Agenda
Sacramento Suburban Water District
Special Board Meeting

3701 Marconi Avenue, Suite 100
Sacramento, California 95821

Wednesday, November 9, 2022
5:00 p.m.

This meeting will be conducted both in-person in the District's Boardroom at the address above, and by videoconference and teleconference using the information provided below. The public is invited to listen, observe, and provide comments during the meeting by any method provided. The President will call for public comment on each agenda item at the appropriate time and all votes will be taken by roll call.

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Join the meeting from a computer, tablet or smartphone:
https://us02web.zoom.us/j/81032535734?pwd=MVlNSEROTjlMN1NlcGgrdEVmaTZDZz09

Meeting ID: 810 3253 5734
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Please mute your line.

Where appropriate or deemed necessary, the Board may take action on any item listed on the agenda, including items listed as information items. Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection in the customer service area of the District's Administrative Office at the address listed above.

The public may address the Board concerning an agenda item either before or during the Board's consideration of that agenda item. Persons who wish to comment on either agenda or non-

agenda items should fill out a Comment Card and give it to the General Manager. The President will call for comments at the appropriate time. Comments will be subject to reasonable time limits (3 minutes).

In compliance with the Americans with Disabilities Act, if you have a disability, and you need a disability-related modification or accommodation to participate in this meeting, then please contact Sacramento Suburban Water District Human Resources at 916.679.3972. Requests must be made as early as possible and at least one full business day before the start of the meeting.

Call to Order

Roll Call

Announcements

Public Comment
This is the opportunity for the public to comment on non-agenda items within the Board's jurisdiction. Comments are limited to 3 minutes.

Items for Discussion and/or Action

1. Carmichael Water District / Sacramento Suburban Water District Combination Study Business Case Analysis
   Recommendation: Receive Draft Combination Study Business Case Analysis Report, provide comments/questions, and direct staff as appropriate.

Adjournment

Upcoming Meetings

- Monday, November 21, 2022, at 6:00 p.m., Regular Board Meeting

* *

I certify that the foregoing agenda for the November 9, 2022, meeting of the Sacramento Suburban Water District Board of Directors was posted by November 4, 2022, in a publicly-accessible location at the Sacramento Suburban Water District office, 3701 Marconi Avenue, Suite 100, Sacramento, California, and was freely available to the public.

Dan York
General Manager/Secretary
Sacramento Suburban Water District

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Agenda Item: 1

Date: November 9, 2022

Subject: Carmichael Water District / Sacramento Suburban Water District Combination Study Business Case Analysis

Staff Contact: Dan York, General Manager

Recommended Board Action:

Receive Draft Business Case for a Potential Combination Report, provide comments/questions, and direct staff as appropriate.

Discussion:

At the October 6, 2021, Joint Board meeting between Carmichael Water District (CWD) and Sacramento Suburban Water District (SSWD), staff was directed to perform the necessary process to acquire a consultant to conduct a Business Case Analysis (Analysis) of a potential combination between CWD and SSWD.

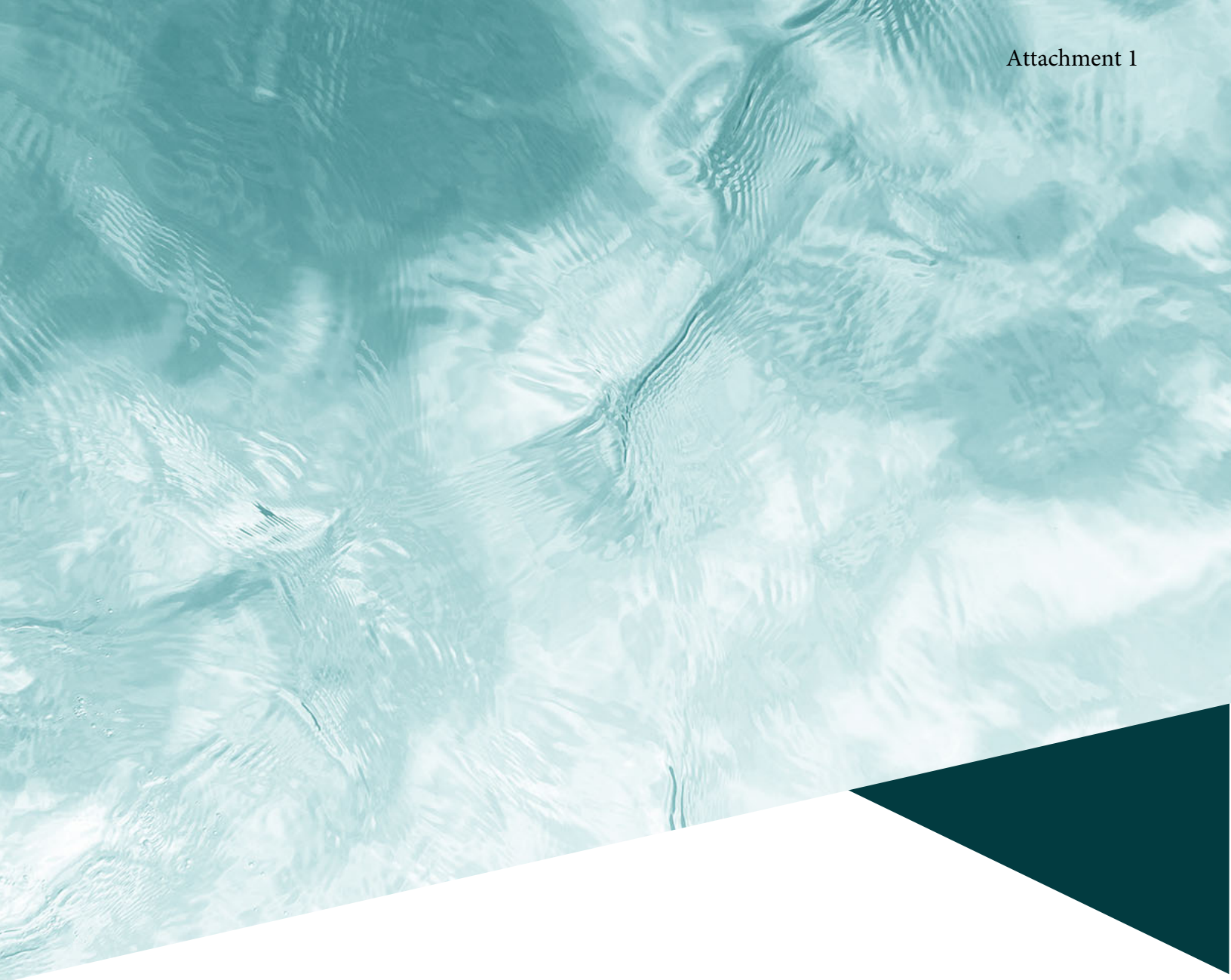
Raftelis was the consultant selected to conduct the Analysis. Raftelis presented the draft Analysis (see Attachment 1) to the 2x2 Committee on October 13, 2022. Following the October 13th 2x2 Committee meeting, staff received questions/comments from the 2x2 Committee members, of which are answered/addressed in Attachment 2 to this staff report. In addition, staff has provided a copy of a memorandum from Bartkiewicz, Kronick & Shanahan, SSWD general counsel, that addressed Board questions from the prior combination discussion between SSWD and San Juan Water District. The memorandum (see Attachment 3) is a response to several questions related to the differences in powers of authority, options if the districts considered to combine, and water entitlement rights.

Direction by the 2x2 Committee was to present the draft Analysis to the respective Boards in November 2022 in order to receive additional comments/questions related to the subject efforts of CWD and SSWD. The intent is to receive comments/questions from both Boards, provide responses to those comments/questions, and then proceed in conducting a joint CWD / SSWD Board meeting to determine if both Boards are agreeable to continue the combination discussions.

Attachments:

1. Business Case Analysis Draft Report in Redline
2. Questions and Comments From 2x2 Committee on Draft Business Case for a Potential Combination Report
3. Joint Water Management Opportunities – Responses to Boards' request for information on district combination and water rights issues

Attachment 1



CARMICHAEL WATER DISTRICT &
SACRAMENTO SUBURBAN WATER DISTRICT

Business Case for a Potential Combination

DRAFT REPORT / OCTOBER 7, 2022

CARMICHAEL WATER DISTRICT
Serving the Community of Carmichael, California Since 1916

SACRAMENTO SUBURBAN WATER DISTRICT

RAFTELIS

ZANJERO
ADVISE • MANAGE • SOLVE

October 7, 2022

Mr. Daniel R. York, General Manager
c/o Ms. Heather Hernandez at hhernandez@sswd.org
Sacramento Suburban Water District
3701 Marconi Avenue, Suite 100
Sacramento, CA 95821

Ms. Cathy Lee, General Manager
Carmichael Water District
7837 Fair Oaks Boulevard
Carmichael, CA 95608

Subject: Business Case for a Potential Combination Study Report

Dear Mr. York & Ms. Lee:

Raftelis and Zanjero are pleased to provide this Business Case for a Potential Combination Study Report (Report) to Carmichael Water District (CWD) and Sacramento Suburban Water District (SSWD) as part of your ongoing efforts to ensure the continuation of high quality, reliable, and fiscally responsible service to each community.

The major objectives of the study include the following:

- Identification of the advantages, disadvantages, opportunities, challenges, and risks of a possible utility combination.
- Evaluation of the financial and operational business case for a potential utility combination.
- Development of recommended next steps on collaborative implementation of near-term shared service opportunities or longer-term utility combination.

The report summarizes the key findings and recommendations related to the water utility combination business case evaluation.

It has been a pleasure working with you, and we thank you and the Districts' staff for the support provided during the course of this study.

Sincerely,

Seth Garrison
Project Manager

Zach Green
Manager

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Appendices

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Executive Summary

Carmichael Water District and Sacramento Suburban Water District partnered with Raftelis Financial Consultants, Inc. to conduct a Business Case Study for a Potential Combination (Study) of the two organizations. Given the limited water resources in the Sacramento region and across California, as well as evolving regulatory and customer demands, examining regional collaboration opportunities is imperative. It is important to recognize that this Study is being conducted in a time of high inflation and evolving regulations. These factors are creating significant upward pressure on rates. Utility costs are increasing rapidly. In addition, resources are more difficult to procure because of supply chain issues, ~~and~~ the effects of "The Great Resignation" and other Covid-19 impacts on hiring competition and ultimately wages, as well as inflation more broadly.~~"~~ Perhaps most significantly, utilities across the west are in an era of extreme drought that has touched the entire State of California and Sacramento Region in many ways. The realized effects include curtailments in the amount of water that can be extracted from existing surface water supply sources and an increasing emphasis on conservation that includes largely voluntary requests for customer usage reductions and penalties for repeat offenders.

CWD and SSWD initiated this Study to address their desire to gain efficiencies through collaboration. By way of collaboration, they hope to maximize value and minimize costs to customers, optimize water supplies and service levels, and improve the ability to advocate effectively during local and regional water policy discussions. Ultimately, the goal of the study is to objectively evaluate the potential benefits and risks of the combination of the two agencies, and if combination is found to be favorable, to develop an implementation path.

This Study follows a series of prior efforts that looked at either regional collaboration or combination alternatives, each of which helped to focus and advance conversations between CWD and SSWD. SSWD and CWD, as well as many of the water agencies in the region, already have resource sharing and collaboration arrangements and there are several initiatives and agencies, such as the Regional Water Authority (RWA), that are actively working to form additional partnerships to address issues that impact the region and/or groups of utilities in and around Sacramento County. SSWD itself is a product of combination having been created through the merging of the Arden-Arcade Water District and the Northridge Water District. Over time, SSWD has come to recognize that effort as a successful one that allowed for better cost control and more reliable service. CWD has recognized the potential for scale and greater regional coordination to improve the sustainability of its services through an award-winning partnership with Golden State Water Company and Aerojet Rocketdyne.

This Study focuses on evaluating existing governance, operational, managerial, administrative, capital, and water supply functions as compared with potential future states of increasing collaboration and combination. Staffing and financial considerations are addressed for each function as well as at the organizational scale. To unlock opportunities for comparison of these two unique agencies, the Study focuses on unitized financials that put each organization and future state organization on an equal footing. Units of financial analysis include staff, customer, infrastructure, and water production measures that get at the efficiency of utility operations. Ultimately, the Study evaluates these analytics to develop recommendations around possible next steps for the agencies' collective consideration.

There are both pros and cons to considering a combination of CWD and SSWD. Prominent pros include the following:

- Ability to achieve greater scale efficiencies through a larger organization: the two entities each have areas of strength, as well as under and over-utilized staff; combining the two entities could provide efficiencies if resources are used strategically
- Greater water resource sharing and utilization: maximizing the use of water resources is a complex process filled with regulatory and political hurdles, but with the portfolio of groundwater, imported, remediated, and surface water assets possessed by both Districts, there are significant opportunities to maximize resources
- Greater political advocacy: a larger organization that covers a broader service area will likely be able to increase its political advocacy in the region, helping it protect resources and ensure that it is appropriately represented so customers' needs are addressed
- Higher levels of customer service are possible by combining resources, allowing more specialization of staff, greater levels of scale efficiency, and perhaps new or expanded services
- More rate and financial stability are possible with a combined organization featuring a larger and more stable supply of water resources, a broader customer base, and an improved ability to deal with changes in operating conditions brought on by water resource challenges, staffing shortages, and inflation

While the pros to combination are significant, there are also notable cons including the following:

- A perceived loss of local control and the dilution of representation in a combined entity may be a concern; a combined entity would have Board members representing a larger number of constituents, assuming the Board is of the same size as the current Boards
- A larger organization often means more bureaucracy, and if not managed, redundancy and inefficiency; sound leadership will need to ensure scale efficiency is created while avoiding the pitfalls of a larger organization
- Adapting to changes can be challenging for staff, which requires attention and management effort to effectively navigate and thoughtfully consider as the new organization takes shape
- Challenges to water resources and/or limited ability to maximize resources: the regulatory and political environment may make it difficult to use water resources with maximum efficiency and could even invite some challenges to current arrangements

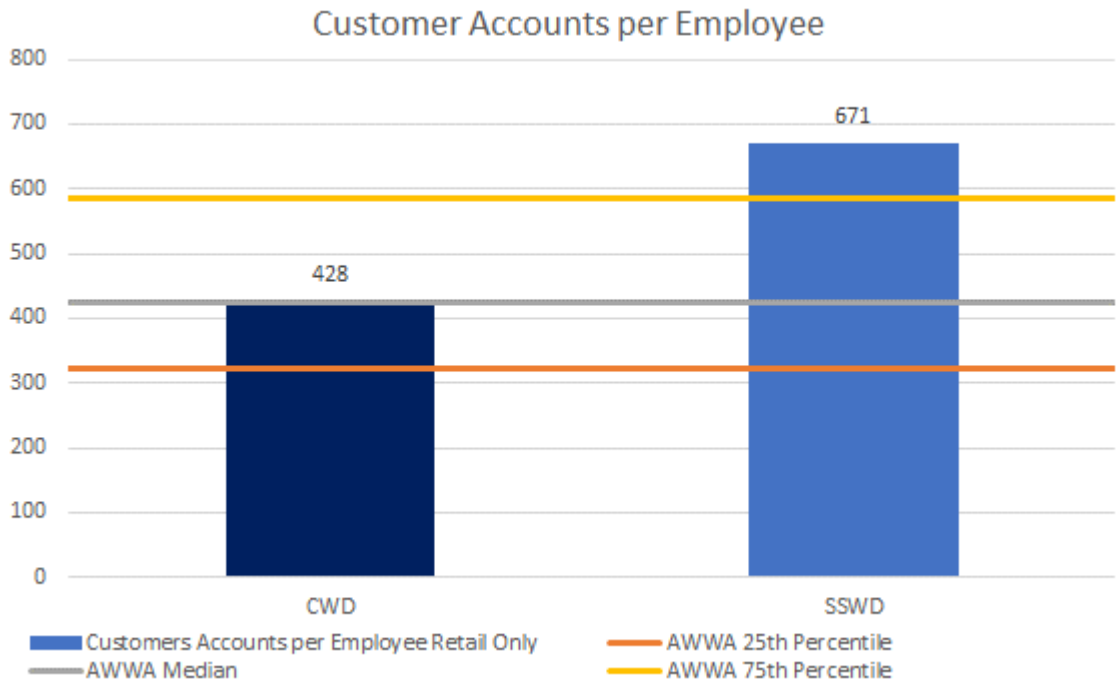
Two mechanisms for a potential combination are considered, as prescribed by state law, and administered by the Sacramento Local Area Formation Commission (LAFCo). Combining two or more public agencies (utilities) into one can be primarily achieved as either a consolidation or a reorganization (dissolution and subsequent annexation). The words "combination" or "combined" do not have a legal definition under LAFCo Law. This is in contrast to other words used colloquially like "merger" or "consolidation." The terms "consolidation" (as defined in Government Code §56030) and "reorganization" (as defined in Government Code §56073)" have specific meanings. The end results are essentially the same: one agency assumes the rights, responsibilities, assets, and liabilities from others. There are several quirks to this process.

