

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of San Jose Water Company
(U168W) for Approval of Cost Recovery for
PFAS Remediation.

Application 26-04-010
(Filed April 10, 2026)

REBUTTAL TESTIMONY OF KATELINE LIN

September 28, 2026

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	THE COMMISSION SHOULD NOT DELAY CONSIDERATION OF THE PROJECT.....	1
III.	SJWC’S CONTINGENCY IS REASONABLE AND CONSISTENT WITH INDUSTRY STANDARDS	6
IV.	DOWNSIZING THE PROJECT WOULD BE IMPRUDENT AND ULTIMATELY LESS BENEFICIAL TO CUSTOMERS.....	12

1 **I. INTRODUCTION**

2 **Q1. Please state your name and business address for the record.**

3 A1. My name is Kateline Lin, PE, PMP, and my business address is 1265 South Bascom
4 Avenue, San Jose, California 95128.

5 **II. THE COMMISSION SHOULD NOT DELAY CONSIDERATION OF THE**
6 **PROJECT**

7 **Q2. Have you reviewed the testimony of Meghan Tosney submitted on behalf of the**
8 **Public Advocates Office?**

9 A2. Yes. I have reviewed the testimony sponsored by Ms. Tosney addressing the timing of
10 project review, consideration of the Williams Station PFAS Treatment Project in a stand-
11 alone proceeding, and the recommendation that the Project instead be addressed through
12 SJWC's next General Rate Case ("GRC"). I understand that other SJWC witnesses
13 address ratemaking, cost recovery mechanisms, affordability analyses, grant funding, and
14 related accounting matters. My rebuttal testimony is limited to those issues within my
15 responsibility as Engineering Unit Manager, Planning, including project planning,
16 scheduling, project execution, infrastructure needs, and the practical implications of
17 deferring the Project.

18 **Q3. Do you agree with the recommendation that consideration of the Williams Station**
19 **PFAS Treatment Project should be deferred to SJWC's next GRC?**

20 A3. No. deferring consideration of the Project until SJWC's next GRC would not be a prudent
21 planning or project-delivery decision. The recommendation appears to assume that
22 moving the Project into the next GRC would have little or no effect on implementation.
23 Based on my responsibilities for capital planning and execution, that is not correct. SJWC
24 will file its next GRC on January 1, 2027. Under the Commission's normal schedule, a
25 final decision would not be expected until late 2027 at the earliest. The Williams Station

1 Project, however, is scheduled to begin construction during the first quarter of 2027 to
2 maintain the current implementation timeline and place the facility into operation in
3 2030. Deferring Project consideration to the GRC would therefore create a significant
4 mismatch between the timeline of the regulatory proceeding and the timeline necessary
5 for prudent project execution.

6 More importantly, the issue is not whether SJWC is physically capable of proceeding
7 with construction activities. Utilities routinely make engineering and procurement
8 decisions before facilities are completed. The relevant question is whether it is prudent to
9 commit to and execute a project of this magnitude without obtaining Commission review
10 of the Project's scope, schedule, necessity, and recovery framework beforehand. From a
11 planning perspective, that would introduce substantial uncertainty into a project that
12 already faces significant market, procurement, and construction risks.

13 **Q4. Why is timing particularly important for this Project?**

14 A4. The Williams Station Project faces a unique combination of regulatory, market, and
15 operational timing considerations that distinguish it from a routine infrastructure
16 investment.

17 SJWC developed the current schedule to support compliance with federal PFAS drinking
18 water regulations, including EPA's current April 26, 2029 compliance deadline for PFAS
19 Maximum Contaminant Levels. Given the size and complexity of the Project, SJWC
20 must maintain its planned design, procurement, and construction schedule to preserve
21 adequate time for construction, commissioning, startup, testing, and resolution of
22 unforeseen implementation issues that commonly arise during delivery of major
23 infrastructure projects. Delays at this stage would reduce schedule flexibility and increase
24 implementation risk.

