

Application No: _____

Exhibit No: _____

Date: _____

Witness: _____

BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

GOLDEN STATE WATER COMPANY

PREPARED TESTIMONY

**ELIZABETH V. MCDONOUGH, DANE T.
SINAGRA, AND DAVID SCHICKLING**

Volume 1 of 4
Testimony and Attachments A to D

Prepared by:
GOLDEN STATE WATER COMPANY
630 East Foothill Boulevard
P. O. Box 9016
San Dimas, CA 91773-9016

July 2026

DECLARATION OF SPONSORING WITNESS

In accordance with Rule 13.8(c) of the Rules of Practice and Procedure of the California Public Utilities Commission, I, Elizabeth McDonough, declare as follows under penalty of perjury:

1. I prepared the testimony attached to this declaration, or I was in charge of preparing the testimony attached to this declaration.
2. The testimony attached to this declaration is a true and correct statement of (1) my background, experience, and qualifications in the subject for which my opinions are being offered, (2) the information that I have reviewed and on which I rely for my opinions, and (3) the opinions that I am offering.

Executed on June 25, 2026 at Torrance, California.
(Date) (Name of City)

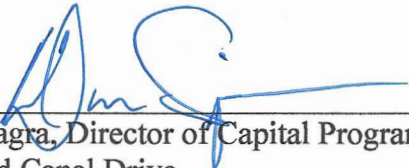

Elizabeth V. McDonough, Director of Capital Programs
19750 S. Vermont Ave.
Torrance, CA 90502
562-704-4686
beth.mcdonough@gswater.com

DECLARATION OF SPONSORING WITNESS

In accordance with Rule 13.8(c) of the Rules of Practice and Procedure of the California Public Utilities Commission, I, Dane Sinagra, declare as follows under penalty of perjury:

1. I prepared the testimony attached to this declaration, or I was in charge of preparing the testimony attached to this declaration.
2. The testimony attached to this declaration is true and correct.

Executed on June 23, 2026 at Rancho Cordova, California.



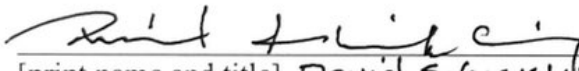
Dane Sinagra, Director of Capital Program and Engineering Design
3005 Gold Canal Drive
Rancho Cordova, CA 95670
(916) 539-4034
dane.sinagra@gswater.com

DECLARATION OF SPONSORING WITNESS

In accordance with Rule 13.8(c) of the Rules of Practice and Procedure of the California Public Utilities Commission, I, David Schickling, declare as follows under penalty of perjury:

1. I prepared the testimony attached to this declaration, or I was in charge of preparing the testimony attached to this declaration.
2. The testimony attached to this declaration is a true and correct statement of (1) my background, experience, and qualifications in the subject for which my opinions are being offered, (2) the information that I have reviewed and on which I rely for my opinions, and (3) the opinions that I am offering.

Executed on June 30, 2020 at San Dimas, California.
(Date) (Name of City)


[print name and title] David Schickling - Vp of Operations
[address] 160 Via Verde, San Dimas, CA. 91773
[telephone number] 562-322-7523
[email] David.schickling@gswater.com

GOLDEN STATE WATER COMPANY
PREPARED TESTIMONY
ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and DAVID SCHICKLING

TABLE OF CONTENTS

LIST OF TERMS	II
INTRODUCTION	1
CONSTRUCTION WORK-IN-PROGRESS	2
<i>CATEGORY 1 – BLANKETS</i>	<i>7</i>
<i>CATEGORY 2 – NEW BUSINESS PROJECTS.....</i>	<i>7</i>
<i>CATEGORY 3 – PROJECTS FUNDED BY OTHERS</i>	<i>7</i>
<i>CATEGORY 4 – PROJECTS APPROVED IN THE PREVIOUS GRC</i>	<i>7</i>
A RESPONSIBLE AND AFFORDABLE APPROACH TO INFRASTRUCTURE INVESTMENT.....	10
THE VALUE OF PRUDENT PLANNING: STUDIES AND DESIGN	11
THE REALITY OF MULTI-YEAR PROJECTS.....	13
A TRANSPARENT PROCESS FOR MANAGING BUDGETS AND PRIORITIES	14
<i>Subcategory 4a – Projects Approved in the Previous GRC with no Change in Budget or Scope.....</i>	<i>19</i>
<i>Subcategory 4b – Projects Approved in the Previous GRC that will be completed after 2023 with no Change in Budget or Scope</i>	<i>19</i>
<i>Subcategory 4c – Projects Approved in the Previous GRC that will be completed in the 2020 rate cycle with a Change in Budget or Scope.....</i>	<i>42</i>
<i>Subcategory 4d – Projects Approved in the Previous GRC that will be completed after 2023 with a Change in Budget or Scope</i>	<i>95</i>

CATEGORY 5 – PROJECTS NOT APPROVED IN A PRIOR GRC.....	198
CATEGORY 6 – COMPLETED OR CANCELLED PROJECTS	215

LIST OF TERMS

ADD – Average Day Demand

AFY – Acre Feet per Year

CDPH – California Department of Public Health

CEQA – California Environmental Quality Act

CIP – Capital Improvement Program

CMU – Concrete Masonry Unit

CWIP – Construction Work in Progress

CPUC – California Public Utilities Commission

DDW - State Water Resources Control Board, Division of Drinking Water

DWR - California Department of Water Resources

EBMUD – Easy Bay Municipal Utility District

EPA – U.S. Environmental Protection Agency

FCV – Flow Control Valve

FF – Fire Flow

fps – Feet per Second

GAC – Granular Activated Carbon

GSWC – Golden State Water Company

HP – High Pressure

HRFA - High Fire Risk Areas

LARWQCB – Los Angeles Region Water Quality Control Board

1 LF – Linear Feet
2 MCC – Motor Control Center
3 MCL – Maximum Containment Level
4 MDD – Maximum Day Demand
5 MG – Million Gallons
6 MHD – Minimum Hour Demand
7 MP – Master Plan
8 MWD – Metropolitan Water District
9 O&M – Operations & Maintenance
10 PCE - tetrachloroethylene
11 PFAS - polyfluoroalkyl substances
12 PG&E – Pacific Gas & Electric
13 PHD – Peak Hourly Demand
14 PLC – Programmable Logic Controller
15 PRV – Pressure Regulating Valve
16 psi - pounds per square inch
17 PSPS – Public Safety Power Shutoff
18 PSV – Pressure Sustaining Valve
19 SCADA – Supervisory Control and Data Acquisition
20 SCE – Southern California Edison
21 SDWA – Safe Water Drinking Act
22 TDS – Total Dissolved Solids
23 UWMP – Urban Water Management Plan
24 VOC - Volatile Organic Compound
25 WQ – Water Quality

**GOLDEN STATE WATER COMPANY
PREPARED TESTIMONY**

ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and DAVID SCHICKLING

(Q) Please state your full names, employer, job titles, and the address of your place of employment.

(A) My full name is Elizabeth V. McDonough. I am employed by GSWC as a Director of Capital Programs in the Asset Management department. My business address is 19750 S. Vermont Ave., Suite 115, Torrance, California. My testimony includes the Special Request #12, newly submitted projects and the projects that were presented in a previous rate case in the Central, Southwest, Orange County, Foothill, and Mountain Desert Districts.

My full name is Dane T. Sinagra. I am employed by GSWC as a Capital Program Manager in the Capital Program Management department. My business address is 3005 Gold Canal Drive, Rancho Cordova, California. My testimony includes the newly submitted projects and the projects that were presented in a previous rate case in the Northern and Coastal Districts as well as several additional projects in other areas of the company.

My full name is David Schickling. I am employed by GSWC as the Vice President of Operations in the Regulated Water Utilities department. My business address is 160 Via Verde Dr., San Dimas, California. My testimony includes the blanket projects included in Category 1.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

(Q) What are your qualifications?

(A) Please refer to **Attachments A, B, and C** for the qualifications of Elizabeth V. McDonough, Dane T. Sinagra, and David Schickling.

(Q) Please explain the nature of your testimony in this proceeding.

(A) This testimony will support GSWC's calculation of the Construction Work-in-Progress (CWIP) for each of the regions.

Construction Work-in-Progress (CWIP)

(Q) Please explain the process used to forecast the projected CWIP for Regions 1, 2 and 3, which is included in this filing.

(A) Capital projects are planned, budgeted, designed, constructed, and closed on an ongoing basis that overlaps with internal annual budgeting cycles and external California Public Utilities Commission (CPUC) Rate Case Cycles. To help manage, account for, and report on these projects, projects that are in the process of design or construction and have ongoing expenditures as of December 31, 2025, are tracked in the CWIP. The CWIP also includes projects for which construction and project invoicing are complete, but final closeout paperwork is still being processed. As of December 31, 2025, the amount spent on projects in progress and completed in 2025 but not closed to plant at the end of the year due to ongoing invoicing and other needed administrative processing was \$227,693,715. To capture ongoing expenditures relevant at the time of this filing, GSWC is requesting \$387,772,416 to close and complete capital projects currently booked in the Company's CWIP account.¹ This amount is broken down into the following four years:

¹ Data listed in this paragraph does not include projects in the General Office.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 1) \$174,801,453 represents forecasted expenditures in 2026 on currently open
2 projects;

3 2) \$106,325,250 represents forecasted expenditures in 2027 on currently open
4 projects;

5 3) \$66,295,855 represents forecasted expenditures in 2028 on currently open
6 projects, and

7 4) \$40,349,858 represents forecasted expenditures in 2029 on currently open
8 projects.

9 Refer to **Appendix 1** for details by project. A breakdown of these costs by ratemaking
10 area is shown in Table 1 below:

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Table 1
Construction Work-In Progress

Rate Making Area	December 2025	2026 Additions	2027 Additions	2028 Additions	2029 Additions	Total 2026 to 2029
Arden Cordova	\$17,055,149	\$17,080,241	\$11,800,119	\$0	\$0	\$28,880,360
Bay Point	\$3,430,240	4,479,354	1,679,333	1,276,859	2,884,774	10,320,321
Clearlake	1,573,478	4,117,268	1,436,458	2,083,852	0	7,637,578
Northern District	3,554	108,635	0	0	0	108,635
Los Osos	7,437,130	2,825,663	2,699,534	4,843,578	1,127,100	11,495,876
Santa Maria	13,577,963	14,516,851	10,368,681	5,292,807	1,957,297	32,135,636
Simi Valley	5,422,251	4,418,934	3,854,491	7,138	0	8,280,563
Coastal District	0	111,347	0	0	0	111,347
San Juan Oaks	0	175,465	0	0	0	175,465
Sutter Pointe	3,964,670	0	0	0	0	0
Region II	65,766,626	62,765,969	31,789,525	24,153,590	19,630,911	138,339,994
Region III	109,462,656	64,201,725	42,697,108	28,638,032	14,749,777	150,286,641
Totals	227,693,715	174,801,453	106,325,250	66,295,855	40,349,858	387,772,416

Table 1- Data on CWIP Summary Table (does not include the General Office)

The projects included in the CWIP request range from relatively standard ones in terms of design and construction to ones that require more approvals such as CEQA, local permits, and other agency approvals as well as land and easement acquisition.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 The projects in CWIP align with the Public Advocates Office's previous support of the
2 Commission's rationale for allowing a return on CWIP.²

3 To accurately budget expenditures, GSWC works to reflect the budgets in the year the
4 capital is expected to be spent. Often this requires budgets for design and permitting
5 of capital projects to be in one budget year and the construction in a subsequent
6 budget year or years. Because of these dynamics, projects are routinely in CWIP for
7 multiple years. Additionally, all 2025 projects are listed in the CWIP, as opposed to
8 being listed separately as the 2025 budget. This convention is used to facilitate the
9 completion of the CWIP analysis.

10 There are a total of 295 active, pre-2026 construction projects included in the CWIP
11 table, not including the blanket or new business (funded-by-others) projects.³ Of the
12 295 projects listed, a little less than half (161) are expected to carry-over into 2027,
13 2028, and 2029.

14 The CWIP table was created by running a report from GSWC's fixed asset/project
15 management system, PowerPlan, which includes every open work order.⁴ The table
16 lists all the projects in progress as of December 31, 2025. The table lists the work
17 order number (if available), the location and description of the project, the amount
18 recorded in CWIP as of December 31, 2025, and forecasted additional costs to be
19 incurred between 2026 and 2029, where applicable.

22 ² DRA Report on the Results of Operations of Golden State Water Company Region I Los Osos District in A.07-
23 01-009, page 91

24 ³ Excluding General Office projects, "blanket" projects, and projects funded by others.

25 ⁴ Due to the size of the table a condensed version of the table is provided in the hard copy of the testimony as
26 Appendix 1. The full spreadsheet is provided in GSWC's electronic workbook "Y_SEC-50_RB_CWIP" in the
27 RO model.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 In support of the forecasted additional costs between 2026 and 2029, the Capital
2 Program Management Managers⁵ reviewed the projects and estimated the amount
3 needed to complete them. The projects listed included projects that started prior to
4 2025, 2025 projects that were still in progress or not fully closed by December 31,
5 2025, and projects that were started before March 2026. Also included are the
6 adopted 2026 projects, since these work orders were opened before year end.
7 The Total Budget Needed is based on the current forecast of remaining expenditures
8 plus the amount expended (CWIP) and closed to date. The Estimated to Complete is
9 the difference between the Total Budget Needed and the Total Expended (CWIP plus
10 closed). Using the project schedules developed and maintained by the Capital
11 Program Management Departments, the Estimated Completion Year was used for
12 each project and the Estimated to Complete amount was placed in the appropriate
13 column.

14 Additionally, because the adopted 2026 projects are included in the CWIP analysis,
15 the annually recurring “blanket” projects are included in the CWIP analysis. The
16 adopted budget for these projects was used as the basis of the analysis and the
17 General Managers from the Operations Department reviewed the projects in their
18 areas and provided modifications as necessary.

19 The information from these analyses and tables was then combined into summary
20 tables and checked for accuracy before being input into this testimony.

21 Projects included in the CWIP table generally fall into one of the six categories listed
22 below. A column in the CWIP table indicates the appropriate category for each project.

25
26 ⁵ Routine projects such as annually recurring or “blanket” work orders are overseen by the Operations
27 Department and not by the Capital Program Management Department.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Category 1 – Blankets

The CWIP table includes all 2026 blanket projects that were in progress at the time of the filing and all blanket projects that began before 2026 and were not closed as of December 31, 2025, when the CWIP report was generated. We expect that all the blanket projects will be closed in 2026, as reflected in the CWIP table. Category 1 projects account for approximately \$29.9M and represent approximately 7.7% of the total amount being requested.

Category 2 – New Business Projects

New Business Projects are funded by developers. The overall schedules for these projects are not managed or dictated by GSWC and can therefore span several years. The New Business Projects listed in the CWIP table are pre-2026 projects. They do not impact the total amount requested for the CWIP, as they are funded by developers. As such, the capital values included in the CWIP table are offset by funds received by developers. Category 2 projects account for approximately \$0M and represent 0% of the total amount being requested.

Category 3 – Projects Funded by Others

Projects Funded by Others include projects for which GSWC receives funding from outside sources such as First 5 Sacramento. Projects Funded by Others included in the CWIP table are pre-2026 projects. Category 3 projects account for approximately \$0M and represent 0% of the total amount being requested.

Category 4 – Projects Approved in the Previous GRC

Projects Approved in the Previous GRC (non-blanket projects) form the majority of the projects for budget years 2022, 2023, 2024, and 2025. These projects were either included in the approved project lists for 2024, 2025, and 2026 or were included in the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

2023 CWIP table as part of the 2023 GRC filing. In general, most of the projects in these categories have been designed and we have solicited bids from contractors.

As described above, the accuracy of the cost estimates presented in the 2023 GRC filing were at the planning and conceptual phase of the projects, where little more than the proposed facility type, location and capacity were known and were considered rough cost estimates. The current cost estimates provided in this testimony are more accurate because the project has been further developed, the bid items are more complete, and the costs are based on actual bids or on recent bids from similar projects.

The construction costs for many of the projects, or for projects similar in scope, have increased at higher rates than anticipated due to factors outside of our control, which occurred after the original cost estimates were presented in the 2023 GRC filing. These events – including soaring fuel costs, supply chain disruptions, and high labor wages, material shortages, and strict regulations – have spurred rising costs, extended schedules, and increased uncertainty across the construction industry over the last few years. The market impacts from these events altered many of the typical approaches used to control costs for a wide variety of inputs to capital projects, including pursuing alternative materials or sourcing options. As a measure of this cost escalation, the CBRE Construction Cost Index (reflecting the year-over-year change and key trends impacting the primary drivers of total construction costs) only increased 2.3% in 2024, that is in line with the 2%-4% historical trend.⁶ The increase

⁶ CBRE, 2022 U.S. Construction Cost Trends (<https://www.cbre.com/insights/books/2022-us-construction-cost-trends>).

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 in total spending is, in part, driven by inflating input prices (i.e., fuel, materials, labor)
2 in the last three years that averaged 10.7%, which is 5.3 to 2.6 times higher than
3 average. Disruptions along the logistics chain, high energy prices, and transportation
4 delays directly impacted key input prices and project scheduling. As an indication of
5 the impact of supply chain challenges, lead times for many key construction inputs
6 were significantly impacted during the timeframe in-question. GSWC projects have
7 experienced lead time increases for common inputs such as electrical panels,
8 generators, pumps and motors, and motor control centers (MCC).

9
10 Project costs were also significantly impacted by unexpected, additional, or new
11 requirements or permit fees when obtaining permits and waivers. Most projects
12 required one or multiple permits, such as CEQA, Incidental Take Permits (ITPs),
13 encroachment permits, Lake and Streambed Alteration Agreements (LSAAs), railroad
14 permits, and more. The permit process often results in unanticipated fees or
15 requirements that significantly increase project costs – examples include purchasing
16 environmental impact mitigation credits for quantities that are unknown until the
17 design is completed, or landscaping a project site in which the extent of landscape is
18 determined by the local agency where the project is located. GSWC attempts to
19 budget for permitting as much as possible by relying on past experience and
20 consulting with environmental professionals; however, there are often unanticipated
21 expenditures because the permit requirements vary by project, location, and
22 regulatory agency.

23
24 GSWC also experiences significant challenges with DDW waivers, which are required
25 when GSWC's proposed infrastructure must be installed closer to existing non-potable
26 pipelines than DDW's requirements. This occurs when it is physically impossible or
27 cost-prohibitive to locate the proposed facilities elsewhere. These conflicts are

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 discovered during project design and/or construction, and the waiver approval process
2 can result in project delays up to six months and beyond. GSWC has been working
3 with DDW on a solution to prevent the project delays and is optimistic that a solution is
4 achievable. In addition to higher project costs, permits and waivers have also
5 significantly extended the projects' schedules. The permit approval processes were
6 often arduous, typically taking several months and in several instances over two years
7 to obtain clearance to start construction. In many cases the permitting approval
8 process resulted in changes to project scope and design, further delaying project
9 schedules. Additionally, project delays can be compounded when a project requires
10 multiple permits (e.g. the ITP application can't be submitted until CEQA is approved).
11 In general, delays related to permitting and waivers have become more prevalent in
12 recent years.

13
14 **A Responsible and Affordable Approach to Infrastructure**
15 **Investment**
16

17 Golden State Water Company (GSWC) has a fundamental responsibility to our
18 customers: to provide safe, reliable water service at an affordable price, not just for
19 today but for generations to come. Fulfilling this commitment requires a thoughtful,
20 proactive and disciplined approach to managing our extensive water infrastructure.
21 The investments detailed in this section represent our plan to responsibly replace
22 aging pipelines, upgrade critical facilities and ensure the long-term sustainability of the
23 system. We are not just engineers and operators; we are stewards of our customers'
24 resources, and every project is planned with the goal of delivering the maximum long-
25 term value for every dollar invested.
26
27
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 A cornerstone of our stewardship is a multi-phased project delivery process that
2 ensures we select the right project and build it the right way, at the right cost. This
3 process, which includes a methodical progression from initial studies to detailed
4 engineering design and finally to construction, is the most prudent approach to
5 managing large-scale capital investments.

6 **The Value of Prudent Planning: Studies and Design**

7
8 As responsible engineers, we recognize that the most significant opportunities to
9 control project costs and ensure long-term affordability occur long before construction
10 begins.

- 11 • Studies for Cost-Effective Solutions: Before committing significant customer
12 funds , we conduct rigorous engineering studies for selected projects. These
13 analyses allow us to evaluate a range of potential solutions to an infrastructure
14 challenge, comparing them not just on initial construction cost, but also on their
15 future operational and maintenance costs. This critical step ensures we select
16 the most cost-effective and durable solution for the long term, preventing the
17 selection of cheaper, short-term fixes that would ultimately cost our customers
18 more in the future. An example of this would be implementing polyfluoroalkyl
19 substances (PFAS) treatment. In 2024, Golden State hired Tetra Tech
20 Environmental to evaluate PFAS treatment for sources above the proposed
21 Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL).
22 The purpose of this evaluation was to prioritize groundwater treatment
23 companywide based on the Division of Drinking Water (DDW)'s best available
24 technology (BAT) to remove PFAS. The project included:
 - 25 ○ Prioritize and group PFAS treatment locations based on site availability,
26 water quality, and water supply

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Recommend best available technology for PFAS treatment for each well site with intent to standardize treatment companywide
- Determine options for vessel sizes, number of vessels, and media options
- Determine how treatment would be integrated to existing operational processes and if centralized treatment is feasible
- Evaluate lead time on treatment equipment, media, and note any supply chain challenges
- Develop high-level design and construction cost estimate for standardized PFAS treatment that can be scaled based on flow rates ranging between 500-2,500 gallons per minute
- Review and rank alternative options to maintain water supply such as do nothing, blend, purchase water, and install groundwater treatment for each of the sources
- Evaluate long term growth of MWD water rates and compare it to treated local water supply.
- Critical Engineering Design: Following the selection of a preferred alternative, our engineers undertake detailed design work. This phase is essential for translating a concept into a buildable project. It is during the design phase that we can refine construction plans and identify potential challenges. Investing in thorough design minimizes the risk by identifying potential site constraints and operational challenges, thereby reducing unexpected complications during construction, providing greater certainty for both the company and our customers.

A practical example of this standard in action would be a well replacement project. Rather than spend capital to drill a new well in the same location and risk contamination from a known nitrate plume, prudent management dictates

1 that we first invest in a hydrogeologic study. This upfront engineering analysis
2 helps us identify the optimal drilling location, ensuring the long-term viability of
3 the water source and compliance with water quality standards. This prudent
4 planning saves customers from the significant expense of a failed well.

5 The Reality of Multi-Year Projects

6 Modern infrastructure projects are complex and their timelines for prudent execution—
7 from the initial study to final construction—often extend beyond a single three-year
8 rate case cycle. The reality is that these are complex, multi-phase undertakings where
9 timelines are dictated by necessary, sequential processes including engineering
10 studies, detailed design, regulatory approvals, and volatile supply chains. It is neither
11 practical nor responsible to attempt to rush a project from conception to completion in
12 an arbitrary regulatory window. A phased approach allows for the necessary diligence
13 at each stage and ensures that construction begins only after we have confirmed the
14 project is the correct, most cost-effective solution. By investing in these vital planning
15 and design stages, we are making a prudent investment in affordability and reliability
16 that will benefit customers for decades to come.

17 Building on the well example above, a typical project follows this sequence:

- 18 • Identification: An initial engineering or hydrogeologic assessment identifies the
19 need for a new well.
- 20 • Design: Consultants develop a preliminary design report, which can take
21 several months.
- 22 • Regulatory and Local Approvals: The project must navigate a complex web of
23 permits, from state-level environmental reviews (CEQA) to local drilling and
24 building permits. These processes are outside the utility's control and can be
25 delayed by public comment periods, inter-agency coordination, or newly
26
27
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

imposed local requirements adding months, or in some cases years to a project.

- Procurement: Critical long lead-time equipment is ordered. Items like specialized pumps, motors, and electrical control panels can take anywhere from nine to 18 months, or even longer, to be delivered.
- Contractor and Labor Availability: The project must secure a qualified construction contractor. In the current environment, widespread labor shortages can limit contractor availability, delaying the start of construction.
- Multi-Stage Construction: The construction phase itself is sequential, beginning with well drilling and followed by equipping the well with its pump, motor, and electrical systems.
- Commissioning: The well is tested and brought into service.

This necessary, linear progression makes it structurally impossible to complete the work in just the three-year rate cycle.

A Transparent Process for Managing Budgets and Priorities

A common misconception in rate cases is that if a planned project is deferred, customers might end up paying twice for the same project. This is not the case. We are committed to full transparency in our financial management, and the regulatory process itself ensures every dollar is accounted for. The capital budget authorized in a General Rate Case is a forecast. While it is built on a carefully planned portfolio of projects, the dynamic nature of managing a complex water system requires flexibility to adapt to unforeseen challenges and opportunities. When a budgeted project is deferred, the funds originally allocated for it are not left idle. Instead, they are reinvested in other critical, unbudgeted work that is necessary to maintain public health and safety. These non-discretionary situations fall into four distinct categories:

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Regulatory Compliance: A new state or federal regulation may be passed requiring, for instance, immediate treatment of an emerging contaminant like PFAS. To protect public health and comply with our drinking water permit, we have no choice but to construct a new treatment facility, a non-discretionary project that was impossible to foresee in the last rate case.
- Emergencies: This category includes both catastrophic asset failures and unexpected operational needs. A 50-year-old well, critical to meeting summer demands, may experience a sudden casing collapse, rendering it permanently inoperable. Similarly, a severe drought could necessitate drilling a new well to ensure supply reliability. In both scenarios, the immediate threat to service requires an emergency response.
- Cost-Saving Opportunities: A city may announce a major street repaving project, creating a time-sensitive window to replace a water main. Seizing this "dig once" opportunity saves customers hundreds of thousands of dollars in future paving and traffic control costs that we would otherwise bear alone. Deferring the replacement until after a paving moratorium is imposed would be financially irresponsible. A direct example of this situation is included following testimony for the Water Quality Area 4 Phase 1 pipeline replacement with savings to the customer of approximately \$1 million dollars.
- Compliance with Franchise Agreements: As part of our franchise agreements with the municipalities we serve, we must proceed with the relocation of our water assets in accordance with the timetable set forth by local governments to accommodate civic improvement projects, such as a Department of Transportation road-widening. These relocations are mandatory and their timing is dictated by the civic agency, not by our capital plan.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 The ability to utilize approved funds on critical, unbudgeted work is a core principle of
2 utility regulation known as the Prudent Manager Standard. The California Public
3 Utilities Commission (CPUC) has long affirmed this standard, holding that it will not act
4 as the day-to-day general manager of the utilities it regulates. Instead, the commission
5 grants management the discretion to respond to changing conditions and make
6 necessary operational decisions. This standard requires GSWC to manage its system
7 and budget prudently, with the understanding that the commission will later review
8 those decisions for reasonableness. This principle is well-established in CPUC
9 decisions. In D.10-12-017, the Commission stated that while it uses the General Rate
10 Case (GRC) to set rates based on forecasted investments, “the forecasts are not a
11 fixed budget from which the utility cannot vary.” The decision affirmed that a utility like
12 GSWC “has flexibility in its choice of expenses and plant investments subject to a
13 reasonableness review in the next GRC.” Supporting this theme, in D.18-12-021 the
14 CPUC affirms utilities “manage ... budgets to an overall budget number, with flexibility
15 to reallocate funds among individual...line items as necessary.” In this proceeding,
16 GSWC is requesting the following in **Special Request #12**:

- 17 1. While the overall authorized capital budget amount for plant additions is
18 justified by evidence in the record relating to individual projects forecasted,
19 Golden State will have the flexibility within that total authorized capital budget to
20 reprioritize the construction of capital projects during the course of the GRC
21 cycle as necessary to continue providing safe and reliable water service to its
22 customers.
- 23 2. Actual capital spending by Golden State in this GRC cycle may vary from any
24 forecast adopted by the Commission, and variance between adopted amounts
25 and those actually incurred would not necessarily demonstrate imprudence or
26 unreasonableness.
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 Approval of this special request would help provide greater flexibility and
2 reassurances to allow Golden State to redirect capital prudently to best serve its
3 customers as new and unexpected developments arise during the course of the three-
4 year GRC cycle.

5 This reallocation of funds is governed by a disciplined internal control process.
6 Before an unbudgeted project can proceed, our team develops a formal case that
7 includes detailed justification, defined scope of work, and a clear explanation of why
8 the project is time-sensitive and cannot be deferred until the next General Rate Case.
9 This proposal is then subject to a rigorous review and requires vice president-level
10 approval before funds can be committed. This process ensures that any deviation
11 from the original budget is thoroughly vetted, necessary, and in the best interest of our
12 customers.

13 For full transparency, every project undertaken outside the original GRC budget is
14 described in detail in the CWIP testimony that follows this preamble, under Category
15 5. This level of detail is consistent with the full accounting GSWC provides for all
16 expenditures as part of the Minimum Data Request (MDR) in our rate case. This
17 demonstrates that the original funds were used for a different, fully justified project that
18 is critical to our service obligations. It demonstrates to the PUC and our customers
19 that they are not paying for an unbuilt project. Consequently, when we later seek
20 funding for a project that was previously deferred, it is unequivocally the first time that
21 specific project is being presented for inclusion in customer rates, i.e., the customer is
22 only paying for that project once.

23 The ultimate safeguard in this process is the earnings test. This regulatory mechanism
24 ensures that customer rates are based only on the actual value of capital projects that
25 have been completed and are actively serving the community, not on projections. The
26 earnings test provides a crucial check, reconciling our forecasted budget with the
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 actual capital we have invested in providing our customers safe drinking water. In this
2 way, our customers are protected from paying for projects that are not yet "used and
3 useful." This makes it structurally impossible to pay for a single project twice.

4 In summary, this multi-layered system of controls from our rigorous internal approval
5 process to the complete transparency of the MDR and the final accountability of the
6 earnings test—demonstrates an unwavering commitment to prudent financial
7 management and a direct reflection of our commitment to upholding the Prudent
8 Manager Standard ensuring every decision is both prudent and justifiable. It is a
9 framework designed to be both flexible and disciplined, proving GSWC to be a
10 responsible steward of customer dollars. Through this process, we guarantee that
11 every investment is justified and every dollar is accounted for, and customers never
12 pay for the same project twice; securing their long-term access to safe, reliable and
13 affordable drinking water.

14
15 Projects Approved in the Previous GRC are further categorized into four
16 subcategories:

- 17 4a. Projects Approved in the Previous GRC that will be completed in the 2023 GRC
18 capital budget cycle (2024-2026) with no Change in Budget or Increase in Scope,
19 4b. Projects Approved in the Previous GRC that will be completed after 2026 with no
20 Change in Budget or Increase in Scope⁷,
21 4c. Projects Approved in the Previous GRC that will be completed in the 2023 GRC
22 capital budget cycle (2024-2026) with a Change in Budget or Scope, and
23
24
25
26

27 ⁷ Note that 238 projects are expected to be completed by the end of the current GRC cycle (2025 – 2027).
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 4d. Projects Approved in the Previous GRC that will be completed after 2026 with a
2 Change in Budget or Scope⁸.

3
4 *Subcategory 4a – Projects Approved in the Previous GRC that will be completed in*
5 *the 2023 GRC capital budget cycle (2024-2026) with no Change in Budget or Increase*
6 *in Scope*

7 Projects Approved in the Previous GRC (non-blanket projects) with no change in
8 budget or scope as requested account for approximately \$19.2M or approximately
9 5.0% of the total request. Since the projects in this category will be completed in the
10 current rate cycle no additional justification is provided in this testimony, given there is
11 no change to the project as approved in previous filing(s).

12
13 *Subcategory 4b – Projects Approved in the Previous GRC that will be completed after*
14 *2026 with no Change in Budget or Increase in Scope*

15 Projects Approved in the Previous GRC (non-blanket projects) with no change in
16 budget or scope as requested account for approximately \$31.8M or approximately
17 8.2% of the total request. Please refer to **Attachment D** for the current cost estimates
18 for each project in this category. Testimony is provided for the projects that will not be
19 completed in the current rate cycle.

20
21 1. Los Osos System, Fire Hardening Improvements – WO# 14631321

- 22 • This project was included in an all-party settlement agreement in the prior 2023
23 GRC.

24
25
26
27 ⁸ Note that 238 projects are expected to be completed by the end of the current GRC cycle (2025 – 2027).

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: Fire Hardening across 3 plant sites in the Los Osos System: Calle Cordoniz, South Bay, and Country Club.
- Justification: In 2020, Rhode Associates reviewed GSWC's facilities and prepared reports by individual water system that included a risk assessment and recommended improvements. The facilities were ranked by increasing order of risk from: no risk, low risk, moderate recommendation, and significant recommendation.

The structural improvement recommendations included construction of fully grouted block walls, replacement of roofs with non-combustible material, and replacement of the existing wood-framed pump building with a new non-combustible structure. At plant sites where there was not enough clearance between existing water facilities and existing parcel boundaries to construct the footing required for a block wall, GSWC is proposing the construction of pre-cast concrete panel walls with poured-in-place pilaster or driven vertical posts. These would have a minimum thickness of 8" to provide the mass necessary for fire resistance, be 8' in height and 8-12 feet on center between supports. Access gates are to be constructed of fire rated/resistant materials.

- Description of Change: The project scope and cost remain unchanged.
- Current Status: Design is in progress and construction should start mid 2026. The construction may be completed in 2026 but potentially could carry over into 2027, which is within the current GRC cycle.

2. Roseton Plant, Replace Roseton Well – WO# 21911466

- This project was included in an all-party settlement agreement in the prior 2023 GRC.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: Drill and equip a new well to replace Roseton Well No. 1 at Roseton Plant.
- Justification: Roseton Well #1 was drilled in 1954 and was rehabilitated in 1976 and 2010. The 69-year-old well has a capacity of 720 gallons per minute (gpm). A December 2020 report completed by Wood Rodgers on Roseton Well No. 1 concluded that the well is nearing the end of its useful service life. The new well will allow the Artesia System to have a reliable supply of groundwater and will offset purchased water needs for the north side of the Artesia System. Another project, Roseton Tank and Booster Station, is currently being constructed at the site, so there are space constraints to proceed with the construction of this project. The aforementioned project will be completed in 2026, and this project is on track to start drilling construction immediately after.
- Current Status: The project is currently in design and anticipated to be completed in 2029.

3. Roseton Plant, Replace Filter Media – WO# 21911460

- This project was included in an all-party settlement agreement in the prior 2023 GRC. It is part of the Artesia System Replace Filter Media Project for the Juan, Hawaiian, Centralia, and Roseton Plants, which was originally proposed and approved in the 2023 GRC. The filter media replacement work at the Juan, Hawaiian, and Centralia plants was completed.
- Project Description: This project involves replacing the existing filter media at the Roseton Plant site.
- Justification: Company practice and accepted industry standards recommend replacing filter media every 7–10 years. The existing filter media at Roseton has reached the end of its useful life and requires replacement. Clogged or degraded filter media can reduce the effectiveness of the water treatment

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 system and make it more difficult to meet water quality requirements.

2 Replacement of the media is necessary to maintain water quality, reduce
3 operational costs, and ensure regulatory compliance.

- 4 • Description of Change: The project scope and cost remain unchanged;
5 however, the project schedule has been delayed.
- 6 • Reason for the Change: The schedule delay is due to the ongoing construction
7 of the new pump station and reservoir at the Roseton Plant. The filter media
8 replacement work will be performed after completion of the pump station and
9 reservoir project to avoid having two contractors working simultaneously within
10 a limited space.
- 11 • Current Status: The project is currently awaiting completion of the new pump
12 station and reservoir and is anticipated to be completed in 2027, which is within
13 the current GRC cycle.