If combining the two Districts moves forward, one of the most significant activities will be aligning the staff and operations of the two entities. An approach that moves from current to interim and then to long term arrangement is laid out. In the interim structure, all staff from SSWD and CWD would be retained, and water operations would largely continue as they do now. Functions would be slowly integrated over a period of a few years. This approach is least disruptive for both internal and external stakeholders. It allows the

leadership of the combined entity to integrate operations carefully and deliberately. Conceptual (only) organizational charts are provided to show a theoretical view of how the organizations may be integrated in the interim and long term periods. Note these are not intended to be implemented as shown.

Integrating systems such as Computerized Maintenance Management System (CMMS), GIS and Customer Information/ Billing (CIS), as well as processes like accounting, record keeping, and contracting would be tackled during the interim period. There would be costs and a considerable amount of staff time involved in the interim period. Essentially, these activities could be managed largely as they are now until full integration occurs. Current capital plans and activities could also be maintained in the interim period to ensure minimal disruption. Over the interim period, integration would be needed to achieve the scale efficiencies and other benefits afforded by combination. Raftelis estimated that a combined entity could at least achieve the same level of cost per cost as SSWD currently achieves, which is nearly double that of CWD currently.

Figure ES 1: Customer Accounts per Employee



In the prior regional study of collaboration opportunities in the Sacramento area conducted with CWD, SSWD, and others, repeatable avoided cost ranges on the order of 8-20% relative to uncombined organizations were noted for utility consolidations. Such levels again appear achievable between CWD and SSWD if the aforementioned 20-30% lower costs at SSWD are spread across normalized retail services. A key unknown variable is the monetization of water supplies, which could further drive economic benefits in this case.

Table ES details a rough financial estimate of the expected impact of combination activities based on industry costs estimated as part of similar studies by Raftelis and based on analyses of CWD and SSWD's current normalized cost spreads. The nearly $15 million dollars in savings over the first 10 years of integration equates to over 2% of combined operating expenses. However, this analysis is limited to the line items noted below that are immediately relevant to the combination effort, but does not account for worker productivity gains attributable to increased specialization, systems optimization, and the ability of the combined larger ratepayer base to bring down costs per unit and drive additional efficiencies. Together those impacts could

account for additional savings of 5-15%+ annually based on the normalized cost analyses described previously in this section and the range of efficiency gains seen in other utility combinations nationally.

Table ES 1: Business Case Summary

Description	Type	One Year		Over 10 Year Horizon	
		Low Estimate	High Estimate	Low Estimate	High Estimate
Elimination of redundant staff salary and benefits (Implemented Years 3-10)	Ongoing	$0	$1,250,000	$0	$12,500,000
Cost of providing salary parity	One-Time	($75,000)	($450,000)	($750,000)	($4,500,000)
Cost of providing benefits parity	One-Time	$5,000	$300,000	$50,000	$3,000,000
Software & Technology	One-Time	($25,000)	($1,000,000)	($25,000)	($1,000,000)
Relocation costs	One-Time	($10,000)	($40,000)	($10,000)	($40,000)
Combination-related studies and legal costs	One-Time	($250,000)	($500,000)	($250,000)	($500,000)
Existing legal services savings	Ongoing	$0	$29,000	$580,000	$1,280,000
Board consolidation savings	Ongoing	$21,000	$63,000	$630,000	$1,050,000
Water supply changes	Ongoing	$0	($1,050,000)[1]	$0	$2,750,000[2]
NET COST IMPACTS OF COMBINATION		**($334,000)**	**($1,148,000)**	**$225,000**	**$14,790,000**

Finally, it is important to remember that, in addition to the financial upside of a potential combination of 8 to 20% in total, it is the increased ability to manage supplies, implement best practices, and provide quality and reliable service to customers that must also be qualitatively considered in any agency combination business case exercise.

Overall, the business case evaluation did not yield any fundamental barriers to combining agencies. Financial expectations are higher to the upside than to the downside, particularly over the longer-term. While there are initial net costs to combining, these would likely be outweighed by operational benefits and service reliability improvements, particularly once the combined agency refines its operational model and matures.

The Study provides a high level implementation timeline that features a likely series of events that would occur should SSWD and CWD desire to pursue combination. It begins with a thorough review of the considerations laid out in this Study and must be initiated by an affirmative vote from each of the Boards of SSWD and CWD. Note that how and when the Boards vote, and whether they pursue consolidation or

[1] Derived by annualizing what is estimated to be up to $5.25 million over 5 years.
[2] Management estimate of up to $8 million increase in combined water sales from monetization and optimization of supplies over 10 years, less estimated $5.25 million in legal and other expenses to pursue opportunities.

reorganization as defined by the LAFCo Law, is important because it has implications with customer outreach and other procedures. Customer communication will be a key consideration and should be initiated early in the process. Communication considerations are referenced.

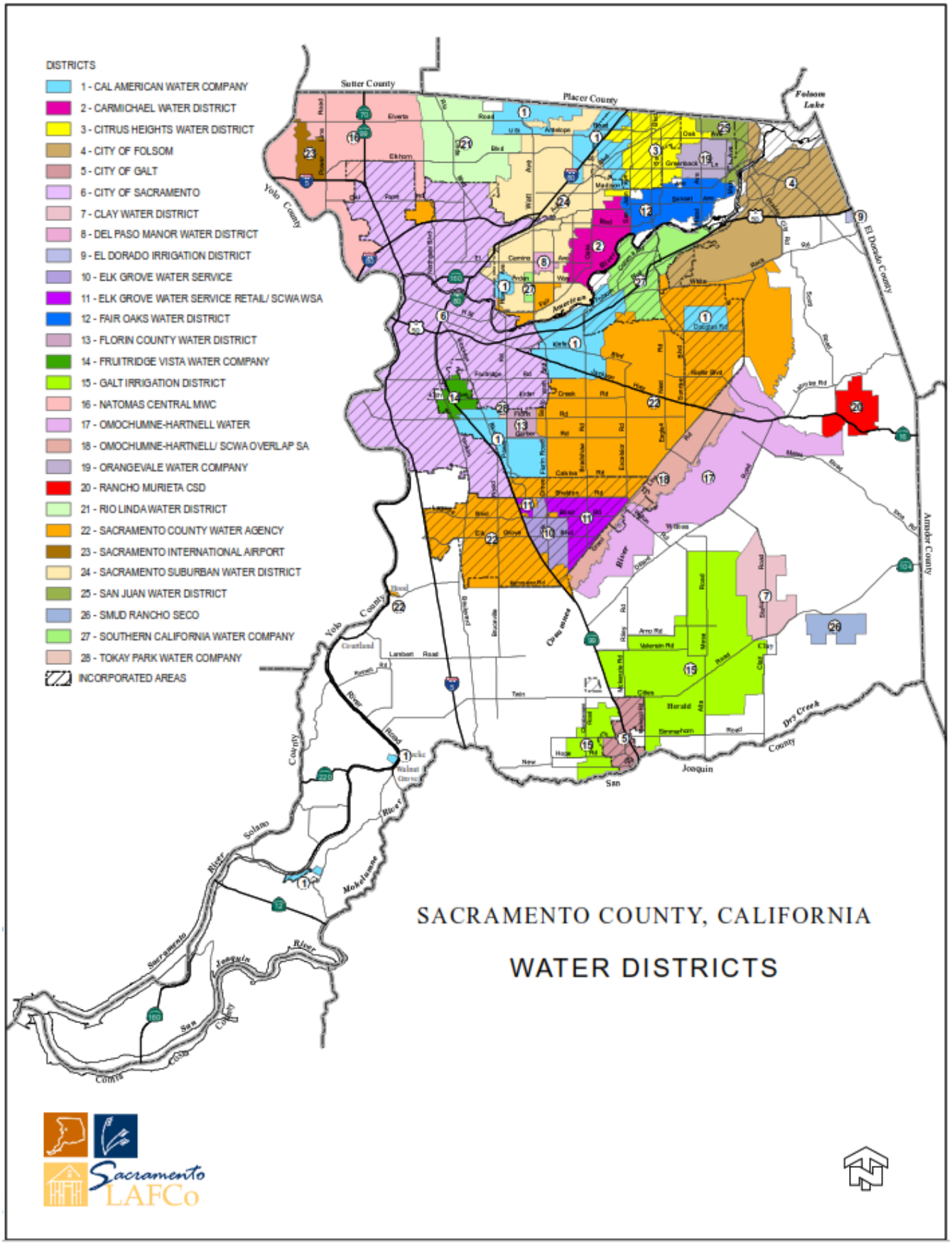
1. Introduction

Carmichael Water District (CWD) and Sacramento Suburban Water District (SSWD) contracted with Raftelis Financial Consultant, Inc. to conduct a Business Case Study for a Potential Combination of the two organizations. Note that the term "combination" is used in place of similar words such as consolidation, merger, and reorganization, some of which have distinct meanings for regulatory agencies such as the Sacramento Local Agency Formation Commission. This Draft Report details the findings of the Study in full and provides recommendations about possible next steps for consideration.

1.1. Background

There are at least 28 different water entities, both public and private, serving Sacramento County, as shown in Figure 2. Given the limited water resources in the region and across California, as well as evolving regulatory and customer demands, and increasing pressures on water rates, examining regional collaboration opportunities is imperative. Many of the water agencies in the region already have resource sharing and collaboration arrangements. In addition, there are several initiatives and agencies, such as the Regional Water Authority, that work to form partnerships to address issues that impact the region and/or groups of utilities in and around Sacramento County.

Figure 2: Sacramento County Water Suppliers



This Study follows a series of prior efforts that looked at either regional collaboration or combination alternatives, each of which helped to focus and advance conversations between CWD and SSWD. One of those studies was conducted by Raftelis and, while its focus was on shared services among a broader set of stakeholders that included CWD and SSWD, that effort highlighted that the opportunities to gain efficiencies and enhance service levels appeared to be greatest under a fully combined model.

SSWD itself is a product of combination, having been created through the merging of the Arcade Water District and the Northridge Water District. Over time SSWD has come to recognize that effort as a successful one that allowed for better cost control and more reliable service. Specifically, SSWD notes the following tangible benefits from their foundational combination:

- Permanent removal of one General Manager and one Assistant General Manager and related costs.
- Permanent removal of 5 board members and related costs.
- Economies of scale by having a larger customer base allowing the spreading of administrative and regulatory costs over a larger customer base.[3]
- Better access to capital markets.
- Larger total capital funds available for larger projects.
- Larger influence in region. More buying power and leverage as a larger organization.
- Ability to hire "specialty" positions not available in smaller organizations. (Environmental Compliance, Human Resources, SCADA, etc.) Positions can specialize rather than serving many roles all in one.
- Ability to invest in more technology to increase productivity.

CWD has also recognized the potential for scale and greater regional coordination to improve the sustainability of its services through an award-winning partnership with Golden State Water Company and Aerojet Rocketdyne.

It is important to recognize that this Study is being conducted in time of high inflation and evolving regulations. These factors are creating significant upward pressure on water rates. Costs are increasing rapidly. In addition, resources are more difficult to procure because of supply chain issues and the effects of "The Great Resignation." Perhaps most significantly, utilities across the west are in an era of extreme drought that has touched the entire State of California and Sacramento Region in many ways. The realized effects include curtailments in the amount of water that can be extracted from existing sources and an increasing emphasis on conservation that includes largely voluntary requests for customer usage reductions and penalties for repeat offenders. This has subsequently reduced usage per capita and resulted in the need for ever nimble rate setting practices. The potential effects, however, are more severe, and include but are not limited to stricter mandatory source and customer restrictions on water usage along with increasingly strict enforcement and penalties, population loss, and limitations on economic activity. While the resiliency of the participating utilities that results from the seniority and variety of their water rights, as well as the quality of their management, has prevented CWD and SSWD from enduring the most extreme effects of the drought, it is apparent that the need to remain vigilant in the pursuit of resilient utility operations will continue to increase over time. Given the mix of water resources and differences in scale between the organizations, there appears to be an opportunity to develop a deeper and perhaps fundamental connection for the mutual benefit of both Districts.

[3] This is challenging to precisely quantify without substantial historical research but was observed according to SSWD.

1.2. Purpose of Study

CWD and SSWD initiated this Study to address their desire to gain efficiencies through collaboration. Through collaboration they hope to maximize value and minimize costs to customers, optimize water supplies and service levels, and improve the ability to advocate effectively during local and regional water policy discussions. Ultimately, the goal of the study is to objectively evaluate the potential benefits and risks of a potential combination of the two agencies, and if combination is found to be favorable, to develop an implementation path.

1.3. Study Approach

Raftelis' approach to this Study focuses on evaluating existing governance, operational, managerial, administrative, capital, water supply functions as compared with potential future states of increasing collaboration and combination. Staffing and financial considerations are addressed for each function as well as at the organizational scale. To unlock opportunities for comparison of these two unique agencies, the Study focuses on unitized financials that put each organization and future state organization on an equal footing. Units of financial analysis include staff, customer, infrastructure, and water production measures that get at the efficiency of utility operations. Ultimately, we evaluate these analytics to develop recommendations around possible next steps for the agencies' collective consideration.

As we engaged in the Study it became clear that specific areas of consideration required significant attention given the potential hurdles that they presented. These include:

- Board Structure
- LAFCo
- Prior Agreements
- Labor
- Finance
- Water Resources

As neutral evaluators and advisors, our goal is to identify solutions for the agencies that help achieve their objectives of providing high quality and reliable water service that balances sustainability and affordability for customers, and is in-line with applicable laws. To that end, we have supplemented our organizational analytics with content developed by legal experts from Zanjero with expertise in California water supply regulations and Raftelis staff experts in stakeholder outreach and communications. All of this work was done in collaboration with the two Districts and their representatives.

Raftelis worked to follow the data wherever it took us. We recognize that there are staff, Board, and community members at each agency that are likely to be initially either in favor of or against the idea of a potential combination, and as such we have taken great care to be objective in this analysis. We have attempted to highlight the opportunities and challenges of a potential combination, while acknowledging that such an endeavor is a complex exercise, and particularly so in a water stressed region governed by western water laws and in an era of political polarization.

2. Utility Overviews

This section provides introductory information such as system descriptions and the characteristics of each agency. It is critical to understand the current state of these two agencies as they investigate forming deeper connections with each other. Further, topline information introduced here is used in downstream analytics and discussion throughout the report.

2.1. CWD

CWD was established as an Irrigation District in 1916. The District serves a predominantly residential suburban community and does not serve any major industrial customers that account for a large percentage of water sales within its service area. There are 12,000 customer connections that represent a population served of about 40,000 people by the CWD.

2.1.1. System Description

CWD largely sources its water from the American River with supplemental groundwater wells in high demand seasons. With the dual water supplies, CWD practices conjunctive use and has bank groundwater via in-lieu recharge. American River water is treated at a micro filtration plant that CWD invested significantly in recently. During times of drought, when withdrawals from the river become limited, CWD is fortunate to have access to supply from groundwater wells. In the summers of 2014, 2015, 2021, and 2022 the State of California ordered CWD to stop all withdrawals from the American River because of water scarcity.

CWD maintains nearly 160 miles of pipe and supplies an average of just under 3,000 million gallons of water annually to its customers, while producing over 4,600 million gallons in total in 2021. CWD is 100% metered with a mix of mechanical and digital Neptune AMR (truck-read) flow meters.

2.1.2. Culture and Context

Customers are engaged on water issues and are reportedly happy with the quality and services that CWD provides. CWD reports that customers like the small town feel of the District, and that, while they take pride in their independence, they are certainly open to collaborative opportunities that could achieve efficiencies through the sharing of resources. As the Study progresses and in the context of ongoing economic uncertainty resulting from the Covid-19 pandemic, ~~CWD~~ staff from both organizations have noted~~s~~ that both union and non-union employees will want assurances that collaboration efforts will not threaten their jobs, benefits, or labor structure. As such, the LAFCo process discussed in the Section 3 includes an opportunity to draft a resolution that can make assurances for staff to ensure comfort with the process.

