvements testimony in R-13 in 2026 for a detailed description of the work covered by this budget.

(R-64) Blow-off Assembly Replacements – $197,100

Refer to the Blow-off Assembly Replacements testimony in R-14 in 2026 for a detailed description of the work covered by this budget.

(R-65) Miscellaneous Pipeline Replacements - $1,400,900

Refer to the Miscellaneous Pipeline Replacements testimony in R-15 in 2026 for a detailed description of the work covered by this budget.

(A-66) Meter Installations - $785,772

Refer to the Meter Installations testimony in R-16 in 2026 for a detailed description of the work covered by this budget.

Basis for Budgeted Cost

Estimated project costs have been determined by the quantity of meters as detailed in the meter purchase budget in the previous section multiplied by installation estimates obtained from vendors. The total estimated cost includes General Administration which considers Suburban's general administrative costs.

Meter Size (inch)	Unit Cost	Qty.	Cost
5/8	$ 82.02	781	$ 64,061.26
3/4	$ 82.02	4714	$ 386,664.23
1	$ 82.02	934	$ 76,611.03
1.5	$ 247.46	68	$ 16,827.53
2	$ 247.46	85	$ 21,034.41
3	$ 2,294.41	14	$ 32,121.80
4	$ 2,359.97	10	$ 23,599.69
6	$ 2,491.08	3	$ 7,473.24
Retrofit Register	$ 82.02	1047	$ 85,879.81
Subtotal		7656	$ 714,272.99
G&A		10.01%	$ 71,498.73
Total			$ 785,772

(R-67) Air Release Assembly Replacements - $105,000

Refer to the Air Release Assembly Replacements testimony in R-17 in 2026 for a detailed description of the work covered by this budget.

(R-68) Plant Paving Projects - $134,300

Refer to the Plant Paving Projects testimony in R-18 in 2026 for a detailed description of the work covered by this budget.

(R-69) Control Valve (Cla-Val) Refurbishments - $172,300

Refer to the Control Valve (Cla-Val) Refurbishments testimony in R-19 in 2026 for a detailed description of the work covered by this budget.

(R-70) Office Furniture - $7,700

Refer to the Office Furniture testimony in R-20 in 2026 for a detailed description of the work covered by this budget.

(R-71) Meter Boxes & Lids - $63,300

Refer to the Meter Boxes & Lids testimony in R-21 in 2026 for a detailed description of the work covered by this budget.

(R-72) GIS Model System Upgrades - $312,147

Refer to the GIS Model System Upgrades testimony in R-22 in 2026 for a detailed description of the work covered by this budget.

(R-73) Personal Computer Hardware - $100,137

Refer to the Personal Computer Hardware testimony in R-23 in 2026 for a detailed description of the work covered by this budget.

Basis for Budgeted Cost

The budget is based on the replacement schedule and costs provided by vendors. The total cost has been escalated using the ENR building index. Further details on escalating estimates are available in the testimony's escalation discussion. The results are summarized in the table below.

Description	2028		
	Quantity	Unit Cost	Cost
Precision 3591	19	$2,950	$56,050
Precision 5320	0	$1,600	$0
Desktop 7020	0	$1,365	$0
24 Inch Monitors	0	$165	$0
27 Inch Monitors	0	$200	$0
WD22TB4 dock	0	$300	$0
Printer	0	$300	$0
UPS	0	$7,000	$0
Server	0	$10,000	$0
RGLaptop 5430	0	$2,700	$0
27 LCD/wDock	0	$430	$0
24 LCD/wDock	0	$270	$0
SurfacePro 10	2	$2,542	$5,084
Field iPads	60	$513	$30,800
Total Cost in 2025 $			$91,934
2028 Escalation	108.92%		
2028 Total Cost			**$100,137**

(R-74) Computer Software - $12,200

Refer to the Computer Software testimony in R-24 in 2026 for a detailed description of the work covered by this budget.

(R-75) Vehicle Replacement $1,647,000

The testimony of Vehicle Replacements is shown fully in (R-25) in 2026.

2028 Planned Projects - $24,397,776

(P-3) 2028 Well Rehabilitation Plan - $676,218

Refer to the 2026 Well Rehabilitation testimony in P-3 for a detailed description of the work proposed in 2028.

The forecasted program cost estimate for 2028 was determined by escalating the contractor's actual cost from 2025 using a factor derived from ENR's building index. The testimony's escalation discussion in the Construction Cost Escalation section provides additional information about escalating estimates.

Table 3 *– Well Rehabilitation Project Cost Estimate 2028*

Item No.	2028 Wells - Bid Items	QTY	Unit	Unit Cost	Cost
1	Well Video Logs, and Pump Inspection, Brush & Bail	2	Lump Sum	$ 28,962	$ 57,925
2	Pump Repairs	2	Lump Sum	$ 146,081	$ 292,162
3	Well Chemical Treatment	2	Lump Sum	$ 98,094	$ 196,188
4	Motor Repairs	2	Lump Sum	$ 8,183	$ 16,366
5	Internal Inspection Services	32	Hours	$ 53	$ 1,692
	Subtotal				**$ 564,333**
	Escalation from 2025 to 2028			**8.92%**	$50,355
	Subtotal				**$614,688**
	General Administration			**10.01%**	$61,530
	Subtotal				**$676,218**

(P-5) 2028 Blow-off Replacement Program - $632,631

For the discussion and testimony related to the P-5 2028 Blow-off Replacement Program, please refer to the testimony provided in the P-5 2026 Blow-off Replacement Program.

The average cost for labor and material per blow-off in 2024 was $30,184. Table 3 shows the estimated cost to replace 17 blow-offs in 2024. Table 4 shows the estimated cost to replace 17 blow-off assemblies in 2028 using the escalation factor. The testimony's escalation discussion in the Construction Cost Escalation section provides additional information about escalating estimates. Suburban is requesting $632,631 to replace 17 blow-offs in 2028.

Table 3 – Cost Estimate for 17 Blow-off Replacements in 2024 Based on Average Cost

Description	Unit Cost	Qty.	Cost
Replace 2" Blow-off Assembly (2024)	$ 30,184	17	$ 513,128
Subtotal			**$ 513,128**

Table 4 – Escalated Cost to Replace 17 Blow-offs in 2028

Year	Description	Cost
2024	Replace (17) 2" Blow-off Assemblies	$ 513,128
	Escalation from 2024 to 2025 (2.89%)	$ 14,829
2025	Replace (17) 2" Blow-off Assemblies	$ 527,957
	Escalation from 2027 to 2028 (8.92%)	$ 47,109
2028	Replace (17) 2" Blow-off Assemblies	$ 575,067
	G&A (10.01%)	$ 57,564
	Total	**$ 632,631**

(P-8) Sativa Customers First in Line for Water Supply Project – $3,744,180

Q63 Should Sativa customers be last in line for water supply?

A63 No. Sativa customers deserve to be first in line for water supply. The water system serving the Sativa customers needs its own storage and pumping facility to end the reliance on interconnections that can be shut off when others need the water.

Q64 Can Sativa customers afford to lose their homes, possessions, and lives due to inadequate water supply and lack of reliability

A64 No. Suburban customers cannot afford to lose their homes, possessions, and lives due to inadequate water supply and lack of reliability. The water system serving Sativa customer needs its own storage and pumping facility to provide sufficient water supply for fighting fires.

Executive Summary

The Sativa Water District (Sativa) was established in 1938 and has faced a history of issues in providing its customers with safe, clean, and reliable water service. Sativa's water supply fails to meet fire flow requirements with its own wells and when well 5 is out of service, it cannot meet the fire flow, Max Day Demand (MDD) and Peak Hour Demand (PHD). There is no redundancy if a well turns off; it depends on the City of Compton and Liberty Utilities for emergency water supply. The interconnection agreements allow the suppliers to shut Sativa off if their customers need the water. City of Compton water has PFAS. Liberty Utilities water is too costly to rely on them as a solution. Suburban proposes installing a tank and pumping facilities with an emergency generator at Plant 802 to maximize its own water supply and build a resilient system that does not rely on neighboring water supplies.

Sativa customers deserve a reliable water supply that meets essential demands like fire flow, Max Day Demand, and Peak Hour Demand—even when a well is offline. Currently, the system lacks redundancy and depends on neighboring purveyors whose water is either contaminated, costly, or unreliable due to interconnection limitations. To protect customers from service disruptions and ensure access to safe, affordable water, Suburban proposes installing a tank, pumping facilities, and an emergency generator at Plant 802 to build a resilient, self-sufficient system.

Background

Following years of mismanagement under the former Sativa Water District, Suburban Water Systems was selected to restore safe, reliable, and affordable water service to over 6,800 residents, and has since invested in building a resilient and customer-focused water system. Sativa serves over 6,800 people through 1,400 service connections across a 0.27-square-mile area in Willowbrook, unincorporated Los Angeles County, and a portion of the City of Compton. The system's previous owner, Sativa Water District of Los Angeles, failed to provide safe and reliable water to the customers. Their mismanagement

and lack of investment in the system resulted in the board's dissolution and the system's placement under the charge of an administrator. The Los Angeles County Water Public Works (LACPW) became its administrator and interim operator in March 2019. Los Angeles County Public Works was tasked to find a permanent owner that could provide affordable rates, high water quality, and an exceptional level of service. LACPW selected Suburban Water Systems to become the permanent owner of the Sativa water system. Suburban began providing operational services in June 2021 and became its owner in December 2022. Suburban was chosen for its commitment to providing Sativa customers with affordable rates, excellent customer service, and safe and reliable water. To fulfill this commitment, Suburban is investing in projects to build a reliable and resilient system. The following sections provide more detail about Sativa's water sources.

Fire Protection

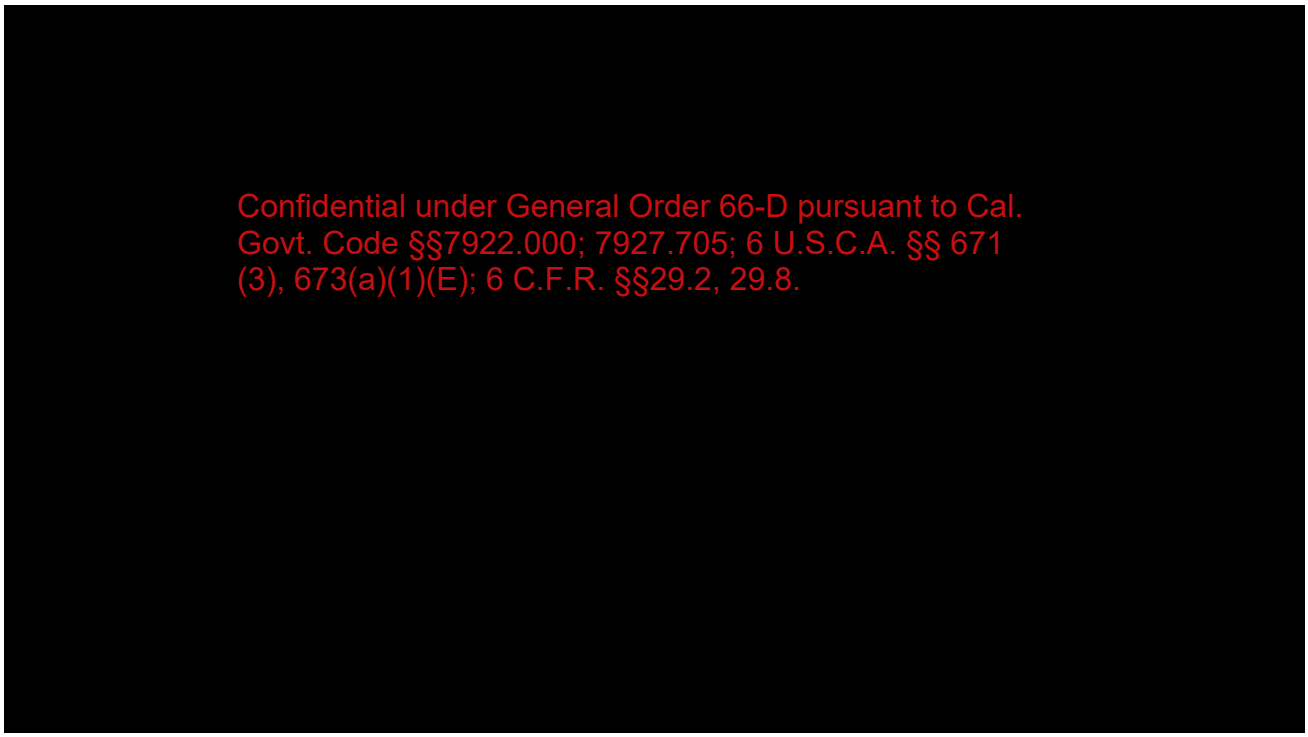
Fire flow capacity is a critical function of drinking water systems, directly impacting firefighters' ability to control and extinguish fires, protect property, and save lives during emergencies. Drinking water systems are the source of water for firefighting, and available fire flow capacity is the measure of how much water is available. Firefighters use this water to put out fires, to prevent fires from spreading, and to provide residents time to escape from fires. When there is insufficient available fire flow firefighters cannot quickly extinguish fires, stop them from spreading, or provide enough time for residents to escape their burning homes. This problem is magnified when there are multiple fire engines pulling from the system at one time, and multiplied further when there are multiple structures on fire. This was devastatingly demonstrated on January 7, 2025 in the Pacific Palisades where hydrants ran dry because there were too many fire engines pulling water from the system simultaneously fighting thousands of structure fires. If a water system's available fire flow capacity is really low, it might only be able to support one house, or one engine, and that might not be enough to fight the fire. Inadequate fire flow capacity poses a serious threat to public safety, as it limits firefighters' ability to

control fires, protect property, and save lives—especially during large-scale emergencies. The devastating events in Pacific Palisades underscore the consequences of insufficient water supply during firefighting efforts. To prevent similar tragedies, water systems must have enough capacity to support multiple engines and structures simultaneously. Ensuring robust fire flow is not optional, it is a critical safeguard for communities.

Water Sources

To ensure reliable service without storage, the Sativa water system depends on both of its wells operating simultaneously; without this redundancy, the system must rely on costly and uncertain emergency interconnections that are unsuitable for long-term resilience. The Sativa water system wells provide a limited amount of supply and the system relies on connections with neighboring water purveyors to meet short term high demand and provide water if the wells are offline. The Sativa district consists of two wells, Plant 804 Well 3 and Plant 803 Well 5, that pump from the Central Basin. Additionally, Sativa has two emergency interconnections necessary to meet fire flow demands, and max day demands (MDD), peak hourly demand (PHD), and average day demands (ADD) when one or both wells are not available. The interconnections are vital to meet short-term high demands that exceed the capacity of the Wells 3 and 5. Table 1 and 2 shows the capacity for each of Sativa's water supply and the water supply demand in Sativa. Plant 803 and plant 804 are the main sources of supply and will be discussed in greater detail in subsequent sections including the role of interconnections.

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Wells

To ensure reliable water service, the Sativa system depends on both Plant 804 Well 3 and Plant 803 Well 5, but with Well 5 offline for manganese treatment, reliance on Well 3 alone leaves the system vulnerable during high demand or emergency events.

Plant 804 Well 3 is the primary source for the Sativa water system. It produces a maximum of 424 gallons per minute (GPM) from the Central Basin. Without a storage tank this well can meet ADD but does not meet MDD, PHD, and fire flow. Central Basin groundwater is the least costly and most reliable source for the Sativa water system. Well 3 is currently the only operational well because Plant 803 Well 5 is offline, awaiting completion of the manganese treatment plant.

Plant 803 Well 5 has historically been the primary well for Sativa. Well 5 is located approximately 1,800 feet west of Well 3 and produces a maximum of 650 GPM from the

Central Basin. The well meets ADD and MDD but cannot meet PHD and fire flow without a storage tank. Well 5 was taken offline due to high levels of manganese that caused colored water to be delivered to customers. LACPW is constructed a treatment plant to remove the manganese Well 5 will transfer to Suburban when the treatment plant is complete. Two wells are required to provide reliability. For example, with Well 5 offline during construction of the manganese treatment plant, Sativa must rely on an emergency interconnection if Well 3 shuts off, or if there is a high-demand event. Currently, when only one well is active, the system needs to rely on the interconnections for supply. To ensure reliable service, without any storage the Sativa water system requires both wells to be operating; if both wells are not operating, and there is no storage, the system must rely on costly and uncertain emergency interconnections during high-demand or outage events.

Interconnections

Although Suburban has worked to secure emergency interconnections with the City of Compton and Liberty Utilities to support the Sativa system, each source faces significant limitations—ranging from water quality concerns to high costs and unreliable availability—making them unsuitable as long-term solutions for system reliability.

City of Compton:

Suburban's effort to restore the long-inoperable interconnection with the City of Compton provided valuable support while Well 5 was offline, but concerns over PFAS contamination now limit its reliability as a long-term water source for the Sativa system. When Suburban assumed responsibility for running the Sativa water systems one of its first goals was to rebuild and re-establish a long inoperable interconnection with the water system owned by the City of Compton. This important source is less costly than the Liberty Utilities connection but is still substantially more costly than producing water with Sativa's Central Basin groundwater wells. At a maximum capacity of 500gpm the

City of Compton interconnection is undersized to provide required fire flows to the Sativa Water System The City of Compton has been useful while Well5 has been offline during construction of the manganese treatment plant.

City of Compton has detected perfluorooctanesulfonic acid (PFOS) in their water. The City of Compton notified Suburban that two compounds of polyfluoroalkyl substances (PFAS) is currently higher than the MCL that will be enforced in 2029 by the United States Environmental Protection Agency (EPA) (see table below for concentrations). It is unclear how the City of Compton will comply with the EPA MCL for PFAS; Suburban cannot rely on this source. Despite its initial value during Well 5's downtime, the City of Compton interconnection cannot be considered a dependable long-term source for Sativa due to emerging PFAS contamination concerns and regulatory uncertainty.

Table 3: Compton PFAS Concentrations

Well 18	Notification Level	Response Level	Concentration	Health Effects
PFOS	6.5 ng/L	40 ng/L	18.0 ng/L	Some people who drink water containing PFOS in excess of the Notification Level over many years may experience adverse health effects. PFOS exposures have been shown to cause immune suppression and cancer in laboratory animals
PFHxS	3 ng/L	20 ng/L	4.3 ng/L	PFHxS has been shown to interfere with thyroid hormones levels. Thyroid hormones are needed for normal
Well 19	Notification Level	Response Level	Concentration	Health Effects
PFOS	6.5 ng/L	40 ng/L	9.3 ng/L	Some people who drink water containing PFOS in excess of the Notification Level over many years may experience adverse health effects. PFOS exposures have been shown to cause immune suppression and cancer in laboratory animals.
PFOA	5.1 ng/L	10 ng/L	8.2 ng/L	Some people who drink water containing PFOA in excess of the Notification Level over many years may experience adverse health effects. PFOA exposures have been shown to cause increased liver weight and cancer in laboratory animals.

Table 4: PFAS Concentrations MCL to be Enforced in 2029

Compound	Final MCLG	Final MCL (enforceable levels)[1]
PFOA	Zero	4.0 parts per trillion (ppt) (also expressed as ng/L)
PFOS	Zero	4.0 ppt
PFHxS	10 ppt	10 ppt
PFNA	10 ppt	10 ppt
HFPO-DA (commonly known as GenX Chemicals)	10 ppt	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index	1 (unitless) Hazard Index

Liberty Utilities:

The interconnection with Liberty Utilities was established to temporarily support fire protection and water supply for Sativa, but its high cost, limited availability, and termination of the original agreement have made it an unsustainable and unreliable long-term solution.

LACPW signed an agreement with Liberty Utilities to construct an interconnection that would provide fire protection and supply water to the Sativa system until the Sativa wells could be turned back on. The interconnection can provide 1,500gpm of fire flow. When LACPW selected Suburban to own the Sativa water system Liberty Utilities ended the agreement with LACPW and required Suburban to enter into a new agreement. Liberty Utilities intended to supply the water temporarily and set a purchase rate of $3,600/AF that is unsustainably expensive, more than six times the cost of Central Basin groundwater to motivate Suburban to not use Liberty's water. On several occasions Liberty water has not been available to Sativa because of shutdowns to repair leaks on

their system, and a water supply emergency when one of the sources was not available. The Liberty Utilities interconnection was temporarily intended to support Sativa's water needs, but its high cost and unreliable availability make it an impractical long-term solution for system reliability.

Interconnection Reliability

Sativa's emergency interconnections with Compton and Liberty Utilities offer limited backup support, but their ability to supply water is conditional and may be withdrawn during regional emergencies, making them an unreliable source for Sativa's customers.

Sativa has emergency interconnections with the City of Compton and Liberty Utilities.

Both utility companies have agreements with Suburban; the agreements have provisions that allow them to refuse to supply Sativa if they need water in their system. These suppliers could shut off the connections because their system is having a high demand fire event. This event could potentially also be affecting the Sativa community and the water would be shut off when Sativa's customers need it most. These suppliers could shut off the connections because there is a region wide emergency like an earthquake or storm that causes widespread power outages that leaves them struggling to supply their own customers. These suppliers could shut off connections because there is regional water shortage where there are constraints on imported water supplies from the State Water Project, or the Colorado River Aqueduct, or a groundwater emergency. These supplies could shut off connections because they have water quality issues with their sources and need to turn them off restricting the amount of water available to them. When the water other water utilities need water, their customers come first, and Sativa's customers come last and they do not get any water While Sativa's emergency interconnections offer a temporary safeguard, their conditional availability during regional crises means Sativa's customers may be left without water when they need it most.

To conclude the discussion about interconnections, while Suburban has made significant efforts to secure emergency interconnections to support the Sativa water system, the combined challenges of water quality concerns, high costs, and limited reliability make these sources unsuitable as long-term solutions for ensuring system resilience and customer protection.

To conclude the discussion about water sources, without both wells operating and no storage capacity, the Sativa water system remains dependent on emergency interconnections that are costly, unreliable, and unsuitable for long-term resilience—underscoring the urgent need to restore full well capacity and invest in system infrastructure.

Justification

Sativa's Customers Are Last In Line For Water

The Sativa water system serves a historically underserved and financially disadvantaged community that continues to face inequities in water quality, reliability, and infrastructure investment—despite paying for service like any other ratepayer. Sativa's lack of storage capacity puts Sativa customers last in line for water; it is unable to meet system storage requirements; it fails to meet LA Fire Code requirements; and this disadvantaged community is negatively impacted.

Sativa water system customers are historically unrepresented, underserved, and financially disadvantaged, and despite paying for service, they continue to face inequities in water quality, reliability, and infrastructure investment. The Sativa water systems customers are unrepresented, underserved and financially disadvantaged. California Department of Water Resources Disadvantaged Community DAC Mapping Tool shows

that most of Sativa's customers are Disadvantaged or Severely Disadvantaged. Note there is no data for the unshaded area.

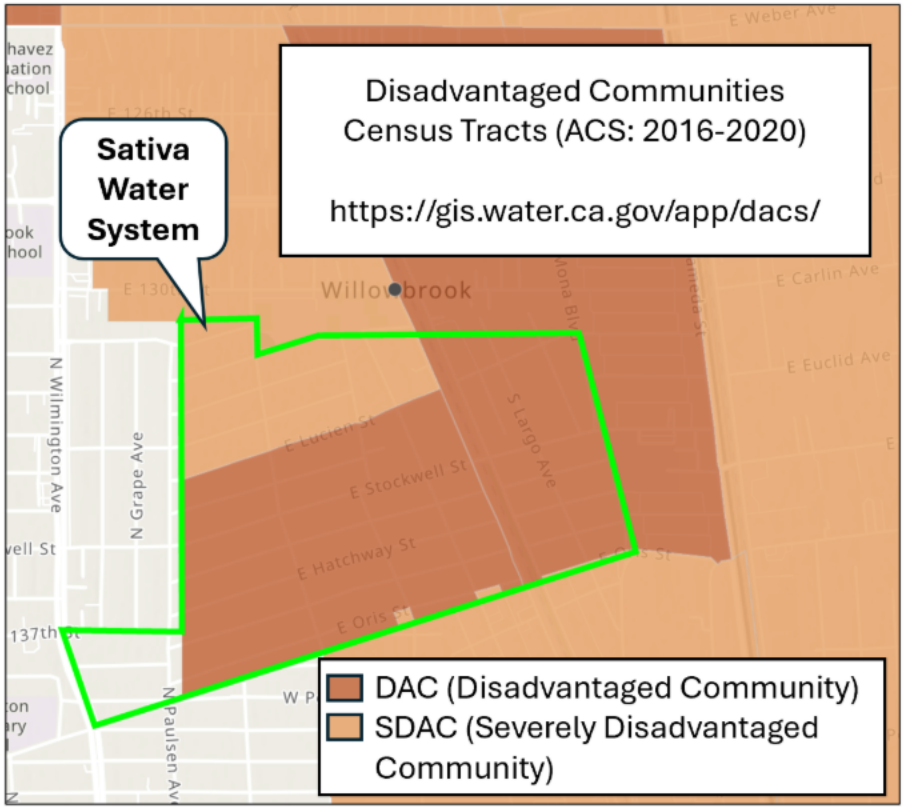
Sativa serves disadvantaged communities that experience disproportionate economic, environmental, and health burdens. An example of this would be how disadvantaged communities are more disproportionately affected by fires than affluent communities.

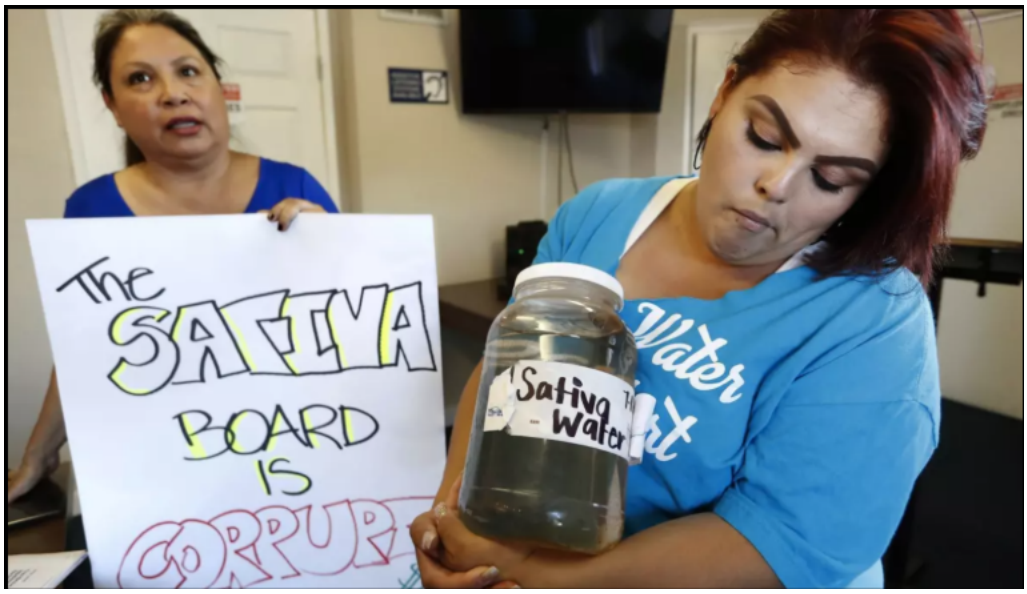
Affluent communities typically don't have the same water infrastructure issues as underprivileged communities. The Flint, Michigan Water Crisis brought into public view one of many disadvantaged communities being impacted by poor infrastructure investment. Sativa was one of those systems, having issues both with water quality and supply to meet demand. Steps have been taken to address water quality, but more frequent and consistent investment is needed to address additional shortcomings.

Besides systemic disadvantages, disadvantaged communities do not have the same financial resources as more affluent communities. They often cannot afford property improvements, such as roof replacements, to mitigate wildfire damage. Many low-income Californians are also underinsured, impacting their ability to rebuild. This is on top of insurance companies leaving California, cancelling renewals, or reducing coverage in the aftermath of the wildfires at the beginning of 2025, which will create further disparity for disadvantaged communities. The journal article, "Roof renewal disparities widen the equity gap in residential wildfire protection" https://www.nature.com/articles/s41467-024-55705-w), notes that this inability to invest in fire prevention measures puts disadvantaged communities at a 29% higher likelihood of their homes being destroyed by wildfire in the next 30 years compared to less underprivileged communities. Improving Sativa's ability to fight fires is critical in protecting this disadvantaged community's homes, and addressing the systemic disadvantages faced by this community.

For more than a decade, elected officials ignored the Sativa's water customers' cries for help to deal with bad water quality and poor reliability. Sativa's reliance on neighboring interconnections that can be shut off when others need the water makes Sativa's customer the lowest priority for water supply. Local and State officials must stop treating Sativa's customers like second citizens; they pay their water bills and deserve to have reliable water systems, including storage tanks and pump stations, that put them first in line for water supply.

Sativa's customers have long endured systemic neglect, facing unreliable water service and inadequate infrastructure despite being among California's most disadvantaged communities. Their vulnerability to fire risk is compounded by limited financial resources, underinsurance, and unreliable water supply for firefighting. Installing a storage tank, booster pump station, and backup power is not just a technical solution—it is a moral imperative to protect lives, homes, and equity. These investments are essential to correcting historic injustices and ensuring that Sativa's residents receive the same level of protection and service as any other community.





Water Storage Requirements

Adequate tank storage is essential for the Sativa water system to meet emergency, fire flow, and peak demand scenarios, and engineering analysis confirms that storage is needed to ensure reliable service without dependence on emergency interconnections.

Tank storage provides a water system with an emergency supply should the primary supplies become unavailable or depleted. Storage also supports large instantaneous fire flow demands resulting from fire events that might exceed source capacities.

Storage balances the difference between the constant supply and fluctuating customer demand, which is evident in the difference between MDD and PHD.

State Water Resource Control Board Title 17 Code of Regulations require that a public water system's sources have the capacity to meet the system's MDD, four hours of PHD with source capacity, storage capacity, and/or emergency source connection. The regulation emphasizes "at all times", because utilities must ensure sufficient capacity within the utility's control, even when there is required maintenance or the supply goes offline due to unplanned issues. With no tank, the Sativa water system has no storage capacity, and its sources and unreliable interconnections cannot comply with the Title 17 supply requirements.

In 2025, SWRCB completed a Sanitary Survey at the Sativa water system. Their report provides a list of system deficiencies and recommendations to address them. One of these deficiencies listed is the lack of storage facilities in the system, with their recommendation being to construct a finished water storage facility. Their list also notes that this deficiency was previously identified in their last Sanitary Survey in 2022.

SWRCB provided a clarification letter (See Workpapers Volume III, P-8, Appendix 6) on the Sanitary Survey, which further highlights the need for storage. Their letter cites Section 64554(a)(1) of California Waterworks Standards that for systems with 1,000 or more service connections, the system shall be able to meet four hours of PHD with source capacity, storage capacity, and/or emergency source connections. Based on 2023, SWRCB calculate four hours of PHD at 0.265 MG. However, the combination of Well 3 & Well 5 is about 0.258 MG at four hours, meaning Sativa water systems does not

currently have reliable sources to meet PHD in the event that both interconnections are unavailable. Their assessment indicates the need to install storage facilities in the system to adequately meet PHD.Suburban hired a third-party engineering consultant, Wood Rodgers, Inc., to evaluate the storage needs of the Sativa water system. Their October 2024 report determined that the Sativa water system requires 1.15 million gallons (MG) of storage. This amount comprises three components: operational, fire, and emergency storage. Operational storage is defined as 30% of the MDD, fire storage is based on LA County Fire Department's requirement of 1,250 gpm for 2 hours, and emergency storage is defined as 100% of the MDD. MDD was determined to be 531 gpm based on daily production data from May 2023 to April 2024. Table 5 below shows the breakdown of each component.

Table 5: Storage Requirements for Sativa

Storage Component	Description	Storage Capacity
Operational	30% MDD	230,000 gal
Fire	1,250 gpm for 2 hours	150,000 gal
Emergency	100% MDD	765,000 gal
	Total Storage Required	**1.15 MG**

Wood Rodgers developed a hydraulic model of the system as part of their evaluation to assess the existing conditions. Their findings show that the system has enough supply to meet MDD but cannot meet demand when running both MDD and Fire Flow scenarios. The Sativa water system currently relies on its well pumps to modulate their production to meet fluctuating demand throughout the day. The maximum flow from the pumps is limited to their capacity, which we have shown is insufficient to meet high demand periods and events. Ideally, the wells would run at a constant rate and water not used by customers would be used to fill the tank. The water in the tank could then be pumped out by boosters that have the capacity to meet the higher demands without the need for

emergency interconnections. Coupled with an emergency generator, the tank and booster pump station can continue to meet the customers' demand even when utility power is not available.

Suburban installed a larger pipeline in 2024 and 2025, which has demonstrated an improvement in the ability to move water around the system, but pipelines do not produce water and cannot resolve Sativa's problem with a lack of reliable supply to meet high demand periods. The tank and pump station are needed to increase the supply capacity for high demand periods.

A 40,000-gallon storage tank is being installed as part of the manganese removal plant. This tank was designed to serve as a clearwell for water from the treatment plant so it can run at a constant flowrate. The level of water in this tank will fluctuate but generally will not be kept full so the amount stored would be far less than 40,000 gallons. Assuming it was full, at the required fire flow rate of 1,250gpm, the tank would be depleted in 32 minutes, which is far short of the required 2 hours. This tank is insufficient to provide fire protection to Sativa's customers. At the PHD of 910 gpm, the full tank would only last for 43 minutes. This tank is insufficient to meet high demand periods. This booster that pumps water from this tank to the system does not have a backup power generator so water stored in the tank would not be available to the water system in a power outage.

This tank is not intended to be a storage tank to support high demand periods and events in the water system and it is severely undersized and insufficient to do that. A larger storage tank is required.

In conclusion, the Sativa water system lacks sufficient storage capacity to reliably meet peak demands, fire flow requirements, and emergency scenarios. Despite recent pipeline upgrades, the system's reliance on limited well pump capacity leaves it vulnerable during high-demand periods. The engineering analysis by Wood Rodgers confirms the need for

a storage tank and booster pump station to ensure operational resilience, fire protection, and uninterrupted service—even during power outages. Investing in this infrastructure is critical to securing the long-term reliability of the Sativa water system.

Fire Protection

The Sativa water system currently lacks the reliable infrastructure needed to meet the Los Angeles County Fire Department's fire flow requirement of 1,250 gpm for 2 hours, leaving the community vulnerable during fire emergencies.

The fire flow requirement in the Sativa water system is set by the Los Angeles County Fire Department at 1,250 gpm for 2 hours. If both wells are working at full capacity, they can meet the fire flow. However, history has shown that both wells have not been available at the same time and relying on both to be available is irresponsibly optimistic. The City of Compton interconnections capacity is 500 gpm which is insufficient to meet fire flow. Both the City of Compton and Liberty Utilities interconnections are not reliable because they can be shut off when those suppliers need the water in their system. The 40,000-gallon tank installed with the manganese project won't store enough water and does not have large enough booster pumps to meaningfully contribute to firefighting.

Without a storage tank the Sativa water system has insufficient and unreliable fire protection. In the event of widespread fires that affect any combination of Sativa, City of Compton, and Liberty Utilities jurisdictions, the agencies will prioritize their own customers, and these sources may not be available for the Sativa water system. This would leave firefighters unable to effectively combat fires, increasing damage to homes and reducing firefighters' effectiveness in combatting the fire.

Sativa's wells do not have back up power and are not available in the event of a power outage. If Compton and Liberty have trouble keeping up with demands in a regional wide

power outage event like an earthquake or large fire event when Sativa would need this water the most, then the interconnections will be unable to supply water to Sativa's customers for firefighting. The Sativa system needs a storage tank, with a pump station and backup power to reliably provide required fire flow demands during power outage events.

The recent experiences in the Palisades fire demonstrate the need for adequate supply for firefighting to protect customers' homes, possessions, and lives. Destructive fires that spread in residential areas are becoming increasingly frequent due to climate change. The Sativa neighborhood is a dense all-residential community with little separation between properties. Consequently, a fire at one property could quickly spread to adjacent homes and then engulf the neighborhood if proper fire flow is not available.

In its current state the Sativa water system is not prepared to reliably fight fires to protect customer's homes, possessions, and lives. However, installing tank storage and booster pumps will provide the reliable available fire flow for firefighting, and support CPUC's ESJ Goal #6 - ensuring consumer protection and safety for all, especially for ESJ communities

The Sativa water system's current infrastructure cannot reliably meet critical fire flow requirements, especially during emergencies or power outages. With unreliable interconnections, limited well capacity, and no backup power, the community is left exposed to significant fire risk. Installing a properly sized storage tank, booster pump station, and emergency power backup is essential to ensure dependable fire protection, safeguard lives and property.

Project Description

Alternative 1 – This alternative does not install storage tanks or pump station. This alternative is not recommended because it does not address Sativa's lack of storage. It fails to provide Sativa's disadvantaged customers with an adequate and reliable source of fire and emergency supplies. Customers would be at the end of the line for supply. For these reasons, Alternative 1 is not viable.

Alternative 2 – Installation of (2) 137,000-gallon tanks with (2) 60 HP pumps and (2) 20 HP pumps station with an emergency generator. This provides the Sativa system with resilience and storage capacity to meet fluctuating demands and provide fire protection. The emergency generator is installed to ensure Sativa's customers have fire protection and drinking water during power outage events. For these reasons, Alternative 2 is recommended.

Alternative 3 – Purchase multiple residential lots to tear down and build a 1.15MG tank

This alternative involves purchasing and demolishing multiple residential lots to construct a 1.15 MG water tank as recommended by the consultant. Based on the tank's estimated dimensions—90 feet in diameter and 25 feet tall, like the existing tank at Plant 803—plus space for a pump station and buffer, at least 145 feet wide is needed. The Plant 802 site was not considered because it is not wide enough to accommodate this configuration. Due to the dense layout of the Sativa neighborhood, acquiring three adjacent lots would be necessary, which is both difficult and expensive. Zillow estimates each lot at approximately $500,000, totaling $1.5 million for land alone. The tank itself is estimated to cost over $5 million, based on scaling from a 0.5 MG tank at Plant 128 built in 2024. Altogether, this alternative would cost around $6.5 million and is not recommended due to the high cost and challenges in acquiring suitable land.

Alternative 4 – Construct another well

This alternative proposes drilling a new well at Plant 802 to improve system reliability instead of building a storage tank and pump station. However, based on the actual cost of drilling a well at Plant 429 in 2024 and the equipment estimate, the estimated cost is approximately $8.5 million. Due to the high price, this option is not recommended.

Project Scope

To address these storage and reliability issues immediately, Suburban plans to install (2) 137,000-gallon, bolted steel tanks at Plant 802 with (2) 60 HP pumps and (2) 20 HP pumps. These facilities will provide critically needed operational, emergency and fire protection storage. This will allow Suburban to manage our system by matching supply to demand. These installations will also put less strain on the well pumps, allowing them to run at a steady pace while the reservoir and pump station handle the fluctuations in demand. Additionally, Suburban will also install an AQMD-permitted fixed emergency generator to run the pump station in case of a Public Safety Power Shutoff (PSPS) or loss of power. If the plant were to lose power, there would be no way to use the stored water without the pump station. Sativa has flat terrain and cannot rely on gravity alone to move the water through the system. This would significantly reduce the system's capability in emergencies such as wildfire suppression. Installing an emergency generator would allow the facility to maintain its capability of providing adequate pressure and supply into the system.

The installation of a reservoir, pump station, and generator will address the ongoing storage and reliability issues.

Cost Estimate

Below is the cost estimate for Alternative 2 for the installation of (2) 137,000 bolted steel tanks, (4) pumps, and an emergency diesel generator at Plant 802.

Description	Qty	Units	Unit Costs	Total
Reservoir				
138,000-gal Bolted Steel Reservoir	2	Lump Sum	$ 236,250	$ 472,500
Cathodic Protection System	1	Lump Sum	$ 94,500	$ 94,500
Pump Station				
Large Pump and Motor	2	EA	$ 202,500	$ 405,000
Small Pump and Motor	2	EA	$ 135,000	$ 270,000
Pump Station Piping and Appurtenances	1	Lump Sum	$ 162,000	$ 162,000
Emergency Generator with Fuel Tank Base	1	Lump Sum	$ 270,000	$ 270,000
Electrical, Power, Control, Instrumentation, and Lighting	1	Lump Sum	$ 540,000	$ 540,000
Traffic Control	1	Lump Sum	$ 13,500	$ 13,500
Permitting	1	Lump Sum	$ 6,750	$ 6,750
Demolish Well Building	500	SF	$ 14	$ 7,000
Demolish Storage Building	1000	SF	$ 14	$ 14,000
Site Clearing	10000	SF	$ 1	$ 10,000
Rough Grading	10000	SF	$ 4	$ 40,000
Connection to Existing Waterline	1	Lump Sum	$ 27,000	$ 27,000
Miscellaneous Conrete/Site Work	1	Lump Sum	$ 67,500	$ 67,500
AC Pavement	5000	SF	$ 7	$ 35,000
Off-Site Storm Drain Piping	1000	LF	$ 405	$ 405,000
Shade Structure	1	Lump Sum	$ 33,750	$ 33,750
Disinfection, Pressure Testing	1	Lump Sum	$ 33,750	$ 33,750
Testing and Commissioning	1	Lump Sum	$ 40,500	$ 40,500
Material Subtotal				$ 2,947,750
Design (Consultant)	315	Hours	$ 179	$ 56,385
Consultant Inspector	450	Hours	$ 215	$ 96,750
In-House Inspector	450	Hours	$ 53	$ 23,792
Subtotal				$ 3,124,677
Escalation from 2025 to 2027		8.92%		$ 278,814
Subtotal				$ 3,403,491
G&A		10.01%		$ 340,689
Total				$ 3,744,180

Project Conclusion

Alternative #1 leaves Sativa without any storage capacity and heavily reliant on external sources to meet demand. Alternative #2 addresses the issues with storage capacity and external source reliance while providing immediate customer benefits. Alternatives 3 and 4 are not recommended because they are more costly than alternative 2. Resolving these issues strengthens fire protection, improves supply to meet demand, and builds a more self-reliant system that prioritizes our customers' access to water. Alternative #2 is Suburban's recommended option to address existing issues and build a resilient water system.

(P-9) Stage Rd. Piping and Equipping - $5,343,413

Q65 Can Suburban's customers afford to pay $86,780,511 more for costly imported water?

A65 No, Suburban's customers cannot afford to pay $86 million over the next 39 years for costly imported water when Suburban can construct a Central Basin well now that produces less costly water.

Q66 Can Suburban's customers afford to pay more for imported purchased water when less costly, more reliable, and lower greenhouse gas producing local groundwater is available?

A66 No, Suburban's customers cannot afford to pay more for imported water when less costly, more reliable, and lower greenhouse gas producing local groundwater is available. Suburban has unused groundwater rights that it cannot produce due to a lack of Central Basin well production capacity. Suburban has completed a project to drill and develop a groundwater production well in the Central Basin to produce its remaining groundwater rights. Suburban is requesting approval to equip the well and construct the utilities and

pipelines required to produce and transport water for customer use. Without this project, Suburban cannot use this well to produce lower-cost groundwater to make bills more affordable.

Q67 Has Suburban addressed the concerns cited in the previous General Rate Case decision 24-12-030 to deny this cost-reducing Central Basin well?

A67 Yes, Suburban has addressed the concerns cited in the previous General Rate Case decision 24-12-030 to deny this cost-reducing Central Basin well by executing a ground lease agreement with the City of La Mirada, and completing review of well water quality data that demonstrated the well is suitable for use.