14
15 4. Centralia Plant, Install Back-up Generators – WO# 21911472

- 16 • This project was included in an all-party settlement agreement in the prior 2023
17 GRC.
- 18 • Project Description: Install a backup generator with a transfer switch at the
19 Centralia Plant Site.
- 20 • Justification: The Centralia Plant Site comprises two groundwater wells with a
21 capacity of 4,000 gpm, two treatment systems, one 0.75 MG reservoir, and four
22 booster pumps with a capacity of 4,000 gpm. The Centralia Plant Site is a
23 critical supply source for the Artesia System. The installation of a permanent
24 diesel generator is essential for the Centralia Plant Site to meet customer
25 demands and maintain water quality and system pressures during power
26 outages, natural disasters, or other unprecedented emergencies. The new
27 generator should be at least 500 kilowatts (KW) to power Centralia Well No. 7

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

(250 hp), two booster pumps (200 hp), and other associated appurtenances. In September 2022, California experienced a historically long and record-breaking heat wave. The Governor of California declared a statewide emergency. Through the California ISO, a statewide Flex Alert was issued, requesting that Californians conserve electricity due to the strain on the electrical grid from the unprecedented heat wave. GSWC operated its generators to load shed and reduce the strain on the electrical grid in the Artesia System. Installing generators at key supply and pumping facilities will increase the reliability of the Artesia System to meet customer demands and enhance the resiliency of the Artesia System to the negative consequences of climate change.

- Description of Change: The project scope and budget remain unchanged.
- Reason for the Change: No changes are proposed.
- Current Status: The project is currently in progress while waiting for the delivery of the generator and its components. It is anticipated to be completed in 2026 but most likely will be extended to 2027, which is within the current GRC cycle, due to the generator manufacturer's delivery schedule.

5. Willowbrook Drought Tolerant Landscape – WO# 23011206

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: This project involves replacing existing turf with drought-tolerant landscaping at the Willowbrook Plant site in the Willowbrook System.
- Justification: Installation of drought-tolerant landscaping will reduce overall water usage at each GSWC plant site. As stated by Governor Newsom, "the most impactful action Californians can take to extend available supplies is to redouble their efforts to voluntarily reduce their water use by 15 percent from their 2020 levels by implementing the commonsense measures identified in

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

operative paragraph 1 of my July 8, 2021 Executive Order N-10-21.”

Additionally, California’s Water Supply Strategy report, dated August 2022, states in Section 3.1 that “the Administration sponsors a robust campaign to motivate urban Californians to save water and is working to accelerate the transition from turf to landscapes that use less water.” Consistent with these statewide water conservation efforts, the proposed landscaping improvements support long-term water use efficiency and sustainability objectives.

- Description of Change: The project scope and cost remain unchanged; however, the project schedule has been delayed.
- Reason for the Change: The schedule delay is due to the upcoming construction to equip the new well at the plant site. It is recommended that the landscaping improvements be implemented following completion of the new well equipping project to better determine the appropriate areas for drought-tolerant conversion, as the site is fully developed.
- Current Status: The project is currently awaiting completion of the new well equipping project and is anticipated to be completed in 2028.

6. McKinley Plant, Install Backup Generator – WO# 22911189

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install a backup generator with a transfer switch at the McKinley Plant Site.
- Justification: The McKinley Plant Site consists of one groundwater well with a capacity of 800 gpm supplying the Hollydale System. The installation of a permanent diesel generator is critical for McKinley Plant Site to supply water to customers, maintain water quality, and system pressures in case of a power outage, natural disaster, or other emergency. The new generator needs to be

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

at least 150 KW to be able to power McKinley Well No. 3 (100 hp) and other associated appurtenances. In September 2022, California experienced a historically long and record-breaking heat wave. The Governor of California declared a statewide emergency. Through the California ISO, a statewide Flex Alert was issued, requesting that Californians conserve electricity due to the strain on the electrical grid from the unprecedented heat wave. GSWC operated its generators to load shed and reduce the strain on the electrical grid in the Hollydale System. Installing generators at key supply and pumping facilities will increase the reliability of the Hollydale System to meet customer demands and enhance the resiliency of the Hollydale System to the negative consequences of climate change.

- Description of Change: The project scope and budget remain unchanged.
- Reason for the Change: No changes are proposed.
- Current Status: The project is currently in progress while waiting for the delivery of the generator and its components. It anticipated to be completed in 2026 but most likely will be extended to 2027, which is within the current GRC cycle, due to the generator manufacturer's delivery schedule.

7. Culver City Systemwide SCADA – WO# 23611976

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Culver City System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 systems. A robust SCADA system will aid in reducing risk while improving
2 resiliency and reliability of an essential service. Given the variation of
3 conditions at each of the plant sites in the water system, this SCADA project
4 required more assessment and design time than originally anticipated.
5 Additionally, the improvements at some sites are delayed due to ongoing
6 projects or operational constraints at the plant sites.

- 7 • Current Status: Design is complete. The project will start construction in 2026
8 and is anticipated to be completed in 2027, which is within the current GRC
9 cycle.

10
11 8. Systemwide, Install Backup Generators in various plant sites – WO# 25032863

- 12 • This project was included in an all-party settlement agreement in the prior 2023
13 GRC.
- 14 • Project Description: Install a backup generator with a transfer switch at the
15 following locations: Doty Plant Site, Southern Plant Site, Dalton Plant Site,
16 Ballona Plant Site, and Belhaven Plant Site.
- 17 • Justification: GSWC needs backup generation capacity at Doty, Southern,
18 Dalton, Ballona, and Belhaven Plants under the scenario that Metropolitan
19 cannot deliver water and/or in the case of a power outage or catastrophic water
20 outage, such as earthquakes, that could occur in the Southwest System. If
21 these 5 plant sites are equipped with backup generators, the Southwest
22 System can supply 10,500 gpm independently, which is 62% of ADD (16,976
23 gpm). Five generators, along with any undisrupted Metropolitan water and
24 emergency interconnections, will allow GSWC to continue pumping
25 groundwater and serve customers the minimum necessary water during an
26 otherwise catastrophic supply shortage. In September 2022, California
27 experienced a historically long and record-breaking heat wave. The Governor
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

of California declared a statewide emergency. Through the California ISO, a statewide Flex Alert was issued, requesting that Californians conserve electricity due to the strain on the electrical grid from the unprecedented heat wave. GSWC operated its generators to load shed and reduce the strain on the electrical grid in the Southwest System. Installing generators at key supply and pumping facilities will increase the reliability of the Southwest System to meet customer demands and enhance the resiliency of the Southwest System to the negative consequences of climate change.

- Description of Change: The project scope and budget remain unchanged.
- Reason for the Change: No changes are proposed.
- Current Status: The project is currently in progress while waiting for the delivery of the generator and its components. It is anticipated to be completed in 2026 but most likely will be extended to 2027, which is within the current GRC cycle due to the generator manufacturer's delivery schedule.

9. Compton-Doty, Replace Well No. 1 – WO# 25032831

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new well to replace Compton-Doty Well No. 1 at the Compton-Doty Plant.
- Justification: Compton-Doty Well #1 was drilled in 1947. The 76-year-old well has a capacity of 600 gpm. A 2022 report completed by Wood Rodgers on Compton-Doty Well #1 concluded that the well has reached the end of its useful service life and well replacement is recommended. The new well will allow the Southwest System to have a reliable supply of groundwater and will offset purchased water needs for the Southwest System. Groundwater well projects are increasingly taking longer to complete due to various factors

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 including, but not limited to: material and equipment lead times, permitting,
2 construction easement issues, driller availability, electrical service installations,
3 and project complexity. GSWC's recent experience is that it typically takes 3-
4 5+ years to complete a well project given the various challenges and
5 complexities. This timeline can be summarized by the following: well drilling
6 design and permitting (6-12 months), well drilling bid and construction (8-10
7 months), well equipping design (6-8 months), and well equipping bid and
8 construction (16-24 months). This timeline can increase especially if there are
9 significant permitting or property access issues.

- 10 • Current Status: The well has been drilled and well equipping construction is
11 underway. It is anticipated that this project will be completed in 2028.

12
13 10. Southwest Systemwide SCADA Upgrade WO# 25032830

- 14 • This project was included in an all-party settlement agreement in the prior 2023
15 GRC.
- 16 • Project Description: Upgrade of existing SCADA systems and SCADA system
17 infrastructure for the Southwest System.
- 18 • Justification: A SCADA Assessment confirmed that SCADA hardware,
19 software, and telemetry was obsolete and required upgrade and/or
20 replacement. A robust SCADA system serves a critical role in safeguarding and
21 maximizing efficiency in GSWC's water production, treatment, and distribution
22 systems. A robust SCADA system will aid in reducing risk while improving
23 resiliency and reliability of an essential service. Given the variation of
24 conditions at each of the plant sites in the water system, this SCADA project
25 required more assessment and design time than originally anticipated.
26 Additionally, the improvements at some sites are delayed due to ongoing
27 projects or operational constraints at the plant sites.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: Design has been completed and construction is underway. It is anticipated that this project will be completed in 2027, which is within the current GRC cycle.

11. Ball Rd Plant, Electrical Upgrades – WO# 26932257

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade all electrical equipment at Ball Rd Plant Site. Demolish and remove the existing electrical equipment. Install new electrical equipment and associated appurtenances.
- Justification: The Ball Road Plant Site consists of one groundwater well with a capacity of 900 gpm. The electrical equipment for Ball Road Well No.1 is over 30 years old and has reached the end of its useful life. The parts are old, obsolete, and difficult to find replacements for when they fail. Safety of the plant site and operators is a concern due to the fact that older MCC panels have become more fragile and prone to failure. An internal condition assessment effort has concluded that electrical upgrades at the Ball Road Plant Site are necessary to continue to safely and efficiently operate this critical supply source, and to continue to reliably meet customer demands in the West Orange System.
- Description of Change: The project scope and budget remain unchanged.
- Reason for the Change: No changes are proposed.
- Current Status: The project is currently waiting for the long lead materials and equipment before the start of construction which is anticipated to be completed in 2027, which is within the current GRC cycle.

12. Bradford Filter Media Replacement – WO# 27531546

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: This project involves replacing the existing ion exchange (IX) media at the Bradford Plant site.
- Justification: The Bradford Plant consists of one groundwater well with a total capacity of 1,000 gpm. The average PFOA and PFOS concentration in the Bradford Well No. 4 is 6.9 ng/L and 17.2 ng/L respectively. The concentrations for both PFOA/PFOS are above EPA's proposed MCL of 4 ng/L announced in April 2024. The IX Treatment System was constructed to treat Bradford Well No. 4. The replacement media is required to effectively treat polyfluoroalkyl substances (PFAS) constituents. Completion of this project will improve groundwater production capacity and enhance overall system reliability.
- Description of Change: The project scope and cost remain unchanged; however, the project schedule has been delayed.
- Reason for the Change: The schedule delay is due to the ongoing construction of the Bradford Well No. 4 Pump and Motor Upgrades. The filter media replacement work will be performed afterward to avoid having two contractors working simultaneously within a limited space.
- Current Status: The IX media replacement is currently scheduled to occur following completion of the Bradford Well No. 4 Pump and Motor Upgrades project. That project is anticipated to be completed in 2027. The IX media change-out is scheduled for 2028.

13. Fairhaven Filter Media Replacement – WO# 27431285

- This project was included in an all-party settlement agreement in the prior 2023 GRC.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: This project involves replacing the existing ion exchange (IX) media at the Fairhaven Plant Site.
- Justification: The Fairhaven Plant Site consists of two groundwater wells with a total capacity of 2,150 gpm. The Fairhaven wells are the only local groundwater wells in the Cowan Heights System. The average PFOA and PFOS concentrations in the Fairhaven wells are 15.3 ng/L and 26.8 ng/L, respectively. The concentrations for both PFOA and PFOS are above EPA's proposed MCL of 4 ng/L announced in April 2024. The IX Treatment System was constructed to treat Fairhaven wells. The replacement media is required to effectively treat PFAS constituents. Completion of this project will improve groundwater production capacity and enhance overall system reliability.
- Description of Change: The project scope and cost remain unchanged; however, the project schedule has been delayed.
- Reason for the Change: The schedule delay is due to previous construction activities at Fairhaven Plant. Several upgrades needed to be completed first, including the replacement of the discharge/transmission piping in 2024 due to a leak and the replacement of the Well #3 pump in 2025. During these upgrades, the wells were out of service, and the filter media was not in use, which has extended its useful lifespan.
- Current Status: The IX media change-out is scheduled for 2029.

14. Claremont Systemwide SCADA Upgrade WO# 31731642

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Claremont System.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving the resiliency and reliability of an essential service. Given the variation of conditions at each of the plant sites in the water system, this SCADA project required more assessment and design time than originally anticipated. Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.
- Current Status: Design is in progress. It is anticipated that this project will be completed in 2028.

15. Walnut Booster Station, Replace Vault – WO# 32631859

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace the Walnut BPS vault walls and install a production meter.
- Justification: The Walnut Booster Pump Station consists of two booster pumps with a total capacity of 600 gpm. Walnut BPS is a critical plant site in providing the Puddingstone Zone with potable water. The vault walls are in poor condition and need to be replaced in order to maintain system reliability for the customers in the Puddingstone Zone. In addition, the installation of a production meter at this plant site will allow data viewing and logging of all booster station production. Having this additional data available, both real-time and in historical storage, will greatly enhance the operational assessment of the system, allowing operations to make more informed, data-driven decisions.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope and budget remain unchanged.
- Reason for the Change: No changes are proposed.
- Current Status: The project is in the design and permitting phase, and construction is anticipated to be completed in 2027, which is within the current GRC cycle. Due to the timing of the 2023 GRC final decision and funding availability, the start of this project was delayed.

16. San Dimas Systemwide SCADA Upgrade WO# 32631729

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the San Dimas System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service. Given the variation of conditions at each of the plant sites in the water system, this SCADA project required more assessment and design time than originally anticipated. Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.
- Current Status: Design has been completed and construction is underway. It is anticipated that this project will be completed in 2027.

17. South San Gabriel Systemwide SCADA Upgrade WO# 33331387

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the South San Gabriel System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service. Given the variation of conditions at each of the plant sites in the water system, this SCADA project required more assessment and design time than originally anticipated. Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.
- Current Status: Design is in progress. It is anticipated that this project will be completed in 2028.

18. Navajo Booster Zone Looping – WO# 35831052

- This project was included in an all-party settlement agreement in the Prior 2023 GRC.
- Project Description: Install approximately 1,320 linear feet of 8-inch diameter PVC pipeline along Bella Vista Drive, Cheyenne Trail, and Piedras Trail within the Navajo Booster Zone.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope and budget remain unchanged; however, the project schedule has been delayed.
- Reason for the Change: The project schedule is delayed because not all required easements have been obtained, which has impacted the design schedule. This delay is due to a lack of timely responses from property owners regarding the required utility easements.
- Current Status: Easement solicitation is underway to obtain permission from property owners to construct the project and anticipated to be completed in 2029.

19. Yeager Plant, New Well – WO# 35931126

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new well to replace Yeager Well No. 2 on a GSWC-owned adjacent parcel to the south of the Yeager-Vale Plant.
- Justification: Yeager Well No. 2 was drilled in 1970 and was rehabilitated in 2015. Yeager Well No. 3 was drilled in 1982 and was rehabilitated in 2015. The 2023 Wood Rodgers Well Assessment determined that Yeager Well No. 2 has reached the end of its useful life. The previous well rehabilitation had limited success, and another rehabilitation would most likely not be successful. The well assessment recommended for the well to be replaced. The new well will increase the reliability of the water supply portfolio for the Morongo Del Sur System. Groundwater well projects are increasingly taking longer to complete due to various factors including, but not limited to: material and equipment lead times, permitting, construction easement issues, driller availability, electrical service installations, and project complexity. GSWC's recent experience is that it typically takes 3-5+ years to complete a well project given the various

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

challenges and complexities. This timeline can be summarized by the following: well drilling design and permitting (6-12 months), well drilling bid and construction (8-10 months), well equipping design (6-8 months), and well equipping bid and construction (16-24 months). This timeline can increase especially if there are significant permitting or property access issues.

- Current Status: Well drilling is in progress and the well equipping design is underway. The project is anticipated to be completed in 2028.

20. Apple Valley North SCADA Phase III – WO# 36600214

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install a SCADA system including hardware, software, and programming at Papago Plant and Central Plant located in the Apple Valley North System. The typical equipment to be installed at each plant site will be a SCADA cabinet, a programmable logic controller (PLC), a human-machine interface (HMI), an Ethernet radio, an antenna, devices for remote monitoring (e.g., pressure switches, pressure/level transmitters) as well as conduits and conductors.
- Justification: Apple Valley North System currently has no centralized control and monitoring system. The lack of such a system causes the following problems:
 - GSWC employees must make frequent trips to all plants to check their condition.
 - System failures may not be discovered until a customer reports it.
 - There is no control system in place to optimize system efficiency.
 - Installing SCADA will have the following benefits:

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Telemetry Enhancement – Replace existing telephone circuits with radio/cellular telemetry to improve reliability.
- System Monitoring – Continuously monitor tank water levels, pump on-off status, and production rates. This will improve system reliability by alerting the operator to problems and will provide more detailed information regarding system demands.
- Centralized Control System – Coordinate the operation of all pumping plants to minimize operating costs.

Installing a SCADA system for the Apple Valley North System is both in line with GSWC's vision of having a company-wide SCADA system and with the PUC's objectives set forth within the PUC's 2010 Water Action Plan to maintain the highest standards of water quality and to promote water infrastructure investment. The SCADA system will allow GSWC personnel the ability to monitor the real-time operation of the entire system from a remote location. GSWC's ultimate goal is to link all of the SCADA systems together which will give GSWC the ability to remotely monitor all systems and make needed system changes on a regional basis which is a powerful tool to ensure system performance, reliability and enhance GSWC's ability to respond during emergencies such as earthquakes and fires. The company-wide SCADA system will also provide a means for centralizing information making it possible for GSWC operations and engineers to evaluate current operating conditions and to determine an optimization plan which will result in reduced power usage and increased efficiency, effectively reducing our carbon footprint.

- Description of Change: The project scope and budget remain unchanged; however, the project schedule has been delayed.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: This SCADA enhancement project is being performed concurrently with other SCADA projects within the Apple Valley North, Apple Valley South, Lucerne Valley, and Desert View System. Due to the varying conditions at each plant site across these systems, the project has required additional assessment and design time beyond what was originally anticipated. Furthermore, material and equipment lead times have further impacted the construction schedule, as the fabrication process for the PLC control panels for certain sites is taking approximately 15 months following approval of the shop drawings.
- Current Status: The project is in progress, with installation of control panels and programming development scheduled for completion by late 2026, followed by commissioning and testing in 2027, which is within the current GRC cycle.

21. Apple Valley South SCADA (R3 2022) – WO# 36400354

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install/upgrade the SCADA system including hardware, software, programming, and integration work at the Apple Valley CSA, Bear Valley Plant, Kiowa Plant and Mohawk Plant located in the Apple Valley South System. The scope of work includes upgrading hardware, software, instrumentation controls, and integration.
- Justification: The Apple Valley South System is currently run with outdated Supervisory Control and Data Acquisition (SCADA) hardware and unsupported software, and not all plant sites are equipped with SCADA. To provide more reliability, run the system more efficiently, and obtain technical support, the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

SCADA system must be fully completed - in accordance with GSWC SCADA standards - and to the latest version of Wonderware software.

- Description of Change: The project scope and budget remain unchanged; however, the project schedule has been delayed.
- Reason for the Change: This SCADA enhancement project is being performed concurrently with other SCADA projects within the Apple Valley North, Apple Valley South, Lucerne Valley, and Desert View System. Due to the varying conditions at each plant site across these systems, the project has required additional assessment and design time beyond what was originally anticipated. Furthermore, material and equipment lead times have further impacted the construction schedule, as the fabrication process for the PLC control panels for certain sites is taking approximately 15 months following approval of the shop drawings.
- Current Status: The project is in progress, with installation of control panels and programming development scheduled for completion by late 2026, followed by commissioning and testing in 2027, which is within the current GRC cycle.

22. Desert View SCADA (R3 2022) – WO# 36500091

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install/upgrade the SCADA system including hardware, software, programming, and integration work at the Desert View Plant located in the Desert View System. The scope of work includes upgrading hardware, software, instrumentation controls, and integration.
- Justification: The Desert View System is currently run with outdated Supervisory Control and Data Acquisition (SCADA) hardware and unsupported

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

software, and not all plant sites are equipped with SCADA. To provide more reliability, run the system more efficiently, and obtain technical support, the SCADA system must be fully completed - in accordance with GSWC SCADA standards - and to the latest version of Wonderware software.

- Description of Change: The project scope and budget remain unchanged; however, the project schedule has been delayed.
- Reason for the Change: This SCADA enhancement project is being performed concurrently with other SCADA projects within the Apple Valley North, Apple Valley South, Lucerne Valley, and Desert View System. Due to the varying conditions at each plant site across these systems, the project has required additional assessment and design time beyond what was originally anticipated. Furthermore, material and equipment lead times have further impacted the construction schedule, as the fabrication process for the PLC control panels for certain sites is taking approximately 15 months following approval of the shop drawings.
- Current Status: The project is in progress with installation of control panels and programming development scheduled for completion by late 2026, followed by commissioning and testing in 2027, which is within the current GRC cycle.

23. Desert View Plant Site Improvement – WO# 36500104

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade the Desert View Plant Site by constructing a well house for Desert Well No. 2, replacing discharge and drainage piping, installing Variable-Frequency Drives (VFDs) for both Desert View Well No. 1 and Well No. 2, replacing meter vaults, and upgrading electrical equipment. Install new

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 electrical service equipment and complete PLC programming. Construct
2 outdoor enclosure with air conditioning for the MCC and install security lighting.

- 3 • Justification: The Desert View Plant Site consists of two groundwater wells.
4 Desert View Well No. 1 has a capacity of 85 gpm and Desert View Well No. 2
5 has a capacity of 95 gpm. Desert View Well No. 2 has no enclosure to protect
6 the well from the desert climate, such as extreme heat in the summer and cold
7 temperatures in the winter. Corrosion has been observed on the discharge
8 piping and pipe supports, and in order to provide sufficient protection, a well
9 house is needed.

10 To improve operational control, the existing hydropneumatic tank should be
11 replaced by installation of VFDs on both Desert View No. 1 and Desert View
12 No. 2. The meter vaults are in poor condition; a new vault and drain piping is
13 needed. The electrical equipment is over 30 years old and has reached the end
14 of its useful life. The parts are old, obsolete, and difficult to find replacement for
15 when they fail. The electrical equipment also presents a safety hazard as some
16 of the wire insulation has started to crack. Electrical upgrades to the Desert
17 View Plant Site are necessary to continue to safely and efficiently operate this
18 critical supply source, and to continue to reliably meet customer demands in
19 the Desert View System.

- 20 • Description of Change: The project scope and budget remain unchanged;
21 however, the project schedule has been delayed.
- 22 • Reason for the Change: The project schedule has been delayed due to the
23 need for additional assessment and design time, as the site serves as the sole
24 source of supply within the Desert View water system, and operational impacts
25 must be considered and mitigated during design development. Additionally,
26 extended lead times for electrical equipment (e.g., MCCs and switchboards),
27 extended lead times for electrical equipment (e.g., MCCs and switchboards),
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

estimated at approximately one year following shop drawing approval, are further contributing to the extended project schedule.

- Current Status: The project design is being prepared, and construction is anticipated to be completed in 2028.

Subcategory 4c – Projects Approved in the Previous GRC that will be completed in the 2023 GRC capital budget cycle (2024-2026) with a Change in Budget or Scope
Projects Approved in the Previous GRC (non-blanket projects) with a change in budget or scope as requested account for approximately \$40.1M or approximately 10.3% of the total request. Please refer to **Attachment F** for the current cost estimates for each project in this category. Since the projects in this category will be completed in the current rate cycle no additional justification is provided in this testimony, given there is no change to the project as approved in previous filing(s).

1. Coloma WTP, Replace Filter Media S3 & S4 – WO# 11812143

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace media in Coloma WTP filters S3 and S4 per schedule.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is significantly higher than the original estimate.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The construction contract has been executed, and construction will commence once the materials are delivered. The project will be completed in 2026.

2. Pepper Street Pipeline – WO# 11900018

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 640 feet of PVC pipe.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: This project is in design and expected to start and complete construction in 2026.

3. Willow Pass Road Main Installation – WO# 12411423

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install a pipeline to connect the Evora Reservoir Zone to the Marcia Booster Zone.
- Description of Change: The pipeline alignment was revised and project costs increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: The original scope was based on a pipeline alignment that required an easement on private property, but due to difficulties in acquiring that easement an alternate pipeline alignment was chosen that did not require easement acquisition. The new alignment was not the reason for an increase in project costs. The project costs increased due to the need to bore sections of the pipeline, difficult working conditions in a high traffic arterial highway, and material cost increases.
- Current Status: Construction is complete and GSWC is closing out the project.

4. Azores Circle Area Main Replacement – WO# 12411432

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 4,450 feet of PVC pipe in Azores Circle and adjacent streets.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: This project is in construction and anticipated to be completed in 2026.

5. Valley Ave. AMR – WO# 13111335

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- 1 • This project was included in an all-party settlement agreement in the prior 2023
- 2 GRC.
- 3 • Project Description: To construct a 250,000-gallon reservoir, associated
- 4 appurtenances, and a new altitude valve at the Country Club Tank site.
- 5 • Description of Change: The project scope remains unchanged from the 2023
- 6 GRC; however, project costs have increased.
- 7 • Reason for the Change: The project costs increased based on received bids for
- 8 construction. The updated construction estimate reflects the lowest
- 9 construction bid, which is higher than the original estimate. The construction
- 10 costs for this project were particularly difficult to estimate because of the
- 11 seismic improvements that were required from a geotechnical report that
- 12 identified a seismic fault line in close proximity to the proposed tank location.
- 13 • Current Status: Construction is in progress and the project will be closed in
- 14 2026.

15

16 8. Los Osos Systemwide SCADA – WO# 14631255

- 17 • This project was included in an all-party settlement agreement in the prior 2023
- 18 GRC.
- 19 • Project Description: Upgrade of existing SCADA systems and SCADA system
- 20 infrastructure for the Los Osos System.
- 21 • Description of Change: The project estimate from the 2023 GRC did not include
- 22 funds for server room modifications, additional materials, and replacing the
- 23 CSA communication radio tower. Overall project costs increased.
- 24 • Reason for the Change: The server room modifications, additional materials,
- 25 and replacing the CSA communication radio tower are all required to
- 26 successfully install the system SCADA upgrades. The project costs increased
- 27
- 28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 based on received bids for construction. The updated construction estimate
2 reflects the lowest construction bid, which is higher than the original estimate.

- 3 • Current Status: Construction is in progress and the project will be closed in
4 2026.

5
6 9. Santa Ynez Pipeline – WO# 14631363

- 7 • This project was included in an all-party settlement agreement in the prior 2023
8 GRC.
- 9 • Project Description: To install approximately 320 feet of pipe.
- 10 • Description of Change: The scope of the project changed to replace additional
11 pipeline and services.
- 12 • Reason for the Change: During the design of the project, the existing pipeline
13 was aligned underneath sidewalk, and the new pipeline would need to be
14 shifted underneath the street for better access and maintenance. The existing
15 main was found to have services installed above the main which prevents
16 future pipeline maintenance. There were existing services in the sidewalk from
17 the main which needed to be relocated from the sidewalk due to County ADA
18 requirements. The design engineer recommended to replace an additional 260
19 feet of main and 35 services so the issues listed above would be corrected to
20 prevent maintenance issues after construction.
- 21 • Current Status: Construction is complete and the project will be closed in 2026.

22
23 10. Orcutt Systemwide SCADA – WO# 15931710

- 24 • This project was included in an all-party settlement agreement in the prior 2023
25 GRC.
- 26 • Project Description: Upgrade of existing SCADA systems and SCADA system
27 infrastructure for the Orcutt System.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading to higher costs. For example, limitations of existing conduit, like size and runs, at some sites prevented their use and required new conduit to be installed. In some systems, sites required additional components, like an AC unit, to ensure components do not fail due to high temperatures. The efforts to review the SCADA submittals were also significantly higher than originally estimated, as each system varied from 15-75 submittals – based on the number of sites in the system. External resources were needed to assist in submittal review efforts to ensure designs aligned to standards and functional requirements, as internal resources could not keep up with the extent of review. Proper function of components with minimal downtime and visibility of accurate data across system plant sites is critical to water system operation.
- Current Status: Construction is in progress and anticipated to be completed in 2026.

11. Lake Marie Systemwide SCADA – WO# 15800146

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Lake Marie System.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 to higher costs. For example, limitations of existing conduit, like size and runs,
2 at some sites prevented their use and required new conduit to be installed. In
3 some systems, sites required additional components, like an AC unit, to ensure
4 components do not fail due to high temperatures. The efforts to review the
5 SCADA submittals were also significantly higher than originally estimated, as
6 each system varied from 15-75 submittals – based on the number of sites in
7 the system. External resources were needed to assist in submittal review
8 efforts to ensure designs aligned to standards and functional requirements, as
9 internal resources could not keep up with the extent of review. Proper function
10 of components with minimal downtime and visibility of accurate data across
11 system plant sites is critical to water system operation.

- 12 • Current Status: Construction is in progress and anticipated to be completed in
13 2026.

14
15 12. El Campo Rd, Replace NC Valve – WO# 16400175

- 16 • This project was included in an all-party settlement agreement in the prior 2023
17 GRC.
- 18 • Project Description: To replace the valve, that is normally closed, with a PRV in
19 El Campo Rd.
- 20 • Reason for the Change: The project scope remains unchanged from the 2023
21 GRC; however, project costs have increased due 1) additional design costs
22 associated with locating the PRV, and 2) the construction costs were
23 underestimated.
- 24 • Description of Change: The project went through two design rounds. The first
25 design discovered surface topography conflicts which would cause long-term
26 issues. Potholing was necessary to confirm a final location for the final PRV
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

design. Once project was competitively bid, lowest price was higher than the estimate.

- Current Status: The project is currently in construction and anticipated to be completed in 2026.

13. Crystal Dr. & Berryessa Lane Pipeline – WO# 15800155

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 1,300 feet of PVC pipe.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: This project is in construction and anticipated to be closed in 2026.

14. La Serena Way Pipeline – WO# 16200391

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 900 feet of PVC pipe.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.

- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: Construction is complete the project is anticipated to be closed in 2026.

15. Primavera Lane to Division Pipeline – WO# 16200423

- This project, formally named “Otono Place and Primavera Ln” was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 1,000 feet of 8” PVC pipe on Otono Place and Primavera Lane, Cul-de-sac to Division Street.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The project scope from the 2023 GRC was also modified.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project. The scope of the project included two pipeline loops at 1) Otono Place and 2) Primavera Lane. During the design phase it was determined by the project team that the Otono Place loop was unfeasible to install. Focus on the project went towards connecting

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 Division Street to Primavera Lane. The increase in project costs is due to
2 anticipated paving requirements required by the County

- 3 • Current Status: This project is currently out for competitive bids and
4 construction is anticipated to be completed in 2026.

5
6 16. Simi Valley Systemwide SCADA – WO# 16731341

- 7 • This project was included in an all-party settlement agreement in the prior 2023
8 GRC.
- 9 • Project Description: Upgrade of existing SCADA systems and SCADA system
10 infrastructure for the Simi Valley System.
- 11 • Description of Change: The project scope remains unchanged from the 2023
12 GRC; however, project costs have increased.
- 13 • Reason for the Change: The design and construction of SCADA improvements
14 varied at each site and required more effort than originally anticipated, leading
15 to higher costs. For example, limitations of existing conduit, like size and runs,
16 at some sites prevented their use and required new conduit to be installed. In
17 some systems, sites required additional components, like an AC unit, to ensure
18 components do not fail due to high temperatures. The efforts to review the
19 SCADA submittals were also significantly higher than originally estimated, as
20 each system varied from 15-75 submittals – based on the number of sites in
21 the system. External resources were needed to assist in submittal review
22 efforts to ensure designs aligned to standards and functional requirements, as
23 internal resources could not keep up with the extent of review. Proper function
24 of components with minimal downtime and visibility of accurate data across
25 system plant sites is critical to water system operation.
- 26 • Current Status: Construction is in progress and anticipated to be completed in
27 2026.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

17. Simi Valley Fire Hardening – WO# 16731436

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install fire hardening improvements at the Tapo Plant.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: Construction bids have been received. The project is anticipated to be closed in 2026.

18. Hawaiian Plant, Replace Backwash Tank – WO# 21911448

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Recoat interior of the Hawaiian backwash tank.
- Description of Change: The project scope has changed to replace the backwash tank with a welded steel tank.
- Reason for the Change: After further analyses/on-site evaluation, the design consultant has since determined that because the water in the backwash tank includes removed particulates from the filter, the turbidity of the water in the backwash tank from the removed particulates is gritty and more abrasive which

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 causes the interior of the tank to be a more severe environment than a typical
2 potable water tank. In addition, the chlorine used in the treatment process is
3 higher than in most potable water tanks. The frequent turnover of the water in
4 the tank and the higher chlorine levels also contribute to higher levels of
5 chlorine vapor above the waterline which creates a more corrosive environment
6 and accelerated corrosion on the roof and structural members. This severe
7 environment causes coating defects in the tank to deteriorate at a faster rate
8 and accelerates the corrosion of the steel substrate. Therefore, the tanks
9 should be replaced, rather than recoated.

10 Welded steel tanks and bolted steel tanks were considered as replacements.
11 The benefits of welded steel tanks, such as superior durability, corrosion
12 resistance, fire resistance and the liabilities of the bolted tanks such as the
13 thinner steel, numerous joints and gaskets, being more susceptible to
14 corrosion, metal loss, and leaking, especially at seams and around bolt holes
15 are even more pronounced in the backwash tank application. Therefore,
16 welded steel backwash tanks will provide a longer life expectancy and overall
17 cost benefit for GSWC than bolted steel backwash tanks.

- 18 • Current Status: Design is in progress and the project is anticipated to be
19 completed in 2026.

20
21 19. Alameda St. & 85 St. – WO# 22811450

- 22 • This project was included in an all-party settlement agreement in the prior
23 2023 GRC.
- 24 • Project Description: Construct 460 linear feet of 8 and 12-inch main along
25 Alameda and 85th street to replace a 4-inch steel main in the alley.
- 26 • Description of Change: Both the total linear footage of pipe and the total project
27 cost estimate for the project has increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as the increased linear footage of pipe from 400 linear feet in the original estimate to 460 linear feet during design phase, due to refined layout.
- Current Status: The project is currently awaiting permitting from Los Angeles County prior to the start of construction. Construction is anticipated to be completed in 2026.

20. Compton Ave. AMR – WO# 22811436

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace 10,500 linear feet of 4, 6, 8, and 10-inch cast iron with 8, 12, and 16-inch PVC to address leaks, water quality issues, hydraulic deficiencies, and age of the existing pipelines.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as additional costs incurred during construction. These additional costs include deeper inverts required to avoid unknown underground utilities, increased concrete and asphalt removal, more stringent traffic control requirements, and additional shoring.
- Current Status: The project construction was completed in 2025 and is currently in the closing phase.

21. Flora Ave. AMR – WO# 22750391

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace 9,050 linear feet of 4, 6, and 8-inch cast iron with 8 and 12-inch PVC to address leaks, water quality issues, hydraulic deficiencies, and age of the existing pipelines.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as additional costs incurred during construction. These additional costs include deeper inverts required to avoid unknown underground utilities, additional slurry seal required by the City, and the installation of fire hydrant locks.
- Current Status: The project construction was completed in 2025 and is currently in the closing phase.

22. Gardendale Ave. AMR – WO# 22911187

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace 3,750 linear feet of 4 and 6-inch cast iron, 4-inch AC, and 12-inch steel with 8 and 12-inch PVC.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as additional costs incurred during construction.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

These additional costs include permitting, City required rubberized paving, and special circumstances house lines.