Despite the predominantly residential customer base in CWD's service area, they have benefitted from revenue provided by an award-winning collaborative supply agreement involving remediated groundwater from an industrial site (Aerojet Rocketdyne) and a private water supplier (Golden State Water Company).

As a result of their dual surface and groundwater supply, award-winning public-private-partnership supply agreement, and their position relative to peers, CWD has the potential to be an important voice for the benefits of collaboration, while maintaining appropriate independence.

2.2. SSWD

SSWD is a larger utility that was formed as a County Water District in February 2002, through the consolidation of the former Arcade Water District and Northridge Water District, which were formed in 1954 and 1956, respectively. There over 47,000 customers accounts representing a population of nearly 200,000 people.

2.2.1. System Description

SSWD continues to make investments in several areas including infrastructure replacement and a conjunctive use program. SSWD is reliant on groundwater, but has contractual surface water rights to 26,064 acre-feet per year of surface water from the City of Sacramento water entitlement; and a contract to purchase up to 29,000 acre-feet of surface water per year from Placer County Water Authority (PCWA), with a 8,000 acre-feet take or pay caveat in the agreement. SSWD's conjunctive use program has resulted in approximately 240,000 acre-feet of banked groundwater. The District delivers water through a network of nearly 700 miles of pipe. Since 2005, SSWD has replaced approximately 100 miles of its distribution system at a cost of approximately $110 million.

SSWD works to invest in technologies that enhance operational efficiency. The District is approximately 99.6% metered; and is on schedule to be 100% metered by the end of 2022. SSWD has installed Advanced Metering Infrastructure (AMI) meters that can be read remotely for all customers. SSWD's Computerized Maintenance Management System (CMMS) is CityWorks. In 2007, SSWD chose to fully implement the CMMS system by placing a computer in each District vehicle.

2.2.2. Culture and Context

While SSWD's staff of 73 meets the agency's baseline needs and has little excess capacity, there are select areas where SSWD may be able to share or enhance services in collaboration with other agencies. For example, SSWD is interested in exploring opportunities for new shared FTEs to enhance scale efficiencies. In addition, as a large district with a robust mix of ground and surface water assets, SSWD seeks to continue to identify opportunities to diversify the resiliency and quality of its water supplies.

Prior to this Study, SSWD engaged in an effort with San Juan Water District (SJWD) looking at consolidation, which was largely motivated by opportunities to reduce operational redundancies and the potential for enhanced reliability that would be offered by having access to surface water during certain periods. SSWD then engaged with a multi-agency study (facilitated by Raftelis and including CWD and others) to look at collaboration (rather than combination). The study found many opportunities to achieve savings or service level improvements as a region through collaboration or combinations.

3. Organizational Assessment

An assessment of each organization's high-level structures and utility functions will highlight the similarities and differences of CWD and SSWD and help clarify future state considerations. First, the assessment covers internal governance structures and external bodies that will inform a potential combination. Next, the assessment addresses labor considerations broadly before covering the range of utility functions individually to identify the similarities, differences, opportunities, and challenges that each present in this context. Following the organizational assessment is a comprehensive analysis of agency Water Resources (Section 4) and Finances (Section 5), though elements of those sections are included throughout this section as needed to inform the business case.

3.1. Governance

Organizational and governance structures provide the framework for decision-making and service delivery for CWD and SSWD. In addition to internal structures, the agencies must consider how LAFCo, and the State Water Resources Control Board, Division of Drinking Water will inform any potential next steps towards a combination.

We begin the comparative analyses with an overview of both the existing internal and then the potential external governance structures and how they will be impacted by and inform a combination.

3.1.1. History

CWD and SSWD are both special districts under California law, with the former having been created as an Irrigation District and the latter a County Water District from two other county water districts. However, these distinctions do not appear to be barriers to a combination as functionally their responsibilities, authorities, and regulations are largely the same, and there are numerous precedent examples of irrigation districts and county water districts merging. A county water district is considered a higher level of organizational constitution and as such a combination of CWD and SSWD would likely take that form rather than an irrigation district. CWD has existed as a single organization for its entire 100 plus year history, while SSWD was the result of a fairly recent merger of the Arcade Water District and the Northridge Water District in 2002. For CWD, its long history as a standalone organization must be considered when engaging with stakeholders as any consideration of a loss of autonomy or local control may be met with more scrutiny, relative to SSWD, which is itself a product of a recent combination.

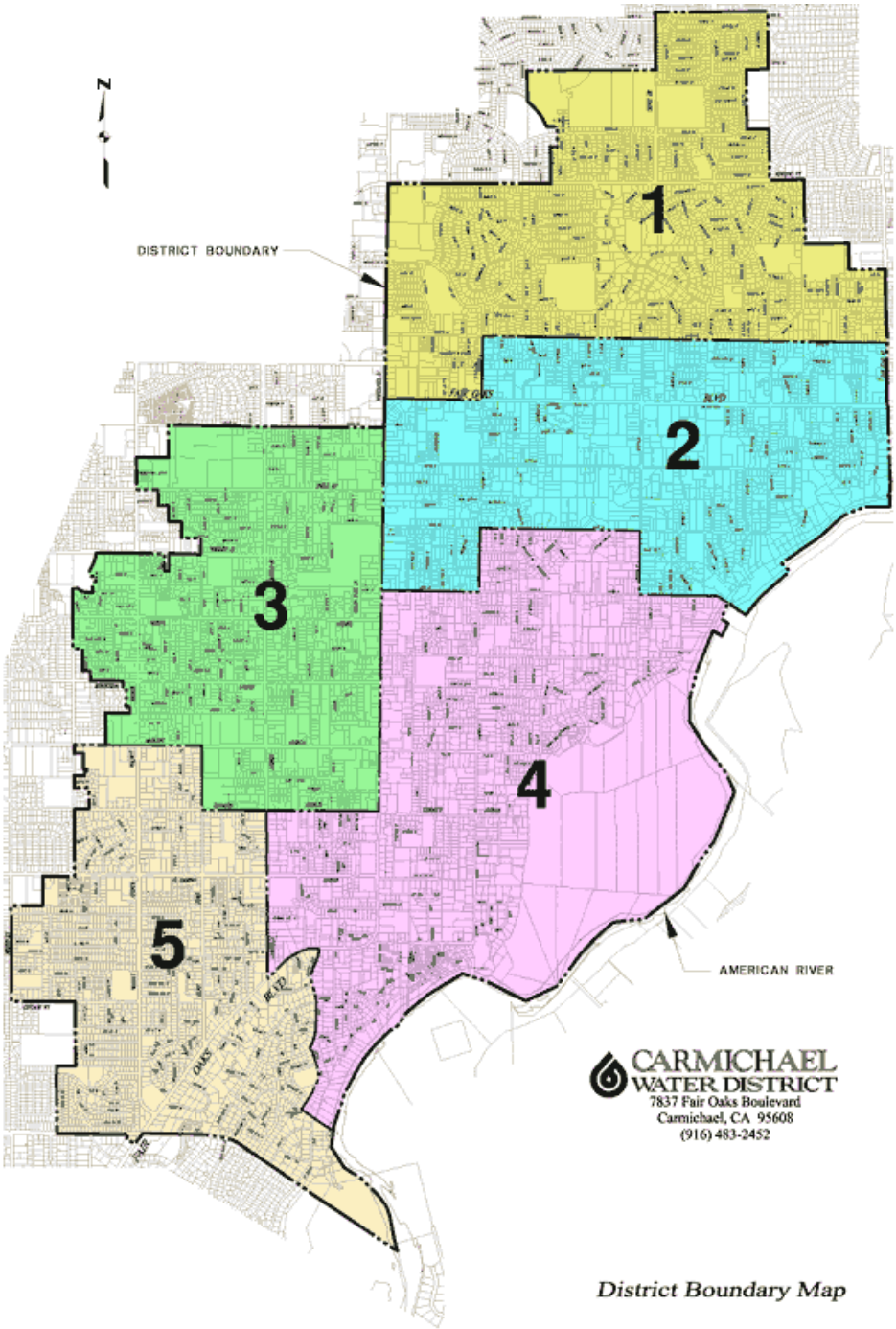
The two prior studies of combination and collaboration opportunities that set the stage for this Study are important to consider as this next level of analysis is considered. The initial investigation of a combination of SSWD and San Juan Water District (SJWD) did identify advantages to expanding organizational scale and regional integration. Indeed, the subsequent study of collaboration opportunities was better received by the smaller participating agencies, which included SSWD, SJWD, and several of its wholesale customers as well as the City of Folsom and CWD. It can be said that the sheer number of opportunities for shared service, as well as the potential for even greater cost avoidance and service level enhancement through combination that emerged in the regional study added to momentum for this study. This Study will be constructive to further building regional momentum for collaboration, as it provides an opportunity to carefully consider the practical realities of an integration between two agencies that may serve as an example to the complex

regional web of stakeholders. Regional collaboration, including combination, is more challenging to examine deeply all at once than it is between just two agencies.

3.1.2. Governing Bodies

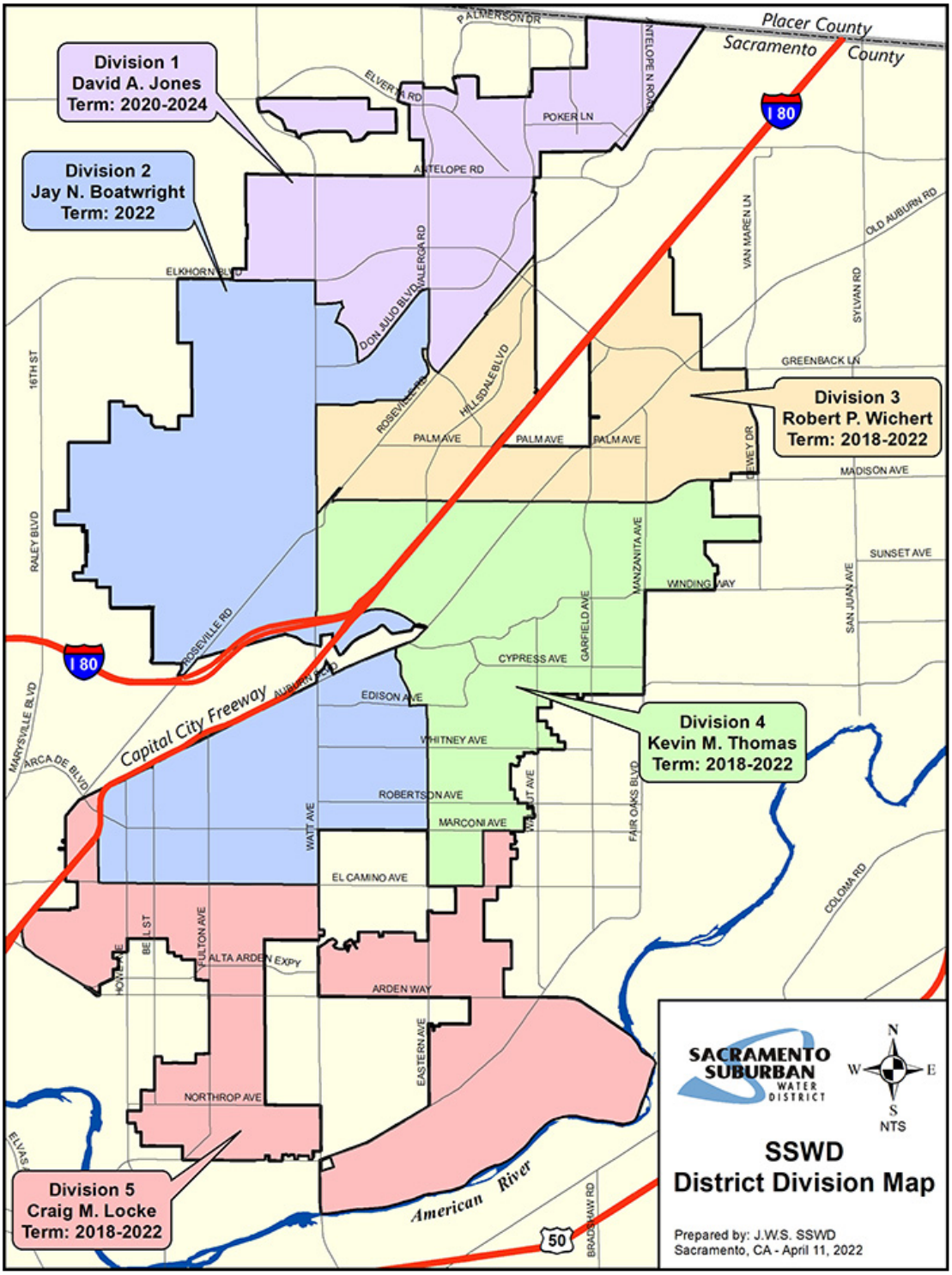
CWD's Board of Directors consists of five members which represent proportional shares of the District's population. Each Director serves a four-year staggered term. Figure 33 includes a map detailing the five Divisions of CWD, each of which are represented on the Board by one Director.

Figure 3: CWD District Map Showing Five Board Divisions



SSWD's Board of Directors consists of five members which represent proportional shares of the District's population. Figure 44 includes a map detailing the five Divisions of SSWD, each of which are represented on the Board by one Director. Board Members are elected to staggered four-year terms with elections occurring in all even numbered years.

Figure 4: SSWD District Map Showing Five Board Divisions



Any steps towards a combination will require the action of the Boards, and subsequently, a fully combined organization would likely also include a revised Board structure. Typically, an odd numbered board size of perhaps nine initially, and ultimately five to seven members is considered ideal to ensure critical mass for executing duties, an odd number to discourage tie voting, and a manageable headcount to avoid excessive deliberations and cumbersome bureaucracy.[4] Indeed, the progression from two separate five member boards to nine[5], seven, and five is what proceeded when Arcade and Northridge combined to form SSWD. This presents a potential conflict for existing Board members should they feel that their seat is threatened. This tension can be mitigated by developing a transition plan for the agencies that recognizes and addresses this conflict directly. For example, an interim structure could be developed that maintains all or perhaps one less Board seat and phases more out as terms expire over time. The local LAFCo agency can help with this transition, as it has the power to create a transition plan from the current state to a combined framework. Typically, Boards will experience some natural turnover and so a transition phase may allow for natural Board attrition without forcing any departures to accomplish the desired end state. If board expenses are ultimately fully halved this could result in up to $1.05 million in savings over 10 years.

3.1.3. Sacramento County LAFCo

The State Water Resources Control Board, Division of Drinking Water, provides support resources and have some high level involvement (process outline, permitting, water supply questions, etc.) in any process of combination, but their materials do appear to heavily defer to engagement through LAFCos.[6] LAFCos were created by the State of California in response to rapid growth experienced in the 20th century and the urban sprawl that resulted. Each LAFCo works with residents, their parent county, and any cities and special districts in their region on jurisdictional issues to discourage urban sprawl and encourage the orderly formation of appropriate local agencies. A regular part of a LAFCo's duties is to review special districts to ensure services are being provided in a cost-effective manner.[7] LAFCos have the authority to approve and manage combination efforts, as well enable the transition from one organizational form to another. Applications for combination, and some forms of collaboration, need to be submitted to the local LAFCo for review, public engagement, and approval. LAFCos are able to work with agencies to provide guidance and temporary rules to facilitate combination. This can include arrangements for transitioning Board seats and finances between agencies, or consolidating them in the case of a combination of two or more entities. As part of a consolidation or collaboration process, CWD and SSWD will need to develop a plan for approval with the LAFCo of Sacramento County.

The Sacramento LAFCo provided information specifically about a possible combination between SSWD and CWD, which we have included excerpts from and summarized as follows:

In the LAFCo context, there are a number of terms related to consolidation that have specific definitions. The words "combination" or "combined" do not have a legal definition under LAFCo Law. This is in contrast to other words used colloquially like "merger" or "consolidation." The terms "consolidation" (as defined in Government Code §56030) and "reorganization" (as defined in Government Code §56073)" have specific

[4] https://www.diligent.com/insights/board-composition/why-your-board-size-matters-how-a-smaller-board-can-be-more-effective/

[5] One member voluntarily resigned at the outset of the Arcade-Northridge combination.