1 PFAS treatment projects are being pursued nationwide due to federal drinking water
2 requirements. Thousands of water systems are competing for many of the same
3 engineering firms, treatment equipment manufacturers, contractors, specialty materials,
4 and operational resources. SJWC discussed these conditions in its supplemental
5 testimony and cited industry analyses showing substantial nationwide PFAS treatment
6 investment occurring during the same general implementation period.

7 The Williams Station PFAS Treatment Project is not merely a regulatory compliance
8 project, it is an operational necessity. Williams Station is SJWC's largest groundwater
9 production station and represents more than sixteen percent of the Company's
10 groundwater supply portfolio. More than forty percent of the station's capacity is already
11 unavailable for normal operations due to PFAS-related impacts. Delaying the Project
12 prolongs those operational constraints and postpones restoration of a critical local water
13 supply resource that SJWC customers rely on during droughts, imported water outages,
14 emergencies, and periods of high demand.

15 Delay directly affects cost. SJWC presented an estimated Project cost of approximately
16 \$156.3 million in 2026 dollars and estimated that the same Project would cost
17 approximately \$175.9 million in 2030 dollars using a conservative three percent annual
18 escalation assumption. While no one can predict future construction prices with certainty,
19 every year of delay increases exposure to labor escalation, equipment price increases,
20 supply chain disruptions, and procurement uncertainty. From a planning standpoint,
21 delaying the Project is not a cost-neutral option.

22 Delay may also affect SJWC's ability to pursue certain external funding opportunities that
23 could reduce project costs ultimately borne by customers. As discussed by other SJWC
24 witnesses, some funding programs require a demonstrated level of project maturity,

1 regulatory certainty, or progress toward implementation. From a planning perspective,
2 maintaining the current schedule helps preserve SJWC's ability to remain competitive for
3 available funding opportunities and maximize potential financial benefits for customers.

4 **Q5. Public Advocates asserts that PFAS projects should be reviewed in a GRC because**
5 **that allows the Commission to evaluate them alongside other utility investments.**

6 **How do you respond?**

7 A5. As a general matter, I agree that the GRC process is the most efficient forum for
8 reviewing many utility investments. However, not every project aligns well with a three-
9 year rate case cycle. The Williams Station PFAS Treatment Project is unusual in several
10 respects. SJWC has already completed extensive alternatives analysis, bench-scale
11 testing, pilot testing, environmental review, detailed engineering design, permitting
12 activities, and development of a Class 1 Opinion of Probable Construction Cost
13 ("OPCC"). This is not a conceptual project seeking early policy approval. It is a mature
14 project with a completed design, defined scope, established cost estimate, and active
15 implementation schedule.

16 A Class 1 OPCC represents one of the highest levels of cost-estimating maturity used for
17 capital project planning. It is developed after completion of detailed engineering and is
18 based on comprehensive design drawings, specifications, quantities, and construction
19 assumptions rather than conceptual planning-level information. As a result, a Class 1
20 OPCC provides substantially greater cost certainty than the preliminary estimates often
21 used during the initial stages of project development.

22 SJWC selected the recommended treatment approach following a multiyear evaluation
23 process led by Hazen and Sawyer, which considered multiple treatment technologies and
24 operational configurations before concluding that ion exchange represented the most

1 prudent long-term solution for Williams Station. SJWC subsequently retained CDM
2 Smith to complete the final design, which was completed in early 2025. The Project
3 therefore enters this proceeding with a level of technical maturity that exceeds many
4 projects typically presented within a GRC. Therefore, I do not agree that stand-alone
5 review provides less scrutiny. If anything, a stand-alone proceeding permits more focused
6 review of a single major project than would occur when hundreds of projects are
7 presented simultaneously in a GRC filing. The Commission, parties, and intervenors are
8 able to devote their attention specifically to this Project's scope, alternatives, design,
9 schedule, cost estimate, permitting status, and implementation plan.