- Current Status: The project construction was completed in 2025 and is currently in the closing phase.

23. Willowbrook Ave. – WO# 23011193

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace 680 linear feet of 8-inch cast iron with 8-inch PVC to improve the hydraulics of the system and age of the existing pipelines.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates,
- Current Status: The project construction was completed in 2025 and is currently in the closing phase.

24. ALP – Higuera Bridge – WO# 23611172

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: The scope presented in the 2023 GRC was to replace an existing mainline with a combination of new 12-inch DI and CML pipe totaling approximately 940 linear feet. Work includes replacing pipeline in the Higuera Bridge.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: . The Culver City initially allowed GSWC and other utility agencies to construct their improvements concurrently under the City's traffic control setup. The work was divided into three phases: Phase 1 consisted of the demolition of existing facilities; Phase 2 included construction of the bridge crossing portion; and Phase 3 involved installation of underground piping within the Culver City and City of Los Angeles rights-of-way. The project scope remains unchanged from the 2023 GRC; however, the total project cost estimate has increased. When GSWC returned to complete the underground portion within the City of Los Angeles right-of-way, the Culver City's bridge project and associated traffic control had already been removed. As a result, GSWC was required to obtain a new permit from the City of Los Angeles to complete the remaining work. During this process, additional costs were incurred for permitting, contractor remobilization, pipe sanitization, and enhanced traffic control.
- Reason for the Change: The total project cost estimate has increased due to aforementioned reasons.
- Current Status: The project construction was completed in December 2025 and is currently in the closing phase.

25. (Upper) Wrightcrest Dr. AMR – WO# 23611981

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace 2,650 linear feet of 6 and 8-inch cast iron with 8 and 12-inch PVC in order to address leaks, hydraulic deficiencies, and age of the existing pipeline.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope remains unchanged from the 2023 GRC; however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as increased labor cost, resulting from higher-than-expected labor hours.
- Current Status: The project is in construction and anticipated to be completed in 2026.

26. Mentone. AMR – WO# 23611978

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace 5,250 linear feet of 4-inch cast iron with 8-inch PVC in order to address leaks, water quality issues, hydraulic deficiencies, and age of the existing pipeline.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC expedited the completion of this project, and additional funds were required to proceed with construction. In addition to construction funding, the project scope was expanded to include the installation of 530 linear feet of 12-inch PVC and the abandonment of 1,460 linear feet of 4-inch cast iron within an alley. This added scope aligns with GSWC's current standards by allowing the relocation of 16 services from the alley to the frontage road on

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Overland Avenue. The total project cost estimate was updated based on the low bid and has increased.

- Reason for the Change: The total project cost estimate has increased due to the additional construction funding, and the aforementioned added scope.
- Current Status: The project was completed in 2025 and is in the closing phase.

27. Chadron Plant - Site Remediation – WO# 25003254

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: The Chadron plant is currently being remediated for gasoline products, as required by the Los Angeles Region Water Quality Control Board (LARWQCB). GSWC will continue to retain Aquilogic Inc. (consultant) services to perform and manage remediation activities; conduct required semi-annual groundwater monitoring events; evaluate data and prepare reports; and perform all necessary tasks required by LARWQCB to facilitate case closure and restore the site. Please see **Attachment G** for additional information.
- Description of Change: The project scope remains unchanged from the 2023 GRC, except for an additional requirement to perform soil gas sampling and analysis in 2026.
- Reason for the Change:
 - GSWC submitted a request for case closure to LARWQCB on September 23, 2025. After initial review of GSWC's closure request report, LARWQCB required further sampling and analysis of soil gas in two areas of the site.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- The total project cost was updated based on the provided cost proposal from Aquilogic and has increased due to soil gas sampling recently required by LARWQCB as a condition of case closure.
- Current Status: The request for case closure was submitted in September 2025. Case closure approval by LARWQCB is pending soil gas sampling and analytical results. Soil gas sampling is expected to occur by mid-April 2026. If test results are favorable, LARWQCB will continue evaluation of GSWC's case closure request (approximately several more months of review by LARWQCB). An additional 60 days is required for public review of case closure documents. Once case closure is granted/approved, wells must be destructed; this is anticipated for the end of 2026, provided soil gas sampling yields favorable results. Semi-annual monitoring must continue until well destruction/final closure letter is issued by LARWQCB.

28. Goldmedal Plant, Replace Backwash Tank – WO# 25032826

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Recoat exterior and perform safety/health/code modifications of Goldmedal Backwash Tank.
- Description of Change: The project scope has changed to replace the backwash tank with a welded steel tank.
- Reason for the Change: After further analyses/on-site evaluation, the design consultant has since determined that because the water in the backwash tank includes removed particulates from the filter, the turbidity of the water in the backwash tank from the removed particulates is gritty and more abrasive which causes the interior of the tank to be a more severe environment than a typical

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

potable water tank. In addition, the chlorine used in the treatment process is higher than in most potable water tanks. The frequent turnover of the water in the tank and the higher chlorine levels also contribute to higher levels of chlorine vapor above the waterline which creates a more corrosive environment and accelerated corrosion on the roof and structural members. This severe environment causes coating defects in the tank to deteriorate at a faster rate and accelerates the corrosion of the steel substrate. Therefore, the tanks should be replaced, rather than recoated.

Welded steel tanks and bolted steel tanks were considered as replacements.

The benefits of welded steel tanks, such as superior durability, corrosion resistance, fire resistance and the liabilities of the bolted tanks such as the thinner steel, numerous joints and gaskets, being more susceptible to corrosion, metal loss, and leaking, especially at seams and around bolt holes are even more pronounced in the backwash tank application. Therefore, welded steel backwash tanks will provide a longer life expectancy and overall cost benefit for GSWC than bolted steel backwash tanks.

- **Current Status:** Construction is in progress and the project is anticipated to be completed in 2026.

29.129th St. Plant Well Site Pump to Waste – WO# 25032868

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Construct a new pump-to-waste valve assembly, modify existing plant piping, and perform PLC modifications and programming at Plant 129th.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope remains essentially unchanged from the 2023 GRC. However, during the design phase it was determined that the existing discharge piping manifold and the removable wooden well building—including associated concrete pads and electrical panels—must be relocated to allow proper construction of the well discharge piping and valve assembly. The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as the previously noted change in scope.
- Reason for the Change: The existing above-ground piping configuration does not provide sufficient space to install the new well flush valve assembly or to relocate the existing swing check valve to an upstream position relative to the well flush valve. To accommodate these requirements, the above-ground piping must be extended toward the well building. As a result of this modification, maintaining the well building as a removable structure is no longer feasible. The existing well building will therefore need to be removed and replaced with a new permanent enclosure. All of the above items were not included in the original estimate and were determined to be necessary during the design phase.
- Current Status: The project is in construction and is scheduled for completion in 2026.

30. Yukon Plant, Reservoir Improvements – WO# 25032829

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Perform spot recoating, structural improvements and safety/health/code modifications of Yukon Reservoir.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The bids received exceeded the original estimate and included several items not explicitly identified in the initial assessment but necessary to achieve the overall project objectives. In addition, during construction, unforeseen conditions and repairs were encountered, resulting in additional costs, most notably the need to address leaks on both the interior and exterior of the tank.
- Current Status: Construction is complete and the project will be closed in 2026.

31. Katella-Boot Barn AMR – WO# 26932260

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 600 linear feet of 14" AC and 12" Steel with 8" and 16" PVC on Wallingsford Rd from Ruth Elaine to north of Katella.
- Description of Change: The project scope remains unchanged from the 2023 GRC, however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates t,as well as increased labor cost resulting from higher-than-expected labor hours.
- Current Status: The project in currently in permitting phase and construction is anticipated to be completed in 2026.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

32. Crescent Avenue Secondary Feeder Line – WO# 26932263

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install approximately 650 linear feet of 12" PVC on Crescent Ave. from Sumner to Martinique.
- Description of Change: The project scope remains unchanged from the 2023 GRC, however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as increased labor cost resulting from higher-than-expected labor hours.
- Current Status: The project is currently in permitting phase and construction is anticipated to be completed in 2026.

33. Highcliff Dr & Newport Blvd Crossing AMR – WO# 27431289

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 450 linear feet of 10" CI with 12" PVC on Highcliff Dr. from Foxrun to Miramar.
- Description of Change: The project scope remains essentially unchanged from the 2023 GRC. However, during the design phase it was determined that installation of the new pipeline along the bridge segment was not feasible due to space constraints in that area. While the new pipeline will still connect Fox Run to Miramar, it will follow an alternative alignment, requiring approximately 400 additional linear feet of pipe and associated valves. The total project cost estimate has been updated based on the lowest bid cost and has increased

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 due to inflation and the additional piping and appurtenances associated with
2 the revised alignment.

- 3 • Reason for the Change: The total project cost estimate was updated based on
4 the low bid and has increased due to higher bid item costs compared to the
5 original estimates, the increased labor cost and the additional scope of work
6 required to accommodate the rerouted pipeline alignment identified during final
7 design.
- 8 • Current Status: GSWC has received bids and is in the process of awarding the
9 contract to the lowest responsive bidder. Construction is anticipated to be
10 completed in 2026.

11
12 34. Newport Plant, PLC Upgrade – WO# 27431282

- 13 • This project was included in an all-party settlement agreement in the prior 2023
14 GRC.
- 15 • Project Description: Upgrade existing PLC with Modicon M340.
- 16 • Description of Change: The project scope remains unchanged from the 2023
17 GRC; however, project costs have increased.
- 18 • Reason for Change: The project costs increased based on the received bids for
19 construction. The updated construction estimate reflects the lowest
20 construction bid, which is higher than the original estimates.
- 21 • Current Status: The project is in the closing phase and is anticipated to be
22 completed in 2026.

23
24 35. Concerto Plant, Booster Station Building & Purchase Portable Pump – WO#
25 27531577
26
27
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace existing booster station building and purchase a new portable pump.
- Description of Change: The purchase of the proposed portable pump has been removed from the original scope of work.
- Reason for the Change: During the design phase, it was determined that the cost of a portable pump was much higher than anticipated. As a result, it was decided to install only the pump enclosure. A new portable pump at Concerto is currently proposed as a separate project in the 2026 GRC application.
- Current Status: The project is currently in progress and is anticipated to be completed in 2026.

36. Emerald Way & Diamond Road – WO# 27531581

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 700 linear feet of 4" & 8" CI on Diamond Rd from Ruby to Jade and on Emerald Way from Diamond to cul-de-sac (east side).
- Description of Change: The project scope remains unchanged from the 2023 GRC, however, the total project cost estimate has increased.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as increased labor cost resulting from higher-than-expected labor hours.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The project is currently in progress and is anticipated to be completed in 2026.

37. Mountain View, New Well – WO# 31731382

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill, develop, and equip a new well at Mountain View Plant.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates, and increased labor costs estimates due to increases in labor rates.
- Current Status: The well has been drilled, and the equipping of the new well and the well #4 destruction phases are currently in progress and are anticipated to be completed in 2026.

38. Claraboya Booster Pump Station and Electrical Upgrade – WO# 31731381

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install 1,500 gpm booster in new pump can along with associated plant piping, electrical, and SCADA equipment.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

39. College, Arrow to 1st – WO# 31731497

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 1,420 feet of PVC pipe along College Ave. from Arrow Hwy to 1st St.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: Phase 2, currently acquiring permit from MetroLink, construction is anticipated to be completed in 2026.

40. Del Monte Booster Pump Station and Arsenic Treatment – WO# 31731384

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To replace the existing booster pump station, install an arsenic treatment system, install backwash tank, install electrical equipment, install new well pump and motor, and all associated improvements.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The scope was increased to include a sound attenuation wall around the Booster Pump Station. Project costs have increased primarily due to the aforementioned change in project scope.
- Reason for the Change: Due to open design (no pump building or other sound attenuation measures), noise from the BPS can be heard by local homeowners who have complained to the City of Claremont. As a result, GSWC has been notified by the City of Claremont of the noise complaints coming from the Del Monte Plant site, and sound attenuation needs to be installed.
- Current Status: The project is in construction and anticipated to be completed in 2026.

41. Meredith St. AMR – WO# 31731517

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 3,050 feet of PVC pipe along Meredith St, S. College Ave., S. Sycamore Ave., E. San Jose Ave., and Mills Ave.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

42. Indian Hill North, Replace Booster Station – WO# 31731519

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install a booster station building and replace Boosters C, D, and E, replace the chemical building and well pump house.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The main transmission project has been completed. The booster station project is currently in progress and is expected to be completed by 2026.

43. Cinderella Dr. AMR – WO# 31731521

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 5,300 feet of PVC pipe along Cinderella Dr (De Paul Rd to S Indian Hill Blvd), Notre Dame Rd (Vista Dr to W Arrow Hwy), Vista Dr (Marygrove Rd to S Indian Hill Blvd), Lewis Ct (Cinderella Dr to cul-de-sac), S Guilford Ave (Vista Dr to Doane Ave).
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

44. Fergus Falls Install Production Meter – WO# 31731711

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Installation of a production meter at the Fergus Falls Plant Site to track the amount of water pumped.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in construction and anticipated to be completed in 2026.

45. S. Claremont Blvd & Huntington Dr AMR – WO# 31731634

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 3,150 LF of 2", 4", 6", & 8" steel main on Mills Ave from 6th to dead-end; on Brooks Ave from 6th to Hardwood; on E 1st St from Mills to Claremont. Install approximately 1,075 LF of 8" PVC on Claremont Blvd from Blanchard to Huntington; connect Main Zone and Lower Zone pressure zones and relocate PRV Station 17.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: This project is in construction and is anticipated to be completed by 2026.

46. W. 6th St, Mills to Harvard – WO# 31731737

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 2,750 LF of 8-inch and 10-inch steel main on W 6th St from Mills Ave to Harvard Ave.
- Description of Change: The additional scope added to this project was the full-width rubberized asphalt grind and cap for the final street restoration.
- Reason for Change: Project costs have increased due to the City of Claremont requiring a full-width rubberized asphalt grind and cap for street restoration. The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

47. W Arrow Hwy, Indian Hill to College – WO# 31731646

- This project was included in an all-party settlement agreement in the prior 2023 GRC. Project Description: Replace approximately 1,250 LF of 12-inch steel main on W Arrow Hwy from Indian Hill to College Ave.
- Description of Change: The additional scope added to this project was the one-lane width of Rubberized asphalt required by the City of Claremont.
- Reason for Change: Project costs have increased due to the City of Claremont requiring a one-lane-width rubberized asphalt grind and cap for street restoration. The project costs increased based on the received bids for

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 construction. The updated construction estimate reflects the lowest
2 construction bid, which is higher than the original estimates.

- 3 • Current Status: The project is in progress and is anticipated to be completed in
4 2026.

5
6 48. Eaglecliff Electrical Upgrade – WO# 32631423

- 7 • This project was included in an all-party settlement agreement in the prior 2023
8 GRC.
- 9 • Project Description: To install new pumps and motors for Boosters A, B, and C,
10 new concrete pad, new MCC panels with associated conduits/conductors, and
11 new permanent diesel emergency generator with automatic transfer switch.
- 12 • Description of Change: The project scope remains unchanged from the 2023
13 GRC; however, project costs have increased.
- 14 • Reason for the Change: The project costs increased based on the received
15 bids for construction. The updated construction estimate reflects the lowest
16 construction bid, which is higher than the original estimates.
- 17 • Current Status: The project is in the closing phase and is anticipated to be
18 completed in 2026.

19
20 49. Via Verde Electrical Upgrades – WO# 32631422

- 21 • This project was included in an all-party settlement agreement in the prior 2023
22 GRC.
- 23 • Project Description: Replace the existing 6-inch CI pipes that were 92 years
24 old. The new pipeline will improve the system's hydraulics, provide more
25 reliable service to customers, and address the deficiencies.
- 26 • Description of Change: The project scope remains unchanged from the 2023
27 GRC; however, project costs have increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

50.E. Clover PI & Langham Ave AMR – WO# 32631700

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 4,650 LF of 4-inch, 6-inch, & 8-inch steel main on Clover PI from Glendora to Banna; on Glendora Ave from Cypress to Ruddock; on Langham Ave, Ivescrest Ave, Rimhurst Ave from Clover to dead-end; on Haller St from Rimhurst to dead-end.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: This project was split into two phases to expedite the construction schedule due to delays in obtaining the SCRRA permit required for the Jack & Bore work within the railroad right-of-way. Phase 1, the main installation, was completed in 2025, and Phase 2 is in the permitting phase. Construction for Phase 2 is expected to commence upon permit approval and is anticipated to be completed by 2026.

51. Gladstone Transmission Main – WO# 32631701

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install approximately 2,225 LF of 12" PVC main on Gladstone St from Valley Center to Candish, including an altitude valve, and upgrading the SCADA controlling system at the Sunflower well site.
- Description of Change: The additional scopes added to this project were the installation of a mag meter to allow blending with water from the new Sunflower Well to reduce PFAS and Nitrate levels in the well water, and the installation of a seismic coupling to protect the pipe to reservoir connection in case of a seismic event.
- Reason for Change: Project costs have increased due to the aforementioned change in project scope.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

52. Bonita Ave & Eucla Ave Main Replacement – WO# 32631714

- This project was included in an all-party settlement agreement in the prior 2023 GRC
- Project Description: Replace approximately 3,500 linear feet consisting of 6", 8" & 12" steel pipeline located in the following area: 1) Bonita Avenue from Cataract Avenue to the Foothill Shopping Center, 2) Eucla Avenue from Bonita Avenue to the north of hydrant#1294, and 3) Cataract Avenue from Commercial Avenue to Bonita Avenue.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

53. W 2nd St & Acacia St AMR – WO# 32631715

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 5,750 linear feet consisting of 4-inch, 8-inch, 10-inch, and 12-inch steel pipeline located in the following area: 1) Eucla Avenue between 5th Street and 4th Street, 2) 4th Street between Eucla Avenue and Acacia Street, 3) Acacia Street between 4th Street and Bonita Avenue 4) 2nd Street between Acacia Street and San Dimas Avenue, 5) 1st Street between Acacia Street and Monte Vista Avenue, and 6) Alley west of San Dimas Avenue between 2nd Street and 3rd Street.
- Description of Change: This project requires the removal of an old 12-inch steel main from an existing steel casing under the Metro Gold Line tracks and the installation of a new 12-inch HDPE main inside the casing to replace the old steel main. This was not included in the PCE created for the 2023 GRC application.
- Reason for Change: Project costs have increased due primarily to the aforementioned change in project scope.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

54. San Dimas System, Install Production Meters on BPS – WO# 32631730

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install production meters at the following locations: Gainborough BPS, Via Blanca BPS, and Via Verde BPS.
- Description of Change: The project scope no longer includes the installation of a production meter at the Via Verde Booster Plant Site due to limited space inside the vault and on above-ground. However, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in the construction phase, and completion is expected in 2026.

55. Covina Blvd, Sunflower to Valley Center – WO# 32631732

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install approximately 2,700 LF of 10-inch STL in Covina Blvd between N Sunflower Ave & S Valley Center Ave.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

56. PM-7 Plant Site, Piping & Valve Upgrade Analysis – WO# 32631860

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Retain an engineering consultant to perform an assessment and design the PM-7 connection. This project is considered “Phase 1” of a two-phase project. “Phase 2”, to be scheduled in the next GRC timeframe, involves constructing the recommended improvements.
- Description of Change: The scope presented in the 2023 GRC was Phase 1 to perform an assessment and design. The additional scope added to the project is Phase 2 construction.
- Reason for Change: Project costs have increased due to the added scope to the project, Phase 2 construction.
- Current Status: The project is ready to start construction and is anticipated to be completed in 2026.

57.N. San Dimas Canyon Rd Secondary Feeder – WO# 32631912

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install approximately 2,2300 LF of 8-inch and 12-inch PVC main on San Dimas Canyon Rd from Sycamore Canyon Rd to Fernridge Dr.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in construction and anticipated to be completed in 2026.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

58. Mud Spring Plant, Reservoir & BPS Abandonment – WO# 32631988

- Project Description: Abandon and dispose of the Mud Springs Plant's reservoir and booster pump station. Downgrade electrical service to power GSWC field office.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

59. Encinita Plant, New Field Office – WO# 33210464

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To construct a new building at the Encinita plant to house the field office, warehouse, and CSA office.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

60. Elmcrest St., Mullhall St, Ranchito St., & Civic St. Main Replacement – WO#
33210650

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 775 LF of 4" Steel main on Elmcrest St, Mulhall St, Ranchito St, Civic St from Pal Mal to dead-end. Install 425 LF of 8" PVC main on Civic St and Ranchito.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

61. Daines Dr Transmission Main – WO 33210659

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install 600 LF of 12-inch main across Santa Anita Wash on Daines Dr. from Hempstead Avenue to 8th St.
- Description of Change: The permit conditions, during the permitting process, imposed by the City of Arcadia required an easement and extensive pavement restorations.
- Reason for the Change: The total project cost has increased due to an increase in the cost of Jack & Bore to cross the Santa Anita Wash and the required easement and pavement restorations from the City of Arcadia.
- Current Status: The project is in the permitting phase. Construction is expected to commence upon permit approval and is anticipated to be completed by 2026.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

62. Teresa, Electrical Upgrade – WO# 33331213

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To replace Booster C with electric pump and motor combo and associated MCC panel. Install permanent generator with automatic transfer switch. Install VFD panel for Booster A.
- Description of Change: Per the construction plans, the finished asphalt concrete pavement and curb along the east side of the property are higher than the adjacent neighbor's retaining wall and the elevation of the railroad ties. The existing neighbor's retaining wall will be extended to support and retain the proposed asphalt concrete pavement, curb, and subgrade, ensuring proper compaction.
Reason for the Change: Project costs have increased due to the aforementioned increase in project scope.
- Current Status: The project is currently in progress and is anticipated to be completed in 2026.

63. Well Replacement, Saxon Well 3 – WO# 33331287

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a replacement well for Saxon Well #3, consolidate chlorine buildings, and replace the drain line due to leaks.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate.
- Current Status: The project is in the closing phase and is anticipated to be completed in 2026.

64. Denton & Marshall Main Replacement – WO 33331388

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace the existing 8-inch and 4-inch steel and 4-inch CI pipes that were 80 years old and had 6 known leaks in the last five years. The new pipeline will improve the system's hydraulics, provide more reliable service to customers, and address the deficiencies.
- Description of Change: The new pipeline will cross the Alhambra wash. The permit conditions imposed by the City of San Gabriel required a rubberized asphalt.
- Reason for Change: The total project cost has increased due to the following:
 - The permit conditions imposed by the City of San Gabriel required rubberized asphalt. This cost was not included in the original 2023 GRC estimate.
 - The new pipeline will cross the Alhambra Wash. This cost was not included in the original 2023 GRC estimate.
- Current Status: Construction of the new pipeline is complete, except for the segment that will cross the Alhambra Wash. The Alhambra Wash crossing is in the permitting phase. Construction is expected to commence upon permit approval and is anticipated to be completed by 2026.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

65. Kelburn Ave & New Mark Ave AMR – WO #33331396

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace the existing 6-inch CI pipes that were 92 years old. The new pipeline will improve the system's hydraulics, provide more reliable service to customers, and address the deficiencies.
- Description of Change: The proposed length of pipeline to be installed has increased from 2750 feet to 2825 feet, and the number of water services has increased by 20.
- Reason for Change: Project costs have increased due to the increase in pipeline length, additional traffic control required by the city, and the additional number of water services.
- Current Status: Construction of the new pipeline is complete, except for the segment that will cross the Alhambra Wash. The Alhambra Wash crossing is in the permitting phase. Construction is expected to commence upon permit approval and is anticipated to be completed by 2026.

66. San Gabriel Blvd & Newmark Main Replacement – WO# 33331513

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 1,800 LF of 8-inch CI on N San Gabriel Blvd from Garvey to Garvalia, and to install 100 LF of 6-inch PVC, 1780 LF of 8-inch PVC and 260 LF on 12-inch PVC.
- Description of Change: The additional scope added to this project was the installation of approximately 1,100 square ft of fast-curing concrete for the street restoration required by the City of Rosemead.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for Change: Project costs have increased due to the City of Rosemead requiring the installation of approximately 1,100 square feet of fast-curing concrete for street restoration. This was not included in the PCE created for the 2023 GRC application. The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: This project was split into two phases to expedite the construction schedule due to delays in obtaining the Los Angeles County Flood Control Permit required to cross the Alhambra Wash. Phase 1, the main installation, is in progress and is anticipated to be completed in 2026, and Phase 2 is in the design and permitting phase. Construction for Phase 2 is expected to commence upon permit approval and is anticipated to be completed by 2026.

67. Basalt Destroy Plant – WO # 34731304

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Demolish existing Basalt Reservoir (0.13 MG, 33'H x 30'D), yard piping, electrical panel, and two booster pumps and haul offsite.
- Description of Change: Procure and install a new licensed UHF radio at GSWC's H Street Plant to provide a reliable backup communication system for the Barstow System during emergencies when cellular or landline service is unavailable. This unit will replace the obsolete UHF radio at the Basalt Plant, which has been discontinued by the vendor. Because replacement parts are no longer available, the existing equipment cannot be refurbished or repurposed.
- Reason for the Change: The project costs increased based on the construction bids received. The updated project cost estimate reflects the responsive low

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

bid, which is higher than the original estimates. Additionally, cost escalations are attributed to the aforementioned changes to the project scope.

- Current Status: The project is currently in construction and is anticipated to be completed in 2026.

68. Bear Valley Phase III – WO# 34731411

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To construct a new booster station and install a permanent generator at the Bear Valley Plant to replace the existing obsolete booster pumps, prevent site power loss, and secure GSWC water supply.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, delays in obtaining endorsement from the local jurisdiction to construct the booster station building postponed the work and led to increased construction costs.
- Reason for the Change: Project costs have increased primarily due to the challenges associated with constructing the new booster station. The updated project cost estimate, which includes these additional expenses, is higher than the original estimates.
- Current Status: The project is currently in progress and is anticipated to be completed in 2026.

69. Bear Valley South Reservoir Recoat – WO# 34731530

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Recoat interior of Bear Valley South Reservoir, exterior spot repairs, install cathodic protection, and install safety/health modifications.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate.
- Current Status: Construction is in progress and anticipated to be completed in 2026.

70. Bradshaw Plant, Bradshaw 13 and 14 Electrical Upgrades – WO# 34731544

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade all electrical equipment at Bradshaw Well 13 and Well 14. Demolish and remove the existing electrical equipment. Install new electrical equipment and associated appurtenances. Construct an outdoor enclosure for the MCC.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

71. Arrowhead Electrical upgrades – WO# 34731546

- This project was included in an all-party settlement agreement in the prior 2023 GRC.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: Upgrade all electrical equipment at Arrowhead Well 2. Demolish and remove the existing electrical equipment. Install new electrical equipment and associated appurtenances. Construct an outdoor enclosure for the MCC and install security lighting.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

72. Barstow Hydraulic Evaluation – WO# 34731650

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Optimize the pressure zone boundaries in the Barstow System through hydraulic analysis, taking into account fluctuations in demand, pressure, and planned or ongoing construction projects. Then develop a systemwide operational plan that identifies where and how facilities (e.g., tanks, supply sources, pump stations) should operate and be sized. This is a multiphase project, with the second phase focused on implementing the study's recommendations.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on the bids received for completing the hydraulic analysis. The updated project cost

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

estimate reflects the responsive low bid, which is higher than the original estimates.

- Current Status: The hydraulic analysis for the Barstow System has been completed, and the project is scheduled to be closed in 2026.

73. Holabird East Reservoir Improvements – WO# 35231200

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Recoat interior and exterior of the Holabird East Finished Water Reservoir, replace rafters, widen foundation, and install safety/health modifications.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate.
- Current Status: Construction is complete and the project is anticipated to be closed in 2026.

74. Holabird Plant, Replace Filter and Clarifier and Recoat Vessels – WO# 35231203

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace the existing clarifier media and filter media in the three microfloc units at the Holabird Plant Site with new media and repair the interior coating. Additionally, repair the clarifier screens, air distribution line, filter underdrain blocks, internal pipe fittings, and elevated walkways used for access.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope was amended to include repairs to the microflocculation unit that became apparent either during the design phase or after the system was taken offline and the clarifier beads and filter media were removed. These repairs include the clarifier screens, air distribution line, filter underdrain blocks, internal pipe fittings, and elevated access walkways.
- Reason for the Change: Project costs have increased due primarily to the aforementioned change in project scope.
- Current Status: The project is in the construction and anticipated to be completed in 2026.

75. Bella Vista New Well – WO# 35831051

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new water supply well to replace Highway Well No. 3.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project, and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Adding funds for construction.
- Current Status: The well has been drilled, and equipping construction is in progress. The project is anticipated to be completed and closed in 2026.

76. Elm Plant, Well 24 Electrical Upgrades – WO# 35831054

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade all electrical equipment at the Elm Plant Site. Demolish and remove the existing electrical equipment. Install new electrical equipment and associated appurtenances. Construct an outdoor enclosure for the MCC and install security lighting.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for Change: The project costs increased based on the received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimates.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

77. Mojave Booster Station – WO# 35931007

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Construct a new booster station at a previously undeveloped property owned by GSWC, with three booster pumps, each rated at 150 gpm. The scope also includes upgraded electrical service, a new motor control center (MCC), plant piping, a SCADA control panel, site grading, and a building to house the boosters and electrical equipment, mitigating noise impacts on adjoining properties and protecting them from Morongo Valley's temperature extremes.
- Description of the Change: The project scope remains unchanged; however, project costs have increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate.
- Current Status: The project is currently in progress and is anticipated to be completed in 2026.

78. Mojave Reservoir – WO# 35931059

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To construct a 0.4 MG reservoir in the Mojave Tank Zone.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate.
- Current Status: The project is in construction and anticipated to be completed in 2026.

79. Mojave Generator – WO# 35931117

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install concrete pads, electrical conduits and wiring, ATS, generator, and SCADA control work at the new Mojave Plant located in the Morongo Del Sur System.
- Description of Change: The project scope remains the same; however, project costs have increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate.
- Current Status: The project is currently in progress and is anticipated to be completed in 2026.

80. Highway 62 Main Replacement – WO# 35931146

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install approximately 1,600 linear feet of 8-inch PVC pipeline along Highway 62, between Mt. View Dr. and Park Ave., and abandon the existing 6-inch pipeline that currently runs in an alleyway parallel to Highway 62 and through private property.
- Description of the Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project, and additional funds are required to proceed with construction.

During the design phase, Operational field assessments identified leaking adjacent steel mains to the project area and a non-functional valve on Mountain View Drive, both of which had been affecting service in the area. As these mains were immediately adjacent to the original project limits and would also require a Caltrans permit, the project scope was revised to replace an additional 400 linear feet of 6-inch steel main with a new 8-inch PVC main along West Drive and Mountain View Drive to address these deficiencies more cost effectively and efficiently

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: Project costs increased primarily due to commencing the construction phase of this design-only project, as well as the aforementioned changes to the project scope.
- Current Status: The project is in construction and is anticipated to be completed in 2026.

81. Government Canyon Reservoir Upgrades/Recoat – WO# 37231175

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Perform exterior painting, interior coating, concrete foundation upgrades, replacement of lateral straps with lateral bracing and safety/health modifications to meet Cal/OSHA Regulations.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate.
- Current Status: The project is currently in progress and is anticipated to be completed in 2026.

82. Pinon Mesa West Zone, Upsize PRV Station - WO# 37231217

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upsize the existing 4-inch PRV station to a 6-inch-diameter PRV station with a 2-inch valve bypass to regulate supply from the Town Zone to the Pinon Mesa West Zone during low, high, and emergency demand conditions.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The scope has been updated to include a 2-inch PRV to manage low-flow demands in the Pinon Mesa West Zone, and a new 4-ft x 6-ft utility vault to provide adequate space for installation and maintenance access for both the 6-inch and 2-inch PRVs.
- Reason for the Change: Project costs have increased primarily due to the aforementioned changes to the project scope.
- Current Status: The project is in progress and is anticipated to be completed in 2026.

Subcategory 4d – Projects Approved in the Previous GRC that will be completed after 2026 with a Change in Budget or Scope

Projects Approved in the Previous GRC (non-blanket projects) with a change in budget or scope as requested account for approximately \$226.8M or approximately 58.5% of the total request. Please refer to **Attachment I** for the current cost estimates for each project in this category. Testimony is provided for the projects that will not be completed in the current rate cycle.

1. Singingwood Rd. Pipeline – WO# 11700352

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 5,050 feet of pipe.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 installation during the 2026 GRC rate cycle. As a result, only design funds were
2 requested in the 2023 GRC. GSWC is now expediting the completion of this
3 project and additional funds are required to proceed with construction. The
4 scope of the project presented in the 2023 GRC remains unchanged.

- 5 • Reason for the Change: Construction funds are needed to award a construction
6 contract and complete the project.
- 7 • Current Status: The project's design is underway. Construction should start in
8 2026 and is anticipated to be completed in 2027, which is within the current
9 GRC cycle.

10
11 2. Cordova Systemwide SCADA – WO# 11811796

- 12 • This project was included in an all-party settlement agreement in the prior 2023
13 GRC.
- 14 • Project Description: Upgrade of existing SCADA systems and SCADA system
15 infrastructure for the Cordova System.
- 16 • Justification: A SCADA Assessment confirmed that SCADA hardware,
17 software, and telemetry was obsolete and required upgrade and/or
18 replacement. A robust SCADA system serves a critical role in safeguarding and
19 maximizing efficiency in GSWC's water production, treatment, and distribution
20 systems. A robust SCADA system will aid in reducing risk while improving
21 resiliency and reliability of an essential service.
- 22 • Description of Change: The project scope increased to update the Arden and
23 Robbins SCADA programming so those two systems could be migrated into the
24 new SCADA environment for the Cordova System. Additionally, project costs
25 increased.
- 26 • Reason for the Change: The Cordova, Arden and Robbins systems will all be
27 controlled from the centralized Cordova SCADA Operations Center. The Arden
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 and Robbins SCADA environments were experiencing performance failures
2 due to inadequate hardware, so a new third environment was setup to support
3 all three systems.

4 The design and construction of SCADA improvements varied at each site and
5 required more effort than originally anticipated, leading to higher costs. For
6 example, limitations of existing conduit, like size and runs, at some sites
7 prevented their use and required new conduit to be installed. In some systems,
8 sites required additional components, like an AC unit, to ensure components do
9 not fail due to high temperatures. The efforts to review the SCADA submittals
10 were also significantly higher than originally estimated, as each system varied
11 from 15-75 submittals – based on the number of sites in the system. External
12 resources were needed to assist in submittal review efforts to ensure designs
13 aligned to standards and functional requirements, as internal resources could
14 not keep up with the extent of review. Proper function of components with
15 minimal downtime and visibility of accurate data across system plant sites is
16 critical to water system operation.

17 The project completion time has been delayed because this SCADA project
18 required more assessment and design time than originally anticipated given the
19 variation of conditions at each of the plant sites in the water system.

20 Additionally, the improvements at some sites are delayed due to ongoing
21 projects or operational constraints at the plant sites.

- 22 • Current Status: Phase I, which is installation of SCADA at the remote sites, is
23 nearly complete. Phase II, installation of SCADA at the Coloma/Pyrites WTP,
24 is underway and anticipated to be completed in 2027, which is within the
25 current GRC cycle.