[6] https://calafco.org/sites/default/files/resources/2017_Staff_Workshop/Water%20Consolidations_SWRCB%20presentation.pdf, https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/consolidation.html

[7] Sacramento County Local Agency Formation Commission, History, https://saclafco.saccounty.gov/AboutUs/Pages/WhatsLafco.aspx

meanings. Combining two or more public agencies (utilities) into one can be primarily achieved as either a consolidation or a reorganization (dissolution and subsequent annexation). The end results are essentially the same: one agency assumes the rights, responsibilities, assets, and liabilities from others. There are several quirks to this process.

In a consolidation, all agencies are dissolved and a new one is created in their place with a service area that encompasses the previous districts' service areas. The new agency is the successor entity. This was the approach taken when SSWD was created following the dissolution of the Arcade and Northridge Water Districts. The process initiates when both agencies file for consolidation. In a reorganization, one or more districts are dissolved and one agency annexes all or a portion of their former service areas. An existing agency is the successor entity. The process initiates when one or more districts applies to dissolve, and the remaining district applies to annex the service area of the dissolved district(s).

Either district can initiate these processes by adopting a resolution of application and going through the "normal" LAFCo process. However, there is a sub-LAFCo process that is likely applicable: Government Code §56853(a) states that if the combining agencies adopt *substantially similar* resolutions of application, LAFCo must either approve or conditionally approve the proposal (in other words LAFCo cannot deny the application). In fact, this exact Code was applied to create SSWD from the Arcade and Northridge Water Districts. In addition, this section says that the reorganization could be ordered without an election unless the conditions under GC §57081(b) are met. After the approval hearing, a second hearing (called a conducting authority hearing or a protest hearing) must be held, but only to determine if the conditions specified in GC §57081(b) exist.

There are some nuances. General elections are not automatic under this process; however, landowners and registered voters can potentially force one. If the districts opt for the reorganization route, and if the Board of the dissolving district adopts the resolution for dissolution unanimously, then, under Government Code §57077.1(c), LAFCo is also empowered to waive the Conducting Authority Hearing for the dissolution only. If the LAFCo approves and takes the appropriate administrative steps in GC §56663 when providing the hearing notice, then the Conducting Authority Hearing can be waived for the annexation portion.

Ultimately, a request for reorganization or consolidation would need to be submitted to the Sacramento County LAFCo for review and approval. However, there are several aspects of the application that would need to be addressed. In addition, before an application is submitted, the two Districts would need to conduct public outreach and meetings with stakeholders.

As part of this study, Raftelis developed customer engagement guidance for CWD and SSWD, which is included as Appendix F and touched on briefly in Section 6. It will be important for both organizations to communicate regularly about the combination process and potential options being considered. Developing resources like a fact sheet, infographics, or short videos, which can be used in different communications channels can help proactively address potential questions and drive people to learn more. Holding in-person or virtual open houses can be a good method to humanize the agencies and provide an opportunity for stakeholders to learn more about the process in a relaxed setting.

The following sections of this report will address different aspects of consolidation that the organizations will need to consider and that can inform the application to LAFCo.

3.1.3.1. Combination Process

Governance will be a key component of any effort toward combination. There are two avenues to combine the services of CWD and SSWD, consolidation or reorganization. The end result is essentially the same, with one agency assuming the rights, responsibilities, assets, and liabilities from the current organizations. Note that when we use the word combination, we are using that term purposefully to refer generically to any kind of combination of the agencies. Below are more details on the formally defined reorganization and consolidation scenarios:

- **Reorganization: Dissolution of CWD and annexation by SSWD** – One district is dissolved, and one agency annexes their former service area. Restructuring SSWD to merge with CWD would result in dissolving CWD. The SSWD Board would remain intact, as they were elected by the SSWD customers, however, there would need to be one Director from either SSWD or CWD that would resign, and then the Board would shrink from nine, to seven and finally to five, while redistricting the divisions at each election. This process would be included in the LAFCo resolution. The combined entity through this process would initially allow for a large Board consisting of a combination of SSWD and former CWD Board members. The Sacramento County LAFCo could assist and provide guidance in this process. Generally, this process is less disruptive than a consolidation and the protest period only applies to residents of the dissolving agency.[8]

- **Consolidation: Creation of a new Water District** – All agencies are dissolved and a new one is created in their place with a service area that encompasses the previous districts' service areas. A new Water District would require dissolving both CWD and SSWD. According to interviews with LAFCo staff, LAFCo can approve a larger temporary Board to represent both CWD and SSWD Boards and allow the Board to become smaller over time until it reaches the size of five members, which seems to be a desirable size given the scope of the organizations and the service base. All residents from both districts can oppose during the protest period and may require a new Proposition 218 vote to re-ratify special taxes and benefit assessments (note this would not be relevant to CWD or SSWD revenues, as they are recovered through user charges).[9] This process can be disruptive because it allows for the potential cancellation of existing contracts unless they are specifically transferred as part of the LAFCo approval.

To initiate the process, the Districts will need to submit resolutions of application to LAFCo which should include: the actions requests from LAFCo, designated contact person, map of the service area affected, what should be done with zones of benefit or benefit assessments, fiscal considerations, governing considerations, and any other conditions of approval requested of LAFCo. The Districts will work with LAFCo to review the combination plans and engage with the community. Regardless of the option chosen, formal notice will need to be sent to all landowners and registered voters within the boundaries any district(s) being dissolved. An election to approve consolidation would be necessary if between 25-50% of registered voters or owners by land value object to the change. If more than 50% of registered voters or owners by land value object to the change, the consolidation will not go forward. If less than 25% of voters or owners by land value object to change the consolidation would go forward. In an interim period, assuming a consolidation moves forward, it

[8] A reverse scenario where SSWD dissolved and CWD annexed them would proceed in the same process but was not contemplated as deeply based on the weight of evidence favoring SSWD's operational model in the business case analytics and the higher level of organization (County) of SSWD. Further SSWD is already the product of a combination and has some larger facilities that can be important for the effort.

[9] County or Irrigation district's do not receive special tax or benefit assessments.

will be important for both Boards to work closely together to identify the appropriate next steps, engage the community, and make decisions together.

Under either Reorganization or Consolidation CWD and SSWD may wish to work with LAFCo to create a temporary, larger Board with the desired number of members. This option allows all but one of the current CWD and SSWD Board of Directors members to remain involved and roll off of the governance body as terms expire.

3.1.4. Prior Agreements

It is important to recognize that this Study and any subsequent steps towards combination represent the latest efforts in a measured and productive process of increasing regional collaboration for both CWD and SSWD. In the prior regional collaboration study extensive care was taken to document all that CWD, SSWD, and other regional peers already do to benefit from collective action. This includes joint metering contracts, trainings, and other events through the two state Joint Powers Insurance Authorities (CA JPIA and ACWA JPIA), regular coordination of conservation actions through Sacramento Groundwater Authority and beyond, mutual aid agreements, and beyond. While that study also identified additional steps to continue to advance successful collaboration, it was also clear that larger efforts held the potential for the greatest benefits. The LAFCo process is designed to confirm that before such a next step is engaged, residents have the opportunity to make their voice heard, but the agencies through their increasing success with collaborations have already demonstrated their collective will to pursue cost avoidance and service level optimization together.

3.2. Organizational Structure

The organizational structure of each agency is represented as the hierarchy of each agency's functional groupings and staff roles. Appendix A includes an organizational chart for CWD, and Appendix B the same for SSWD. In general, both agencies are organized into Management & Administration roles such as Executive, Finance, and Customer Services & Billing, as well as Engineering & Capital Improvement roles, Distribution System Operations roles, and Production Operations roles. While these similar structures suggest some level of redundancy in staffing, many of these functions will scale with any larger unified utility operation given the separate infrastructure components. Those roles that do not scale as easily in a combined structure can be absorbed through attrition if combination is pursued. Appendix C includes a proposed interim organizational chart that maintains all current staff as an initial structure, while Appendix D includes an example of a consolidated longer-term organizational chart that could be implemented over time. **Note:** The organizational charts should not be constructed as recommended structures or a roadmap for staffing. They are simply a conceptual approach showing how the two agencies could be combined in the short term and in the long term. Any decisions about how a combined entity may be structured is solely up to the leadership of the organization.

Noteworthy differences between the organizational structure of CWD and SSWD do go beyond just scale. As a result of the size of the organization, we also observe greater role specialization at SSWD relative to CWD. Rather than merely expanding the roster of generalists, larger organizations have the luxury of hiring a more specialized staff. These specialized roles are highlighted throughout the functional sections that follow.

One benefit of scale and specialization can be efficiency. Figure 55 and Figure 66 show that SSWD is able to serve nearly double the number of customer accounts and people per employee as compared with CWD.

Since labor is a significant cost input for utilities, labor efficiency can lead to more affordable service as long as it doesn't result in declines in infrastructure reliability, an overworked staff, or other signs of an organization stretched thin. On balance, this Study does not suggest that SSWD is lacking in the provision of key services, but rather that, similar to the findings in the broader Collaboration Study which included additional utilities, SSWD is likely providing a high level of service at a relatively low cost. Section 5 digs deeper into the finances of each organization to further assess potential performance and cost implications of combining agencies.

Figure 5: Customer Accounts per Employee

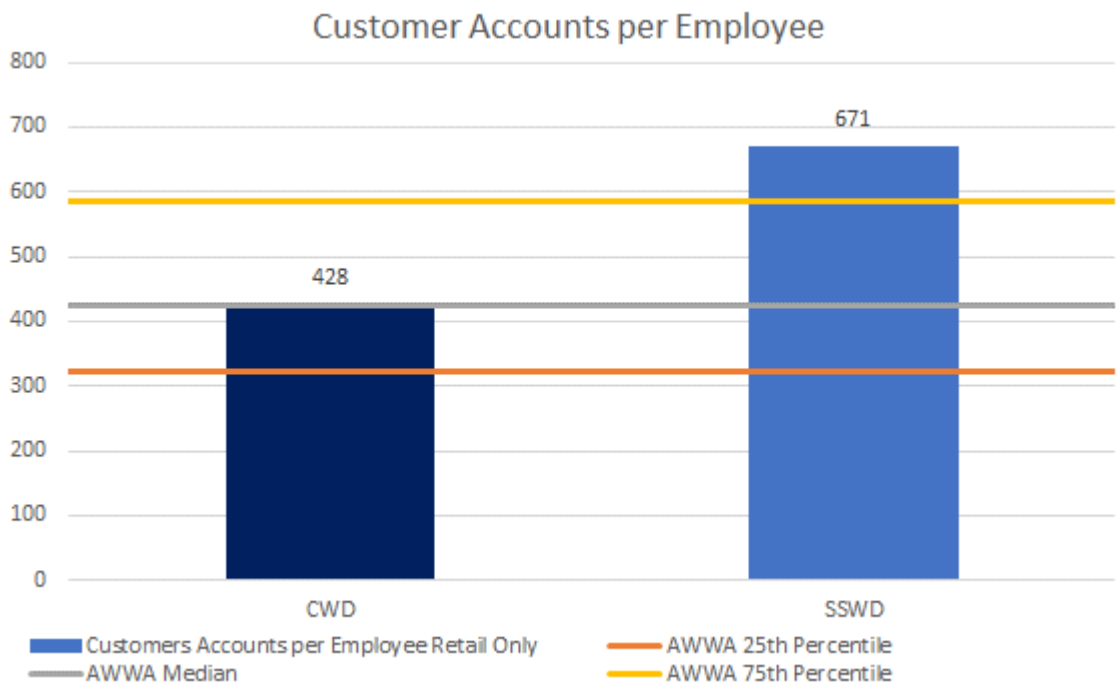
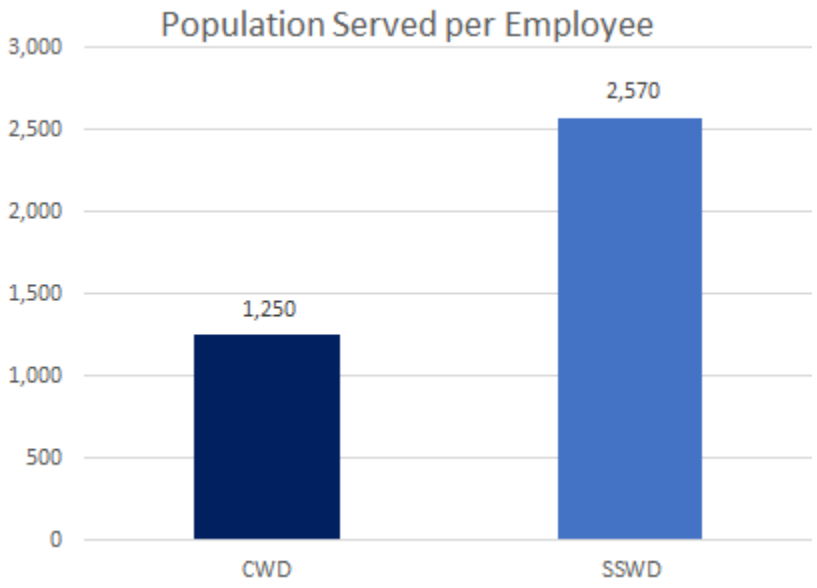


Figure 6: Population Served per Employee



3.3. Labor, Salaries, and Benefits

Due to differences in labor organization at CWD and SSWD, labor considerations must be addressed as part of any combined model. This section details the differences between the organizations and potential opportunities and challenges for the path forward. In addition to the level of organization, differences in salaries and benefits are important considerations as part of this assessment.

3.3.1. Labor Structure

CWD's Production and Distribution staff are members of the American Federation of State, County and Municipal Employees (AFSCME), Local 146, which is an affiliated union of the American Federation of Labor and Congress of Industrial Organizations (AFL/CIO) (the Union). The latest Memorandum of Understanding (MOU) between CWD and represented employees covers the period from July 1, 2022, through June 30, 2025. The MOU grants the Union the right to negotiate on behalf of represented employees across a broad scope of representation on labor matters, which include payroll specifications, leave time, schedule, breaks, salaries and wages, overtime, fringe benefits, grievance procedures, strikes and lockouts, disciplinary procedures, firing, health and safety, District policies, and job descriptions.

Broadly, many of the procedural items dictated by the MOU, such as mandatory breaks, and maximum work hours, may be distinct to CWD, but the resulting salary ranges and benefits do not shake out as extraordinarily different from SSWD, and in fact in many cases SSWD had higher salary ceilings for similar roles at the time data was provided for this Study.[10] The key difference for represented CWD employees is that many of their employee rights are enshrined in an MOU, whereas at SSWD organizational procedures and policies may be more subject to the discretion of the Board/General Manager. Union membership dues are also a cost employees must weigh relative to the certainty of rights and benefits offered. Should CWD

[10] Note that CWD had salary adjustments during the Study that may have resulted in more parity but observations detailed here reflect data provided earlier in the Study.

employees find that their peers at SSWD are well compensated and treated fairly vs. not, labor considerations may factor more or less into combination considerations.

SSWD employees are not represented by a union, and this presents a wrinkle that must be carefully considered in any move toward combining Districts. It might also be beneficial to consider timing and combination to align with the re-negotiation of the MOU between CWD and the Union. Ultimately, employees of CWD and SSWD would have to collectively decide with management as to whether or not they prefer to maintain representation or not under a combined agency. This decision depends of course on whether informal collaboration or full combination is pursued, but also on how a combination is pursued should it move forward. For example, if reorganization is pursued it is perhaps less likely that representation would be maintained, as SSWD being the larger agency and not currently having representation, could be less likely to accommodate terms and CWD would be dissolved. If, however, consolidation is pursued, the new agency would be starting from scratch and employees might jointly decide to join a union or not.

3.3.2. Salaries

The water sector finds itself in an increasingly competitive labor market where employee retention can be challenging. Both CWD and SSWD periodically conduct salary surveys to ensure that they remain competitive in the marketplace.

Appendix D details the salary ranges for each role at both CWD and SSWD. For 2022 SSWD has a higher average salary ($91,093) and median salary ($81,151) as compared with same for CWD ($74,947 and $67,941 respectively). Still CWD notes that salaries for represented employees at CWD are similar to the most comparable positions at SSWD with largely overlapping ranges depending on the level following adjustments that occurred during the Study after data was analyzed. It is important to note that the CWD fiscal year is offset from SSWD's calendar year, and therefore costs of living adjustments may lag CWD, particularly during the current period of exceptionally high inflation. It is also common for smaller agencies to pay lower salaries given that their base of ratepayers (colloquially "ratebase") is smaller. This can be significant in terms of employee retention and recruitment and is clearly one argument in favor of combining agencies.