I. Rate Case Background

On October 21, 2021, the California Public Utilities Commission (CPUC) adopted Decision 21-10-024. On page 21, section F, paragraph 4, the Decision notes that it *"is the utility's responsibility to manage the overall budget to assure safe and reliable customer service".* Based on this decision, Suburban prioritized constructing a test well to develop a production well to produce its Central Basin rights and increase customer affordability. Suburban constructed a test well at Plant 429 in 2022. The test well showed acceptable water quality and capacity. Suburban requested the production well in 2023 in Application 23-01-001 for the rate case cycle 2023- 2025. The well was completed in 2024. The commission approved the GRC Decision 24-12-030 on December 23, 2024, which denied Suburban's request to construct the well and equipment required to produce its Central Basin rights. The decision denied the well, but the well was included in the water division's revenue model. A Petition For Modification (PFM) was submitted by Suburban to determine if the well had been denied, the PFM decision was adopted on

July 24, 2025 clarifying the well had been denied. Both decisions came well after Suburban had completed construction of the well.

In the decision, the Administrative Law Judge agreed with Suburban and Cal Advocates that the project is necessary but denied the project because 1) Suburban had failed to finalize the contract with the City of La Mirada concerning the property, and 2) the cost of the lease is based on the present value of the land, which is speculative. Suburban executed a long-term lease agreement with the City of La Mirada on August 29, 2024, prior to the GRC decision. The agreement includes the capital land lease costs over the life of the project, which are no longer speculative.

Cal Advocates is on board with increasing production of owned rights because it is the lowest cost source of water for customers. In this GRC Suburban is asking for the completed test and production wells to be included in section III of my testimony. Further, in this GRC Suburban requests approval to complete the equipment, electrical upgrades, piping, and site improvements necessary to produce water from the well.

The following testimony demonstrates the project's benefits to Suburban's customers, and the Commission should approve it.

Executive Summary

Suburban needs to increase its Central Basin groundwater production capacity to produce its 4,195 Acre-Feet per Year (AFY) of water rights, increase customers' affordability, and provide the reliability required for outages due to well maintenance and equipment failures.

Partnering with adjacent water suppliers and maintaining existing assets has slowed the loss of production, but will not fully compensate for the deficiency, even when wells producing Central Basin Rights (409 W-3 and 410 W-1) are producing at full capacity.

Suburban completed drilling a new Central Basin production well in 2024. The pumping capacity and water quality results demonstrate that the well is a viable water supply source. Equipping the new Central Basin production well is the most effective and reliable way to add groundwater production capacity. The City of La Mirada has a maintenance yard on Stage Rd. East of Valley View Ave. located near Plant 409. The City of La Mirada required Suburban to pull an excavation permit to drill the test well and production well on the Stage Rd. site. In 2022, Suburban drilled an eight-inch diameter, 1,500-feet-deep test well. Suburban's consultants used the test well to profile the well at various elevations to determine if a large production well should be drilled at this location. The well profiling demonstrated that the well has an adequate water supply capacity and acceptable water quality. In 2024 Suburban drilled a large capacity production well based on the successful results of the test well.

The City and Suburban executed a forty-year-long-term land-use lease agreement for Suburban to operate the well. The 40-year term exceeds the anticipated life cycle of the well and equipment, with an option to extend it 10 more years.

Test results showed that a well could produce 1,200 GPM (1,936 AFY), and the water quality was suitable for treatment at Suburban's Plant 409 color removal plan, which has available treatment capacity.

The Capital investment required to complete the well is $5,343,413. The project's 96.9% Internal Rate of Return (IRR) demonstrates that customers benefit from drilling this well compared to purchasing more costly imported water. This report includes a detailed cost-benefit analysis.

Suburban's work to reduce customer costs supports the CPUC's Environmental Social Justice (ESJ) goal for water customer resilience, item 3.2.2, acting on the affordability of water rates. This project also supports goal 4, increasing climate resiliency in ESJ communities by reducing the dependency on imported sources that droughts have drastically impacted.

The CPUC should approve the addition of Suburban's completed test well and production well to the rate base because they are required to provide the customers with affordable water service. The CPUC should also approve the remaining equipment and pipelines required to equip the well and connect it to the Plant 409 treatment plant and supply water to customers. Once operational, this well will produce Suburban's Central Basin rights, providing Suburban's customers with the most affordable and reliable water source, while supporting the CPUC's ESJ goals.

Background

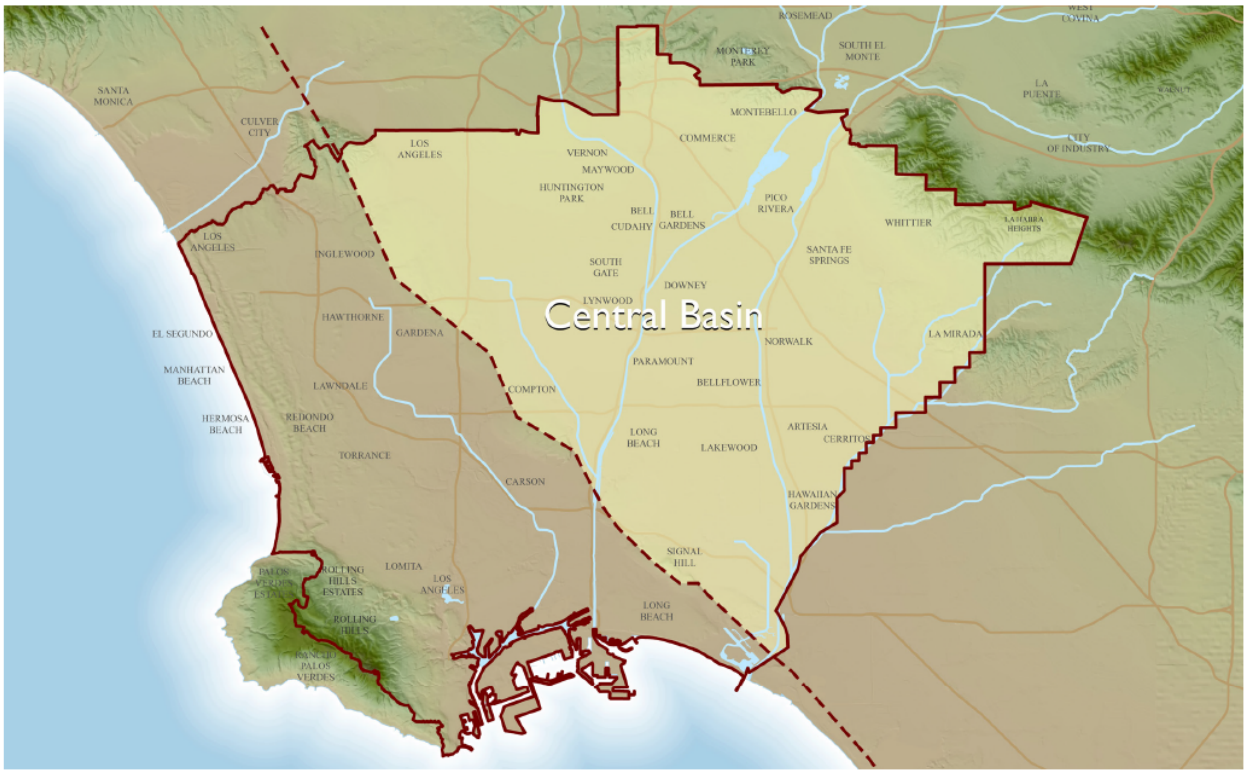
Central Basin

The Central Basin groundwater basin covers an area of 227 square miles in southeastern Los Angeles County and has several water aquifers (See Figure 3 of Workpaper Volume III, P-9). Twenty-three (23) incorporated cities and several unincorporated communities lie within the service area shown in the exhibit below.

Groundwater overdraft and declining water levels in the Basin threatened the area's groundwater supply and caused seawater intrusion into the aquifers in the southern part of the basin. Adjudication of water rights and the creation of WRD halted the overdraft and prevented further damage to the Basin. Groundwater extraction from the Basin has been limited to the amounts set by a Superior Court Judgement and monitored by a court-appointed Watermaster. The judgment limits the amount of groundwater each Party may

extract annually. This amount is known as the Party's Allowed Pumping Allocation or "APA." Suburban's APA is 4,195 Acre-feet.

Figure 3 - Central Basin Map



Suburban previously had several small-capacity shallow wells that produced its Central Basin groundwater rights to supply customers in its Whittier / La Mirada service area. Having multiple small capacity wells provided supply resiliency; the loss of any one well due to mechanical failure or water quality had a limited effect on the available capacity to the system. However, over time, these wells were taken offline and destroyed due to poor water quality from shallow aquifers. The following table shows Suburban's wells that have been destroyed:

Table 2 - Abandoned Wells in Central Basin

Plant Number	Well Number	Location or Address	Drilled	capped or destroyed	Age at Destruction
209	W-1	10756 Scott Road	1952	1995	43
	W-2		1953	1995	42
210	W-1	Mystic @ Painter	1952	1993	41
211	W-1	10905 First Ave.	1953	1975	22
	W-2		1955	1995	40
212	W-1	Santa Gertrudes & Lambert	unk	1969	
213	W-1	Telegraph Rd near Caremenita	unk	1993	
231	W-1	Whittier Blvd.	1944	1996	52
401	W-1	Bora Dr & Avion Dr	1946	1992	46
402	W-1	14260 Keese	1929	1974	45
403	W-1	13400 Biola Ave	1955	2002	47
406	W-1	14850 Figueras Rd	1956	1969	13
407	W-1	easement at 12607 Meadowgreen	1929	1972	43
409	W-1	15224 Canary Ave	1960	1994	34
409	W-2	15225 Canary Ave	1994	2005	11
421	W-1	15240 Barnwall	unk	1966	
	W-2	15241 Barnwall	unk	unk	
423	W-1	Rosalita	1958	1992	34
424	W-1	Alondra @ La Mirada	1954	1995	41
	W-2		1951		
426	W-1	Badajoz & Ocaso	1958	2001	43
427	W-1	Stage Road Office	1959	1992	33
	W-2		unk	1992	
				Average	37.05882353

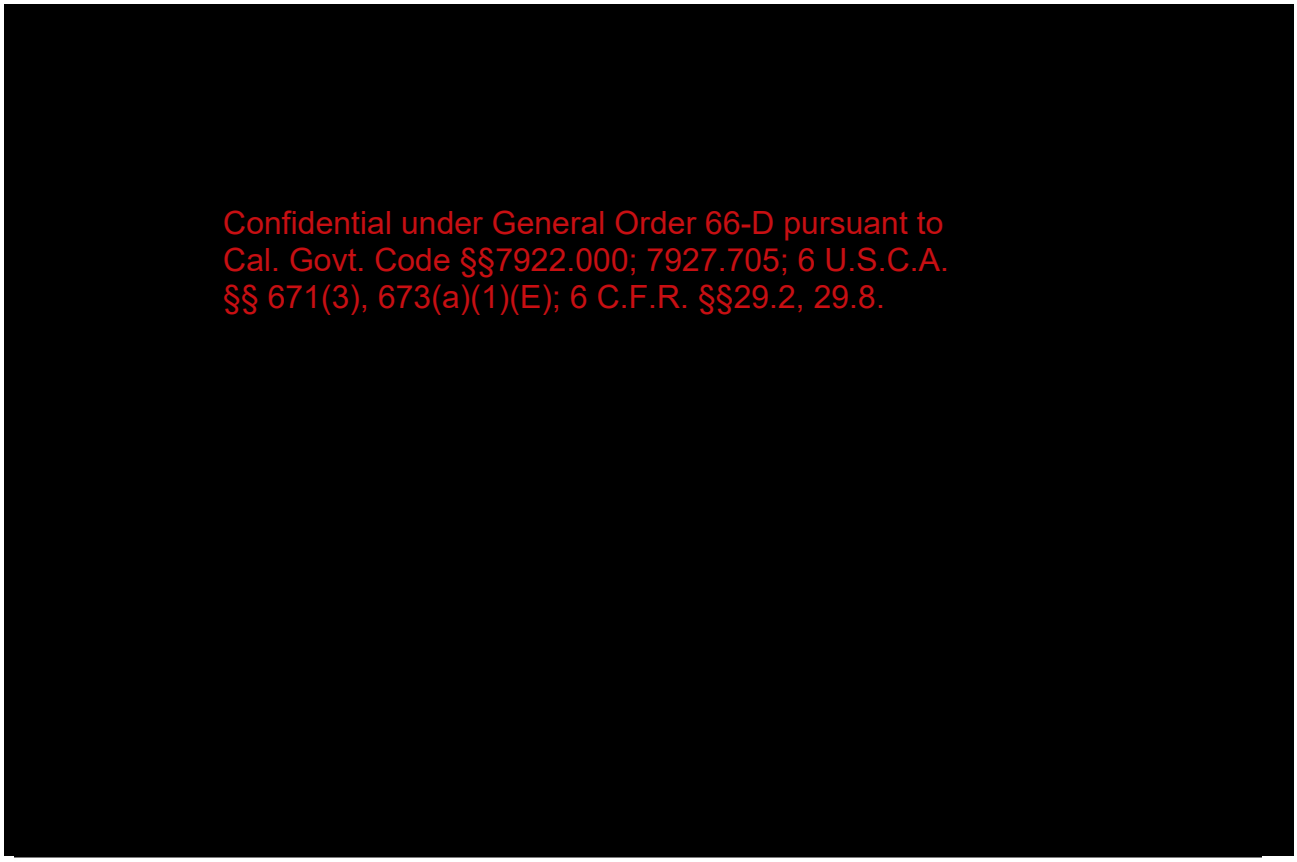
To replace this lost production capacity and produce its Central Basin groundwater rights Suburban replaced these wells with larger capacity deep wells at Plant 409 and 410. Over time these wells have also suffered from water quality issues (color, manganese, arsenic) and production capacity declines due to changes in the aquifer and organic material growth leading to screen and formation clogging. Despite rehabilitation and redevelopment that maintains some of the critical production capacity, the diminished capacity in these wells is insufficient to produce all of Suburban's Central Basin water rights. Suburban needs to develop additional Central Basin wells to produce its Central Basin water rights.

Relying on only two wells results in poor resiliency; the temporary or permanent loss of one or both wells will dramatically reduce Suburban's Central Basin groundwater production capacity. Suburban needs to develop additional Central Basin wells to increase production reliability.

Suburban has reviewed several locations to determine a suitable site for a new Central Basin production well. Suburban chose the City of La Mirada Stage Road yard site because of its availability, and proximity to Suburban's existing treatment facility at Plant 409.

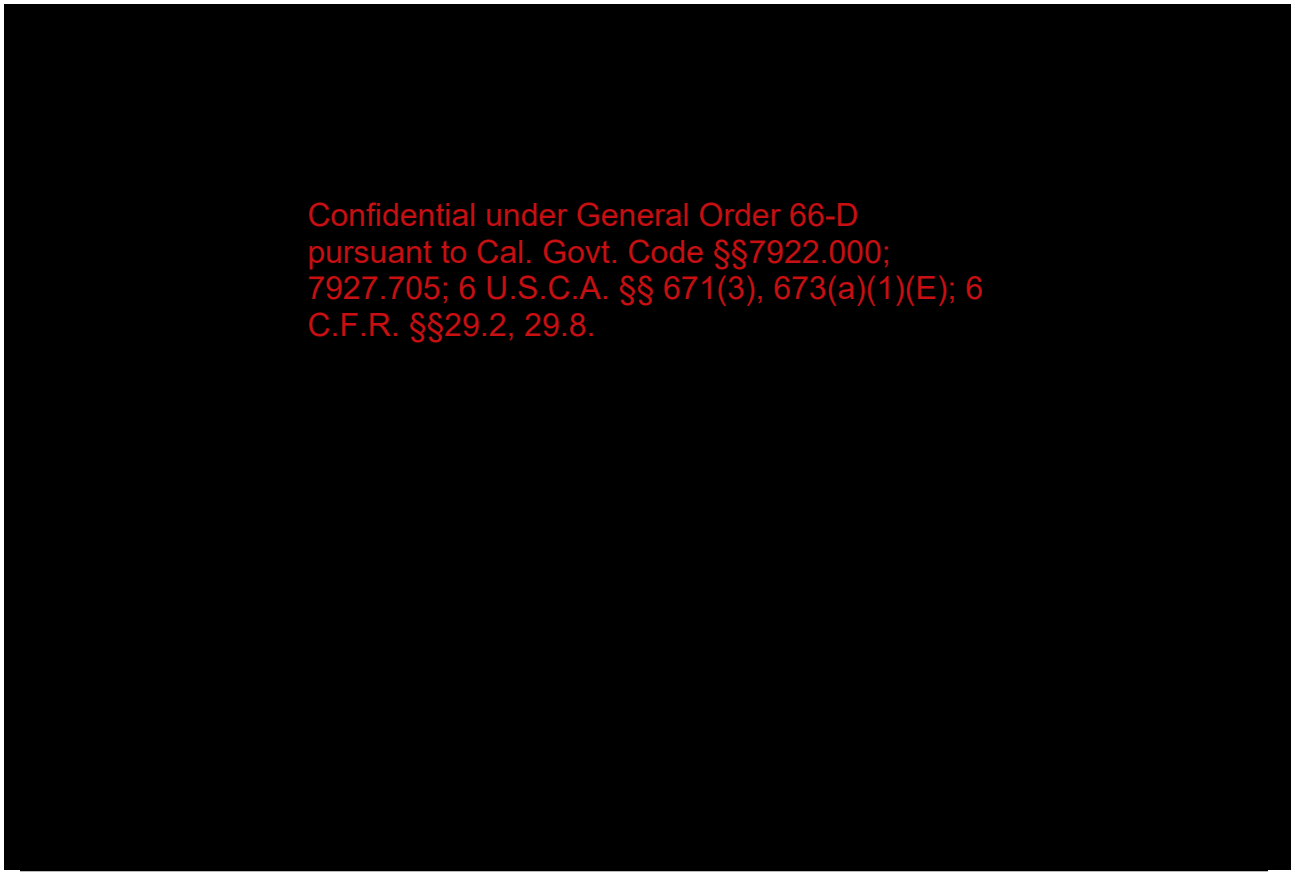
Figures 1 and 2 below show the well location and its proximity to Plant 409.

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This location was selected as the preferred location for the following reasons:

This location meets DDW's Drinking Water Source Assessment Program (DWSAP) requirement. Suburban's third-party consultant, Intera, performed the assessment. The DSWAP is included in Appendix 2. The DWSAP did not identify significant contamination risks for this location.

This site meets DDW's 50-feet radius of control. The 50-feet radius of control ensures that the well's owner has complete control of the immediate area around the well to protect it. This was not the case at other sites considered.

Different locations were explored outside Suburban's service area, within the Central Basin aquifer. This site is within Suburban's service area. Land within Suburban's service area is preferred because it eliminates the need to install costly pipeline runs or rely on another utility's facilities to transmit the supply (wheeling).

Relying on wheeling agreements and infrastructure from neighboring water purveyors for pumping and transmitting the produced water is eliminated when the site is within Suburban's service area. This site is less than 2,000 feet from Plant 409 where water can be treated and can be pumped directly into Suburban's system.

This site has the potential to produce potable water with negligible treatment infrastructure improvements. Other sites such as Plant 211 were considered, but the water quality data from the exploratory well drilled in 2018 indicated a treatment plant and a reservoir would be required. The proposed location efficiently uses the existing treatment infrastructure at adjacent Plant 409 to reduce project costs.

Project Justification

Reliability

Suburban’s customers cannot afford poor supply reliability resulting from reliance on imported water sources. Droughts are a recurring issue in Southern California, and more importantly, it is a growing problem in the Western United States. Snowpacks in the Sierra Nevada Mountain Ranges and the Colorado Rockies have been severely impacted, reducing the allocations to all users. The most reliable way to serve customers is by producing water locally from groundwater basins. The Central Basin is a vast underground reservoir. Suburban’s existing limited production capacity results in unused Central Basin rights. Fully producing these rights reduces Suburban customers’ supply

risk due to the historic drought gripping the greater Western United States. A new production well is required to produce these rights.

The recent LA wildfires have demonstrated the need for system reliability from local water supplies. Suburban's tanks do not have sufficient emergency storage to combat fires for extended events. Water does not need to be moved from Northern California to Southern California, when there is an abundance of supply in our groundwater basins. Water stored in tanks must be replenished during power outages from sources such as groundwater wells. A chain of pumping facilities must have a reliable water supply where water is needed. The start of the chain are the pumps inside groundwater wells. This project improves reliability by adding a source of supply that is dependable during water shortage emergency events.

A 1,200 GPM well at the proposed location on Stage Rd. in La Mirada would allow Suburban to produce all its Central Basin groundwater rights and provide the ability to temporarily take existing wells at 409 and 410 offline for maintenance without severely impacting operations. More importantly, it will ensure a more reliable water supply during shortage emergency events.

Unused Water Rights

The following table summarizes Suburban's Central Basin groundwater production in the WLM system for the past sixteen years. The fourth column shows the difference between what was produced and the rights available to Suburban. The data shows Suburban has had an average of 1,386 AFY of water rights available at the end of each year. In December 2022, Suburban acquired the Sativa Water System. The table was updated beginning in 2023 to show the additional 474 water rights acquired with the system's purchase.

Year	Produced (AFY)	Rights (AFY)	Excess / (Under) Production (AFY)
2009	2,137	3,721	(1,584)
2010	2,178	3,721	(1,543)
2011	2,558	3,721	(1,163)
2012	3,369	3,721	(352)
2013	3,413	3,721	(308)
2014	3,518	3,721	(203)
2015	3,578	3,721	(143)
2016	2,924	3,721	(797)
2017	2,827	3,721	(894)
2018	2,297	3,721	(1,424)
2019	2,038	3,721	(1,683)
2020	1,562	3,721	(2,159)
2021	1,519	3,721	(2,202)
2022	1,098	3,721	(2,623)
2023	1,363	4,195	(2,832)
2024	2,876	4,195	(1,319)
Average	**2,453**		**(1,327)**

In the past Suburban has continuously developed and maintained its extraction capacity close to its APA. Over the years, groundwater extraction from the Central Basin has varied due to several factors, including changing water quality, basin levels, equipment malfunction, and declining production capacity. In 2020, arsenic was detected above the MCL and the well was taken out of service until treatment to remove arsenic was installed. The well was out of service for two years. Most recently in May 2025, Plant 410's pump was pulled and inspected because pumping capacity unexpectedly decreased. Several holes in the pump's column were found, and the pump was deemed in poor condition and replaced. The image below shows the holes in the column. The well was out of service for several months. These two examples demonstrate the need for additional Central Basin well capacity to improve reliability and avoid purchasing water that is costly for our customers.



The following table summarizes Suburban's recent efforts to develop and maintain well-pumping capacity in the Central Basin:

Project Description	Year	Location
Drill Well W-3	2005	Plant 409
Chemical Treatment (orthopolyphosphate & sodium hypochlorite) Redevelopment	2008	Plant 409
Orthopolyphosphate Building & Tank Construction (temporary)	2008	Plant 410
Well Start Up	2008	Plant 410
Media Replacement	2009	Plant 409
Perform Well Siting Study	2010	WLM District
Chemical Treatment (Orthopolyphosphate) Redevelopment	1/2011	Plant 409
Recoat Interior of Treatment Plant Vessels	2011	Plant 409
Test Well Drilling	2012	Plant 427
Chemical Treatment (orthopolyphosphate & sodium hypochlorite) Redevelopment	3/2013	Plant 409
Chemical Treatment (orthopolyphosphate & sodium hypochlorite) Redevelopment	2/2014	Plant 409
Chemical Treatment (orthopolyphosphate & sodium hypochlorite) Redevelopment	2/2016	Plant 409
Test Well Drilling	2017	Plant 211
Well redevelopment	2018	Plant 409
Well Pump Surging	2018-2020	Plant 409
Air Lifting and Swabbing	2020	Plant 409
Arsenic Treatment Pilot Testing	2021/2022	Plant 409
Well Drilling Alternatives Developed	2021	WLM District
Ferric Chlorite Injection System Construction	2022	Plant 409
Plant 429 Test Well Drilling	2022	Plant 429
Plant 429 Production Well Drilling	2023	Plant 429
Plant 410 W-1 Inspection and Pump Replacement	2025	Plant 410

Test Well Results

The test well-constructed in 2022 demonstrated that water produced from a well at this site was suitable to be treated with the existing treatment at Plant 409**.** Pumping tests from the production well showed better-than-anticipated production data. The pumping test shows that the well can produce 1,200 gpm long-term. Intera's well report, table 5, page 17, section 4, detail the higher than anticipated flow rate. The test well provided information that supported Suburban proceeding with the drilling of a production well.

Table 5. Well No. 429-W1 Pumping Design Parameters

Parameters	Short-Term (1-day)	Long-Term (1 year)
Design Pumping Rate	1,200 gpm	1,200 gpm
Design Drawdown	52 ft	82 ft
Design Well Efficiency	72%	-
Static Water Level Depth	48 ft	48 ft
Total Lift to Surface	100 ft	130 ft

Plant 429 Production Well Water Quality

Suburban engaged Hazen and Sawyer (Hazen) to evaluate the water quality at Plant 429 to ensure that the well meets all regulatory requirements. The table below compares water quality before and after planned treatment at Plant 409. Hazen focused on specific constituents in the water from Plant 429 close to regulatory limits and assessed how effective treatment at Plant 409 would reduce them. The report demonstrates that Plant 409 equipment can effectively treat the groundwater from Plant 429 to acceptable drinking water quality. Blending water from Plant 429 also reduces constituents from Plant 409. Due to the design of the well screens, Plant 429's arsenic concentration is expected to be below 0.5 ppm, and when combined with Plant 409 water, will further reduce arsenic levels in treated water.

Hazen has demonstrated that taking Plant 429 water to Plant 409 will reduce constituents to acceptable levels. The report demonstrates that integrating this well into Plant 409's treatment system will ensure a safe and reliable water supply for customers and, more importantly, improve customer affordability.

Plant 429 Water Quality After Treatment at Plant 409

Analyte	Units	Plant 429 WQ	Plant 409 Effluent WQ	Combined Finished WQ	Regulatory Standard
Iron	µg/L	220.0	122.2	171.1	300 (SMCL)
Manganese	µg/L	39.0	18.8	28.9	50 (SMCL)
NDEA	ng/L	9.3	Not Available	Not Available	10 (NL)
NDMA	ng/L	8.9	Not Available	Not Available	10 (NL)
NDPA	ng/L	9.0	Not Available	Not Available	10 (NL)
Specific Conductance	µmhos/cm	1200	670	935	900 (rec) - 1,600 (upper)
TDS	mg/L	730.0	391.0	561.5	500 (rec) - 1,000 (upper)
Lithium	µg/L	57	14.0	35.5	10 (UCMR5 Health Reference
Color	unit	10.0	3.9	6.9	15.0 (SMCL)

Environmental and Social Justice (ESJ)

This project supports the CPUC's Environmental and Social Justice (ESJ) Action Plan by reducing Suburban's carbon footprint. Imported water requires significantly more energy to transport from Northern California or the Colorado River resulting in higher embedded energy demand and carbon footprint. Maximizing production from the Central Basin aquifer allows Suburban to minimize its carbon footprint.

This well will also ensure the lowest rates for customers in support of CPUC's ESJ goal for water customer resilience, item 3.2.2, acting on the affordability of water rates. Lastly this project supports goal 4 of the ESJ plan by improving climate resiliency in disadvantaged communities by reducing the dependency on imported water that has been drastically impacted by years of droughts.

Cost Benefit

This project will provide financial benefits to customers. Having available rights not produced due to insufficient capacity is a lost benefit for Suburban customers because supplemental water from Central Basin Municipal Water District (CBMWD) is more costly. The lost financial benefit equates to over $86 million over the 39-year estimated life of the well, as shown in the enclosed cost-benefit analysis.

Suburban must purchase Non-Interruptible water from the Central Basin Municipal Water District (CBMWD) to meet customer demand and replace groundwater rights. Non-Interruptible Treated (Tier 1) in 2019 was $1,185/AF, which has since increased to $1,565/AF in 2025. By comparison, Suburban's cost to produce Central Basin rights is $546/AF, which is half the cost of CBMWD.

Central Basin water rights are less costly for Suburban to produce than other sources which allow it to keep customer water bills affordable. If Suburban cannot produce Central Basin water, then it must replace it with significantly more expensive imported water from CBMWD (Central Basin Municipal Water District). This more expensive water increases the cost of water to Suburban's customers. Suburban must maximize its production from the Central Basin groundwater aquifer to minimize supply costs.

Figure 4 below demonstrates the cost of purchasing water from CBMWD in 2025/2026.

Figure 4 – CBMWD Water Rates FY 2025/2026

Central Basin Municipal Water District

Water Rates and Charges Commencing FY 2025-26

Rates Effective July 1, 2025

	Metropolitan Water District Commodity Rate	Central Basin Administrative Charge	Grand Total
Non-Interruptible- Treated *(Tier 1)*	$1,395/AF	$170/AF	**$1,565/AF**
Non-Interruptible- Untreated *(Tier 1)*	$912/AF	$170/AF	**$1,082/AF**

Rates Effective January 1, 2026

	Metropolitan Water District Commodity Rate	Central Basin Administrative Charge	Grand Total
Non-Interruptible- Treated *(Tier 1)*	$1,528/AF	$170/AF	**$1,698/AF**
Non-Interruptible- Untreated *(Tier 1)*	$984/AF	$170/AF	**$1,154/AF**

Internal Rate of Return

A cost-benefit analysis using Internal Rate of Return (IRR) was performed to demonstrate the financial benefit to customers resulting from increasing Central Basin groundwater production capacity to reduce the use of more costly imported water supplies.

IRR is a financial metric used to evaluate the financial benefit of investments. IRR is calculated as the discount rate that makes the Net Present Value (NPV) equal to zero. A positive IRR indicates that a project's benefits exceed its costs over the lifetime of the project. A high IRR indicates strong financial performance and great value for customers.

Unlike break-even analysis, which only shows the number of years before the cumulative benefits exceed the cumulative costs, IRR provides a more comprehensive analysis of the benefits over the lifetime of the project because it:

- Accounts for the time value of money
- Includes all cash flows over the project's life

- Offers a standardized percentage to compare investment opportunities

In this case, the project produces a significantly positive IRR of 96.9%, demonstrating very strong financial benefit to customers.

Reliance on breakeven analysis is ill-advised because it is short-sighted and can result in passing on viable opportunities that substantially reduce costs, resulting in higher costs and less affordable water service for customers. For example, this project produces more than $86M of savings over the life of the project that would not be evident if the review was limited to breakeven analysis.

While less useful, the breakeven analysis for this project shows cumulative benefits exceeding cumulative costs one year after the well is operational. A one-year break-even point is very good for infrastructure projects, especially considering the assets will generate massive customer savings for decades beyond the break-even point.

The cost benefit analysis shows that Central Basin groundwater produced from the Plant 429 well offsets higher-cost supply from CBMWD, creating substantial cost savings for customers that keeps water service affordable for decades.

II. Alternative Analysis

Alternative 1 – Continue to purchase more costly sources from Central Basin Municipal Water District (CBMWD), California Domestic Water Company, and Suburban's Main San Gabriel Basin wells. This Alternative is not recommended due to the higher cost for customers and the lower levels of reliability due to dependence on other parties. This also does not address the drought conditions experienced in the western US and does not improve customer climate resiliency and reliability. This approach provides no cost

savings for water customers resulting in an IRR of 0%. This Alternative is undesirable and should be avoided.

Alternative 2 – Drill a well outside the service area within the Central Basin Aquifer. This is a potential project that would add to the reliability and resiliency of the system and allow the full utilization of water rights. However, due to the unknown water quality, it will require a significant time and financial investment to perform well-siting studies. In addition, this alternative will require significant piping extensions into Suburban's system. This is not the best Alternative due to the potential higher cost for customers and the long timeframe for project completion.

Alternative 3 – Increase production at wells at Plant 409 and 410. This is not viable because the existing wells cannot increase their capacity. This alternative maintains the status quo and does not address consistent under-production of rights. Rehabilitation and Redevelopment are performed routinely at Plant 409 to maintain production but increasing production has been unsuccessful. This alternative does not increase our rights and is not viable option.

Alternative 4—Complete the Plant 429 W-1 project by authorizing the well's equipping and piping. Suburban has overcome significantly difficult obstacles to drill a production well, and all that's left to do to produce water is to equip the well and construct the well's piping. . The total project cost increased from $8,000,310 in the previous rate case filing to $10,228,579. This increase is primarily due to inflation affecting the costs of equipping and piping the well, as detailed in Section VI of my testimony. Prolonging this project will further increase the project and reduce the financial benefit customers receive. The original cost estimate was prepared in 2022, and since then, construction inflation has risen significantly:

- 12.73% in 2022
- 4.34% in 2023
- 2.64% in 2024

These inflationary pressures contributed to the overall cost escalation. The project's Internal Rate of Return (IRR) of 96.9% demonstrates that customers benefit from using this well compared to purchasing more costly imported water, resulting in more affordable water bills.

This alternative ensures a safe and reliable water supply within Suburban's control and does not rely on neighboring water utilities. The project supports the CPUC's Environmental Social Justice (ESJ) goal for water customer resilience, item 3.2.2. This is the best alternative for our customers.

The table below shows the actual costs for the portions completed and the estimated remaining costs by year.

Cost Estimate

Year	Description	Status	Units	Qty	Unit Price	Total
2022	Test Well	Completed. Actual Costs	1	LS	$ 1,283,067	$ 1,283,067
2024	Land Lease	Completed. Actual Costs	1	LS	$ 435,056	$ 435,056
2024	Production Well	Completed. Actual Costs	1	LS	$ 3,167,043	$ 3,167,043
2026	Well Piping and Equipping	Estimate	1	LS	$ 5,343,413	$ 5,343,413
	Grand Total					**$ 10,228,579**

Conclusion

Suburban's customers cannot afford to pay more for imported purchased water when less costly, more reliable, and lower greenhouse gas producing local groundwater is available. This project that equips Suburban's Stage Rd. well will allow Suburban to produce all its

Central Basin groundwater rights to reduce water supply costs and make water more affordable for customers.

Suburban has addressed the concerns cited in the previous General Rate Case decision 24-12-030 to deny this cost-reducing Central Basin well, and the Commission should approve it.

Central Basin is the lowest cost source of supply for Suburban's customers, and there are few options for adding capacity to produce from the Basin. Drilling this well on Stage Rd. will provide a financial benefit to customers and provide reliability by increasing the number of wells in the system. The project will increase drought resiliency by reducing dependency on imported sources, furthering CPUC's ESJ goals for rate affordability and climate resiliency. There is available capacity in the Central Basin, and it would be in the customers' best interest to utilize this source. It is recommended that equipping the well, Alternative 4, commences immediately so Suburban's customers can realize these benefits.

(P-10) Plant 804 PFAS Treatment Plant - $2,924,239

Q68 Can Suburban's customers afford to pay $176,423,834 more for costly interconnection water?

A68 No, Suburban's customers cannot afford to pay $176 million for costly interconnection water if Plant 804 Well 3 is taken offline due to PFAS contamination when Suburban can keep Well 3, which produces far less costly water, in operation by installing a PFAS treatment plant.

Q69 Can Suburban's Sativa water system customers afford to consume water from Well 3 that is contaminated with PFAS?

A69 No, treatment equipment is required to remove PFAS from the Plant 804 water so they don't incur the unacceptable non-water bill related costs associated with drinking water contaminated with PFAS that including the high cost of alternative water like bottled water, or health effects like increased cholesterol levels, immune system effects like reduced vaccine response, thyroid disease and other endocrine system issues, liver and kidney damage, and a greater risk for certain cancers.

Q70 Can Suburban's Sativa water system customers afford to turn off Well 3 and rely on more expensive and less reliable water from neighboring purveyors?

A70 No, water from Well 3 is the lowest cost source for Sativa customers and draws from the Central Basin groundwater basin that is not impacted by evolving constraints on the alternate imported water supplies from Northern California and the Colorado River.

Q71 Do Suburban's Sativa customers deserve to be last in line for water when neighboring purveyors shut off connections to Sativa when they need water in their own systems?

A71 No, these traditionally unrepresented and underserved disadvantaged customers pay for water service like customers of the neighboring water systems and do deserve reliable water sources like dedicated wells that put them first in line for water supply.

Executive Summary

Suburban Water Systems' (Suburban) ability to provide a safe and reliable water supply to the Sativa service area is threatened by Per- and Polyfluoroalkyl Substances (PFAS) chemical contamination in Well 3 at Plant 804.

Sativa Well 3 is a critical water source for the Sativa water system. Well 3's water quality exceeds the United States Environmental Protection Agency's (USEPA) maximum

contaminant levels (MCLs) for two PFAS, specifically PFOA and PFOS. Well 3's water quality exceeds the United States Environmental Protection Agency's (USEPA) maximum contaminant levels (MCLs) for two PFAS, specifically Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). By 2029, enforceable legislation requires water sources to be below the MCL or to be removed from operations. Removing Well 3 from operation would be detrimental to the water's affordability, water quality, reliability, and firefighting capability served to Sativa customers. These negative outcomes would further devastate customers who have been historically underserved and underrepresented by the previous owner of the water system.

PFAS treatment for Well 3 must be installed in this rate case cycle before the MCL is enforced. Waiting another three years for the next General Rate Case cycle won't provide time to comply with the USEPA's enforcement timeline and would require Suburban to take the well offline.

Suburban plans to install a Granular Activated Carbon (GAC) treatment plant to reduce Well 3's PFAS levels below the MCL. An independent third-party study of this well concluded that GAC is the most cost-effective treatment technology. Construction of the treatment plant is estimated to cost $2,924,239.

Suburban's Sativa service area customers cannot afford to consume water from Well 3 that is contaminated with PFAS or pay for more expensive and less reliable alternative water sources that put them last in line for water. PFAS removal equipment is required at Plant Well 3 to provide safe, reliable and affordable water service to Sativa's customers.

Background

Suburban's Sativa water system serves over 6,800 people through 1,400 service connections across a 0.27-square-mile area in Willowbrook, unincorporated Los Angeles

County, and a portion of the City of Compton. The system's previous owner, Sativa Water District of Los Angeles, failed to provide safe and reliable water to the customers. Their mismanagement and lack of investment in the system resulted in the dissolution of the board and placement of the system in the charge of an administrator. The Los Angeles County Water Public Works (LACOPW) became its administrator and interim operator in March 2019. Los Angeles County Public Works was tasked to find a permanent owner that could provide affordable rates, high water quality, and an exceptional level of service.

LACPW selected Suburban Water Systems to become the permanent owner of the Sativa water system. Suburban began providing operational services in June 2021 and became its owner in December 2022. Suburban was chosen for its commitment to providing Sativa customers with affordable rates, excellent customer service, and safe and reliable water. To fulfill this commitment, Suburban is investing in capital improvement projects to resolve its ongoing issues and evolving compliance requirements.

An issue that has arisen since the acquisition is the detection of Per- and Polyfluoroalkyl Substances (PFAS) in the groundwater produced by Well 3 at Plant 804. PFAS are known as "forever chemicals" that are linked to negative health effects from ingestion. Substantial information and various studies dating as far back as 1974 show that ingesting PFAS can adversely affect human health. U.S. Environmental Protection Agency (USEPA) has specifically stated: "[S]tudies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), thyroid effects and other effects (e.g., cholesterol changes)." Well 3's PFAS levels exceed maximum contaminant levels (MCL) set by the USEPA's final regulation

[https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas]. By 2029, the USEPA's enforceable regulation requires water sources to be removed from operation if PFAS levels exceed the MCL.

Table 1 shows the PFAS levels of Well 3's groundwater relative to EPA's MCL and Health Based Water Concentration (HBWC), and California State Drinking Water Control Board – Division of Drinking Water's (DDW) Notification Level (NL), and Response Level (RL). Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) exceed the MCL.

Table 1 – Well 3 PFAS Levels in Comparison to DDW and EPA Regulation Levels

Constituent	Value Range	Units	DDW		EPA	
			NL	RL	MCL	HBWC
PFOA	ND - 4.2	ng/L	5.1	10	4	-
PFOS	2.6 - 13	ng/L	6.5	40	4	-
GenX	ND	ng/L	-	-	10	10
PFBS	ND	ng/L	500	5,000	-	2,000
PFHxS	ND - 3.8	ng/L	3	20	10	10
PFNA	ND	ng/L	-	-	10	10

To comply with EPA's final rule, Well 3 will need to be removed from operation in 2029, however, the PFAS needs to be removed from this source as soon as possible. The loss of this source would severely impact the affordability, water quality, reliability, and firefighting capability of the water served to the Sativa customers. A PFAS treatment system for Well 3 must be installed immediately.

In May 2025, USEPA announced its intent to keep the final regulation for PFOA and PFOS while rescinding the regulations for the four other PFAS. PFOA and PFOS are the two PFAS that Well 3 is in violation of. Therefore, this proposed revised rule does not affect the need for this project. The USEPA also intends to extend the compliance

deadline for PFOA and PFOS to 2031. However, this is only a speculative proposal at this stage, and the proposed rule won't be finalized until the Spring of 2026. Since Well 3's PFOA and PFOS levels will still exceed the revised final rule, PFAS treatment must not be delayed.

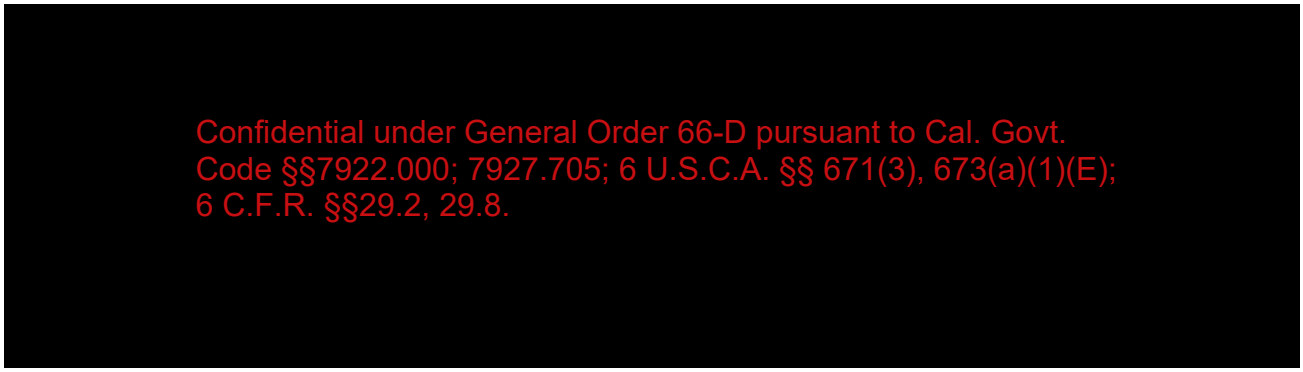
The longer it takes to install PFAS treatment for Well 3, the longer Sativa customers will continue to ingest PFAS from their drinking water. If PFAS treatment is not installed by the USEPA deadline, the Sativa water system will lose a critical source and will fail to provide reliable water to the customers. In addition, the loss of Well 3 would result in heavy reliance on interconnections, which have substantially higher purchasing rates, as explored later in this report, which will raise the customers' water bills. Poor water quality, unreliable water, and expensive water bill rates would only further devastate these customers. Therefore, Suburban must install a PFAS treatment plant for Well 3 in this rate case period

Project Description

Water Supply

The Sativa water system is supplied by two wells that pump from the Central Basin and two interconnections with neighboring water systems, City of Compton and Liberty Utilities. The following Table 2 summarizes the sources and their capacity.