10 **Q6. Does stand-alone consideration reduce transparency?**

11 A6. No. The Williams Station Project has undergone extensive review throughout this
12 proceeding. The Application included the underlying project justification, engineering
13 analyses, design documentation, cost estimates, schedules, environmental review status,
14 and supporting testimony. Parties have conducted discovery, submitted data requests,
15 reviewed supporting documentation, participated in procedural activities, and submitted
16 testimony. The proceeding therefore provides a substantial evidentiary record concerning
17 the Project. In addition, because the proceeding focuses on a single project, the factual
18 record concerning the Project's necessity, alternatives, scope, and implementation plan is
19 considerably more detailed than would typically be feasible within the broader context of
20 a GRC application containing numerous unrelated projects.

21 **Q7. In your opinion, what is the principal planning issue raised by the recommendation**
22 **to defer consideration of the Project to the next GRC?**

23 A7. The primary issue is that the recommendation treats the Project as though timing of
24 Commission approval does not matter. From a planning perspective, timing is central to
25 the justification for the Project. SJWC developed the current schedule to support

1 compliance with federal PFAS drinking water regulations, including EPA’s current 2029
2 compliance deadline for PFAS Maximum Contaminant Levels. Maintaining that schedule
3 is necessary to preserve adequate time for construction, commissioning, startup, testing,
4 and resolution of implementation issues that commonly arise during delivery of major
5 infrastructure projects. Deferring consideration of the Project to the next GRC would
6 reduce the limited schedule flexibility available to address those issues and increase the
7 risk that SJWC would be unable to complete the necessary treatment facilities within the
8 applicable compliance timeframe.

9 The current schedule also allows SJWC to maintain progress toward restoring capacity at
10 Williams Station, addressing PFAS treatment requirements, pursuing external funding
11 opportunities, coordinating procurement activities during an increasingly competitive
12 national market, and minimizing exposure to future escalation. Furthermore, I discussed
13 above, it would not be prudent for SJWC to proceed with a project of this magnitude
14 without Commission review. Delaying consideration until the next GRC would affect
15 each of the objectives and would ultimately be harmful to customers.

16 From a planning, engineering, and project-execution perspective, delay would introduce
17 additional compliance, schedule, cost, procurement, and operational risks while
18 postponing restoration of a critical groundwater resource that serves SJWC customers
19 today and will continue to be important in the future.

20 **III. SJWC’S CONTINGENCY IS REASONABLE AND CONSISTENT WITH**
21 **INDUSTRY STANDARDS**

22 **Q8. Have you reviewed the testimony of Cal Advocates witness Zaved Sarkar**
23 **concerning the Project contingency?**

1 A8. Yes. I reviewed the portions of Mr. Sarkar's testimony addressing the Project's 5%
2 contingency factor and his recommendation that the Commission remove the contingency
3 entirely from the Project cost estimate. My response is limited to the engineering, project
4 planning, and cost-estimating aspects of that recommendation. Other SJWC witnesses
5 address ratemaking, cost recovery, and related regulatory matters.

6 **Q9. Do you agree that the Project contingency should be removed?**

7 A9. No. From a project planning and engineering perspective, contingency is a standard and
8 necessary component of prudent capital cost estimating, including for a regulated utility.
9 The opportunity to seek recovery of actual project costs does not eliminate the need to
10 prepare the most complete and realistic estimate possible before construction begins.
11 Contingency is part of developing that estimate.

12 Contingency also does not create an incentive to spend the full amount. That is not how
13 major infrastructure projects are managed. Contingency is not a spending target or a
14 separate scope of work. Rather, it is an estimating allowance for known areas of
15 uncertainty that may arise during project execution. If those conditions do not occur,
16 those costs are not incurred.

17 The Williams Station PFAS Treatment Project is among the largest and most complex
18 capital projects ever undertaken by SJWC. Although the Project has completed final
19 design and is supported by a detailed Class 1 OPCC, no project of this size and
20 complexity can eliminate every execution-related uncertainty before construction begins.
21 Examples include utility conflicts, vendor requirements, construction sequencing
22 challenges, and startup or commissioning issues. Removing contingency would not
23 eliminate those risks. It would simply assume they do not exist when preparing the
24 estimate, leading to an inaccurate estimate.