As water agencies get larger, in general, there are more opportunities for advancement and specialization in roles, whereas at smaller agencies employees may wear many hats. At the same time smaller organizations may allow employees to have more involvement in decision making and less bureaucracy, which some may find desirable. While the workplace environment is an important determinant in employee retention, for many a baseline expectation is that the paycheck is at a minimum competitive if not above market rates for a given role. As discussed above, organized labor also influences agency salary setting and may dictate ranges, levels, overtime, hours, and other important terms that may be critically important for represented employees.

In general, a comparative review of salaries might suggest that some CWD employees might expect a raise if they were reorganized (note we are using the word "reorganized" very definitionally here) into SSWD, however, the salary tradeoffs in a new consolidated (note we are using the word "consolidated" very definitionally here) entity could be less clear and involve potential tradeoffs and re-negotiations. Part of the challenge of projections about salaries in any combination model is that employee roles and responsibilities might change under varying approaches, with some employees' responsibilities narrowing and increasing in specialization and others potentially broadening over the larger service area of number of customers/employees. These potential changes also vary by role as, for example, the job responsibilities of Treatment Operators at CWD might not change very much under a combined agency where they are focusing

on infrastructure that is unique to the CWD system (Bajamont Water Treatment Plant). However, Distribution Operators at CWD could potentially be merged into a larger team where resources might be deployed across a combined service area, therefore theoretically expanding the territory and complexity of such roles.

CWD employees also benefit from the advocacy of their Union in salary negotiations and the certainty in step and CPI increases that are negotiated into the MOU on their behalf will be important considerations for represented staff even if at present the resulting ceilings of those roles appear lower than equivalent roles at SSWD.

Of course, salaries are only part of the total package of employee considerations with the other major component being the range of benefits.

3.3.3. Benefits

Particularly in the United States employees rely on their employer for not just income, but also a range of benefits that ensure their well-being in other ways. While medical insurance is the most prominent, there is a much broader spectrum of fringe benefits and paid time off nuances that tend to vary by employer. As with salaries, some aspects of benefits may be impacted by collective bargaining agreements for applicable represented employees at CWD.

Broadly, the agencies' benefits appear quite comparable. Each offer a similar range of benefits with reasonable employer contributions for insurance premiums, though contribution levels do differ with CWD contributing more to offset healthcare premiums[11]. Similarly, retirement benefits are dictated largely by a state program, the California Public Employees Retirement System (CalPERS), are therefore appear analogous as well. Again, represented employees at CWD may hold tightly to the benefits that their Union offers should representation be on the table in any combination considerations.

Note that CWD does not have benefits policies for part-time employees as they generally do not have any on staff, while SSWD part-time employees are not offered benefits and again there is no policy.

Table 2: Benefits Summary

Benefit Type	CWD	SSWD
Medical	Provided to all regular FT and eligible retired employees. New employee eligibility is discussed during orientation with waiting periods varying by plan. District pays premium for employees and eligible dependents up to Blue Shield Access Plus – Region 1 rate for each plan.	Provided to all regular FT and eligible retired employees (per CalPERS for retired the 10/20 vesting schedule applies). New employees are eligible on 1st day of first full month following hire date.
Dental	District pays dental premiums for all employees and eligible dependents.	District pays dental premiums for all employees and eligible dependents. New employees are eligible on 1st day of first full month following hire date.

[11] Costs of medical benefits per employee indicate that CWD pays about $1,000 more per employee per year in support of premiums. Indeed CWD notes that their employees generally do not pay out of pocket premiums.

Vision	District pays vision premium for all employees and eligible dependents.	District pays vision premium for all employees and eligible dependents. New employees are eligible on 1st day of first full month following hire date.
Basic Life and AD&D	The District pays premium employee's Basic Life/AD&D. The amount of the Basic Life/AD&D benefit is equal to two (2) times the employee's annual base earnings up to a maximum benefit of two hundred thousand dollars ($200,000).	Fully paid life and accidental death insurance benefits equal to 2 times annual salary (uncapped) are effective the first day of the first full month following hire date; coverage is available for active employees only.
Short Term Disability	N/A?	Fully paid short-term (STD) disability insurance benefits are effective the first day of the first full month following hire date; coverage is available for active employees only. STD is 66.67% of basic weekly income to a maximum benefit of $2,000 and begins on the 31st day of disability up to a maximum of 9 weeks.
Long Term Disability	District pays premium for employee.	Fully paid long-term (LTD) disability insurance benefits are effective the first day of the first full month following hire date; coverage is available for active employees only. LTD is 66.67% of basic monthly income up to a maximum of $10,000.
Deferred Compensation	Voluntary IRS approved 457 plan available. Employee eligible to enroll upon date of hire and may change contribution amounts of percentage at end of any pay period. District makes no contribution or match.	Voluntary plan, two separate IRS 457 plans available. Employee eligible to enroll upon date of hire and may change contribution amounts of percentage at end of any pay period. District makes no contribution or match.
Retirement	CalPERS years of service takes effect immediately upon employment. As required by CalPERS, new members (after 1/1/2013) must pay the employee share for the 2% @ 62 benefit and at CWD 50% of the normal costs. Classic Members (prior to 1/1/2013) are eligible for the 2% @ 55 plan and the employer portion only is covered.	CalPERS years of service takes effect immediately upon employment for FTE's. As required by CalPERS, PEPRA members (CalPERS membership after 1/1/2013) must pay the employee share for the 2% @ 62 benefit. Classic Members (CalPERS membership prior to 1/1/2013) are eligible for the 2% @ 55 plan and the employer portion is covered for those Classic employees hired before 8/18/2020. Classic Members who are hired after 8/18/2020, must pay the employee share for this benefit as well. Classic members who were hired before 1/1/2003 are eligible for the 3% @ 60 formula, and the employer portion is covered. This plan is closed.[12]
Retiree Health Coverage	The District will provide medical coverage for Retirees and eligible family members based on the CalPERS medical benefits vesting schedule. The retired employee is responsible to coordinate all retirement and retiree medical benefits with CalPERS within the applicable timeframes and contract requirements.	Employees hired on or after 1/1/03 who retire from the District with at least 5 years of service and a minimum of 10 years credited service in CalPERS are eligible for post-retirement medical benefit payments up to the higher of: the higher of the lowest-cost HMO or PPO plan offered by CalPERS, or the CalPERS "100/90 Formula." The District's contribution toward post-retirement coverage for employees and their

[12] Eleven CALPERs Classic Members remain at SSWD, which will be reduced to ten by the end of 2022 as one of these employees is retiring. These are employees hired before January 1, 2010 3 that enjoy a more generous pension than newer employees.

		eligible dependents will be a percentage of the post-retirement coverage cost based on the employee's total credited years of qualifying service under the CalPERS vesting schedule. Those employees hired before 1/1/2003 are considered fully vested.
Holidays	11 holidays plus one floating holiday	13 paid holidays per year – if less than 13 are designated by GM, personal holidays are received in order to reach the total of 13.
Vacation	Full-time employees accrue time each pay period based on length of service to District, earning from 12 to 25 days per year. An employee may cash out up to the maximum vacation accrual (300 hours) upon separation.	Similar to CWD; An employee may accrue a max of 400 hours (hours over cap are paid out on December each year) and will be paid for all un-used vacation at separation of employment.
Sick leave	FT earn 3.7 hours of sick time per pay period (12 days or 96 hours per year)	12 days per year (96 hours) per year beginning the first full pay period after hire date.
Bereavement Leave	Yes	Yes. Currently 3 paid days with allowance for extra 3 days using employees own leave balances. In process of possible change in language due to AB 1949, which requires. employers to offer 5 (unpaid) days of bereavement.
Personal Days	CWD does not offer personal holidays.	SSWD offers personal holidays in exchange of a holiday to ensure the District is open to the public a few more days a year.

3.4. Management & Administration

CWD and SSWD have management and administration staff to provide valuable enterprise-wide services such as executive leadership, human resources (HR), finance, accounting, customer service, billing, information technology (IT), communications, inventory, and water conservation that support the core function of water provision. In this section we will review the management and administration implications of combined management & administration operations.

3.4.1. Utility Comparison

Management and administration activities at CWD include general management, finance, accounting, payroll, inventory, purchasing, billing, customer service, water conservation, communications, and HR functions. In terms of reporting, CWD houses their communications and water efficiency staff, as well as their Information Technology Coordinator under the Engineering Manager. The latter roles will be discussed in this section as they are more typically considered a higher-level management and administration function. Engineering roles including GIS are discussed in Section 3.5. In total CWD management & administration staff includes 12 staff roles or full-time-equivalents (FTEs) all of which are non-union positions. CWD management and administration staff job descriptions, FTEs by role, reporting relationships, and exempt status are summarized as follows:

- General Manager (GM) (1, Reports to Board) – The GM is the agency executive leader and Board liaison. All management level roles at CWD ultimately report to the GM; the GM directs and reviews

the overall activities and operations. This is the only role that does not have a defined salary range as GM compensation is by contract. This is a salaried exempt position.

- Administrative Specialist (1, Reports to GM) – The Administrative Specialist conducts a range of administrative work in support of the GM and Board, under the general supervision of the GM. Specific responsibilities include organizing and coordinating Board related functions, HR operations, preparing reports, and other duties as assigned. Note that CWD does not have any in-house HR staff. This is a salaried exempt position.
- Finance Manager (1, Reports to GM) – The Finance Manager plans, organizes, manages, coordinates, and directs the financial and business operations. This is a salaried position.
- Inventory Specialist (1, Reports to Finance Manager) – The Inventory Specialist is responsible for purchasing, warehouse and inventory management, facility maintenance, and meter reading. This is an hourly (non-exempt) position and is eligible for overtime.
- Senior Accountant (1, Reports to Finance Manager) – The Senior Accountant performs a variety of fiscal, payroll, and recordkeeping operations. This the higher of two levels of accounting roles each with their own salary bands to encourage advancement. This is an hourly position and is eligible for overtime.
- Billing Supervisor (1, Reports to Finance Manager) – The Billing Supervisor manages the billing operations and oversees interactions with critical billing software (CSM, Great Plains) that are fundamental to issuing bills to customers and ensuring revenue recovery. In addition, the Billing Supervisor and their direct reports handle customer service interactions and complaint responses. This is an exempt position.
- Billing Specialist (2, Report to Billing Supervisor) – The Billing Specialist completes workloads assigned by the Billing Supervisor. Tasks focus on billing water services, accounts receivables, and customer service. There are two levels to this role each with their own salary bands to encourage advancement. This is an hourly position and is eligible for overtime.
- Information Technology Coordinator (1, Reports to Engineering Manager) – The IT Coordinator manages the computer, telephone, security, communication, and IT functions of the District. This is a salaried position.
- Public Information (PIO), Water Efficiency, and Communications[13] (3, Report to Engineering Manager) – Public Information, Water Efficiency, and Communications staff manage the public information, water efficiency, and new construction operations of the District. Junior staff tasks include monitoring and analyzing consumer water use to ensure compliance with conservation requirements and best management practices, as well as being involved in the meter reading program. The PIO is an exempt position, and the rest are non-exempt.

Management and administration activities at SSWD include general management, finance, accounting, payroll, inventory, purchasing, billing, customer service, water conservation, communications, IT and HR. In terms of reporting, SSWD includes a GIS and Engineering Drafter under the management and administration branch of the organizational chart.[14] Those roles will be discussed in Section 3.5. Further, SSWD has an Assistant General Manager role that is more focused on management of engineering and system operations but is included here given the leadership role this position occupies. In total SSWD management and administration staff includes 26 staff roles or FTEs. SSWD does not have any staff that employ collective

[13] CWD noted during the Study that the Communications role is no longer on staff.
[14] These were recently moved to the IT department by SSWD for efficiencies.

bargaining. SSWD Management and Administration staff job descriptions, FTEs by role, reporting relationships, and salaried (exempt) status are summarized as follows:

- GM (Reports to Board) – The GM is the agency executive leader and Board liaison. All management level roles at SSWD ultimately report to the GM, as the GM directs and reviews the overall activities and operations of the District. This is the only role at the District that does not have a defined salary range as GM compensation is by contract. This is a salaried exempt position.
- Assistant GM (1, Reports to GM) – The Assistant GM sits atop the engineering and operations divisions of SSWD and serves as an operations leader. This is a salaried exempt position.
- Executive Assistance to the GM (1, Reports to GM) – The Executive Assistant to the GM conducts a range of administrative work in support of the GM and Board under the general supervision of the GM. Specific responsibilities include organizing and coordinating schedules, preparing reports, overseeing Board policy reviews, and other duties as assigned. This is a salaried exempt position.
- HR Administration (2, Report to GM) – The Human Resource division oversees all HR operations for the District including recruitment, salaries and benefits, and employee relations while ensuring compliance with applicable local, state, and federal laws that govern these personnel activities. This is a salaried position. In addition, HR staff receive and respond to inquiries from the public, other District departments, and outside agencies and assists with various special projects.
- Finance and Administration (5, Reports to the GM) – The Director of Finance and Administration leads a team of five that deliver finance and accounting services at SSWD. The Director reports to the GM. In addition to the Director, staff roles include an accounting Controller as well as two additional accounting staff. A Purchasing Specialist role also serves as a management and administrative role related to the financial group, though their focus is much more on the operational realm of the organization. In addition to accounting, responsibilities include budgeting, rate setting, internal financial reporting, and beyond.
- Billing and Customer Services (6, Reports to Director of Finance and Administration) – The Billing and Customer Services staff handle critical functions for SSWD that include processing bills/collections, and handling customer inquiries. This division also sits under the Director of Finance and Administration. This dedicated function serves as the face of the utility for many customer interactions and includes staff with a broad set of resources and procedures that support their ability to handle a wide range of customer requests that may touch on service issues, billing, conservation programs, complaints, and beyond. Ensuring adequate staffing and responsiveness in this division can significantly impact perceptions about any public utility.
- Water Conservation (2.5, Reports to Customer Services Manager) – The Water Conservation division at SSWD includes general public information, communications, and dedicated water efficiency staff. This group manages conservation programming and efforts to inform the public about the full range of utility activities, resources, and events. SSWD notes that there are two temporary roles hired as seasonal staff in summer. These are reflected here as 0.5 FTE.
- Information Technology (3, Reports to Director of Finance and Administration) – The Information Technology division ensures that key electronic systems and tools are functioning to meet the needs of utility staff and operations cross functionally.[15]

[15] Determinations about software integration and purchasing that might proceed as part of a combination to reduce redundant systems and achieve savings will require Study and ultimately bid seeking to accurately estimate resulting efficiencies. Such studies are beyond the scope of this Study. Still, Raftelis did work to estimate the range of expenditures

In addition to the roles listed above, SSWD on occasion employs Temporary Office Staff or Interns in support of various management and administration functions. These positions are paid hourly and do not receive benefits.

3.4.2. Opportunities

The management and administration functions are the areas of the organizations that may present the largest potential overlaps in roles under a combined agency. Even at large organizations, it is sometimes possible for executive level functions to be staffed relatively leanly given their job descriptions. However, any identified redundancies are likely best addressed through attrition and over time to ensure a smooth transition to any new organizational framework due to certain challenges that can emerge when attempting such a transition. These challenges are described in the section below. This concept will also be discussed more fully in Section 7.