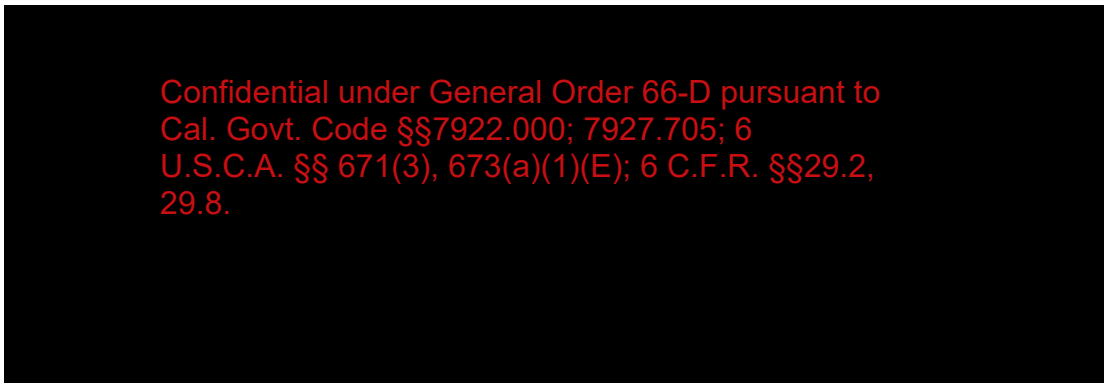
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The sources are used to meet compliance requirements during firefighting emergencies, max day demand (MDD) and peak hourly demand (PHD). Table 3 shows the Sativa water systems' average day demand (ADD), MDD, PHD, and fire flow requirement. The demand in Table 3 was determined from the historical production data that is updated as of June 2025.

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Well 3 is currently the only operational well because Plant 803 Well 5 is offline awaiting completion of the manganese treatment plant; the system relies on the interconnections to meet MDD, PHD, and fire flow.

Well 3 requires PFAS treatment to remain in operation because the PFOS and PFOA levels exceed MCL's. The following sections describe each of Sativa's water sources in

more detail and explain why they cannot compensate for the loss of production from Well 3 if it is taken offline due to PFAS contamination. Treating Well 3 to ensure the customers have water compliant with PFAS regulations supports the CPUC's ESJ Goal #6 - ensuring consumer protection and safety for all, especially for ESJ communities.

Wells

Plant 804 Well 3: Plant 804 Well 3 is the primary source for the Sativa water system. It produces a maximum of 424 gallons per minute (GPM) from the Central Basin. This well can meet ADD but does not meet MDD, PHD, and fire flow. Central Basin groundwater is the least costly and most reliable source available to the Sativa water system.

Plant 803 Well 5: Plant 803 Well 5 is located approximately 1,800 feet west of Well 3 and produces a maximum of 650GPM from the Central Basin. The well meets ADD and MDD but not PHD and fire flow.

Well 5 was taken offline due to high levels of manganese that caused colored water to be delivered to customers. LACPW secured $2.25M of grant funding to construct manganese removal equipment at this site, and Suburban agreed to pay the balance of the construction cost. To ensure grand funding benefits the Sativa customers, the County has retained ownership of Well 5 until the plant is complete, at which time it will be transferred to Suburban. Construction on the manganese removal system began in May 2023 and is expected to be completed at the end of 2025.

Well 5 has not been sampled for PFAS since it has been offline due to manganese. However, the most recent PFOS result (sampled on April 10th, 2023) was 3.3 ng/L, close to the 4 ng/L MCL. Since Well 5 is close to Well 3 and pumps from the same basin, it will likely require PFAS treatment in the future to remain in operation. Due to the unavailability of recent PFAS data for Well 5, this rate case is considering PFAS

treatment for Well 3 only. PFAS treatment for Well 5 may be considered in the subsequent rate case.

The loss of Well 3 due to PFAS contamination would result in Well 5 being the only Central Basin well source supplying the system. This is unacceptable because Well 5 will need to be taken offline for maintenance, repair, or improvements.

To provide reliability, the system requires at least two wells to be available. For example, Well 5 is currently offline for the construction of a manganese treatment plant. If Well 3 was not available, Suburban would need to rely solely on interconnections. The following section explains why the Sativa water system cannot rely on interconnections to meet demand.

Interconnections

Sativa has emergency supply agreements with the City of Compton and Liberty Utilities. These neighboring systems reluctantly agreed to supply water to Sativa until it can restore its own sources of supply. Liberty has demonstrated their preference to not supply water to Sativa by charging $3,600AF for water, which is over 2 times the price of City of Compton and 6 times the price of Central Basin water. The city of Compton's water also has PFAS and is not a reliable source of water for the Sativa water system.

The interconnection agreements with City of Company and Liberty Utilities both include conditions that allow them to shut off supply to Sativa if their own systems need the water. This could be for any reason including a water shortage, fire event, earthquake, or water quality issue. Likely Sativa would suffer from the same event and need the water but would be last in line and likely to be shut off when they need it most. Sativa must have Central Basin water sources that allow it to operate independently from the interconnections.

The Sativa water systems' traditionally unrepresented and underserved disadvantaged customers pay for water service like customers of the neighboring water systems, and deserve to have reliable water sources, like dedicated wells, that put them first in line for water supply.

The following section discusses the interconnections in greater detail:

City of Compton: The City of Compton Water interconnection has a maximum capacity of 500 GPM. The city of Compton's well water has a higher PFOS concentration than Well 3. In March 2023, the City of Compton began providing notices of PFOS levels above the notification level in two of its wells. Workpapers Volume III, P-10, Appendix 1 shows a PFAS exceedance notification letter sent to Suburban on October 2, 2024. Table 4 is extracted from the letter and shows the PFAS levels of their two wells.

Table 4 – PFAS Concentration Levels for City of Compton's Wells as of October 2024

Well 18	Notification Level	Response Level	Concentration	Health Effects
PFOS	6.5 ng/L	40 ng/L	18.0 ng/L	Some people who drink water containing PFOS in excess of the Notification Level over many years may experience adverse health effects. PFOS exposures have been shown to cause immune suppression and cancer in laboratory animals
PFHxS	3 ng/L	20 ng/L	4.3 ng/L	PFHxS has been shown to interfere with thyroid hormones levels. Thyroid hormones are needed for normal
Well 19	Notification Level	Response Level	Concentration	Health Effects
PFOS	6.5 ng/L	40 ng/L	9.3 ng/L	Some people who drink water containing PFOS in excess of the Notification Level over many years may experience adverse health effects. PFOS exposures have been shown to cause immune suppression and cancer in laboratory animals.
PFOA	5.1 ng/L	10 ng/L	8.2 ng/L	Some people who drink water containing PFOA in excess of the Notification Level over many years may experience adverse health effects. PFOA exposures have been shown to cause increased liver weight and cancer in laboratory animals.

The PFOA and PFOS in the City of Compton wells exceed the EPA's MCL and would be removed from operation when the MCL goes into effect in 2029. At that time, the availability of water to the Sativa water systems is dramatically reduced if not eliminated. The installation of treatment equipment to remove PFAS from Well 3 is critical to reliably supplying the Sativa water system.

Liberty Utilities: The Liberty Utilities interconnection can provide a maximum of 1,500gpm. Liberty has demonstrated their preference to not supply water to Sativa by charging $3,600AF for water, which is over 2 times the price of City of Compton and 6 times the price of Central Basin water. Liberty Utilities dramatically increased this rate when Suburban Water Systems acquired the Sativa water system.

Liberty Utilities relies on Central Basin Municipal Water District (CBMWD) for most of its supply which is provided by Metropolitan Water District of Southern California (MWD) from its State Water Project (SWP) and Colorado River Aqueduct (CRA) imported sources. MWD sources are currently facing various issues that are increasingly affecting their availability. SWP has had supply limitations due to a lack of precipitation. SWP is also restricted by environmental judgments that limit pumping from the Sacramento Delta due to the Delta Smelt which is an endangered species. Now SWP is facing an infestation of Golden Mussels that will further restrict MWD's ability to deliver this source of water. CRA is restricted due to falling annual precipitation in the Colorado Rocky Mountains watershed. The Colorado River is oversubscribed by seven US states and Mexico. They have all increased the demand and the river cannot keep up. California, like the other states, will likely see reductions of allocation from the river in the future. The CRA is also infested with Quagga Mussels. Central Basin groundwater is supplied by local river flows and recycled wastewater. Local ground water is more reliable than imported water from MWD.

Imported water also requires pumping to move it hundreds of miles across California in California. Water pumping accounts for 20% of the state's energy usage. Local water has a substantially lower power need than imported water and produces less greenhouse gases.

Liberty Utilities has had a history of service interruptions. For example, in December 2022, there was a service interruption from the Liberty Utilities interconnection that resulted in an unplanned temporary water outage for the Sativa customers. At the time, this interconnection was operating as the primary source, demonstrating how interconnections are not a guaranteed supply source and must not be relied upon to meet demand.

The Liberty Utilities interconnection cannot be relied upon to meet demand if Well 3 is taken offline due to PFAS contamination. The cost-benefit analysis section of this report demonstrates how constructing, operating, and maintaining PFAS removal equipment at Well 3 is more affordable to customers than purchasing water from this interconnection.

Customer Impact of Deferring PFAS Treatment for Well 3

The Sativa customers cannot afford for PFAS treatment not to be installed or deferred to the next rate case period. The current USEPA deadline is 2029, which is the first year of the next cycle. If this project is delayed past the 2026 to 2028 rate cycle, Suburban would only have one year to design, permit, and construct the PFAS treatment plant. WaterWorks Engineers, a third-party firm specializing in water treatment facilities including PFAS, estimates that the design, permitting, and construction of the PFAS treatment system would take over two years to complete. Their projected schedule is in Workpapers Volume III, P-10, Appendix 2. If the project began in 2029, Well 3 would be taken out of service in 2029 until the treatment plant is finished in 2031. The customers cannot afford to lose Well 3 for those two years.

If Suburban fails to meet the deadline and Well 3 is removed from operation, the system will lose its most affordable water source and will need to take water from the more expensive and less reliable interconnections. This will result in an increase in the customers' water bill rates. Completing the PFAS treatment system within this rate case period can avoid this unjust burden to the customer.

The proposed revised rule, which rescinds four of the PFAS and extends the compliance deadline from 2029 to 2031, does not justify delaying this project until the next rate case period. This proposed rule is merely speculative at this stage and has not been finalized. The USEPA intends to finalize the rule by Spring of 2026, well beyond this rate case filing. Suburban cannot assume with certainty that the revised rule will be finalized by then and instead must operate under the current final PFAS regulation, with the deadline of 2029. In addition, the proposed revised rule keeps the regulation for the two PFAS MCLs that Well 3's groundwater exceeds (PFOS and PFOA). This affirms that Well 3's PFAS levels are not safe for Sativa's customers to ingest. Until PFAS treatment is installed for Well 3, Sativa customers will continue to ingest PFOS and PFOA at levels that the EPA has declared unsafe. PFAS must be removed from Well 3 as soon as possible to provide customers with the highest-quality and healthiest water available. The known adverse long-term health effects of ingesting PFAS cannot continue, and the PFAS must be removed from Well 3 promptly.

Even if the proposed revised rule extends the PFAS deadline to 2031, any delays to the project due to the long permitting turnaround times, the lead times on equipment due to high demand from several utilities to meet compliance, the coordination with Edison to relocate their facilities, and the testing of the treatment system can easily push its completion past 2031. Knowing how long the project could take, it is irresponsible to postpone the PFAS treatment plant past this rate case and risk failing to meet the deadline.

If Suburban fails to meet the deadline and Well 3 is removed from operation, the system will lose its most affordable water source and will need to take water from the more expensive and less reliable interconnections. This will result in an increase in the customers' water bill rates. Completing the PFAS treatment system within this rate case period can avoid this unjust burden to the customer.

Until PFAS treatment is installed for Well 3, Sativa customers will continue to ingest PFOS and PFOA at levels that the EPA has declared unsafe. PFAS must be removed from Well 3 as soon as possible to provide customers with the highest-quality and healthiest water available. The known adverse long-term health effects of ingesting PFAS cannot continue and must be eliminated immediately.

Additional customer impacts from deferring the Well 3 PFAS treatment plant from this rate case period are explored in the following sections.

Water Quality

PFAS treatment must be installed for Well 3 to ensure that Sativa customers have a healthy source of water that avoids the adverse health effects from ingesting PFAS. Well 5 is likely to exceed the PFAS MCL based on its historical data and proximity to Well 3. The City of Compton interconnection also has PFAS levels exceeding the MCL and is not an acceptable alternative to Well 3. Treating Well 3 to ensure the customers have water compliant with PFAS regulations supports the CPUC's ESJ Goal #6 - ensuring consumer protection and safety for all, especially for ESJ communities.

Affordability

EPA's final regulation requires water utilities to notify the public of PFAS MCL violations. Upon being notified that there is a contaminant in their drinking water that could cause adverse health effects, customers lose trust in tap water and substitute with

bottled water. Bottled water is significantly more expensive than tap water, adversely affecting household budgets. This is particularly problematic for disadvantaged communities that can ill-afford the higher water costs associated with substituting bottled water.

Suburban's tap water costs customers approximately 0.6 cents per gallon, compared to bottled water that can cost a couple of dollars per gallon; more than 300 times more expensive than tap water. Comparatively, tap water is very affordable, even including the incremental cost of treatment equipment.

Installing PFAS treatment at Well 3 ensures that these negative affordability outcomes are avoided and supports CPUC's ESJ Goal #3 - water affordability and access to high-quality water.

Fire Protection

Taking Well 3 out of operation would be detrimental to the fire flow available for fighting fires to protect customer's lives and property. Without accounting for the unreliable interconnections, the system would fall well below to meet the County of Los Angeles Fire Code requirement of 1,250 GPM at minimum 20 psi residual pressure for 2 hours. Should Well 3 be taken offline, Well 5 is the only Suburban-owned source to provide water for fire protection. Well 5 has a maximum capacity of 650 GPM, failing to meet fire flow requirements.

Fire flow can come from the City of Compton and Liberty Utilities interconnections; however, this is not an acceptable solution. In the event of widespread fires that affect any combination of Sativa, City of Compton, and Liberty Utilities jurisdictions, the agencies will prioritize their own customers, and these sources may not be available for the Sativa water system.

Considering the recent Palisades and Eaton Fires, it is imperative for systems to have as many water sources as possible in the event of widespread fires. Destructive wildfires that spread to residential areas are becoming increasingly more frequent due to climate change. Unfortunately, the Sativa residents are some of Suburban's most vulnerable customers to fires. The Sativa system has a large quantity of undersized 4" pipes and antiquated 4" fire hydrants, which result in poor fire flows across the service area. In addition, the Sativa neighborhood is a dense all-residential community with little separation between properties. In consequence, a fire at one property could quickly spread to adjacent homes and then engulf the neighborhood at large if proper fire flow is not available. With the current state of its infrastructure, the Sativa water system is not prepared to protect the customers from widespread fires. However, installing treatment at Well 3 ensures that a critical water source for Sativa customers' fire protection will remain in operation, providing the best fire protection possible until the necessary capital improvements are made. This supports the CPUC's ESJ Goal #6 - ensuring consumer protection and safety for all, especially for ESJ communities.

Suburban hired a consultant, Wood Rodgers, to run a hydraulic model to evaluate the system's current fire protection. The results of the hydraulic model can be found in Workpapers Volume III, P-10, Appendix 4. The model was performed with Well 3 as the primary source and the interconnections as active backups. Even with this scenario, the analysis found that 18% of the system's fire hydrants fail to meet the requirement of 1,250 GPM at 20 psi for 2 hours. Figure 3 of Workpapers Volume III, P-10, Appendix 4 shows the deficient fire hydrants in the system. This demonstrates the inability of the system, even with the current sources, to provide sufficient fire protection to the customers. Therefore, the customers cannot afford for Well 3 to be removed from operation, which would only exacerbate the system's fire protection deficiencies.

Suburban must invest in the infrastructure to improve fire protection, including constructing PFAS treatment for Well 3 to keep this critical source in operation.

Treatment Alternatives

PFAS is the only option to keep Sativa Well 3 in operation. Blending the well water to reduce the PFAS contamination level to below the MCL is not an option. There are no reliable water sources for the Sativa system that can blend Well 3 water to below the MCL and there are no pipes or tanks to facilitated blending. Well 5 has not been monitored to demonstrate that it could blend with Well 3 to reduce the PFAS level to below the regulation. The interconnections are not reliable sources for blending water since the City of Compton has a higher PFAS contamination level and the Liberty Utilities interconnection is too costly.

In 2024, Suburban sent out a Request for Proposal to select a consultant to evaluate the most feasible and cost-effective PFAS removal treatment options. WaterWorks Engineers was selected to perform the evaluation. Workpapers Volume III, P-10, Appendix 3 contains WaterWorks' Alternatives Assessment and Final Conceptual Design Report for the Well 3 PFAS treatment. WaterWorks indicated that there are three treatment methods to remove PFAS from drinking water. The methods include the use of Granular Activated Carbon (GAC), Ion Exchange (IX), and high-pressure membranes such as Reverse Osmosis (RO). Although RO has been proven successful, the high cost of energy and operational challenges with handling the brine discharge do not make this alternative feasible. WaterWorks evaluated the GAC and IX treatment alternatives for Well 3.

Granular Activated Carbon (GAC) Adsorption

GAC adsorption is an effective treatment for removing PFAS in drinking water. Research demonstrated that GAC could remove up to 100% of PFOS and PFOA. Adsorption is the

physical and chemical process of accumulating or adhering of atoms, ions or molecules from a gas, liquid or dissolved solid to a surface. Activated carbon is an effective adsorbent because it is highly porous and provides a large surface area to which contaminants are adsorbed. GAC is made from organic materials with high carbon content such as wood, lignite, and coal. In addition, GAC has the potential to treat tetrachloroethylene (PCE), which is found in Well 3's groundwater at slightly below half of the EPA's MCL.

Ion Exchange (IX)

IX treatment is an effective treatment process for removing PFAS in drinking water. IX is the process by which anions on a positively charged resin are replaced with negatively charged PFAS molecules. PFAS also adsorbs to the resin, so both removal processes are present in the treatment process. Compared to GAC, the IX treatment vessels have a smaller footprint and lower height, making it more visually appealing. IX media is more expensive than GAC media per unit volume but typically requires less media changeouts than GAC.

Modeling Results

Using Well 3's water quality and operational parameters, WaterWorks utilized PFAS treatment process modeling software to evaluate the effectiveness of GAC and IX treatment. In summary, WaterWorks recommended GAC over IX for the treatment system for Plant 804 Well 3. The determining factor was the effects of the uranium in the groundwater on the media.

Uranium accumulates on both GAC and IX media. If the accumulated uranium exceeds 0.05% of the weight of the media, it is classified as low-level radioactive waste. Low-level radioactive waste would necessitate a license from the Nuclear Regulatory

Commission, require storage at limited available sites, need costly treatment from an outside agency, incur great liability to Suburban, and pose health risks to the operators who are exposed at the site. Due to these challenges, it is best practice to avoid uranium accumulating to the point of creating radioactive waste. Therefore, the GRC or IX PFAS treatment media must be changed out before the accumulated uranium reaches the 0.05% weight threshold.

Uranium accumulation occurs at a faster rate on IX media compared to GAC. Table 5 captures WaterWorks' estimated Well 3's uranium accumulation on GAC and IX media. GAC is estimated to treat over four times the volume of water as IX before the uranium percent weight reaches the threshold for low-level radioactive waste.

Table 5 – Estimated Uranium Accumulation onto GAC and IX Media for Well 3

Media	GAC	IX	Units
% Raw Water Ur onto Media	90	100	NA
Maximum Uranium	9.4	9.4	µg/L
Modeled Throughput to 0.045% by weight	26,000	32,000	bed volumes
Vessel Volume	640	115	ft^3
Resin Weight	8,855	2,195	kg
Volume Treated	124,800,000	27,500,000	gallons
Uranium	3.99	0.98	kg
Percent by Weight	0.045%	0.045%	NA

As a result, an IX treatment system will require more media changeouts compared to GAC. In addition, IX media is substantially more expensive than GAC media. As a result, the overall cost for an IX treatment system would greatly exceed that of a GAC treatment system. Table 6 and Table 7 compare WaterWorks' cost estimates for the two treatment alternatives.

Table 6 – WaterWorks' Cost Estimate for GAC PFAS Treatment System

Parameters	Value
Capital Cost	$2.3M
O&M Cost[a]	$150K/year
20-Yr. Net Present Worth	$4.2M
Cost/Acre-Foot	$610/AF

Table 7 – WaterWorks' Cost Estimate for IX PFAS Treatment System

Items	Value
Capital Cost	$2.3M
O&M Cost[a]	$330K/year
20-Yr. Net Present Worth	$6.4 M
Cost/Acre-Foot	$940/AF

The tables demonstrate that GAC is the substantially more affordable option for effectively treating Well 3's PFAS. For this reason, WaterWorks recommends the GAC treatment system.

Cost Benefit Analysis

Installing the PFAS treatment plant at Well 3 will prevent customers from paying unnecessarily high water costs. Without treatment, PFAS contamination will prevent the use of Well 3 requiring the purchase of substantially higher costs from interconnections. This project will save customers more than $176 million over the estimated lifespan of the treatment plant, as shown in the enclosed cost-benefit analysis in Workpapers Volume III, P-10, Appendix 5.

If Suburban can no longer operate Well 3 due to PFAS contamination, Suburban must purchase interconnection water from the City of Compton to make up for lost production to meet demand. If the City of Compton interconnection is no longer available due to their own PFAS contamination, then Suburban would need to purchase from Liberty Utilities to meet demand. Table 8 compares the cost of Central Basin water with City of Compton and Liberty Utilities. The cost in 2025 to purchase City of Compton water and Liberty Utilities

water is $1,794/AF and $3,600/AF, respectively. By comparison, Suburban's cost to produce Central Basin water from Well 3 is $546/AF, which is a third of the cost of City of Compton and one-sixth of the cost of Liberty Utilities. Purchasing more interconnection water would significantly increase the cost of water to Suburban's customers. To be conservative, the cost-benefit analysis determined the savings from the project compared to purchased water from the City of Compton, the lower cost interconnection. If the project is feasible when compared to City of Compton, it will be even more beneficial when compared to Liberty Utilities..

Table 8 – Cost to Pump from Central Basin Versus Interconnections

City of Compton Interconnection	$1,794/AF

Clearly, the cost of purchasing water through the interconnections is far greater than producing water from the Central Basin with the PFAS treatment system. Installing the GAC treatment system provides the customers with the most affordable water. Sativa customers cannot afford to pay higher costs for water from interconnections when a less costly source of water is available with the addition of PFAS removal equipment.

Internal Rate of Return

A cost-benefit analysis using Internal Rate of Return (IRR) was performed to demonstrate the financial benefit to customers resulting from increasing Central Basin groundwater production capacity to reduce the use of more costly imported water supplies.

IRR is a financial metric used to evaluate the financial benefit of investments. IRR is calculated as the discount rate that makes the Net Present Value (NPV) equal to zero. A

positive IRR indicates that a project's benefits exceed its costs over the lifetime of the project. A high IRR indicates strong financial performance and great value for customers.

Unlike break-even analysis, which only shows the number of years before the cumulative benefits exceed the cumulative costs, IRR provides a more comprehensive analysis of the benefits over the lifetime of the project because it:

- Accounts for the time value of money
- Includes all cash flows over the project's life
- Offers a standardized percentage to compare investment opportunities

In this case, the project produces a significantly positive IRR of 53.7%, demonstrating very strong financial benefit to customers.

Reliance on breakeven analysis is ill-advised because it is short-sighted and can result in passing on viable opportunities that substantially reduce costs, resulting in higher costs and less affordable water service for customers. For example, this project produces more than $176M of savings over the life of the project that would not be evident if the review was limited to breakeven analysis.

While less useful, the breakeven analysis for this project shows cumulative benefits exceeding cumulative costs one year after the well is operational. A one-year break-even point is very good for infrastructure projects, especially considering the assets will generate massive customer savings for decades beyond the break-even point.

The cost benefit analysis shows that the cost to continue pumping from Well 3 by installing and operating a PFAS treatment system offsets higher-cost supply from purchasing interconnection water, creating substantial cost savings for customers that keeps water service affordable for decades.

The cost of purchasing water through the interconnections is far greater than producing water from the Central Basin with the PFAS treatment system. Installing the GAC treatment system provides the customers with the most affordable water. Sativa customers cannot afford to pay higher costs for water from interconnections when a less costly source of water is available with the addition of PFAS removal equipment.

Reliability of Cost Estimate

For several reasons, WaterWorks' capital cost estimate of $2.3 million is far more accurate than the USEPA's Capital Cost Estimate Graph. WaterWorks is a third-party firm that specializes in water treatment and has extensive experience in providing engineering services for PFAS treatment systems, including cost estimates. Their Well 3 cost estimate is specific to the site's conditions, including the site work, electrical, structural, equipment, piping, and valves. WaterWorks diligently reached out to vendors to obtain the latest quotes that reflect today's prices.

This level of detail and expertise cannot be captured in the USEPA's Capital Cost Estimate Graph. The water industry has widely recognized that the graph is inaccurate. In fact, the American Water Works Association (AWWA) published a report in 2023 titled "WITAF 56 Technical Memorandum Update PFAS National Cost Model Report" that addresses the USEPA's graph. AWWA is the water utility industry's most trusted source of information. The report states that the USEPA's model significantly underestimates the cost of PFAS treatment systems. AWWA attributes this to the USEPA not accounting for the high inflation over recent years, failing to consider site-specific conditions for each treatment plant, and leaving out the costs of ancillary systems.

Alternatives

Alternative 1 – Do not install a PFAS treatment system at Well 3

This alternative does not install PFAS treatment at Well 3 and it will be shut off when the EPA's regulation becomes enforceable in 2029. The Sativa service area customers cannot afford the high costs, reduced liability and lack of priority that come from purchasing water through the interconnections when this well is shut off.

Alternative 2 – Install an IX PFAS treatment system at Well 3

This alternative installs an IX PFAS treatment system to remove PFAS from Well 3 to comply with the EPA's regulations. Well 3 would remain in operation to ensure safe, reliable and affordable water service to the Sativa service are customers.

WaterWorks analysis found that an IX system is substantially more expensive than the GAC system over its lifespan due to the more frequent media changeouts and greater cost per media. For this reason, IX system was not the recommended treatment system.

Alternative 3 – Install a GAC PFAS treatment system at Well 3

This alternative installs a GAC PFAS treatment system to remove PFAS from Well 3 to comply with the EPA's regulations. Well 3 will remain in operation to ensure safe, reliable, and affordable water service to the Sativa service area customers.

WaterWorks' modeling found that GAC is the most affordable option to effectively treat the PFAS at Well 3. For this reason, GAC is the recommended treatment alternative.

The conceptual design of the GAC PFAS treatment system is shown in Workpapers Volume III, P-10, Appendix 3, and the capital cost estimate is summarized below. The detailed capital cost estimate is in Workpapers Volume III, P-10, Appendix 6. The testimony's escalation discussion in the Construction Cost Escalation section provides additional information about escalating estimates.

Table 9 – Capital Cost Estimate for the Plant 804 Well 3 GAC PFAS Treatment System

Description	Quantity	Unit	Unit Cost	Cost
Supply & Install GAC System, Including Electrical, Structural, Piping, & Valves	1	Lump Sum	$ 2,000,000	$ 2,000,000
LA County Permit Costs	1	Lump Sum	$ 20,000	$ 20,000
Engineering Support Services (Design, Testing, Permitting)	480	Hours	$ 364	$ 174,720
Construction Inspector (In house)	240	Hours	$ 53	$ 12,689
Construction Inspector (Consultant)	960	Hours	$ 215	$ 206,400
Consultant Project Manager	96	Hours	$ 277	$ 26,592
Subtotal				**$2,440,401**
Escalation from 2025 to 2028			8.92%	$217,756
Subtotal				**$2,658,157**
General Administration			10.01%	$266,082
Subtotal				**$2,924,239**

Recommendation

Well 3 will be removed from operation because its level of PFAS exceeds the EPA regulations unless a PFAS treatment system is installed. The Sativa water system cannot reliably offset the loss of production from Well 3. Taking Well 3 permanently offline would be detrimental to the level of service provided to the Sativa customers, who have been historically underserved. Specifically, it would negatively impact on the affordability, reliability, and quality of the water served to these customers. Therefore, treatment must be installed to keep Well 3 in operation. The Well 3 PFAS treatment system must be installed in this rate case period to remove PFOS and PFOA from Sativa's water. The treatment plant is expected to take two years from the design to the construction completion. Therefore, the project must take place in this rate case period to be completed prior to the USEPA's compliance deadline. The GAC PFAS treatment system is substantially more affordable than the IX alternative and is the preferred treatment technology to be installed.To Conclude:

1. Suburban's Sativa water system customers cannot afford to consume water from Well 3 that is contaminated with PFAS. This project removes PFAS from the water.

2. Suburban's Sativa water system customers cannot afford to turn off Well 3 and rely on more expensive and less reliable water from neighboring purveyors. This project continues to provide access to the least costly groundwater source.
3. Suburban's Sativa customers deserve to be first in line for water supply and not have their water shut off when neighboring purveyors need water in their own systems. This project keeps the well that is wholly dedicated to supplying Sativa customers with service.

(P-11) Plant 201 Natural Gas Line Relocation - $403,962

Q72 Can 120,000 customers in Suburban's WLM service area afford to lose its primary supply during a power outage event?

A72 No. Suburban's customers cannot afford to lose access to water produced by the Plant 201 well field when there is a power outage event. Without this supply they would need to rely on undersized and unreliable purchased water sources to make up the difference which doesn't guarantee that Suburban's customers will receive water during emergencies.

Q73 Can Plant 201's gas engines operate without a natural gas supply line?

A73 No. The natural gas-powered engines at Plant 201 W-9 and W-10 need natural gas from the supply line from the Southern California Gas Company (Gas Company) service to operate

Q74 Can Suburban continue to use its existing natural gas supply line during and after the US Army Corps of Engineer's (USACE) project to reinforce the Whittier Narrows flood control damn?

A74 No. USACE will sever the line during their project to reinforce the Whittier Narrows flood control dam. USACE requires that Suburban relocate or remove its natural gas supply line.

Executive Summary

Replacing the high-pressure natural gas line is essential to maintain reliable water service from Plant 201 Wells 9 and 10 that are powered by natural gas engines. Suburban Water Systems (Suburban) has a high-pressure gas line that runs through the Whittier Narrows Dam to Plant 201, to supply fuel for engines that power pumps at Well 10 and Well 9. The natural gas line will be severed for the Whittier Narrows Dam Safety Modification Project by the US Army Corps of Engineers (USACE). Plant 201 is at the end of Southern California Edison's (SCE) power grid circuit and, and power outages are common; Suburban cannot operate its most critical water supply without reliability. Suburban must replace its natural gas line so that Well 10 remains in service and Well 9 maintains its reliability during a power outage.

Background

Two of Suburban's wells supplied with natural gas will be adversely affected by the Whittier Narrows Dam Modification Project. Suburban's Plant 201 site has 4 active production wells with a combined production capacity of 13,100 GPM. These wells are the primary source for 120,000 customers in the WLM service area.

The Flood Control Act of 1941 initiated the construction of the San Gabriel River Whittier Narrows Dam, owned and operated by USACE, and was completed in March of 1957. The San Gabriel River channel flows through Plant 201, and the Whittier Narrows Dam was constructed adjacent to the south end of Plant 201. That puts the entire Plant 201 site in the flood plain

Plant 201's natural gas supply line is a high-pressure 3-inch pipe, built after 1963 per DWG No. 62-1517, that crosses under the 605 Freeway and the eastern abutment of the Whittier Narrows Flood Control dam. The line runs northwest from that abutment to

Plant 201 to provide field to wells Plant 201 W-9 and W-10 that are powered by natural gas engines.

USACE completed a Dam Safety Modification Study in June 2019 that gave the dam a Dam Safety Action Classification (DSAC) rank of 1. A DSAC 1 is the highest ranking for incremental risk, and immediate action must be taken. Due to DSAC rank, USACE began the Whittier Narrows Dam Safety Modification Project to address safety concerns and hired Barnard Construction Company as the prime contractor. USACE will be retrofitting the east side of the dam along Rooks Rd. by hardening the dam's crest, abutments, and spillway, including the area where the gas line intersects. Suburban's existing gas line must be removed to facilitate this work.

Suburban is responsible for the cost to relocate the natural gas supply line because it was built after the dam, therefore USACE has seniority. This is different than the earlier relocation of Suburban's water pipe because Suburban had prior easement rights for the water line relocation, which resulted in USACE covering the relocation costs. Suburban must pay for the relocation of the natural gas line that powers some of the wells at Plant 201 to continue to provide reliable service to its WLM customers.

Justification

Reliability

The permanent removal of the gas line for Plant 201 reduces Suburban's water supply availability and reliability.

When supply reliability is reduced customer water service can be interrupted. Customers need water service for basic sanitation including handwashing, toilet flushing, bathing, washing clothes, drinking water, and cooking. Many businesses cannot operate when the water service is interrupted, and they lose revenue, and employees cannot work and don't get paid. Interruptions to service require customers to find alternate water sources like

more costly bottled water or leave the service area to use water elsewhere. For many low-income households bottled water and leaving the service are not options. Suburban's customers cannot afford to have the water service interrupted.

Plant 201 is the primary source of water providing 67% of the supply to Suburban's Whittier/La Mirada service area that serves 120,000 people. The system has various sources of supply, however, even with these other sources operating at maximum capacity the system cannot reliably meet the supply needs during the high demand period.

There are four operating wells at Plant 201. Well 7 and 8 run on electric motors, Well 9 has a combination drive and can run on electricity or natural gas, and Well 10 is powered by a natural gas engine. The following table summarizes the flowrate, power source and backup power supply for these wells.

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Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

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Without the natural gas supply line Well 10 cannot run at any time and Suburban would lose 29% (3,800/13,100pmg) of Plant 201's production capacity. If there was an electrical power outage event when the natural gas line is out of service, Well 9 and Well

10 could not run and the plant would lose 56% (7,300/13,100) of Plant 201's production capacity.

Plant 201's natural gas supply line will be removed when USACE begins work modifying the Whittier Narrows Dam. The loss of this fuel source will greatly reduce the regular and emergency production capacity from Suburban's primary source.

Suburban's customers cannot afford to lose a substantial portion of its primary water source under normal conditions, and more than half of its primary source during power outage events.

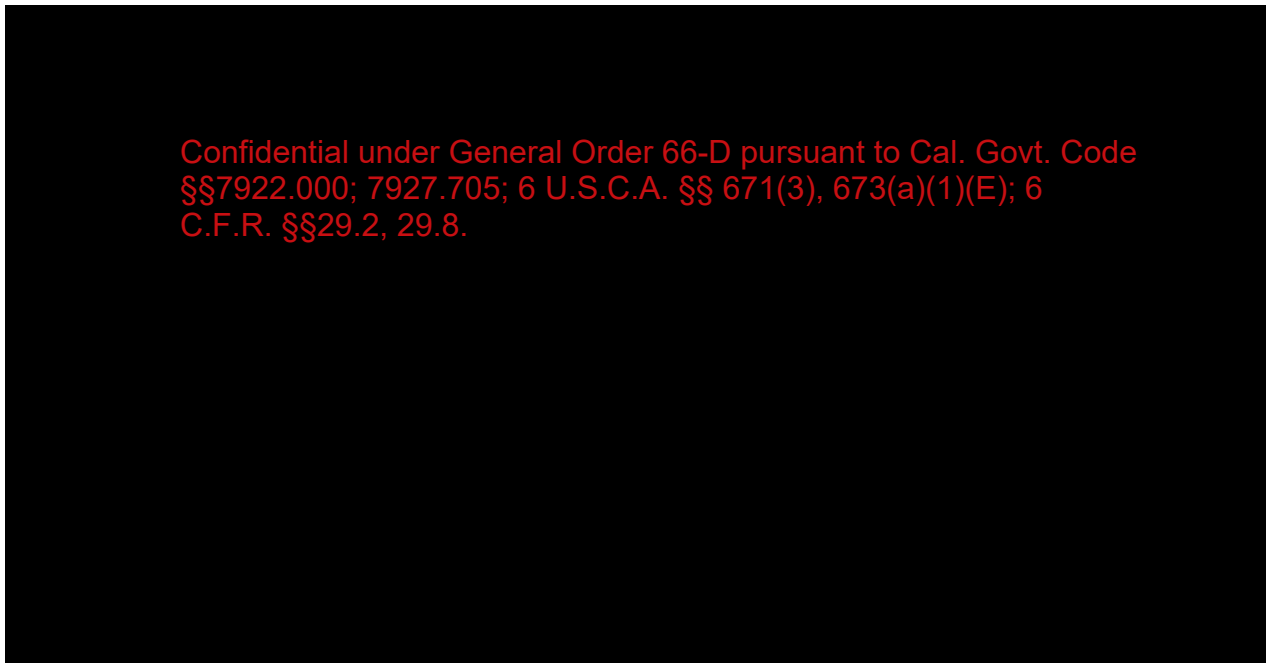
Fire Protection

Without the gas line, power outages and wildfire risks in the WLM service area can severely compromise firefighting capabilities and public safety. Portions of the WLM service area are in Cal Fire's fire hazard severity zones, and some areas are in the California Public Utility Commission (CPUC) Tier 2 and Tier 3 High Fire Threat Districts. Figure 1 shows the WLM district boundary overlaid on the Cal Fire hazard zones and CPUC fire threat districts.

On January 7, 2025, high wind driven wildfires spread into suburban neighborhoods in the Pacific Palisades and the Pasadena/Altadena area. These devastating fires destroyed 16,000 structures and kill 30 people. These areas were not classified as high fire danger areas. Firefights bravely fought the fires using the drinking water system and were able to prevent some of the damage and more importantly provided time for more than 200,000 people to evacuate. The death toll would have been substantially higher if the water system had not worked as designed to fight fires. Some areas of the water systems lost pressure due to loss of electrical power. This fire event highlighted the important role that backup power plays in providing a reliable supply of water for firefighting.

If the natural gas line is not replaced, Plant 201 will be less reliable and able to support firefighting in Suburban's WLM service area that includes some high fire danger areas. The gas line is essential for Suburban to provide reliable water supply for firefighting.

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Unreliable Third-Party Water Supply

If the natural gas line is not available and there is a power outage, Suburban will only have Well 7 and Well 8 available, requiring Suburban to rely on third party sources that are unreliable for the following reasons. There is no guarantee that Suburban will receive water from these connections. Connection agreements are written so that the supplying party can shut off supply if they need the water in their own system. This is very likely to be the case in a widespread fire emergency. Suburban has no control of the water quality received from third parties. With the raising concern of polyfluoroalkyl substances (PFAS), Suburban aims to ensure that its customers do not receive any water with PFAs above Maximum Contaminate Levels, and Notification Levels. Purchasing water from third parties is more costly than water produced by Suburban's Plant 201 wells. The

natural gas line must be relocated so that Suburban's customers can continue receiving water from this high priority and low-cost water source.

Alternatives

Suburban has explored several alternatives for relocating the natural gas line at Plant 201.

Alternative 1 – Do Nothing.

This alternative does not replace the natural gas line when it is severed by USACE to modify the dam. Suburban will no longer be able to run Well 10 and will not be able to rely on Well 9 for backup power. This is not a viable option because Suburban will lose at least 29% of its primary source under normal conditions, and 57% of its primary source during a power outage event. Additionally, there is no guarantee that water agencies will prioritize supplying water to Suburban's customers during a power outage and emergency. Doing nothing results in loss of production and customers having insufficient water supply.

Alternative 2 – Replace the Existing Gas Line After Dam Modification.

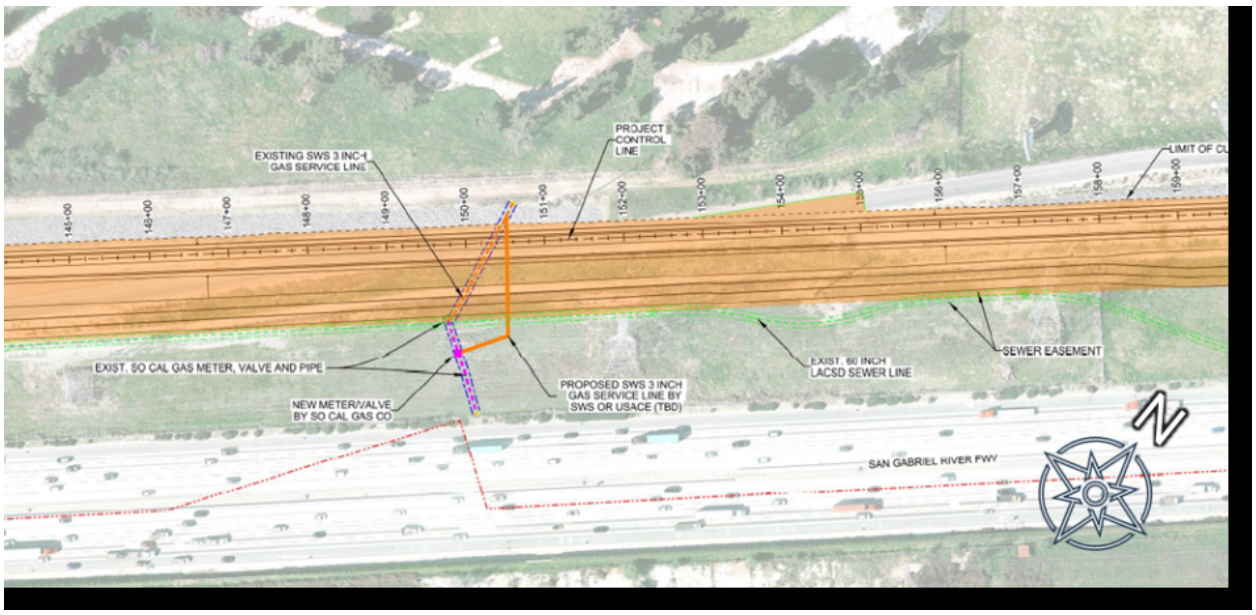
This alternative requires Suburban to work with USACE and Barnard Construction Company to install a casing through eastern abutment for a replacement natural gas line carrier line. USACE's preference is for Suburban to use USACE's prime contractor to do this work to avoid delays to the substantially larger federal contract. Once USACE completes the modification Suburban will be able to replace the gas line which is estimated to be completed in 2028. Suburban will temporarily not be able to operate Well 10 during the term of the dam's construction. The Gas Company meter will need to be relocated to make room to widen the abutment. Table 1 shows the estimated cost of replacing the gas line in place (see Workpaper Volume III-D, P-11, Appendix 1, 2, and 3). The proposed replacement natural gas line is shown in Figure 2. Alternative #2 is the

lowest cost approach for retraining the capacity of Well 9 and Well 10, however, these wells will be unavailable while the dam is under construction.