26
27 3. Pyrites Water Treatment Plant – Install Backup Generator – WO# 11812142
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install a backup generator at the Pyrites WTP, to provide uninterrupted water supply to the Coloma System in case of a power outage.
- Justification: Surface water is treated at the Pyrites WTP with a capacity of 3,500 gpm. The Pyrites WTP consists of three filtered water boosters with a total capacity of 5,400 gpm. The Pyrites water treatment plant is a critical supply source for the Cordova System. Surface water from the American River is withdrawn via the Folsom South Canal and is treated at the Coloma WTP and the Pyrites WTP. The installation of a permanent generator is critical for the Pyrites water treatment plant to meet customer demands and maintain water quality and system pressures in the event of a power outage, natural disaster, or other unprecedented emergency.
- Description of Change: Due to existing site conditions two generators will be required rather than one.
- Reason for the Change: Adding funds for an additional generator and related improvements. The original scope included one generator to operate the Pyrites WTP motor control center (MCC). In order to operate the Pyrites WTP there is other ancillary equipment at the plant site (settled water booster pumps, finished water booster pumps, etc.) that also needs backup power. That ancillary equipment is fed through other MCCs located elsewhere at the plant site, so an additional generator is required to provide backup power at that location as well. To achieve the project objective of operating the Pyrites WTP during a power outage, both generators are needed to operate the MCC and ancillary equipment. The project schedule has incurred delays because the design was considerably more complex than originally anticipated, as

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

evidenced by the need for a second generator, and required a significant amount of assessment of existing facilities.

- Current Status: Design is underway and nearing completion with construction anticipated in late 2026 and the project will be completed in 2027, which is within the current GRC cycle.

4. El Segundo Dr. Pipeline – WO# 11812144

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 12,500 feet of pipe.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: The project's design is underway. Construction should start in 2026 and is anticipated to be completed in 2027, which is within the current GRC cycle.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

5. Folsom South Canal Plant – Install Backup Generator – WO# 11812147

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install a backup generator at the Folsom South Canal Plant, to provide uninterrupted raw water supply to the Coloma Water Treatment Plant (WTP) and Pyrites WTP in case of a power outage.
- Justification: The Folsom South Canal Plant consists of five booster pumps with a total capacity of 11,800 gallons per minute (gpm). The Folsom South Canal Plant is a critical supply source for the Cordova System. Surface water from the American River is withdrawn via the Folsom South Canal and is treated at the Coloma WTP and the Pyrites WTP. When the Folsom South Canal Plant is offline, the Coloma/Pyrites WTP cannot be in operation. The installation of a permanent generator is critical for the Folsom South Canal Plant to meet customer demands and maintain water quality and system pressures in the event of a power outage, natural disaster, or other unprecedented emergency.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project costs have increased primarily due to the cost of the generator. The bid for the generator was significantly higher than originally estimated.
- Current Status: Design is underway and nearing completion with construction anticipated in 2027, which is within the current GRC cycle.

6. Sac Valley Blvd Plant, Site Improvements – WO# 11900017

- This project was included in an all-party settlement agreement in the prior 2023 GRC.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: Replace the deep well turbine pump and motor at Sacramento Valley Boulevard ('Sac Valley Blvd') Well No. 1 to match the production capacity with the proposed wellhead treatment capacity of 350 gpm at the James Plant. Perform electrical improvements to replace deteriorated electrical equipment.
- Justification: The Sac Valley Blvd Plant consists of one groundwater well with a capacity of approximately 600 gpm. Sac Valley Blvd Well No. 1 is one of two groundwater wells that supply the Robbins System. Sac Valley Blvd Well No. 1 is a critical supply source for the Robbins System. Sac Valley Blvd Well No. 1 requires treatment to be able to continue to operate – without treatment, the well has reached the end of its useful life, and with treatment, the well has approximately 10 years left. Due to the age and condition of Sac Valley Blvd Well No. 1, minor improvements must be made to allow it to continue to be operable until the end of its extended useful life. The current capacity of Sac Valley Blvd Well No. 1 must be reduced from approximately 600 gpm to 250 gpm to be compatible with the treatment system that is being constructed at the James Plant Site.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project costs increased because a video of the well was performed to confirm the well was in adequate condition. GSWC wanted to confirm the well had remaining years of useful life prior to making this investment.
- Current Status: Design is underway with construction anticipated in the last half of 2026. The project will be closed 2027.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

7. Sac Valley Blvd. & Hwy 113 Pipeline – WO# 11900019

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 700 feet of pipe.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: The project's design is underway. Construction should start in 2026 and is anticipated to be completed in 2027, which is within the current GRC cycle.

8. Hill Street Plant, Replace Well No. 2 – WO# 12411474

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new water supply well at the Hill Street Plant to replace Hill Street Well No. 2.
- Justification: Hill Street Well No. 2 was drilled in 1995 and was rehabilitated in 1999 and 2022. The 2023 Wood Rodgers Well Assessment determined that

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Hill Street Well No. 2 has reached the end of its useful life and recommended for Hill Street Well No. 2 to be replaced with a new well. The well casing is in poor condition due to holes in the casing, corrosion, and a plugged well screen. The well performance is poor due to excessive sand production and decreased specific capacity.

Optimization of available groundwater supply will reduce GSWC's reliance on Contra Costa Water District (CCWD) water for the Bay Point System. Pumping and treating water from the groundwater basin is more cost effective than purchasing water from CCWD. Hill Street Well No. 1 (130 gpm) is the only other active well in the Bay Point System.

The Hill Street Plant Site has sufficient space to drill a replacement well and allow Hill Street Wells No. 1 to remain in service while the new well is brought online. The new well will increase the reliability of the water supply portfolio for the Bay Point System.

- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Adding funds for construction.
- Current Status: Design is underway and the project is anticipated to be completed in 2029.

9. Suisun Ave. Pipeline – WO# 12411537

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To replace approximately 1,000 feet of pipe.
- Justification: Please see the attached supporting testimony (Attachment E) that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project costs have increased due to additional paving required by the County than originally anticipated. The pipeline is anticipated to be in-service at the end of 2026, but will have some remaining paving work in early 2027.
- Current Status: Design is underway with construction anticipated in the last half of 2026. The project will be closed in 2027, which is within the current GRC cycle.

10. Clearlake Systemwide SCADA – WO# 13111348

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Design of upgrade of existing SCADA systems and SCADA system infrastructure for the Cordova System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 systems. A robust SCADA system will aid in reducing risk while improving
2 resiliency and reliability of an essential service.

- 3 • Description of Change: As described in the 2023 GRC filing and approved in
4 the all-party settlement agreement, the scope of this project was to complete
5 the project design during the 2023 GRC rate cycle, and complete the
6 installation during the 2026 GRC rate cycle. As a result, only design funds were
7 requested in the 2023 GRC. GSWC is now expediting the completion of this
8 project and additional funds are required to proceed with construction.
9 Additionally, the scope has increased to upgrade SCADA for the recently
10 acquired Crescent Bay System.
- 11 • Reason for the Change: The existing Crescent Bay System SCADA equipment
12 is outdated and will not effectively integrate into the centralized Clearlake
13 SCADA Operations Center. Upgrading the Crescent Bay System was urgent
14 because remote monitoring and control is critical for a water system that is a
15 farther distance from the operators. Additional funds are needed to proceed
16 with construction and complete the project.
- 17 • Current Status: GSWC is soliciting design-build proposals and anticipates the
18 project to be completed in 2028.

19
20 11. Oak Crest Drive Main Replacement – WO# 13111349

- 21 • This project was included in an all-party settlement agreement in the prior 2023
22 GRC.
- 23 • Project Description: Install approximately 2,000 feet of 8-inch PVC in Oak Crest
24 Drive.
- 25 • Justification: This pipeline installation is necessary in order to address leaks,
26 hydraulic deficiencies, age and condition of the existing pipeline. This pipeline
27 is 4" Steel, is 72 years old, and, based on recent field reports, is in poor

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

condition. This pipeline has had 6 known leaks in the past five years. The new pipeline will improve the hydraulics of the system, provide more reliable service to our customers, and address the deficiencies listed above.

- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Adding funds for construction.
- Current Status: Design is underway and the project will be completed in 2027, which is within the current GRC cycle.

12. Manchester Plant, Site Improvements – WO# 13111419

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Demolish the existing wood structure and chain-link fence. Construct a new masonry building and install fencing around the perimeter of the Manchester Plant.
- Justification: The Manchester Plant consists of one booster pump with a capacity of 500 gpm and an interconnection with Highlands Mutual Water Company (HMWC) for emergency use. The Manchester Plant is a critical purchased water interconnection between the GSWC Clearlake System and HMWC. The existing wooden structure contains the Manchester booster pump station, but does not allow sufficient room to operate or service the booster pump. Replacement of the wood structure with a masonry structure will provide

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

easier access as well as increase the fire resistance and overall aesthetics of the plant.

- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project costs increased because it was determined during the design phase that unanticipated grading work is needed for the site.
- Current Status: Design is underway and the project will be completed in 2027, which is within the current GRC cycle.

13. Vista Court to Mar Vista Dr. Pipeline – WO# 14631397

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 400 feet of pipe.
- Justification: Please see the attached supporting testimony (Attachment E) that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. While the project objective remains the same, more pipeline than originally anticipated will need to be installed.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: Construction funds are needed to award a construction contract and complete the project. An initial investigation has determined that the originally planned route is not viable because it is too close to homes, so an alternative longer route will be required.
- Current Status: Project design is underway and the project is anticipated to be completed in 2028.

14. Edna, Drill and Equip Well Water Supply – WO# 14700120

- Project Description: Investigate a new source of water supply for the Edna System.
- Justification: GSWC continues to search for a new source of water supply for the Edna System to mitigate a water supply deficiency, as identified in the Edna Road System Water Master Plan (December 2025). Test wells have been drilled in areas recommended by the local groundwater expert, Cleath-Harris Geologists, and existing private wells have been sampled. GSWC is also looking at other alternatives to mitigate the water supply deficiency. The efforts will include investigation for drilling multiple low-capacity groundwater wells. Additionally, GSWC will revive discussions with the City of San Luis Obispo to construct a potential interconnection. This effort has failed in the past due to political reasons, but a new approach may be worthwhile in achieving a long-term solution. GSWC is also evaluating other potential alternatives to increase supply. In summary, the original scope was to identify a new source of supply for the Edna Water System.
- Description of Change: The project scope will increase to resolve the water supply deficiency by proceeding with drilling and equipping a permanent well to provide water supply to the Edna System. Project costs have increased accordingly.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for Change: The local groundwater expert, Cleath-Harris Geologists, investigated the groundwater basin and provided a report with a recommendation to drill a test well at a specific location. Their analysis shows a high probability that this location is suitable for a viable permanent well. GSWC will proceed with drilling a test well and then converting it to a permanent well.
- Current Status: The test well will be drilled in 2026 and then we will proceed with construction of the permanent well. The project is anticipated to be completed in 2028.

15. Whiskey Run Lane Pipeline – WO# 14700224

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 1,200 feet of 8-inch PVC pipe from Whiskey Run Lane, Greystone Place, to Country Club Plant.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony. Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate. The project schedule was delayed due to the complications of obtaining an easement.
- Current Status: Construction will start and be in-service in 2026. The project is anticipated to be closed in 2027, which is within the current GRC cycle.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

16. Lake Marie Plant Replace Booster – WO# 15800154

- Project Description: Install three new booster cans; relocate the two existing boosters to the new cans and install 1 new vertical booster pump.
- Justification: During a power outage, Booster C operates to maintain pressure in the system; however, this diesel booster pump has exceeded its useful life and needs to be replaced. The diesel booster is old, outdated, and replacement parts can no longer be obtained for this model. The spare pump can is no longer a viable option; it has a permanent concrete plug, and there are no as-builts to show how the booster-cans were constructed. After reaching out to multiple vendors for a solution (installing either a different type of pump or installing a new pump can), it was determined necessary to instead reconstruct the booster station because there is not sufficient space to add a pump can to the existing manifold.
- Description of Change: The project scope has remained the same, but project costs have increased since the 2023 GRC.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is significantly higher than the original estimate. Also, the project is anticipated to require outside inspection to ensure infrastructure is in accordance with GSWC Standards. The project schedule has been delayed because the design took longer to complete than originally anticipated due to the complex infrastructure on site and ensuring a viable solution was in place to continue to adequately provide water service during construction.
- Current Status: Project design is complete and a construction contract is to be executed, with construction activities anticipated to be completed in 2027, which is within the current GRC cycle.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

17. Kelt Reservoir – WO# 15931602

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To construct a 1.0 MG welded-steel water storage reservoir, and associated appurtenances, on property purchased by GSWC in 2019 to provide water storage to the Orcutt System.
- Justification: A new reservoir(s) is needed in order to resolve existing and projected storage deficiencies in the Orcutt System. In the 2017 GRC, the CPUC approved purchase of land at sufficient elevation to construct a new reservoir that would effectively and efficiently serve the Orcutt/Patterson pressure zone(s); per the Zone Realignment Study, the recommended pad elevation for the new reservoir is approximately 600 ft amsl (625 ft amsl reservoir overflow). Property at the referenced elevation, along with an access easement, has been acquired; this project is to construct a new 1.0 MG reservoir and transmission main. The Orcutt System has multiple pressure zones, booster stations and groundwater wells; ongoing pressure fluctuation issues in various areas/pressure zones of the Orcutt System will also be addressed through the construction of this reservoir and related zone realignment improvements.
- Description of Change: The project scope has remained the same but project costs have increased since the 2023 GRC.
- Reason for the Change: Project costs have increased since the original estimate because of: 1) the original project costs were underestimated for the cost of construction, 2) several project components were not included in the original estimate (earthwork, altitude vault, large valves, and specialty inspection), 3) additional permitting costs from Santa Barbara County, 4)

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

inflation and, 5) post-construction CEQA permitting requirements determined after CEQA permit and take permits were finalized. The CEQA requirements include inspections for 5-years once the habitat around the construction is complete. The project schedule was delayed due to obtaining permits from Santa Barbara County, and CEQA will require five years of monitoring.

- Current Status: Construction is in progress and will be completed in 2026. The project will require multi-year CEQA inspections once the tank is in-service.

18. Orcutt Well Plant, Replace Well No. 1 – WO# 15932031

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace Orcutt Well No. 1 with a new groundwater well at the Orcutt Plant.
- Justification: A 2022 Well Assessment Report of Orcutt Well No. 1 stated that the well had two to five years of remaining service life, so a replacement well is warranted and recommended.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Additional funds are needed for construction.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: Design is currently underway and well drilling is anticipated to start late 2026. It is anticipated the project will be completed in 2029.

19. Townsend AMR – WO# 15932181

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Townsend area main replacement, install approximately 2,700 feet of 8" PVC pipe.
- Justification: Please see the attached supporting testimony (Attachment E) that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony. Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Estimated construction funds are being added. There is also an increase in project costs due to substantial paving requirements required by the County and inflation.
- Current Status: Project design is complete and construction will start in 2026. The project is anticipated to be completed in 2027, which is within the current GRC cycle.

20. Mira Flores Well 3, Destruction – WO# 15932326

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Remove and dispose of existing facilities, destroy the Mira Flores Well No. 3, and pipeline improvements outside of plant site in Clark Ave.
- Justification: Mira Flores Well No. 3 has been out of service for an extended period of time due to the age and condition of the well. The well was taken offline due to motor and pump failure. The well needs to be destroyed in order to meet California Department of Water Resources (DWR) requirements. Destruction of abandoned wells is mandated by the California Code of Regulations, Title 22, Division 4, Chapter 16, Article 3, Section 64560.5 Well Destruction. This section references DWR Bulletins 74-81 and 74-90, both of which also call for the destruction of abandoned wells and the manner in which to destroy them. Abandoned wells are a potential pathway for contaminants to enter the aquifer that could pose a threat to public health, and if there are no plans to reactivate them, should be destroyed.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Adding funds for construction. Project costs have also increased from the estimate provided in the 2023 GRC due to 1) more challenges than previously anticipated to access the site to avoid PG&E transmission powerlines, 2) demolition activities may impact public street traffic which would require a temporary easement, 3) more PG&E downtime

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 anticipated than during well destruction activities which incurs daily fees, and 4)
2 the need for temporary access easement from a private property owner for a
3 well contractor to perform well destruction activities.

- 4 • Current Status: Design is currently underway and well destruction is anticipated
5 to start mid 2026. It is anticipated the project will be completed in 2027, which
6 is within the current GRC cycle.

7
8 21. Willowood Plant, Drill New Well – WO# 16100110

- 9 • This project was included in an all-party settlement agreement in the prior 2023
10 GRC.
- 11 • Project Description: Drill and equip a new water supply well in the Tanglewood
12 System.
- 13 • Justification: The Tanglewood System obtains its water supply from one
14 primary source: one active local groundwater well. The Tanglewood System
15 has an interconnection with the Coastal Branch of the State Water Project
16 (SWP), operated by the Central Coast Water Authority (CCWA). This
17 interconnection is not actively utilized to serve the Tanglewood System,
18 however, because GSWC's allocated quantity of water through the SWP is
19 used to supply other GSWC systems in the Orcutt Community Plan (OCP) area
20 (in order to prevent further overdraft of the Santa Maria Valley Groundwater
21 Basin). When the well is out of service, the interconnection may be used as the
22 primary source of supply. However, the capacity of the interconnection is not
23 considered a reliable, continuous, secondary source of supply due to the
24 CCWA being offline for approximately one month each year and curtailment
25 due to California's ongoing draught. GSWC used to be able to back feed, but
26 recently the connection was completely out of water when offline. The new well
27 will increase the reliability of the Tanglewood System to meet customer
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

demands and increase the resiliency of the Tanglewood System to the negative consequences of climate change.

- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. Additionally, the 2023 GRC included a separate project to destroy Willowood Well No. 1. This project's scope has been increased to destroy the well as part of this project, and the separate well destruction project was cancelled.
- Reason for the Change: Additional funds are needed for construction. To streamline the projects and reduce costs, the well destruction was added to this project because the well driller will be able to destroy the well before or after drilling the well.
- Current Status: Design is currently underway and well drilling is anticipated to start late 2026. It is anticipated the project will be completed in 2029.

22. Eastern AMR – WO# 16100116

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 6,400 feet of 8" PVC pipe on Ironwood Drive, Teakwood Drive, Elmwood Drive, Olivewood Drive, and Pinewood Drive.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.

- Reason for the Change: Estimated construction funds are being added. There is also an increase in project costs from the estimate provided in the 2023 GRC due to substantial paving requirements required by the County and inflation.
- Current Status: Design is in progress and the project is anticipated to be completed in 2027, which is within the current GRC cycle.

23. Primavera Lane Pipeline – WO# 16200424

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 10,100 feet of pipe.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.

- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: A contract has been awarded and construction will start in 2026. The project is anticipated to be completed in 2027, which is within the current GRC cycle.

24. Nipomo Systemwide SCADA – WO# 16200450

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Nipomo System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading to higher costs. For example, limitations of existing conduit, like size and runs, at some sites prevented their use and required new conduit to be installed. In some systems, sites required additional components, like an AC unit, to ensure components do not fail due to high temperatures. The efforts to review the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

SCADA submittals were also significantly higher than originally estimated, as each system varied from 15-75 submittals – based on the number of sites in the system. External resources were needed to assist in submittal review efforts to ensure designs aligned to standards and functional requirements, as internal resources could not keep up with the extent of review. Proper function of components with minimal downtime and visibility of accurate data across system plant sites is critical to water system operation.

The project completion time has been delayed because this SCADA project required more assessment and design time than originally anticipated given the variation of conditions at each of the plant sites in the water system.

Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.

- Current Status: Design is in progress and the project is anticipated to be completed in 2028.

25. Cypress Ridge Fire Hardening Improvements – WO# 16400158

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install fire hardening improvements at the Falcon Crest and El Campo plant sites.
- Justification: In 2020, a report prepared by Rhode Associates reviewed GSWC's facilities and prepared reports by individual water system that included a risk assessment and recommended improvements. The facilities were ranked by increasing order of risk from: no risk, low risk, moderate recommendation, and significant recommendation.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

The structural improvement recommendations included construction of fully grouted block walls, replacement of roofs with non-combustible material, and replacement of the existing wood-framed pump building with a new non-combustible structure. At plant sites where there was not enough clearance between existing water facilities and existing parcel boundaries to construct the footing required for a block wall, GSWC is proposing the construction of pre-cast concrete panel walls with poured-in-place pilaster or driven vertical posts. These would have a minimum thickness of 8" to provide the mass necessary for fire resistance, be 8' in height and 8-12 feet on center between supports. Access gates are to be constructed of fire rated/resistant materials.

- Description of Change: The fire hardening improvements at the El Campo Plant will be deferred and combined with a future booster pump station project at El Campo. In addition to the fire hardening improvements at the Falcon Crest Plant site, the MCC will be replaced.
- Reason for the Change: A future project is planned at the El Campo Plant site to replace the booster pump station, including the building, so it was decided to include the fire hardening improvements at the El Campo site with that project. If the existing booster pump station building was replaced now to address the fire hardening, it would be demolished as part of the future project which would not provide good value to the customers.

The MCC is in poor condition and needs to be replaced. Replacing the building at Falcon Crest as part of the fire hardening improvements would require significant electrical improvements. To eliminate redundant work, the MCC replacement is included with the fire hardening improvements to replace the building. The project schedule is delayed due to the assessment of the existing

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

electrical equipment at Falcon Crest, as well as the associated long lead time in procuring the new MCC.

- Current Status: Design is in progress and the project is anticipated to be completed in 2028.

26. Clover and Angela AMR – WO# 16731488

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To replace approximately 3,000 feet of pipe.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project costs increased based on received bids for construction. The updated construction estimate reflects the lowest construction bid, which is higher than the original estimate. The project was delayed because the City completed a road construction project in the area and imposed a moratorium until June 2026. To avoid significant project cost increases due to paving requirements when performing work during the moratorium period, GSWC is waiting to start construction until the warranty period terminates.
- Current Status: Construction bids have been received; however, construction is unable to start until mid-June due to a moratorium. The project is anticipated to be completed and closed in 2027, which is within the current GRC cycle.

27. Rebecca St. Pipeline – WO# 16731550

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install approximately 6,900 feet of pipe.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Construction funds are needed to award a construction contract and complete the project.
- Current Status: Project design is underway and the project is anticipated to be completed in 2027, which is within the current GRC cycle.

28. Roseton Plant, Replace Backwash Tank – WO# 21911453

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Recoat interior of the Roseton backwash tank.
- Justification: The Roseton Plant consists of two wells with a total capacity of 1, 820 gpm, and manganese filter system with .03 MG bolted steel backwash tank. An inspection report prepared by a consultant in December 2022 indicated that the recommended modifications summarized above should be

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

implemented to continue providing safe and reliable water to the Artesia System.

- Description of Change: The project scope has changed to replace the backwash tank with a welded steel tank.
- Reason for the Change: After further analyses/on-site evaluation, the design consultant has since determined that because the water in the backwash tank includes removed particulates from the filter, the turbidity of the water in the backwash tank from the removed particulates is gritty and more abrasive which causes the interior of the tank to be a more severe environment than a typical potable water tank. In addition, the chlorine used in the treatment process is higher than in most potable water tanks. The frequent turnover of the water in the tank and the higher chlorine levels also contribute to higher levels of chlorine vapor above the waterline which creates a more corrosive environment and accelerated corrosion on the roof and structural members. This severe environment causes coating defects in the tank to deteriorate at a faster rate and accelerates the corrosion of the steel substrate. Therefore, the tanks should be replaced, rather than recoated.

Welded steel tanks and bolted steel tanks were considered as replacements. The benefits of welded steel tanks, such as superior durability, corrosion resistance, fire resistance and the liabilities of the bolted tanks such as the thinner steel, numerous joints and gaskets, being more susceptible to corrosion, metal loss, and leaking, especially at seams and around bolt holes are even more pronounced in the backwash tank application. Therefore, welded steel backwash tanks will provide a longer life expectancy and overall cost benefit for GSWC than bolted steel backwash tanks.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The project is on hold due to other ongoing projects at the Roseton site. It is anticipated that the project design will start in 2027, and the project will be completed in 2029.

29. 223rd St. Crossing Open Channel – WO# 21911467

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install 200 linear feet of 8-inch main to cross existing Open Channel Drain on 223rd Street. This pipeline installation is necessary in order to address water quality issues, hydraulic deficiencies and the new pipeline will provide more reliable service to customers.
- Justification: Please see attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The project scope remains unchanged from the 2023 GRC, however, the total project cost estimate has increased along with a change in scheduling.
- Reason for the Change: The total project cost estimate has increased from the original estimate due to the omission of certain project components, including consultant design cost and the original project costs were underestimated for the cost of construction. The construction schedule has been deferred to 2027 to accommodate design development and the anticipated lengthy permitting process with the Los Angeles County Flood Control District.
- Current Status: The project is currently in design with anticipated construction completion by 2028.

30. Artesia Systemwide SCADA – WO# 21911469

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- 1 • This project was included in an all-party settlement agreement in the prior 2023
2 GRC.
- 3 • Project Description: Upgrade of existing SCADA systems and SCADA system
4 infrastructure for the Artesia System.
- 5 • Justification: A SCADA Assessment confirmed that SCADA hardware,
6 software, and telemetry was obsolete and required upgrade and/or
7 replacement. A robust SCADA system serves a critical role in safeguarding and
8 maximizing efficiency in GSWC's water production, treatment, and distribution
9 systems. A robust SCADA system will aid in reducing risk while improving
10 resiliency and reliability of an essential service.
- 11 • Description of Change: The project scope remains unchanged from the 2023
12 GRC; however, project costs have increased.
- 13 • Reason for the Change: The design and construction of SCADA improvements
14 varied at each site and required more effort than originally anticipated, leading
15 to higher costs. For example, limitations of existing conduit, like size and runs,
16 at some sites prevented their use and required new conduit to be installed. In
17 some systems, sites required additional components, like an AC unit, to ensure
18 components do not fail due to high temperatures. The efforts to review the
19 SCADA submittals were also significantly higher than originally estimated, as
20 each system varied from 15-75 submittals – based on the number of sites in
21 the system. External resources were needed to assist in submittal review
22 efforts to ensure designs aligned to standards and functional requirements, as
23 internal resources could not keep up with the extent of review. Proper function
24 of components with minimal downtime and visibility of accurate data across
25 system plant sites is critical to water system operation.
- 26 • The project completion time has been delayed because this SCADA project
27 required more assessment and design time than originally anticipated given the
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

variation of conditions at each of the plant sites in the water system.

Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.

- Current Status: Design is complete. The project will start construction in 2026 and is anticipated to be completed in 2027, which is within the current GRC cycle.

31.215th St. AMR – WO# 21911470

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replacement of 5,060 linear feet of 4, 6 and 12-inch mains with 8 and 12-inch PVC to address leaks, hydraulic deficiencies, age, and condition of the existing pipeline.
- Justification: Please see attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change:
 - During field visits for project scoping, it was determined an additional main could be installed in order to abandon main that crossed through backyards. Additionally, Southern California Edison planned to reconstruct a vault structure in the vicinity of the project, so an interfering 6-inch main abandonment was added to the project with the services being switched to an existing 12-inch main.
 - During the extended permitting process with the City of Hawaiian Gardens, additional paving requirements were imposed, resulting in increased construction and permitting costs

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- The total project cost estimate was updated based on the low bid and has increased.
- The project schedule has also been delayed.
- Reason for the Change:
 - The total project estimate has increased due to higher bid item costs compared to the original estimates, the aforementioned added scope, the additional paving required by the City, as well as increased labor costs and permitting fees.
 - The schedule delay has been due to the permitting process and waiting for the Sanitation District to complete their project on one of the streets in the project area per City's request.
- Current Status: The project is in the permitting process and anticipated to be completed in 2027, which is within the current GRC cycle.

32. Norwalk Systemwide SCADA – WO# 22011379

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Norwalk System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading to higher costs. For example, limitations of existing conduit, like size and runs, at some sites prevented their use and required new conduit to be installed. In some systems, sites required additional components, like an AC unit, to ensure components do not fail due to high temperatures. The efforts to review the SCADA submittals were also significantly higher than originally estimated, as each system varied from 15-75 submittals – based on the number of sites in the system. External resources were needed to assist in submittal review efforts to ensure designs aligned to standards and functional requirements, as internal resources could not keep up with the extent of review. Proper function of components with minimal downtime and visibility of accurate data across system plant sites is critical to water system operation.
- The project completion time has been delayed because this SCADA project required more assessment and design time than originally anticipated given the variation of conditions at each of the plant sites in the water system. Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.
- Current Status: Design is complete. The project will start construction in 2026 and is anticipated to be completed in 2027.

33. Imperial Hwy from Edwards Rd to Valley View – WO# 22011380

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Installation of approximately 2,700 linear feet of 8" & 12" PVC, six fire hydrants, thirty-seven 1" and 2" services and appurtenances in the Norwalk system.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: Please see attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The total project cost estimate has increased and the project schedule has been revised.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, as well as higher-than-anticipated design, permitting fees, and internal labor costs. The schedule delay has been due to the permitting process.
- Current Status: The project is currently in construction and anticipated to be completed in early 2027, which is within the current GRC cycle.

34. Imperial Plant, Install Back-up Generator – WO# 22011382

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install a backup generator with automatic transfer switch at Imperial Plant Site.
- Justification: The Imperial Plant site consists of two groundwater wells with a capacity of 1,100 gpm, one 1.5 MG reservoir, and three booster pumps with a capacity of 3,250 gpm. Imperial Plant is a critical facility source for the Norwalk System. The installation of permanent diesel-powered generators with an automatic transfer switch is critical for Imperial Plant to continue supplying water to customers, maintain water quality, and system pressures in case of power outages, natural disasters, or other emergencies. The new generator will need to be at least 500 KW to be able to power all the well (175 hp), booster (250 hp), and other associated appurtenances. During September of 2022,

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 California experienced a historically long and record-breaking heat wave. A
2 statewide emergency was declared by the Governor of California. Through a
3 California ISO a statewide flex alert was issued to request Californians to
4 conserve electricity due to the strain on the electrical grid due to the
5 unprecedented heat wave. GSWC operated its generators to load shed and
6 reduce the strain on the electrical grid in the Norwalk System. Installing
7 generators at key supply and pumping facilities will increase the reliability of the
8 Norwalk System to meet customer demands and increase the resiliency of the
9 Norwalk System to the negative consequences of climate change.

- 10 • Description of Change: In order to ensure adequate water supply for GSWC
11 customers during power outages/MWD outages/emergency scenarios, it has
12 been determined that GSWC should size the generators to power all plant site
13 equipment.
- 14 • Reason for Change: Project costs have increased due primarily to the
15 aforementioned change in project scope.
- 16 • Current Status: The project is in progress while waiting for the delivery of the
17 generator and its components. It is anticipated to be completed in 2026 but
18 most likely will be extended to 2027 due to the generator delivery delay.

19
20 35. Well Replacement, Gage Well 2 – WO# 22750310

- 21 • This project was included in an all-party settlement agreement in the prior 2023
22 GRC.
- 23 • Project Description: The project consists of destroying Gage Well No. 2 and
24 drilling and equipping a new well at the Gage Plant to provide water supply to
25 the Bell–Bell Gardens System. The project also includes an electrical service
26 upgrade and expansion of the existing chemical building to accommodate the
27 new well facilities.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: Gage Well No. 2 was drilled more than 88 years ago and has reached its useful service life. The well has been producing sand and is currently offline. The new well will allow the Bell-Bell Gardens System to have a reliable supply of groundwater and will minimize purchased water needs. Optimization of groundwater supply will reduce GSWC's reliance on MWD water for the Bell-Bell Gardens System. Pumping and treating water from the groundwater basin is more cost effective than purchasing water from MWD. And, although GSWC uses purchased water to help meet system demands, GSWC is required to be self-reliant during occurrences of planned and unplanned MWD outages or shutdowns. According to MWD's Administrative Code, "Each member agency shall have sufficient resources such as local reservoir storage, groundwater production capacity, system interconnections or alternate supply source to sustain a seven-day interruption in Metropolitan deliveries from raw and treated water distribution facilities based on average annual demands of the affected facility." MWD shutdowns are expected to occur more frequently due to an increase in MWD maintenance projects intended to mitigate problems with an aging infrastructure.
- Description of Change: The total project cost estimate has increased and the project schedule has changed.
- Reason for the Change: The total project cost estimate was updated based on the lowest construction bid, which is significantly higher than the original estimate. The project cost has also increased due to the required nighttime construction to avoid disruption to the neighboring school, and the increased design cost. The project schedule has increased due to coordination of construction during the school's summer break, long-lead material procurement, SoCal Edison new service design, and equipping design delays.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The project is currently in progress and is anticipated to be completed in 2027, which is within the current GRC cycle.

36. Bell Gardens Systemwide SCADA – WO# 22750397

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Bell-Bell Gardens System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading to higher costs. For example, limitations of existing conduit, like size and runs, at some sites prevented their use and required new conduit to be installed. In some systems, sites required additional components, like an AC unit, to ensure components do not fail due to high temperatures. The efforts to review the SCADA submittals were also significantly higher than originally estimated, as each system varied from 15-75 submittals – based on the number of sites in the system. External resources were needed to assist in submittal review efforts to ensure designs aligned to standards and functional requirements, as internal resources could not keep up with the extent of review. Proper function

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

of components with minimal downtime and visibility of accurate data across
system plant sites is critical to water system operation.

- The project completion time has been delayed because this SCADA project required more assessment and design time than originally anticipated given the variation of conditions at each of the plant sites in the water system. Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.
- Current Status: Design is complete. The project will start construction in 2026 and is anticipated to be completed in 2027, which is within the current GRC cycle.

37. Bissell Plant, Install Back-up Generator – WO# 22750399

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install a Back-up Generator with an Automatic Transfer Switch at the Bissell Plant in Bell-Bell Gardens system.
- Justification: The Bissell Plant site consists of two groundwater wells with a capacity of 3,000 gpm, one treatment system, 1.0 and 0.5 MG reservoirs, and three booster pumps with a capacity of 3,325 gpm. The Bissell plant is a critical supply source for Bell-Bell Gardens System. The installation of a permanent diesel-powered generator with an automatic transfer switch is critical for Bissell Plant to continue to supply water to customers, maintain water quality, and system pressures during a power outage, natural disaster, or other emergency. The new generator needs to be at least 350 KW to be able to power one well (200 hp) and two boosters (110 hp), and other associated appurtenances. During September of 2022, California experienced a historically long and record-breaking heat wave. A statewide emergency was declared by the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Governor of California. Through a California ISO a statewide flex alert was issued to request Californians to conserve electricity due to the strain on the electrical grid due to the unprecedented heat wave. GSWC operated its generators to load shed and reduce the strain on the electrical grid in the Bell-Bell Gardens System. Installing generators at key supply and pumping facilities will increase the reliability of the Bell-Bell Gardens System to meet customer demands and increase the resiliency of the Bell-Bell Gardens to the negative consequences of climate change.

- Description of Change: Initially, the recommendation to power the entire site caused concern, a potential scope/cost increase. However, the recent catastrophic fires in the LA area have caused GSWC to rethink the initial approach of simply “keeping the system wet” until power is restored. In order to optimize the availability of water supply to GSWC customers even in power outage/MWD outage/emergency scenarios, it has been determined that GSWC should now size the generators to power all plant site equipment to provide the same level of service during “normal” times (as if there were no power outage). Therefore, GSWC supports the current design approach of sizing the generators to power all normally operating facilities at the plant sites where generators are being installed. Additionally, the demolition of the existing Well No. 1 Building was included in the approved scope change, as the well has been abandoned and there is no need for the existing Building. The demolition of the well building is necessary to allow the construction of the new generator at the location of the old Well No. 1, and to maintain access to other facilities at the plant site.
- Reason for Change: Project costs have increased due primarily to the aforementioned changes in project scope.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The project is in progress while waiting for the delivery of the generator and its components. It is anticipated to be completed in 2026 but most likely will be extended to 2027, which is within the current GRC cycle, due to the generator manufacturer's delivery schedule.