In addition to opportunities to achieve leaner executive level staffing under a combined organization, management and administration functions may benefit from certain roles that either currently do not exist, or may be somewhat over- or under-staffed, at one organization or another. Specifically, the following opportunities are apparent as we look across CWD and SSWD:

- CWD does not have a dedicated HR staff, and SSWD does. CWD could benefit from this resource for recruiting and other critical HR functions.
- For its size, CWD is well staffed in water conservation and communications functions. If combined with SSWD it's possible that some staff in these areas could perhaps be realigned or reduced through attrition over time, or changes made in responsibilities to increase specialization.
- The CWD Inventory Specialist is involved in a range of functions including meter reading and appears to have some overlap in responsibility with SSWD's Purchasing Specialist role. It could therefore make sense to specialize these roles further under a combined organization to allow employees to deepen their focus on elements of the tasks that they excel at or might prefer to focus on.
- There would likely need to be a layering of responsibility between the two GM roles under a combined organization. This could perhaps initially be achieved through the creation of a Deputy role or a division of responsibilities and focus between the two employees. Over time it is expected that these high salary positions would collapse into one position through attrition.
- Existing contract legal savings of up to $1.28 million could be realized over 10 years if annual costs are halved.[16]

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on those studies based on our experience in the Financial Business Case Summary table in Section 5.8. In terms of savings, we know that some software systems are priced with fixed minimum fees as well as upgrade fees that you'd rather pay once rather than twice, in addition to the cost components that are per seat and scale with size. In a combined organization you save on any of those fixed costs by only having to pay for them once. You may also get discounts per seat as the number of users go up. You also are doing one procurement as a Region rather than two, which thereby commands less overhead resources. Finally, a larger organization spreading cost over a larger rate base might also choose technologies that ultimately deliver higher levels of service that separately you might find too expensive. So there are many opportunities for savings and benefit through technology in management as well as operational functions, but they are difficult to pin down with much precision at this stage. Rather they are captured in the business case as part of an estimated savings or avoided costs of up to 20% across the organization and realized over the longer-term.

[16] This analysis was based on data provided for each district's current General Counsel legal services, which would go from two to one for the combined organization. Costs therefore could be reduced by up to roughly half over the long-term to deliver the same services for one org instead of two.

Note: These are merely suggestions that could be implemented in a combined organization to increase efficiency or effectiveness. Any decisions about how a combined entity may be staffed or structured is solely up to the leadership of the organization.

3.4.3. Challenges

Seizing opportunities for potential savings by realigning or reducing staffing in management and administrative functions is typically not straight forward for a number of reasons:

- A larger organization does require more overhead staff to manage the larger system and headcount. It may also meet new requirements because of its size that smaller organization were able to avoid.
- A combined agency that merely seeks to cut staff to save on costs could hurt the morale of existing employees and lead to a significant loss of organizational knowledge. Staff cuts could also jeopardize the existing levels of service stakeholders have become accustomed to receiving.
- Whether CWD or SSWD staff take on leadership or managerial roles in any newly combined framework, and particularly where they are involved in work that crosses the old service area boundaries, there are likely to be gaps in knowledge about the staff, IT, procedures, and infrastructure that they are newly responsible for. Where reporting relationships change it may take time for staff to build trust with each other.
- There are some positions at each organization that are currently taking on multiple roles and may at times be stretched thin. In a combined organization, those serving multiple roles could hand off those tasks that are outside their core job description to more specialized staff. This would allow them to undertake their core job description at a deeper level with the goal of delivering a more comprehensive level of service to the organization.
- Differences in accounting, finance, billing, and metering technologies may take time to reconcile and require investment as systems integration will be key to realizing the full operational benefits of combining the agencies.

Section 7 details a possible path forward to help mitigate these challenges through a phased combination approach.

3.5. Engineering

Engineers and capital planning/delivery functions are critical to water systems given the need for planning and the design, renewal, and replacement of physical assets to ensure reliable services for customers. At some utilities the bulk of the engineering and planning is performed by outside consultants and at others more of these functions are performed by staff. SSWD and CWD perform a considerable amount of engineering and capital planning/delivery functions in-house, but use consultants for more complex projects. Key staff members at SSWD and CWD often collaborate with a range of contractors to conduct a complex and temporarily variable set of major projects over time. In this section we look at the structure of the engineering functions of CWD and SSWD to identify opportunities and challenges that might result from the combination of these staffs into a single area-wide function.

Finally, in the digital age a key collaborator with engineering departments and other utility functions has become in-house GIS and Computerized Maintenance Management System (CMMS) experts. These technologies allow utilities to create work/service order records, maps, and digital twins of their systems to

aid in tasks ranging from work planning and asset management to system design, locating, record-keeping, asset management, and beyond.

3.5.1. Utility Comparison

At CWD a small engineering department (3 FTE) handles this key function with contractor support, as needed. As we observed with the management and administration function, the relatively lean engineering department staff at CWD are expected to handle a broad range of activities. The Engineering Manager Reports to the GM and supervises one staff Engineer, as well as a GIS Specialist role. Together this team handles capital project management, infrastructure design with contractor support, capital planning assessments and development, asset management planning, compliance reviews, and the full range of engineering functions.

At SSWD the larger engineering department (8 FTE) is able to specialize more as compared with that of CWD. For example, SSWD employs a full-time Engineering Drafter (1 FTE) to help develop technical drawings based on the designs, plans, and layouts of engineering staff.

SSWD employees three Student Interns in support of various engineering functions. These positions are paid by the hour and do not receive fringe benefits.

3.5.2. Opportunities

In the SSWD Engineering Department, we observed the greater level of specialization and role hierarchy that SSWD's scale offers. Employees that are responsible for more roles simply are not able to focus as much effort and may be less proficient at each task than those in more specialized roles.[17] However, per Figure 5 we also know that employees at SSWD are responsible for more accounts per employee than those at CWD, which takes the efficiency of specialization and works to stretch it further.

At the end of the day, staff at utilities are always busy since there is more work than staff. Ultimately, it will be up to management at any new entity to determine if available staff numbers are insufficient, adequate, or perhaps excessive in a given function. Current vacancies across the two engineering departments may be able to be filled by existing staff as roles change or are eliminated and as the synergies of the combined organizations become clearer.

3.5.3. Challenges

- Both organizations have Engineering Manager roles that could be maintained under an interim structure with each of their focus directed at specific activities. SSWD notes that this is what was done when Arcade and Northridge came together, and a similar redundancy was identified.

[17] It is important to note that this assumption is not at all a reprimand of either organization's staff but rather a foundational piece of economic theory. That is, the relationship between specialization and efficiency are well accepted theories of labor economics that were hypothesized long ago and have strongly proven out over time not just in industrial settings such as assembly lines but across fields. An often cited initial source of the theory is the classic text: "*An Inquiry into the Nature and Causes of the Wealth of Nations*" (1763) by Adam Smith.

- Despite being staffed with capable engineers and technical people, each organization has distinct CMMS and GIS procedures[18], and practices that can be difficult to integrate.[19] These decisions will take time and require focused decision-making, leadership, and governance. The spirit of collaboration and trust required to fully align disparate sets of experts, each of which know their own systems better than the other, will take time to cultivate.

Section 7 details a possible path forward to help mitigate these challenges through a phased combination approach.

3.6. Field Operations

The field operations of the agencies include activities focused on the water distribution infrastructure of CWD (9 FTE) and SSWD (24 FTE). In addition to division managers and operational staff, field operations at SSWD also include dedicated roles for safety, fleet management, distribution related facilities, and field operations coordination. The water distribution infrastructure of CWD and SSWD are not anticipated to contract with the potential organizational combination under consideration. Unlike management and administrative structures that may be refined through a combination, the distribution staff of the two organizations is not likely to be an area where obvious efficiencies present in the interim, particularly below the managerial level. While current vacancies that exist in the workforce could potentially be eliminated under a combination, management will likely only be able to determine if efficiencies have emerged once the workload and staff availability of the combined organization becomes clearer. Nationwide, water utility operational staff are becoming harder to find and so it is likely the focus will be on retaining and recruiting.

3.6.1. Utility Comparison

CWD field operations include a superintendent and eight operational staff including vacancies. These staff are included in the union contract. At SSWD there are 23 field staff positions including vacancies. The fully staffed organization would include distribution facilities and fleet specialist roles as well as field operations coordinator in support of the Operations Department. Finally, a Safety/Risk Officer role straddles the definition of management and administration and operational staff as they sit in an oversight role, but interact significantly with field staff on compliance requirements and internal policies designed to ensure their safety.

3.6.2. Opportunities

- A key benefit of the larger workforce will likely be the increased flexibility that comes with having more resources to deploy on days when some staff may be unavailable. This alone should increase operational reliability in both service areas. Overtime work can also be spread out somewhat further to reduce the potential for staff burnout and help cover position vacancies.

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[18] Both agencies use ESRI ArcGIS, the same tool, but each may have different standards and procedures for mapping assets and leveraging data in the field, at facilities, and via integrations with CMMS tools. Overtime the sophistication and integration of this information can be operationally powerful and tends to scale with utility size to enable increasing coordination and asset management best practices.

[19] Software integration decisions are typically vetted through technology studies that we have proposed and included costs for in the business case table in Section 5.8. The level of integration in the field, the tools and training that folks use, even within the same software the various widgets and workflows that teams gravitate to can vary tremendously. Change management is inevitably necessary in these areas to align teams and identify best practices between field and office based teams and to then ensure that finance, management, and engineering are leveraging the information that technology systems produce to deliver effective and efficient service.

- Knowledge sharing between the staff of each District can ensure that best practices permeate each District. This can be accelerated further through joint training. The SSWD training facility is already an asset that presents regional training opportunities, but it can be exploited further should the agencies combine.

- Equipment sharing and joint purchasing can also accelerate under a combined organization, particularly if joint facilities are invested in. For now, a centralized distribution deployment and warehouse facility is not contemplated as a near term priority for the combination effort, but over the longer term consolidated real estate could advance at the discretion of the Boards and management.

- The field operations staff could likely maintain split Superintendent roles in the interim structure before being combined into one deployable force with a single Superintendent in the future. If teams dedicated to each service area are justifiable given the differences in the infrastructure and geography of the systems, the teams can be kept largely separate except where staff are exchanged to meet any increased workloads for projects periodically or where staff are used to fill in for vacations or absences here and there. This arrangement could be adjusted once more operational experience with the combined system is gained and particularly if infrastructure, expertise, and procedures begin to become more homogenous across the two service areas.

3.6.3. Challenges

- The distinct infrastructure, practices, and familiarity of each District may lead to a period where it is initially challenging for best practices and joint senior management to realize fully efficient combined field operations.

- Differences in infrastructure between the systems may also limit opportunities for joint purchasing of materials and supplies or equipment where it is not practical to align them over time based assets lifecycles and the needs of each service area.[20]

- CWD collective bargaining will be challenging to navigate under any combined organization. Under a reorganization where CWD merged into SSWD, the union contract may be voided as it would through a consolidation where both Districts initially dissolve. However, under any scenario field operations staff would have the opportunity to organize as is the case at any District currently.

Section 7 details a possible path forward to help mitigate these challenges through a phased combination approach.

3.7. Water Production Operations

[20] A key word here is "may". Operational staff in charge of purchasing, warehousing and inventory, or even those focused on accounting may identify differences in costs and needs for distribution materials, meters, repair couplings, etc. which are in each agencies inventory per specifications. Over time materials like these could likely in some cases be aligned once a determination is made on developing one inventory system and then joint purchasing can scale up and potentially realize savings in per unit costs.

There are important differences between the water production and treatment operations of CWD and SSWD. Most prominent is that CWD staff operate a surface water treatment plant that requires daily staffing, and that has 20.5% cost offsets as part of the Golden State Water Company/Aerojet Rocketdyne agreement. Staffing for the CWD plant dictates certain role requirements and certifications relative to groundwater productions staff, who often work less regular and more mobile schedules while servicing numerous groundwater production sites.

3.7.1. Utility Comparison

CWD water production staff include a superintendent and five additional certified water treatment operators for the 22 MGD Bajamont Water Treatment Plant. These staff are included in the union contract. At SSWD, water production staff (17 FTE) include more layers (superintendent, foreman, and operators) and add dedicated instrumentation and SCADA roles that are critical to the functioning of the larger system.[21] SSWD's compliance and cross connection staff sit here as well, as their work touches on policy, lab work, and sources of supply. Environmental Compliance roles (3 FTE) at SSWD work to ensure the system and operations are aligned with applicable regulations from all levels of government. An SSWD Cross Connection Control Specialist (1 FTE) reflects further operational specialization at SSWD. However, it is due to licensing and certification requirements that CWD does not have dedicated compliance or cross connection positions, though more general staff, and contractor support, are employed to ensure that these tasks are addressed. This is, in fact, due to operator requirements at the water treatment plant.

3.7.2. Opportunities

- Some of the functions detailed here, such as the Environmental Compliance, and Cross Connection roles simply do not exist as dedicated roles at CWD due to plant staff requirements. The implications of having dedicated staff in these areas may in theory be significant for groundwater portions of CWD and include avoided contractor costs, increased expertise, and greater degrees of specialization on assigned tasks. However, for the operations of the water treatment plant at CWD, the specialists at SSWD may not be available or necessary given the unique skill sets CWD plant staff. Groundwater well operators and treatment plant operators do both require certain levels of state treatment certifications but cross training and certification could in theory go as far as the organizations feel is necessary if combined to achieve desired staffing flexibility.
- Because the water supplies of CWD and SSWD are separated spatially and by the type of supply and nature of treatment operations, these facilities are expected to remain separate. This reduces the amount of capital investments that are needed as part of the combination and minimizes disruption to operations in these areas.
- Despite differences in the systems, it is expected that some materials and supplies, equipment, or even staff or contracting will be able to be shared for the groundwater portions of the system under a combined organization to the benefit of each agency.
- SSWD roles dedicated to SCADA could perhaps benefit CWD. Generally "smart-water" and "internet-of-things" investments and costs may scale favorably as a larger combined organization
- Note that more detail on water supplies is discussed in a separate section of the report.

[21] SSWD notes that SCADA staff was moved to IT from Operations during the course of the Study.

3.7.3. Challenges

- Restrictions on surface water adjudication may limit the use of shared treatment infrastructure. Were these restrictions not present, an engineering feasibility study to look at a truly combined production infrastructure could perhaps proceed to maximize efficiencies in water production operations.
- The differences in the systems may limit the amount of shared expertise and the ability to leverage the larger organization under a combination.
- As for other unionized divisions, CWD collective bargaining will be challenging to navigate under any combined organization for water production staff. Under a reorganization where CWD merged into SSWD the union contract may be voided as it would through a consolidation where both Districts initially dissolve. It is generally only under a reorganization where SSWD dissolved and was annexed by CWD where the union would remain. However, under any scenario production staff would have the opportunity to organize as is the case at any District currently.

Section 7 details a possible path forward to help mitigate these challenges through a phased combination approach.

4. Water Resources

This section (authored by Raftelis partner Zanjero) examines the fundamental issues associated with using each District's water assets under a combined governance model and explores approaches to water asset management integration in the context of changed future climatological and regulatory conditions. Currently, both SSWD and CWD possess ample surface water and groundwater supplies to meet their current needs and both Districts provide reliable water supplies even under extreme drought cycles as experienced over the last ten years.[22] But, there are changing water supply reliability concerns within CWD and SSWD as snowpack and runoff patterns from the Sierra Nevada mountains change, Placer County and the City of Sacramento experience extended population growth, and regulatory requirements in the Sacramento-San Joaquin Bay Delta (Delta) address water quality and endangered species concerns. For example, CWD experienced no surface water right curtailments in its 100-year history prior to 2014. Since 2014, CWD has experienced water right curtailments and serious threats of water right curtailments in four of the last ten years through August 2022.[23]

The changes in water supply patterns are happening and likely caused by regulatory modifications and climate variation throughout the Sacramento River watershed drainage.[24] Previously unknown curtailment orders have been issued for appropriative water rights with priority dates as old as 1852 in the American River watershed.[25] And surface water supplies that are needed to stabilize the saltwater intrusion into the Bay-Delta estuary (known as the "X2 Line") as well as threatened and endangered species populations in the Delta and its tributaries will require additional flows derived from existing water rights. As such, creative approaches will be needed to optimize the water assets available to CWD and SSWD through any combination process to ensure supply availability over an extended water planning horizon.

4.1. CWD and SSWD Water Asset Inventory

CWD possesses numerous surface water supplies and groundwater wells. CWD also has access to additional surface water supplies that it has not yet fully activated. SSWD obtains its water supplies from groundwater extraction and surface water supplies delivered under contracts with neighboring water agencies. All of these supplies could be integrated to maximize benefit for both Districts through a combination effort.