1 The relevant question is whether the remaining contingency is reasonable given the
2 maturity of the design, the complexity of the Project, and the risks that remain as
3 construction approaches. The 5% contingency is reasonable, prudent, and consistent with
4 accepted water-industry practice. It is also at the low end of the contingency range
5 identified by the American Water Works Association for projects entering construction.¹

6 **Q10. Do you agree with Mr. Sarkar's characterization of escalation and contingency?**

7 A10. No. In my professional experience managing utility capital projects, and consistent with
8 accepted engineering, construction, and cost-estimating practice, escalation and
9 contingency serve different purposes and address different sources of uncertainty.

10 Escalation is intended to account for reasonably foreseeable changes in market pricing
11 over time. It reflects the expectation that labor, equipment, materials, contractor pricing,
12 and other construction costs may increase between the date an estimate is prepared and
13 the date the work is performed. In my supplemental testimony, I explained that SJWC
14 applied a 3% annual escalation factor through 2030 based on historical California
15 construction-cost trends.

16 Contingency serves a different purpose. Rather than addressing anticipated market-price
17 trends, contingency addresses identifiable project uncertainties whose occurrence, timing,
18 or cost cannot yet be predicted with reasonable specificity. Examples include differing
19 site conditions, utility conflicts, construction-sequencing constraints, equipment
20 modifications, vendor requirements, coordination with operating facilities, procurement
21 challenges, and startup or commissioning issues. Put simply, escalation accounts for
22 changing market prices affecting construction costs, while contingency accounts for

¹ American Water Works Association, M47 Capital Project Delivery: Manual of Water Supply Practices (2010), p. 88. AWWA states that an average-sized project would typically include a contingency between 5% and 15% of the bid amount at the start of construction. See also SJWC Response to Data Request ZS1-001 (Cost, Alternative Analysis, O&M), Response to Question 4.b

1 execution-related uncertainties that can affect the cost of delivering the approved project
2 scope. These are different categories of risk and are not interchangeable. For this reason,
3 engineering cost estimators evaluate escalation and contingency separately because they
4 are intended to address different risks.

5 Mr. Sarkar also suggests that SJWC relies on some of the same risks to support both
6 escalation and contingency. I do not agree. For example, tariff or trade-policy changes
7 that affect material or equipment prices are appropriately reflected through escalation
8 assumptions. Contingency, by contrast, addresses uncertainty associated with execution
9 of the Project itself. If future construction costs were somehow known with perfect
10 accuracy through 2030, contingency would still be necessary because execution-related
11 uncertainty would still exist. Likewise, if every aspect of project execution were known
12 perfectly, escalation would still be necessary because future market prices would remain
13 uncertain. For these reasons, Mr. Sarkar's claim that escalation and contingency serve the
14 same purpose and address the same risks is simply incorrect.

15 **Q11. Does the Project's advanced level of design eliminate the need for contingency?**

16 A11. No. While advanced engineering and design significantly reduce uncertainty, they do not
17 eliminate it entirely. Even the most mature infrastructure projects continue to face
18 execution-related uncertainties that cannot be fully resolved until construction is
19 complete. For that reason, project maturity may justify a lower contingency, but it does
20 not eliminate the need for contingency altogether. The Williams Station PFAS Treatment
21 Project is among the largest and most complex capital projects ever undertaken by SJWC,
22 and no project of this size and complexity can eliminate every execution-related
23 uncertainty before construction begins.

1 The Williams Station Project is not a conceptual project. Hazen and Sawyer completed
2 alternatives evaluations, pilot testing, and treatment-selection work, and CDM Smith
3 subsequently completed final design and developed a detailed Class 1 OPCC based on
4 completed engineering drawings and specifications. As a result, the Project estimate
5 reflects substantially more information and a significantly higher level of cost certainty
6 than would be available during preliminary planning. Because the Project is mature and
7 well defined, SJWC applied a contingency of only 5%. That modest contingency
8 appropriately reflects both the advanced stage of development and the residual
9 uncertainties that remain unavoidable as construction approaches. It is also at the low end
10 of the contingency range identified by the American Water Works Association for
11 projects entering construction.²

12 **Q12. In your experience, does the existence of contingency imply that cost estimating was**
13 **inaccurate?**

14 A12. No. In practice, contingency exists because experienced engineers, contractors, and cost
15 estimators understand that some level of uncertainty remains even after a project has been
16 designed to a high level of completion. Professional cost estimators routinely include
17 contingency because decades of project experience demonstrate that uncertainty is
18 inherent in complex infrastructure projects. The objective is not to acknowledge poor
19 estimating. The objective is to develop the most realistic estimate possible based on the
20 information available at the time.