38. River Dr. from Cecilia St to Foster – WO# 22750400

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install 500 linear feet of 8-inch PVC on River Drive to connect the system from Cecilia Street to Fostoria Street.
- Justification: Please see attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The project scope remains unchanged from the 2023 GRC, however, the total project cost estimate has increased, and the project schedule has also changed.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates. Additionally, it was determined at the start of construction that Chevron owns a portion of River Drive, giving the City of Cudahy road maintenance rights. As a result, an easement is required from Chevron, which has increased the total project cost due to additional legal and permitting fees. The project schedule has been extended to accommodate the easement acquisition process.
- Current Status: The project is currently in the easement application process and anticipated to be completed in 2027, which is within the current GRC cycle.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

39. Well Replacement, Miramonte Well 1 – WO# 22811343

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: The project consists of destroying Miramonte Well No. 1 and drilling and equipping a replacement well at the Miramonte Plant to provide water supply to the Florence-Graham System, including an electrical service upgrade.
- Justification: Miramonte Well No. 1 has reached the end of it's life and a replacement well will maintain existing groundwater production capacity. Drilling and equipping a new groundwater well will allow GSWC to maximize its production of groundwater and minimize purchased water from MWD for the Florence-Graham System. Improving/developing local groundwater supplies and reducing the reliance on imported water are prudent business decisions for GSWC and its customers in the Florence-Graham system, and are in line with the State of California Water Code.
- Description of Change: The project scope has changed, as a new drain line connection was required to complete well development. The total project cost estimate has increased, and the project schedule has also been delayed.
- Reason for the Change: The existing storm drain connection does not have sufficient capacity to accommodate the high flow rates required during well development. Therefore, a new storm drain connection was designed and permitted through the Los Angeles County Flood Control District. The additional design and permitting requirements have delayed the project schedule. The total project cost estimate was updated based on the lowest construction bid cost, which is significantly higher than the original estimate. The addition of the new storm drain connection has also increased the cost of the project and extended the project schedule into 2027.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: Construction is anticipated to begin by March 2026, with project completion expected in 2027, which is within the current GRC cycle.

40. Florence Graham, Replace Converse Well #1 at Hampshire – WO# 22811449

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new well to replace Converse Well #1 at the Hampshire plant site.
- Justification: Converse Well #1 was drilled in 1930 and is 92 years old. An engineering evaluation was performed in December 2020 by Wood Rodgers on Converse Well #1 and concluded that the well has reached the end of its useful service life.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
 - Reason for the Change: The original cost estimate omitted major construction items i.e. well drilling and chemical building. Additionally, recent cost estimates presented in the 2025 Preliminary Design Report prepared by Wood Rodgers exceeded the original budget estimates for equipping. Groundwater well projects are increasingly taking longer to complete due to various factors including, but not limited to: material and equipment lead times, permitting, construction easement issues, driller availability, electrical service installations, and project complexity. GSWC's recent experience is that it typically takes 3-5+ years to complete a well project given the various challenges and complexities. This timeline can be summarized by the following: well drilling design and permitting (6-12 months), well drilling bid and construction (8-10 months), well equipping design (6-8 months), and well equipping bid and construction (16-24

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

months). This timeline can increase especially if there are significant
permitting or property access issues.

- Current Status: Well drilling is nearly complete and well equipping will follow.
The project is expected to be completed in 2028.

41. Florence Graham Systemwide SCADA – WO# 22811451

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Florence Graham System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading to higher costs. For example, limitations of existing conduit, like size and runs, at some sites prevented their use and required new conduit to be installed. In some systems, sites required additional components, like an AC unit, to ensure components do not fail due to high temperatures. The efforts to review the SCADA submittals were also significantly higher than originally estimated, as each system varied from 15-75 submittals – based on the number of sites in the system. External resources were needed to assist in submittal review

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 efforts to ensure designs aligned to standards and functional requirements, as
2 internal resources could not keep up with the extent of review. Proper function
3 of components with minimal downtime and visibility of accurate data across
4 system plant sites is critical to water system operation.

- 5 • The project completion time has been delayed because this SCADA project
6 required more assessment and design time than originally anticipated given the
7 variation of conditions at each of the plant sites in the water system.
8 Additionally, the improvements at some sites are delayed due to ongoing
9 projects or operational constraints at the plant sites.
- 10 • Current Status: Design is complete. The project will start construction in 2026
11 and is anticipated to be completed in 2027, which is within the current GRC
12 cycle.

13
14 42. Miramonte Plant, Install Backup Generator – WO# 22811454

- 15 • This project was included in an all-party settlement agreement in the prior 2023
16 GRC.
- 17 • Project Description: Install a back-up generator at Miramonte Plant to power all
18 wells and other equipment.
- 19 • Justification: The installation of a permanent diesel generator is critical for
20 Miramonte Plant to supply water to customers, maintain water quality, and
21 system pressures in case of a power outage, natural disaster, or other
22 emergency.
- 23 • Description of Change: The project scope remains unchanged from the 2023
24 GRC, however, the total project cost estimate has increased, and the schedule
25 has changed.
- 26 • Reason for the Change: The total project cost estimate was updated based on
27 recent bids for similar back-up generator projects and has increased due to
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

higher line-item costs compared to the original estimates, as well as increased internal design and outside service costs. The project schedule has been revised to align with the drilling and equipping of the Miramonte New Well project. Installation of the permanent generator will occur after completion of the Miramonte New Well equipping to avoid concurrent contractor work within a constrained site area.

- Current Status: The project is currently in design phase and is anticipated to be completed in 2028.

43. CBW New CB-MWD Interconnection – WO# 22911153

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: The scope presented in the 2023 GRC was to construct a new Central Basin–Metropolitan Water District (CB-MWD) interconnection. This interconnection will improve the water delivery system reliability to GSWC customers by increasing the water supply to the Hollydale system and service area. The current water system has an inadequate water supply to meet maximum daily demand plus Fire Flow.
- Justification: The Hollydale system has an inadequate water supply of 2,385 gpm during maximum day demand plus fire flow as described in the Tetra Tech Hollydale System Water Supply Reliability Study (March 2020). A new interconnection with Central Basin Municipal Water District will mitigate the water supply shortage of the system and was the recommended supply option in the Tetra Tech Hollydale System Water Supply Reliability Study.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged

- Reason for the Change: The project was initially funded to complete only the design phase. Additional funds are required to allow the project to proceed with construction.
- Current Status: The project is currently in the design phase with MWD. Construction is anticipated to be completed in 2029.

44. Hollydale Systemwide SCADA – WO# 22911190

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Hollydale System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading to higher costs. For example, limitations of existing conduit, like size and runs, at some sites prevented their use and required new conduit to be installed. In

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 some systems, sites required additional components, like an AC unit, to ensure
2 components do not fail due to high temperatures. The efforts to review the
3 SCADA submittals were also significantly higher than originally estimated, as
4 each system varied from 15-75 submittals – based on the number of sites in
5 the system. External resources were needed to assist in submittal review
6 efforts to ensure designs aligned to standards and functional requirements, as
7 internal resources could not keep up with the extent of review. Proper function
8 of components with minimal downtime and visibility of accurate data across
9 system plant sites is critical to water system operation.

- 10 • The project completion time has been delayed because this SCADA project
11 required more assessment and design time than originally anticipated given the
12 variation of conditions at each of the plant sites in the water system.
13 Additionally, the improvements at some sites are delayed due to ongoing
14 projects or operational constraints at the plant sites.
- 15 • Current Status: Design is complete. The project will start construction in 2026
16 and is anticipated to be completed in 2027.

17
18 45. Well Replacement, Willowbrook Well – WO# 23011156

- 19 • This project was included in an all-party settlement agreement in the prior 2023
20 GRC.
- 21 • Project Description: The project consists of destroying Willowbrook Well No. 1
22 and drilling and equipping a replacement well at the Willowbrook Plant to serve
23 the Willowbrook System. The project also includes an electrical service
24 upgrade and construction of a new chemical building.
- 25 • Justification: Willowbrook Well No. 1 is almost 98 years old and at the end of its
26 useful life. The well has shown noticeable steady decline in specific capacity
27 since late 2011. The new well will be drilled at the existing well site and allow
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 the Willowbrook System to have a reliable supply of groundwater that will offset
2 purchased water needs for the Willowbrook System. Optimization of
3 groundwater supply will reduce GSWC's reliance on MWD water for the
4 Willowbrook System. Pumping and treating water from the groundwater basin
5 is more cost effective than purchasing water from MWD. And, although GSWC
6 uses purchased water to help meet system demands, GSWC is required to be
7 self-reliant during occurrences of planned and unplanned MWD outages or
8 shutdowns. According to MWD's Administrative Code, "Each member agency
9 shall have sufficient resources such as local reservoir storage, groundwater
10 production capacity, system interconnections or alternate supply source to
11 sustain a seven-day interruption in Metropolitan deliveries from raw and treated
12 water distribution facilities based on average annual demands of the affected
13 facility." MWD shutdowns are expected to occur more frequently due to an
14 increase in MWD maintenance projects intended to mitigate problems with an
15 aging infrastructure.

- 16 • Description of Change: The project scope remains unchanged from the 2023
17 GRC, however, total project cost estimate has increased, and the schedule has
18 changed.
- 19 • Reason for the Change: The total project cost estimate was updated based on
20 recent bids for similar well equipping projects, which is significantly higher than
21 the original estimate. The schedule has been extended due to longer-than-
22 anticipated design time, driven by limited space availability at the site and the
23 complexity of the site operations, including coordination with the existing well,
24 reservoir, and pump station.
- 25 • Current Status: The project is currently in the well equipping design phase, and
26 the construction is anticipated to be completed in 2028.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

46. Willowbrook Systemwide SCADA – WO# 23011191

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade of existing SCADA systems and SCADA system infrastructure for the Willowbrook System.
- Justification: A SCADA Assessment confirmed that SCADA hardware, software, and telemetry was obsolete and required upgrade and/or replacement. A robust SCADA system serves a critical role in safeguarding and maximizing efficiency in GSWC's water production, treatment, and distribution systems. A robust SCADA system will aid in reducing risk while improving resiliency and reliability of an essential service.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: The design and construction of SCADA improvements varied at each site and required more effort than originally anticipated, leading to higher costs. For example, limitations of existing conduit, like size and runs, at some sites prevented their use and required new conduit to be installed. In some systems, sites required additional components, like an AC unit, to ensure components do not fail due to high temperatures. The efforts to review the SCADA submittals were also significantly higher than originally estimated, as each system varied from 15-75 submittals – based on the number of sites in the system. External resources were needed to assist in submittal review efforts to ensure designs aligned to standards and functional requirements, as internal resources could not keep up with the extent of review. Proper function of components with minimal downtime and visibility of accurate data across system plant sites is critical to water system operation.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- The project completion time has been delayed because this SCADA project required more assessment and design time than originally anticipated given the variation of conditions at each of the plant sites in the water system. Additionally, the improvements at some sites are delayed due to ongoing projects or operational constraints at the plant sites.
- Current Status: Design is complete. The project will start construction in 2026 and is anticipated to be completed in 2027, which is within the current GRC cycle.

47. New WB23A MWD & GSWC PRV Vaults – WO# 23611831

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install new PRV vaults, associated piping, electrical equipment, communication equipment, and SCADA. The PRVs will have a total capacity of 15 CFS (6,000 gpm). The project also includes securing an agreement with West Basin/MWD for the new connection.
- Justification: The Culver City System has no groundwater wells and all its water is supplied by three Metropolitan Water District (MWD) West Basin Connections - WB-23, WB-24, and WB-34. There are no emergency connections in this system, so these three connections are the only possible sources of supply during regular operational conditions and emergency conditions. A significant supply deficiency in the system exists since all three connections are supplied by the same MWD feeder - the Culver City Feeder. During scheduled and unscheduled maintenance or shutdown of this MWD feeder, the Culver City System will not have any supply sources available. The system will have to rely entirely on available storage at the time. The Baldwin Hills Tanks are typically 50% full and the Perham and Sentney Tanks are

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 typically 75% full. Using these percentages for typical available water in the
2 tanks, the total maximum storage capacity of the system at any given time is
3 1.525 million gallons. This could result in customers being out of water for the
4 period of time it takes for the MWD feeder to be returned to service.

- 5 • Description of Change: The project scope remains largely consistent with what
6 was approved in the 2023 GRC, with the exception of added work to abandon
7 the existing WB-23 connection following completion of the new WB-23A
8 connection. The total project cost estimate has increased, and the schedule
9 has also changed.
- 10 • Reason for the Change: The total project cost has increased due to additional
11 construction requirements. The contractor performing GSWC's portion of the
12 work must return to the site to complete electrical panel installations because
13 the main electrical connection from Southern California Edison (SCE) was not
14 available at the completion of GSWC's work. The main SCE connection will be
15 constructed during construction of MWD's vault. In addition, the total project
16 cost estimate has increased due to the added scope required to abandon the
17 existing WB-23 connection, which is inoperable due to its deteriorated condition
18 following completion of the new WB-23A connection. The project schedule has
19 been extended due to a lengthy permitting process with the Culver City related
20 to MWD's portion of construction.
- 21 • Current Status: MWD is currently coordinating with Culver City to obtain the
22 required encroachment permit for its work. The project is anticipated to be
23 completed in 2029.

24
25 48. Washington Blvd. AMR – WO# 23611979

- 26 • This project was included in an all-party settlement agreement in the prior 2023
27 GRC.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: Replace 7,650 lineal feet of 4-inch and 8-inch cast iron with 8-inch and 12-inch PVC.
- Justification: Please see attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: The project was initially funded to complete only the design phase. Additional funds are required to allow the project to proceed with construction.
- Current Status: The project is currently in construction phase and anticipated to be completed in 2027, which is within the current GRC cycle.

49. New Emergency Interconnection – WO# 23612066

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Construct new emergency connection in main zone with LADWP or Santa Monica where source of supply is from wells and not MWD. Install approximately 700 linear feet of 12-inch main with 8-inch PRV and 6'x6' vault.
- Justification: Water supply to Culver City System is provided solely by MWD of Southern California. The Culver City System does not have any emergency

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

interconnections. Alternate source of supply from ground is needed in case of
MWD connects are out of service for their maintenance or natural disaster.

- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged
- Reason for the Change: The project was initially funded to complete only the design phase. Additional funds are required to allow the project to proceed with construction.
- Current Status: GSWC is currently coordinating with Los Angeles Department of Water and Power (LADWP) to determine the optimal location for the proposed connection. Construction of the project is anticipated to be completed in 2029.

50. Doty Plant, Replace Backwash Tank B – WO# 25032824

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Recoat exterior and perform safety/health/code modifications of Doty Backwash Tank B.
- Justification: The 0.04 MG bolted steel Backwash Tank B is one of two backwash tanks at the Doty Plant. As detailed in a seismic/structural/safety and corrosion inspection report, the tank is in need of safety and structural improvements and exterior recoating. Performing the reservoir improvements is

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 necessary to meet Cal/OSHA regulations and to prolong the service life of this
2 asset.

- 3 • Description of Change: The project scope has changed to replace the
4 backwash tank with a welded steel tank.
- 5 • Reason for the Change: After further analyses/on-site evaluation, the design
6 consultant has since determined that because the water in the backwash tank
7 includes removed particulates from the filter, the turbidity of the water in the
8 backwash tank from the removed particulates is gritty and more abrasive which
9 causes the interior of the tank to be a more severe environment than a typical
10 potable water tank. In addition, the chlorine used in the treatment process is
11 higher than in most potable water tanks. The frequent turnover of the water in
12 the tank and the higher chlorine levels also contribute to higher levels of
13 chlorine vapor above the waterline which creates a more corrosive environment
14 and accelerated corrosion on the roof and structural members. This severe
15 environment causes coating defects in the tank to deteriorate at a faster rate
16 and accelerates the corrosion of the steel substrate. Therefore, the tanks
17 should be replaced, rather than recoated.

18 Welded steel tanks and bolted steel tanks were considered as replacements.

19 The benefits of welded steel tanks, such as superior durability, corrosion
20 resistance, fire resistance and the liabilities of the bolted tanks such as the
21 thinner steel, numerous joints and gaskets, being more susceptible to
22 corrosion, metal loss, and leaking, especially at seams and around bolt holes
23 are even more pronounced in the backwash tank application. Therefore,
24 welded steel backwash tanks will provide a longer life expectancy and overall
25 cost benefit for GSWC than bolted steel backwash tanks. The project schedule
26 is delayed because multiple tank projects are concurrently being completed in
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

the Southwest System so this tank can't be taken offline for construction work until other tanks are placed back in-service.

- Current Status: A construction contract was awarded, and construction is anticipated to begin later in 2026 and be completed in 2027, which is within the current GRC cycle.

51. Southern Plant, Replace Backwash Tank – WO# 25032827

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Recoat exterior and perform safety/health/code modifications of Southern Well No. 5 Backwash Tank.
- Justification: The 0.04 MG bolted steel Backwash Tank is one of two backwash tanks at the Southern Plant; this tank is for backwash of Well #5 treatment. As detailed in a seismic/structural/safety and corrosion inspection report, the tank is in need of safety and structural improvements and exterior recoating. Performing the reservoir improvements is necessary to meet Cal/OSHA regulations and to prolong the service life of this asset.
- Description of Change: The project scope has changed to replace the backwash tank with a welded steel tank.
- Reason for the Change: After further analyses/on-site evaluation, the design consultant has since determined that because the water in the backwash tank includes removed particulates from the filter, the turbidity of the water in the backwash tank from the removed particulates is gritty and more abrasive which causes the interior of the tank to be a more severe environment than a typical potable water tank. In addition, the chlorine used in the treatment process is higher than in most potable water tanks. The frequent turnover of the water in the tank and the higher chlorine levels also contribute to higher levels of

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 chlorine vapor above the waterline which creates a more corrosive environment
2 and accelerated corrosion on the roof and structural members. This severe
3 environment causes coating defects in the tank to deteriorate at a faster rate
4 and accelerates the corrosion of the steel substrate. Therefore, the tanks
5 should be replaced, rather than recoated.

6 Welded steel tanks and bolted steel tanks were considered as replacements.
7 The benefits of welded steel tanks, such as superior durability, corrosion
8 resistance, fire resistance and the liabilities of the bolted tanks such as the
9 thinner steel, numerous joints and gaskets, being more susceptible to
10 corrosion, metal loss, and leaking, especially at seams and around bolt holes
11 are even more pronounced in the backwash tank application. Therefore,
12 welded steel backwash tanks will provide a longer life expectancy and overall
13 cost benefit for GSWC than bolted steel backwash tanks. The project schedule
14 is delayed because multiple tank projects are concurrently being completed in
15 the Southwest System so this tank can't be taken offline for construction work
16 until other tanks are placed back in-service.

- 17 • Current Status: A construction contract has been awarded, and construction is
18 anticipated to begin later in 2026 and be completed in 2027, which is within the
19 current GRC cycle.

20
21 52. Doty Plant, Expand Treatment Capacity – WO# 25032866

- 22 • This project was included in an all-party settlement agreement in the prior 2023
23 GRC.
- 24 • Project Description: Expand and install a treatment system at the Doty Plant to
25 accommodate production from the new Compton-Doty well. The project
26 includes construction of approximately 3,500 linear feet of transmission main to
27 transfer water from the Compton-Doty Plant to the Doty Plant for treatment.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: The Compton-Doty site lacks sufficient space to install additional treatment facilities needed for the increased well capacity. Therefore, water must be transferred to the Doty Plant, where adequate space is available for expanded treatment.
- Description of Change: The transmission main size was increased from 8-inch to 12-inch diameter, resulting in higher project costs.
- Reason for the Change: The larger pipeline was required to provide sufficient detention time to achieve breakpoint chlorination for ammonia removal prior to entering the new manganese (Mn) treatment system. Bids received for the transmission line were higher than originally estimated. The schedule of the treatment system is delayed because GSWC had to obtain the results from the recently drilled Compton-Doty Well prior to proceeding with design of this project.
- Current Status: The transmission main is currently in progress. The new treatment system is in the design phase and the project is anticipated to be completed in 2028.

53. Gardena Heights Plant, Upgrade Booster Station – WO# 25032870

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Demolish the existing Gardena Heights Plant Booster Station and replace it with two new horizontal centrifugal pumps equipped with VFD motors, new MCC/switchgear, PLC, upgraded SCE electrical service, and associated plant piping.
- Justification:
 - The Gardena Heights Plant includes a 1.5-million-gallon storage tank and two booster pumps (Boosters A and B). Both boosters are

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

approximately 58 years old and have reached the end of their useful service life. Replacement of both pumps and motors, along with new electrical equipment, is necessary.

- The existing pumps, MCCs, and associated electrical equipment have become increasingly unreliable and pose operational and safety risks.

Reconstructing the Gardena Heights Booster Station is necessary to improve safety and operating conditions at the plant and to maintain the integrity and reliability of the water supply within the Southwest CSA.

- Description of Change: The project scope remains unchanged from the 2023 GRC; however, the total project cost estimate has increased, and the project schedule has also been delayed.
- Reason for the Change: The total project cost has been updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, primarily for pumps and motors, plant piping, and electrical panels. Project schedule has been delayed due to the additional time required to conduct an asbestos survey for the removal of the existing asbestos cement pipe, the extended duration needed to complete SCE design work, and long lead times for electrical panels, pumps, and motors.
- Current Status: The project is currently in construction phase and anticipated to be completed in 2027, which is within the current GRC cycle.

54. Dalton Plant, Replace Well No. 1 – WO# 25032874

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new water supply well at the Dalton Plant to replace Dalton Well No. 1.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: Dalton Well #1 was drilled in 1948. The 74-year-old well has a capacity of 800 gpm. A 2022 report completed by Wood Rodgers on Dalton Well #1 concluded that the well has reached the end of its useful service life and well replacement is recommended.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Adding funds for construction.
- Current Status: Design is underway and the project is anticipated to be completed in 2029.

55. Van Wick AMR – WO# 25032875

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 17,250 linear feet of 4" and 6" CI with 8" and 12" PVC.
- Justification: Please see attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.

- Reason for the Change: The project was initially funded to complete only the design phase. Additional funds are required to allow the project to proceed with construction.
- Current Status: The project is currently in construction phase and anticipated to be completed in 2027, which is within the current GRC cycle.

56. Cherry Plant, Electrical Upgrades – WO# 26932261

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade all electrical equipment at Cherry Plant Site. Demolish and remove the existing electrical equipment. Install new electrical equipment and associated appurtenances.
- Justification: The Cherry Plant Site consists of a groundwater well with a capacity of 375 gpm, a manganese treatment system, and a backwash tank. The electrical equipment is over 30 years old and has reached the end of its useful life. The parts are old, obsolete, and difficult to find replacements for when they fail. Safety of the plant site and operators is a concern due to older MCC panels becoming more fragile and prone to failure. An internal condition assessment effort has concluded that electrical upgrades at the Cherry Plant Site are necessary to continue to safely and efficiently operate this critical supply source, and to continue to reliably meet customer demands in the West Orange System.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope has increased to include the demolition of the existing wooden building and the installation of a CMU block building.
- Reason for the Change: It was determined during the Cherry Plant Electrical Upgrade kickoff meeting that constructing the new electrical panel in front of the existing panel will restrict the usable footprint of the Cherry Plant Site. To address this issue, GSWC will demolish the existing wooden chemical building, which is in poor condition, and construct a new CMU building to house the new electrical panel and chemical storage. The new building will protect and extend the lifespan of the new electrical components from sun exposure and protect the UPS (battery backup) from overheating. Project costs have increased due to the aforementioned increase in project scope.
- Current Status: GSWC has received bids and is in the process of awarding the contract to the lowest responsive bidder. The expected completion date for this project is 2028.

57. Parkewood Transmission Main – WO# 26932212

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install approximately 6,100 linear feet of 12-inch main on Parkewood.
- Justification: Please see attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change:

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- The project scope largely remains unchanged from the 2023 GRC. However, the total project cost estimate has increased due to a design modification for the segment within the jurisdiction of the City of Seal Beach. The revised design proposes constructing the new crossing through the existing bridge deck.
- In addition, the project schedule has been delayed as a result of ongoing coordination and extended permitting discussions with the City of Seal Beach.
- Reason for the Change:
 - The revised bridge crossing design within the City of Seal Beach is required because the original proposed crossing over the existing flood control channel did not provide sufficient access width along the existing driveway to meet the requirements of the Orange County Flood Control District.
 - Permit delays have prevented construction of Phase 2 (Flood Control Channel Crossings). The permit will not be issued until a franchise agreement between GSWC and the City of Seal Beach is finalized.
- Current Status: GSWC is currently working to finalize the franchise agreement with the City of Seal Beach prior to issuance of the Phase 2 permit. Construction of Phase 2 is anticipated to commence in late 2027 and be completed in 2028.

58. Clair PLC Upgrade – WO# 26932259

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Upgrade the existing PLC with Modicon M340.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: The Clair Plant Site consists of one active groundwater well with a capacity of 2,500 gpm and one non-operational groundwater well. The current Momentum PLC at the site is obsolete and needs to be replaced. The Momentum PLC, manufactured by Schneider Electric, was discontinued in 2015, which makes it difficult to procure replacement parts for the existing PLC. The Modicon PLC is the current PLC utilized throughout GSWC. Unlike the existing Momentum PLC, Modicon M340 PLC is modular based PLC that allows GSWC to easily expand by adding individual modules. PLC upgrade at Clair Plant Site is necessary to continue to ensure reliable communication and control of this critical supply source, and to meet customer demands in the West Orange System.
- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: Project costs higher than originally estimated and additional funds for construction.
- Current Status: This project is on hold due to the installation of a PFAS IX Treatment system at the plant site. The expected completion date for this project is 2027, which is within the current GRC cycle.

59. Clearview Reservoirs & Pump Station – WO# 27431222

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replacement of the two existing partially buried concrete reservoirs (North Reservoir and South Reservoir) at the Clearview Plant with two new welded steel reservoirs.
- Justification: Clearview Plant has two concrete, 50 percent below grade reservoirs (North Reservoir and South Reservoir) with a combined capacity of

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

0.209 MG. The Potable Divers Inc. North Reservoir underwater inspection report conducted on November 14, 2014, stated "The roof has stress cracks present at each of the support columns. The columns also exhibit cracks horizontal and vertical." On February 13, 2017, Potable Divers Inc. provided interior inspection of the South Reservoir and discovered a hole in the Hypalon liner. The reservoirs also pose operational limitations due to their size and result in operational storage deficiency. Both reservoirs have exceeded their useful life. The North and South Reservoirs at the Clearview Plant should be replaced. The current reservoirs are undersized and have stress cracks and corrosion that create operational storage deficiencies and otherwise pose operational limitations

- Description of Change:

- During the design phase, it was determined that replacement of the existing pump station is no longer necessary to support future operational needs, and the pump station component was eliminated from the project scope.
- The project schedule has also been delayed, as construction cannot commence until completion of the Fox Run Plant, Booster Station Upgrades project in 2027.

- Reason for the Change:

- The pump station replacement was eliminated because the newly installed Ambervale pipeline and pressure-reducing valve (PRV), together with the Fox Run Plant, Booster Station Upgrades project, will provide a secondary feed and sufficient capacity to serve the Timberline Tank Zone.
- Because the Clearview Reservoirs serve as the primary supply for the Clearview Reservoir Zone, the facility cannot be taken fully offline until

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 the Fox Run Plant, Booster Station Upgrades project is completed and
2 operational. Once in service, the new PRV and Ambervale pipeline will
3 be able to supply the Clearview Reservoir Zone while the Clearview
4 Reservoirs are offline for replacement.

- 5 • Current Status: Design has been completed. Construction is anticipated to
6 commence in 2028 and be completed in 2029.

7
8 60. Fox Run Plant, Booster Station Upgrades – WO# 27431288

- 9 • This project was included in an all-party settlement agreement in the prior 2023
10 GRC.
- 11 • Project Description: Replacement of Fox Run Boosters A, B, and C, along with
12 associated electrical upgrades at the Fox Run Booster Pump Station.
- 13 • Justification: The Fox Run Plant site consists of four booster pumps with a total
14 capacity of 2,400 gpm and an EOCWD purchased water connection with a
15 capacity of 2,000 gpm. Recent (2021) pump test data indicates declining
16 overall efficiencies for the three boosters as follows: Booster A = 44.2%,
17 Booster B = 36.5%, and Booster C = 39%. These declining efficiencies
18 demonstrate the need to install new, more efficient booster pumps. In addition,
19 the existing electrical equipment is over 30 years old and has reached the end
20 of its useful life. The components are obsolete and worn, making replacement
21 parts difficult to obtain and subject to long lead times. A failure of the panels or
22 related equipment could result in extended outages and potential water supply
23 interruptions. Aging motor control center (MCC) panels also present increasing
24 safety risks to plant operators due to their fragility and higher likelihood of
25 failure. Replacement of the Fox Run booster pumps and electrical equipment
26 is therefore necessary to ensure the continued safe and reliable operation of
27 this critical supply facility and to meet customer demand.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

• Description of Change:

- During the design phase, it was determined that installation of a temporary booster station is required to maintain continuous service while the existing pump station is demolished and the new station is constructed.
- Additionally, installation of a pressure-reducing valve (PRV) connected to the newly installed Ambervale pipeline is proposed to provide a secondary source of supply from the Timberline Tank Zone and Clearview Reservoir Zone.
- The total project cost estimate was updated based on the lowest responsive bid and has increased.
- The project schedule has also been delayed.

• Reason for the Change:

- The Fox Run Booster Pump Station is a critical facility serving the Timberline Tank Zone and cannot be taken out of service for an extended period. To avoid long-term shutdown during construction, the project scope was modified to include temporary booster pumps to maintain continuous water supply.
- The addition of the PRV will provide operational flexibility by allowing a secondary source of supply from the Timberline Tank Zone to the Clearview Reservoir Zone during emergencies or when the Clearview Plant is taken offline for maintenance or upgrades.
- The schedule delay is attributable to:
 - Additional design time required to incorporate the temporary booster station and PRV.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Extended coordination with the homeowners association (HOA) regarding an easement expansion and evaluation of whether the existing easement area is sufficient for the new facilities.
- Coordination with Southern California Edison (SCE) regarding electrical service upgrades.
 - The total project estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates, increased labor cost and the additional scope of work described above.
- Current Status: GSWC has received bids and is in the process of awarding the contract to the lowest responsive bidder. Construction is anticipated to be completed in 2027, which is within the current GRC cycle.

61. Peacock Hill Driveway – WO#27431292

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Improve the driveway by reducing its grade; replace the existing chain link fence along the northwest property line with tube steel fencing; and enhance on-site landscaping and hardscaping improvements.
- Justification: The Peacock Hill Plant Site consists of a 2.0-MG reservoir and three booster pumps with a combined capacity of 3,600 gpm. In addition, the site serves as a staging and storage area for projects within the Cowan Heights system. The existing driveway is narrow and steep, making it difficult for large delivery vehicles to safely access the site. Trucks carrying heavy payloads have damaged the public right-of-way and, in some cases, have become stuck, requiring assistance from heavy equipment to exit. The Peacock Hill Plant is also the location of the EOCWD Peacock Hill Interconnection. This connection

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 is situated adjacent to the driveway. Improvements to the driveway,
2 landscaping, and hardscaping will help protect this critical infrastructure and
3 improve operational reliability and site safety.

- 4 • Description of Change: As described in the 2023 GRC filing and approved in
5 the all-party settlement agreement, the scope of this project was to complete
6 the project design during the 2023 GRC rate cycle, and complete the
7 installation during the 2026 GRC rate cycle. As a result, only design funds
8 were requested in the 2023 GRC. GSWC is now expediting the completion of
9 this project and additional funds are required to proceed with construction. The
10 scope of the project presented in the 2023 GRC remains unchanged.
- 11 • Reason for the Change: The project was initially funded to complete only the
12 design phase. Additional funds are required to allow the project to proceed
13 with construction.
- 14 • Current Status: The project is currently in the design phase, which is
15 anticipated to be completed in 2026. Construction is expected to be completed
16 in 2028.

17
18 62. Kimberwicke Plant, Relocate Booster Pump Station – WO# 27431295

- 19 • This project was included in an all-party settlement agreement in the prior 2023
20 GRC.
- 21 • Project Description: Upgrade and relocate the Kimberwicke Booster Pump
22 Station (BPS), including replacement of the booster pumps and associated
23 electrical equipment.
- 24 • Justification: The Kimberwicke Booster Station consist of two boosters with a
25 total capacity of 250 gpm. Kimberwicke Booster Station is the sole facility that
26 conveys water to the Kimberwicke Booster Zone which has 52 customers. The
27 existing electrical equipment is approximately 25 - 30 years old and has

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

reached the end of its useful life. Replacement parts are obsolete and difficult to procure. In the event of panel or equipment failure, long lead times for replacement components could result in extended water service interruptions to the entire zone. In addition, aging Motor Control Center (MCC) panels present operational and safety concerns. Older MCC equipment becomes increasingly fragile and prone to failure over time. The existing MCC panel is located within a landscaped area that has been allowed to overgrow. In the event of an electrical malfunction or fire, nearby vegetation and surrounding residential properties could be at risk of damage. Upgrading and relocating the booster station will improve system reliability, enhance operator safety, and reduce fire and service interruption risks.

- Description of Change:

- The proposed location of the Booster Pump Station differs from the location originally planned in the 2023 GRC. The relocation requires additional 400 linear feet of pipeline.
- The total project cost estimate was updated based on recent bids for similar booster pump station projects and has increased.
- The project delivery schedule has also been delayed.

- Reason for the Change:

- For safety reasons, the Booster Pump Station was redesigned to be located near the bottom of the hill rather than the originally proposed location. Placing the facility at the lower elevation improves line of sight for approaching drivers and reduces the risk of traffic-related incidents.
- The total project cost estimate has increased due to higher line-item costs compared to the original estimates, and the additional 400 linear feet of pipeline required for the revised location.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- The project schedule delay is due to the additional time required during the design phase to evaluate and confirm the optimal site location, as well as the added construction time necessary to install the additional pipeline.

- Current Status: The project is currently in design phase. Construction is anticipated to be completed in 2027, which is within the current GRC cycle.

63. Orangethorpe Relief Valve Relocate – WO# 27531579

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Relocate the existing 6-inch pressure relief valve from the middle of the Orange County Flood Control (OCFC) channel to the edge of the channel to improve safe access and maintenance conditions.
- Justification: The Placentia-Yorba Linda System consists of 10 pressure zones and relies on pressure relief valves to protect the system from over-pressurization. Relief valves are critical in maintaining the distribution system and providing potable water to GSWC customers. Currently, the Orangethorpe pressure relief valve is installed in the middle of the OCFC channel, which is approximately 18 feet high. There is a chain-link fence with green slats around the OCFC channel with a 2'x2' cut out for operators to work on the relief valve. To perform maintenance or replace the relief valve, GSWC Operators must lean over the OCFC channel, which puts the GSWC Operators at risk of injuring themselves. Moving the relief valve to the edge of the OCFC channel would not impact system operations, but will allow for easier access and reduce the risk of injury when working on the relief valve.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope remains unchanged from the 2023 GRC. However, the total project cost estimate has increased, and the project schedule has been delayed.
- Reason for the Change: The total project cost estimate was updated based on the low bid and has increased due to higher bid item costs compared to the original estimates and the increased labor cost. The project schedule has been delayed due to the anticipated length of the permitting process with the Orange County Flood Control District.
- Current Status: GSWC has received bids and is in the process of awarding the contract to the lowest responsive bidder. Construction is anticipated to be completed in 2027, which is within the current GRC cycle.

64. Bradford Well No. 4 Pump and Motor Upgrades – WO# 27531688

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: The upgrade of the existing pump and motor was originally proposed as part of the Bradford Well #4 Discharge Transmission Main Project.
- Justification: This project is necessary to loop the system and address hydraulic deficiencies within the Placentia system. The Placentia system consists of two primary pressure zones: the North Zone and the South Zone. The North Zone represents approximately 67% of total system demand, while the South Zone represents approximately 21% of total demand. The project will allow Bradford Well #4 to bypass the Chapman Booster Station and discharge directly into the North Zone. This configuration will improve groundwater utilization, enhance hydraulic performance, and reduce overall operating costs. The new transmission pipeline improves system hydraulics,

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

increases operational flexibility, provides more reliable service to customers,
and addresses the identified hydraulic deficiencies.