Table 2: Cost Estimation for Upgraded Gas Line

Task	Cost Estimate (2025)
SCGS Relocation of Gas Meter	$108,236
Design	$69,410
Construction	$136,981
Rent for Generator	$22,498
Sub Total (2025 Escalated to 2028)	8.92% $367,205
General Admission	10.01% $36,757
Estimated Grand Total	$403,962

Figure 2: Upgraded Gas Line for Alternative 2

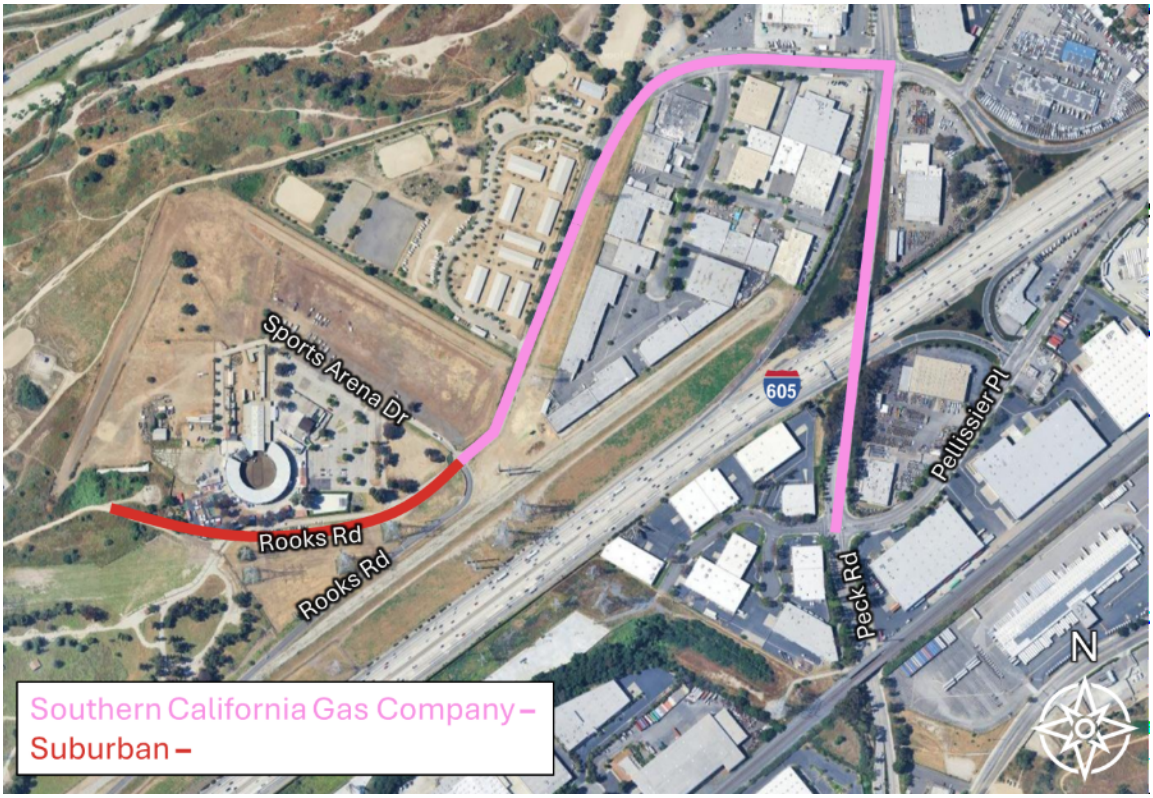


Alternative 3 – Rerouting the Gas Line.

This alternative involves the relocation of the gas meter and Suburban's natural gas pipeline. This alternative requires Suburban to abandon the current gas meter location

and have the Gas Company install a new high-pressure service from Peck Road (Rooks Road to Suburban's property adjacent to the Pico Rivera Sport Arena site). Suburban would be required to install the private gas line as shown in Figure 3. Suburban will be required to obtain an easement from USACE to access Rooks Rd to install and maintain the private gas line. The required natural gas pipeline exceeds 1 mile of pipeline and will cost more than **$1,578,704** (see Workpaper Volume III-D, P-11, Appendix 3) to design and construct. Alternative #3 allows for the gas line to operate again; however, it will take much longer to complete and it's the costliest option.

Figure 3: Reroute of Gas Line for Alternative 3



Alternative Analysis

Maintaining a reliable and cost-effective water supply is critical when evaluating the possible alternatives for the gas line. Alternative #1 is not feasible because Suburban will permanently lose the ability to operate Well 10. In the event of an electric power outage, Suburban will also lose Well 9. To ensure our customers have water, Suburban must

purchase expensive water, however, in the event of an emergency, there is still a risk that water may not be available. There is no benefit to our customers with this alternative. Alternative #3 is too expensive, will take longer to complete, and will require an easement from USACE. Suburban is cautious about the cost impact on our customers and wants to proceed with another affordable and faster solution. Alternative #2 is the lowest cost option that solves the problem. We expect the downtime to be manageable since we are planning this upgrade with the prime contractor, Banard Construction Company. This alternative provides customers with the most reliable and cost-effective resolution to the natural gas line conflict.

Conclusion

Suburban's customers cannot afford to have their primary water source reduced by 29% and have their primary water source reduced by 57% when the dam construction severs the natural gas supply line. If Well 10 becomes inoperable, it leaves our customers vulnerable to not having any water supply during power outages. Suburban cannot rely on third party sources because the quality and reliability of other water cannot be controlled, and the cost of water is higher. Alternative #2 to replace the existing pipeline in kind ensures the continued reliability of Plant 201 providing Suburban customers with dependable water service.

Appendices (see Workpaper Volume III-D, P-11)

Appendix 1 – Gas Relocation Carrolo Proposal

Appendix 2 – Generator Rental Quote

Appendix 3 – Gas Meter Relocation Cost Estimate

(P-12) Well Drilling and Equipping at Plant 216 - $3,606,894

Q75 Can Suburban's customers afford to pay $79,169,017 more for costly imported water?

A1 No, Suburban's customers cannot afford to pay $79 million for costly imported water when Suburban can construct a Central Basin well now that produces less costly water.

Q76 Can Suburban's customers afford to pay more for imported purchased water when less costly, more reliable, and lower greenhouse gas producing local groundwater is available?

A75 No, Suburban's customers cannot afford to pay more for imported water when less costly, more reliable, and lower greenhouse gas producing local groundwater is available. Suburban needs to drill a new production well in the Central Basin to produce its water rights.

Q77 Has Suburban completed the requirements specified in the previous General Rate Case decision 24-12-030 to proceed with the Plant 216 production well?

A76 Yes, Suburban has completed the requirements specified in the previous General Rate Case decision 24-12-030 to proceed with the Plant 216 production well. These requirements included building a test well, analyzing its results to see if treatment is needed, and reviewing the customer benefits. Suburban successfully completed the Plant 216 test well in September 2025. The results from the test well and the customer benefits are described in this testimony.

Executive Summary

Suburban Water Systems must develop a new production well at Plant 216 to ensure affordable, reliable, and climate-resilient water service for its customers. Imported water is significantly more expensive and less dependable than local groundwater, especially during droughts and emergency events such as wildfires. Suburban's Central Basin

groundwater rights remain underutilized due to declining capacity and water quality issues at existing wells.

Suburban has fulfilled requirements from CPUC Decision 24-12-030 that included the successful completion of a test well at Plant 216 in September 2025. The test results confirm that the site can produce 1,000 GPM of water with acceptable quality, requiring only manganese treatment and blending at nearby Plant 224 to meet drinking water standards.

Wells at Plants 409 and 410 suffer from reduced capacity and water quality degradation. With only two functioning wells, Suburban faces significant supply risk. A new well at Plant 216 will restore resiliency and allow full utilization of Suburban's unused Central Basin rights.

Financially, groundwater costs less than imported water. This project provides a positive Internal Rate of Return (IRR), directly benefiting customers through lower water bills and improved reliability.

Suburban must proceed with drilling a production well at Plant 216 to cost-effectively produce its Central Basin rights, enhance system reliability, and protect customers from the escalating risks of drought and climate change.

Background

Rate Case

In GRC Application 23-01-001 Suburban requested a test well, production well, and treatment plant at Plant 216. Decision 24-12-030 denied the production well and treatment plant but approved the test well, stating, "After the test well data becomes available and is analyzed, Suburban can plan for a production well by further reviewing if

treatment is necessary and the final design of a new well is beneficial to ratepayers." Suburban constructed the test well in 2025 and test results showed the site has acceptable water quality and capacity and a production well is feasible.

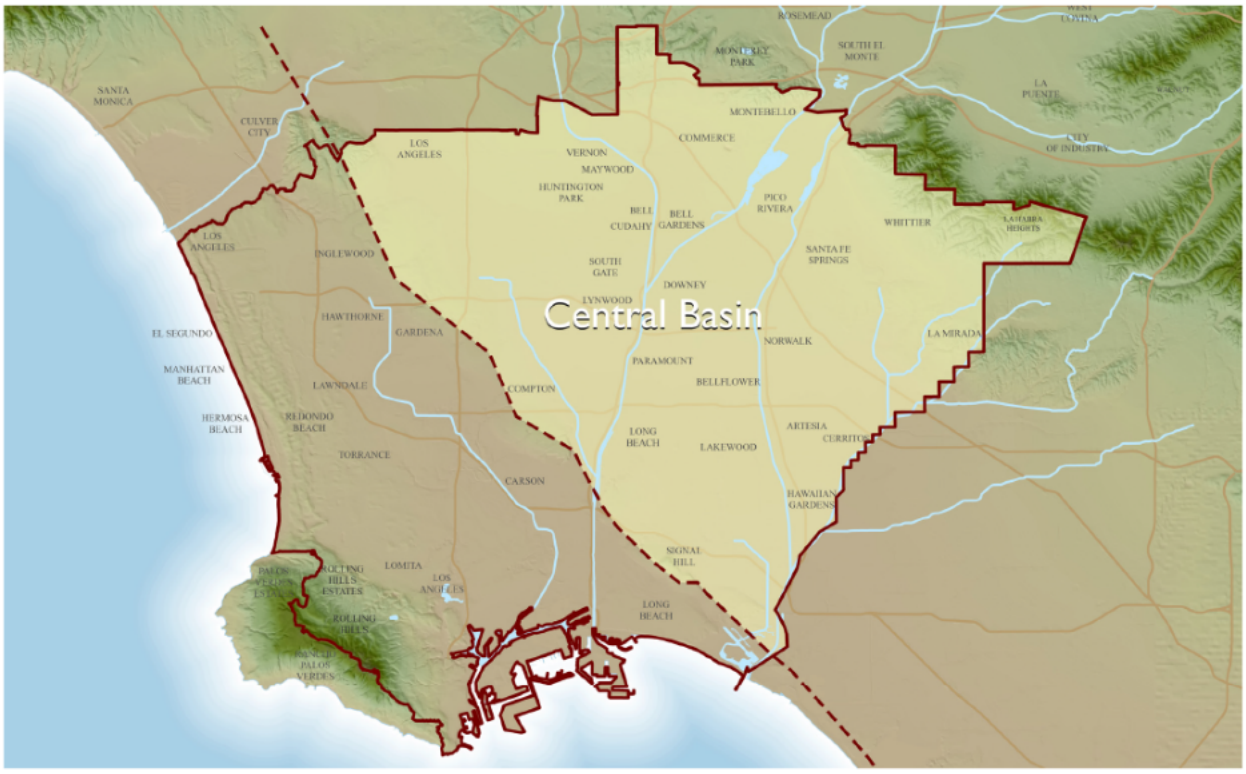
In this GRC application, Suburban requests approval to drill the production well in 2028 to give sufficient time for design, permitting, and construction. In the next rate case, Suburban will propose to complete the well equipment, electrical upgrades, piping, site improvements, and manganese treatment system necessary to produce water from the well and distribute it to the customers.

Central Basin

The Central Basin groundwater basin covers an area of 227 square miles in southeastern Los Angeles County and has several water aquifers (See Figure 1). Twenty-three (23) incorporated cities and several unincorporated communities lie within the service area shown in the exhibit below.

Groundwater overdraft and declining water levels in the Basin threatened the area's groundwater supply and caused seawater intrusion into the aquifers in the southern part of the basin. Adjudication of water rights and the creation of WRD halted the overdraft and prevented further damage to the Basin. Groundwater extraction from the Basin has been limited to the amounts set by a Superior Court Judgement and monitored by a court-appointed Watermaster. The judgment limits the amount of groundwater each Party may extract annually. This amount is known as the Party's Allowed Pumping Allocation or "APA." Suburban's APA is 4,195 Acre-feet.

Figure 1 - Central Basin Map



Suburban previously had several small-capacity shallow wells that produced its Central Basin groundwater rights to supply customers in its Whittier / La Mirada service area. Having multiple small capacity wells provided supply resiliency; the loss of any one well due to mechanical failure or water quality had a limited effect on the available capacity to the system. However, over time, these wells were taken offline and destroyed due to poor water quality from shallow aquifers. The following table shows Suburban's wells that have been destroyed:

Table 1 - Abandoned Wells in Central Basin



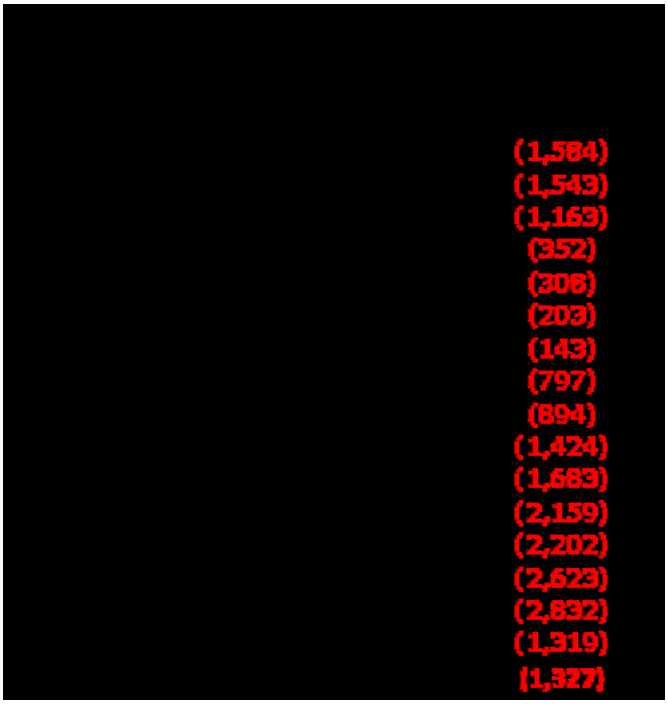
To replace this lost production capacity and produce its Central Basin groundwater rights, Suburban replaced these wells with larger capacity deep wells at Plant 409 and 410. Over time these wells have also suffered from water quality issues (color, manganese, arsenic) and production capacity declines due to changes in the aquifer and organic material growth leading to screen and formation clogging. Despite rehabilitation and redevelopment that maintains some of the critical production capacity, the diminished capacity in these wells is insufficient to produce all of Suburban's Central Basin water

rights. Suburban needs to develop additional Central Basin wells to produce its Central Basin water rights.

Relying on only two wells results in poor resiliency; the temporary or permanent loss of one or both wells will dramatically reduce Suburban's Central Basin groundwater production capacity. Suburban needs to develop additional Central Basin wells to increase production reliability.

Unused Water Rights

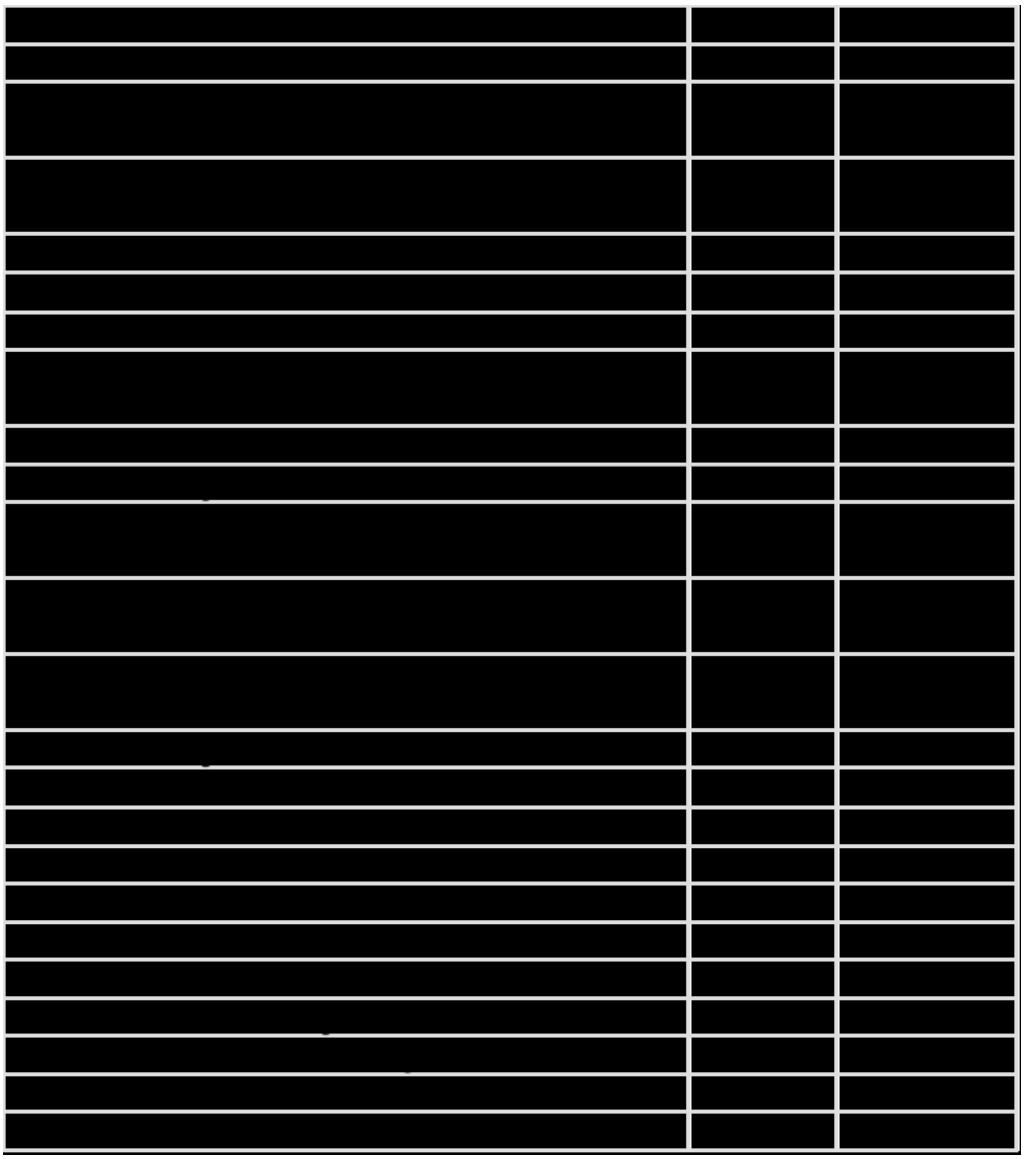
The following table summarizes Suburban's Central Basin groundwater production in the WLM system for the past sixteen years. The fourth column shows the difference between what was produced and the rights available to Suburban. The data shows Suburban has had an average of 1,386 AFY of water rights available at the end of each year. In December 2022, Suburban acquired the Sativa Water System. The table was updated beginning in 2023 to show the additional 474 water rights acquired with the system's purchase.



In the past Suburban has continuously developed and maintained its extraction capacity close to its APA. Over the years, groundwater extraction from the Central Basin has varied due to several factors, including changing water quality, basin levels, equipment malfunction, and declining production capacity. In 2020, arsenic was detected above the MCL for Plant 409 and the well was taken out of service until treatment to remove arsenic was installed. The well was out of service for two years. Most recently in May 2025, Plant 410's pump was pulled and inspected because pumping capacity unexpectedly decreased. Several holes in the pump's column were found and the pump was deemed in poor condition and replaced. The image below shows the holes in the column. The well was out of service for several months. These two examples demonstrate the need for additional Central Basin well capacity to improve reliability and avoid purchasing water that is costly for our customers.



The following table summarizes Suburban's recent efforts to develop and maintain well-pumping capacity in the Central Basin:



The following table shows that the cost savings benefit to customers is the same if Suburban produces previously unused owned water rights, or leases in unused water rights from other water right owners.

10	**Savings (Purchased - Pumped) ($/AF)**	**1054.89**	**1054.89**

Table 1a (PDF Page 22) of the draft 2024-2025 Central Basin Watermaster Annual Report (Workpapers Volume III, P-12, Appendix 1) shows that the total rights available were 386,728.99AF, and total rights produced was 168,966.44AF, leaving a balance of 217,762.55AF that was not produced. Of that amount, 56,171.23AF were carried over to

the 2025-2026 water year, indicating that 161,591.32AF of water rights "fell off the table" and will never be used. This indicates that there is a massive surplus of available water rights available for Suburban to lease and produce to save on the cost of water to customers.

Reliability

Q78 Can Suburban's customers afford poor supply reliability resulting from reliance on imported water sources?

A77 No. Suburban's customers cannot afford poor supply reliability resulting from reliance on imported water sources. Droughts are a recurring issue in Southern California, and more importantly, it is a growing problem in the Western United States. Snowpacks in the Sierra Nevada Mountain Ranges and the Colorado Rockies have been severely impacted, reducing the allocations to all users. The most reliable way to serve customers is by producing water locally from groundwater basins. The Central Basin is a vast underground reservoir. Suburban's existing limited production capacity results in unused Central Basin rights. Fully producing these rights reduces Suburban customers' supply risk due to the historic drought gripping the greater Western United States. A new production well is required to produce these rights.

The recent LA wildfires have demonstrated the need for system reliability from local water supplies. Suburban's tanks do not have sufficient emergency storage to combat fires for extended events. Water does not need to be moved from Northern California to Southern California, when there is an abundance of supply in our groundwater basins. Water stored in tanks must be replenished during power outages from sources such as groundwater wells. A chain of pumping facilities must have a reliable water supply where water is needed. The start of the chain are the pumps inside groundwater wells. This project improves reliability by adding a source of supply that is dependable during water shortage emergency events.

A 1,000 GPM well at Plant 216 would allow Suburban to produce all its Central Basin groundwater rights and provide the ability to temporarily take existing wells at 409 and 410 offline for maintenance without severely impacting operations. More importantly, it will ensure a more reliable water supply during shortage emergency events.

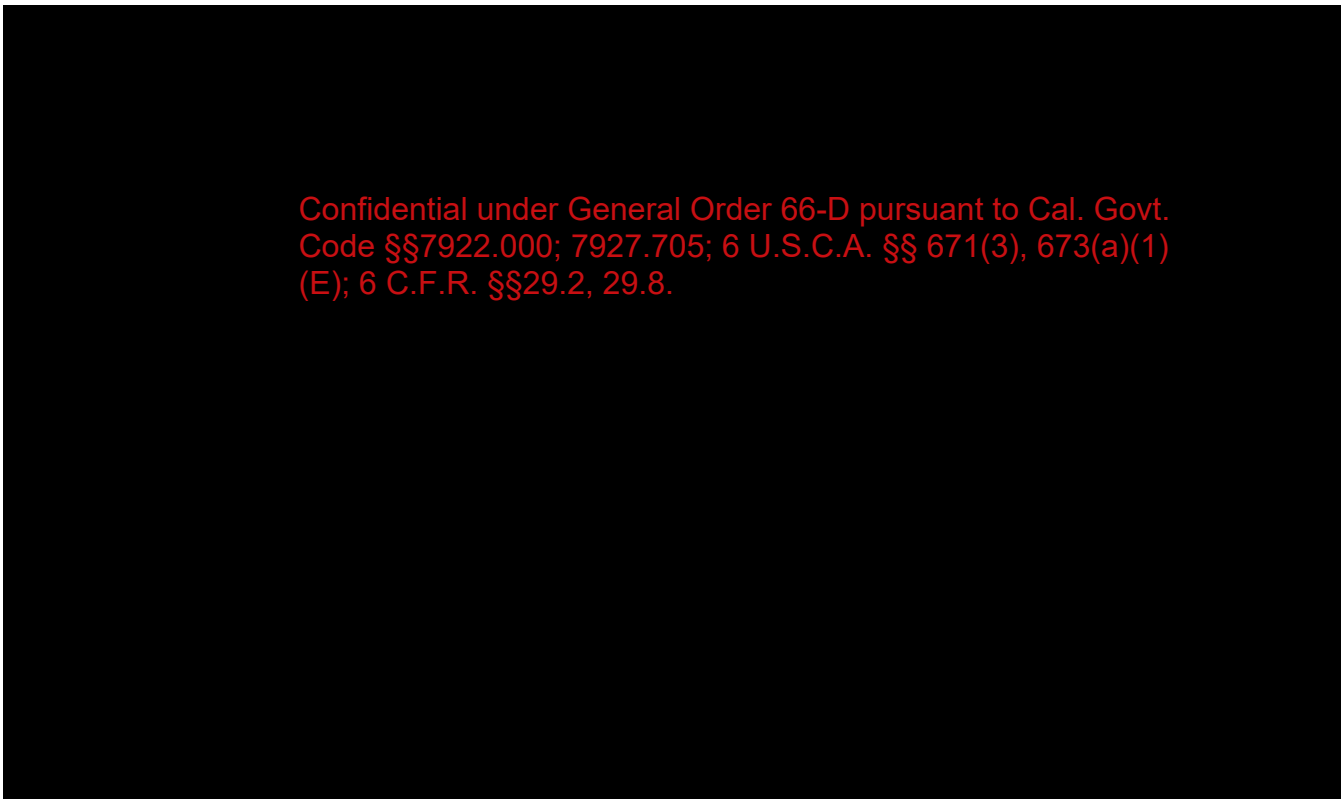
Project Justification

Plant 216 Close to Plant 224 for Blending

Suburban chose Plant 216 to construct this project because it is located in close proximity to Plant 224, where well water can be blended if needed (Figure 2). it meets DDW's Drinking Water Source Assessment Program (DWSAP) requirements (Suburban's third-party consultant, Intera, performed the assessment included in Workpapers Volume III, P-12, Appendix 2). This site meets DDW's 50-feet radius of control that ensures that the well's owner has complete control of the immediate area around the well to protect it.

The proposed location will efficiently use the existing reservoirs at Plant 224 for blending down the expected concentration of PFAS, particularly PFOS and PFHxS, which exceed their respective United States Environmental Protection Agency's (USEPA) maximum contaminant levels (MCLs). Approximately 10,000 GPM of Plant 201 and 3,500 GPM of CD water is delivered to the large reservoirs (total 7.0MG of storage, R1 = 2.49MG, R2 = 4.69MG) at Plant 224. The reservoirs are equipped with blending equipment, making them suitable for blending PFAS. The blending calculation shows that blending with Suburban Water will result in a PFOS and PFHxS concentrations of 0.32 ng/L and 1.76 ng/L, respectively. well below their MCLs. Only about 200 feet of yard piping is required to send water from Plant 216 to the Bartolo main for blending at Plant 224. This configuration is shown in Figure 2.

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Plant 216 Test Well Results

Suburban successfully fulfilled the Commission's requirements to move forward with the production well by completing the test well and analyzing its results to assess the customer benefits. In September 2025, Suburban completed a 16-inch diameter, 920 feet deep test well at Plant 216 to evaluate the groundwater quality and aquifer properties. The evaluation was performed by a third-party hydrogeologist, KYLE Groundwater. Testing results show that a production well can meet an expected minimum capacity of 1,000 GPM and be treated at the proposed Manganese treatment system and blended at the neighboring Plant 224 to meet water quality requirements. KYLE Groundwater recorded the test well results in their hydrogeological report (see Workpapers Volume III-D, P-12, Appendix 9). A summary of their findings is below.

Production Capacity: The test well results demonstrate that a Plant 216 production well would substantially increase Suburban's Central Basin production capacity. The hydrogeologist's test results show the site can support an estimated 1,000 to 1,500 GPM production well, enough to use the remainder of Suburban's Central Basin groundwater rights. A 1,000 GPM production capacity is used in this testimony to be conservative in the analysis of its benefits.

Water Quality: As directed by Decision 12-24-030, KYLE Groundwater's water quality report evaluates the test well's water quality results to determine if treatment is needed for the production well. The table below summarizes the water quality results from KYLE Groundwater's report.

Constituent	Units	MW-1S (486-506 feet bgs)	MW-1M (590-610 feet bgs)	MW-1D (826-846 feet bgs)	Regulatory Standard
Alkalinity, Total (as $CaCO_3$)	mg/L	300	86	280	-
Aluminum, Total	µg/L	93	ND	14	200[2]
Aluminum, Dissolved	µg/L	ND	ND	ND	-
Apparent Color	Units	ND	ND	ND	15[2]
Arsenic	µg/L	2.4	1.6	0.95	10[1]
Bicarbonate (HCO_3)	mg/L	360	100	340	-
Boron	µg/L	180	120	590	1,400[4]
Calcium	mg/L	99	23	120	-
Carbonate (CO_3)	mg/L	ND	ND	ND	-
Chloride	mg/L	140	34	170	500[2]
Chromium, Hexavalent	µg/L	0.94	ND	ND	10[1]
Chromium, Total	µg/L	1.1	ND	ND	50[1]
Fluoride	mg/L	0.51	0.93	0.54	2[1]
Hardness, Total (as $CaCO_3$)	mg/L	410	88	570	-
Iron, Total	µg/L	66	59	74	300[2]
Iron, Dissolved	µg/L	ND	21	ND	-
Magnesium	mg/L	39	7.8	64	-
Manganese, Dissolved	µg/L	3.9	ND	130	-
Manganese, Total	µg/L	15	41	**130**	50[2]
MBAS	mg/L	**0.63**	0.094	0.14	0.5[2]
Mercury	µg/L	ND	ND	ND	2[1]
Nitrate, as N	mg/L	5.7	ND	0.12	10[1]
Odor	TON	1	1	1	3[2]
Perchlorate	µg/L	3.5	ND	ND	6[1]

Constituent	Units	MW-1S (486-506 feet bgs)	MW-1M (590-610 feet bgs)	MW-1D (826-846 feet bgs)	Regulatory Standard
pH	Units	7.9	8.2	7.9	6.5 - 8.5[3]
Potassium	mg/L	11	2.3	7.2	-
Selenium	µg/L	3.1	ND	ND	50[1]
Sodium	mg/L	130	50	240	-
Specific Conductance	µmhos/cm	1,400	460	**2,000**	1,600[2]
Sulfate	mg/L	230	66	**580**	500[2]
Total Filterable Residue (i.e., TDS)	mg/L	880	290	**1,400**	1,000[2]
Turbidity	NTU	1.9	0.32	0.64	5[2]
Zinc	µg/L	ND	ND	ND	5,000[2]
1,2,3-Trichloropropane (1,2,3-TCP)	µg/L	ND	ND	ND	0.005[1]
1,4-Dioxane	µg/L	0.21	ND	ND	1[5]
Perfluorobutanoic Acid (PFBA)	ng/L	5.2	ND	ND	-
Perfluorobutane Sulfonic Acid (PFBS)	ng/L	5.2	ND	ND	-
Perfluoroheptanoic Acid (PFHpA)	ng/L	2.8	ND	ND	-
Perfluorohexane Sulfonic Acid (PFHxS)	ng/L	**18**	ND	ND	10[6]
Perfluorohexanoic Acid (PFHxA)	ng/L	5.7	ND	ND	-
Perfluorooctanesulfonic Acid (PFOS)	ng/L	3.3	ND	ND	4[6]
Perfluorooctanoic Acid (PFOA)	ng/L	**6.2**	ND	ND	4[6]
Perfluoropentanoic Acid (PFPeA)	ng/L	4.7	ND	ND	-
Hazard Index	–	**1.8**	ND	ND	1[6]

[1] California Division of Drinking Water (DDW) primary maximum contaminant level (MCL).
[2] DDW secondary MCL.
[3] United States Environmental Protection Agency (USEPA) secondary standard.
[4] USEPA Health Reference Level (HRL).
[5] DDW Notification Level.
[6] Federal MCL (compliance deadline effective April 26, 2029).
ND: not detected at or above the laboratory method reporting limit.
BOLD: reported in excess of regulatory limits.
mg/L: milligrams per liter.
µg/L: micrograms per liter.
µmhos/cm: micromhos per centimeter.
Ng/L: nanograms per liter.
NTU: Nephelometric Turbidity Unit.
TON: Threshold Odor Number.

The groundwater in this area is known to have high concentrations of Manganese that need to be addressed before serving to customers. KYLE Groundwater's water quality report found that the expected Manganese concentration is 86 µg/L confirming that it will need to be addressed prior to distribution. The Manganese will be removed by a treatment system installed at Plant 216. KYLE Groundwater's report also found that the groundwater's PFAS, particularly PFOA and PFHxS, exceed the United States Environmental Protection Agency's (USEPA) maximum contaminant levels that will come into effect in 2029. The PFOS and PFHxS will be blended down to acceptable levels at the neighboring Plant 224 before entering the distribution system. The water

quality results validate that it's feasible to treat the Plant 216 production well water for distribution.

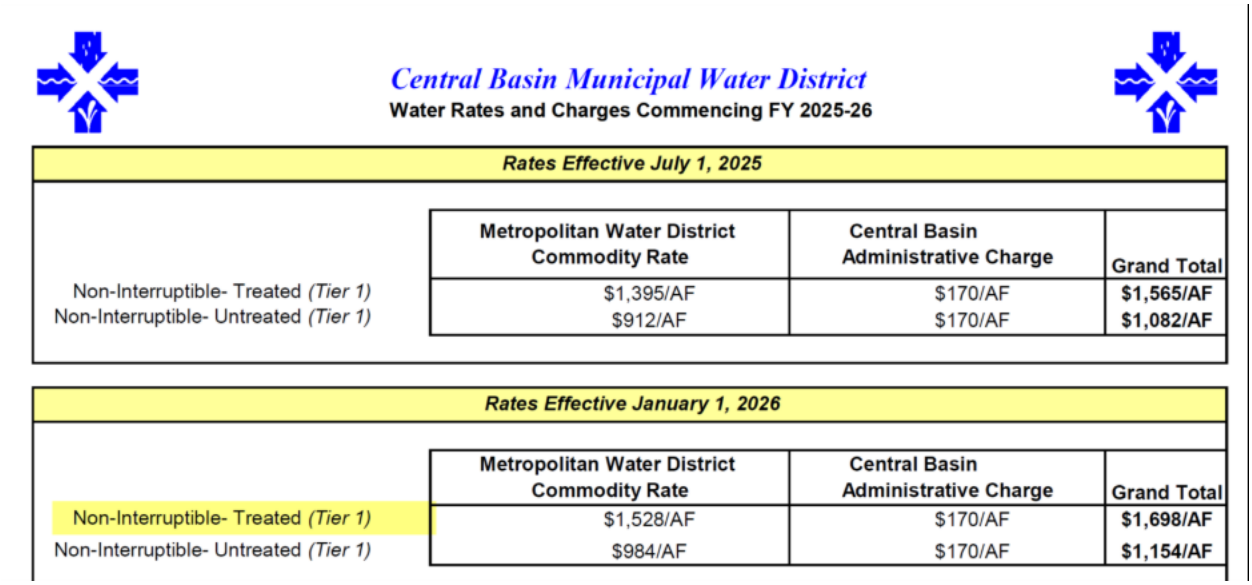
KYLE Groundwater's report concludes that the proposed Plant 216 site is a viable location for a production well that can produce a minimum of 1,000 GPM with water quality that, after installing a manganese treatment system and blending at Plant 224, will meet all applicable drinking water regulations.

Cost Benefit

The production of Central Basin rights from this project will save customers more than $79 million over the lifespan of the well, as shown in the enclosed cost-benefit analysis in Workpapers Volume III, P-12, Appendix 6.

If Suburban cannot produce Central Basin groundwater it must purchase Non-Interruptible water from the Central Basin Municipal Water District (CBMWD) to meet customer demand. CBMWD's Non-Interruptible Treated (Tier 1) was $1,185/AF in 2019 and has since increased to $1,698/AF in 2026. Figure 3 demonstrates the cost of purchasing water from CBMWD in 2025/2026. By comparison, Suburban's cost to produce Central Basin rights is $546/AF, which is a third of the cost of CBMWD. Therefore, Central Basin groundwater is less costly for Suburban to produce than other sources saving customers money on their water bills. Suburban must maximize its production from the Central Basin groundwater basin to minimize supply costs to customers. Due to the enormous surplus of unused water rights in the Central Basin, the cost savings benefit to customers provided by this project is not diminished by the construction of the Stage Rd Well in Section P-9 of my testimony.

Figure 3 – CBMWD Water Rates FY 2025/2026



Central Basin Municipal Water District

Water Rates and Charges Commencing FY 2025-26

Rates Effective July 1, 2025

	Metropolitan Water District Commodity Rate	Central Basin Administrative Charge	Grand Total
Non-Interruptible- Treated *(Tier 1)*	$1,395/AF	$170/AF	**$1,565/AF**
Non-Interruptible- Untreated *(Tier 1)*	$912/AF	$170/AF	**$1,082/AF**

Rates Effective January 1, 2026

	Metropolitan Water District Commodity Rate	Central Basin Administrative Charge	Grand Total
Non-Interruptible- Treated *(Tier 1)*	$1,528/AF	$170/AF	**$1,698/AF**
Non-Interruptible- Untreated *(Tier 1)*	$984/AF	$170/AF	**$1,154/AF**

Internal Rate of Return

A cost-benefit analysis using Internal Rate of Return (IRR) was performed to demonstrate the financial benefit to customers resulting from increasing Central Basin groundwater production capacity to reduce the use of more costly imported water supplies.

IRR is a financial metric used to evaluate the financial benefit of investments. IRR is calculated as the discount rate that makes the Net Present Value (NPV) equal to zero. A positive IRR indicates that a project's benefits exceed its costs over the lifetime of the project. A high IRR indicates strong financial performance and great value for customers.

Unlike break-even analysis, which only shows the number of years before the cumulative benefits exceed the cumulative costs, IRR provides a more comprehensive analysis of the benefits over the lifetime of the project because it:

- Accounts for the time value of money
- Includes all cash flows over the project's life

- Offers a standardized percentage to compare investment opportunities

In this case, the project produces a significantly positive IRR of 58.8%, demonstrating very strong financial benefit to customers.

Reliance on breakeven analysis is ill-advised because it is short-sighted and can result in passing on viable opportunities that substantially reduce costs, resulting in higher costs and less affordable water service for customers. For example, this project produces more than $79M of savings over the life of the project that would not be evident if the review was limited to breakeven analysis.

While less useful, the breakeven analysis for this project shows cumulative benefits exceeding cumulative costs one year after the well is operational. A one-year break-even point is very good for infrastructure projects, especially considering the assets will generate massive customer savings for decades beyond the break-even point.

The cost benefit analysis shows that Central Basin groundwater produced from Plant 216 **costs less than CBMWD, creating substantial cost savings for customers that keeps water service affordable for decades.**

Environmental and Social Justice (ESJ)

This project supports the CPUC's Environmental and Social Justice (ESJ) Action Plan by reducing Suburban's carbon footprint. Imported water requires significantly more energy to transport from Northern California or the Colorado River resulting in higher embedded energy demand and carbon footprint. Maximizing production from the Central Basin aquifer allows Suburban to minimize its carbon footprint.

This well will also ensure the lowest rates for customers in support of CPUC's ESJ goal for water customer resilience, item 3.2.2, acting on the affordability of water rates.

Lastly this project supports goal 4 of the ESJ plan by improving climate resiliency in disadvantaged communities by reducing the dependency on imported water that has been drastically impacted by years of droughts.

Project Description

Production Well Drilling & Equipping: The project includes drilling a production well at Plant 216 and installing pump equipment. Suburban proposes to complete the drilling in this rate case period and install the pump equipment in the next rate case period.

Manganese Treatment System: A filter vessel treatment plant is required to remove the Manganese that was found in the test well. Reports prepared by Loprest for similar manganese treatment plants at Plant 410 and Sativa Plant 803 show this type of treatment system is appropriate for the removal of manganese for this capacity. (see Workpapers Volume III, P-12, Appendix 3). An updated 2025 budgetary proposal for the design and construction of a Manganese treatment plant was submitted by Loprest for $1,854,603. Suburban plans to install this treatment system in the next rate case period.

Total Dissolved Solids (TDS): The high concentration of TDS found in the test well will need to be blended down prior to distribution. Only about 200 feet of yard piping is required to send water from Plant 216 to the Bartolo main for blending at Plant 224. This configuration is shown in Figure 2. Suburban plans to install this piping in the next rate case period.

Permits: Suburban has extensive experience in obtaining permits for similar projects with the City of Whittier. Suburban knows which permits are needed, how to obtain the permits, and how to schedule the phases of the project accordingly. Plant 216 is located on Whittier Blvd., where in 2015, the City adopted The Whittier Boulevard Specific Plan (WBSP). The WBSP represents zoning along Whittier Blvd. The plan intends to put the best of Whittier on display, reflected by the design, aesthetics, and architecture of the

structures built. The well project requires a Development Review and Conditional Use Permit from the City of Whittier to ensure it complies with WBSP. The permit application requires a noise and vibration study before the commencement of any work. Suburban's experience in 2013 with Plant 224 suggests this permit process will take 16 months to complete. Based on this expected permit length, Suburban can expect to drill the production well in 2028 and will complete the subsequent phases of equipping, piping, and treatment in the next rate case period. In addition, Suburban successfully worked with the City of Whittier to obtain all necessary permits to drill the Plant 216 test well. Clearly, Suburban has the expertise needed to obtain the permits for Plant 216 and complete drilling in 2028.

Alternatives

Alternative 1 – Continue to purchase more costly sources from Central Basin Municipal Water District (CBMWD), California Domestic Water Company, and Suburban's Main San Gabriel Basin wells. This Alternative is not recommended due to the higher cost for customers and the lower levels of reliability due to dependence on other parties. This also does not address the drought conditions experienced in the western US and does not improve customer climate resiliency and reliability. This approach provides no cost savings for water customers resulting in an IRR of 0%. This Alternative is undesirable and should be avoided.

Alternative 2 – Increase production at wells at Plant 409 and 410. This is not viable because the existing wells cannot increase their capacity. This alternative maintains the status quo and does not address consistent under-production of rights. Rehabilitation and Redevelopment are performed routinely at Plant 409 to maintain production but increasing production has been unsuccessful. Plant 410's well casing is in poor condition, and rehabilitation is not feasible.

Alternative 3 - Drill a production well at Plant 216, install yard piping for blending at Plant 224, and install a manganese treatment plant. The test well has proven the feasibility of a production well to meet capacity and water quality goals with the manganese treatment plant and blending at Plant 224. The location is close to other facilities required for blending and minimizing pipe required to connect it to the system. The project supports the CPUC's Environmental Social Justice (ESJ) goal for water customer resilience, item 3.2.2. This is the best option**.** This is the best alternative for our customers.

The table below shows the actual costs for the test well constructed in 2025 and the estimated costs for the production well, well equipping and piping, and the manganese treatment system by year. Suburban proposes $3,606,894 in 2028 to drill the production well and $6,274,153 in 2029 for the well equipping, piping, and the manganese treatment system.

Cost Estimate

Year	Description	Quantity	Unit	Unit Price	Total
2025	Test Well	1	Lump Sum	$ 702,596	$ 702,596
2028	Production Well	1	Lump Sum	$ 3,606,894	$ 3,606,894
2029	Well Equipping, Piping, Treatment	1	Lump Sum	$ 6,274,153	$ 6,274,153
	Construction Subtotal				**$ 10,583,642**

The cost estimate breakdown for Alternative 3 is shown in Workpapers Volume III, P-12, Appendix 5. The total project cost estimate increased by 16% from 2022 to 2025. This increase is primarily due to inflation affecting the costs of equipping and piping the well, as detailed in Section VI of my testimony. Prolonging this project will further increase the project and reduce the financial benefit customers receive. The original cost estimate was prepared in 2022, and since then, construction inflation has risen significantly:

- 12.73% in 2022
- 4.34% in 2023
- 2.64% in 2024

These inflationary pressures contributed to the overall cost escalation.