21 Contingency also promotes transparency. Rather than omitting foreseeable sources of
22 uncertainty from the estimate, contingency requires the project team to evaluate those

² American Water Works Association, M47 Capital Project Delivery: Manual of Water Supply Practices (2010), p. 88. AWWA states that an average-sized project would typically include a contingency between 5% and 15% of the bid amount at the start of construction. See also SJWC Response to Data Request ZS1-001 (Cost, Alternative Analysis, O&M), Response to Question 4.b

1 uncertainties and explicitly account for them in the cost estimate presented to the
2 Commission. Removing contingency would not eliminate those uncertainties. It would
3 simply produce a less complete forecast of the costs reasonably expected to be incurred in
4 delivering the Project. In that respect, ignoring identifiable risks would be less prudent
5 than recognizing them and accounting for them transparently within the estimate.

6 **Q13. Does the contingency represent a separate project or undefined scope of work?**

7 A13. No. The contingency is not intended to fund additional facilities beyond those identified
8 in the Project design. Nor is it intended to fundamentally change the approved Project
9 scope. The Project scope is defined by the engineering design, plans, specifications,
10 permitting requirements, and associated construction documents. The Project has also
11 completed alternatives analysis, pilot testing, final design, and development of a detailed
12 Class 1 OPCC, resulting in a well-defined scope and a high degree of confidence in the
13 planned work. The contingency recognizes that implementation of that defined scope
14 may require adjustments as construction proceeds and conditions are encountered. In
15 other words, contingency does not represent unknown scope. It represents uncertainty in
16 executing a known scope. That distinction is important from a project planning
17 perspective and is one that Cal Advocates ignores.

18 **Q14. In your opinion, is a 5% contingency unreasonable for a project of this scale and**
19 **complexity?**

20 A14. No. The Williams Station PFAS Treatment Project is expected to cost approximately
21 \$156.3 million in 2026 dollars and will be constructed over multiple years to become one
22 of the largest ion exchange PFAS treatment facilities in the United States. The Project
23 includes extensive civil, mechanical, electrical, process, instrumentation, and operational
24 components and must be integrated into an active groundwater production facility while
25 maintaining system reliability. Given the Project's size, duration, technical complexity,

1 and implementation requirements, the inclusion of a 5% contingency is a reasonable and
2 prudent cost-estimating practice. In fact, the 5% contingency is at the low end of the
3 contingency range identified by the American Water Works Association for projects
4 entering construction, which further supports the reasonableness of the amount included
5 in the estimate.³ Removing the contingency entirely would not eliminate project
6 uncertainty. It would simply assume that no execution-related uncertainty exists, which is
7 inconsistent with my experience delivering major water infrastructure projects and
8 imprudent.

9 **IV. DOWNSIZING THE PROJECT WOULD BE IMPRUDENT AND ULTIMATELY**
10 **LESS BENEFICIAL TO CUSTOMERS**

11 **Q15. Mr. Sarkar recommends that SJWC construct a smaller PFAS treatment facility**
12 **sized around 14 MGD rather than the proposed facility. Do you agree?**

13 A15. No. Mr. Sarkar's analysis incorrectly treats the Williams Station PFAS Treatment Project
14 as if it were a conventional capacity-expansion project driven primarily by historical
15 production averages. It is not. The purpose of this Project is to restore and preserve the
16 long-term utility of Williams Station as a groundwater production source. PFAS
17 contamination exists within the groundwater resource underlying the station and has
18 already resulted in multiple wells being removed from normal service. The Project
19 therefore addresses contamination affecting the station itself rather than simply the
20 amount of groundwater that happened to be produced during a particular historical
21 period. As a result, the appropriate planning question is not whether historical average
22 production supports a smaller facility. Rather, the appropriate planning question is
23 whether SJWC should restore treatment capability for a critical groundwater station