- Description of Change: During the design phase of the pump & motor upgrades for Bradford Well #4, following findings/issues were identified and changes were required as indicated below:

- IX Treatment System Protection: The Bradford Well #4 ion exchange (IX) treatment system was constructed and placed into service in June 2023. It was determined that chlorine introduced into the well water during startup via the water lube line adversely impacts the IX media. To protect the IX media from chlorine exposure and maintain treatment effectiveness, an automated pump-to-waste valve is required at Bradford Well #4.
- Pump Base Upgrade: The existing pump base is approximately 10 inches tall, cracked, and does not meet current DDW standards, which require a minimum height of 18 inches above grade. In addition, the existing foundation does not provide adequate surface area to accommodate the down-thrust of the new 200-horsepower motor. The pump base will therefore be reconstructed to meet current standards and structural requirements.
- MCC Upgrade: The existing Motor Control Center (MCC) panels do not have sufficient capacity to power the new 200-hp motor. Following field review, it was determined that the most efficient solution is to remove the abandoned Bradford Well #3 MCC section and construct a new MCC section in the same location capable of housing the required equipment. Additionally, the existing MCC cabinet has reached the end of its useful life. Water intrusion into the cabinet has been observed. Replacing the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

MCC will allow the equipment pad to be raised and eliminate the safety hazard associated with water entering an electrical cabinet.

- Discharge Piping Modifications: Raising the pump base and installing the new pump-to-waste valve assembly requires modifications to the existing discharge piping. The discharge piping will be raised to match the new pump discharge elevation and extended horizontally to provide proper upstream and downstream straight pipe lengths for the flow meter.
- The total project cost estimate was updated based on the lowest responsive bid and has increased.
- The project schedule has also been delayed
- Reason for the Change:
 - The automated pump-to-waste valve is required to protect the IX media from chlorine exposure and to ensure compliance with current GSWC treatment system design standards.
 - The new pump base is required because the existing base is structurally deficient, undersized for the new 200-hp motor, and does not meet DDW elevation standards.
 - The MCC replacement is required due to insufficient electrical capacity, end-of-life condition, and existing water intrusion, which presents a safety hazard.
 - Discharge piping modifications are required to accommodate the raised pump discharge and to meet proper hydraulic and flow meter installation standards.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- The increase in the total project estimate is attributable to higher bid item costs compared to the original estimates, and the expanded scope identified during design.
- The project schedule delay is due to the additional time required to complete the design revisions and incorporate the added construction scope.
- Current Status: The transmission pipeline portion (Phase 1) was completed. The Phase 2 of this project (upgrades at Bradford Well #4 Plant Site) is currently in submittal review phase. Construction is expected to commence in late September 2026 and is anticipated to be completed in 2027, which is within the current GRC cycle.

65. Farna Plant, Install Genset & Production Meter – WO# 33210626

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install a permanent generator at Farna Plant Site and remove the gas engine connected to Farna Well No. 1. Install a production meter at the Farna Plant Site to track the amount of water pumped.
- Justification: The Farna Plant Site consists of two groundwater wells with a total capacity of 1,700 gpm, one 1.0 MG reservoir, and four booster pumps with a total capacity of 3,200 gpm. The Farna Plant Site is critical to the South Arcadia System since it acts as both a supply and storage source. A permanent generator is needed to allow the Farna Plant Site to continue to operate during emergency events. The existing emergency interconnection can only supply approximately 3,500 gpm and is not guaranteed source of supply in a larger emergency situation. During an emergency where electrical service to the site may cease, a backup generator would allow the wells and BPS to remain

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 online to provide service to the South Arcadia System. While GSWC does have
2 a few portable emergency generators, the nearest one is located in the
3 Claremont System and would require significant time to transport and connect
4 and may not even be available depending on the geographic extent of the
5 power outage. Permanent generators with an automatic transfer switch are
6 preferred over portable generators; the response time in an emergency is
7 longer for portable generators, due to the need to transport the generator and
8 connect it to the necessary plant site, and after the portable generator is
9 connected and powering the plant site, the plant site may need to 'catch-up' to
10 supply the system, boost pressures, or refill a storage tank. The installation of
11 the production meter at this plant site will allow data viewing and logging of all
12 well and booster station production. Having this additional data available, both
13 real-time and in historical storage, will greatly enhance the operational
14 assessment of the system, allowing operations to make more informed, data-
15 driven decisions. In August 2022, Governor Newsom released California's
16 Water Supply Strategy, which outlined actions to adapt to the negative
17 consequences of climate change and protect water supplies. As outlined in the
18 Water Supply Strategy, California is expected to become hotter and drier due to
19 climate change. In general, less water supply is expected to be available due to
20 less snowfall, more evaporation, and greater consumption of water by
21 vegetation, soil, and the atmosphere. The installation of a production meter at
22 the Farna Plant Site reflects the fourth strategy outlined in California's Water
23 Supply Strategy to improve data collection. Improving the water usage data will
24 aid GSWC in water supply planning. During September of 2022, California
25 experienced a historically long and record-breaking heat wave. A statewide
26 emergency was declared by the Governor of California. Through the California
27 ISO a statewide flex alert was issued to request Californians to conserve

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

electricity due to the strain on the electrical grid to the unexpected heat wave. GSWC operated its generators to load shed and reduce the strain on the electrical grid in the South Arcadia System. Installing generators at key supply and pumping facilities will increase the reliability of the South Arcadia System to meet customer demands and increase the resilience of the South Arcadia System to the negative consequences of climate change

- Description of Change: The project scope remains unchanged from the 2023 GRC; however, project costs have increased.
- Reason for the Change: Project costs higher than originally estimated and additional funds for construction.
- Current Status: The project's design is nearly complete, and construction is anticipated to be completed in 2027, which is within the current GRC cycle.

66. Montana Lane Plant, Montana Well 1 – WO# 31731633

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new well to replace Miramar Well #5 at the Montana Lane Plant site.
- Justification: Miramar Well #5 has a rated capacity of 250 gpm and was drilled in 1934, making it 88 years old. A well assessment was performed in April 2020 by Wood Rodgers on Miramar Well #5 and concluded that the well has reached the end of its useful service life.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
 - Reason for the Change: Bids received came in higher than originally estimated for drilling and recent cost estimates presented in the 2025 Preliminary Design Report prepared by Wood Rodgers exceeded the

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

original budget estimates for equipping. Groundwater well projects are increasingly taking longer to complete due to various factors including, but not limited to: material and equipment lead times, permitting, construction easement issues, driller availability, electrical service installations, and project complexity. GSWC's recent experience is that it typically takes 3-5+ years to complete a well project given the various challenges and complexities. This timeline can be summarized by the following: well drilling design and permitting (6-12 months), well drilling bid and construction (8-10 months), well equipping design (6-8 months), and well equipping bid and construction (16-24 months). This timeline can increase especially if there are significant permitting or property access issues.

- Current Status: Well drilling is nearly complete and well equipping will follow. The project is expected to be completed in 2028.

67. Wayhill Plant, Replace East & West – WO# 32631718

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Construct two new 0.5 MG welded steel reservoirs to replace the existing two East & West 0.5 MG concrete reservoirs.
- Justification: An inspection report prepared by Harper & Associates Engineering Inc. in September 2019 identified that significant improvements, including full height perimeter concrete wall and foundation retrofit, would be necessary to maintain the structural integrity of the existing concrete reservoirs. The cost of rehabilitation and structural modifications to an existing concrete reservoir is estimated to cost the equivalent of a new 0.5 MG welded steel reservoir.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: Bids received came in higher than originally estimated, including several items not explicitly listed in the original estimate but relevant to the overall scope and project objective. An example of the variance between the preliminary cost estimate and the actual bid price received is the largest scope of work item, the two 0.5 million-gallon steel reservoirs. The cost estimate was \$1.75M, and the bid price was \$2.58M. An example of a bid item that was not explicitly identified in the preliminary cost estimate is the solar-powered electrical service and SCADA control panel. The bid price for this item was \$308,700. We requested bids from 14 contractors and received two competitive bids that were less than 8% different.
- Current Status: The project is currently in progress and both tanks are anticipated to be placed in-service late 2026. The project will be closed in 2027, which is within the current GRC cycle.

68. Highway Plant Treatment – WO# 32631713

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace the existing centralized nitrate treatment at the Highway Plant, which treats the Highway Plant wells and off-site wells.
- Justification: The Highway wellfield includes Artesia Well No.3, Highway Wells No.1 and No.2 and Baseline Well No.3 and No.4 which are now replaced by Baseline Wells No.5 and No.6. The existing Highway nitrate treatment system was permitted in 2005. In 2019, the Highway nitrate treatment system was inspected by a third-party engineering consultant. The consultant concluded

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 that it has reached the end of its useful service life and recommended it to be
2 replaced entirely.

- 3 • Description of Change: In April 2024, the United States Environmental
4 Protection Agency (USEPA) promulgated the final PFAS rule, which mandates
5 Maximum Contaminant Levels (MCLs) for PFOA, PFOS, and other PFAS
6 constituents. Compliance is determined based on the quarterly running annual
7 average and water systems must comply with the MCLs by April 2029. The
8 wells in the Highway wellfield were sampled as part of initial monitoring. Artesia
9 Well No.3, Highway Well No.1 and Highway Well No.2 have quarterly running
10 annual averages for PFOA and PFOS exceeding or above 80% of the MCL.
11 Because of the PFOA and PFAS findings, the Highway nitrate treatment
12 replacement project was delayed allowing further evaluation of centralized
13 treatment to address multiple contaminants (PFAS, perchlorate and nitrate) for
14 impacted wells at Highway wellfield.

15 Baseline Wells No.5 and No.6 are “at-risk” assets. Both wells have elevated
16 nitrate levels but have not yet detected PFAS or perchlorate above the MCL.
17 However, both nitrate and perchlorate have historically been found at elevated
18 levels, near or above the respective MCLs, at the GSWC’s active and inactive
19 wells in the area. Given the proximity of Baseline Wells No. 5 and No.6 to those
20 wells and the known presence of perchlorate, nitrate and PFAS in the basin,
21 this is an extremely high likelihood for these contaminants to impact Baseline
22 Wells No.5 and No.6.

23 GSWC engaged a third-party engineering consultant in 2024 to conduct
24 treatment evaluation and provided the basis of design for this project. The
25 consultant recommended a centralized treatment facility for the Highway
26 wellfield to provide a comprehensive, cost-effective solution for multiple
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 contaminants: PFAS, perchlorate and nitrate. The centralized solution
2 represents the most cost-effective and operationally resilient strategy for
3 meeting current and future regulatory requirements. The construction of a
4 centralized treatment facility for Highway wellfield is a prudent investment that
5 protects ratepayers from the volatility of future water quality changes. It ensures
6 the continued viability of these groundwater assets and the delivery of water
7 that meets all state and federal health standards at the lowest long-term cost.
8 Additionally, the electrical motor control center (MCC) for the booster pump
9 station is approximately 25 years old and has reached the end of its useful life.
10 Many components are obsolete and difficult to replace, and aging MCC panels
11 present increased safety and reliability concerns. Upgrades are needed to
12 ensure safe operation and to reliably meet customer demands in the San
13 Dimas System, especially with the addition of the new centralized treatment at
14 the Highway Plant.

- 15 • Current Status: Project is in the design phase and completion is anticipated for
16 2029.

17
18 69. South Arcadia Systemwide SCADA – WO# 33210555

- 19 • This project was included in an all-party settlement agreement in the prior 2023
20 GRC.
- 21 • Project Description: Upgrade of existing SCADA systems and SCADA system
22 infrastructure for the South Arcadia System.
- 23 • Justification: A SCADA Assessment confirmed that SCADA hardware,
24 software, and telemetry was obsolete and required upgrade and/or
25 replacement. A robust SCADA system serves a critical role in safeguarding and
26 maximizing efficiency in GSWC's water production, treatment, and distribution
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 systems. A robust SCADA system will aid in reducing risk while improving
2 resiliency and reliability of an essential service.

- 3 • Description of Change: The project scope remains unchanged from the 2023
4 GRC; however, project costs have increased.
- 5 • Reason for the Change: The design and construction of SCADA improvements
6 varied at each site and required more effort than originally anticipated, leading
7 to higher costs. For example, limitations of existing conduit, like size and runs,
8 at some sites prevented their use and required new conduit to be installed. In
9 some systems, sites required additional components, like an AC unit, to ensure
10 components do not fail due to high temperatures. The efforts to review the
11 SCADA submittals were also significantly higher than originally estimated, as
12 each system varied from 15-75 submittals – based on the number of sites in
13 the system. External resources were needed to assist in submittal review
14 efforts to ensure designs aligned to standards and functional requirements, as
15 internal resources could not keep up with the extent of review. Proper function
16 of components with minimal downtime and visibility of accurate data across
17 system plant sites is critical to water system operation.
- 18 • The project completion time has been delayed because this SCADA project
19 required more assessment and design time than originally anticipated given the
20 variation of conditions at each of the plant sites in the water system.
21 Additionally, the improvements at some sites are delayed due to ongoing
22 projects or operational constraints at the plant sites.
- 23 • Current Status: Design is complete. The project will start construction in 2026
24 and is anticipated to be completed in 2027, which is within the current GRC
25 cycle.

26
27 70. Glen Rd Plant, Glen Road Well 2 Electrical Upgrades – WO# 34731545

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- 1 • This project was included in an all-party settlement agreement in the prior 2023
2 GRC.
- 3 • Project Description: Upgrade all electrical equipment at Glen Road Well 2.
4 Demolish and remove the existing electrical equipment. Install new electrical
5 equipment and associated appurtenances. Construct an outdoor enclosure for
6 the MCC.
- 7 • Justification: The Glen Road Plant Site consists of two groundwater wells. Glen
8 Road Well 1 has a capacity of 1,800 gpm, and Glen Road Well 2 has a
9 capacity of 1,200 gpm. At Glen Road Well 2, the electrical equipment is over 30
10 years old and has reached the end of its useful life. The parts are old, obsolete,
11 and difficult to find replacements for when they fail. The electrical equipment
12 has no enclosure and is directly exposed to the desert climate. Direct exposure
13 to the harsh elements has caused issues with the deterioration of the
14 equipment over time and presents a safety hazard. It is not safe to work on the
15 controls live to troubleshoot due to the direct exposure of various electrical
16 components, such as the 480-voltage transformer. Maintenance is challenging
17 to perform since the electrical components are difficult to access due to the
18 congestion and wires not clearly marked. Various components show signs of
19 deterioration, such as heat-stressed wires. Electrical upgrades at Glen Road
20 Well 2 are necessary to continue to safely and efficiently operate this critical
21 supply source, and to continue to reliably meet customer demands in the
22 Barstow System.
- 23 • Description of Change: The project scope remains unchanged from the 2023
24 GRC; however, project costs have increased.
- 25 • Reason for Change: Project costs higher than originally estimated.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The project is currently waiting for the long lead materials and equipment before the start of construction which is anticipated to be completed in 2027, which is within the current GRC cycle.

71. Barstow System, Install Back-up Generators – WO# 34731657

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install 3 permanent generators with automatic transfer switches at critical facilities in the Barstow System. The first proposed generator will power both the existing IX treatment system and Bradshaw Well 10, which share an MCC. The second proposed generator will power both Bradshaw Well 1 and Bradshaw Well 2, which share an MCC. The third proposed generator will power Glen Road Well 1. This project is considered “Phase 1” of a multi-phase project. The following phases, to be scheduled in future GRC timeframes, would install additional permanent generators at the remaining critical plant sites in the Barstow System.
- Justification: Permanent generators with automatic transfer switches aid water utilities in meeting customer demands, maintaining water quality, and maintaining system pressures during power outages. The emergency storage component is typically designed for a 12-hour duration. The Barstow System has experienced power outages that have lasted more than 12 hours. Installing generators at key supply and pumping facilities will increase the resiliency of the Barstow System to these extended power outage events. Permanent generators with an automatic transfer switch are preferred over portable generators; the response time in an emergency is longer for portable generators, due to the need to transport the generator and connect it to the necessary plant site, and after the portable generator is connected and

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 powering the plant site, the plant site may need to catch-up to supply the
2 system, boost pressure, or refill a storage tank. In addition, generators have
3 aided the Barstow System in load shedding during heat waves. During
4 September of 2022, California experienced a historically long and record-
5 breaking heat wave. A statewide emergency was declared by the Governor of
6 California. Through the California ISO a statewide flex alert was issued to
7 request Californians to conserve electricity due to strain on the electrical grid
8 due to the unprecedented heat wave. GSWC operated its generators to load
9 shed and reduce the strain on the electrical grid in the Barstow System.
10 Installing generators at key supply and pumping facilities will increase the
11 reliability of the Barstow System to meet customer demand and increase the
12 resiliency of the Barstow System to the negative consequences of climate
13 change.

- 14 • Description of Change: The project scope and facilities to be served have
15 changed from the 2023 GRC. The facilities proposed in the 2023 GRC: were to
16 install 3 permanent generators to power the Ion Exchange Treatment System
17 and Bradshaw Well No. 10, Bradshaw Wells Nos.1/2, and Glen Road Well 1.
18 The new facilities proposed: one generator to power Bradshaw Wells No. 11
19 and No. 12, the second generator to power Bradshaw Wells No. 10 and No. 14,
20 and the third generator will power both Glen Road Wells No. 1 and No. 2.
- 21 • Reason for the Change: Project costs higher than originally estimated and have
22 increased due to the aforementioned scope change.
- 23 • Current Status: This project is in design and is anticipated to start construction
24 in 2026 and to be completed in 2027, which is within the current GRC cycle.

25
26 72. Noffsinger Rd Transmission Main – WO# 35231141
27
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install 5,600 feet of 12-inch PVC main.
- Justification: This pipeline installation is necessary in order to loop the system and address hydraulic deficiencies. The new pipeline will improve the hydraulics of the system and provide more reliable service to GSWC customers.
- Description of Change: The project scope remains unchanged; however, project costs have increased, and the project schedule has been delayed.
- Reason for the Change: The project schedule is delayed because one of the three easements required for this project was not obtained due to the property owner not being willing to provide an easement, impacting the overall construction schedule. As a result of the delay, project costs are anticipated to be higher than originally estimated, as reflected in the updated cost estimate generated using current unit pricing.
- Current Status: GSWC is currently exploring alternative alignments and easement acquisitions. Construction is anticipated to be completed in 2029.

73. Niland Primary Feeder Replacement Project - WO# 35231211

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace approximately 1,900 linear feet of 12-inch asbestos-cement (AC) pipe (40–68 years old) from Wilkin Road to Niland Avenue within the Calipatria–Niland Water Distribution System, including the two Union Pacific Railroad (UPRR) crossings where the pipeline is installed within 22-inch steel casings with concrete-capped ends.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The project scope remains unchanged; however, project costs have increased, and the project schedule has been delayed.
- Reason for the Change: The pipeline replacement project required additional assessment and design time to ensure service continuity and minimize operational disruptions, as it involved taking offline the only water transmission main serving GSWC's Niland Water System. As a result, the project schedule was impacted, and costs are anticipated to be higher than originally estimated, as reflected in the updated cost estimate generated using current unit pricing.
- Current Status: The project design is complete, and we are commencing the permitting phase. Construction is anticipated to be completed in 2028.

74. Navajo Booster Station – WO# 35831034

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Construct a new pump building at the Navajo Plant; install a 1,000-gpm pump; reconstruct the two existing pumps within the new building; replace the hydropneumatic tank; install a new Motor Control Center (MCC); upgrade the electrical service and plant piping; add a stationary generator; and construct a new SCADA control panel.
- Justification: The Navajo Booster Station serves as the sole source of potable water for the Navajo Booster Zone within the Morongo Del Norte System. A recent supply and capacity analysis identified a deficit under the Maximum Day Demand plus Fire Flow (MDD+FF) condition. To resolve this issue, a 1,000 gpm booster pump will be installed at the Navajo Plant to ensure adequate fire

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 flow and system capacity for the Navajo Booster Zone. The existing suction
2 and distribution piping at the plant will need to be upsized to support the new
3 booster pump and efficiently convey water throughout the zone. The site's
4 electrical service will also be upgraded, including installation of a new SCADA
5 control panel to enable remote monitoring and automated controls,
6 replacement of the leaking hydropneumatic tank (installed in the 1980s), and
7 reconstruction of the two existing small pumps within the new building. This
8 new structure will reduce noise impacts on nearby properties and protect
9 equipment from the extreme temperature conditions common in Morongo
10 Valley.

- 11 • Description of Change: The project scope remains the same; however, project
12 costs have increased, and the project schedule has been delayed.
- 13 • Reason for the Change: The project schedule has experienced delays due to
14 the requirement for further assessment and design time. The existing electrical
15 infrastructure was unable to meet the demands of the larger pumping
16 equipment, leading to additional efforts and time to gather necessary
17 information from the electrical service provider and suppliers on how to resolve
18 this issue. Furthermore, longer lead times for materials and equipment (e.g.,
19 MCC, switchboards, pumping equipment, etc.), with some items taking
20 approximately one year after shop drawing approval, are also contributing to
21 the extended project schedule. The project costs increased based on the bids
22 received for construction. The updated construction estimate reflects the lowest
23 construction bid, which is higher than the original estimates.
- 24 • Current Status: The project is currently in progress and is anticipated to be
25 completed in 2028.

26
27 75. Navajo Tank Zone Looping – WO# 35831053

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Replace the existing 2-inch diameter steel pipe, which is 72 years old, with approximately 670 linear feet of new 8-inch diameter PVC pipeline along Cheyenne Trail within the Navajo Tank Zone.
- Justification: Please see the attached supporting testimony that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The project scope remains unchanged; however, project costs have increased.
- Reason for the Change: The project schedule has been delayed because not all required easements have been obtained, which has impacted the design schedule. This delay is due to pending responses from property owners regarding the necessary utility easements. Additionally, the revised construction estimate exceeds the initial estimate, due to higher estimated administrative costs than the previous budget estimated for the administrative costs associated with conducting conference calls with property owners, developing various conceptual pipeline alignments, and sending letters of interest for the easements.
- Current Status: Easement solicitation is underway to obtain permission from property owners to construct the project and anticipated to be completed by 2029.

76. Pinon Plant, Noise Reduction & Electrical Upgrades – WO# 35931130

- This project was included in an all-party settlement agreement in the prior 2023 GRC.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: Upgrade all electrical equipment at the Pinon Plant Site. Demolish and remove the existing electrical equipment. Install new electrical equipment and associated appurtenances. Construct an outdoor enclosure for the MCC and install security lighting. Install noise attenuation material to reduce the noise from the booster pumps.
- Justification: The Pinon Plant Site consists of one 0.022 MG reservoir and two booster pumps with a total capacity of 60 gpm. At the Pinon Plant Site, the electrical equipment is over 30 years old and has reached the end of its useful life. The parts are old, obsolete, and difficult to find replacements for when they fail. The electrical equipment is on wooden backboards, has no enclosure, and is directly exposed to the desert climate. Direct exposure to the harsh elements has caused issues with the deterioration of the equipment over time and presents a safety hazard. GSWC has received noise complaints regarding the booster pumps at the Pinon Plant Site. Noise attenuation material is necessary to reduce the sounds from the booster pumps. Electrical upgrades to the Pinon Plant Site are necessary to continue to safely and efficiently operate this critical supply source, and to continue to reliably meet customer demands in the Morongo Del Sur System.
- Description of Change: During the design/field check phase of the project, it was determined that the noise attenuation fencing originally proposed is inadequate for addressing the noise from the booster. A full noise attenuation enclosure is recommended to mitigate the noise.
- Reason for Change: Project costs have increased due primarily to the aforementioned change in project scope.
- Current Status: The project is currently in progress while waiting for the long lead materials and equipment. It is anticipated to be completed in 2026 but most likely

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

will be extended to 2027, which is within the current GRC cycle, due to the long lead materials and equipment delivery delay.

77. Apple Valley South SCADA Ph. III – WO# 36400253

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install a SCADA system including hardware, software, and programming at Anoka Plant located in the Apple Valley South System. The typical equipment to be installed at each plant site will be a SCADA cabinet, a programmable logic controller (PLC), a human-machine interface (HMI), an Ethernet radio, an antenna, devices for remote monitoring (e.g., pressure switches, pressure/level transmitters) as well as conduits and conductors.
- Justification: Apple Valley South System currently has no centralized control and monitoring system. The lack of such a system causes the following problems:
 - GSWC employees must make frequent trips to all plants to check their condition.
 - System failures may not be discovered until a customer reports it.
 - There is no control system in place to optimize system efficiency.

Installing SCADA will have the following benefits:

- Telemetry Enhancement – Replace existing telephone circuits with radio/cellular telemetry to improve reliability.
- System Monitoring – Continuously monitor tank water levels, pump on-off status, and production rates. This will improve system reliability by alerting the operator to problems and will provide more detailed information regarding system demands.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Centralized Control System – Coordinate the operation of all pumping plants to minimize operating costs.

Installing a SCADA system for the Apple Valley South System is both in line with GSWC's vision of having a company-wide SCADA system and with the PUC's objectives set forth within the PUC's 2010 Water Action Plan to maintain the highest standards of water quality and to promote water infrastructure investment. The SCADA system will allow GSWC personnel the ability to monitor the real-time operation of the entire system from a remote location. GSWC's ultimate goal is to link all of the SCADA systems together which will give GSWC the ability to remotely monitor all systems and make needed system changes on a regional basis which is a powerful tool to ensure system performance, reliability and enhance GSWC's ability to respond during emergencies such as earthquakes and fires. The company-wide SCADA system will also provide a means for centralizing information making it possible for GSWC operations and engineers to evaluate current operating conditions and to determine an optimization plan which will result in reduced power usage and increased efficiency, effectively reducing our carbon footprint.

- Description of Change: The project scope remains the same; however, project costs have increased, and the project schedule has been delayed.
- Reason for the Change: This SCADA enhancement project is being performed concurrently with other SCADA projects within the Apple Valley North, Apple Valley South, Lucerne Valley, and Desert View System. Due to the varying conditions at each plant site across these systems, the project has required additional assessment and design time beyond what was originally anticipated. Furthermore, material and equipment lead times have further impacted the construction schedule, as the fabrication process for the PLC control panels for certain sites is taking approximately 15 months following approval of the shop

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

drawings. The updated project cost estimate accounts for the expenses incurred in developing the design and the bids received for construction and programming, which exceeds the original estimates.

- Current Status: The project is in progress and construction is anticipated to be completed in 2027, which is within the current GRC cycle.

78. Del Oro Road to Sequoia Street Area Main – WO# 36400370

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install 4,900 feet of 8-inch PVC pipeline in the Mohawk Zone to replace the existing 4-inch-diameter pipe of unknown material, likely installed prior to 1980, and upsize a portion of the dead-end main between Del Oro Road and Bear Valley Road, thereby improving system hydraulics and enhancing service reliability for GSWC customers in the Town of Apple Valley.
- Justification: Please see the attached supporting testimony (Attachment E) that was included in the 2023 GRC as Attachment E (Pipeline Management Program), this provides the justification for this, and other pipeline projects included in this testimony.
- Description of Change: The project scope remains unchanged; however, project costs have increased, and the project schedule has been delayed.
- Reason for the Change: The project schedule is delayed because several easements required for this project have not yet been obtained, impacting the overall construction schedule. As a result of the delay, project costs are anticipated to be higher than originally estimated, as reflected in the updated cost estimate generated using current unit pricing.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The project design is substantially complete, and the required construction easements are being secured. Construction will commence following easement acquisition and is anticipated to be completed in 2029.

79. Desert View Tank – WO# 36500092

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To construct a 0.15 MG welded steel water storage tank, site improvements, and a pipeline to provide storage to the Desert View System.
- Justification: The Desert View System is currently served by two wells with a firm capacity of 85 gpm and has no water storage. The 2022 Desert View Master Plan (Section 5, Tables 5-8 and 5-9) found that existing facilities cannot meet operational, fire, and emergency demands and identified a storage deficiency of 0.14 MG. The land acquisition, and construction for the proposed reservoir and pipeline was included in the 2020 and 2023 GRC settlement agreement, respectively.
- Description of Change: The project scope remains the same; however, project costs have increased.
- Reason for the Change: Project costs higher than originally estimated and have also increased due to more extensive grading, piping, and permitting than originally anticipated. The project schedule has been significantly delayed due to extensive permitting requirements, including CEQA and an Incidental Take Permit (ITP).
- Current Status: The design is complete, and the CEQA application has been filed, which will be followed by the Western Joshua Incidental Take Permit.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Construction will commence following permit approval and is anticipated to be completed in 2027, which is within the current GRC cycle.

80. Apple Valley North SCADA (R3 2022) – WO# 36600278

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install/upgrade the SCADA system including hardware, software, programming, and integration work at the Valley Crest Plant, and Waalew Plant located in the Apple Valley North System. The scope of work includes upgrading hardware, software, instrumentation controls, and integration.
- Justification: The Apple Valley North System is currently run with outdated Supervisory Control and Data Acquisition (SCADA) hardware and unsupported software, and not all plant sites are equipped with SCADA. To provide more reliability, run the system more efficiently, and obtain technical support, the SCADA system must be fully completed - in accordance with GSWC SCADA standards - and to the latest version of Wonderware software.
- Description of Change: The project scope remains the same; however project costs have increased, and the project schedule has been delayed.
- Reason for the Change: This SCADA enhancement project is being performed concurrently with other SCADA projects within the Apple Valley North, Apple Valley South, Lucerne Valley, and Desert View System. Due to the varying conditions at each plant site across these systems, the project has required additional assessment and design time beyond what was originally anticipated. Furthermore, material and equipment lead times have further impacted the construction schedule, as the fabrication process for the PLC control panels for certain sites is taking approximately 15 months following approval of the shop

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

drawings. The updated project cost estimate accounts for the expenses incurred in developing the design and the bids received for construction and programming, which exceeds the original estimates.

- Current Status: The project is in progress and construction is anticipated to be completed in 2027, which is within the current GRC cycle.

81. Lucerne Valley SCADA – WO# 36700114

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install a SCADA system including hardware, software, and programming at Sutter Plant located in the Lucerne Valley System. The typical equipment to be installed at each plant site will be a SCADA cabinet, a programmable logic controller (PLC), a human-machine interface (HMI), an Ethernet radio, an antenna, devices for remote monitoring (e.g., pressure switches, pressure/level transmitters) as well as conduits and conductors
- Justification: Lucerne Valley System currently has no centralized control and monitoring system. The lack of such a system causes the following problems:
 - GSWC employees must make frequent trips to all plants to check their condition.
 - System failures may not be discovered until a customer reports it.
 - There is no control system in place to optimize system efficiency.

Installing SCADA will have the following benefits:

- Telemetry Enhancement – Replace existing telephone circuits with radio/cellular telemetry to improve reliability.
- System Monitoring – Continuously monitor tank water levels, pump on-off status, and production rates. This will improve system reliability by

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 alerting the operator to problems and will provide more detailed
2 information regarding system demands.

- 3 ○ Centralized Control System – Coordinate the operation of all pumping
4 plants to minimize operating costs.

5 Installing a SCADA system for the Lucerne Valley System is both in line with
6 GSWC's vision of having a company-wide SCADA system and with the PUC's
7 objectives set forth within the PUC's 2010 Water Action Plan to maintain the
8 highest standards of water quality and to promote water infrastructure
9 investment. The SCADA system will allow GSWC personnel the ability to
10 monitor the real-time operation of the entire system from a remote location.
11 GSWC's ultimate goal is to link all of the SCADA systems together which will
12 give GSWC the ability to remotely monitor all systems and make needed
13 system changes on a regional basis which is a powerful tool to ensure system
14 performance, reliability and enhance GSWC's ability to respond during
15 emergencies such as earthquakes and fires. The company-wide SCADA
16 system will also provide a means for centralizing information making it possible
17 for GSWC operations and engineers to evaluate current operating conditions
18 and to determine an optimization plan which will result in reduced power usage
19 and increased efficiency, effectively reducing our carbon footprint.

- 20 • Description of Change: The project scope remains the same; however project
21 costs have increased, and the project schedule has been delayed.
- 22 • Reason for the Change: This SCADA enhancement project is being performed
23 concurrently with other SCADA projects within the Apple Valley North, Apple
24 Valley South, Lucerne Valley, and Desert View System. Due to the varying
25 conditions at each plant site across these systems, the project has required
26 additional assessment and design time beyond what was originally anticipated.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Furthermore, material and equipment lead times have further impacted the construction schedule, as the fabrication process for the PLC control panels for certain sites is taking approximately 15 months following approval of the shop drawings. The updated project cost estimate accounts for the expenses incurred in developing the design and the bids received for construction and programming, which exceeds the original estimates.

- Current Status: The project is in progress and construction is anticipated to be completed in 2027, which is within the current GRC cycle.

82. Lucerne Valley SCADA (R3 2022) – WO# 36700156

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: To install/upgrade the SCADA system including hardware, software, programming, and integration work at the Emerald Plant located in the Lucerne Valley System. The scope of work includes upgrading hardware, software, instrumentation controls, and integration.
- Justification: The Lucerne Valley System is currently run with outdated Supervisory Control and Data Acquisition (SCADA) hardware and unsupported software, and not all plant sites are equipped with SCADA. To provide more reliability, run the system more efficiently, and obtain technical support, the SCADA system must be fully completed - in accordance with GSWC SCADA standards - and to the latest version of Wonderware software.
- Description of Change: The project scope remains the same; however project costs have increased, and the project schedule has been delayed.
- Reason for the Change: This SCADA enhancement project is being performed concurrently with other SCADA projects within the Apple Valley North, Apple

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Valley South, Lucerne Valley, and Desert View System. Due to the varying conditions at each plant site across these systems, the project has required additional assessment and design time beyond what was originally anticipated. Furthermore, material and equipment lead times have further impacted the construction schedule, as the fabrication process for the PLC control panels for certain sites is taking approximately 15 months following approval of the shop drawings. The updated project cost estimate accounts for the expenses incurred in developing the design and the bids received for construction and programming, which exceeds the original estimates.

- Current Status: The project is in progress and construction is anticipated to be completed in 2027.

83. Lucerne Valley System, New Well – WO# 36700171

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Drill and equip a new water supply well to replace Sutter Well No. 9.
- Justification: Sutter Well No. 9 was drilled in 1952 and was rehabilitated in 1987 and 2003. The 2023 Wood Rodgers Well Assessment determined that Sutter Well No. 9 has reached the end of its useful life and recommended for Sutter Well No. 9 to be replaced with a new well.³⁵¹ Sutter Well No. 9 is not active due to iron concentrations exceeding the secondary MCL and malfunctions with the associated well appurtenances. The Sutter and Baker Zones Hydraulic Evaluation will recommend the best locations for a new groundwater well(s) to replace Sutter Well No. 9 and/or Topaz Well No. 1. A preliminary location for the new well is at the existing Emerald Plant Site. The new well will increase the reliability of the water supply portfolio for the Lucerne Valley System.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: As described in the 2023 GRC filing and approved in the all-party settlement agreement, the scope of this project was to complete the project design during the 2023 GRC rate cycle, and complete the installation during the 2026 GRC rate cycle. As a result, only design funds were requested in the 2023 GRC. GSWC is now expediting the completion of this project and additional funds are required to proceed with construction. The scope of the project presented in the 2023 GRC remains unchanged.
- Reason for the Change: Adding funds for construction.
- Current Status: Design is underway and the project is anticipated to be completed in 2029.