Alternative 4 – Drill a production well at Plant 216, install yard piping for blending at Plant 224, but do not install a manganese treatment plant. This alternative is the same as Alternative 3, but it does not include a treatment system that would remove manganese prior to blending at Plant 224. Instead, the manganese will be blended down without treatment. The blending calculation shows that the manganese from the Plant 216 production well will be blended down from 86 μg/L to 15 μg/L at Plant 224. This is below the secondary MCL of 50 μg/L which is based on aesthetic concerns; however, it is close to the Department of Drinking Water's (DDW) health protective concentration (HPC) of 20 μg/L. The State Water Resources Control Board's (SWRCB) meeting session on manganese dated October 7th, 2025, states that DDW's HPC level "serves as the basis for future recommended revisions to the current manganese notification and response levels" (see Workpaper Volume III, P-12, Appendix 4). This means that the regulatory levels for PFAS could change to 20 μg/L in the future, which may render blending Plant 216 production well water at Plant 224 insufficient on its own to reduce manganese to acceptable levels. DDW staff have indicated that, "Substantial evidence suggests that exposure to manganese at high levels may pose a neurotoxic risk particularly for formula-fed infants and young children" (see Workpaper Volume III, P-12, Appendix 4). The infants and children in Suburban's service area deserve the best water quality possible that does not pose risks to their health. Considering that blending

manganese at Plant 224 will only lower the manganese concentration to slightly below the HPC level, this is not the recommended alternative.

The cost estimate and cost benefit analysis for this alternative are in Workpapers Volume III, P-12, Appendix 7 and Workpapers Volume III, P-12, Appendix 8. This alternative results in an IRR of 116.4% and a total cost savings of $88,124,014 for customers over the lifespan of the Plant 216 production well.

Conclusion

Suburban's customers cannot afford to pay more for imported purchased water when less costly, more reliable, and lower greenhouse gas producing local groundwater is available. The Plant 216 well will allow Suburban to produce all its Central Basin groundwater rights to reduce water supply costs and make water more affordable for customers.

Suburban has addressed the concerns cited in the previous General Rate Case decision 24-12-030 to deny this cost-reducing Central Basin well, and the Commission should approve it.

Central Basin is the lowest cost source of supply for Suburban's customers, and there are few options for adding capacity to produce from the Basin. The Plant 216 production well will provide a financial benefit to customers and provide reliability by increasing the number of wells in the system. The project will increase drought resiliency by reducing dependency on imported sources, furthering CPUC's ESJ goals for rate affordability and climate resiliency. Suburban recommends Alternative 3.

(P-13) Plant 109 R-3 Rehabilitation - $1,234,505

Q79 Can Suburban's customers afford to lose fire protection when corrosion deterioration causes the Plant 109 R-3 steel tank to fail catastrophically?

A78 No. Suburban's customers cannot afford to allow the corrosion deterioration of the Plant 109 R-3 steel tank to continue unabated. The resulting catastrophic failure would result in the loss of critical water stored for fighting fires leading to property damage and even loss of life. The tank needs to be rehabilitated to protect customers.

Q80 Can Suburban's customers who live downstream afford the life and property damage that will occur when the deteriorated water tank fails catastrophically resulting in a destructive flood?

A79 No. Customers cannot afford the damage that a wave of flood water will cause to their property and even threaten their lives when the deterioration of the Plant 109 R-3 tank causes catastrophic failure that instantly releases millions of gallons of stored water to run downhill and collide with customers' houses. The tank needs to be rehabilitated to protect customers.

Executive Summary

The existing 2.5-million-gallon (MG) potable water steel tank at Plant 109, 109-R3, is experiencing algae growth, interior coating failure, corrosion, and metal loss. Algae growth must be addressed to ensure that Suburban customers are not receiving compromised water that can have consequences for their health. As the corrosion and metal loss continue, the tank will eventually collapse causing collateral damage to neighboring residents and significantly increasing costs for Suburban.

If R-3 is out of service, Suburban customers are vulnerable to insufficient water supply during emergencies such as fires. The alternative to close the tank's screen openings, remove the obsolete rain gutter, recoat the roof, spot repair the interior shell and floor,

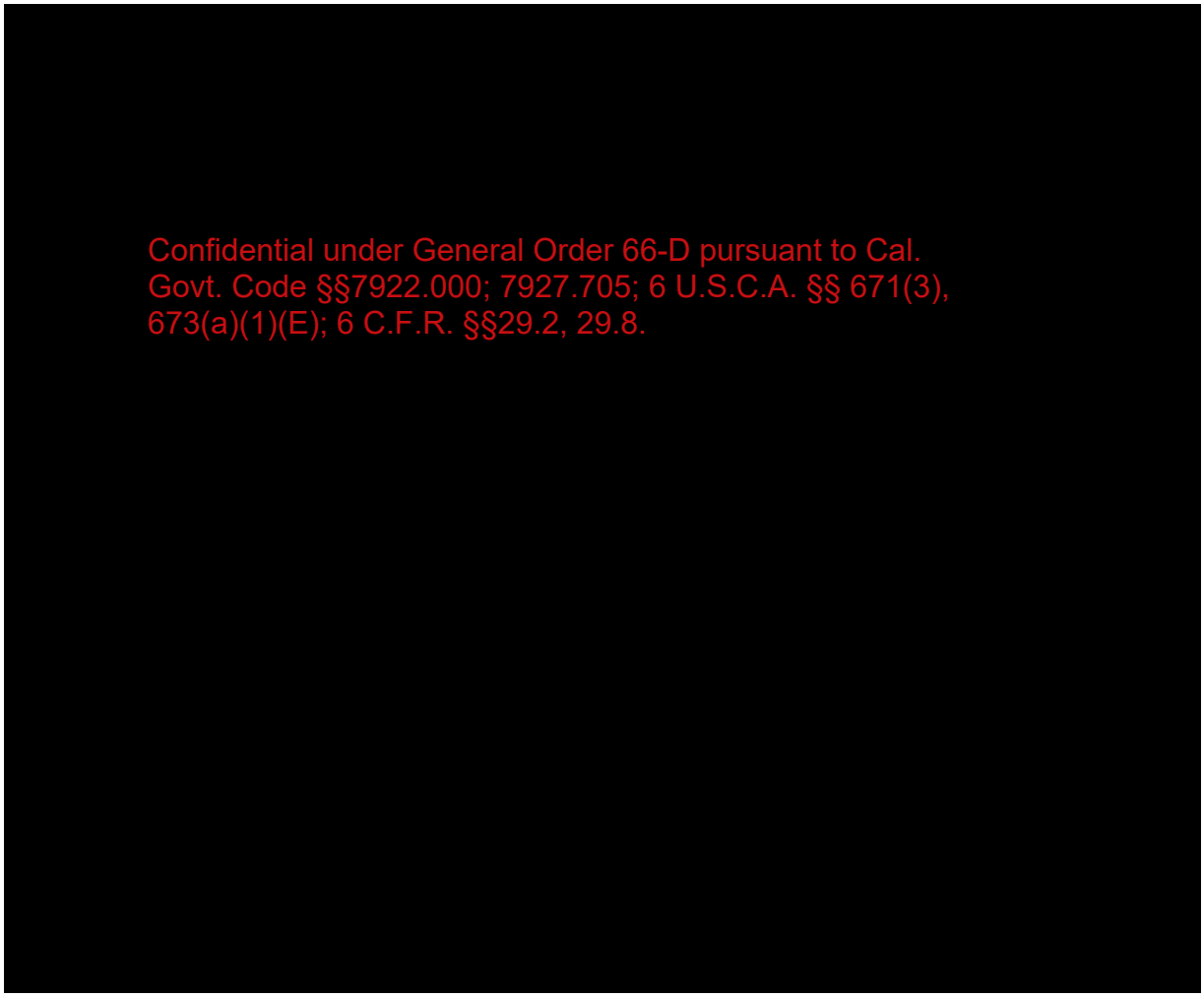
and the installation of a wagon wheel center support column, at a cost of $1,234,505, addresses all concerns at the most cost effective and timely manner.

This rehabilitation work will provide customers with a long-term solution to prevent poor water quality and ensure the tank's structural integrity and reliability. This project is critical to maintain a safe, reliable, and cost-effective supply of water to the customers served by this reservoir in addition to providing fire protection to customers located in high fire hazard zones. Suburban's customers cannot afford for the condition of this tank to worsen and fail.

Introduction and Background

One of Suburban's reservoirs at Plant 109 has been showing signs of deterioration that need to be addressed. Plant 109, located in the City of West Covina in the San Jose Hills service area, has two water tanks that are critical to providing water to customers across multiple zones. The reservoirs provide gravity supply to the 660 Zone and pump to the service area in the 880 zone. Reservoir 109-R2 is a 0.3 MG tank that was rehabilitated in April 2023. Reservoir 109-R3 is a 2.5 MG tank built in the 1960s and last recoated in 1996, three decades ago. The aerial photo in Figure 1 shows the tank's condition worsening.

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Suburban conducts routine structural inspections for steel reservoirs, including diving inspection inside the tank every three years to monitor the reservoirs' condition. CSI Services, Inc. performed an inspection of 109-R3 on 5/5/2024 (see Workpapers Volume III, P-13, Appendix 1). The inspection found problems with 109-R3's water quality and structural integrity that threaten its ability to provide safe and reliable water to customers.

Justification

The issues found during 109-R3's diving inspection must be addressed to ensure a safe and reliable water supply for Suburban's customers. Suburban's customers cannot afford to let the reservoir's water quality, structural integrity, coating failure, and ventilation

problems persist. The Plant 109-R3 rehabilitation project will greatly benefit Suburban's customers by implementing long-term solutions to these problems and lengthening the service life of this critical reservoir at a reasonable cost.

Water Quality

CSI Services, Inc.'s inspection found algae in the tank which directly compromises the water quality, putting Suburban customers at risk. The algae growth negatively impacts the quality of water served to customers. Algae blooms affect the color, taste, and odor (earthy and musty smells) of water served to the customers. Algae blooms also produce toxins that pose health risks to humans. Algae are growing in the water because sunlight is entering tank from obsolete ventilation screens in the roof tank. Ventilation is required to allow air to flow in and out the tank when it empties and fills. Modern vents do allow air to flow in and out of the tank while preventing sunlight from entering the tank. Upon finding algae, Suburban took the tank out of service and cleaned it. However, algae are expected to return until the vents are sealed and replaced to prevent debris and sunlight from entering the tank. This rehabilitation project will close the ventilation screens and install modern ventilation appurtenances. The reservoir's obsolete rain gutter will also be removed, as it collects leaves, dust, and moisture that can enter the tank and worsen the conditions. The health and safety of our customers is Suburban's highest priority; it is essential to ensure that the algae growth is addressed to avoid poor water quality that can harm customer health.

Structural Integrity

A steel water tank's coating system prevents the steel from corroding and losing structural integrity, and it must be maintained. The inspection report found 109-R3's exterior roof coating and steel in poor condition and the interior roof and shell in fair condition. The exterior roof has widespread peeling and spot corrosion. The interior lining has widespread blistering below the high-water line (HWL) and corrosion and peeling above the HWL on the roof, rafters, and shell. The inspection report recommends

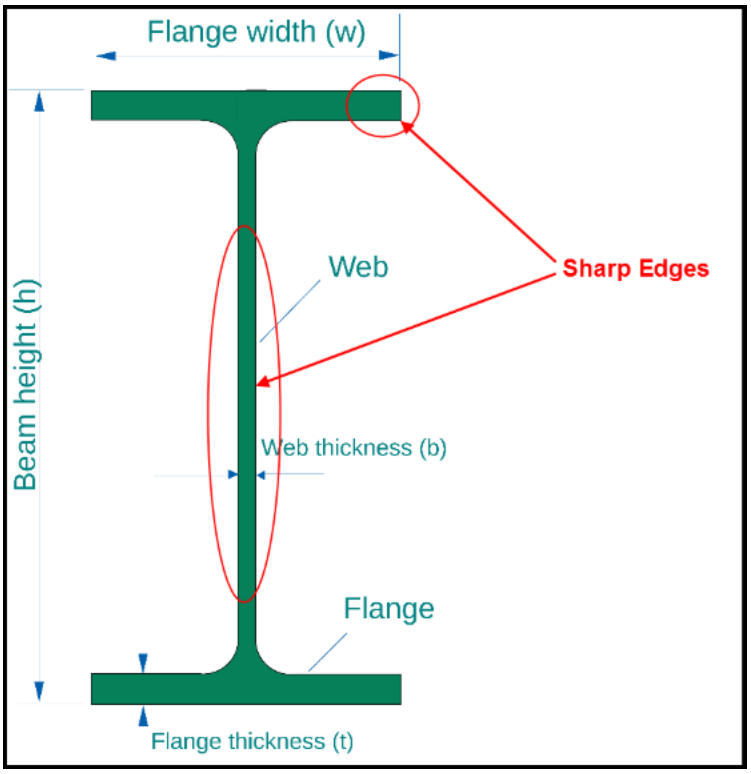
that the rehabilitation project recoat the roof's exterior and interior and spot repair the tank's interior shell and floor to prevent further deterioration and maintain the structural integrity of the reservoir.

The existing epoxy coating system has not been refurbished for 29 years, and its condition confirms that the coating system needs to be replaced, and spot repaired. The industry expectation for the service life for epoxy coating for steel water tanks is generally 20-25 years (see Workpapers Volume III, P-13, Appendix 2). East Bay Municipal Utility District serving Northern California, an industry leading water utility, schedules all the steel reservoirs to be recoated every 25 years (see Workpapers Volume III, P-13, Appendix 3).

Suburban's steel reservoirs have a cathodic protection system that adds a small electric current through anodes submerged in the water to provide a donor electron to the galvanic cell process, so it is not taken from the steel to prevent internal corrosion. The cathodic protection system only prevents corrosion on the submerged steel surfaces of the tank (walls, support columns, and floor). The roof and supporting rafters above the water line are only protected by coating and not by cathodic protection and are more susceptible to corrosion.

The atmospheric conditions inside the reservoir above the water level are very damp, which accelerates corrosion. Steel in this zone will rust, and structural steel members will become thinner until they lose their structural integrity. The supporting plate and rafters' ends have corners and sharp edges that are difficult to coat properly, as shown in Figure 2. They are located beneath the air vent where the corrosion potential is the greatest.

Figure 2. Illustration of Rafter Beam



Neglecting to proactively maintain 109-R3's structural integrity could result in a catastrophic failure of the reservoir. A catastrophic failure due to structural collapse would immediately take the reservoir out of service. It would take years and a substantial cost to replace the reservoir. Suburban's customers would experience significant service reliability reduction and even interruption of service if the tank's storage is not available. Customers would not be able to use water for sanitation (handwashing, toilet flushing, dishwashing, clothes washing), drinking, and cooking. Further, a loss of storage would dramatically reduce the water available for firefighting to protect customer life and property. It is critical to completely recoat 109-R3's interior roof and rafters because they are crucial to the reservoir's structural integrity and in their current deteriorated state, they are susceptible to structural collapse.

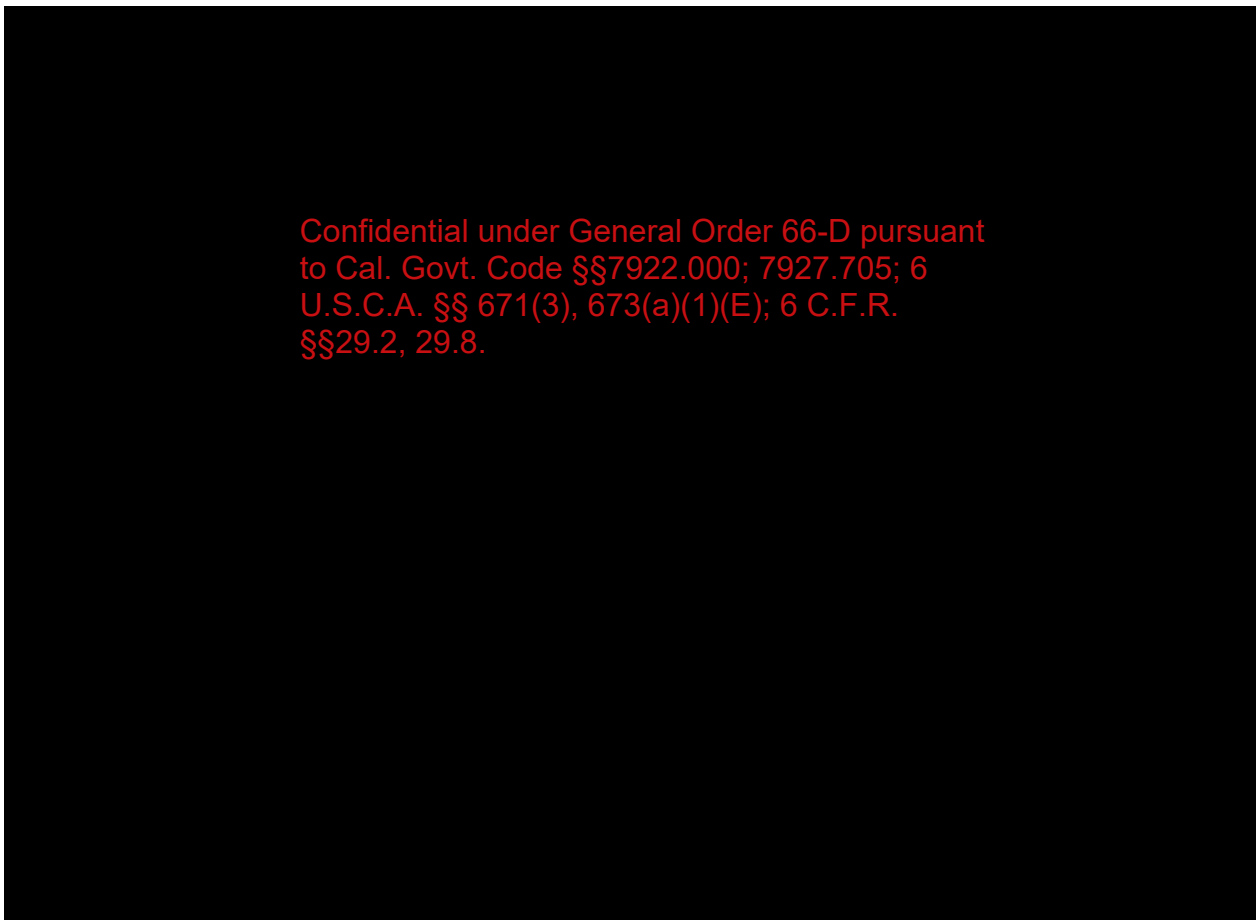
Fire Protection

Plant 109 R-2 provides firefighting support when water demands increase during fire related emergencies. Plant 109 reservoirs provide storage for gravity flow to the 660 zone for firefighting. Plant 109 reservoirs also supply water that is pumped to the 880 Zone. The 880 Zone is a closed zone that does not have a reservoir to provide gravity flow during emergency events. The tank at Plant 109 is critical to ensure that the 880 Zone pumps have sufficient water and suction pressure head to pump into the 880 zone.

Customers in 880 Zone are in the "Very High", "High", and "Moderate" fire hazard zones according to the California Department of Forestry & Fire Protection (CAL FIRE). Figure 3 shows the fire hazard area on Suburban's GIS map, Figure 4 shows the CAL FIRE – Fire Hazard Severity Zone Map, and Figure 5 (see Figure 5) shows the CPUC fire map. Both maps show that the area served by Plant 109 R-3 is at high risk of damage from wildfires. On January 7th, 2025, 9,000 structures in Altadena and Pasadena were destroyed, and 19 people died, 7,000 structures were destroyed in Palisades and 11 people died when high winds drove wildfires into neighborhoods like those served by Suburban's 880 Zone. This sobering event highlights the importance of having water available for firefighting in high-risk wildfire areas.

If Plant 109-R3, the larger of the two tanks, fails or is taken offline due to water quality concerns or further corrosion deterioration, the customers would lose a critical tank with water storage for fire protection. Considering the recent Palisades and Eaton Fires, it is crucial to maintain all water storage facilities, especially for fire hazard zones, to provide as much fire protection as possible in the event of widespread fires. It is vital that Plant 109 R-3 is rehabilitated to ensure water is available for firefighting.

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Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

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Safety

The catastrophic failure and collapse of R-3 would create a dangerous and disastrous situation for neighboring customers due to flooding. Plant 109 tanks were built in a hilly area with an elevation of 674 ft. There is a house located only 550 ft across the street from 109-R3. The house is at a lower elevation than the reservoir. A catastrophic structural failure of 109-R3 would result in a flood wave that would cause significant damage to the houses located below 109-R3.

This has happened before. The catastrophic failure of a 5-million-gallon water tank in Westminster, California, in September of 1998 resulted in flooding a neighborhood in Westminster, 6 injuries to residents, and damage to more than 50 homes. Fortunately, nobody was killed. An engineering report prepared 6 years before the incident reported that the tank had developed cracks and was leaking. The water district did not take steps to rehabilitate the tank and restore its structural integrity. Such catastrophic failures can be avoided by rehabilitating water tanks; Plant 109-R3 needs to be rehabilitated to keep neighboring residents safe.

Postponing the rehabilitation of R-3 will put residents and properties at risk of damage if R-3 fails catastrophically. Safety is Suburban's priority, and the rehabilitation of R-3 is essential in preventing damage and injury.

Ventilation

The existing vent and center column support system provides inefficient ventilation resulting in accelerated corrosion. The existing obsolete vent that allows sunlight into the tank needs to be replaced with a modern vent that allows air to flow in and out of the tank while preventing sunlight from entering the tank. The rehabilitation project will replace the tank's traditional dollar plate rafter support (see Figure 6) with a wagon wheel design and remove the rafter ends. Unlike the dollar plate, the open wagon wheel design has no

obstructions and allows more ventilation through the center roof vent. In addition, the wagon wheel will also slow down the corrosion rate on the roof rafters and give a longer service life to 109-R3. The improved airflow through the center roof vent reduces moisture accumulation on the rafter ends, which effectively slows down the rusting process.

If the obsolete dollar plate is kept in place, the existing problem of accelerated corrosion will continue, and the rafter ends and center cone will soon need to be recoated again. Figure 7 shows the wagon wheel design for the center column rafter support used in reservoir 109-R2 repair completed in 2022. Rehabilitation for R-3 will include an upgrade to a wagon wheel rafter support system that will significantly improve ventilation, increasing the lifespan of R-3.

Figure 6. Existing Dollar Plate Rafter Support at 109-R3



Figure 7. Wagon Wheel Design at 109-R2



Affordability

If the corrosion of structural elements in 109-R3 are not recoated and repaired the tank will likely collapse unexpectedly causing significant economic impact that will reduce the affordability of Suburban's water service. A replacement reservoir is estimated to cost $4,321,397. Further, the collapse of 109-R3 would result in substantial property damage to the neighboring area downhill from the reservoir. The cost of property damage from the 1998 Westminster tank failure was estimated to be $20 million ($50 million in today's dollars). These costs to customers can be avoided if the tank is rehabilitated; Suburban's customers cannot afford to let this tank fail catastrophically due to corrosion deterioration.

It is more cost-effective for our customers to rehabilitate R-3 now while the damage and costs are relatively small, rather than spending a lot more replacing a reservoir that has failed catastrophically.

Alternatives

Suburban has developed three possible alternatives for the outcome for Plant 109 R-3 due to its deteriorating conditions.

Alternative 1 – Do nothing. This alternative does not address water quality and structural concerns resulting in the reservoir being used until failure occurs. This option is untenable because removal of health risk causing algae requires the reservoir to be taken out of service for routine cleaning. Failure of the reservoir could be catastrophic resulting in substantial service and cost impacts to both Suburban and the customers. Customers cannot afford this option, and action must be taken.

Impact of Deferral

The longer repair and recoating are deferred, the more the roof rafters and dollar plate will corrode. Increasing corrosion increases the potential failure of the reservoir that will cause negative impacts on service and safety for customers. In addition, the longer the screen vent closure and gutter removal are deferred, the longer the water quality concerns will remain. Without rehabilitation, the reservoir will need to be drained and taken offline periodically to remove the algae. This is not an acceptable long-term solution because it does not address the root cause of the water quality problem and requires costly routine draining. Periodically taking the tank offline is detrimental to the water system's reliability, increasing the opportunity for customer service interruption, and causing limited fire protection required to protect customers' life and property.

Alternative 2 – Replace the 2.5 MG steel reservoir. Alternative 2 proposes demolishing the existing reservoir and constructing a replacement steel tank at the same

site. Suburban recently installed a new 2.4 MG steel reservoir 408-R4 with approximately $2,800,000 in 2018 dollars. Escalating this cost per the ENR Building Cost Index results in an estimated cost of $4,321,397 to build a 2.5 MG steel reservoir in 2028. This alternative is the most the costly approach that addresses the tank's structural problems and minimizes the risk to customers, however, it will take the longest to construct.

Alternative 3 – Rehabilitation + Wagon Wheel. Alternative 3 proposes rehabilitating the existing tank by removing the rain gutter, closing the screens beneath the roof, installing a wagon wheel center support column, removing rafter ends, recoating the interior and exterior roof, performing spot repairs on the rest of the interior.

This alternative rehabilitates the tank extending its service life. It addresses 109-R3's water quality and structural integrity concerns and maintains its ability to serve the customers with safe and reliable water. Below is the cost estimate for Alternative 3. The detailed cost estimate is in Workpapers Volume III, P-13, Appendix 4. The estimated 2025 cost is escalated to 2028 based on the "Construction Cost Escalation" section of the testimony.

Description	Quantity	Unit	Unit Cost	Cost
Coat interior reservoir vapor space and perform patchwork on interior reservoir shell, floor, and appurtenances, and disinfection.	1	Lump Sum	$662,817	$662,817
Recoat exterior reservoir roof, including proper disposal of existing coating system, abrasive blast cleaning, lead protection, prime coat and finish coat.	1	Lump Sum	$42,000	$42,000
Steelwork; closing vents, removing gutter, wagon wheel, roof hatch, center vent, sampling ports, and guard rails	1	Lump Sum	$164,027	$164,027
Fall Protection, Gaskets, Nuts & Bolts	1	Lump Sum	$27,800	$27,800
Cathodic Protection	1	Lump Sum	$7,574	$7,574
Structural Engineer	80	Hours	$345	$27,600
Design (Consultant)	80	Hours	$179	$14,320
Construction Inspector (In house)	160	Hours	$53	$8,459
Welding Inspector (Consultant)	160	Hours	$135	$21,600
Coating Inspector (Consultant)	480	Hours	$110	$52,800
Prepare Specifications (Consultant)	1	Lump Sum	$1,250	$1,250
Subtotal				**$1,030,247**
Escalation from 2025 to 2028			8.92%	$91,929
Subtotal				**$1,122,175**
General Administration			10.01%	$112,330
Subtotal				**$1,234,505**

Alternative Analysis

The following compares Suburban's review of the alternatives and provides a recommendation for the best approach to the Plant 109 tank's structural issues. Alternative #1 is not feasible because it does not resolve the water quality and corrosion problems and does not prevent the degradation of the integrity of the reservoir. Alternative #2 is not recommended because it is the highest cost approach to resolve water quality and structural integrity problems.

Alternative #3 is the preferred solution because it protects 109-R3's structural integrity, extends the service life of the reservoir, eliminates the existing water quality issues, and provides reliability, quality, and safety of service to Suburban's customers.

Conclusion

Suburban's customers cannot afford to have water contaminated with algae, cannot afford a catastrophic failure that interrupts service and damages property, and cannot afford to lose fire protection required to protect life and property. Suburban recommends Alternative #3 to rehabilitate the tank.

(P-14) Plant 115 R-2 Rehabilitation - $203,936

Q81 Can Suburban's customers afford to lose fire protection when corrosion deterioration causes the Plant 115 R-2 steel tank to fail catastrophically?

A80 No. Suburban's customers cannot afford to allow the corrosion deterioration of the Plant 115 R-2 steel tank to continue unabated. A catastrophic failure would result in the loss of critical water stored for fighting fires leading to property damage and even loss of life. The tank needs to be rehabilitated to protect customers.

Q82 Can Suburban's customers who live downstream afford the life and property damage that will occur when the deteriorated water tank fails catastrophically resulting in a destructive flood?

A81 No. Customers cannot afford the damage that a wave of flood water will cause to their property and even threaten their lives when the deterioration of the Plant 115 R-2 tank causes catastrophic failure that instantly releases half a million gallons of stored water to run downhill and collide with customers' houses. This outcome can be prevented by protecting customers with the rehabilitation of R-2.

Executive Summary

Suburban Water Systems (Suburban) has a 0.5 million-gallon (MG) potable water steel tank, Reservoir 2 (R-2), at Plant 115 that has severe corrosion and metal loss in the center roof rafters that will continue to deteriorate until it is refurbished. If the corrosion is not addressed, the roof will eventually collapse due to failure of the structural support

system, reducing reliability to an unacceptable level for customers and putting surrounding residents at risk of damaging and injury for flooding. If the tank collapses, the reconstruction of R-2 will cost significantly more than refurbishing the damaged structural members and will cause flood damage to neighboring properties. Additionally, Suburban's customers will be vulnerable to running out of water, and first responders will be incapable of fighting fires.

The alternative to remove the existing dollar plate rafter support and the ends of the center rafters, installing a new wagon wheel rafter support system, and recoating the rafters is estimated to cost $203,936 and is the most cost-effective and fastest solution to restore the structural integrity of the tank.

Plant 115 R-2 tank's structural issues must be addressed with refurbishment because Suburban's customers cannot afford to lose fire protection when corrosion deterioration causes the tank to fail catastrophically. Customers who live downhill cannot afford the life and property damage that will occur when the deteriorated water tank fails catastrophically, resulting in a destructive flood.

Background

Plant 115 R-2 roof rafters have severe corrosion and metal loss, which are essential in preventing the catastrophic failure of the tank. Plant 115 is in the City of Covina, in the San Jose Hills District, and has one reservoir, R-2. Plant 115 R-2 was built in 1958, and its storage capacity is 0.5 MG of water. The tank is crucial for supplying water to the 955 and 830 zones using pumps and gravity. Figure 1 shows the aerial view of Plant 115.

The tank balances water demand for customers during peak hour demand and ensures sufficient flow for first responders during emergencies such as for fires. If the peak hour demand cannot be met, customers will be left with insufficient pressure, flow, and possible water shortages. If there are water shortages in the system, residents may need to

ration the water supply. Low system pressure creates issues for customers for daily use. Customers will encounter weak showers and slow faucets that are not up to expectations. Low pressure puts the system at risk of backflow, which will directly negatively affect the water quality. Low pressure will also result in insufficient available fire flow for first responders to fight fires, making customers more vulnerable to losing their homes and possessions. Most importantly, insufficient fire flow threatens the lives of customers and first responders. The rehabilitation of Plant 115 R-2 is essential for continued operation and for providing reliable water service to Suburban's customers.

Figure 1. Ariel Map of Reservoir 115-R2



Q83 What does Suburban do to monitor the condition of its reservoirs, and what concerns has monitoring revealed about Plant 115?

A82 Suburban conducts coating inspections every three years to identify defects promptly to reduce the risk of contamination and extend the reservoir's life.

Suburban has coating inspections performed by a qualified and experienced engineering consultant to determine the condition of its reservoirs and any issues to be addressed with rehabilitation. The Exterior Coating Evaluation Report, provided by CSI Services Inc. in 2024 (see Workpaper Volume III-D, P-14, Appendix 1), showed that the exterior roof of R-2 had two roof plate depressions that have resulted in pooling of rainwater that has caused corrosion, and showed that several cathodic protection system handholes were rusting. Based on these findings, spot coating was recommended and was completed in 2025.

The work to rehabilitate the depressions and cathodic protection system revealed that the center roof rafters of R-2 were severely deteriorated due to significant corrosion, as shown in Figure 2. The loss of structural integrity in roof rafters will result in a catastrophic collapse and loss of the reservoir. The reservoir's roof rafters carry the weight of the steel roof plates and are vital in ensuring the reservoir's structural integrity is robust. Plant 115 R-2's roof rafters are deteriorated and need to be replaced to provide structural support for the reservoir roof and prevent the catastrophic loss of R-2.

Figure 2: Current Conditions of Plant 115 Reservoir 2 Center Rafters



Ventilation

The existing center column design has structural damage due to corrosion that is exacerbated by the tank's ventilation. R-2 currently has a dollar plate rafter support system, as shown in Figure 3, that allows minimal ventilation for the rafters. Due to the lack of ventilation, more moisture accumulates and remains for longer periods of time. With the increase in humidity, the corrosion process is accelerated, and the rafters corrode faster.

To delay the corrosion process and increase the life span of rafters, R-2 needs to be rehabilitated with a wagon wheel rafter support design as shown in Figure 4. The wagon wheel design allows for more ventilation for the rafters and speeds up the drying process when moisture reaches the rafters. This design also allows for the existing corroded rafter ends to be removed and the remaining rafter to be supported by the wagon wheel.

Upgrading the center support structure to the wagon wheel arrangement greatly improves the ventilation and increases the lifespan of R-2.

Figure 3: Current Dollar Plate Rafter Support for R-2



Figure 4: Example of the Wagon Wheel Rafter Support System



Project Justification

Q84 How will failure to address these concerns regarding the condition of Plant 115 R-2 affect customers?

A83 A failure to address concerns regarding the condition of Plant 115 will lead to issues with affordability, water quality, structural integrity, service reliability, fire protection, and safety that will negatively affect service to Suburban's customers.

Affordability

Delaying the rehabilitation of R-2 will result in additional deterioration that will continue to increase the risk of structural failure, leading to a higher repair or even replacement cost.

The corrosion will only continue to weaken the roof rafters and can lead to even more damage to R-2. The rehabilitation of R-2 is currently manageable, but if left unabated it will become a larger problem, potentially even requiring a complete reservoir replacement, which is significantly more expensive than the rehabilitation of the rafters. What would have been a modest investment to rehabilitate R-2 becomes a major investment to replace R-2. Customers would pay for this avoidable replacement that would not be necessary if the tank were rehabilitated in a timely manner.

Recently, Suburban constructed a new 0.5 MG reservoir at Plant 128. The cost to construct the reservoir was $2,611,327.73, which would escalate with time. It is more cost-effective for our customers to rehabilitate R-2 now while the damage and costs are relatively small, rather than spending a lot more replacing a reservoir that has failed catastrophically.

Water Quality

Deteriorating center rafters can drop rusted metal fragments into the water directly compromising the water quality and putting customers at risk. Rusted metal in water

reduces water quality by affecting its color, smell, and taste. Although drinking small amounts of rusty water is not immediately harmful to the human body, long-term exposure to iron can cause stomach problems, vomiting, and iron overload, leading to organ damage. Additionally, fragments of metal running through the system can be ingested by customers, potentially leading to external and internal damage to the body.

Ongoing degradation of the tank will lead to breaches that allow environmental elements such as pollutants, insects, birds, and animals to infiltrate the tank. A compromised roof also allows sunlight to reach inside the reservoir, creating perfect conditions for algae growth. Some algae require iron to grow, and the combination of iron from corrosion fragments and sunlight will increase the potential for bacteria growth. According to the U.S. Environmental Protection Agency, some algae blooms produce toxic chemicals that can harm humans. Skin and eye irritation can be caused by harmful algae blooms with direct contact. Ingesting algae can lead to stomach issues, fevers, headaches, liver and nervous system damage. Algae growth in drinking water tanks needs to be avoided for customer safety. The health and safety of our customers is our highest priority; it is essential to ensure that the tank is maintained so it doesn't contribute to poor water quality that can harm the customer's health.

Structural Integrity

The roof rafters are critical structural components supporting R-2's integrity. The roof rafters are vulnerable to corrosion because they are only protected by coating and not the tanks cathodic protection system. The cathodic protection system converts the steel from the anode to the cathode in the electrochemical reaction between metal and water. While the anode component corrodes, the cathodic components do not. However, the cathodic protection system only protects the steel submerged in water. Since the rafters are not submerged, they are not protected from corrosion by the cathodic protection system.

Removing corrosion once it has formed and recoating the rafter is difficult. Once rust starts, a chemical reaction continuously erodes the steel. All the rust needs to be removed, or it will continue to consume the steel. Sand blasting cannot remove corrosion from narrow crevices between the rafters and the roof. The remaining corrosion will continue eroding the remaining steel. Therefore, recoating corroded rafters is unlikely to be effective, and they should instead be replaced with new steel that can be coated prior to installation.

Corrosion will eventually cause the rafters to fail and drop in the water. The failure of one rafter can initiate a chain reaction leading to the other rafters falling, ultimately leading to the roof completely collapsing and R-2 becoming inoperable. All the rafters need to have structural integrity to support the tanks roof and prevent its collapse. If action is not taken to address the corrosion of the roof rafters they will no longer support the roof, leading to the catastrophic failure of R-2.

Water Supply Reliability

The catastrophic failure of R-2 will reduce the reliability of water service to Suburban's customers. Customers in the 995 and 830 zones rely on Plant 115 tank for water supply. If the tank were to fail, customers in Zone 955 would not have any water supply, and customers in Zone 830 would no longer have water stored that could be provided by gravity. Customers need Suburban to provide them with reliable water service, and without R-2, Suburban may run into issues supplying water to their customers during high demands during daily use and for firefighting.

Suburban is fortunate to have interconnections with neighbor water purveyors that can supply water to Zone 830, however, their ability and priority to serve Suburban customers during an emergency is not guaranteed. Emergency supply agreements between the agencies allow them to cut supply to Suburban if their system needs the

water in an emergency. Suburban customers could be at risk of not having enough water for daily use and emergencies while R-2 is inoperable. Suburban must be capable of supplying reliable water to their customers without relying on emergency connections to avoid customers not having enough water.

Suburban does not want to rely on neighboring water suppliers because the cost and quality of water being supplied cannot be controlled. Purchased water is more expensive for Suburban than producing its own water. Suburban also cannot control the water quality customers receive from neighboring purveyors. There is no guarantee that the water supplied meets state and federal drinking water regulations. The rehabilitation of R-2 is essential for Suburban customers to have access to clean, safe, and reliable water without needing to depend on a third-party water supply.

Fire Protection

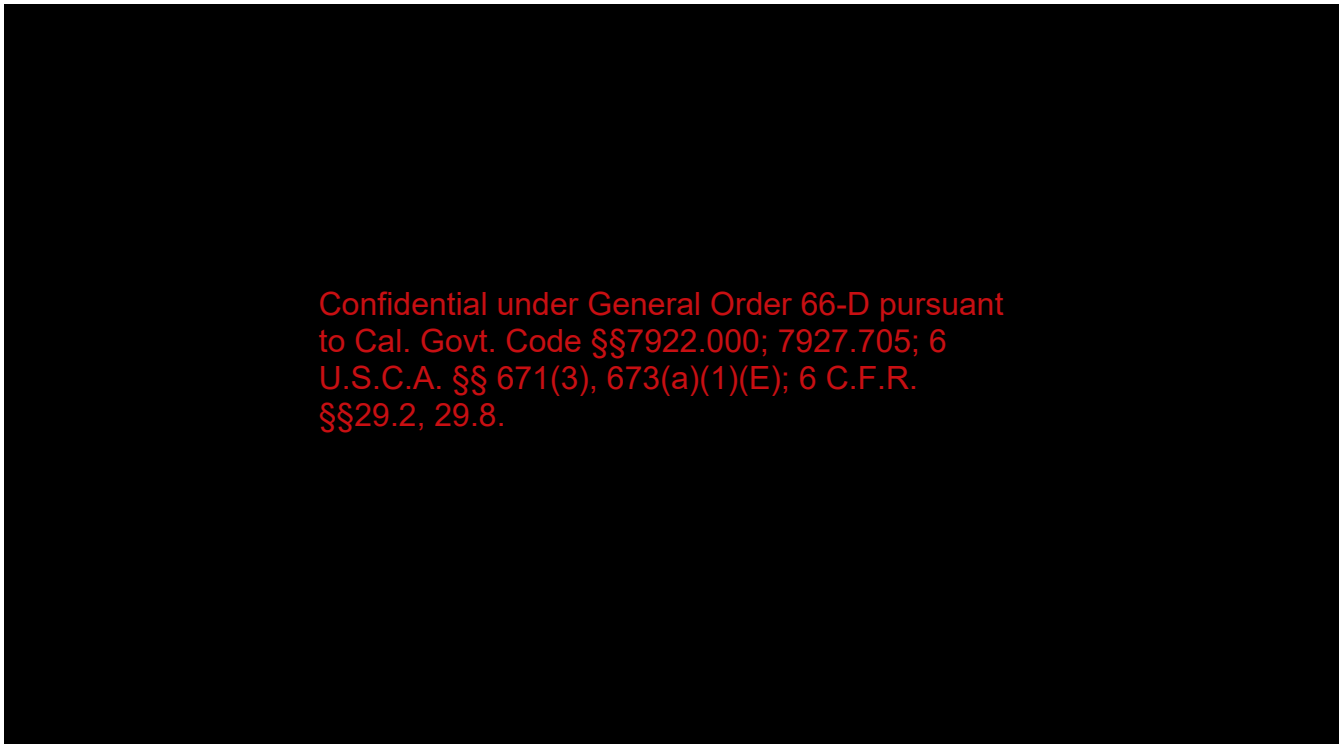
During fire emergencies, the demand for water for firefighting significantly increases, leaving our R-2 residents and first responders vulnerable to running out of water. According to CAL Fire, as of August 2025, there have been a total of 6,504 wildfires that have occurred in California in 2025. Water distribution systems like Suburban's have fire hydrants that are used for fighting fires. Wildfire events are spreading into suburban neighborhoods like those served by Plant 115 R-2 and fire fighters are depending on them more to protect structures and provide time for evacuation.

On January 7, 2025, the community of Pacific Palisades was severely damaged by fire driven by high winds. Wildland fires spread into neighborhoods, burned 5,000 structures including homes, and killed 12 people. The water system was overwhelmed by the demand for water for firefighting and eventually ran dry in some places. The review of the fire determined that the 117 MG Santa Ynez Reservoir was out of service due to

water quality issues and needed repairs. Had the reservoir been in service it would have provided much needed water for firefighting.

The 830 Zone that is supported by Plant 115 R-2 is immediately adjacent to a CAL FIRE-designated Fire Hazard Severity Zone (FHSZ) as shown in Figure 5. Reliable water storage is vital to protecting these customers if the wildfires move into the neighborhoods as they did in the Palisades Fire. Plant 115 R-2 must be rehabilitated to ensure that it is available to provide emergency water supply to first responders who are protecting customers' homes, possessions, and lives.

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Flood Damage

Flooding from a catastrophic failure and collapse of R-2 would be devastating for neighboring customers. Plant 115 sits at an elevation of 830 ft, higher than the surrounding homes, as shown in Figures 6 and 7. If R-2 were to collapse, a flood of water

would rapidly travel downhill towards homes causing erosion and flood damage to property, and even injury to residents. Imagine if this happened at night while you were sleeping in your bed.