4.1.1. CWD's Surface Water Rights

CWD's primary water supplies consist of three appropriative water rights derived from the natural flow of the American River – License 1387, License 8371, and Permit 7356. The "natural flow" consists of supplies that would normally be available on the river system under natural conditions subject to more senior appropriators. For instance, CWD's water rights are senior in priority to the United States Bureau of Reclamation's (Reclamation) water rights for Folsom Dam and reservoir.[26] As such, CWD has the right to

[22] The cost to provide each source of water is an important factor in optimizing future water deliveries but is ancillary to the reliability issues posed in this assessment.
[23] On August 16, 2022, SWRCB issued a curtailment order for CWD's License 1387 interrupting CWD's groundwater substitution transfer.
[24] https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf
[25] State Water Resources Control Board Curtailment Order of August 3, 2022.
[26] Reclamation's oldest water right on the American River is Application 13372 with a priority date of October 1, 1949.

divert the natural flow in the American River watershed to fill its water supply needs before Reclamation may divert any water to meet its storage rights in Folsom Reservoir because of the priority in water right appropriations.

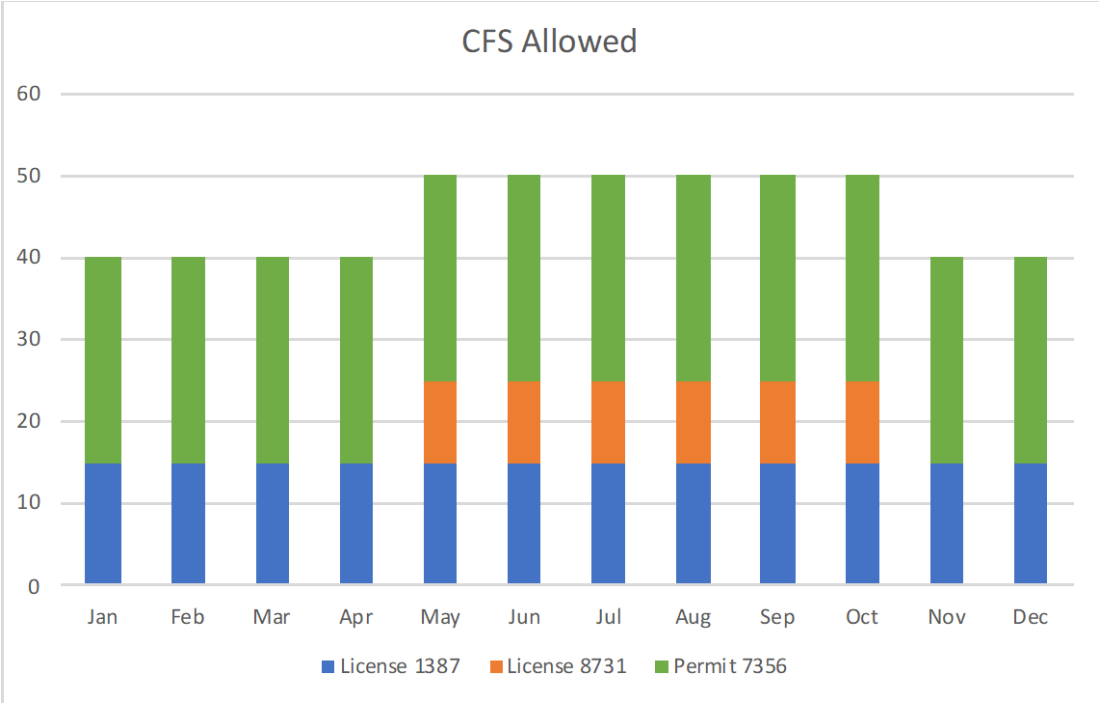
CWD's supply is based upon water availability that is tied to CWD's three diversion priority dates under its water rights of 1915, 1925, and 1948. The State Water Resources Control Board (State Board) determines when there is sufficient water supply in the American River watershed to satisfy CWD's diversion rates under each water right. The State Board's supply availability analysis relies upon hydrologic models that simulate water diversions throughout the American River watershed based upon snowpack surveys and streamflow measurements. Table 3 summarizes the key components of CWD's three surface water rights.

Table 3: CWD's Surface Water Rights

Water Right	Priority	Div Rate	Volume (AFY)	Div Period	Purposes of Use	Place of Use	Status
L-1387	9/18/1915	15 cfs	10,859	Jan - Dec	Irrig and Dom	4500 AC, Map 1964	Active
L-8731	8/22/1925	10 cfs	3,669	May - Nov 1	Irrig, Dom, and Mun	4500 AC, Map 1968	Active
P-7356	3/1/1948	25 cfs	18,099	Jan - Dec	Dom and Mun	4500 AC, Map 1968	Pending

As shown in Table 3, CWD's three surface water rights present a number of unique attributes that require explanation and further consideration. First, the total diversion rates under each water right are permitted only during specific periods in a calendar year. License 1387 and Permit 7356 may be diverted in all months of the year but License 8731 may only be diverted from May 1 through November 1 of each year. Figure 7 below shows the monthly diversions available under each water right for each month of the year.

Figure 7: Diversion Rates for CWD's Water Rights[27]



[27] Carmichael Water District 2020 Urban Water Management Plan at page 3-2.

As shown in Figure 7, CWD has significant water supplies available in each month under all three of its water rights, assuming there are no monthly curtailments and that the water supply noted under Permit 7356 is available. Specifically, the minimum water available per month exceeds 2,000 acre-feet in February and the maximum monthly water available exceeds 3,000 acre-feet in the summer. On an annual basis, as shown in Table 3, CWD's surface water volume totals 32,627 acre-feet. Although this total volume is tantalizing, the actual available annual supply is likely less than this total, and in some months, as seen in the curtailment orders issued over the last 10 years, may be reduced to zero.

There are three beneficial uses assigned to CWD's three water rights. All water rights are available for "domestic use", while Licenses 1387 and 8731 may also be used for "irrigation" and License 8731 and Permit 7356 are available for "municipal use." These beneficial uses are defined more specifically as follows:

- Domestic Use: "…the use of water in homes, resorts, motels, organization camps, campgrounds, etc., including the incidental watering of domestic stock for family sustenance or enjoyment and the irrigation of not to exceed one-half acre in lawn, ornamental shrubbery, or gardens at any single establishment. The use of water at a campground or resort for human consumption, cooking or sanitary purposes is a domestic use."[28]
- Irrigation Use: "any application of water to the production of irrigated crops or the maintenance of large areas of lawns, shrubbery, or gardens."[29]
- Municipal Use: "the use of water for the municipal water supply of a city, town, or other similar population group, and use incidental thereto for any beneficial purpose."[30]

CWD has not attempted to differentiate the delivery of its water supplies based upon the beneficial use classifications. For instance, CWD has not identified that the surface water delivered to a supermarket is derived only from License 8731 or Permit 7356, since a supermarket may not be considered a "domestic use" or "irrigation use" under the California Code of Regulations. Specifically, there is the potential that a supermarket in CWD's service area may not be eligible to use a water supply derived from License 1387 in the event that purposes of use enforcement actions impact CWD.

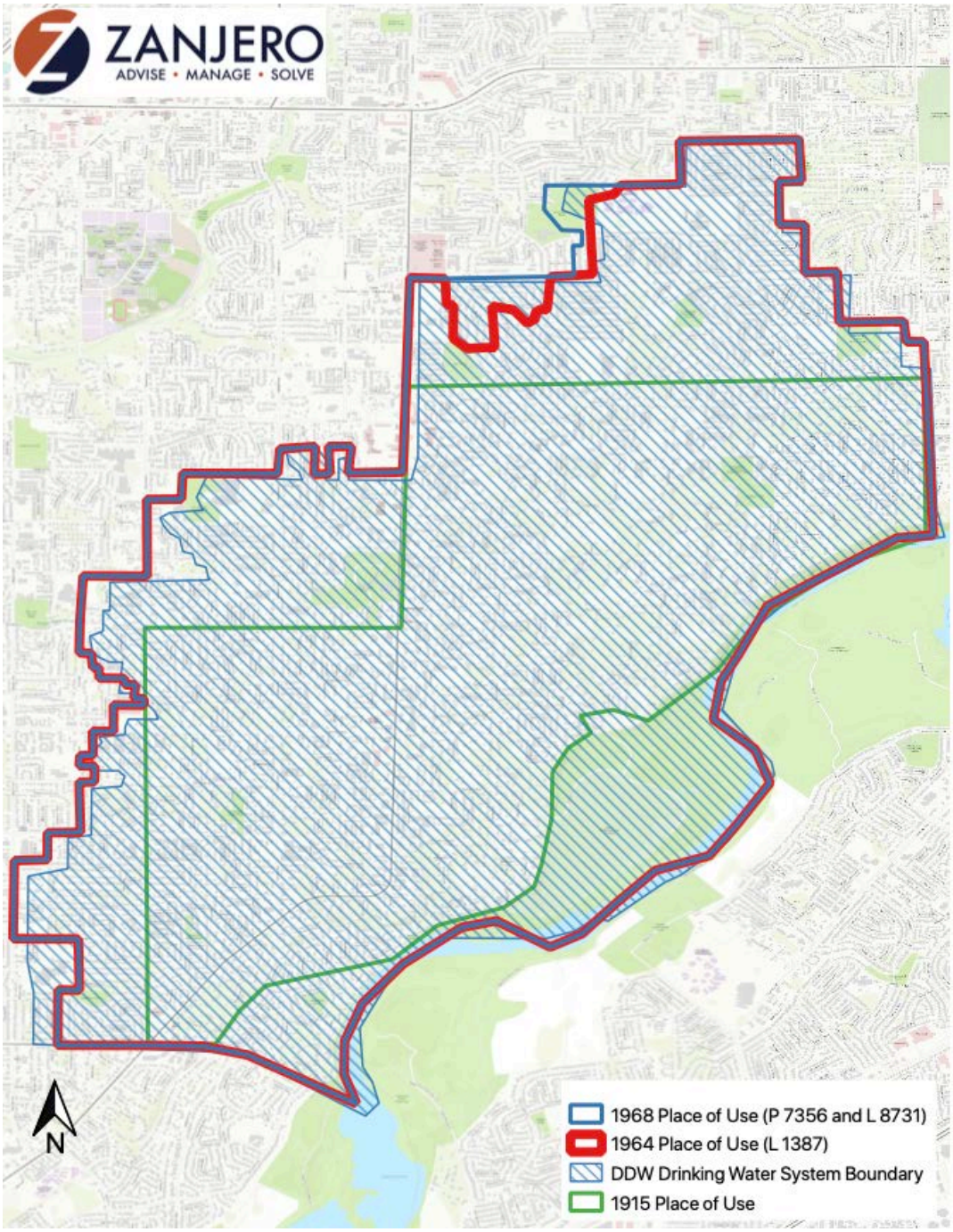
The availability of CWD's water rights also have place of use restrictions – meaning the surface water supplies may only be used in designated places of use. The places of use identified in CWD's three water rights are described as follows:

- License 1387: "4,500 acres comprising the service area of Carmichael Irrigation District as shown on map filed with the State Water Rights Board on December 21 ,1964."
- License 8731 and Permit 7356: "…a net area of 4,500 acres within an area of 4,950 acres comprising the service area of Carmichael Irrigation District as shown on map filed with State Water Resources Control Board on January 19, 1968."

[28] 23 CCR 660
[29] 23 CCR 661
[30] 23 CCR 663

CWD's service area currently encompasses approximately 5,000 acres (which is closer to the designation in License 8731 and 7356).[31] Figure 8 depicts the various places of use as shown in documents on file with the State Board.

Figure 8: CWD Water Rights Place of Use Maps



CWD's Permit 7356 also has some unresolved issues that leaves the volume of water available to CWD under this supply in flux. In 2009, the State Board denied CWD's request to renew Permit 7356, noting that CWD was not putting the water to beneficial use and that CWD did not adequately satisfy two of the three

[31] https://carmichaelwd.org/about-us/district-history/

necessary findings for a time extension. The State Board's Order stated "Permittee has not shown good cause for the time extension… Therefore, it is ordered that the State Water Board, hereby denies the petition for extension of time." The denied petition for extension for Permit 7356 renders the total water available under the Permit uncertain. Despite the 2009 Order, CWD continues to use and file reports demonstrating water use under Permit 7356, but the Order denying the Permit extension indicates that water under this Permit was not used at the time the Order was issued. As such, additional actions should be taken with the State Board to identify and secure available water supplies under Permit 7356 and to ensure that current diversions under Permit 7356 are legal.

4.1.1.1. Additional Surface Water Available to CWD

CWD has access to 300 ac-ft and has historically used San Juan Water District's pre-1914 appropriative water right. SJWD possesses a pre-1914 appropriative water right from the American River with a priority date of 1853. This water right was perfected by the North Fork Ditch Company for diversion in all months of the year for domestic, irrigation, and municipal purposes. SJWD's pre-1914 appropriative water right has been delivered to areas in Sacramento County and Placer County and was further secured through a Settlement Contract executed with the United States Bureau of Reclamation for appropriations and construction of Folsom Dam and Reservoir. The total acreage encompassed within CWD for this water right is unclear but likely includes the Carmichael Colonies and areas encompassing CWD's boundary upon the District's formation in 1916. Accordingly, SJWD's pre-1914 appropriative water right may be used in CWD's service area within the right's place of use at any time as permitted by SJWD.

4.1.1.2. Aerojet Water

CWD also has access to remediated supplies from the Aerojet-Rocketdyne (Aerojet) Groundwater Extraction and Treatment (GET) program in the North Basin and South Basin. These water supplies are extracted and treated by Aerojet and then discharged into the American River. Aerojet's treatment facilities, called "GET LA" and "GET LB", are located within CWD's service area. GET LA is located at Ancil Hoffman Park and GET LB is located near CWD's Bajamont Water Treatment Plant (Bajamont). Historically, CWD had acquired water supplies from GET LA to serve a portion of the irrigation demands at Ancil Hoffman Golf Course. However, due to Aerojet ceasing GET LA operations, CWD is not able to utilize the water to meet the golf course demands without paying exorbitant operational costs to operate the GET LA facilities. CWD also has the capability to acquire water from GET LB and has exercised that option in curtailment conditions. Presently, Aerojet GET water may be captured from the GET facilities and directly used for non-potable uses or may be rediverted through a surface water facility after discharge to the American River. CWD's existing intake facilities have captured excess discharge from upstream facilities and CWD has attempted exchanges with other GET water diverters like Sacramento County Water Agency (SCWA) and Golden State Water Company (GSWC).[32]

GET water may also be used for direct potable uses so long as additional permits are acquired from the State Board. CWD could obtain the water derived from GET LB and incorporate that supply into its Bajamont treatment system. Specifically, under Process Memo 97-005, CWD may use an "extremely impaired water source" for direct potable uses so long as the water asset is treated to specific levels per the State Board's

[32] SCWA holds a settlement contract with Aerojet to capture over 8,000 acre-feet per year of discharged GET water into its surface water diversion facilities and GSWC holds a contract for 5,000 acre-feet with a provision for as much as 10,000 acre-feet more should GSWC's needs arise.

requirements.[33] CWD notes that the Division of Drinking Water declined this approach due to available groundwater supplies.