³ American Water Works Association, M47 Capital Project Delivery: Manual of Water Supply Practices (2010), p. 88. AWWA states that an average-sized project would typically include a contingency between 5% and 15% of the bid amount at the start of construction. See also SJWC Response to Data Request ZS1-001 (Cost, Alternative Analysis, O&M), Response to Question 4.b

1 affected by PFAS contamination or knowingly construct a facility that limits the future
2 usability of that groundwater resource.

3 **Q16. Mr. Sarkar suggests that storage or other operational measures could allow SJWC**
4 **to construct a smaller treatment facility while still meeting peak demands. Do you**
5 **agree?**

6 A16. No. That recommendation focuses primarily on short-duration peak demands rather than
7 the broader purpose of the Project. The objective of the Williams Station PFAS
8 Treatment Project is to restore treatment capability for a contaminated groundwater
9 resource and preserve operational flexibility over the long term. While storage can be an
10 important operational tool, storage and treatment facilities serve fundamentally different
11 purposes. Storage may help manage when water is delivered to customers, but it does not
12 treat PFAS-contaminated groundwater and does not restore the production capability of
13 the underlying source. The recommendation effectively assumes that storage can
14 substitute for treatment, but from a planning perspective those are not equivalent
15 solutions. The issue at Williams Station is not simply how to satisfy short-duration peak
16 demands. The issue is how to restore and preserve the long-term usability of a critical
17 groundwater resource affected by PFAS contamination. Additional storage does not
18 address that contamination and does not restore the operational capability of the station.

19 **Q17. Mr. Sarkar suggests that the proposed facility may be underutilized because**
20 **historical production is below the proposed treatment capacity. Do you agree?**

21 A17. No. Water-supply infrastructure is not typically sized solely around average production.
22 Critical groundwater facilities provide value through drought resilience, emergency
23 response, imported-water outage support, operational flexibility, maintenance
24 redundancy, and long-term resource reliability. Historical production reflects how
25 Williams Station was operated under prior conditions. It does not establish how much

1 production capability SJWC may need from the station during future droughts, imported-
2 water supply interruptions, emergency operating conditions, or other circumstances that
3 increase reliance on local groundwater resources. Nor does a lower historical capacity
4 factor demonstrate that the facility is oversized, because critical water-supply
5 infrastructure is designed to provide reliability across a range of operating conditions
6 rather than maximize utilization under average conditions. Evaluating a treatment facility
7 solely through a capacity-factor calculation understates the broader operational role that
8 Williams Station plays within SJWC's water-supply portfolio.

9 **Q18. Mr. Sarkar notes that earlier planning work evaluated a smaller treatment capacity**
10 **than the final design. Why did the design evolve?**

11 A18. The evolution of the design reflects both the changing regulatory environment and
12 SJWC's understanding of the long-term PFAS risk at Williams Station. As discussed by
13 other SJWC witnesses, the regulatory requirements applicable to PFAS evolved during
14 the period in which the Project was being developed. As SJWC continued to monitor
15 PFAS conditions throughout Williams Station, SJWC determined it would be more
16 prudent to develop a treatment facility capable of restoring treatment capability for the
17 groundwater station as a whole rather than constructing a facility intended to treat only a
18 portion of the contaminated groundwater resource.

19 The final design therefore reflects both the evolving regulatory environment and SJWC's
20 objective of preserving the long-term utility of its largest groundwater production station
21 rather than simply accommodating historical average production volumes. This approach
22 provides greater long-term reliability, operational flexibility, and protection against future
23 PFAS-related constraints, helping preserve access to a critical local groundwater resource
24 for SJWC customers.