Figure 6: Elevation Profile of Plant 115 from Northwest to Southeast

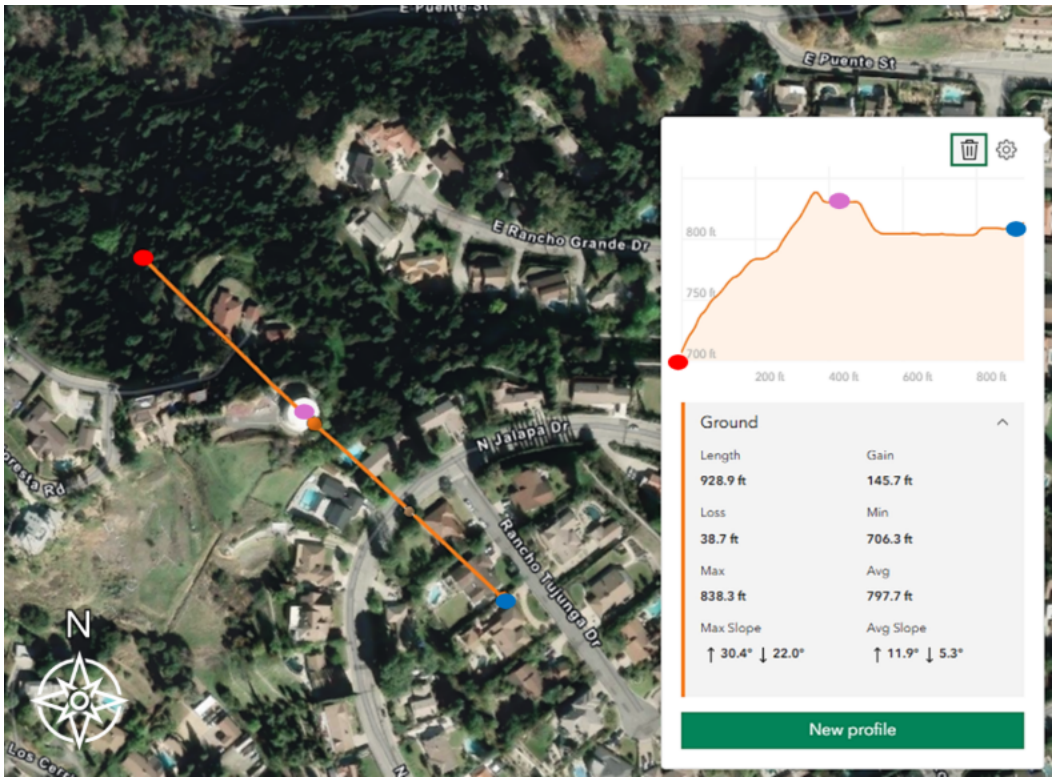
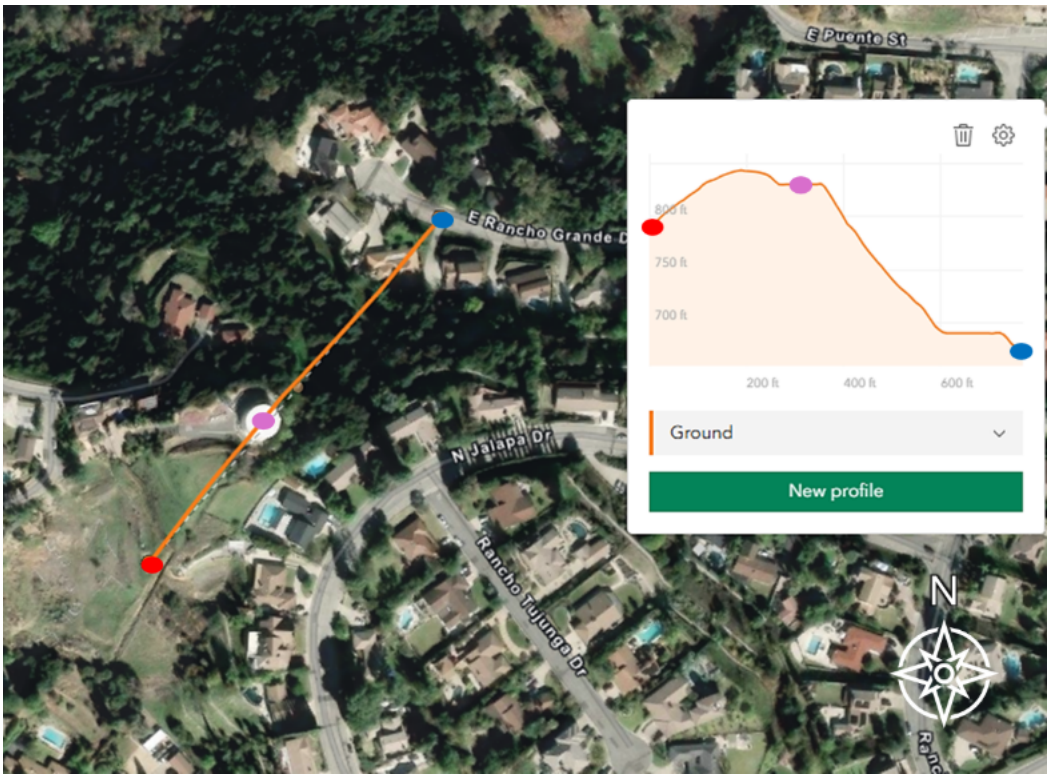


Figure 7: Elevation Profile of Plant 115 from Southwest to Northeast



In 2025, the Grampians Wimmera Mallee Water (GWMWater) Tank, in Australia collapsed and flooded surrounding homes (https://www.abc.net.au/news/2025-03-12/nhill-water-tank-flood-damages-home-structures/105043482). The tank had a capacity of 475,500 gallons (1.8 megaliters) slightly smaller than R-2. Figure 8 shows the damage to the residents' properties from the GWMWater Tank.

Another similar incident was when the 5 MG tank, near the Westminster neighborhood in California, failed catastrophically leaving six people injured and at least 30 people temporarily homeless. Residents scrambled to help their pets and loved ones to evacuate as water filled homes. There have been previous engineering reports demonstrating that the water tank had developed cracks and was leaking, however, no repairs were made to address the issue. This unfortunate event could have been prevented if the tank had been rehabilitated and maintained. It is essential to take action once issues are identified in tanks to prevent such catastrophic failures.

Residents would not be the only ones in danger if the R-2 is not rehabilitated. Weakened roof rafters could collapse under the weight of employees or consultants walking on top of the tank to perform inspections and maintenance. If R-2 were to catastrophically fail as someone is performing work on the reservoir, the outcome for the employee can be fatal if not life-threatening. Postponing the rehabilitation of R-2 will put residents, employees, and property at risk of damage if R-2 fails catastrophically. Safety is Suburban's priority, and the rehabilitation of R-2 is essential in preventing damage and injury.

Figure 8: Aftermath of the GWMWater Tank Burst



Alternatives

Suburban has developed four alternatives to address the corroding roof rafters at Plant 115.

Alternative 1 – Don't do anything.

This alternative operates R-2 until the rafters fail and the roof collapses. This option does not solve the problem and places the customers at maximum risk for injury and loss of life. Suburban would prefer to prevent the roof from collapsing while the rafters can still

support the roof, instead of waiting until after the roof has collapsed. This alternative unnecessarily puts our customers at risk of having poor quality water, loss of service during an emergency, and risk of flood damage from a collapse.

The longer the rehabilitation of R-2 is deferred, the more the center roof rafters will corrode. Continued corrosion increases the potential failure of the reservoir that will cause negative impacts on service and safety for customers. Not acting will increase the opportunity for customer service interruption, and limited fire protection required to protect customers' life and property.

This option is the least desirable because it would require the highest cost for a complete tank replacement and remediation costs for the damage resulting from the collapse. Additionally, this alternative is not aligned with Suburban's responsibility to provide safe, reliable and affordable water service to customers. Suburban's customers cannot afford this alternative that ignores the tank's structural problems and the negative effects of its inevitable failure.

Alternative 2 – Partial Rehabilitation + Wagon Wheel

This alternative resolves the structural issues and minimizes risks to customers by removing the existing dollar plate rafter support and the ends of the center rafters and installing a new wagon wheel rafter support system. The remaining portion of the rafters will be recoated to extend their lifespan. The new wagon wheel support not only eliminates the fragile rafter ends but also allows for more effective ventilation to minimize future corrosion increasing the lifespan of the new coating and existing rafters.

This option eliminates the risk of pollutants making their way into the reservoir and ensures the reliability of R-2 for Suburban customers to have continued access to water. The cost for removing the rafter ends and installation for a wagon wheel support system for R-2 at Plant 115 in 2028 is estimated to be $203,936. This alternative is the least

costly approach to address the tank's structural problems and minimizes the risk to customers. This approach will result in the shortest period where R-2 is offline for rehabilitation.

Item Description	Estimated Cost
Mobilization & Demobilization	$8,104
Reservoir Surface Preparation and Coating	$43,964
Structural Repairs & Roofwork	$52,023
Safety and Security Improvements	$42,780
Appurtenance	$12,208
Disinfection & Chlorination	$11,114

Sub Total (2025)		$170,193
Escalated Sub Total (2028)	8.92%	$185,379
General Admission	10.01%	$18,556
Estimated Grand Total		$203,936

Alternative 3 – Full Rafter Replacement + Wagon Wheel

This alternative resolves structural issues and minimizes risk to customers by completely removing and replacing all the center roof rafters and installing a new wagon wheel rafter support system. All rafters showing signs of corrosion will be replaced, ensuring long-term durability of the roof.

The new wagon wheel rafter support will increase air flow and extend the lifespan of the rafters as mentioned in Alternative 2. This option eliminates the risk of pollutants making their way into the reservoir and ensures the reliability of R-2 for Suburban customers to have continued access to water. This alternative is estimated to cost $984,820. This alternative costs less than a complete reservoir replacement and addresses the tank's structural problems and minimizes the risk to customers. However, this alternative will take longer to construct than Alternative 2.

Item Description	Estimated Cost
Mobilization & Demobilization	$39,137
Reservoir Surface Preparation and Coating	$383,471
Structural Repairs & Roofwork	$330,904
Safety and Security Improvements	$42,780
Appurtenance	$14,468
Disinfection & Chlorination	$11,114

Sub Total (2025)	$821,873.75	
Escalated Sub Total (2028)	8.92%	$895,209
General Admission	10.01%	$89,610
Estimated Grand Total	$984,820	

Alternative 4 – Full Reservoir Replacement

This alternative involves demolishing the existing reservoir to rebuild a new reservoir with the same capacity. This alternative ensures Suburban customers have safe and reliable water service. This project will take a long time because it requires the demolition of the existing tank, construction of a new foundation and tank, new piping to connect the system, and internal and external coating. This alternative is estimated to cost $2,611,327.73. This alternative is the most the costly approach that addresses the tank's structural problems and minimizes the risk to customers. This alternative will take the longest to construct.

Alternative Analysis

The following compares Suburban's review of the alternatives and provides a recommendation for the best approach for Plant 115 R-2's structural issues. Alternative #1 is not feasible because it continues to put Suburban customers at risk of poor-quality water as the rafters continue to rust. Not addressing the rust will also cause R-2 to eventually fail and collapse, leaving customers and first responders at risk of not having access to water if third parties stop supplying Suburban customers in the event of an

emergency. The collapse of R-2 will also be catastrophic causing flood damage to nearby properties that surround Plant 115.

Alternative #3 significantly improves the durability and lifespan of R-2. However, it will be significantly more expensive and take much longer to complete than Alternative 2, leaving Suburban customers vulnerable to water sources with less reliability for a longer period. Alternative #4 ensures the durability and lifespan of R-2 by completely replacing the tank. This alternative is the most expensive option and will take the tank out of service the longest. Suburban needs to rehabilitate R-2 in a timely manner to avoid customers experiencing longer periods of unreliability from R-2. Suburban has selected Alternative #2 because it addresses structural concerns, it is the least costly and will take the shortest amount of time to complete minimizing the risks presented by being out of service.

Conclusion

Suburban's customers cannot afford to lose fire protection when corrosion and deterioration cause Plant 115 R-2 steel tank to fail catastrophically. Suburban's customers who live downhill cannot afford the life and property damage that will occur when the deteriorated water tank fails catastrophically, resulting in a destructive flood. Removing the existing dollar plate rafter support and the ends of the center rafters, installing a new wagon wheel rafter support system, and recoating the rafters is the most cost-effective and fastest approach to ensure safe, reliable, and affordable service.

Appendices (see Workpaper Volume III-D, P-14)

Appendix 1 - Exterior Coating Evaluation – CSI Services, Inc., 1-4-24

(P-15) Project to Provide Information for Customers to Make Decisions To Control Affordability - Advanced Metering Infrastructure - $1,666,048

Q85 Can customers afford high bills because they cannot understand when and how much water they are using?

A84 No. Customers cannot afford high bills because they cannot understand when and how much water they are using. They need timely and detailed information about their water usage to inform their water usage so they can eliminate water waste and keep their bills affordable.

Q86 Can customers afford high bills because they don't learn about leaks on their plumbing until the next water bill arrives in the mailbox?

A85 No. Customers cannot afford high bills because they don't learn about leaks on their system until the next water bill arrives in the mailbox. Customers need to learn about their leaks immediately so they can get them fixed and avoid wasting water that unnecessarily costs them money.

Q87 Can customers use water efficiently to achieve California Water Conservation Is A Way of Life objectives if they don't know when and how much water they are using?

A86 No. It is very difficult for customers to use water efficiently to achieve California Water Conservation Is A Way of Life objectives when they only learn how much water they are using after the end of the month when they get their water bills. They need more timely information about their usage to make adjustments to use water more efficiently.

Q88 Is it fair for customers to be upset when they cannot tell what is contributing to unusually high monthly water bills?

A87 Yes. It is fair for a customer to be upset when they cannot tell what is contributing to an unusually high monthly water bill because monthly bills do not provide the detailed

information necessary to understand when and how they are using water to make the adjustments needed to reduce their water usage.

Q89 Should Suburban's team members spend their limited time reading meters when they could instead spend it helping customers with their customer service inquiries?

A88 No. Suburban's team members should not spend their limited time reading meters when they could instead spend it helping customers with their customer service inquiries. Time must be shifted away from meter reading and towards interfacing with customers, which includes answering their questions about their water usage and leaks and helping them find the water leak in their plumbing.

Executive Summary

Suburban customers cannot afford to continue receiving devastating monthly bills due to unforeseen water usage. Automated Meter Reading (AMR) and direct-read meters do not protect customers from such shocking bills. Advanced Metering Infrastructure (AMI) protects customers from unaffordable bills by notifying them of leaks the same day that they occur. Without AMI, customers do not have access to real-time hourly usage that empowers them to conserve water and save on their water bill. AMI provides an opportunity to educate customers on their usage behaviors, improve their water habits, and provide immediate high-usage alerts to avoid costly bills. AMI drives affordability and must be provided to all of Suburban's customers through a full system implementation of the infrastructure.

Suburban implemented a small-scale AMI pilot project to assess the potential customer benefits. A third-party consultant, E-Source, analyzed the pilot project to objectively evaluate whether a full deployment of AMI would benefit the customers. E-Source concluded that the pilot project successfully demonstrated significant customer benefits, particularly in affordability, that are scalable to full AMI implementation. Therefore,

system-wide AMI backbone structure must be installed in this rate case period to improve customer affordability.

Background

Advanced Metering Infrastructure (AMI)

AMI is the best metering technology that Suburban can provide to its customers because it improves the affordability of their water bill.

Suburban currently employs three distinct methods for reading customer water meters—direct read, Automated Meter Reading (AMR), and Automated Meter Infrastructure (AMI)—each offering varying levels of efficiency, data availability, and customer value.

Suburban currently has three different approaches for reading customer meters to bill them for usage. The first approach is direct meter reading, where a field technician travels to each meter, opens the lid, and reads the consumption directly from the dial. There is a discussion in the Meter Replacement section of this testimony that describes the need to move from direct read to using smart meters. The second type uses Automated Meter Reading (AMR) technology to read smart meters and requires utility operators to drive around the neighborhood collecting meter reads with a receiver. The third approach is Automated Meter Infrastructure (AMI) that uses receivers on fixed antennas that are distributed throughout the water system to collect meter reads.

The primary difference between AMR and AMI reading is the speed and frequency that the data is collected from the meter and provided to the customer and the utility's billing system. AMR data is collected once a month when the utility operator drives by with the receiver. AMR data is uploaded to the system once the operator returns to the office. Alternatively, the AMI data is collected several times a day by the receiver on the fixed antenna. The AMI data is uploaded when it is read and is available immediately. The ready availability of AMI data is highly valuable for customers who are monitoring their

usage to manage the affordability of their bill. Similarly, AMI data is highly valuable for customers who are monitoring their usage to minimize their water use and conserve water.

Smart meters are also programmed to sense if a customer has continuous usage indicating a probable leak. These leaks are usually imperceptible like a leaking toilet that drains to the sewer, or a leak on outdoor and under-house plumbing that is not readily visible. Since AMR only communicates with meters once a month, a leak alert from the smart meter can only be shared with the customer once a month. By then the leak may have been running for a whole month, wasting water and making the water bill unaffordable. Alternatively, the AMI communicates several times a day and the leak alert from the smart meters is shared within hours, giving the customer the opportunity to fix the leak and avoid wasting water and affordable water bills. This faster response time can save the customer hundreds and even thousands of dollars.

Another difference between the AMR and AMI reading approaches is the level of detail that is collected and is then available to customers, and customer service staff. The AMR process only provides monthly usage data whereas the AMR process collects hourly usage data. This greater level of detail makes it possible for customers and customer service representatives to see how much water customers are using at different times of the day. This information is vital to helping customers understand their consumption when they call in with concern about a higher-than-normal water bill. Timely information helps customers make water usage decisions that can reduce their usage, making the bills more affordable and helping CA conserve more water.

The AMI metering approach is superior to the AMR approach in timely providing information that customers need to make their bills affordable and to conserve water.

Suburban currently has one AMI antenna that it installed as a pilot project to integrate the AMI technology with its Customer Relationship Management (CRM) software platform. Suburban chose to perform a pilot project to minimize the potential disruption to customers that often accompanies large utility software roll outs. This antenna can remotely read approximately 5,200 meters out of Suburban's 78,500 meters. The customers served by AMI enjoy the availability of detailed data that allows them to manage the affordability of their bill and their water conservation. The remaining 73,300 customers need to wait for their bill every month to find out if they had a leak that cost them hundreds or even thousands of dollars.

While Suburban currently relies on three meter reading approaches, the Automated Meter Infrastructure (AMI) system stands out as the most effective tool for helping customers manage both the affordability of their water bills and their water usage. By providing near real-time data and immediate leak alerts, AMI empowers customers to take timely action to avoid costly surprises and reduce unnecessary water waste. This level of insight not only supports household budgets but also advances California's broader water conservation goals. Expanding AMI across Suburban's service area is a critical step toward delivering smarter, more sustainable, and customer-focused water service.

Customer Plumbing Leaks

The customer is responsible to pay for all water that passes through the meter into their private plumbing. This plumbing serves their outdoor and indoor needs. These plumbing systems were typically installed at the same time the house was installed. For Suburban's service area, the majority of the houses were installed between 1955 and 1965. This means the customers' houses and plumbing are 70 years old. Many houses were plumbed with galvanized iron or copper pipe. Both materials can corrode with age, especially galvanized iron that is very susceptible to pin hole leaks. The older the plumbing gets the more likely customer plumbing systems are going to leak.

In addition to the pipes and valves that make up the plumbing, customers' fixtures like toilets, have moving parts that wear out with age. For example, a toilet flapper can stop sealing correctly resulting in water draining out of the tank in the bowl and into the sewer with anyone even seeing or hearing it. These barely perceptible leaks can cost customers hundreds of dollars a month in wasted water. Again, the older the fixtures get, the more likely they are to leak.

The ability of AMI systems to detect and address these leaks on customer plumbing is going to become an increasingly essential tool for controlling the affordability of water bills as customer plumbing gets older and the frequency of leaks increases.

Pilot Project

Suburban's successful AMI pilot project demonstrates both the technical feasibility and customer value of a system-wide rollout, particularly in delivering affordability and water conservation benefits. Suburban implemented the pilot project in response to the commission's Decision (D.) 16-12-026 that orders Class A water utilities to gradually replace all existing meters with AMI.

In 2019, Suburban completed the pilot project, installing AMI backbone infrastructure at Plant 165 in the Hacienda Heights area of the San Jose Hills District to read approximately 5,200 meters remotely. The Hacienda Heights area was strategically selected because of its hilly neighborhoods. Manually reading in this area is difficult and time-consuming. Despite the challenges that mountainous topography could have provided to transmitting and receiving radio signals, the AMI system at Plant 165 has successfully collected accurate meter reads since its integration. This successful pilot demonstrated that system-wide AMI is technologically feasible for the rest of Suburban's service area, which is far less hilly than Hacienda Heights.

Another important part of the pilot was the integration of the AMI collection system with Suburban's CRM system. It was critical to make sure that meter reads could make it all the way through the system onto customers' bills. Suburban used the pilot to test this on a smaller group of customers to minimize the disruption if there had been any problems, which is concern for utility technology rollouts. There were no problems, and the integration was a success. Now that the integration has been completed, the remaining infrastructure can be simply integrated using the lessons learned in the pilot. The pilot also provided Suburban's operators the opportunity to learn how to use the AMI system and troubleshoot any problems that arise to ensure that the system doesn't miss reads, and customers get their bills timely. The AMI pilot project proved that a full build-out of AMI would be successful in implementation.

Suburban thoroughly analyzed the pilot project to assess if system-wide AMI would benefit its customers. The previous rate case decision 24-12-030 denied Suburban's request to complete the AMI system and provide all of its customers with affordability and water conservation benefits of the technology. The decision noted, "It appears that Suburban failed to produce any actual data to Cal Advocates that was collected pursuant to the [pilot] study, or any analysis of this data of any ratepayer benefits found." The decision also stated, "Suburban may revisit this request in a subsequent rate case if it puts forth the necessary evidence to support the reasonableness of its request." In response to this decision, Suburban diligently gathered data from the pilot project to evaluate measurable customer benefits. Suburban hired a third-party consultant, E-Source, to impartially analyze the AMI pilot project. E-Source is a leading AMI expert with decades of experience with AMI technology, providing AMI feasibility studies to over 170 utilities. E-Source prepared an AMI Assessment Report (see Workpapers Volume III, P-15, Appendix 1) to document their unbiased findings from the pilot project. Suburban has

diligently evaluated the customer benefits of the AMI pilot project through objective data and third-party review of the pilot project.

E-Source's report concluded that the customer benefits discovered in the pilot project provide overwhelming support for system-wide AMI. The report's Conclusion and Recommendation section on page 22 states, "The results of Suburban's AMI pilot clearly demonstrate the technology can operate reliably across diverse service conditions and deliver substantial benefits to Suburban's customers." The Executive Summary on page 2 states, "the most significant impacts emerged on the customer's side. The pilot enabled near-real-time leak detection, which helped prevent unexpectedly high bills, reduced the need for courtesy adjustments, and improved customer trust by providing clear, accessible usage information". E-Source's report also highlights AMI's benefits to Suburban's worker safety, operational efficiencies, and planning capabilities. While these benefits are substantial, the justification section of this testimony will specifically highlight the benefits that relate to improving customer affordability. Customers cannot afford to miss out on the benefits of AMI and be at risk of unaffordable bills.

Suburban's AMI pilot project has not only proven the technical feasibility of a system-wide rollout but also demonstrated the clear and measurable benefits to customers—especially in terms of affordability and water conservation. Through near-real-time leak detection, detailed usage data, and seamless integration with billing systems, AMI empowers customers to avoid costly surprises and make informed decisions about their water use. These benefits were validated by an independent third-party expert and directly address the concerns raised in previous rate case decisions. Suburban customers should not be left behind in accessing the tools that help them manage their bills and conserve water. Therefore, a full AMI build-out is both reasonable and necessary in this rate case period.

Cal Advocates' Specific Pilot Project Inquiries

In the previous rate case's Settlement Agreement, Cal Advocates listed items that Suburban should address in an AMI pilot report in Appendix G-1 from "A.23-01-001, Public Advocates Office DR BYU-01". These items include:

2. How AMI promotes conservation, rate recovery, cost-based rates, and equity
3. Comparison of leak detection and data communication: AMI vs AMR
4. Tracking of customer complaints related to AMI
5. Number of leaks detected using AMI data
6. Estimated water savings from repaired leaks
7. Cost implications in meter reading operations
8. Changes in meter misreads
9. Change in courtesy adjustments for high bills
10. Cybersecurity

E-Source's report directly addresses each of these items with specific and measurable results from the pilot project. By addressing these items, all of the requirements in Appendix G-1 have been fulfilled and answered. In-depth discussions on each item can be found in the "Cal Advocate Inquiries" section beginning on page 7 of the report (see Workpapers Volume III, P-15, Appendix 1). Suburban has sufficiently addressed Cal Advocates' pilot project inquiries with E-Source's report.

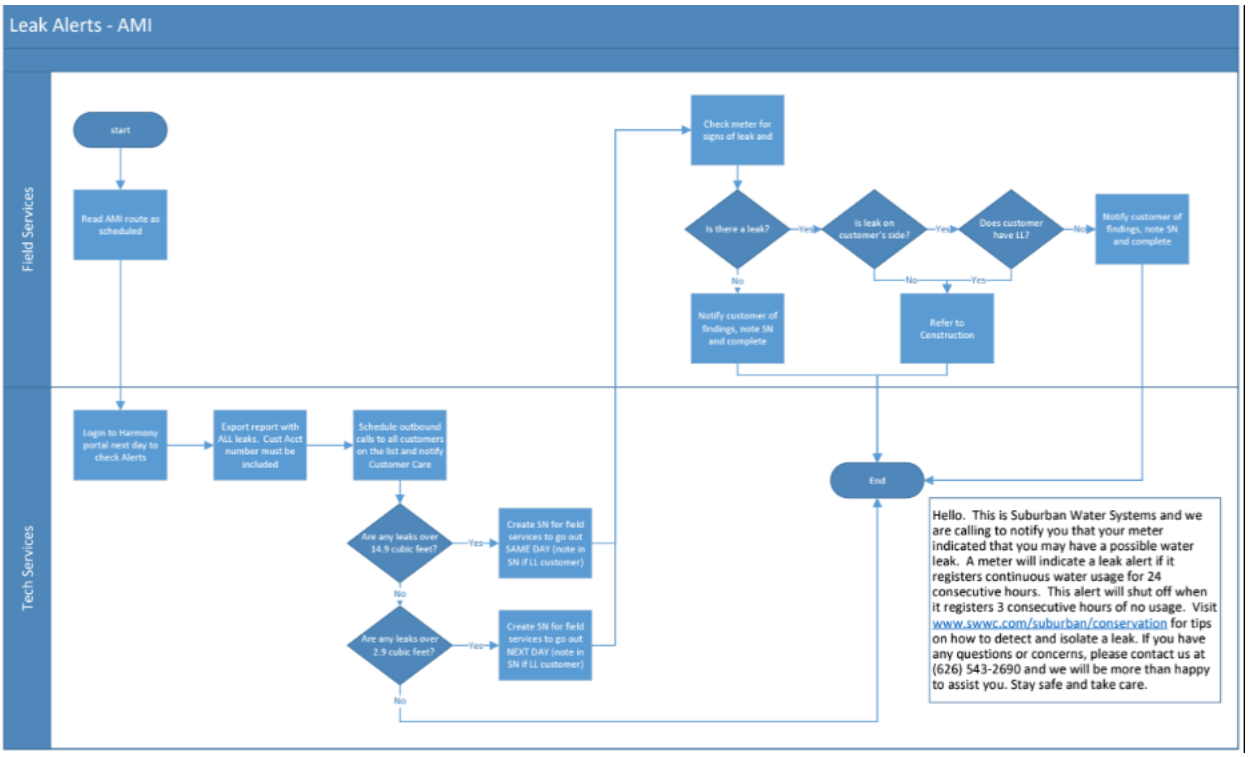
Now that Suburban has thoroughly evaluated the pilot project for the customer benefits and addressed Cal Advocates' inquiries, we see no obstacle for the commission approving the rollout of Suburban's system-wide AMI infrastructure.

Justification

Avoided Customer Costs Through AMI (Unintentional High Bills)

A leak from customers' home plumbing can result in financially devastatingly high bills and pose a significant threat to affordability. Customers that budget for their typical monthly water bill are rudely surprised when they get a costly bill they cannot afford due to a leak in their plumbing. One month with a leak can result in billed usage equivalent to a year's worth of usage. After the pilot project, Suburban implemented a process to promptly notify customers of potential leaks detected by their AMI meter to help them save on their water bill. In this process, the AMI collects continuous data and alerts Suburban of potential customer leaks every 12 hours. On the same day or the next day of the alert (depending on the volume of the leak), a field service technician is dispatched to the customer's doorstep to check the meter, notify the residents of the possible leak, and assist them with resolving the issue. If the customer isn't home, the field service technician will leave a door hanger that notifies them of the potential leak. The running leak alert log that records each time a field technician completes this process is included in Workpapers Volume III, P-15, Appendix 2. Figure 1 shows the leak alert process flow chart for customers with AMI meters. This ongoing process has saved each impacted customer hundreds of dollars on their monthly bills. This process to protect customers from devastating, unexpected bills would be available to all customers with a full-AMI implementation.

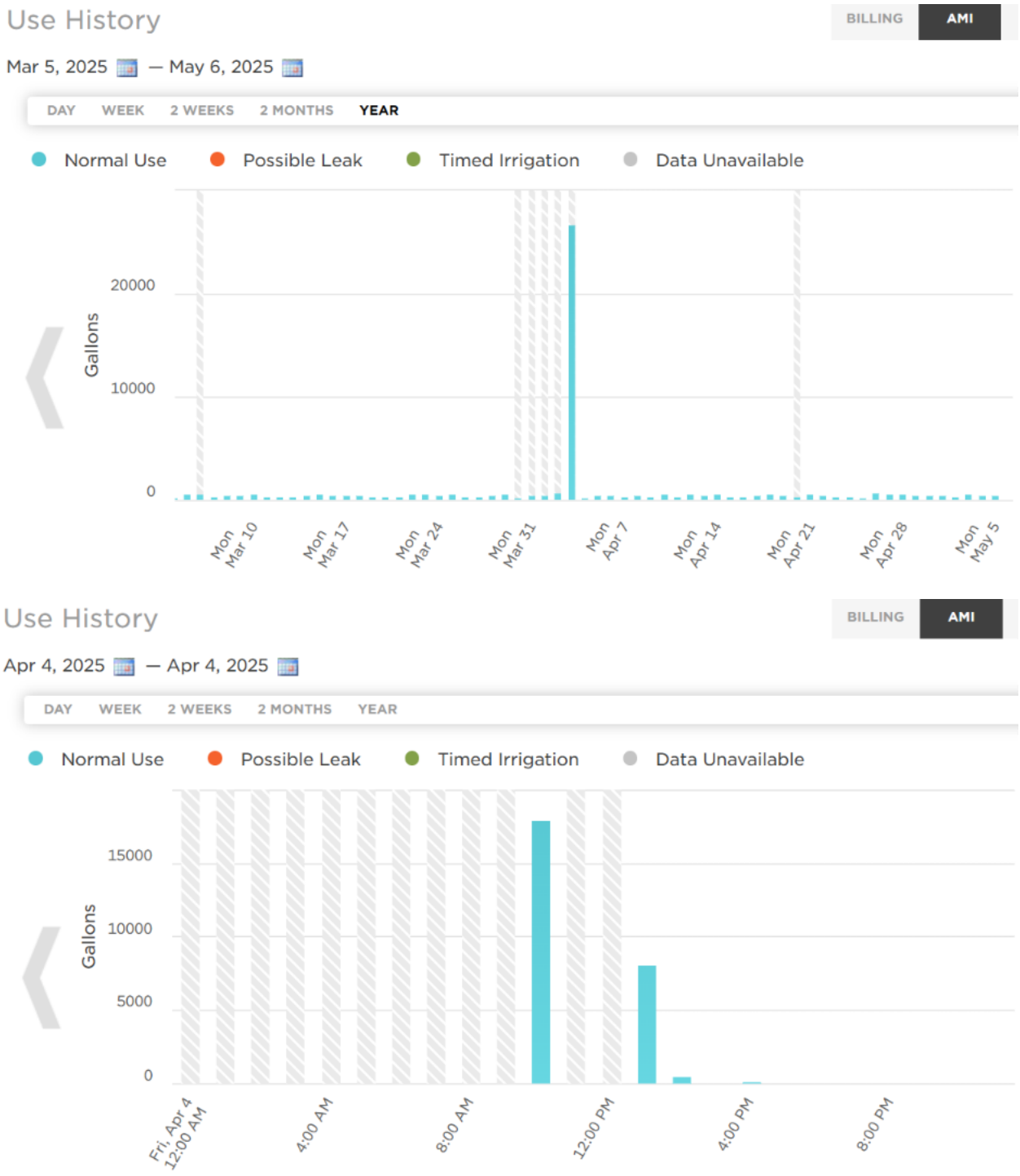
Figure 1 – Process Flow Chart for AMI Leak Alerts



Case studies from the pilot project demonstrate how AMI effectively helps customers avoid costly bills through early leak detection.

The first example is a residential customer in the Hacienda Heights pilot project area. On April 4th, 2025, their AMI meter recorded abnormally high usage and alerted Suburban of a potential leak. On that same day, a field service technician was sent to the customer's property to investigate. The customer was not home when the leak occurred. The technician found that the service line had burst on the customer's side, filling the meter box with water. The technician turned off their water to prevent further water waste and notified the customer. The customer promptly sent a plumber to fix their house line. Figure 2 shows the customer's daily and hourly consumption data surrounding the leak occurrence.

Figure 2 – AMI Daily and Hourly Consumption Data for Customer on April 4th, 2025



The trends show how consumption drastically spiked during the leak and then returned to normal after it was fixed. Had the customer not been notified of this leak until the end of the payment cycle, which is the case with AMR meters, the impact on their bill would

have been devastating. AMI enabled the leak to be addressed the same day, allowing the customer to avoid unnecessary and affordable costs on their monthly bill.

Even this 4-hour leak added a significant amount of usage and cost to the customer's monthly bill. Figure 3 compares the customer's monthly bill in April, the month that the leak occurred, with August, a month with normal consumption. The invoice's monthly usage trend shows the drastic spike in April caused by the leak. The customer's average monthly bill is about $120 for 20 hundred cubic feet (CCF). In April, the leak caused their monthly usage to skyrocket to 55 CCF, resulting in a $281 bill. A four-hour leak caused the monthly bill to increase by $160. This highlights how devastating water leaks are to customer affordability and why it is essential to have AMI to detect and communicate leaks early so they can be addressed timely.

Figure 3 – Comparison of April 2025 and August 2025 Monthly Bills for Example Customer

Suburban Water Systems

Customer Service: 8:00 AM - 4:30 PM, Mon. - Fri.
Phone: 626-643-2640 Toll-free: 800-203-5430
TTY: 877-405-1710
Email: SuburbanCustomerCare@swwc.com
Website: www.swwc.com/suburban

Account #: [redacted]
Invoice #:
Bill Date: 04/28/2025
For Service To: [redacted]
HACIENDA HEIGHTS CA 91745

Due Date: 05/19/2025
Total Due: $389.11

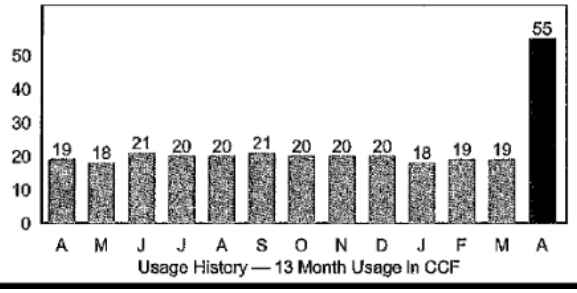
Service	From	To	# of Days	Previous	Current	Usage (CCF)	Meter #
3/4" - R	03/26/2025	04/24/2025	30	706.0	761.0	55.0	[redacted]

Account Details

Previous Balance		**$215.52**
Payment Received 04/03/2025 - Thank You		-$107.76
Balance Before Current Charges		**$107.76**
Service Charge	(30/30) x 25.22 = 25.22	$25.22
Water Charge	20 @ 4.0810 = 81.22 35 @ 4.5580 = 159.53	$240.75
Water Offset 10	55 x .187	$10.29
Public Purpose Program	55 x .058	$3.19
CPUC Surcharge	279.45 x 0.6800%	$1.90
Total Current Charges		**$281.35**
Total Account Balance		**$389.11**

Messages

- **Your portal URL is changing!** Visit **account.mywater.us** for onlin payments, paperless billing, address updates, and more.
- **Updated Bill Design!** We've updated your bill to improve readability. The information provided remains the same. We hope you find our new layout clear, concise, and understandable.
- Suburban offers a Low-Income Rate Assistance (LIRA) discount of $9.04/month to qualifying customers.
- Failure to make prompt payment of the past due amount of **$107.76** may result in shut-off of your service.
- $9.38 is your average daily cost this period.
- Units: 1 CCF = 100 Cubic Feet = 748 Gallons
- *Moving?* Move-Out Online at https://account.mywater.us. *Address Change?* Email us at SuburbanCustomerCare@swwc.com



Usage History — 13 Month Usage in CCF

Suburban Water Systems

Customer Service: 8:00 AM - 4:30 PM, Mon. - Fri.
Phone: 626-543-2640 Toll-free: 800-203-5430
TTY: 877-405-1710
Email: SuburbanCustomerCare@swwc.com
Website: SuburbanWaterSystems.com

Account #: [redacted]
Invoice #:
Bill Date: 08/25/2025
For Service To: [redacted]
HACIENDA HEIGHTS CA 91745

Due Date: 09/15/2025
Total Due: $223.41

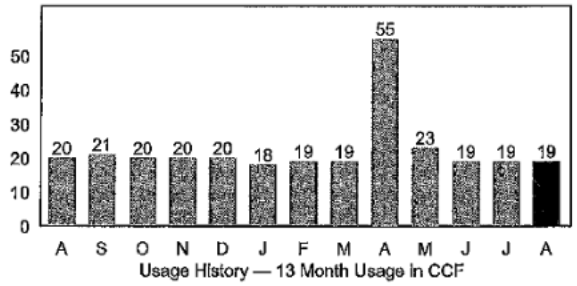
Service	From	To	# of Days	Previous	Current	Usage (CCF)	Meter #
3/4" - R	07/25/2025	08/24/2025	31	822.0	841.0	19.0	[redacted]

Account Details

Previous Balance		**$215.52**
Payment Received 08/02/2025 - Thank You		-$107.76
Balance Before Current Charges		**$107.76**
Service Charge	(31/31) x 25.22 = 25.22	$25.22
Water Charge	19 @ 4.0610 = 77.16	$77.16
Water Offset 10	19 x .187	$3.55
Public Purpose Program	19 x .058	$1.10
One Time Surcharge (Covid-19)	19 x 0.074	$1.41
CPUC Surcharge	114.87 x 0.6800%	$0.78
One Time Surcharge (CAP)	19 x 0.135	$2.57
Water Offset 414	15 x 0.257	$3.86
Total Current Charges		**$115.65**
Total Account Balance		**$223.41**

Messages

- As authorized by the California Public Utilities Commission (CPUC), this bill includes purchased water, pump tax, and energy offset surcharges, effective on August 1, 2025, and will continue for approximately 24 months.
- Suburban offers a Customer Assistance Program (CAP) discount of $9.04/month to qualifying customers.
- Failure to make prompt payment of the past due amount of **$107.76** may result in shut-off of your service.
- $3.73 is your average daily cost this period.
- Units: 1 CCF = 100 Cubic Feet = 748 Gallons
- *Moving?* Move-Out Online at https://account.mywater.us. *Address Change?* Email us at SuburbanCustomerCare@swwc.com



Usage History — 13 Month Usage in CCF

Without AMI, the customer's leak could have gone days, even weeks, without being addressed. If a 4-hour leak incurred an additional $160 to the customer's monthly bill, then several weeks of an undetected leak would cost the customer thousands of dollars. Unfortunately, this would have been a different story if the customer was only served by AMR that only provides leak alerts once a month. Customers cannot afford for leaks on their plumbing to go undetected for multiple days, let alone an entire month. Only AMI allows Suburban to detect and address leaks on the same day and must be provided to all customers.

The following is a second example of AMI providing significant avoided costs from leaks for another customer within the AMI pilot project. On April 14, 2025, the AMI meter signaled a potential leak alert and dispatched a field service technician to

investigate. The spike in usage prompting the AMI leak alert is shown in Figure 4. The technician found a leaking service line on the customer's side of the meter and contacted the customer. The customer fixed the leak the next day and avoided further costs. The customer's average monthly usage is 13 CCF which amounts to an average monthly bill of $82. As shown by the customer's invoices in Figure 5, the leak resulted in an abnormal spike of 28 CCF in monthly usage in April. This amounted to a $150 bill, nearly double of what they typically pay. If a brief leak doubled the customer's monthly bill, then a leak running for an entire month would have been devastating. Customers without AMI are at risk of such devastating bills. Full system-wide AMI must be built to mitigate this risk for all customers.