84. Sheep Creek Reservoir– WO# 37231150

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Install a 0.2 MG Reservoir and 1,050 LF of 12-inch PVC Pipeline that will provide gravity-fed storage to the Sheep Creek Zone. The project scope also includes demolishing the existing 81-year old, 25,000-gallon bolted steel tank.
- Justification: The Sheep Creek Reservoir serves the Sheep Creek Zone by gravity. The Sheep Creek Zone supplies water to Sheep Creek Regulator Zone by PRVs and is the only source of supply for this zone. The 2019 Master Plan for Wrightwood System identified the water storage and supply deficiency in these zones for fire flow (MDD+FF) condition. The system storage analysis also indicated these zones do not have adequate fire and emergency storage. The system condition assessment inspection report also noted that the reservoir is severely corroded, and the reservoir had not been upgraded to the latest applicable codes of seismic and safety.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Description of Change: The scope has not changed. However, the U.S. Forest Service (USFS) agreement introduces additional provisions for constructing the new reservoir that were not previously anticipated, specifically the development and implementation of the Angeles National Forest (ANF) Fire Plan. The ANF Fire Plan uses the Project Activity Level (PAL) system to set daily fire danger ratings based on climatology driven metrics, including the Energy Release Component (ERC) and Ignition Component (IC). The PAL system will serve as a mechanism to guide day-to-day administration and oversight of fire safety requirements. It will be supplemented by direct coordination between project fire patrol personnel engaged to serve on GSWC's behalf, who will in turn coordinate with ANF Fire Management and field personnel. To fulfill these conditions, additional resources (e.g., personnel, equipment, etc.) will be required. Furthermore, these requirements are expected to affect reservoir construction and increase costs due to restrictions on when certain activities, particularly hot work associated with erecting the steel reservoir, can be performed.
- Reason for the Change: Project costs have increased due to the USFS permitting conditions associated with constructing the reservoir and, and the project schedule has been delayed.
- Current Status: USFS has issued a draft agreement, and a CEQA exemption for the new reservoir was secured in January 2026. The SWPPP, Fire Plan, and other environmental plans are under development, as are applications for county excavation and encroachment permits to construct the driveway entrance to the access road. The construction phase is expected to extend over multiple years due to environmental surveys, the relocation of protected plant species, and other prerequisites for constructing the new reservoir. As a

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 result, field activities are anticipated to commence in late 2026 and be
2 completed in 2029.

3
4 85. Acorn Drive Main Replacement - WO# 37231176

- 5 • This project was included in an all-party settlement agreement in the prior 2023
6 GRC.
- 7 • Project Description: Install 3,150 feet of 8-inch PVC pipeline to replace the
8 existing 6" diameter steel pipe that is 42 to 54 years old, in the Acorn Reservoir
9 Zone.
- 10 • Justification: The 2022 Wrightwood Master Plan identified deficiencies in both
11 the Acorn and Oriole Zones under emergency conditions (Section 5, Table
12 5-24). A hydraulic analysis was performed to evaluate alternatives for
13 addressing these deficiencies. To mitigate them, the storage capacity of the
14 Acorn Reservoir will be increased, the existing 6-inch diameter pipeline in
15 Acorn Drive will be upsized to an 8-inch diameter pipeline, and an 8-inch
16 pressure-reducing valve (PRV) station will be constructed between the Acorn
17 and Oriole Zones. For additional justification for this, and other pipeline
18 projects, refer to the supporting testimony in Attachment E (Pipeline
19 Management Program) from the 2023 GRC.
- 20 • Description of Change: The project scope remains unchanged from the 2023
21 GRC; however, project costs have increased, and the project schedule has
22 been delayed.
- 23 • Reason for the Change: The project schedule has experienced delays due to
24 the need for additional assessment and design time. Most of the project is
25 located along a private road used by property owners on Acorn Drive, which
26 terminates to the south near GSWC's Acorn Reservoir. Title reports and
27 surveys were completed to identify property boundary limits, which were

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

necessary to determine the alignment of the proposed new pipeline, which prolonged the design period. Furthermore, to avoid repetitive asphalt restorations in the same area, the construction schedule was aligned with the Acorn Reservoir Project. As a result, project costs are anticipated to be higher than originally estimated, as reflected in the updated cost estimate generated using current unit pricing.

- Current Status: The project design is complete, and construction is expected to be completed in 2028.

86. Acorn Plant-Construct 0.2MG Reservoir – WO# 37231177

- This project was included in an all-party settlement agreement in the prior 2023 GRC.
- Project Description: Demolish the existing 0.083 MG Acorn Reservoir and construct a new 0.2 MG reservoir. This project will need temporary storage during construction and controls at the Finch Plant Site may need to be temporarily altered during construction to continue to supply the Acorn Zone during construction.
- Justification: The existing Acorn Reservoir is a 0.083 MG reservoir, constructed in 1986. An engineering evaluation was performed in 2022 by Harper & Associates Engineering Inc. (HAE) to assess the corrosion, seismic, structural, and safety of the Acorn Reservoir. The HAE evaluation identified several deficiencies including safety/health, structural/seismic, and corrosion deficiencies. The HAE report provides a detailed analysis of the deficiencies and recommends replacing the existing Acorn Reservoir instead of performing rehabilitation. The 2022 Master Plan identified deficiencies for both the Acorn and Oriole Zones during the emergency conditions (maximum day demand plus fire flow). The Acorn Zone does not meet the recommended storage

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

capacity. A hydraulic analysis was performed to evaluate alternatives to resolving the deficiencies identified in the 2022 Master Plan. The analysis recommended replacing the existing Acorn Reservoir with a larger reservoir, upsize the existing 6-inch diameter pipeline in Acorn Drive, and constructing a PRV station between the Acorn and Oriole Zone. The analysis concluded that a 0.19 MG of storage would be sufficient to provide both zones storage during a fire event. Therefore, a 0.2 MG reservoir is recommended for standard tank sizing.

- Description of Change: The project scope was modified to install two 0.1 MG tanks. Additionally, project costs have increased.
- Reason for the Change: Recent cost estimates presented in the 2024 Preliminary Design Report prepared by HAE exceeded the original budget estimates. It was determined that installing two 0.1 MG tanks (totaling 0.2 MG) would provide long-term operational and maintenance benefits and still aligns with the project's overall objective. This configuration allows one tank to remain in service while the other undergoes maintenance and eliminates the recurring need for a temporary tank during future maintenance activities. The project schedule was delayed due to permitting, which required a significant amount of assessment and coordination to complete.
- Current Status: The project is currently bidding, and construction is to begin in 2026. The project is expected to be completed in 2027.

Category 5 – Projects Not Approved in a Prior GRC

Category 5 are projects not approved in a Prior GRC that were started before December 31, 2025. These are new projects that have not been previously reviewed by the CPUC. For this reason, we have provided a justification for each project below.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 Please refer to **Attachment J** for the current cost estimates for each project in this
2 category. Category 5 projects account for approximately \$39.9M and represent
3 approximately 10.3% of the total amount being requested.
4

5 1. Arden: GSWC Facility Relocations on Arden Way – WO# 11700324

- 6 • Project Description: To relocate GSWC's facilities in Sacramento County's
7 right-of-way in Arden Way.
- 8 • Justification: Sacramento County Public Works & Infrastructure Agency
9 Department of Transportation is constructing a raised bike buffer lane
10 project on Arden Way from Morse Avenue to Watt Avenue. Sacramento
11 County notified GSWC that GSWC's facilities conflicting with the County's
12 proposed improvements needed to be relocated. GSWC has a Franchise
13 Agreement with Sacramento County which requires GSWC to remove and
14 relocate at its sole expense any facilities in the public right-of-way whenever
15 necessary by reason of any County work or improvement needs.
- 16 • Current Status: Relocation of the bulk of the facilities was completed in
17 2025 in advance of County construction activities. Construction of County
18 improvements is underway and relocation of the balance of the GSWC
19 facilities will be completed in 2026 after completion of County
20 improvements.
21

22 2. Cordova: Mercantile Interconnection Improvements – WO# 11812151

- 23 • Project Description: There is an existing one-way interconnection from
24 GSWC to Sacramento County Water Agency on Mercantile Drive. The
25 proposed improvements would convert this into a two-way interconnection
26 and consist of installation of above and below grade piping and valves,
27 large diameter meters, pressure relief and sustaining valves, flowmeters,
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 pressure transducers and appurtenant work. The site currently has no
2 SCADA and the scope also includes installing SCADA equipment and
3 integrating the site into GSWC's systemwide SCADA system.

- 4 • Justification: The American River Terms for Ecosystem Support and
5 Infrastructure Assistance Needs (ARTESIAN) Agreement is an agreement
6 with several water agencies, working with the Department of Water
7 Resources (DWR), to intermittently encumber water by reducing diversions
8 from the Lower American River during dry years to increase the instream
9 flows necessary to support ecosystems and fish species. Under the
10 ARTESIAN Agreement, a total of 30,000 acre-feet of water would be
11 encumbered during the dry years. The ARTESIAN Agreement requires
12 GSWC to complete interconnection upgrades in exchange for receiving
13 grant funding of up to \$1.37 million to upgrade its existing interconnections
14 with Sacramento County Water Agency (SCWA). The portion of the project
15 costs over and above the grant funding cap will be funded by GSWC. On
16 February 9, 2024, the CPUC issued a disposition letter approving GSWC
17 Advice Letter 1927, wherein GSWC proposed to support the ARTESIAN
18 project by forbearing the use of 763 acre-feet (AF) of pre-1914 surface
19 water rights from the South Fork of the American River during critical dry
20 years over a period beginning in 2025 and potentially extending through
21 2036 in exchange for receiving grant funding of up to \$1.37 million to
22 upgrade its existing interconnections with Sacramento County Water
23 Agency (SCWA). There are two Artesian projects – the Femoyer project will
24 use grant funding and the Mercantile project will be funded by GSWC. The
25 grant funding agreement requires GSWC to complete the work by the end
26 of 2026, so it was imperative for GSWC to move forward with the projects
27 immediately.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: Project design is complete and a construction contract is being executed with construction activities anticipated to be completed in 2026.

3. South Bay 1, Manganese Treatment – WO# 14631393

- Project Description: Prepare foundation, install piping, and electrical supply for ATEC Fe and Mn Treatment skid.
- Justification: In January 2025, South Bay Well No. 1 began to produce manganese above the MCL and was taken offline from the water distribution system. Subsequent well testing was performed, and South Bay 1 showed a concentration of manganese had elevated to over 20 times the drinking water standard of 50 ug/L. GSWC internally coordinated pumping the well to waste continuously to purge the manganese out of the well and sample the water overtime. After July 2025, the manganese concentration stabilized at 200 ug/L, four times above the secondary MCL. Manganese treatment is required for the well to meet drinking water standards and to bring the well back into service.
- Current Status: Construction is underway and the project will be completed in 2026.

4. Los Osos: Los Olivos Wells No.3 and No.5 PFAS Treatment – WO# 14631362

- Project Description: The scope of this project is to install a treatment facility to treat the groundwater produced from Los Olivos Wells No.3 and No.5 for perfluoroalkyl and polyfluoroalkyl substances (PFAS).
- Justification: The GSWC's Los Osos system is reliant solely on local groundwater supplies. There are no imported water connections available in the Los Osos system. In April 2024, the United States Environmental

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 Protection Agency (USEPA) promulgated the final PFAS rule, which
2 mandates Maximum Contaminant Levels (MCLs) for PFOA, PFOS, and
3 other PFAS constituents. Compliance is determined based on the quarterly
4 running annual average and water systems must comply with the MCLs by
5 April 2029. The Los Olivos well site includes Los Olivos Wells No.3 and
6 No.5. Los Olivos Well No.3 and No.5 were sampled in response to a
7 Division of Drinking Water's mandatory monitoring order. Los Olivos Well
8 No. 3 has quarterly running annual averages for PFOA and PFHxS in
9 exceedance of the MCLs. While Los Olivos Well No.5 has not yet detected
10 PFAS above the MCL, given the proximity of Los Olivos Well No.5 to Well
11 No.3, it is a high likelihood for these contaminants to impact Los Olivos Well
12 No.5. Additionally, the two wells cannot operate independently without each
13 other due to ongoing nitrate blending. Without PFAS treatment, these
14 critical assets cannot reliably serve the customers in the Los Osos system.
15 GSWC engaged a third-party engineering consultant in 2024 to conduct
16 treatment evaluation and provided the basis of design for this project. The
17 construction of the PFAS treatment facility for Los Olivos Well No.3 and
18 No.5 is a prudent investment required to restore the reliability of the Los
19 Osos system's water supply and ensure the delivery of water that meets all
20 state and federal health standards at the lowest long-term cost. The total
21 project cost is based on estimated cost to complete the project.

- 22 • Current Status: Project is in the design phase and completion is anticipated
23 for 2028.

24
25 5. El Campo Disinfection Facilities – WO# 16400183

- 26 • Project Description: To replace the disinfection building at the El Campo
27 Plant with a new disinfection building and replace some plant piping.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Justification: The water from the Nipomo Community Services District (NCSD) contains a chloraminated residual, while the groundwater contains a free chlorine residual. Therefore, chloraminated water and free-chlorinated groundwater will blend at El Campo; this situation has the potential to deplete system residuals. With the new NCSD interconnection, the supplemental water needs to be converted to a free chlorine residual (breakpoint chlorination). The existing disinfection building at the El Campo Plant is in poor condition and should be replaced to accommodate the increased chlorine demand resulting from the recent interconnection with NCSD. The existing disinfection building is a small wooden structure, and the chlorine tank is located outside of the building, so the containment is not sufficient if a chlorine leak were to occur.
- Current Status: Project is in the design phase and completion is anticipated for 2028.

6. Flowerdale Pipeline – WO# 16731517

- Project Description: To install 2,900 feet of pipe.
- Justification: GSWC's initial plan was to proceed with the Clover and Angela AMR project (3,000 LF) in Simi Valley, which was included in the 2023 GRC. During the design phase, it was discovered that the streets in the project area are under a paving moratorium until June 13, 2026. Proceeding with this pipeline project under a paving moratorium would significantly increase project costs. Therefore, GSWC recommended proceeding with an alternative project of comparable scope, importance and budget, and delaying Clover and Angela AMR until the paving moratorium expires.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 GSWC identified the Flowerdale AMR project as a viable alternative. This
2 project was already identified as a high priority project to include in the 2026
3 GRC, due to 5 mainline breaks in the area over the last few years.

4 For additional information on this project, please see the attached
5 supporting testimony (Attachment E) that was included in the 2023 GRC as
6 Attachment E (Pipeline Management Program).

- 7 • Current Status: The project has been constructed and will be closed out in
8 2026.

9
10 7. Artesia: Roseton Wells No.2 and No.3 PFAS Treatment – WO# 21911511

- 11 • Project Description: The scope of this project is to install a treatment facility
12 to treat the groundwater produced from Roseton Well No.2 and Roseton
13 Well No.3 (a replacement for Roseton Well No.1) for perfluoroalkyl and
14 polyfluoroalkyl substances (PFAS).
- 15 • Justification: Roseton wells are significant sources of groundwater supply in
16 the GSWC's Artesia System. In April 2024, the United States Environmental
17 Protection Agency (USEPA) promulgated the final PFAS rule, which
18 mandates Maximum Contaminant Levels (MCLs) for PFOA, PFOS, and
19 other PFAS constituents. Compliance is determined based on the quarterly
20 running annual average and water systems must comply with the MCLs by
21 April 2029. Both Roseton Wells No.1 and No.2 were sampled in response to
22 a Division of Drinking Water's mandatory monitoring order and have
23 quarterly running annual averages for PFOA and PFOS in exceedance of
24 the MCLs. Recent well condition assessment for Roseton Well No.1
25 concluded that the well has reached the end of its useful service life and the
26 well is scheduled for replacement. Roseton Well No.3 will be drilled at
27 Roseton site and will likely have similar water quality to Roseton Well No.1.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

Without PFAS treatment, these critical assets cannot reliably serve the customers in the Artesia system.

GSWC engaged a third-party engineering consultant in 2024 to conduct treatment evaluation and provided the basis of design for this project. The construction of the PFAS treatment facility for Roseton Wells No.2 and No.3 is a prudent investment required to restore the reliability of the Artesia system's water supply and ensure the delivery of water that meets all state and federal health standards at the lowest long-term cost. The total project cost is based on estimated cost to complete the project.

- Current Status: Project is in the design phase and completion is anticipated for 2029.

8. Bell-Bell Gardens: Otis Well No. 3 PFAS Treatment – WO# 22750431

- Project Description: The scope of this project is to install a treatment facility to treat the groundwater produced from Otis Well No.3 for perfluoroalkyl and polyfluoroalkyl substances (PFAS).
- Justification: Otis Well No.3 is a significant source of groundwater supply in the GSWC's Bell-Bell Gardens System. In April 2024, the United States Environmental Protection Agency (USEPA) promulgated the final PFAS rule, which mandates Maximum Contaminant Levels (MCLs) for PFOA, PFOS, and other PFAS constituents. Compliance is determined based on the quarterly running annual average and water systems must comply with the MCLs by April 2029. Otis Well No.3 was sampled in response to a Division of Drinking Water's mandatory monitoring order and has quarterly running annual averages for PFOA and PFOS in exceedance of the MCLs. Without PFAS treatment, this critical asset cannot reliably serve the customers in the Bell-Bell Gardens system, and long-term costs of

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 purchasing imported water would exceed the amortized cost of treatment.
2 GSWC engaged a third-party engineering consultant in 2024 to conduct
3 treatment evaluation and provided the basis of design for this project. The
4 construction of the PFAS treatment facility for Otis Well No.3 will increase
5 self-reliance, reduce reliance on third party water suppliers and ensure the
6 delivery of water that meets all state and federal health standards at the
7 lowest long-term cost. The total project cost is based on estimated cost to
8 complete the project.

- 9 • Current Status: Project is in the design phase and completion is anticipated
10 for 2028.

11
12 9. Claremont: Indian Hill Wells No.3 and No.4 PFAS Treatment – WO# 31731819

- 13 • Project Description: The scope of this project is to install a treatment facility
14 to treat the groundwater produced from Indian Hill Wells No. 3 and Well No.
15 4 for perfluoroalkyl and polyfluoroalkyl substances (PFAS) removal.
- 16 • Justification: GSWC's Claremont System is reliant on groundwater and
17 purchased water supplies. Indian Hill Wells are significant sources of
18 groundwater supply in the Claremont System. In April 2024, the United
19 States Environmental Protection Agency (USEPA) promulgated the final
20 PFAS rule, which mandates Maximum Contaminant Levels (MCLs) for
21 PFOA, PFOS, and other PFAS constituents. Compliance is determined
22 based on the quarterly running annual average, and water systems must
23 comply with the MCLs by April 2029. Indian Hill Wells No. 3 and No. 4 were
24 sampled in response to a Division of Drinking Water's mandatory monitoring
25 order and have quarterly running annual averages for PFOA and PFOS in
26 exceedance of the MCLs. Without PFAS treatment, these critical assets
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 cannot reliably serve the customers in the Claremont system and long-term
2 costs of purchasing imported water would exceed the amortized cost of
3 treatment.

4 GSWC engaged a third-party engineering consultant in 2024 to conduct
5 treatment evaluation and provided the basis of design for this project. The
6 construction of the PFAS treatment facility for Indian Hills Wells No. 3 and
7 No. 4 is a prudent investment required to restore the reliability of the
8 Claremont system's water supply. It will increase self-reliance, reduce
9 reliance on third party water suppliers and ensure the delivery of water that
10 meets all state and federal health standards at the lowest long-term cost.

11 The total project cost is based on estimated cost to complete the project.

- 12 • Current Status: Project is in the design phase and completion is anticipated
13 for 2027.

14
15 10. South Arcadia: Persimmon Well No. 1 PFAS Treatment – WO# 33210622

- 16 • Project Description: The scope of this project is to install a treatment facility
17 to treat the groundwater produced from Persimmon Well No.1 for
18 perfluoroalkyl and polyfluoroalkyl substances (PFAS) removal.
- 19 • Justification: The GSWC's South Arcadia system is reliant solely on local
20 groundwater supplies. There are no purchased interconnections in the
21 South Arcadia system. In April 2024, the United States Environmental
22 Protection Agency (USEPA) promulgated the final PFAS rule, which
23 mandates Maximum Contaminant Levels (MCLs) for PFOA, PFOS, and
24 other PFAS constituents. Compliance is determined based on the quarterly
25 running annual average and water systems must comply with the MCLs by
26 April 2029. Persimmon Well No. 1 was sampled in response to a Division of
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 Drinking Water's mandatory monitoring order and has quarterly running
2 annual average for PFOS in exceedance of the MCLs. Without PFAS
3 treatment, this asset cannot reliably serve the customers in the South
4 Arcadia system.

5 GSWC engaged a third-party engineering consultant in 2024 to conduct
6 treatment evaluation and provided the basis of design for this project. The
7 construction of the PFAS treatment facility for Persimmon Well No.1 is a
8 prudent investment required to restore the reliability of the South Arcadia
9 system's water supply and ensure the delivery of water that meets all state
10 and federal health standards at the lowest long-term cost. The total project
11 cost is based on estimated cost to complete the project.

- 12 • Current Status: Project is in the design phase and completion is anticipated
13 for 2029.

14
15 11. South Arcadia: Farna Wells No.1 and No.2 PFAS Treatment – WO# 33210623

- 16 • Project Description: The scope of this project is to install a treatment facility
17 to treat the groundwater produced from Farna Well No.1 and No.2 for
18 perfluoroalkyl and polyfluoroalkyl substances (PFAS).
- 19 • Justification: The GSWC's South Arcadia system is reliant solely on local
20 groundwater supplies. There are no purchased interconnections in the
21 South Arcadia system. Farna wells are significant sources of groundwater
22 supply in the system. In April 2024, the United States Environmental
23 Protection Agency (USEPA) promulgated the final PFAS rule, which
24 mandates Maximum Contaminant Levels (MCLs) for PFOA, PFOS, and
25 other PFAS constituents. Compliance is determined based on the quarterly
26 running annual average and water systems must comply with the MCLs by
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 April 2029. Farna Wells No.1 and No.2 were sampled in response to a
2 Division of Drinking Water's mandatory monitoring order and have quarterly
3 running annual averages for PFOA and PFOS in exceedance of the MCLs.
4 Without PFAS treatment, these critical assets cannot reliably serve the
5 customers in the South Arcadia system.

6 GSWC engaged a third-party engineering consultant in 2024 to conduct
7 treatment evaluation and provided the basis of design for this project. The
8 construction of the PFAS treatment facility for Farna Wells No.1 & No.2 is a
9 prudent investment required to restore the reliability of the South Arcadia
10 system's water supply and ensure the delivery of water that meets all state
11 and federal health standards at the lowest long-term cost. The total project
12 cost is based on estimated cost to complete the project.

- 13 • Current Status: Project is in the design phase, and completion is anticipated
14 for 2029.

15
16 12. South Whittier Bikeway Improvements – WO# 22011423

- 17 • Project Description: This project consists of miscellaneous relocations and
18 installations of small water services and meters in the Los Angeles County
19 unincorporated community of South Whittier. The work is required due to
20 Los Angeles County's street resurfacing and bikeway improvements along
21 Leffingwell Road, Carmenita Road, and Florence Avenue.
- 22 • Justification: As part of Los Angeles County's South Whittier Community
23 Bikeway Access Improvement Project, the Los Angeles County has
24 requested that GSWC relocates existing water meters and adjust service
25 line depths to accommodate the roadway and bikeway improvements. In
26 accordance with the franchise agreement with Los Angeles County, GSWC
27

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 is obligated to bear the cost of relocations made necessary by County-
2 initiated projects.

- 3 • Current Status: The Los Angeles County is scheduled to begin construction
4 in May 2026. GSWC will perform the required meter relocations and service
5 adjustments in coordination with the County's construction schedule.

6
7 13. South Zone Land Acquisition – WO# 27531741

- 8 • Project Description: Order a preliminary title report and vacant land appraisal
9 for the parcel located at 407 W. Chapman Avenue, Placentia, CA 92870, in
10 order to evaluate site feasibility.
- 11 • Justification: Despite having the largest supply wells, there is no storage in the
12 South Zone of the Placentia-Yorba Linda system. La Jolla Well 3 (1,600 gpm)
13 alone can supply the demands needed in the South Zone and any excess
14 water (from La Jolla Well 2 and Bradford Well 4) must then be transferred to
15 the North Zone using the Chapman Booster Pump Station. La Jolla Plant and
16 Chapman Plant are approximately 1 mile apart from each other, and
17 transferring water from the South Zone to the North Zone is inefficient and is
18 dependent on both La Jolla and Chapman BPS working together seamlessly.
19 Ideally, a reservoir/forebay could be installed at the Chapman Plant to allow for
20 a fill-and-draw scenario using the existing boosters and to create an overall
21 more efficient operation of the system. However, due to limited space at the
22 Chapman Plant, there is no room to construct a reservoir at the site. In
23 addition, due to limited space at the Wilson Plant site, the necessary treatment
24 cannot be constructed to bring Wilson Well back online. An available parcel,
25 located near the North and South zone boundary (407 W Chapman Ave,
26 Placentia, CA 92870), has been identified as a potential site for GSWC
27 purchase due to its size and proximity to both the Chapman and Wilson Plants.

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Current Status: The preliminary title report and appraisal have been ordered and will be completed in 2026. A separate project to acquire land is proposed in the 2026 GRC as a new project.

14. Claremont 2025 Tank Evaluations – WO# 31731787

- Project Description: Comprehensive tank evaluations for four existing steel tanks: Claraboya, Del Monte, Margarita, and Upper O'Neil located in the Claremont System.
- Justification: Per AWWA Manual M42 (p. 108), each tank should be inspected at least once every 3 to 5 years. Comprehensive inspection reports provide critical information for assessing the integrity of the tank and identifying any deficiencies that need to be addressed. Furthermore, these reports offer clarity on aspects of tank integrity that are essential for preventative maintenance to prolong the tank's useful life. They focus on the condition of the tank's interior and exterior coatings, structural elements, and seismic resilience.
- Current Status: The project is complete and in the process of being closed.

15. San Dimas Ave Loop Main Realignment – WO# 32631810

- Project Description: Relocate and replace approximately 300 LF of 8-inch PVC main on S. San Dimas Ave just north of Calle Solana.
- Justification: The City of San Dimas has closed S. San Dimas Road because of a slope failure on the eastern side. The City plans to build a retaining wall to stabilize the slope. Due to the proposed slope stabilization project, GSWC must relocate and replace the current 8-inch PVC main that was installed in 1986.
- Current Status: The project is complete and in the process of being closed.

16. Puddingstone Reservoir Customer Pipeline Replacement – WO# 32631824

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

- Project Description: Relocate and replace approximately 450 LF of 4-inch PVC main in the property owner's driveway.
- Justification: This pipeline installation is necessary to address leaks, age, and condition of the existing pipelines. These two pipelines are 3-inch steel and are 68 years old and are in poor condition. This pipelines have 4 known leaks. The new pipeline will improve the hydraulics of the system, provide more reliable service to our customers, and address the deficiencies listed above.
- Current Status: The project is complete and in the process of being closed.

17. San Dimas 2025 Tank Evaluations – WO# 32631959

- Project Description: Comprehensive tank evaluations for seven existing steel tanks: Charter Oak, Columbia 4, Eaglecliff, Los Palos, Puddingstone, Terrebonne, and Via Blanca, located in the San Dimas System.
- Justification: Per AWWA Manual M42 (p. 108), each tank should be inspected at least once every 3 to 5 years. Comprehensive inspection reports provide critical information for assessing the integrity of the tank and identifying any deficiencies that need to be addressed. Furthermore, these reports offer clarity on aspects of tank integrity that are essential for preventative maintenance to prolong the tank's useful life. They focus on the condition of the tank's interior and exterior coatings, structural elements, and seismic resilience.
- Current Status: The project is complete and in the process of being closed.

18. South Arcadia 2025 Tank Evaluations – WO# 33210685

- Project Description: Comprehensive tank evaluations for two existing steel tanks: Encinita, and Farna, located in the South Arcadia System.
- Justification: Per AWWA Manual M42 (p. 108), each tank should be inspected at least once every 3 to 5 years. Comprehensive inspection reports provide

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

critical information for assessing the integrity of the tank and identifying any deficiencies that need to be addressed. Furthermore, these reports offer clarity on aspects of tank integrity that are essential for preventative maintenance to prolong the tank's useful life. They focus on the condition of the tank's interior and exterior coatings, structural elements, and seismic resilience.

- Current Status: The project is complete and in the process of being closed.

19. South San Gabriel 2025 Tank Evaluations – WO# 33331563

- Project Description: Comprehensive tank evaluations for one existing steel tanks: Teresa, located in the South San Gabriel System.
- Justification: Per AWWA Manual M42 (p. 108), each tank should be inspected at least once every 3 to 5 years. Comprehensive inspection reports provide critical information for assessing the integrity of the tank and identifying any deficiencies that need to be addressed. Furthermore, these reports offer clarity on aspects of tank integrity that are essential for preventative maintenance to prolong the tank's useful life. They focus on the condition of the tank's interior and exterior coatings, structural elements, and seismic resilience.
- Current Status: The project is complete and in the process of being closed.

20. Calipatria Replace 2-inch and Smaller Meter to AMR – WO# 35231288

- Project Description: Replace all 2-inch and smaller EMR meters with Automatic Meter Reading (AMR) meters in the Calipatria-Niland System.
- Justification: The Calipatria-Niland water system currently relies on Electronic Meter Reading (EMR) meters that require operators to collect all readings manually, with one operator typically covering between 300 and 400 meters per day and finishing the entire system within a few days. However, extreme desert heat limits safe field working hours and places additional strain on staff and

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 operations. AMR deployment will improve operational efficiency and lower
2 costs by eliminating manual meter-reading routes, thereby reducing the hours
3 operators spend on meter collection. With more frequent and accurate
4 readings, unusual usage caused by leaks can be identified sooner, helping
5 avoid revenue losses. Implementing AMR enables benefits for both customers
6 and GSWC. Further, GSWC selected metering technology that can be cost-
7 effectively retrofitted to leverage Advanced Metering Infrastructure (AMI)
8 technology. Finally, implementing AMR supports compliance with GO 103A
9 meter reading performance standards.

- 10 • Current Status: The project is in progress and is anticipated to be completed in
11 2026.

12
13 21. Wrightwood Replace 2-inch and Smaller Meter to AMR– WO# 37231245

- 14 • Project Description: Replace all 2-inch and smaller EMR meters with Automatic
15 Meter Reading (AMR) meters in the Wrightwood System.
- 16 • Justification: The Wrightwood water system currently relies on Electronic Meter
17 Reading (EMR) meters that require operators to collect all readings manually,
18 with one operator typically covering between 200 and 330 meters per day and
19 finishing the entire system within a few days. The system has large elevation
20 differences, so operators must hike long distances to reach meters. During
21 severe snowfall, two operators are required, with one reading meters and the
22 other clearing snow, which reduces productivity to about 25 meters per day.
23 These conditions result in estimated readings, greater labor needs, and longer
24 reading times. AMR deployment will improve operational efficiency and lower
25 costs by eliminating manual meter reading routes, thereby reducing the number
26 of hours operators spend on meter collection. Customers will experience
27 improved billing accuracy and fewer estimated bills. With more frequent and
28

PREPARED TESTIMONY OF ELIZABETH V. MCDONOUGH, DANE T. SINAGRA, and
DAVID SCHICKLING (Cont.)

1 accurate readings, unusual usage caused by leaks can be identified sooner,
2 helping to avoid revenue losses. Implementing AMR enables benefits for both
3 customers and GSWC. Further, GSWC selected metering technology that can
4 be cost-effectively retrofitted to leverage Advanced Metering Infrastructure
5 (AMI) technology. Finally, implementing AMR supports compliance with GO
6 103A meter reading performance standards.

- 7 • Current Status: The project is in construction and anticipated to be completed
8 in 2026.

9
10 *Category 6 – Completed or Cancelled Projects*

11 The CWIP table includes projects that do not need any additional funds, including
12 projects that are completed but not closed as of December 31, 2025, and projects that
13 will be cancelled when the CWIP report was generated.

14
15 (Q) Does this conclude your testimony?

16 (A) Yes, it does.
17
18
19
20
21
22
23
24
25
26
27
28

**QUALIFICATIONS OF
ELIZABETH V. MCDONOUGH**

My name is Elizabeth V. McDonough, and my business address is 1600 W. Redondo Beach Blvd. Suite 101, Gardena, CA 90247. I have worked for Golden State Water Company (GSWC) since April 2005, except for a one-year absence from September 2014 through August 2015. My current position is Director of Capital Programs.

I graduated with a Master of Science degree in Engineering from the University of California at Los Angeles in 1994 and a Bachelor of Science degree in Civil Engineering from California State University at Long Beach in 1990.

In my current position, I am responsible for directing the capital improvement program in GSWC's. My current duties and responsibilities involve: completing the annual board and/or relevant California Public Utilities Commission capital construction budgets for company water supply, distribution, and other capital projects; prioritization of capital projects; ensuring that internal and external resources are available to achieve completion of capital projects. Prior to my promotion to the Director of Capital Programs, I was the Capital Program Manager for Region 2 from 2007 to 2014 and again in 2015.

I am a Registered Civil Engineer (C-58571) in the State of California.

**QUALIFICATIONS OF
DANE T. SINAGRA**

My name is Dane T. Sinagra and my business address is 3005 Gold Canal Drive, Rancho Cordova, CA 95670. I have worked for Golden State Water Company (GSWC) since October 2007. My current position is Director of Capital Program and Engineering Design.

I graduated with a Bachelor of Science degree in BioResource and Agricultural Engineering from California Polytechnic State University (San Luis Obispo) in 2007.

In my current position, I am responsible for managing the capital improvement program in GSWC's Coastal and Northern Districts, commonly referred to as Region 1, and GSWC's Special Projects, which are a subset of projects located throughout Regions 2 and 3. I also oversee the Engineering Design Center, New Business Department, and Real Estate Services Department. My current duties and responsibilities involve: assisting with the completion of the annual board and/or relevant California Public Utilities Commission capital construction budgets for company water supply, distribution, and other capital projects; assisting with prioritization of capital projects; acting as liaison with other company departments on asset management planning; coordinating internal and external resources to achieve completion of capital projects; assisting with the completion of design of capital projects; assisting with the coordination and completion of New Business projects funded by others; and assisting with real estate matters, such as the acquisition of property and lease management.

I am a Registered Civil Engineer (C-76833) in the State of California.

QUALIFICATIONS OF DAVID SCHICKLING

My name is David Schickling and my business address is 160 Via Verde Dr., San Dimas, CA 91773. I have worked for Golden State Water Company (GSWC) since August 2019. My current position is Vice President of Water Operations.

My educational background includes a Bachelor of Science degree in Civil Engineering from California State University at Fullerton in 1983. With over 40 years of experience in the civil engineering field, I have gained extensive expertise in planning and designing water infrastructure in both the public and private sectors, as well as operational oversight of public water systems.

My current responsibilities involve the management of the operations team. In addition, I am responsible for ensuring compliance with state and federal regulations and standards, managing relationships with external stakeholders such as local government agencies and community groups, and developing and implementing long-term strategic plans for water operations.

I work closely with cross-functional teams, including engineering, finance, and customer service, to ensure seamless coordination and alignment across the organization. I also regularly engage in industry conferences and workshops to stay up-to-date on the latest trends and best practices in water operations. And provide safe, reliable, and cost-effective water services to our customers, and I am dedicated to GSWC mission to continuously improving our operations to meet the evolving needs of our communities.

I am a Registered Civil Engineer (C-42902) in the State of California. And hold a D5 Water Distribution Operator Certification and a T3 Water Treatment Operator Certification issued by the California State Water Resources Control Board.