1 **Q19. Does PFAS contamination currently affect only the wells that have been removed**
2 **from normal service?**

3 A19. No. The presence of PFAS at Williams Station is not limited to only the wells currently
4 on standby status. SJWC's monitoring has identified PFAS throughout the station, with
5 multiple wells exhibiting detectable PFAS concentrations and several wells showing
6 increasing trends over time. The purpose of the Project is therefore not merely to address
7 a handful of currently constrained wells, but to create a long-term treatment solution
8 capable of preserving the overall groundwater resource at Williams Station as
9 groundwater conditions continue to evolve. From a planning perspective, addressing the
10 issue on a station-wide basis now is also more prudent than waiting for additional wells
11 to become operationally constrained and then implementing additional treatment
12 improvements later, potentially at greater cost and with greater disruption to system
13 operations.

14 **Q20. Why is historical average production not the appropriate basis for sizing the**
15 **treatment facility?**

16 A20. SWJC is installing PFAS treatment to address contaminated groundwater sources, not
17 merely average water demand. Mr. Sarkar focuses primarily on average historical
18 production and concludes that treatment capacity can therefore be substantially reduced.
19 However, contamination does not occur only during average-demand periods. If PFAS is
20 present within a groundwater source, the treatment system must be capable of treating
21 contaminated water whenever and wherever that source is needed for customer service,
22 emergency response, drought operations, imported water outages, or future operational
23 conditions. Sizing the treatment facility around historical average production would
24 effectively assume that a substantial portion of Williams Station's groundwater
25 production capability will never again be needed. That is not a prudent planning
26 assumption for SJWC's largest groundwater production station.

1 **Q21. Why do you believe the 14 MGD recommendation is not a prudent planning**
2 **approach?**

3 A21. Because it effectively assumes that a substantial portion of a known contaminated
4 groundwater resource should remain untreated indefinitely. The contamination problem
5 at Williams Station is not limited to approximately 7 MGD of groundwater production.
6 PFAS contamination exists within the groundwater source underlying the station itself.
7 Therefore, the relevant planning question is not how much water Williams Station has
8 historically produced on average. The relevant question is whether SJWC should restore
9 treatment capability for the groundwater station as a whole or knowingly leave a
10 substantial portion of a contaminated groundwater resource without long-term treatment
11 capability. The latter approach would not benefit customers. SJWC's proposal is intended
12 to restore and preserve the long-term usability of a contaminated groundwater station.
13 Mr. Sarkar's recommendation would result in only partial treatment capability being
14 available at that same contaminated groundwater station. When contamination is known
15 to exist within the groundwater source underlying a critical production station, the
16 prudent long-term planning approach is to restore treatment capability for the station as a
17 whole rather than intentionally designing a facility that cannot fully treat the
18 contaminated resource if future operational conditions require it.

19 **Q22. Does the existence of lower historical production volumes establish that a smaller**
20 **treatment system is appropriate?**

21 A22. No. Historical production reflects how Williams Station was operated under historical
22 conditions. It does not establish the necessary production capability of the station, nor
23 does it establish future operational requirements. The treatment facility was not sized
24 solely to match historical average production. Rather, it was sized to restore treatment
25 capability for a critical groundwater source and preserve the long-term operational
26 flexibility and reliability of the station. Groundwater facilities provide value not only

1 through average daily production but also through operational flexibility, drought
2 response, emergency supply capability, imported-water outage response, peak-demand
3 support, and overall system resilience. Future operating conditions may require greater
4 reliance on Williams Station during droughts, imported-water supply interruptions,
5 maintenance outages, emergency events, or other circumstances that increase the
6 importance of local groundwater production. A station may be critically important even if
7 average production in certain years is lower. This is particularly true at Williams Station
8 given its importance within SJWC's groundwater portfolio and the uncertainty
9 surrounding future drought conditions, regulatory requirements, imported water supply
10 reliability, and emergency operating scenarios.