Figure 4 – AMI Daily Consumption Data Surrounding the Example Customer's Leak

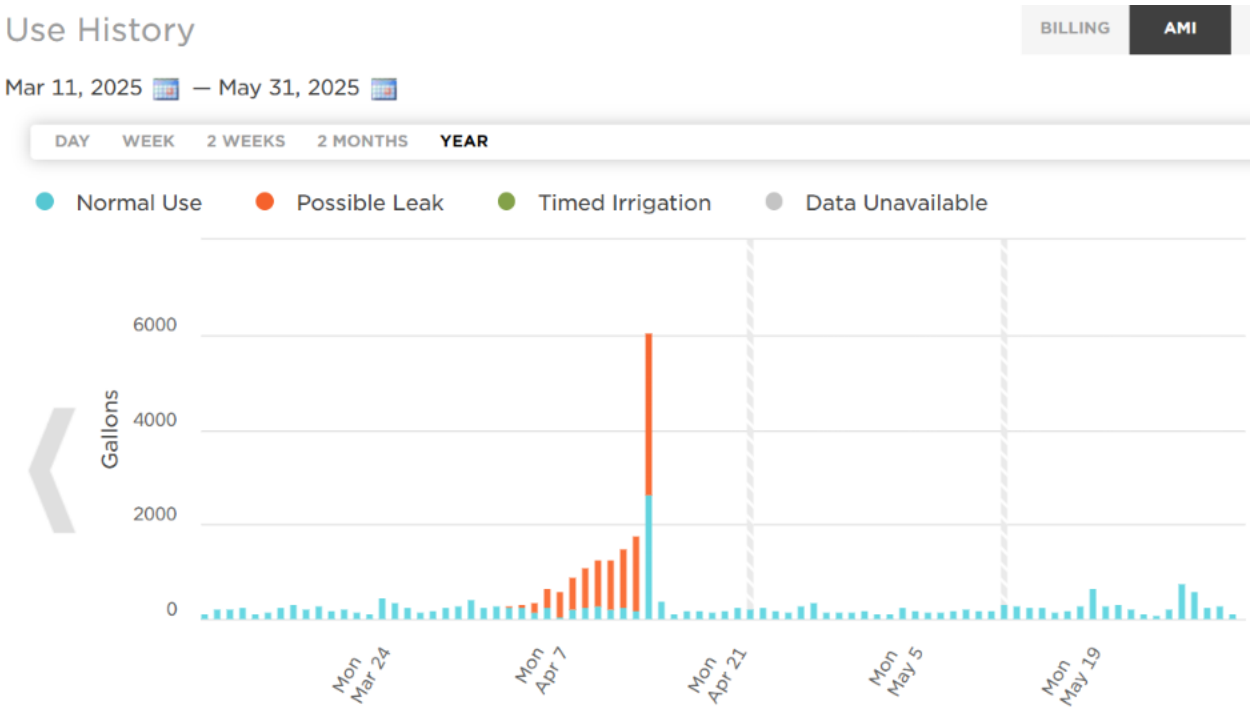


Figure 5 – Comparison of April 2025 and August 2025 Monthly Bills for Example Customer

Suburban Water Systems

Customer Service: 8:00 AM - 4:30 PM, Mon. - Fri.
Phone: 626-543-2640 Toll-free: 800-203-5430
TTY: 877-405-1710
Email: SuburbanCustomerCare@swwc.com
Website: www.swwc.com/suburban

Account #: [redacted]
Invoice #:
Bill Date: 04/25/2025
For Service To: [redacted]
HACIENDA HEIGHTS CA 91745

Due Date: 05/14/2025
Total Due: $150.78

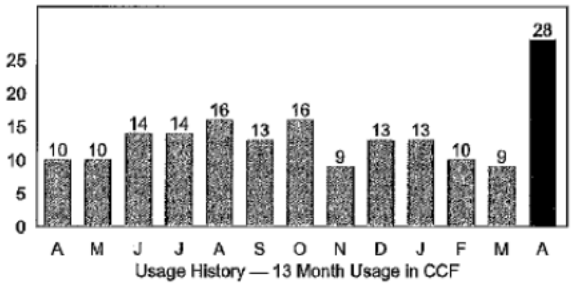
Service	From	To	# of Days	Previous	Current	Usage (CCF)	Meter #
3/4" - R	03/26/2025	04/24/2025	30	728.0	756.0	28.0	[redacted]

Account Details

Previous Balance		**$64.40**
Payment Received 04/14/2025 - Thank You		-$64.40
Balance Before Current Charges		**$0.00**
Service Charge	(30/30) x 25.22 = 25.22	$25.22
Water Charge	20 @ 4.0610 = 81.22 8 @ 4.5580 = 36.46	$117.68
Water Offset 10	28 x .187	$5.24
Public Purpose Program	28 x .058	$1.62
CPUC Surcharge	149.76 x 0.6800%	$1.02
Total Current Charges		**$150.78**
Total Account Balance		**$150.78**

Messages

- **Your portal URL is changing!** Visit **account.mywater.us** for onlin payments, paperless billing, address updates, and more.
- **Updated Bill Design!** We've updated your bill to improve readability. The information provided remains the same. We hope you find our new layout clear, concise, and understandable.
- Suburban offers a Low-Income Rate Assistance (LIRA) discount of $9.04/month to qualifying customers.
- $5.03 is your average daily cost this period.
- Units: 1 CCF = 100 Cubic Feet = 748 Gallons
- *Moving?* Move-Out Online at https://account.mywater.us. *Address Change?* Email us at SuburbanCustomerCare@swwc.com



Usage History — 13 Month Usage in CCF

Suburban Water Systems

Customer Service: 8:00 AM - 4:30 PM, Mon. - Fri.
Phone: 626-543-2640 Toll-free: 800-203-5430
TTY: 877-405-1710
Email: SuburbanCustomerCare@swwc.com
Website: SuburbanWaterSystems.com

Account #: [redacted]
Invoice #:
Bill Date: 08/25/2025
For Service To: [redacted]
HACIENDA HEIGHTS CA 91745

Due Date: 09/15/2025
Total Due: $110.84

Service	From	To	# of Days	Previous	Current	Usage (CCF)	Meter #
3/4" - R	07/25/2025	08/24/2025	31	800.0	818.0	18.0	[redacted]

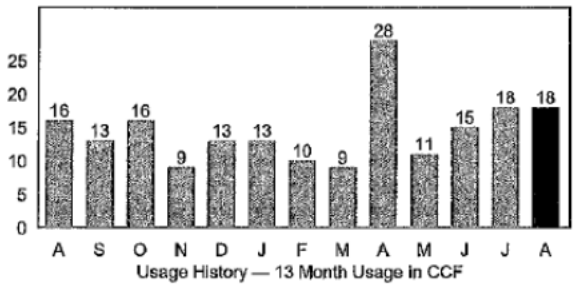
Account Details

Previous Balance		**$103.43**
Payment Received 08/14/2025 - Thank You		-$103.43
Balance Before Current Charges		**$0.00**
Service Charge	(31/31) x 25.22 = 25.22	$25.22
Water Charge	18 @ 4.0610 = 73.10	$73.10
Water Offset 10	18 x .187	$3.37
Public Purpose Program	18 x .058	$1.04
One Time Surcharge (Covid-19)	18 x 0.074	$1.33
CPUC Surcharge	110.09 x 0.6800%	$0.75
One Time Surcharge (CAP)	18 x 0.135	$2.43
Water Offset 414	14 x 0.257	$3.60
Total Current Charges		**$110.84**
Total Account Balance		**$110.84**

Messages

- As authorized by the California Public Utilities Commission (CPUC), this bill includes purchased water, pump tax, and energy offset surcharges, effective on August 1, 2025, and will continue for approximately 24 months.
- Suburban offers a Customer Assistance Program (CAP) discount of $9.04/month to qualifying customers.
- $3.58 is your average daily cost this period.
- Units: 1 CCF = 100 Cubic Feet = 748 Gallons
- *Moving?* Move-Out Online at https://account.mywater.us.

Address Change? Email us at SuburbanCustomerCare@swwc.com



Usage History — 13 Month Usage in CCF

These case studies of customers from the pilot project demonstrate how AMI provides tremendous opportunity for cost avoidance to customers through early leak detection. These are two of many examples from the pilot project. The leak alert log that documents each of these instances is in Workpapers Volume III, P-15, Appendix 2.

Limited to only monthly data, AMR fails to protect customers from devastating high bills due to leaks, which points to the need for AMI system wide. The following is an example for a customer located outside of the pilot project that is only served by AMR. The customer had a leak that started in February 2025 and lasted until March 2025, as shown in the monthly consumption data of Figure 6. Unfortunately, since AMR only collects data once a month, Suburban wasn't notified of the leak until March 6th. A field technician was sent to investigate and found a leak on the customer's side of the meter. No one was home, so the technician left a door tag to notify the customer of the leak. The

customer addressed the leak, but only after incurring a month of leakage and the resulting costs. This abnormally high usage affected both the February and March bill, as seen in the invoices in Figure 7. The customers average bill is $92. The leak caused the February and March bills to soar to $192 and $345, respectively, amounting to an additional $353 over the two months. The burden of hundreds of dollars on this customer could have been avoided if the leak had been detected as soon as it occurred with an AMI meter. This case study demonstrates how AMR meters cannot protect customers from expensive leaks because of the lack of continuous data. This project must be approved to protect customers from unaffordable bills.

Figure 6 – Monthly Consumption Surrounding the Customer C's Leak

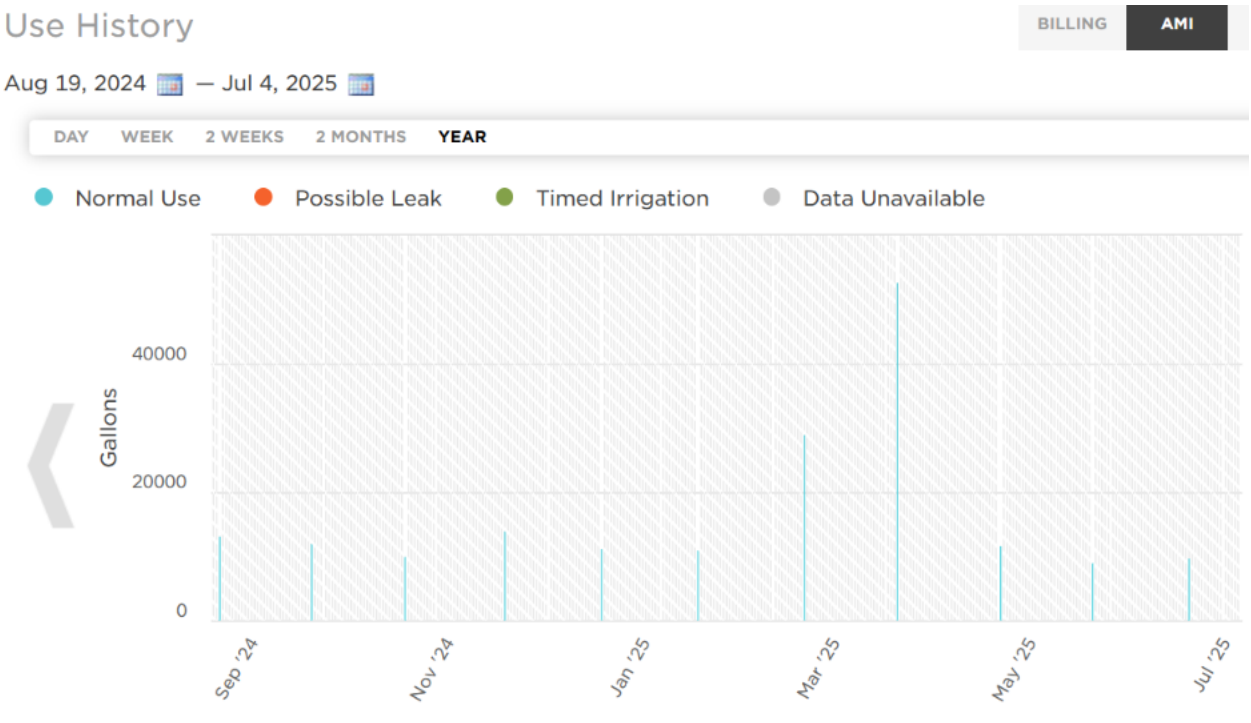


Figure 7 – Monthly Bill with Usage History for Customer C

Suburban Water Systems

Customer Service: 8:00 AM - 4:30 PM, Mon. - Fri.
Phone: 626-543-2640 Toll-free: 800-203-5430
TTY: 877-405-1710
Email: SuburbanCustomerCare@swwc.com
Website: SuburbanWaterSystems.com

Account #: [redacted]
Invoice #:
Bill Date: 08/19/2025
For Service To: [redacted]
LA PUENTE CA 91744

Due Date: 09/08/2025
Total Due: $452.44

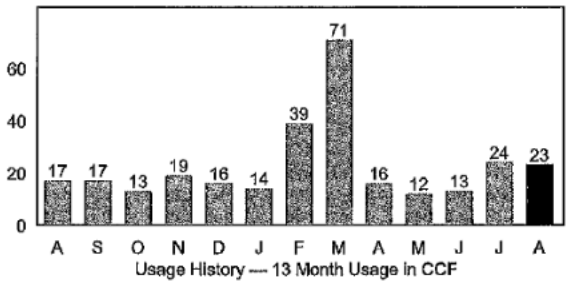
Service	From	To	# of Days	Previous	Current	Usage (CCF)	Meter #
3/4" - R	07/22/2025	08/19/2025	29	422.0	445.0	23.0	[redacted]

Account Details

Previous Balance		**$415.63**
Payment Received 08/01/2025 - Thank You		-$85.19
Balance Before Current Charges		**$330.44**
Service Charge	(29/29) x 25.22 = 25.22	$25.22
Water Charge	20 @ 4.0610 = 81.22 3 @ 4.5580 = 13.67	$94.89
Water Offset 10	23 x .187	$4.30
One Time Surcharge (Covid-19)	23 x 0.074	$1.70
LIRA Credit		-$9.04
CPUC Surcharge	121.18 x 0.6800%	$0.82
Water Offset 414	16 x 0.257	$4.11
Total Current Charges		**$122.00**
Total Account Balance		**$452.44**

Messages

- As authorized by the California Public Utilities Commission (CPUC), this bill includes purchased water, pump tax, and energy offset surcharges, effective on August 1, 2025, and will continue for approximately 24 months.
- Suburban offers a Customer Assistance Program (CAP) discount of $9.04/month to qualifying customers.
- Failure to make prompt payment of the past due amount of **$330.44** may result in shut-off of your service.
- $4.21 is your average daily cost this period.
- Units: 1 CCF = 100 Cubic Feet = 748 Gallons
- *Moving?* Move-Out Online at https://account.mywater.us. *Address Change?* Email us at SuburbanCustomerCare@swwc.com



Usage History — 13 Month Usage in CCF

As demonstrated by these examples, Suburban's customers cannot afford to pay hundreds of dollars extra on their monthly water bill when the leak alerts are delayed and would benefit greatly from the cost avoidance provided by AMI.

Empowering Customers to Conserve Water Through AMI

E-Source's analysis of the pilot project found that AMI empowers customers to conserve water and save on their water bills, particularly through the detailed data provided by the online customer portal. Suburban's customers with AMI and AMR meters have access to their consumption data and billing history on the VertexOne website. Customers can view their usage analytics in the form of bar graphs and trends. AMI customers have

access to continuous daily and hourly data, whereas AMR customers can only view their total usage per month.

AMR cannot give customers the tools they need to conserve water and save money. Monthly data does not provide customers with enough information to determine the specific actions needed to improve their conservation. Figures 8 and 9 show the data available to customers with an AMI and AMR meter, respectively. For customers with AMI meters, the portal provides an estimated allocation of how much water is consumed each hour for normal use, irrigation, or even potential leaks. This allows customers to understand their consumption at a detailed level and make informed decisions on how they can reduce their usage, whether it be taking shorter showers, reprogramming their irrigation, or fixing an undetected toilet leak. On the other hand, customers with AMR meters can only view their monthly usage. This data fails to give customers information on how they can change their unique water habits. AMI gives customers significantly more information to help them reduce their usage and save on their bill.

Figure 8 – Example of VertexOne Data Available for Customers with an AMI Meter

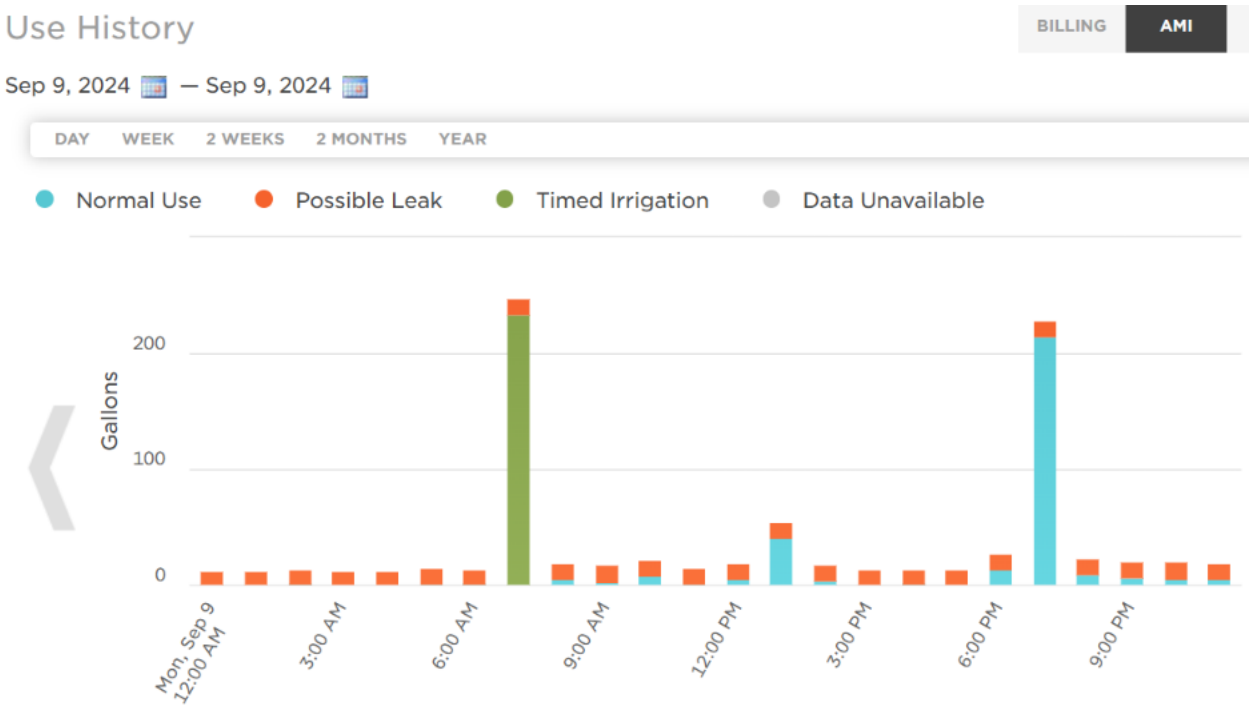
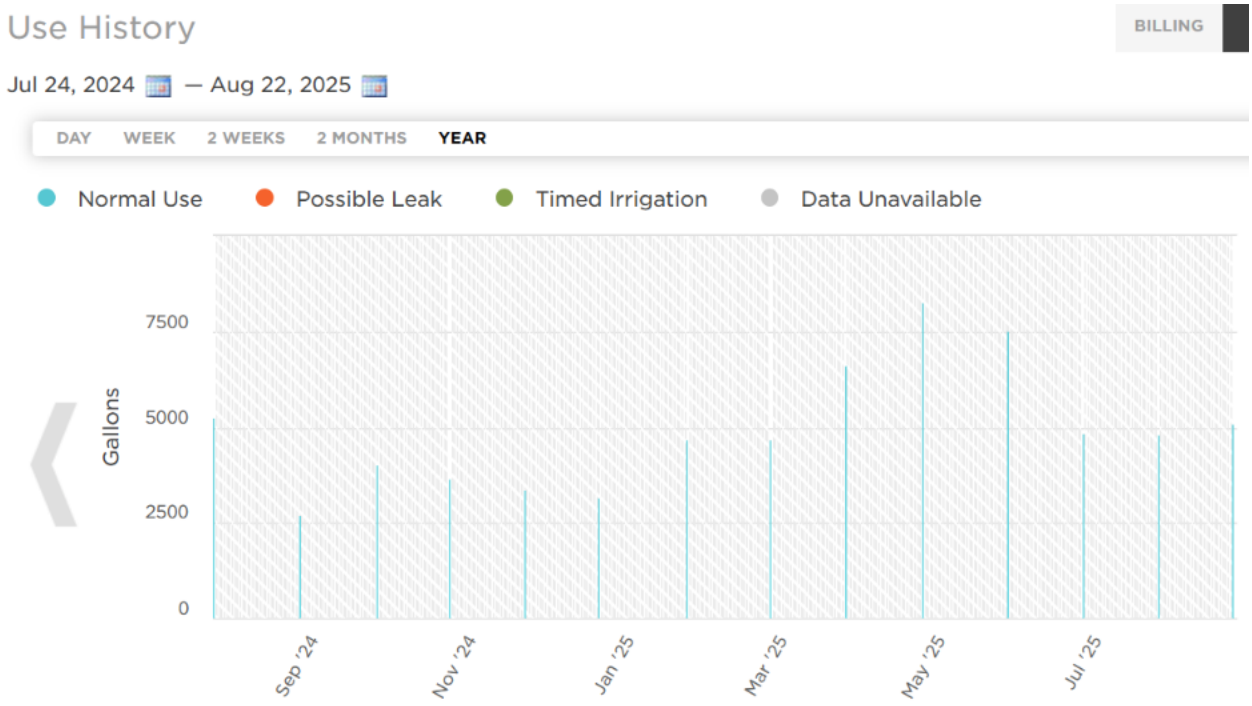


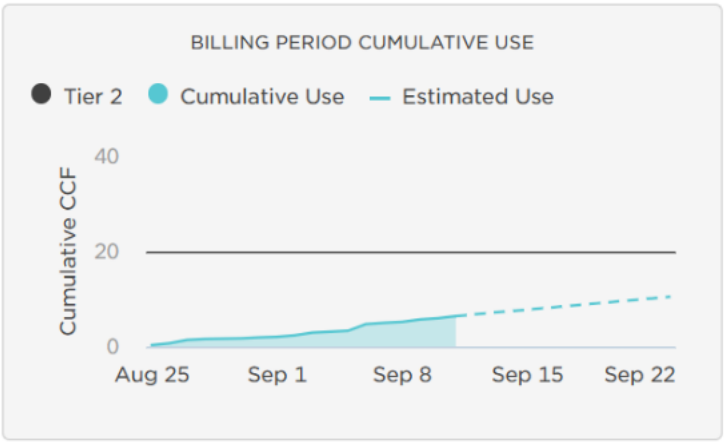
Figure 9 – Example of VertexOne Data Available for Customers with an AMR Meter



Customers demand data to help them understand their water use; with the AMI data available to them by way of the VertexOne portal, they are empowered to act on

conservation which will benefit themselves financially, and to help the state achieve its conservation objectives. Through the portal, Customers can opt into text, phone, or email notifications for high water usage alerts. The continuous data collection of AMI enables customers to be immediately notified if they are using an abnormally high amount of water, enabling them to take action to curb consumption and avoid surprise bills. AMI allows customers to see how much water they've consumed to date and a projection of what their total usage will be for the month (see Figure 10). Customers can use this estimation to anticipate and budget for their monthly bill, which further aids affordability. Finally, the portal provides educational resources and recommendations on how to conserve water and repair leaks based on their specific use patterns detected by AMI. The data provided to the customer through the VertexOne portal is superior to that provided by AMR and provides essential tools for customers to conserve water and keep their bills affordable.

Figure 10 – Sample of a Customer's To-date and Projected Consumption for the Billing Period on the VertexOne Portal



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E-Source found that the pilot project demonstrates how Suburban's customers are willing to be upgraded to AMI, are engaged with the VertexOne portal, and are empowered to conserve water by the AMI data. The pilot project demonstrates how customers are eager to receive the benefits of AMI. Of the 5,200 Hacienda Heights customers who were

notified of being upgraded to an AMI meter, only five customers opted out of the upgrade. The customer notification and opt-out letter can be found in Workpapers Volume III, P-15, Appendix 3. Approximately 53% of the customers with an AMI meter have created a VertexOne account to view their hourly consumption data. Suburban will continue to promote the VertexOne portal, encourage customers to create an account, and raise awareness of its resources with a full build-out of AMI. Clearly, Suburban's pilot project proved that its customers are receptive to AMI technology and its benefits.

As proven by the pilot project, AMI drives conservation for Suburban's customers. Only AMI can provide the data needed to empower customers to conserve water and improve the affordability of their water bill. Therefore, AMI backbone structure must be built out for the entire service area.

AMI needed to meet compliance requirements

Suburban must implement AMI across its service area to facilitate customers meeting California's conservation objectives. Living through droughts is a reality for Southern California residents, and steps must be taken to reduce water loss and consumption through Urban Water Use Objectives (UWOU). An UWUO is an individualized supplier-specific budget for efficient water use in California. Urban water suppliers must calculate their UWOU, report it annually, and demonstrate compliance with the objective as part of California's Making Conservation a California Way of Life regulation. The regulation promotes long-term water efficiency and adaptability to California's water challenges. Water that is not used for agriculture or to support the environment is referred to as "urban water", which includes use for the following:

- Drinking
- Toilets and showers
- Landscaping

- Car washing
- Businesses
- Industrial processes

The Urban Water Use Efficiency program requires water suppliers to submit data to the California Department of Water Resources (DWR) to ensure we use our urban water supplies wisely and are transparent. The UWUO water budget is derived from the sum of the following factors.

- Indoor Residential Water Use
- Outdoor Residential Water Use
- Commercial, Industrial, and Institutional (CII) Landscape Use
- Water Loss
- Variances
- Bonuses for use of recycled water

Determining indoor and outdoor residential water usage is critical to demonstrating compliance. The most accurate way to measure residential water usage is with AMI meters. AMI meters allow Suburban to isolate irrigation schedules compared to indoor use. Without AMI, residential usage will be less apparent, and an unfair allocation of costs will be established. The inability to determine accurate budgets may result in fines of up to $1,000 per day under normal conditions and $10,000 per day during drought years. Fines will be in effect after November 1, 2027. An annual fine of $365,000 during normal conditions may be imposed, much greater than during drought conditions. Suburban must implement AMI system wide to ensure compliance with California's Making Conservation a California Way of Life regulation and avoid burdening customers with the cost of fines.

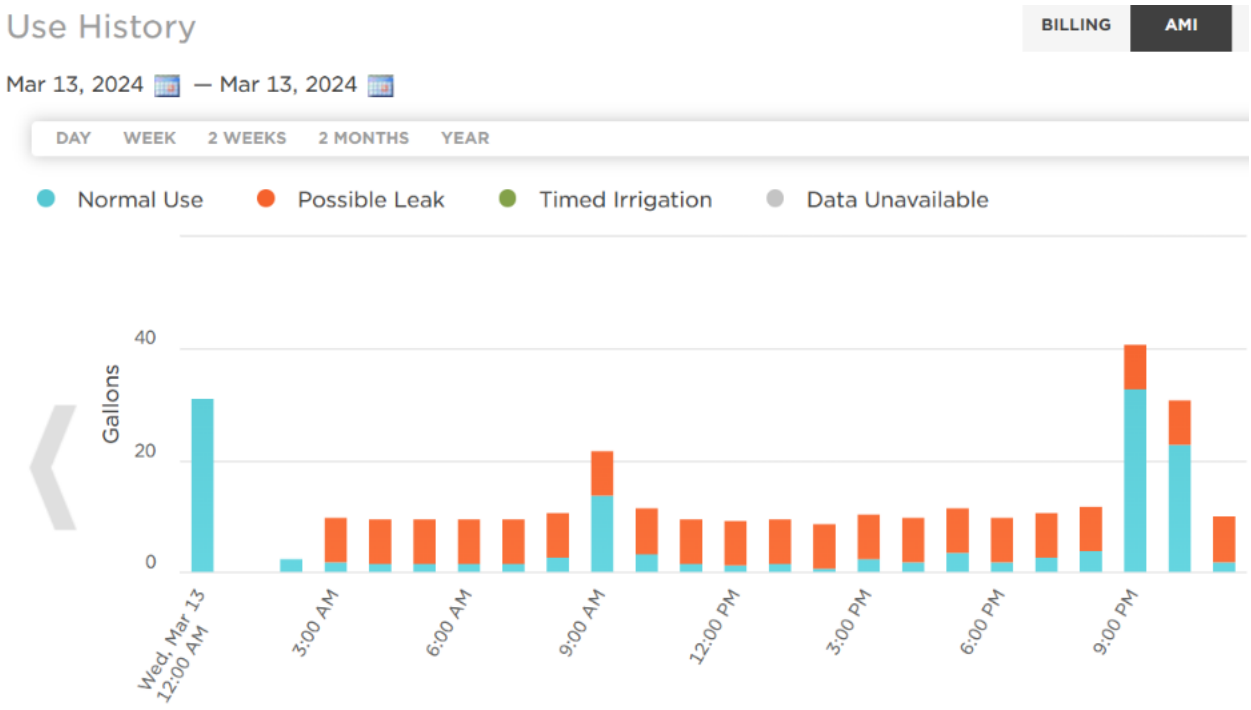
Improving Customer Service and Trust in Utility Through AMI

In their report, E-Source notes that AMI improves customer service and builds trust in the utility.

With the limitations of AMR and direct read meters, the customer service team cannot pinpoint what is causing a customer's bill to be high. Customers often do not know how they use their water and what causes a dramatic increase in their bill. They contact Suburban's customer service to request information to help them understand better. Customers who make these calls seek transparency and a clear understanding of their water utility. Without the detailed hourly data that AMI provides, the customer service representative cannot diagnose the customer's specific issue. Instead, only the limited monthly snapshots of consumption data from direct read or AMR meters can be referenced. Customer service representatives can only make generalized suggestions to the customer. The lack of transparency fuels further customer frustration and mistrust towards the utility, which must be avoided.

Conversely, continuous AMI data enables customer service to identify what is causing the customers' bills to be high and give them the transparency they desire. For example, a continuous high flow trend indicates that there may be a constant leak on the customer's side. The customer service representative can relay this information to the customer and advise them to check for leaks in their toilet and plumbing. Figure 9 shows an example of a Suburban customer's trend with a continuous leak. Drastic peaks at recurring times of the day can indicate an incorrectly programmed irrigation controller that may be running too long or too often that results in excessive sprinkler use, from which the customer service representative can make the appropriate recommendation to adjust their sprinkler settings. In many cases, AMI data is the only way that a customer's high usage can be explained and resolved.

Figure 9 – Usage Trend of a Suburban Customer with a Continuous Leak



The pilot project proves that Suburban can proactively notify customers of potential leak alerts through AMI, saving them hundreds of dollars on their monthly bill. This proactive approach prevents customer complaints regarding unexpectedly high bills from happening in the first place. Customers who experience this billing shock may develop mistrust in the water utility. By notifying the customer of the leak ahead of the billing cycle, before the costs are incurred, Suburban builds a great level of trust from its ratepayers. Leak notifications give the customers a sense that Suburban is looking out for the best interests of its customers, improving their relationship with utilities.

Implementing AMI across Suburban's will improve customer service by shifting the staff's labor hours from reading AMR and direct meters to spending more time with customers, explaining their water usage, and providing ways to save water. The Hacienda Heights pilot project exemplifies this benefit. Field service technicians were deployed to the customer's doorstep to investigate potential leaks, directly notify the customer, and offer their help. This outstanding level of service requires a great amount of time, which can be made available by

shifting the labor hours of meter reading to interfacing with customers. Our field staff is experiencing increased questions from customers who want explanations of their water usage and leaks. A leak in a customer's plumbing can be difficult to pinpoint. Customers do not know what they are looking for and request additional information from our field staff. Sometimes it may be as easy as finding a green patch of grass on the front lawn, but it can also be a leak of piping under the concrete slab that is not visible. Staff's will be able to use their limited time to do routine maintenance activities such as route maintenance and water distribution flushing. Route maintenance includes cleaning R-21, replacing broken meter lids, and sinking meter boxes. Flushing water lines will eliminate water quality calls so that customer service representatives operating the customer service phone can assist with other inquiries. Additional information about operational modification in Michael De Ghetto's Testimony. Clearly, AMI improves customer service by allowing Suburban's staff to spend more time addressing the needs and concerns of the customers.

The pilot project demonstrates how AMI improves Suburban's customer service. This project must be approved to enhance customer service across the entire service area.

Customer Benefits Through Improved Operation of Water System

A full AMI build-out would allow Suburban to compare continuous customer demand data with continuous production data across all pressure zones. would use the difference to pinpoint and address areas with real water loss. In addition, hourly demand data would enable Suburban to optimize pumping schedules to save on energy costs. Reducing water loss and energy costs system-wide drives down Suburban's expenses, ultimately benefiting the customer's affordability of their water bill.

Environmental Benefits

System-wide AMI supports the CPUC's Environmental and Social Justice (ESJ) goals. As previously noted, AMI provides customers with information required to adjust usage behavior to use water more efficiently and reduce demand. Reduced demand also reduces embedded energy, resulting in lower carbon emissions. AMI technology also supports Goal 4 of the ESJ Action Plan to increase climate resiliency by reducing water waste through leaks. AMI technology recognizes constant and unusual flows in both flow directions of the meter. This means it catches leaks on the customer side as well as on the utility side. Waiting for leaks to surface or waiting for high bills to indicate a leak is a lost opportunity to prevent water loss. With the drought conditions facing the entire western United States and ongoing climate change, all efforts to minimize water use are required. Whether through efficiency, conservation, or minimizing leaks, AMI is key to meeting the CPUC's ESJ goals.

Project Description

Infrastructure

The following section describes the equipment required for a full deployment of AMI across Suburban's service area. An AMI schematic is shown in Workpapers Volume III, P-15, Appendix 4.

Antennas: The Master Meter AMI system uses a long range radio network to communicate with meters via antennas. The system operates within a secured licensed frequency provided by the Federal Aviation Administration (FAA) of 450MHz – 470 MHz. The frequency offers a reliable and extensive reach. Radio waves travel in a direct path and may encounter obstacles such as buildings and hills that affect the quality of information. To avoid obstructions the antenna should be mounted on a tall structure such as a tower. Information collected by antennas is transmitted to the base station.

Repeaters: Range is the limited distance that radio signals can be transmitted. Repeaters receive radio signals and re-transmit them to extend the range or avoid obstructions.

Base Station: The base station collects meter information from repeaters and antennas, converts it and uses the internet to upload data to Master Meters software application, (Harmony). An image of the base station is included in Workpapers III, P-15, Appendix 5 of this report.

Software: AMI data collected is stored and managed in proprietary database software provided by the meter manufacturer. Master Meter's software application, Harmony, processes and stores data to upload to the utility's customer account and billing software.

The pilot project's AMI infrastructure installation cost in 2019 was $156,963.94. A 25-feet tall telescoping antenna was installed on top of the 32-feet tall reservoir at Plant 165, resulting in total height of 57-feet (antenna is shown in Workpapers III, P-15, Appendix 6). This approach was lower cost and faster than installing a stand-alone antenna. This arrangement has worked well in the pilot project and will be used for future antennas to minimize cost and construction schedules.

Propagation Study

Master Meter performed an initial propagation study in 2015 to determine the infrastructure required to collect data from Suburban's meters and revised this study for this report in 2022. This study determines the quantity and location of antennas, base stations and repeaters. A propagation study is an empirical mathematical formulation for the characterization of radio wave propagation determined based on frequency, distance and other characteristics. The study is used to predict the behavior of propagation of radio signals. The propagation study demonstrates that four (4) base stations and fifteen (15) repeaters strategically placed throughout the system within our plant sites are required to

collect reads from all of Suburban's meters. The results of the 2022 propagation study are included in Workpaper III, P-15. Appendix 7.

Alternatives

Alternative 1: Do not install AMI infrastructure. This alternative provides a lower level of customer service than is available with AMI technology and misses out on improvements to affordability that were affirmed by the AMI pilot project. Without AMI, customers do not have the ability to timely monitor and adjust their consumption habits. In addition, they won't have the benefit of advanced real-time leak detection that protects them from high bills resulting from leaks. The customers will not receive the improvements in Suburban's customer service that were described in this testimony. This alternative will be the least affordable for customers with plumbing leaks.

Alternative 2: Install AMI infrastructure. This alternative is a full deployment of AMI infrastructure per Master Meter's propagation study. This gives an equal and improved level of service across Suburban's service area, providing all customers with the benefits that E-Source identified in their pilot project evaluation, particularly in the affordability of their water bills. AMI provides continuous information to customers to help them manage their water consumption and quickly notifies customers of leaks to keep their bills affordable and reduce the environmental impacts of water loss. This is the recommended alternative. The cost estimate for this alternative is below. The detailed cost estimate is in Workpapers Volume III, P-15, Appendix 8. The cost estimate decreased from the previous rate case due to the lower cost to install electrical work for the repeater sites based on Tamang Electric's cost proposal. The estimated 2025 cost is escalated to 2028 based on the "Construction Costs Escalation" section of my testimony.

Cost Estimate for Alternative 2:

Description	QTY	Units	Unit Cost	Cost
AMI Equipment	1	LS	$ 484,734	$ 484,734
AMI Software	1	LS	$ 40,070	$ 40,070
AMI Housing, Antenna, and Electrical (4 base stations)	4	LS	$ 61,002	$ 244,006
AMI Electrical work (15 repeater stations)	15	EA	$ 20,800	$ 312,000
AMI Concrete Structural Pads (4 base stations)	400	SQ FT	$ 160	$ 63,896
Construction Inspector (In house)	240	Hours	$ 52.87	$ 12,689
Construction Inspector (Consultant)	960	Hours	$ 215	$ 206,400
Project Manager (Consultant)	96	Hours	$ 277	$ 26,592
Subtotal				**$ 1,390,387**
Escalation from 2025 to 2028			8.92%	$ 124,064
				$ 1,514,451
General Administration			10.01%	$ 151,597
Subtotal				**$ 1,666,048**

Alternative 3: Install cellular AMI. This alternative involves equipping each meter with a cellular endpoint that transmits data directly to the utility. Cellular technology eliminates the need to build AMI network infrastructure. However, this alternative has substantially higher ongoing operational costs than Alternative 2. E-Source performed a financial analysis of this alternative and found that it is significantly more expensive over its lifespan than Alternative 2 for this large scale of meters. For smaller systems, this option may prove to be financially feasible. For the purpose of a full deployment of AMI across Suburban's service area for 79,000 meters, this alternative is not recommended.

Recommendation

AMI meter reading technology is superior to AMR technology because it provides timely information to customer that they need to make water usage decisions to control the affordability of their water bills, and their ability to conserve water to meet California conservation objectives. The speed at which AMI technology can share important leak alert data with customers helps them resolve leaks quickly and avoid having financial devastating water bills for wasted water.

Suburban's AMI pilot project has not only proven the technical feasibility of a system-wide rollout but also demonstrated the clear and measurable benefits to customers—

especially in terms of affordability and water conservation. Through near-real-time leak detection, detailed usage data, and seamless integration with billing systems, AMI empowers customers to avoid costly surprises and make informed decisions about their water use. These benefits were validated by an independent third-party expert and directly address the concerns raised in previous rate case decisions. Suburban customers should not be left behind in accessing the tools that help them manage their bills and conserve water. Therefore, a full AMI build-out is both reasonable and necessary in this rate case period.

Several examples of real customer interactions demonstrated the real dollar impact that leaks can have on the affordability of a customer's monthly water bill, and how the incremental bill impact of investing in the AMI system is insignificantly small when compared to the potentially financially devastating costs that a leak can add to a customer's water bill. To realize these customer benefits, it is recommended that Suburban proceed with the full build-out of AMI.

(P-16) Omitted Intentionally

(P-17) Sativa Water System Pipeline Replacement - $3,368,048

Q90 Can Suburban's Sativa customers afford to lose their homes due to poor fire flow?

A89 No. Suburban's disadvantaged Sativa customers cannot afford to lose their homes due to insufficient fire flow caused by undersized water mains. Water mains must be replaced with larger diameter mains to improve fire flows and meet LA County Fire Department's minimum fire flow requirements.

Q91 Can Suburban's Sativa customers afford to drink poor water quality due to insufficient pipeline flushing velocities?

A90 No. Suburban's Sativa customers cannot afford to continue suffering from poor water quality because the undersized water mains have insufficient flushing velocities to remove debris and residual manganese that has accumulated in the system over the last 80 years, and poor-quality water that becomes discolored after coming into contact with accumulated manganese in the system. Undersized water mains must be replaced with larger diameter pipes that permit higher velocities for flushing to improve water quality for Sativa's customers.

Q92 Can Suburban's Sativa customers afford to experience frequent service interruptions due to increased pipeline breaks?

A91 No, Suburban's Sativa customers cannot afford to experience frequent service interruptions due to increased pipeline breaks caused by undersized water pipelines. These water mains must be replaced with larger diameter mains to reduce high velocities eroding the pipeline.

Executive Summary

As I previously discussed in my testimony, Suburban Water Systems is undertaking critical infrastructure upgrades in the Sativa neighborhood to address longstanding deficiencies in water service that jeopardize public safety and health. The existing undersized water mains, many over 80 years old fail to meet Los Angeles County Fire Department's minimum fire flow requirements, contributing to elevated fire risk in this densely populated residential area. These outdated pipelines also cause poor water quality due to insufficient flushing velocities, leading to discolored water and residual manganese buildup. Additionally, frequent service interruptions from pipeline breaks further burden the community.

Phase 1 of Suburban's pipeline replacement project has delivered meaningful improvements in certain areas of Sativa, but Phase 2 is urgently needed to complete the system-wide upgrades. Installing larger diameter mains will enhance fire protection, improve water quality, and reduce service disruptions. These upgrades are essential to building a resilient water system capable of supporting current and future demands, especially in the face of climate-driven fire threats. Suburban remains committed to delivering safe, reliable water service and protecting the homes and lives of Sativa's residents.

Background

Below is a brief description of the Sativa water system. The Sativa Water District of Los Angeles (Water District) was established in 1938. The Water District encompasses a 0.27 square mile area in Willowbrook, unincorporated Los Angeles County, and a portion of the City of Compton. Most of its existing assets were installed in the early 1940s. The distribution piping system includes 48,922 linear feet of water mains ranging from 2 to 8 inches in diameter and is constructed from various materials like asbestos cement, steel, and cast iron.

For the decades preceding 2019 the customers of the Water District suffered from poor water quality that was colored due to manganese and debris from its wells. Customers could not drink the colored water and had to purchase expensive bottled water for simple drinking and cooking. Customers were afraid of the health impacts from bathing themselves and their children in Sativa's colored water. Customers complained repeatedly to Sativa's elected board who responded to customers that it was safe to drink. The State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) inspections found that Sativa's undersized pipes and failing and contaminated water sources were insufficient to flush Sativa's pipes to remove debris and manganese that had accumulated in the water system for more than a decade. DDW inspections indicate that

Sativa needed to remediate its supplies and upgrade its pipelines so pipes can be flushed to provide customers with safe and clean water.



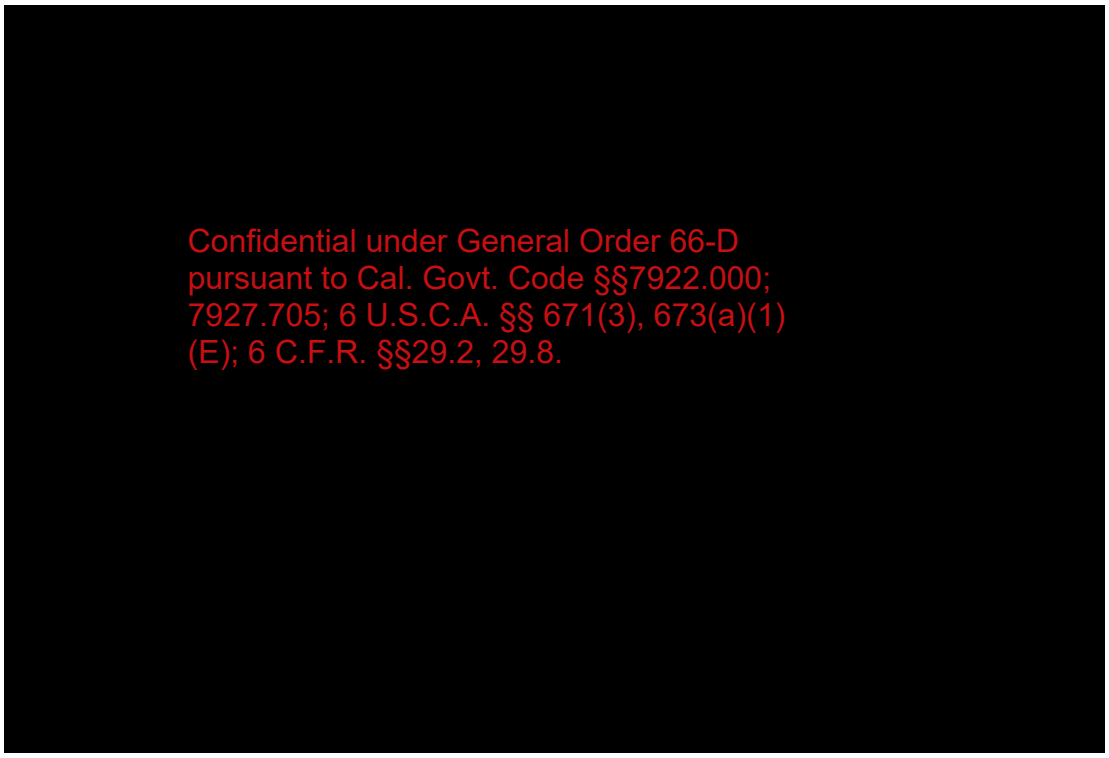
Figure 1: Sativa's Customers Protesting Poor Service and Dirty Water Quality Prior to the Dissolution of the Sativa Water District of Los Angeles County.