Project Cost Estimate

Project Title Los Osos System, Fire Hardening Imp

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region 1	Coastal
Customer Service Area		Los Osos
Water Distribution System		Los Osos

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$65,088
Construction	<u>\$260,400</u>
Total	\$325,488

Cost for South Bay Block Wall moved to 14631393

Total Project Cost (with overhead and contingency):

Current Charges	\$ 31,918
Direct	\$ 83,104
Construction	<u>\$ 332,479</u>
Total	\$ 447,600

Contingency =	12.0%
Overhead =	14.0%

Construction Cost Estimate

Project:	Los Osos System, Fire Hardening Imp	Region	Region 1
Limits:	0	District	Coastal
		System	Los Osos

Estimate By: <u>JF</u>	Approved By: <u>initials</u>
Estimate Date <u>02/09/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Calle Cordoniz: Remove abandoned electrical ca	1	LS	\$16,837	\$16,840
2	Calle Cordoniz: Install masonry wall 6 feet high	160	LF	\$398	\$63,650
3	South Bay: Replace plastic chemical building with	48	SF	\$1,658	\$79,560
4	South Bay: Chemical building electrical	48	SF	\$50	\$2,390
5	South Bay: Chemical building mechanical	48	SF	\$133	\$6,360
6	South Bay: Demo existing structures	1	LS	\$16,837	\$16,840
7	Country Club: Install 2 feet high three-sided wall	16	LF	\$472	\$7,540
8	Topo survey services remaining	1	LS	\$2,171	\$2,170
9	Performance and payment bond	1	LS	\$15,000	\$15,000
10	Mobilization	1	LS	\$50,000	\$50,000
11		0	LS	\$0	\$0
12		0	LF	\$0	\$0
13		0	LS	\$0	\$0
14		0	Ea.	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
Construction					\$260,350
Company Direct Costs* 25%					\$65,088
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title	21911460-Roseton Plant - Replace Filter Media - 20260202
----------------------	--

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region II	Central District
Customer Service Area		CBE
Water Distribution System		Artesia

Project Need

Project Description

Replace existing filter media of manganese treatment at Roseton Plant Site

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$260,000
Total	<u>\$260,000</u>

Total Project Cost (with overhead and contingency):

Current Charges	\$	-
Direct	\$	-
Construction	\$	326,040
Total	\$	326,100

Contingency = 10.0%
Overhead = 14.0%

Construction Cost Estimate

Project: 21911460-Roseton Plant - Replace Filter Me
 Limits: 0

Region Region II
 District Central District
 System Artesia

Estimate By: Mo Jahromi Approved By: JP
 Estimate Date 02/02/26 mm/dd/yyyy

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Construction Costs	1	LS	\$110,000	\$110,000
2	Internal labor, outside services and Misc. costs	1	LS	\$150,000	\$150,000
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$260,000
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Roseton Plant, Replace Roseton Well No. 1

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	II	Central
Customer Service Area		Central Basin East
Water Distribution System		Artesia System

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$617,224
Construction	<u>\$4,877,800</u>
Total	\$5,495,024

Total Project Cost (with overhead and contingency):

Current Charges	\$ 43,844
Direct	<u>\$ 773,999</u>
Construction	<u>\$ 6,116,761</u>
Total	\$ 6,934,700

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project:	Roseton Plant, Replace Roseton Well No. 1	Region	II
Limits:	0	District	Central
		System	Artesia System

Estimate By: <u>JM</u>	Approved By: _____
Estimate Date: <u>01/28/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Construction PCE Estimate	1	LS	\$4,622,361	\$4,622,360
2	Feasibility Study	1	LS	\$39,610	\$39,610
3	Hydrogeological Consultant	1	LS	\$215,802	\$215,800
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
Construction					\$4,877,770
Company Direct Costs*					\$617,224
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title

Centralia Plant, Install Back-up Generator

Budget Year

(All estimates are calculated in 2025 unit costs)

Region/District

Region II

Central District

Customer Service Area

CBE

Water Distribution System

Artesia

Project Need

Centralia plant is a critical facility in supplying the Atrisia System, it has 2 wells, 2 treatments, a .75 MG reservoir and 4 boosters. The installation of a permanent diesel generator is critical for Centralia Plant to supply water to customers, maintain water quality, and system pressures in case of a power outage, natural disaster, or other emergency. The new generator needs to be at least 500 KW to be able to power well #7(250 hp) and two boosters (200 hp) and other equipment.

This project was identified as a *high-priority* project. The risks associated with this asset are driven by the System Condition Assessment (Section 8) of the 2022 Master Plan. (See Table 8-1)

The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability.

Project Description

Install a backup generator with automatic transfer switch at the Centralia Plant Site.

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$703,000
Total	<u>\$703,000</u>

Design estimate increased to account for consulting costs

Total Project Cost (with overhead and contingency):

Current Charges	\$ 220,815
-----------------	------------

Direct \$ -

Construction	\$	881,562
--------------	----	---------

Total \$ 1,102,400

Contingency = 10.0%

Overhead = 14.0%

Construction Cost Estimate

Project: Centralia Plant, Install Back-up Generator
 Limits: 0

Region Region II
 District Central District
 System Artesia

Estimate By: EG Approved By: _____
 Estimate Date 02/24/26 mm/dd/yyyy

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Remaining construction costs	1	LS	\$282,660	\$282,660
2	Procurement 1 generator	1	LS	\$254,240	\$254,240
3	Internal labor, outside services, permit, & misc co:	1	LS	\$166,100	\$166,100
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$703,000
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title McKinley Plant, Install Back-up Generator

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region II	Central
Customer Service Area		CBW
Water Distribution System		Hollydale

Project Need

GSWC needs to install diesel-powered generators to serve customers when an electrical power outage occurs in the Hollydale system. McKenly Well #3 is the primary water source and we need back generator at McKinley Plant to supply water to the Hollydale system.

This project was identified as a *high-priority* project. The risks associated with this asset are driven by the System Condition Assessment (Section 8) of the 2022 Master Plan. (See Table 8-1). The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety, and security, the financial impacts on the utility, public confidence, compliance with regulations, permits, and codes, and system reliability.

Project Description

Install Back-up Generator at McKinley Plant in Hollydale system.

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$289,300
Total	\$289,300

Total Project Cost (with overhead and contingency):

Current Charges	\$ 296,295
Direct	\$ -
Construction	\$ 362,782
Total	\$ 659,100

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: McKinley Plant, Install Back-up GeneratorRegion Region II

Limits: _____

District CentralSystem HollydaleEstimate By: AF Approved By: initialsEstimate Date 02/24/26 mm/dd/yyyy

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Remaining construction costs	1	LS	\$96,580	\$96,580
2	Procurement 1 generator	1	LS	\$115,663	\$115,660
3	Internal labor, outside services, permit	1	LS	\$77,050	\$77,050
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$289,290
	Company Direct Costs*	0%			\$0

*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services

Project Cost Estimate

Project Title 23011206 - Willowbrook Systemwide Drought Tolerant Landscaping

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region II	Central
Customer Service Area		CBE
Water Distribution System		Artesia

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$134,000
Total	\$134,000

Total Project Cost (with overhead and contingency):

Current Charges	\$ 3,002
Direct	\$ -
Construction	\$ 168,036
Total	\$ 171,100

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: <u>23011206 - Willowbrook Systemwide Drought</u> Limits: _____	Region <u>Region II</u> District <u>Central</u> System <u>Artesia</u>
--	---

Estimate By: <u>Mo Jahromi</u>	Approved By: <u>initials</u>
Estimate Date <u>02/03/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Drought Tolerant Landscaping	1	LS	\$55,000	\$55,000
2	Internal labor, outside services, permit	1	LS	\$79,000	\$79,000
			LS		\$0
			LS		\$0
			LS		\$0
			LS		\$0
			LS		\$0
	Construction				\$134,000
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Culver City Systemwide SCADA Upgrade

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District II Central
Customer Service Area Culver City
Water Distribution System Culver City System

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$152,200
Construction	<u>\$1,171,000</u>
Total	\$1,323,200

Total Project Cost (with overhead and contingency):

Current Charges	\$ 278,277
Direct	\$ 182,183
Construction	<u>\$ 1,401,687</u>
Total	\$ 1,862,200

Contingency = 5.0%
Overhead = 14.0%

Construction Cost Estimate

Project:	Culver City Systemwide SCADA Upgrade	Region	II
Limits:	0	District	Central
		System	Culver City System

Estimate By: <u>JM</u>	Approved By: _____
Estimate Date: <u>01/28/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	SCADA System Implementation Construction	1	LS	\$1,171,000	\$1,171,000
2		0	LS	\$0	\$0
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
Construction					\$1,171,000
Payment & Performance Bond 3%					\$35,100
Company Direct Costs* 10%					\$117,100
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Southwest Systemwide SCADA Upgrade

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	II	Southwest
Customer Service Area		Southwest
Water Distribution System		Southwest System

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$126,000
Construction	<u>\$1,260,000</u>
Total	\$1,386,000

Total Project Cost (with overhead and contingency):

Current Charges	\$ 1,628,025
Direct	\$ 158,004
Construction	<u>\$ 1,580,040</u>
Total	\$ 3,366,100

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project:	Southwest Systemwide SCADA Upgrade	Region	II
Limits:	0	District	Southwest
		System	Southwest System

Estimate By: <u>JM</u>	Approved By: _____
Estimate Date: <u>01/28/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	SCADA System Implementation Construction	1	LS	\$1,200,000	\$1,200,000
2	External Labor/CM	1	LS	\$60,000	\$60,000
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$1,260,000
	Company Direct Costs*	10%			\$126,000

*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services

Project Cost Estimate

Project Title Compton-Doty Plant, Replace Well #1

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	II	Southwest
Customer Service Area		Southwest
Water Distribution System		Southwest System

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$0
Construction	<u>\$2,173,200</u>
Total	\$2,173,200

Total Project Cost (with overhead and contingency):

Current Charges	\$ 2,707,783
Direct	\$ -
Construction	<u>\$ 2,725,193</u>
Total	\$ 5,433,000

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: Compton-Doty Plant, Replace Well #1
 Limits: 0

Region II
 District Southwest
 System Southwest System

Estimate By: JM Approved By: _____
 Estimate Date 01/28/26 mm/dd/yyyy

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Remaining Construction- Equipping	1	LS	\$1,948,151	\$1,948,150
2	Remaining Internal/External Labor, Inspection, CM	1	LS	\$225,000	\$225,000
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$2,173,150
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title

Systemwide, Install Back-up Generators in various plant sites

Budget Year

(All estimates are calculated in 2025 unit costs)

Region/District

11

Southwest

Customer Service Area

Southwest

Water Distribution System

Southwest System

Project Need

The company needs to install diesel-powered generators to serve customers when MWD (Metropolitan Water District) water can not be delivered, and electrical power outages occur at the same time in the Southwest system. We need backup generators in Doty, Southern, and Dalton Plants for Lawdale - Gardena Zone, Ballona Plant for Atherns - Normandie Zone, and Belhaven Plant for Belhaven Zone.

Company needs to install diesel powered generators to serve customers when MWD (Metropolitan Water District) water can not deliver water and electrical power outage occur at the same time in Southwest system. We need backup generators in Doty, Southern and Dalton Plants for Lawdale - Gardena Zone, Ballona Plant for Atherns - Normandie Zone and Belhaven Plant for Belhaven Zone.

This project was identified as a *high-priority* project. The risks associated with this asset are driven by the System Condition Assessment (Section 8) of the 2022 Master Plan. (See Table 8-1). The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability.

Project Description

Install Back-up Generators in Doty, Southern, Dalton, Ballona and Belhaven Plant in Southwest system.

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$2,235,800
Total	<u>\$2,235,800</u>

Total Project Cost (with overhead and contingency):

Current Charges	\$ 1,049,547
Direct	\$ -
Construction	\$ 2,676,253
Total	\$ 3,725,800

Contingency = 5.0%
Overhead = 14.0%

Construction Cost Estimate

Project: Systemwide, Install Back-up Generators in v
 Limits: 0

Region II
 District Southwest
 System Southwest System

Estimate By: AF Approved By: _____
 Estimate Date 02/24/26 mm/dd/yyyy

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Remaining construction costs	1	LS	\$913,450	\$913,450
2	Procurement 5 generators	1	LS	\$900,453	\$900,450
3	Internal labor, outside services, permit	1	LS	\$421,900	\$421,900
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$2,235,800
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Ball Rd Plant, Electrical Upgrades

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region 3	Orange County
Customer Service Area		Los Alamitos
Water Distribution System		Orange

Project Need

At the Ball Road Plant Site, the electrical equipment for Ball Road Well No.1 is over 30 years old and has reached the end of its useful life. The parts are old, obsolete, and difficult to find replacement for when they fail. Safety of the plant site and operators is a concern due to the fact that older MCC panels become more fragile and prone to failure. An internal condition assessment effort has concluded that electrical upgrades at the Ball Road Plant Site are necessary to continue to safely and efficiently operate this critical supply source, and to continue to reliably meet customer demands in the West Orange System.

This project was identified as a high-priority project. The risks associated with this asset are driven by the System Condition Assessment (Section 8) of the 2022 Master Plan. (See Table 8-1) The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability.

Project Description

Upgrade electrical equipment at Ball Rd Plant:

- Demolish and remove existing switchboards and MCC enclosures, conduits, and concrete pads.
- Construct MCC concrete pad.
- Install new MCC. Install metering switchboard. Install conduits, conductors, pull boxes, devices, switches, light fixtures, receptacles, and connections below grade and above grade.
- Provide PLC programming..

Total Project Cost (2025 dollars):

Direct	
Construction	\$807,000
Total	\$807,000

Total Project Cost (with overhead and contingency):

Current Charges	\$ 117,031
Direct	
Construction	\$ 1,011,978
Total	\$ 1,129,100

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project:	Ball Rd Plant, Electrical Upgrades	Region	Region 3
Limits:	0	District	Orange County
		System	Orange

Estimate By: <u>AF</u>	Approved By: _____
Estimate Date <u>02/25/26</u>	_____

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Remaining construction cost	1	LS	\$594,000	\$594,000
2	Internal labor, outside services, & SCE coss	1	LS	\$213,000	\$213,000
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$807,000
	Company Direct Costs*	0%			\$0

*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services

Project Cost Estimate

Project Title 27431285 - Fairhaven Filter Media Replacement

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region III	Orange County
Customer Service Area	CH	
Water Distribution System	CH	

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$287,000
Total	\$287,000

Total Project Cost (with overhead and contingency):

Current Charges	\$	-
Direct	\$	-
Construction	\$	343,539
Total	\$	343,600

Contingency =	5.0%
Overhead =	14.0%

Construction Cost Estimate

Project: 27431285 - Fairhaven Filter Media Replacer

Limits: _____

Region Region IIIDistrict Orange CountySystem CHEstimate By: JDApproved By: JDEstimate Date 02/12/2602/12/26

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Estimated Construction	1	LS	\$251,000	\$251,000
2	Remaining (CM & Operations Labor Costs, perm	1	LS	\$36,000	\$36,000
3		0	LS	\$0	\$0
4		1	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$287,000
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title 27531546 - Bradford Filter Media Replacement

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region III	Orange County
Customer Service Area		PLA
Water Distribution System		PLA

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$250,000
Total	\$250,000

Total Project Cost (with overhead and contingency):

Current Charges	\$ 467
Direct	\$ -
Construction	\$ 313,500
Total	\$ 314,000

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: 27531546 - Bradford Filter Media Replacem

Limits: _____

Region Region IIIDistrict Orange CountySystem PLAEstimate By: JD Approved By: JDEstimate Date 02/05/26 02/05/26

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Estimated Construction	1	LS	\$234,950	\$234,950
2	Remaining (CM & Operations Labor Costs, perm	1	LS	\$15,000	\$15,000
3		0	LS	\$0	\$0
4		1	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$249,950
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Claremont Systemwide SCADA Upgrade

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	III	Foothill
Customer Service Area		Claremont
Water Distribution System		Claremont System

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$362,700
Construction	<u>\$2,790,000</u>
Total	\$3,152,700

Total Project Cost (with overhead and contingency):

Current Charges	\$ 589,063
Direct	<u>\$ 434,152</u>
Construction	<u>\$ 3,339,630</u>
Total	\$ 4,362,900

Contingency =	5.0%
Overhead =	14.0%

Construction Cost Estimate

Project:	Claremont Systemwide SCADA Upgrade	Region	III
Limits:	0	District	Foothill
		System	Claremont System

Estimate By: <u>JM</u>	Approved By: _____
Estimate Date: <u>01/28/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	SCADA System Implementation Construction	1	LS	\$2,790,000	\$2,790,000
2		0	LS	\$0	\$0
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$2,790,000
	Payment & Performance Bond	3%			\$83,700
	Company Direct Costs*	10%			\$279,000
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title San Dimas Systemwide SCADA Upgrade

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	III	Foothill
Customer Service Area		San Dimas
Water Distribution System		San Dimas System

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$109,000
Construction	<u>\$1,090,000</u>
Total	\$1,199,000

Total Project Cost (with overhead and contingency):

Current Charges	\$ 1,454,096
Direct	\$ 136,686
Construction	<u>\$ 1,366,860</u>
Total	\$ 2,957,700

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project:	San Dimas Systemwide SCADA Upgrade	Region	III
Limits:	0	District	Foothill
		System	San Dimas System

Estimate By: <u>JM</u>	Approved By: _____
Estimate Date: <u>01/28/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	SCADA System Implementation Construction	1	LS	\$1,030,000	\$1,030,000
2	External Labor/CM	1	LS	\$60,000	\$60,000
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$1,090,000
	Company Direct Costs*	10%			\$109,000
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Walnut Booster Station, Replace Vault

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region 3	Foothill
Customer Service Area		San Dimas
Water Distribution System		San Dimas

Project Need

The Walnut Booster Pump Station consists of two booster pumps with a total capacity of 600 gpm. Walnut BPS is a critical plant site in providing Puddingstone Zone with potable water. The vault walls are in poor condition and need to be replaced in order to maintain system reliability for the customers in the Puddingstone Zone. In addition, installation of production meter at this plant site will allow data viewing and logging of all booster station production. Having this additional data available, both real-time and in historical storage, will greatly enhance the operational assessment of the system allowing operations to make more informed, data driven decisions.

This project was identified as a high-priority project. The risks associated with this asset are driven by the System Condition Assessment (Section 8) of the 2022 Master Plan. (See Table 8-1)

The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability.

Project Description

Replace Walnut BPS vault walls and install production meter

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$165,200
Total	\$165,200

Total Project Cost (with overhead and contingency):

Current Charges	\$ 92,632
Direct	\$ -
Construction	\$ 207,161
Total	\$ 299,800

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: Walnut Booster Station, Replace Vault
 Limits: 0

Region Region 3
 District Foothill
 System San Dimas

Estimate By: A.F. Approved By: _____
 Estimate Date 02/02/26

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Construction cost	1	LS	\$118,980	\$118,980
2	Internal labor, outside services, permit, & misc.	1	LS	\$46,248	\$46,250
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$165,230
	Company Direct Costs*	0%			\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title South San Gabriel Systemwide SCADA Upgrade

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	III	Foothill
Customer Service Area		San Gabriel Valley
Water Distribution System		South San Gabriel

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$64,400
Construction	<u>\$495,000</u>
Total	\$559,400

Total Project Cost (with overhead and contingency):

Current Charges	\$	132,889
Direct	\$	<u>77,087</u>
Construction	\$	<u>592,515</u>
Total	\$	802,500

Contingency =	5.0%
Overhead =	14.0%

Construction Cost Estimate

Project: South San Gabriel Systemwide SCADA Upg
 Limits: 0

Region III
 District Foothill
 System South San Gabriel

Estimate By: JM Approved By: _____
 Estimate Date 01/28/26 mm/dd/yyyy

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	SCADA System Implementation Construction	1	LS	\$495,000	\$495,000
2		0	LS	\$0	\$0
3		0	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$495,000
	Payment & Performance Bond	3%			\$14,900
	Company Direct Costs*	10%			\$49,500
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Navajo Booster Zone Looping

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region III	Mountain/Desert
Customer Service Area		Morongo Valley
Water Distribution System		Morongo Del Norte

Project Need

This pipeline installation is necessary in order to address hydraulic deficiencies of the Navajo Booster Zone. This pipeline would be a new pipeline to increase the pipeline looping, decrease headloss, and eliminate two dead-end mains in the zone. The new pipeline will tie into the soon to be constructed pipeline along Bella Vista Dr, run along Cheyenne Trail and tie into the existing 6" diameter AC pipeline, north of PRV Station 01. The new pipeline will improve the hydraulics of the system, provide more reliable service to our customers, and address the deficiencies listed above.

The proposed pipeline alignment would run through private property between the intersection of Cheyenne Trail and Piedras Trail and Cheyenne Trail and Bella Vista Drive. Because easements are required, it is proposed to delay construction until the 2026 GRC to allow for more time to acquire the necessary easements as part of the 2023 GRC. Therefore, the total project cost for construction with contingencies is left blank.

The GSWC Pipeline Management Program consists of three components: 1) a risk assessment of existing pipelines and pressure zones, 2) a pipeline lifecycle analysis and 3) a pipe replacement prioritization process.

This risk assessment of the pipelines was conducted as a part of the overall risk assessment for this GRC. Considerations of lifecycle parameters were evaluated utilizing KANEW asset management software. KANEW utilized pipeline parameters including installation year, size, and type of material to develop pipeline replacement rates. Risk analyses then focused on leak history, pipeline importance, condition of asset, and level of service provided. Parameter 'weightings' were developed and utilized to place more importance on parameters deemed most critical to the level of service GSWC is striving to provide. Pipeline replacement priorities were established utilizing data from the risk assessment and lifecycle analyses through which a "total benefit score" was developed. A complete list of prioritized projects, along with details of parameters and attributes used to develop the scores, are provided in appendices to the Pipeline Management Program report.

Project Description

Install approximately 1,320 LF of 8" diameter PVC along Bella Vista Dr, Cheyenne Trail, and Piedras Trail within the Navajo Booster Zone. A portion of this proposed pipeline is parallel with the proposed Navajo Tank Zone pipeline looping project. Therefore, the special circumstances (easements and survey) for this pipeline are also for the Navajo Tank Zone pipeline looping project.

Total Project Cost (2025 dollars):

Direct	\$105,400
Construction	\$608,900
Total	\$714,300

Design estimate increased to account for consulting costs

Total Project Cost (with overhead and contingency):

Current Charges	\$ 27,805
Direct	\$ 80,995
Construction	
Total	\$ 108,800

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: <u>Navajo Booster Zone Looping</u> Limits: _____ _____	Region <u>Region III</u> District <u>Mountain/Desert</u> System <u>Morongo Del Norte</u>
---	--

Estimate By: <u>OV</u> Estimate Date <u>02/11/26</u>	Approved By: _____ _____
---	-----------------------------

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Main	1320	LF	\$374	\$493,680
2	Fire Hydrants	4	Ea.	\$22,520	\$90,080
3	Services (less than 3")	2	Ea.	\$4,275	\$8,550
4	Large Services (3" and larger)	0	Ea.	\$15,000	\$0
5	Special Circumstances - Clearing/Grubbing	31680	SF	\$0.35	\$11,090
6	Special Circumstances - Asphalt Restoration	15600	SF	\$0.35	\$5,460
7	Special Circumstances - Survey	1	LS	\$50,000	\$50,000
8	Special Circumstances - Easements	1	LS	\$25,000	\$25,000
9	Payment & Performance Bond	1	LS	\$0	\$18,300
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
	Construction				\$608,860
	Company Direct Costs*	5%			\$105,400
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Yeager Plant, New Well

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	III	Mountain/Desert
Customer Service Area		Morongo Valley
Water Distribution System		Morongo Del Sur

Project Need

Project Description

Total Project Cost (2025 dollars):

Direct	\$0
Construction	<u>\$3,518,500</u>
Total	\$3,518,500

Total Project Cost (with overhead and contingency):

Current Charges	\$ 413,882
Direct	\$ -
Construction	<u>\$ 4,412,199</u>
Total	\$ 4,826,100

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project:	Yeager Plant, New Well	Region	III
Limits:	0	District	Mountain/Desert
		System	Morongo Del Sur

Estimate By: <u>JM</u>	Approved By: _____
Estimate Date: <u>01/28/26</u>	<u>mm/dd/yyyy</u>

Item No	Description	Quantity	Unit	2025	
				Unit Cost	Cost
1	Remaining Construction- Drilling	1	LS	\$1,343,739	\$1,343,740
2	Construction PCE Estimate- Equipping	1	LS	\$1,630,561	\$1,630,560
3	Remaining Hydrogeological Consultant	1	LS	\$80,243	\$80,240
4	Remaining Equipping Design Consultant	1	LS	\$123,975	\$123,980
5	Internal/External Labor, Inspection, CM, Design	1	LS	\$340,000	\$340,000
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	LS	\$0	\$0
11		0	LS	\$0	\$0
12		0	LS	\$0	\$0
13		0	LF	\$0	\$0
14		0	LS	\$0	\$0
15		0	Ea.	\$0	\$0
16		0	Ea.	\$0	\$0
17		0	Ea.	\$0	\$0
Construction					\$3,518,520
Company Direct Costs*				0%	\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Apple Valley South SCADA (R3 2022)

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region III	Mountain/Desert
Customer Service Area	Apple Valley	
Water Distribution System	Apple Valley South	

Project Need

The Apple Valley South System is currently run with SCADA. To provide more reliability and to run the system more efficiently, SCADA must be upgraded at four additional plant sites. The SCADA system - made up of devices which measure or sense process conditions and allow manual (operator-initiated), automatic and remote process monitoring and control - must be installed. Work at the sites will include the addition of conduit, cabling, sensors, and PLCs as needed depending on the age/condition and level of automation currently in place.

This project was identified as a high-priority project.

The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability.

Project Description

Install SCADA, controls, electrical, and new instrumentation devices at Apple Valley CSA, Bear Valley, Mohawk and Kiowa plant site.

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$324,300
Total	\$324,300

Total Project Cost (with overhead and contingency):

Current Charges	\$	490,991
Direct	\$	-
Construction	\$	406,672
Total	\$	897,700

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: Apple Valley South SCADA (R3 2022)
 Limits: _____

Region Region III
 District Mountain/Desert
 System Apple Valley South

Estimate By: Nelson Sarti Approved By: _____
 Estimate Date 01/26/26

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Construction Cost	1	LS	\$182,400	\$182,400
2	Other Items (Design,CM & Operations Labor Cost:	1	LS	\$141,900	\$141,900
3		1	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	Ea.	\$0	\$0
11		0	Ea.	\$0	\$0
12		0	LS	\$0	\$0
13		0	LS	\$0	\$0
14		0	LS	\$0	\$0
15		0	LS	\$0	\$0
16		0	LF	\$0	\$0
17		0	SF	\$0	\$0
18		0	Ea.	\$0	\$0
19		0	LS	\$0	\$0
20		0	Ea.	\$0	\$0
21		0	Ea.	\$0	\$0
22		0	LS	\$0	\$0
23		0	LS	\$0	\$0
24		0	LS	\$0	\$0
Construction					\$324,300
Company Direct Costs*					\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Desert View SCADA (R3 2022)

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region III	Mountain/Desert
Customer Service Area	Apple Valley	CSA
Water Distribution System	Desert View	

Project Need

The Desert View System is currently run with SCADA. The SCADA system - made up of devices which measure or sense process conditions and allow manual (operator-initiated), automatic and remote process monitoring and control - must be upgraded. Work at the sites will include the addition of conduit, cabling, sensors, and PLCs as needed depending on the age/condition and level of automation currently in place.

This project was identified as a high-priority project.

The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability

Project Description

Upgrade SCADA, controls, electrical, and new instrumentation devices at Desert View system.

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$88,900
Total	\$88,900

Total Project Cost (with overhead and contingency):

Current Charges	\$ 263,111
Direct	\$ -
Construction	\$ 111,481
Total	\$ 374,600

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: Desert View SCADA (R3 2022)
 Limits: _____

Region Region III
 District Mountain/Desert
 System Desert View

Estimate By: Nelson Sarti Approved By: _____
 Estimate Date 01/26/26

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Construction Cost	1	LS	\$64,750	\$64,750
2	Other Items (Design,CM & Operations Labor Cost:	1	LS	\$74,000	\$74,000
3	Material Reallocation/Adjustment	1	LS	-\$49,900	-\$49,900
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	Ea.	\$0	\$0
11		0	Ea.	\$0	\$0
12		0	LS	\$0	\$0
13		0	LS	\$0	\$0
14		0	LS	\$0	\$0
15		0	LS	\$0	\$0
16		0	LF	\$0	\$0
17		0	SF	\$0	\$0
18		0	Ea.	\$0	\$0
19		0	LS	\$0	\$0
20		0	Ea.	\$0	\$0
21		0	Ea.	\$0	\$0
22		0	LS	\$0	\$0
23		0	LS	\$0	\$0
24		0	LS	\$0	\$0
Construction					\$88,850
Company Direct Costs*					\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title Desert View Plant, Site Improvements

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region III	Mountain / Desert
Customer Service Area		Apple Valley
Water Distribution System		Desert View System

Project Need

This project includes improvements for the Desert View Plant Site, which has Desert View Wells 1 and 2. For Desert View Well 2, this project proposes to construct a well house, replace discharge piping, extend drainage piping, and install a new vault.

For both wells, this project proposes to upgrade electrical equipment, install VFDs, and replace the meter vaults (includes a spring-assisted lid). Add AC units for the well houses due to the VFDs.

Desert View Electrical Upgrades include the following:

- Demolish and remove existing switchboards and MCC enclosures, conduits, and concrete pads.
- Construct MCC concrete pad.
- Install new 480V MCC. Install metering switchboard. Install below grade and above grade conduits, conductors, pull boxes, devices, switches, light fixtures, receptacles, and connections. Install electrical service equipment.
- Install grounding system.
- Provide PLC programming.
- Provide equipment checkout, testing, start-up, and commissioning.

Project Description

For Desert View Well 2, there is no enclosure to protect the well from the desert climate, such as cold temperatures in the winter. Corrosion has been observed on the discharge piping and pipe supports. This project would also install a new vault and extend the drain piping for Well 2.

For both wells, this project would install a VFD on each well to replace the existing hydropneumatic tank. The meter vaults are in poor condition. The electrical equipment is over 30 years old and has reached the end of its useful life. The parts are old, obsolete, and worn out. The electrical equipment presents a safety hazard since some of the wire insulation has started to crack. Electrical upgrades to the Desert View Plant Site are necessary to continue to safely and efficiently operate both wells to continue to meet customer demands.

This project was identified as a high-priority project. The risks associated with this asset are driven by the System Condition Assessment (Section 8) of the 2022 Master Plan. (See Table 8-1).

The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability.

Total Project Cost (2025 dollars):

Direct	\$86,000
Construction	\$756,200
Total	\$842,200

Design estimate increased to account for consulting costs

Total Project Cost (with overhead and contingency):

Current Charges	\$ 2,878
Direct	\$ 86,000
Construction	\$ 948,275
Total	\$ 1,037,200

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: Desert View Plant, Site Improvements
 Limits: 0

Region Region III
 District Mountain / Desert
 System Desert View System

Estimate By: RAC Approved By: _____
 Estimate Date 01/23/26

initials _____
 mm/dd/yyyy

Item No	Description	Quantity	Unit	2025	
				Unit Cost	Cost
1	Mobilization	1	LS	\$60,000	\$60,000
2	Discharge piping and appurtenances	1	LS	\$97,650	\$97,650
3	Drainline/connection	1	LS	\$65,100	\$65,100
4	Well pump house	1	LS	\$65,100	\$65,100
5	MCC pad	1	LS	\$13,020	\$13,020
6	Modify electrical controls to use VFD	2	LS	\$19,530	\$39,060
7	Spring-Assisted/Traffic-Loaded Vault Cover (4'X15')	1	LS	\$34,937	\$34,940
8	Vault (4Ft X 4Ft X 5Ft)	1	LS	\$38,000	\$38,000
9	VFD/Soft Start	2	Ea.	\$32,903	\$65,810
10	Well - base, concrete	1	LS	\$21,700	\$21,700
11	Well house - electrical	2	LS	\$21,700	\$43,400
12	Demolish and remove existing switchboards, MCC enclosures, conduits,	1	LS	\$3,147	\$3,150
13	Provide and install grounding system	1	LS	\$1,736	\$1,740
14	Provide PLC programming	1	LS	\$43,000	\$43,000
15	Provide equipment checkout, testing, start up, and commissioning	1	Ea.	\$2,821	\$2,820
16	Furnish and install 480V MCC	1	Ea.	\$86,800	\$86,800
17	Furnish and install 480V Metering Switchboards	1	Ea.	\$37,975	\$37,980
18	Provide and install below grade and above grade conduits, conductors, pull boxes, devices, switches, light fixtures, receptacles, and connections	1	Ea.	\$17,360	\$17,360
19	Furnish and install electrical service equipment and coordination with SCI	1	Ea.	\$8,680	\$8,680
20	Miscellaneous (Asphalt restoration, repair chain link fence, etc.)	1	Ea.	\$10,850	\$10,850
Construction					\$756,160
Company Direct Costs*					\$113,424
Performance and Payment Bonds					\$22,685
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					

Project Cost Estimate

Project Title APV North SCADA Ph.III

Budget Year (All estimates are calculated in 2025 unit costs)

Region/District	Region III	Mountain/Desert
Customer Service Area	Apple Valley	
Water Distribution System	Apple Valley North	

Project Need

The Apple Valley North System is currently not run with SCADA. To provide more reliability and to run the system more efficiently, SCADA must be installed. This project will provide SCADA system for Central Plant and Papago Plant. The SCADA system - made up of devices which measure or sense process conditions and allow manual (operator-initiated), automatic and remote process monitoring and control - must be installed. Work at the sites will include the addition of conduit, cabling, sensors, and PLCs as needed depending on the age/condition and level of automation currently in place.

This project was identified as a high-priority project.

The GSWC stated mission of providing a safe and economical water supply was used as the basis for the desired level of service for all GSWC systems. An asset hierarchy was developed to provide that level of service based on health, safety and security, the financial impacts on the utility, public confidence, compliance with regulations, permits and codes, and system reliability

Project Description

Upgrade SCADA, controls, electrical, and new instrumentation devices at Central Well and Papago Well.

Total Project Cost (2025 dollars):

Direct	\$0
Construction	\$120,100
Total	\$120,100

Total Project Cost (with overhead and contingency):

Current Charges	\$	133,653
Direct	\$	-
Construction	\$	150,605
Total	\$	284,300

Contingency =	10.0%
Overhead =	14.0%

Construction Cost Estimate

Project: APV North SCADA Ph.III
 Limits: _____

Region Region III
 District Mountain/Desert
 System Apple Valley System

Estimate By: Nelson Sarti Approved By: _____
 Estimate Date 01/26/26

Item No	Description	Quantity	Unit	2025 Unit Cost	Cost
1	Construction	1	LS	\$87,026	\$87,030
2	Other Items (Design,CM & Operations Labor Cost:	1	LS	\$33,025	\$33,030
3		1	LS	\$0	\$0
4		0	LS	\$0	\$0
5		0	LS	\$0	\$0
6		0	LS	\$0	\$0
7		0	LS	\$0	\$0
8		0	LS	\$0	\$0
9		0	LS	\$0	\$0
10		0	Ea.	\$0	\$0
11		0	Ea.	\$0	\$0
12		0	LS	\$0	\$0
13		0	LS	\$0	\$0
14		0	LS	\$0	\$0
15		0	LS	\$0	\$0
16		0	LF	\$0	\$0
17		0	SF	\$0	\$0
18		0	Ea.	\$0	\$0
19		0	LS	\$0	\$0
20		0	Ea.	\$0	\$0
21		0	Ea.	\$0	\$0
22		0	LS	\$0	\$0
23		0	LS	\$0	\$0
24		0	LS	\$0	\$0
Construction					\$120,060
Company Direct Costs*					\$0
*Includes Permits, engineering, inspection, District/Regional costs, insurance, tools, taxes, and construction services					