11 **Q23. What would be the practical consequence of adopting the phased 14 MGD**
12 **treatment approach recommended by Mr. Sarkar?**

13 A23. The practical consequence is that SJWC would be constructing a treatment system that is
14 intentionally incapable of treating the full groundwater resource available at Williams
15 Station. The recommendation assumes that future operating conditions will remain
16 consistent with historical averages and that a substantial portion of Williams Station's
17 groundwater production capability will never be required. That is just not a reasonable
18 planning assumption. Groundwater infrastructure is not maintained solely to satisfy
19 average daily demand. It provides operational flexibility during droughts, imported-water
20 shortages, emergency outages, wildfire response, seismic events, maintenance activities,
21 and other circumstances that cannot be predicted years in advance. Williams Station
22 plays a critical role in SJWC's ability to respond to those conditions. Because PFAS
23 contamination exists within the groundwater resource available to Williams Station,
24 SJWC's objective should be restoration of treatment capability for that groundwater
25 resource, not partial treatment of only a portion of the contaminated supply. The
26 recommended phased approach would therefore leave SJWC without the ability to fully

1 treat the groundwater resource underlying Williams Station if future operating conditions
2 require greater use of that resource. Historical production records reflect how Williams
3 Station was operated during prior conditions. They do not establish the amount of
4 groundwater production that may be required under future drought, imported-water
5 outage, emergency-response, or reliability scenarios.

6 **Q24. How would you summarize the difference between SJWC's proposal and Mr.**
7 **Sarkar's recommendation?**

8 A24. The difference is straightforward. SJWC's proposal is intended to restore and preserve the
9 long-term usability of a contaminated groundwater station. Mr. Sarkar's recommendation
10 would result in only partial treatment capability being available at that same
11 contaminated groundwater station. When contamination is known to exist within the
12 groundwater source underlying a critical production station, the prudent long-term
13 planning approach is to restore treatment capability for the station as a whole rather than
14 intentionally designing a facility that cannot fully treat the contaminated resource if
15 future operational conditions require it.

16 **Q25. Mr. Sarkar notes that SJWC did not prepare a separate lifecycle-cost comparison**
17 **between a 14 MGD treatment facility and the final design. Does that mean SJWC**
18 **failed to evaluate the reasonableness of the final design?**

19 A25. No. That characterization misunderstands the planning decision that was being evaluated.
20 The central decision was not choosing between two equivalent treatment facilities that
21 accomplished the same objective. Rather, the decision was whether SJWC should
22 partially remediate a contaminated groundwater station or restore treatment capability for
23 the station as a whole. Once SJWC determined that preserving the long-term utility of
24 Williams Station required treatment capability for the entire contaminated groundwater
25 resource underlying the station, the engineering objective became development of a

1 facility capable of achieving that objective. The planning decision was driven by long-
2 term groundwater resource reliability, water quality protection, drought resilience, and
3 operational flexibility rather than simply selecting the lowest-capital-cost alternative. In
4 light of those objectives, the 14 MGD treatment concept advocated by Mr. Sarkar would
5 not have achieved the same planning outcome as the proposed Project. Accordingly,
6 SJWC evaluated the final design based on its ability to restore treatment capability for the
7 groundwater resource while providing long-term reliability and operational flexibility at a
8 reasonable cost.

9 **Q26. Would constructing a smaller treatment facility today and expanding it later**
10 **necessarily reduce long-term costs?**

11 A26. Not necessarily. Future expansion is not cost-free. It is also important to recognize that
12 the proposed 14 MGD concept is not a construction-ready alternative. Developing and
13 advancing a different treatment facility to the same level of engineering, permitting, and
14 design maturity as the current Project would require additional time, engineering effort,
15 and cost, while delaying implementation of the treatment solution. A phased approach
16 would typically require additional engineering, additional permitting, additional
17 procurement activities, additional construction mobilization, additional contractor
18 participation, additional operational coordination, and exposure to future construction
19 cost escalation. Consequently, constructing infrastructure that ultimately requires
20 expansion may be more expensive than constructing appropriately sized infrastructure at
21 the outset. Those additional costs and delays would be incurred before accounting for the
22 broader schedule, procurement, funding, and escalation risks associated with postponing
23 implementation of the Project. For that reason, phased expansion should not be assumed
24 to provide lower lifecycle costs simply because the initial capital expenditure is lower.

1 **Q27. Does this conclude your supplemental testimony?**

2 A27. Yes, it does.