The Sativa water system was placed under the control of an administrator because the previous operator had failed to provide customers with safe and clean drinking water. In 2018 Assembly Bill 1577 (Gipson) authorized the SWRCB DDW to force Sativa to accept control of a state appointed administrator. Sativa's governing body was dissolved by Los Angeles County Local Area Formation Committee (LAFCO), and Los Angeles County Public Works (LACPW) was appointed as the administrator. LACPW managed and operated the Sativa system from 2018 to 2022. LACPW was also charged with finding a permanent operator for the Sativa system. LACPW ran a transparent public section process and selected Suburban to own and operate the Sativa system. Suburban first ran the system under an Operations and Maintenance contract for LACPW in June 2021, and ownership transferred to Suburban in December 2022. Suburban is now responsible for maintaining, operating, and upgrading the Sativa water system to ensure that its customers have safe and clean drinking water. To meet this responsibility, Suburban has begun the process of replacing undersized pipelines to create a more resilient system.

The first phase of pipeline replacements was completed in 2025. Phase 1, shown in Figure 1 below, includes: (1) Stockwell, (2) Vesta, (3) Willowbrook, (5) Wilmington,

(10) W. Willowbrook, and (11) E. Willowbrook. Phase 1 scope of work included the replacement of undersized pipeline, elimination of dead-end mains, and elimination of backyard mains. In Phase 1, several dead-end mains that contributed to poor fire flow and water quality have been eliminated along Willowbrook, where there was limited transmission on the eastern side of the system. Suburban's pipeline replacement strategy also included transferring backyard and alley mains to the street. This approach improves the safety of our customers and eliminates the need for Suburban's operators to enter customers' backyards. Moving the pipeline into the street creates more predictable conditions that do not inconvenience customers, and Suburban staff typically work. Phase 1 has brought much needed improvement and investment into local areas within Sativa, however Phase 2 of pipeline replacements are still needed to finish addressing issues still present in the rest of the system.

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Justification

Sativa's pipelines are undersized and are unable to provide the required flushing velocities to remove debris and accumulated manganese; they are unable to provide sufficient fire flows to stop customers houses from burning down; they cause low pressure impacting water service quality; and they increase the frequency of pipeline breaks.

Flushing Velocities

Sativa has a history of poor water quality, and the small diameter pipes impact Suburban's ability to flush the system and address these concerns. These small-diameter pipes experience low velocity, making it difficult for pipes to be scoured when flushing these sections. The minimum velocity to scour a pipe is 2.5 feet per second. This low velocity is caused by the high head loss in the small-diameter pipe. Head loss is the fluid's energy loss as it flows through a system. This energy loss translates into a pressure loss further down the pipe, where high head loss leads to low system pressure. Low pressure is seen with the low flow rate, leading to ineffective flushing. Using the Hazen-Williams head loss equation, a typical 100 LF span of 4-inch AC pipe at a flow rate of 1,250 GPM would experience head loss of 30.5 psi. In comparison, a 100 LF span of 8-inch PVC pipe experiences a head loss of 0.9 psi, a loss which was reduced by a factor of 33 times. The static pressure in the system is 55 psi. Due to the pipeline head loss, the pressure 100 feet away will have a residual pressure of 25.5 psi. This means that while the flow and velocity pumping out of the wells may be sufficient to flush and scour pipe immediately near the entry point, trying to flush small-diameter pipe further along the system will lead to an extreme drop in pressure and velocity due to high head loss. This head loss cannot be overcome without replacing the pipeline. Installing larger pipes will reduce head loss and increase velocity for flushing and scouring.

Fire Protection

Small-diameter pipelines reduce the system's ability to provide adequate fire flow and residual pressure when fire hydrants are used. Sativa's piping system has a poor capacity for transmitting the relatively higher flow rates required to meet fire flow requirements due to poor looping and inadequately sized pipes. This puts the area at a higher risk of property damage and personal injury from fires.

Since acquiring the system, Suburban has replaced some undersized mains with more than 7,500 LF of 8-inch PVC, improving fire flow. Table 1 showcases fire flows measured before and after the pipeline replacement.

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Confidential under General Order 66-D
pursuant to Cal. Govt. Code §§7922.000;
7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E);
6 C.F.R. §§29.2, 29.8.

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Before the pipeline installations, these areas did not provide adequate fire flow to meet fire demand. Fire flow at the same locations increased significantly after the new pipeline was installed. This proves the positive impact that installing larger pipelines has on the flow rate in the system. For customers, these improvements significantly strengthen our system's ability to fight fires for many single-family homes that previously wouldn't have been able before the project. These results are not indicative of the entire system because more replacement is required to address all the areas in the water system with insufficient fire flow.

Fire flow capacity is a critical function of drinking water systems, directly impacting firefighters' ability to control and extinguish fires, protect property, and save lives during emergencies. Drinking water systems are the source of water for firefighting, and available fire flow capacity is the measure of how much water is available. Firefighters use this water to put out fires, to prevent fires from spreading, and to provide residents with time to escape from fires. When there is insufficient available fire flow, firefighters cannot quickly extinguish fires, stop them from spreading, or provide enough time for residents to escape their burning homes. This problem is magnified when there are more multiplied when there are multiple fire engines pulling from the system at one time and multiplied further when there are multiple structures on fire. This devastating event has been demonstrated on January 7, 2025 in the Pacific Palisades where hydrants ran dry because there were too many fire engines pulling water from the system simultaneously fighting thousands of structure fires. If a water system's available fire flow capacity is really low, it might only be able to support one house, or one engine and that might not be enough to fight the fire. Inadequate fire flow capacity poses a serious threat to public safety, as it limits firefighters' ability to control fires, protect property, and save lives, especially during large-scale emergencies. The devastating events in Pacific Palisades underscore the consequences of insufficient water supply during firefighting efforts. To prevent similar tragedies, water systems must have enough capacity to support multiple engines and structures simultaneously. Ensuring robust fire flow is not optional—it is a critical safeguard for communities.

Destructive fires that spread in residential areas are becoming increasingly frequent due to climate change. The Sativa neighborhood is a dense all-residential community with little separation between properties. Consequently, a fire at one property could quickly spread to adjacent homes and then engulf the neighborhood if proper fire flow is not

available. Sufficient fire flow needs to be available to put out fires and prevent them from spreading and burning down the whole neighborhood.

Figure 2: Palisades Neighborhood Destroyed by Fire on January 7, 2025



When Suburban began its operation of Sativa, several hydrants were found to have inadequate fire flow. Fire flow is the amount of flow needed to suppress a fire. The LA County Fire Department has the minimum flow required of 1,250 GPM in residential neighborhoods. Before the pipeline replacement, 8 of the 16 fire flow tests had a fire flow of less than 1,250 GPM, including the two shown in Table 1. Most of these failed fire flows occurred at hydrants at the system's edge. Below is the list of fire hydrants and their location.

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Confidential under General Order 66-D pursuant to Cal. Govt. Code §§7922.000; 7927.705; 6 U.S.C.A. §§ 671(3), 673(a)(1)(E); 6 C.F.R. §§29.2, 29.8.

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The results of Table 1 show that Phase 1 replacements have improved fire flow in hydrants adjacent to the installations. However, hydrants further from these improvements still struggle with acceptable fire flow. Table 2 illustrates the lack of improvement in other areas of Sativa. The results show that significant improvements were made to flow in certain areas, however Phase 2 is needed to fully build up the whole system's resilience against wildfires.

Homeowner and renter insurance has increased in cost in the past several years due to the increasing risk of fires damaging or destroying property across California. Homeowners' or renters' insurance protects customers against unexpected events that could damage or destroy a home and personal belongings. A report by Insurify, an insurance comparison website, highlights how homeowners' insurance has increased by 8%, nearly triple the national average of 2.9% (https://insurify.com/homeowners-insurance/report/home-insurance-price-projections/). These increases disproportionally impact disadvantaged communities by taking from their limited financial resources to continue coverage. Our Sativa customers are part of a disadvantaged community who will be greatly affected by fire damage and may be unable to recoup their property or belongings. Building more resilient fire protection will lower the risk of fire damage, which will help keep insurance costs low.

Inadequate System Pressure

Sativa experiences poor system pressure during high demand. High water demand in small diameter pipes causes pressure to drop from the water being pulled out from the system and the high head losses. Fire flow results in areas with smaller diameter pipes confirm this, having residual pressure results of less than 40 psi. Residual pressure is the pressure in the system when water is flowing. High head losses from the small-diameter pipe create significant pressure drop from the well discharge, leading to low residual pressure. This issue increases in severity in areas further downstream from the well discharge. Small diameter pipes fail to provide adequate pressure during high demand.

This low residual pressure violates General Order 103A (GO103A). GO103A is a set of regulations established by the California Public Utilities Commission (CPUC) that sets minimum standards for the operation, maintenance, design, and construction of water utilities in California. GO103A states that the minimum operating pressure must be 40-125 psi. Low water pressure affects customers' ability to complete daily tasks such as showering or washing dishes. Failing to meet CPUC regulations impacts the quality of service Suburban provides to its customers. Upsizing the pipeline would lower head losses and improve the system's pressure during high demand.

Undersized mains increase break failures

Undersized mains in Sativa increases the frequency of break failures because of population. According to the US Census, the population of the City of Compton grew from 16,198 in 1940 to 95,740 in 2020. That nearly a 600% population growth since the 1940s. Yet, before Suburban acquired the system, Sativa's infrastructure had not been upgraded since its original construction. The population growth experienced in the Sativa water system led to higher flow rate demands than the distribution system was designed for; higher flow rates require substantially higher velocities in smaller diameter pipes. High velocity increases the rate of erosion on the already aging piping, increases the risk

of leaks and shortens the useful life of the system. Work to replace and upsize pipes will help the water systems accommodate the higher demands that have resulted from 80 years of population growth.

Alternatives

Alternative #1 – Do not install Phase 2 of pipeline installations. This alternative fails to address existing issues in Sativa and puts our customers at risk of poor water service quality. Doing nothing fails to follow up on the remarkable improvements made to the system as a result of the first phase of pipeline installations. For these reasons, this is not the recommended option.

Alternative #2 – Install Phase 2 of pipeline installations. This alternative proposes the continued installation of new larger pipelines across the Sativa system to improve the benefits already seen since the first phase of pipeline replacements were completed. Phase 2 will provide a more resilient and reliable system to provide adequate water pressure, velocity, and fire protection. For these reasons, this alternative is recommended.

Alternative Analysis

To build upon Phase 1 and address issues caused by undersized mains, Suburban plans to install the Phase 2 pipeline replacements. Phase 2, shown above in Figure 2, is scheduled for 2028 and includes: (4) Hatchway Jack & Bore, (6) Wayside, (7) Vesta, (8) Lucien, (9) Stockwell, (12) 138th, and (13) 139th. The planned piping project will increase around 5,160 LF of existing 4-inch and 6-inch AC pipe to new 8-inch PVC. The scope also includes the installation of 240 LF to 12-inch fusible PVC underneath the railroad to add an additional connection between the east and west sections of the system. These pipeline installations will improve fire flow transmission, maintain a minimum of 20 psi during fire flow events, and achieve flushing velocities of no less than 2.5 ft/s. The installation

of Phase 2's pipeline replacements will address the velocity, pressure, and fire protection issues still present in the system.

In October 2025, the State Water Resource Control Board (SWRCB) provided a clarification letter (See Workpapers Volume III, P-17, Appendix 4) that clarified their findings in their 2025 Sanitary Survey regarding Sativa's pipelines. Their letter reiterates that the Sativa water system currently doesn't meet fire flow requirements per LA County Fire Department requirements. The completion of the entire project, both Phase 1 and Phase 2, will provide improvements to fire flow and flushing velocities. Additionally, The total completion of the pipeline replacement project in Sativa is recommended by the SWRCB.

Hydraulic Modelling

Suburban hired Wood Rodgers to run a hydraulic model of the Sativa system to get a better understanding of the distribution system in three scenarios:

1. Baseline - The state after it was acquired in 2022 with no pipeline improvements

2. Phase 1 - The state after the completion of Suburban's Phase 1 pipeline improvements

3. Phase 2 - The state after completing future Phase 2 pipeline improvements.

The baseline scenario showed several sections of pipe with high velocities. The results showed that the system, after it was acquired, had 11,400 linear feet, or over 23% of the total pipelines, exceeding the maximum pipe velocity of 10 feet per second. AWWA's M-22 Manual recommends that pipe velocities not exceed 10 feet per second. All pipes that exceeded the maximum velocity were 6-inch pipe or smaller. A pipeline with high velocity leads to much higher head loss, drastically lowering pressure and flow as demonstrated in the Fire Protection section above. Additionally, high velocity erodes the

pipe at an increased rate, increasing the likelihood of pipe leaks and disruptions in customers' daily lives. Smaller pipe diameters are more likely to experience high pipe velocity, especially in areas with steady population growth without proper upsizing of the pipeline to keep up. This scenario highlights how widespread these issues were across the system.

The baseline scenario showed that at the time of Sativa's acquisition, 15 fire hydrants failed to meet the residual pressure of 20 psi at 1,250 GPM. is based on LA County Fire Department requirements on minimum flow and residual pressure during fire flow tests. The findings of several areas failing to meet a residual pressure of 20 psi highlight the system's undersized mains and lack of capability to meet system pressure demands during fire emergencies. This also impacts the ability of our system to use multiple hydrants simultaneously. During a fire, firefighters connect to as many fire hydrants as possible and trying to pull water from more than just one hydrant will not permit the flow out of the hydrants. Sativa currently can meet LA County Fire Department mandate of minimum pressure and flowrate.

The Phase 2 scenario highlights the positive impacts from the Phase 1 pipeline replacements have had on building and maintaining a resilient and long-lasting system. With the installation of Phase 1, the number of hydrants that failed to meet residual pressure was reduced by 20% from 15 to 12. The linear feet of pipe exceeding maximum velocity was reduced by nearly 10% from 11,400 to 10,480. However, a large portion of the system remains undersized, which affects the overall impact of the pipe upsizing across the system The Phase 2 scenario illustrates that continuing Suburban's planned pipeline replacements in the area show even greater improvement. The model showed Phase 2 further reducing the pipe quantity exceeding maximum velocity by another 20% to 8,464. The number of hydrants that failed to meet residual pressure was further reduced by 25% from 12 to 9. The system can be further strengthened by building upon

the upsizing done in Phase 1 and expanding the positive impact of the replacement of pipelines.

Pressure Recorder Results

Suburban installed pressure recorders at two locations to observe the real-time pressure changes in the system when fire hydrants are being used. One pressure recorder was on a fire hydrant on Hatchway St where new pipeline from Phase I was installed. The other pressure recorder was installed on a fire hydrant on Wilmington Ave where undersized main remains in use. Table 3 below shows the results of the readings before and after another fire hydrant in the system is opened around 2:30 PM. The results show the pressure at Hatchway staying relatively stable when the other hydrant is opened, only dropping less than 2 PSI. The results at Wilmington show a more drastic fluctuation, dropping roughly 15 PSI initially and later lessening the gap to around 5 PSI compared to before. These real-time results highlight the benefits from the Phase 1 installations and the existing need to continue improvements through Phase 2.

Table 3. Pressure Recorder Readings from Hydrants in Different Locations in Sativa

Time	Hatchway Pressure (PSI))	Wilmington Pressure (PSI)
2:00 PM	45.91	46.45
2:15 PM	49.04	47.33
2:30 PM	48.94	32.77
2:45 PM	47.47	42.64

Cost Estimate

Below are the contractor costs for pipelines in construction in 2025:

Description	Quantity	Unit	Unit Cost	Cost
Construct 8-inch PVC	7730	L.F.	$205	$1,584,650
Construct 6-inch PVC	100	L.F.	$136	$13,600
Construct 4-inch PVC	45	L.F.	$83	$3,735
Construct all tie-ins	24	Each	$5,500	$132,000
8-inch Gate Valves	28	Each	$3,200	$89,600
4-inch Gate Valves	1	Each	$1,800	$1,800
6-inch Fire Hydrant	18	Each	$9,385	$168,930
Offsets	1	LS	$87,000	$87,000
2-inch air release	2	Each	$13,000	$26,000
2-inch blow-off	2	Each	$7,000	$14,000
2-inch service	2	Each	$9,000	$18,000
1-inch service	202	Each	$2,300	$464,600
1-inch houseline service	202	Each	$5,800	$1,171,600
Traffic Rated Meter Lids	15	Each	$300	$4,500
Test Head for testing	1	LS	$32,000	$32,000
Potholing	1	LS	$44,500	$44,500
Cut, Plug and Abandon of Existing Pipeline	1	LS	$23,500	$23,500
AC Removal and Replacement	4,278	L.F.	$25	$106,950
Landscaping Removal & Replacement	1	LS	$26,000	$26,000
AC with 4-inch concrete Removal & Replacement	3,450	L.F.	$1	$3,450
Guard underground services	1	LS	$53,000	$53,000
Replace concrete in private property	10,000	SQ FT	$1	$10,000
Replace asphalt in private property	10,000	SQ FT	$1	$10,000
Replace soft-scape in private property	10,000	SQ FT	$1	$10,000
Mobilization	1	LS	$132,000	$132,000
Demobilization	1	LS	$88,000	$88,000
Construction Subtotal				**$4,319,415**
Change Order Costs				$202,881
Subtotal				**$4,522,296**
Construction Inspection				$127,920
Total				**$4,650,216**

Below is the cost estimate for Phase 2:

Description	Quantity	Unit	Unit Cost	Cost
Construct 12-inch fusible PVC	240	L.F.	$236	$56,608
Jack & Bore Casing	220	L.F.	$1,600	$351,947
Construct 8-inch PVC	5160	L.F.	$182	$938,786
8-inch Gate Valves	34	Each	$3,391	$115,303
Construct 8-inch tie-in	8	Each	$10,202	$81,618
6-inch Fire Hydrant	9	Each	$15,314	$137,828
1-inch service	104	Each	$2,983	$310,251
Traffic Rated Meter Lids	104	Each	$453	$47,131
Offsets	14	Each	$5,253	$73,538
Test Head for testing	4	LS	$7,385	$29,538
Potholing	1	LS	$55,658	$55,658
Cut, Plug and Abandon of Existing Pipeline	1	LS	$22,778	$22,778
AC Removal and Replacement	5,160	L.F.	$72	$371,186
Landscaping Removal & Replacement	1	LS	$32,938	$32,938
Guard underground services	1	LS	$28,428	$28,428
Material Subtotal				**$2,653,536**
Consultant Designer	100	Hours	$179	$17,900
Consultant Inspector	520	Hours	$215	$111,800
In-House Inspector	520	Hours	$53	$27,492
Subtotal				**$2,810,729**
Construction Cost Escalation from 2025 to 2027		8.92%		$ 250,801
Subtotal				**$3,061,529**
General Administration			10.01%	$306,459
Total				**$3,367,988**

The forecasted budget for Sativa pipelines in 2027 was determined using the Suburban's contractor's actual cost index taken from recent similar projects, which is escalated using a factor derived from ENR's building index. The testimony's escalation discussion provides additional information about escalating estimates.

Conclusion

Suburban's Sativa customers have endured decades of inadequate infrastructure that compromises their safety, health, and quality of life. Undersized water mains have failed to deliver sufficient fire flow, reliable service, and clean water—placing this dense residential community at unacceptable risk. Replacing these outdated pipelines with larger diameter mains is not merely a technical upgrade; it is a moral and public safety imperative. Phase 1 has laid the groundwork, but Phase 2 is essential to complete the

transformation of Sativa's water system into one that is resilient, safe, and capable of meeting modern demands. With climate-driven fire threats rising and aging infrastructure failing, the time to act decisively is now.

(P-18) Tank Safety Harness - $593,703

Q93 Can aging and deteriorating tank roof fall arrest systems be ignored?

A92 No. Aging and deteriorating tank roof arrests systems cannot be ignored because doing so subjects Suburban's employees to a risk of injury or death from falling from the roof water tanks. Injuries and deaths can be avoided by timely replacing this vital safety equipment.

Executive Summary

Suburban's proactive and cost-effective fall restraint system that was installed in 2012 is critical to ensuring the safety of Suburban employees and contractors. The safety and wellbeing of employees is essential for a safe and healthy work environment and Suburban plans to enhance employees' safety by replacing the safety cables with brand new cables. Suburban aims to continue to comply with OSHA regulations by providing employees with new safety cables for the reservoirs' fall arrest systems. Suburban does not want to put their employees in danger and plans to replace the safety cables for all 34 reservoirs to prevent any potential dangers from falling. Doing nothing is not a feasible alternative because it puts employees at risk of falling injuries. Building a rail around the tank is the best solution for protecting employees, but it is by far the most expensive solution. Suburban plans to replace the cables for $593,703 because it keeps employees safe and is far less expensive than installing rails.

Background

Suburban owns and maintains 32 steel water storage tanks and requires personnel to work at high elevations to ensure a safe and reliable water supply. In 2012, Suburban installed

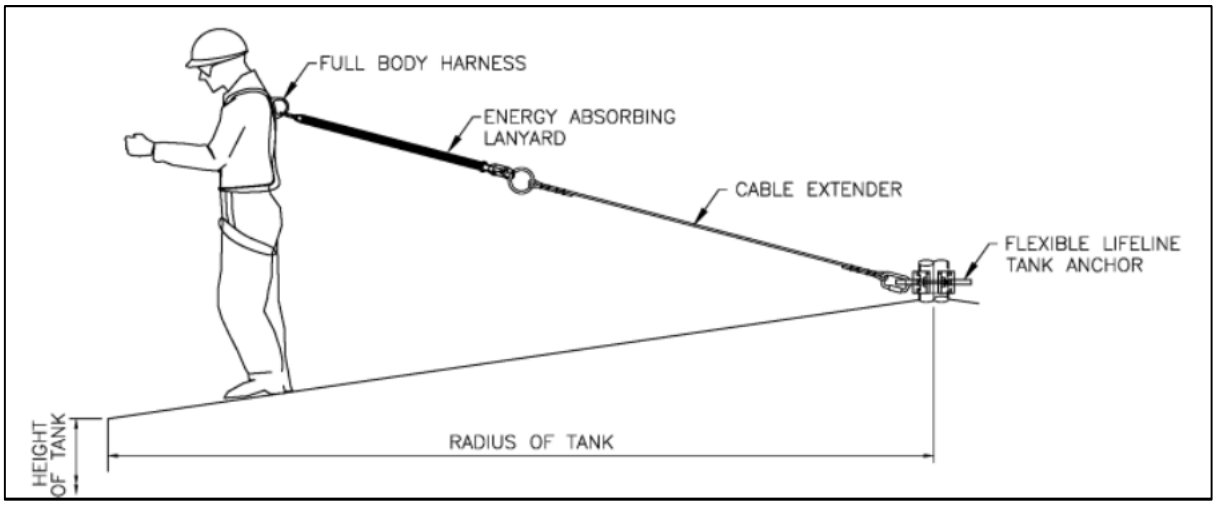
26 fall restraint systems on Suburban's tanks. Not all the tanks were equipped with safety harnesses because they were scheduled for rehabilitation and staff were not permitted on tank roofs. As the tanks were rehabilitated, fall restraint systems were installed to ensure all tanks had the proper safety restraint system. Using the center vent to secure the cables was an economical strategy for installing the safety cables. A licensed Professional Civil Engineer analyzed the tanks and determined that safety cable rings installed around the tank center vents were structurally adequate to safely transfer the fall restraint loads into the existing steel roof plates. The work did not require the installation of costly anchor points. Installing anchor points, such as brackets, requires welding onto the tank. Welding also requires recoating the tank to avoid corrosion where the paint is removed. Suburban's proactive and cost-effective fall restraint system that was installed in 2012 is critical to ensuring the safety of Suburban employees and contractors.

Justification

Safety is a Top Priority

Suburban prioritizes replacing the safety cables to protect employees and contractors from fall-related risks. Suburban's Fall Protection Plan ensures employees who need to work on an elevated platform have the necessary protection to ensure their safety. Safety is the company's core value. Suburban employees and contractors access reservoir rooftops for inspections, operations, and maintenance, and have been using the existing fall arrest system that utilizes cables to stop a person's fall on each reservoir.

Figure 1: Example of a Fall Arrest System (https://fall-arrest.com/wp-content/uploads/2019/12/Above-Ground-Storage-Fall-Protection.pdf)



It is Suburban's responsibility to provide a safe working environment for their employees by providing them with the proper resources to be safe on the job. Fall related injuries can be life altering and even fatal, depending on severity, which will also have a devastating impact on the employee's family. It is not fair for employees to have their lives at risk due to aging safety equipment. The safety and wellbeing of employees is essential for a safe and healthy work environment and Suburban plans to enhance employees' safety by replacing the safety cables with brand new cables.

OSHA Requirements

Complying with OSHA requirements ensures a safe work environment for Suburban employees. OSHA first implemented the Subpart M Fall Protection Standard in 1994. The Subpart M Fall Protection Standard indicates that workers who perform work above 6 feet must be protected from falls, which can come in different forms, such as safety gates, guard rails, or fall arrest systems. Although OSHA's regulation significantly improved the number of fall-related injuries in the United States, it is still one of the most common work-related injuries that can occur. According to the National Safety Council

in 2023, falls were the second leading cause of death in the workplace in the United States, as shown in Figure 2. From 2016 to 2023, on average, there have been 851 deaths per year caused by falls.

Figure 2: Summary of Leading Causes of Deaths in the Workplace

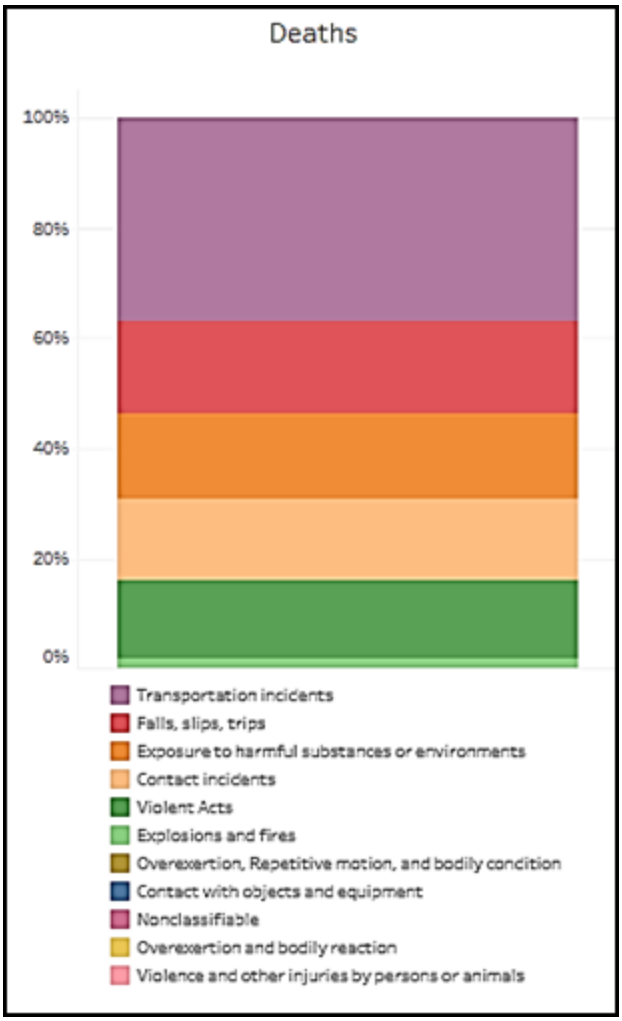
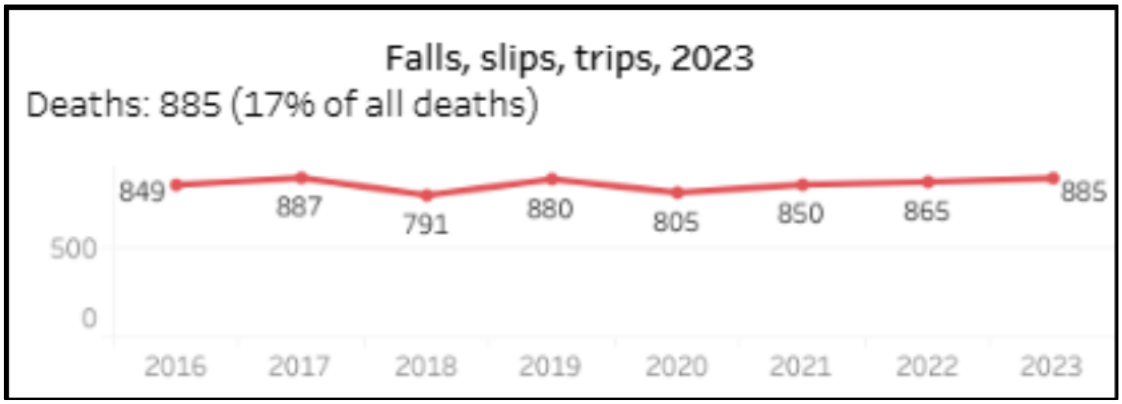


Figure 3: Statical Data of Deaths Caused by Fall in the Workplace from 2016-2023



When OSHA regulations are violated, it does not only put employees at risk of injury, but it also puts Suburban at risk of being penalized. According to OSHA, Fall Protection was the most cited standard in 2024 with 6,827 violations. If an employee is injured due to the fall protection equipment not being sufficient, Suburban can be fined hundreds of thousands of dollars depending on the severity of the violation. Employees will not trust Suburban if safety is not taken seriously. Suburban aims to continue to comply with OSHA regulations by providing employees with new safety cables for the reservoirs' fall arrest systems.

Figure 4: Top 10 Most Cited OSHA Standards



Age & Condition

Older and worn-out safety cables will not be as effective as brand-new safety cables. The existing cables on Suburban's reservoir cables have not been replaced since they were installed in 2012. The cables are installed outside and are subject to harsh environmental elements such sunlight, rain, and extreme temperatures. The exposure causes the material to weaken by altering its material composition. If the cables experience small rusting or corrosion, rain will only speed up the degradation process.

Additionally, normal wear and tear stress the cable, causing it to lose strength over time.

There is currently no regulation for how frequent safety cables should be replaced, however, the industry suggestion is that safety cables should be replaced every 5 years. In 2022, there was an incident where a wind turbine technician fell to his death due to the safety harness failing because it has exceeded its service life. If the harness had been replaced prior to the inspector using it, the accident could have been prevented. Currently, Suburban's safety cables are well past the 5-year industry recommendation and are still being used at the age of 13 years. According to FallTech, there are several signs that indicate when fall safety equipment should be retired such as:

- Frayed or damaged webbing
- Missing or broken stitching
- Rust or corrosion on metal components
- Damaged or distorted D-rings
- Bent or broken grommets
- Signs of chemical exposure or paint contamination
- Illegible or missing labels
- UV damage

The following photos show the current condition of Suburban's safety cables, which exhibit clear signs of deterioration and require replacement.

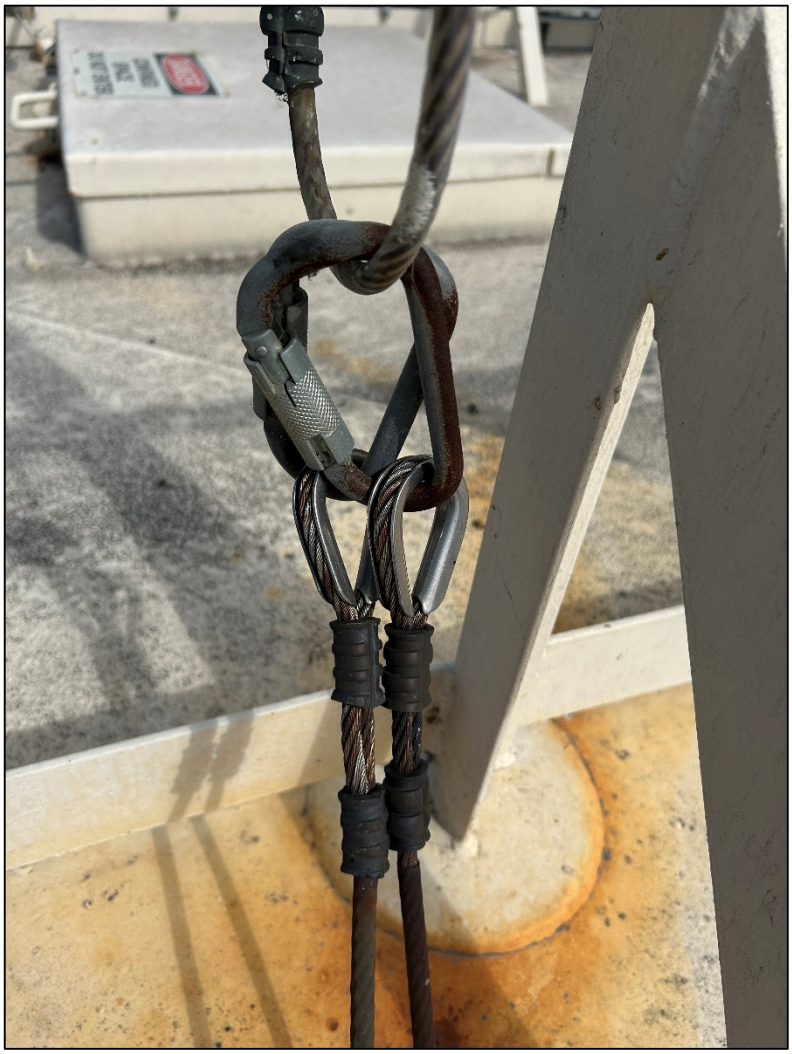
Photo: Rusted Safety Cable at Plant 128



Photo: Safety Cable with Sever Corrosion with Webbing Beginning to Tear



Photo: Major Visible Corrosion on D-Clip and Cable



If an accident were to occur due to worn out safety equipment, Suburban would be seen as irresponsible for not having acted when there were visible signs that something was wrong with the safety cables. Employees should not use poorly conditioned safety equipment and must be provided with safety equipment that is in optimal condition. Suburban does not want to put their employees in danger and plans to replace the safety cables for all 34 reservoirs to prevent any potential dangers from falling.

Alternatives

As the safety cables continue to age and reach the end of their service lives, there are three alternatives Suburban can move forward with.

Alternative 1 – Do Nothing

Suburban employees will continue to use the existing fall arrest system while work is performed on the reservoirs. However, the fall protection systems will continue to wear out and age as time goes on. If employees deem that their safety cables are not in good condition to continue their work, they must stop their work until they have access to a suitable fall protection system. Employees' lives will also be at risk if safety cables are used when they are aged and in poor condition. If work is unable to continue due to the lack of safety equipment or injured employees, projects could be delayed resulting in increased project costs. This alternative is not feasible because it puts employees at risk of falling injuries.

Alternative 2 – Railing Around the Tank

Railings are another fall protection system that can be utilized to protect employees from falls. Railings need to be installed around the perimeter of each reservoir to ensure employees cannot fall off the reservoirs. Although railings are effective, they are much more costly and time consuming to have the railings welded to the tanks. Railings are required to be a minimum of 30 inches and no taller than 38 inches. The cost estimation for railings around all 34 reservoirs is estimated to be $4,953,664. Building a rail around the tank is the best solution for protecting employees, but it is by far the most expensive solution.

Alternative 3 – Replace Fall Protection Cables

This alternative replaces all the existing fall protection cables with brand new cables for Suburban's 34 reservoirs. Replacing all the cables, and with proper usage, ensures that employees are safe from falls while they are on top of reservoirs performing work. Suburban's goal is to have their employees feel safe while working in heights. Employees will feel more confident knowing that the safety equipment they are using is new and effective. It is vital for Suburban to provide their employees with the proper resources

and training to always keep themselves, and those around them, safe. Suburban prefers this alternative. The cost to replace all the safety cables in 2028 is estimated to be $593,703 (see Workpaper Volume III-D, P-18, Appendix 1 and 2)

Cost Estimation		
Cost for Replacement	$470,470	
Inspection for One Year	$25,000	
Sub Total for 2025	$495,470	
Escalated Sub Total (2028)	8.92%	$539,681
General Admission	10.01%	$54,022
Estimated Grand Total	$593,703	

Alternative Analysis

Ensuring the safety of employees working on reservoir rooftops is the priority when evaluating the possible alternatives for Suburban's fall protection system. Alternative #1 is not feasible because it puts Suburban employees at risk of falling due to the safety equipment failing because the service life has been exceeded. Suburban takes safety very seriously and does not want to put their employees in situations that put their lives on the line. Alternative #2 ensures protection for Suburban employees but will be more expensive and time consuming to complete. Employees would not be able to perform work on reservoirs during the duration the railings are being installed, potentially affecting productivity for Suburban. Alternative #3 also provides protection to Suburban employees from falls from reservoir rooftops but at a lower cost and in a shorter period. All safety cables will be replaced with brand new cables. This will ensure the safety of Suburban employees and provide a comfortable working environment. Suburban plans to proceed with Alternative #3 because it ensures the safety of its employees at the lowest cost to Suburban's customers.

Conclusion

Suburban's proactive and cost-effective fall restraint system that was installed in 2012 is critical to ensuring the safety of Suburban employees and contractors. The safety and well-being of employees is essential for a safe and healthy work environment and Suburban plans to enhance employees' safety by replacing the safety cables with brand new cables. Suburban aims to continue to comply with OSHA regulations by providing employees with new safety cables for the reservoirs' fall arrest systems. Suburban does not want to put their employees in danger and plans to replace the safety cables for all 32 steel reservoirs to prevent any potential dangers from falling. Doing nothing is not a feasible alternative because it puts employees at risk of falling injuries. Building a rail around the tank is the best solution for protecting employees, but it is by far the most expensive solution. Suburban plans to replace the cables for $593,703 because it keeps employees safe and is far less expensive than installing rails.

Appendices (see Workpaper Volume III-D, P-18)

Appendix 1 - Crosnos Safety Harness Replacement Cost Estimation

Appendix 2 - Safety Harness Annual Inspection Cost Estimation

DECLARATION OF CRAIG GOTT

I, Craig Gott, declare and state:

1. I am President of Suburban Water Systems. I am an officer of Suburban Water Systems.

2. I have reviewed and/or am familiar with the materials contained in Suburban Water System's Application for its 2026 General Rate Case, specifically materials associated with the Direct Testimony of Jorge Lopez. It is the position of Suburban Water Systems that confidential treatment is warranted pursuant to the statutory and regulatory authorities specified below.

3. I have personal knowledge of the facts and representations of fact stated in this Declaration and if called upon to testify could and would so competently, except such facts or representations as are stated to be based on upon information and belief, and as to those matters, I believe them to be true.

4. Listed below are the references to information and data for which Suburban Water Systems is seeking confidentiality protection and the basis for Suburban Water Systems' confidentiality request

Location of Confidential Information	**Description of Information that is Confidential**	**Basis for Confidentiality Claim**
Direct Testimony of Jorge Lopez, Workpaper Volume III, P-1 SCADA System Implementation, Appendices 1-4 (entire documents).	This workpaper contains non-public information regarding Suburban Water System's SCADA technology infrastructure. Disclosure of such information would reveal vulnerabilities to, or otherwise increase the potential for an attack on, an information technology system of Suburban Water System as a public utility providing regulated water utility service to the public, thereby	Cal. Govt. Code §§ 7922.000; 7929.210; 7927.705; 6 U.S.C.A. §§671(3), 673 (a)(1)(E); 6 C.F.R. §§29.2, 29.8.

Location of Confidential Information	Description of Information that is Confidential	Basis for Confidentiality Claim
	jeopardizing the public safety. The disclosure of analogous information held by public agencies is expressly prohibited by statute in Cal. Gov. Code § 7929.210 of the California Public Records Act. An attack on the SCADA system of Suburban Water Systems would risk the company being unable to continue service/forced to discontinue service. Further, responding to any attack would cost funds that Suburban Water Systems would seek to recover through rates, thus leading to increased costs for customers. As such, protecting this information as confidential serves the public interest by protecting public safety, preventing the public from discontinuation/delays in service, and preventing increased costs. The public interest in disclosure of details about this cybersecurity infrastructure is minimal. Therefore, the public interest served by upholding confidentiality clearly outweighs the public interest in disclosure.	
Direct Testimony of Jorge Lopez, pp. 85, 134, 145, 146, 207, 226, 238, 239, 266, 292, 293, 312, 334, 336, 351, 364, 369, 370, 388, 432, 434, 437 Maps and figures found in Workpapers Volume III PDF pages 19, 28-29, 35, 44-45, 85, 109, 111-112, 114-117, 120-121, 150, 305, 307, 309, 311, 315, 317, 319, 321, 323, 325, 327, 329, 335,	The maps and figures found in these testimony and accompanying workpapers contain non-public information regarding Suburban Water System's water distribution infrastructure, including specific information about potential vulnerabilities of the system. These materials constitute critical infrastructure information that is not customarily in the public domain, relating to the security of critical infrastructure or protected systems. The disclosure of such information presents a public safety threat as it would expose vulnerabilities Suburban Water Systems' water distribution infrastructure, thereby endangering public safety. The public interest served by not disclosing the information in this document clearly	Cal. Govt. Code §§ 7922.000; 7927.705; 6 U.S.C.A. §§671(3), 673 (a)(1)(E); 6 C.F.R. §§29.2, 29.8.

Location of Confidential Information	Description of Information that is Confidential	Basis for Confidentiality Claim
337, 341, 345, 347, 349, 351, 353, 355, 357, 359, 361, 336, 367, 660, 675, 708-709, 752-758, 920, 922, 924, 926, 967, 977-979, 987, 990, 995-1000, 1299-1300, 1325-1332, 1363-1373, 1395, 1398-1399, 1406-1408, 1429, 1459-1460, 1462, 1470, 1475-1476, 1478, 1497, 1777-1779, 1781-1806, 2242-2245, 2274, 2301-2302, 2307, 2361, 2363, 2380, 2383, 2404-2407, 2412-2420, 2625-2626, 2728, 3003-3004, 3016, 3188-3189, 3534-3542 Workpapers V-A PDF pages 22, 27, 30, 39-40, 44-46, 48, 56-59, 61-63, 70-73, 76, 78, 80, 85-86, 89-90, 117, 123, 126-128, 139-147, 153-155, 157-159, 163, 167-170, 173, 176-177, 179, 181-182, 187-190 Supplemental Workpapers	outweighs the public interest served by disclosure of the information contained.	
Direct Testimony of Jorge Lopez, pp. 56-57, 62-63.	This testimony contains non-public information about fee schedules for external staff and consultants for Carollo Engineers, as to which Carollo Engineers	Cal. Govt. Code §§ 7922.000; 7927.705; Cal. Evid. Code

Location of Confidential Information	Description of Information that is Confidential	Basis for Confidentiality Claim
	derives independent economic value from this information not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and is the subject of efforts that are reasonable under circumstances to maintain its secrecy. The disclosure of such information would undermine the ability of Carollo Engineers to be competitive in the market, thereby eliminating qualified engineers that Suburban Water System may utilize to work on water projects for the benefit of customers. The public interest served by upholding confidentiality clearly outweighs the public interest in disclosure.	§§1060, 1061; Cal. Civ. Code §3426.1(d).

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on January 2, 2026 at Pasadena, California.

/s/ Craig Gott

Craig Gott

President
Suburban Water Systems