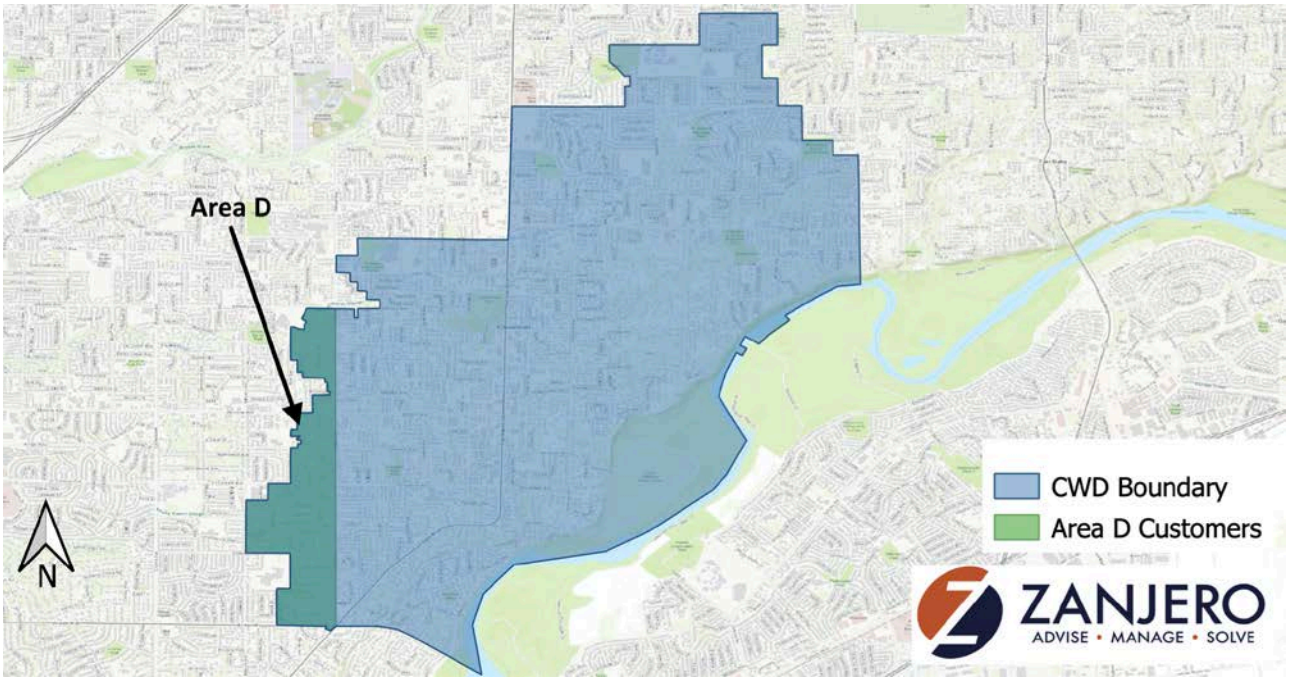
4.1.1.3. GSWC Water Supplies

CWD has attempted to access Golden State Water Company's water assets through its intertie at Bajamont, even though it has never utilized any GSWC supply. Normally, CWD diverts and treats up to 5,000 acre-feet of GSWC's GET supplies at this location per GSWC's settlement contract with Aerojet.[34] As such, in its simplest form, GSWC could forgo its GET water deliveries and allow CWD to take delivery of these supplies. These supplies have no place of use restrictions and are not subject to the rules germane to surface water appropriations. If GSWC's GET supplies were delivered to CWD, GSWC could use groundwater supplies with Aerojet's approval and its other surface water supplies to meet GSWC demands. In addition, the intertie pipeline was designed to move water in both directions, so it is plausible, with an addition of a pump station, that GSWC could deliver other components of its water asset portfolio to CWD for use in its service area.

4.1.1.4. Area D

A portion of CWD lies within areas served by the City of Sacramento's surface water assets known as "Area D". Area D overlaps approximately 390 acres within CWD that roughly aligns with Walnut Avenue. Area D's intersection with CWD's service area is shown in .

Figure 9: Map Showing Area D in CWD's Service Area[35]



The City of Sacramento has several water assets that can be used within Area D. These water assets include the City's surface water rights, including water rights linked to the Sacramento Municipal Utility District system operations in the upper American River watershed, and the City's water assets derived from the

[33] https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/docs/process_memo_97-005-r2020_v7.pdf
[34] Diversion, Treatment and Delivery Agreement By and Between Golden State Water Company and Carmichael Water District, August 24, 2016.
[35] Carmichael Water District 2020 Urban Water Management Plan at page 3-12.

Sacramento River. Specifically, these assets include the City's water right permits 11358, 11359, 11360, and 11361 from the American River and Permit 992 and pre-1914 appropriation S025297 from the Sacramento River. The details of these assets are more fully developed in SSWD's portfolio section since SSWD is contracted to receive these supplies already. In short, this portion of the CWD may be capable of applying City of Sacramento's water supplies for beneficial uses in the portion of Area D inside CWD's service area boundaries. These supplies could be available to the District in Area D subject to CWD reaching an agreement with the City for sharing of those resources. CWD has begun an initial discussion with the City to deliver water into the portion of Area D that lies within CWD's service area boundary. The City has declined to file a temporary change in point of diversion for the City's water supplies but would coordinate wheeling activities with SSWD, as described more fully later in this section.

4.1.2. CWD Groundwater Supplies

CWD has five active wells with a total extraction capacity of 6,400 gallons per minute. CWD normally uses only four of these wells to serve customers. CWD also has additional decommissioned wells that could be available (after repair) to capture groundwater supplies within the groundwater basin. The wells and their capacities are listed in Table 4.

Table 4: CWD Wells

Well Name	Max. Production (gpm)	Status
Garfield	1,100	Active
La Vista	1,400	Active
Winding Way	1,350	Active
Barrett School	1,250	Standby
Willow Park	1,300	Active
Subtotal	**6,400**	
Dewey	1,250	Decommission
Barrett Road	1,500	Inactive
Ladera Way	1,350	Decommission
Total	**10,650**	

4.1.3. SSWD's Surface Water Assets

SSWD possesses two long-term contracts for surface water supplies with the City of Sacramento and Placer County Water Agency and one short-term contract for surface water supplies with San Juan Water District. SSWD holds no surface water rights independent of these surface water contracts.

4.1.3.1. City of Sacramento Contract

SSWD entered into an agreement with the City of Sacramento in 2004 (2004 Agreement) to receive a maximum supply of 26,064 acre-feet per year. SSWD may obtain water supplies from the City pursuant to the terms of the 2004 Agreement under any of the City's water rights originating in the American River or Sacramento River. The ability to use supplies derived from these rights is subject to the rules in the 2004 Agreement related to "Firm" and "Non-Firm" capacity, the disposition of the rights subject to flow criteria (Hodge Flow) in the American River, and the obligations of the City to supply its customers with water

supplies.[36] The availability of the City's water supplies have been re-examined since SSWD developed its 2020 Urban Water Management Plan[37] and SSWD has additional opportunities to derive surface water supplies from both the American River and Sacramento River systems from the City's water asset portfolio that were not contemplated at that time.

The surface water supply contract with the City of Sacramento relies upon the six water rights (and the accompanying Reclamation contract) that are available to serve Area D. These rights include water right permits 11358, 11359, 11360, and 11361 from the American River and Permit 992 and a pre-1914 appropriation (S014834) from the Sacramento River. The details of these water rights are important for assessing the availability in SSWD's service area under the 2004 Agreement.

Two of the City's American River Permits – 11359 and 11360 – are derived from the Sacramento Municipal Utility District's (SMUD's) Upper American River Project (UARP) and are diverted and stored by SMUD as part of its power generation activities. The release of this water from SMUD's UARP reservoirs is then available for re-diversion by the City of Sacramento for consumptive uses.[38] Thus, the City may appropriate water under these two rights based upon the natural flow on the American River and may also divert water based upon SMUD's storage and releases in the UARP. The City's "re-diversions" of water after they have been diverted to storage and released by SMUD are not subject to any restrictions related to the Hodge Decision or other flow requirements in the American River because they are managed releases derived from SMUD's hydroelectric power production in the UARP. These types of releases remove the flowing water from the natural flow characterizations that would otherwise apply to appropriative water rights. Accordingly, these water supplies are available for diversion all year so long as they can be derived from SMUD's UARP storage and release operations.

The water supplies available under Permits 11359 and 11360 may be used within the "City of Sacramento and adjacent areas, an area of 96,000 acres as shown on map."[39] The place of use has historically incorporated the entire place known as "Area D." Area D as it relates to SSWD and CWD is shown on the map in Figure 10.

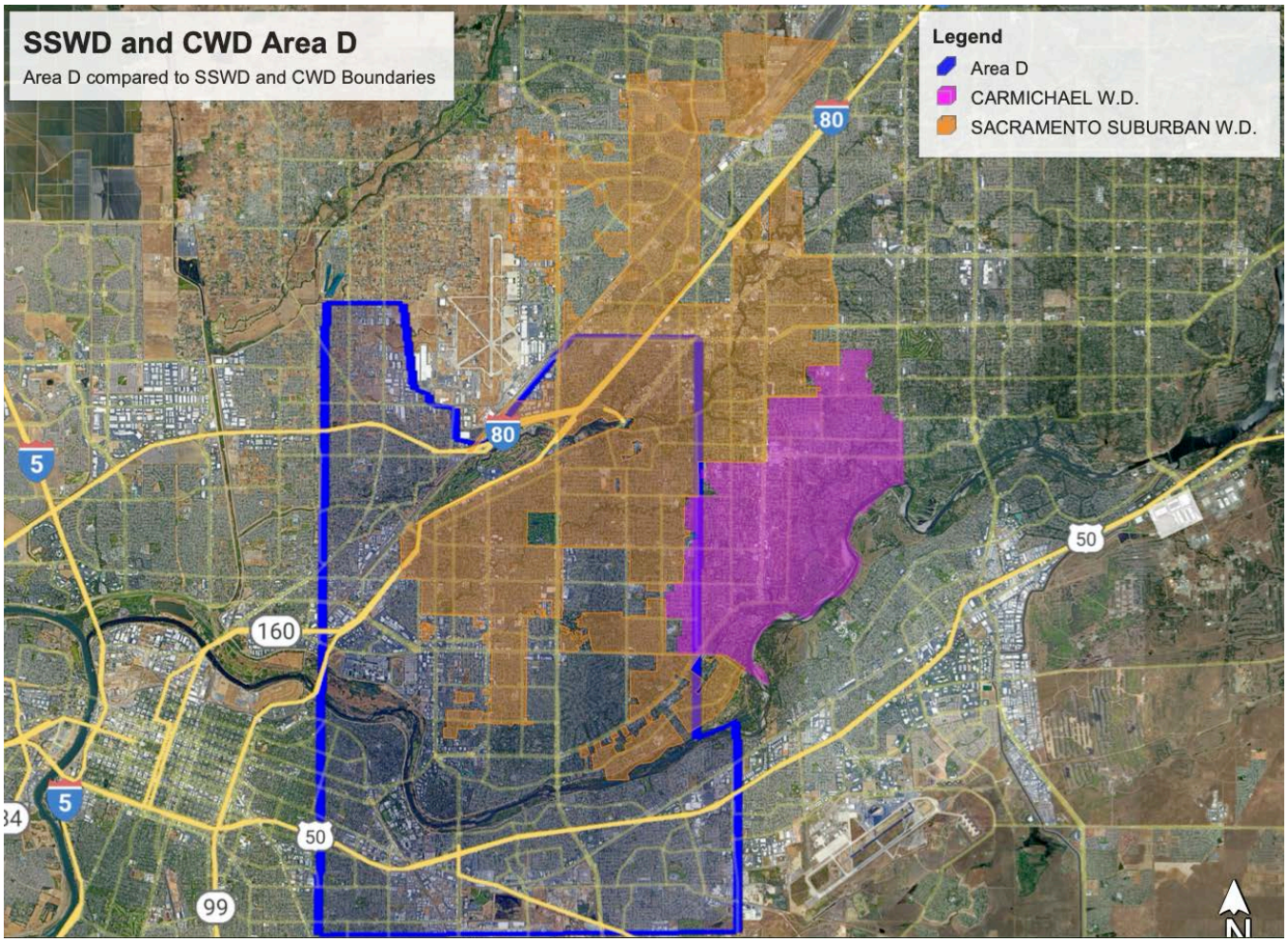
[36] Firm Capacity refers to "Capacity in the City Treatment and Transmission Facilities that is available to divert, treat and deliver water to the District on an equal priority to the use of such capacity to meet the demands of the City's other water supply customers, except as provided otherwise in this Agreement." Non-Firm Capacity refers to "Capacity in the City Treatment and Transmission Facilities that is available to divert, treat and deliver water to the District in accordance with the provisions of this Agreement after the capacity demands of the City's other water supply customers are filly met." Source: SSWD_11.pdf (ca.gov)

[37] Sacramento Suburban Water District's 2020 Urban Water Management Plan indicates that the available supplies from the City include only those originating on the American River and that they are all subject to diversion restrictions under the Hodge decision (at 6-2).

[38] Decision 893 also applies to Reclamation's impoundment of UARP supplies that may be used to satisfy these rediversion water deliveries to the City.

[39] Note that the map referred to in this permit language is not shown in this report or that it refers to the map in the permit materials.

Figure 10: Map Showing Area D in Relation to SSWD's and CWD's Service Areas



The City's other two American River Permits – 11358 and 11361 – are not connected to SMUD's UARP and, as such, may only be diverted when sufficient natural flow is available in the American River and the Hodge criteria are inapplicable. Specifically, the Hodge Decision prohibits diversion under these two permits when flows on the American River falls below 1,750 cubic feet per second (cfs) July 1 to October 15, 2,000 cfs October 15 to end of February, and 3,000 cfs from March 1 through June 30. Thus, these two water supplies may not be available for SSWD under the 2004 Agreement when natural flow conditions in the American River prohibit diversion.

The 2004 Agreement also anticipates the City delivering water to SSWD derived from its Sacramento River diversion facilities.[40] All six City water rights may be diverted at the City's Sacramento River diversion facilities. The City's pre-1914 appropriation may be diverted and used in the "City of Sacramento" that is not detailed in the map accompanying in the Initial Statement of Diversion and Use filed in 1997. Moreover, there are discrepancies in the filed documents about the appropriation priority date that should be addressed to determine the precise long-term reliability of this supply.[41] Nevertheless, despite the uncertainty in the place

[40] SSWD purchased capacity in the City's Fairbairn Treatment Plant ($45 million), which may be memorialized in the contract.

[41] The Initial SODU indicates 1854 but other documents in the SWRCB records indicate 1849 and possibly earlier diversions.

of use, the pre-1914 disposition of this water supply could make it easier to use in additional areas within SSWD's service area.

The City's Permit 992 water right has a priority date of 1921 and allows diversions of up to 300 cubic feet per second for use in the City of Sacramento. Permit 992 has been issued numerous extensions for completion and amendments to allow diversion at the City's new diversion facilities. Accordingly, all six of the City's main water assets may be used for municipal and industrial purposes in SSWD's service area under the terms of the 2004 Agreement. Determining the exact places of use in SSWD's service area that could be available related to S014834 and Permit 992 is beyond the scope of this memorandum.

4.1.3.2. Northridge Park County Water District and City of Sacramento Contract

Northridge Park County Water District ("Northridge") entered into a water supply contract with the City of Sacramento in 1980. This water supply contract entitled Northridge to obtain 25 cfs, capped at 9,023 acre-feet, under City's four American River watershed water right permits (as noted in the previous section). The supplies under this contract could be used anywhere in that portion of Area D that lay within Northridge's service area. Northridge merged with Arcade Water District in 2002 and formed Sacramento Suburban Water District. As such, SSWD assumed the rights and obligations under the 1980 Agreement with the City and therefore may have access to use City's American River water supplies within all areas within Area D that currently lie within SSWD's service area, as shown in Figure 10. This opportunity may depend on whether or not the City rescinded the agreement upon non-payment by Northridge, which may be the case but has not been confirmed.

4.1.3.3. PCWA Contract

SSWD uses surface water purchased from Placer County water supplies that is derived from PCWA's water right permits 13856 and 13858. In 2000, these two permits were amended to include the place of use areas within Sacramento County that included portions of SSWD's service area. The exact place of use is recorded on a map dated July 31, 1996 that is on file with the State Water Resources Control Board (SWRCB).[42] This water is treated at SJWD's treatment plant before delivery to SSWD.[43] PCWA and SSWD extended the contract through 2045. SSWD is entitled to 29,000 acre-feet under the terms of the agreement, but the availability of that water supply is dependent upon the unimpaired inflow into Folsom reservoir and may be modified depending upon SSWD's previous year's payment and use. In short, this supply is generally only available in normal and above normal water years and the water supply available under the agreement may be subject to reduction for non-use if SSWD chooses not to receive it when it is available. Note that SSWD is not obligated to pay under this contract if the water is unavailable due to circumstances beyond SSWD's control, such as if there is no delivery due to circumstances other than normal and above-normal water years.

4.1.3.4. SJWD and SSWD Contract

SSWD entered into an annual water supply agreement with SJWD in 2020 for the purchase of up to 4,000 AF surplus water supply under SJWD's pre-1914 appropriative water right (S000656) from the American River. The agreement to supply this water ended on February 28, 2021 and must be renewed annually between SSWD and SJWD in order for SSWD to obtain water delivery. The water supply available under this contract was quantified as conserved water derived from SJWD's water conservation activities. This conserved water supply is generally available for SSWD's use in all year types so long as the needs of SJWD

[42] Order Approving the Change in Place of Use and Amending the Permit (for permits 13856 and 13858) dated May 24, 2000.

[43] Sacramento Suburban Water District's 2020 Urban Water Management Plan at 6-1.

and its retail agencies are fulfilled, and the temporary transfer agreement is renewed. SJWD provides this water through a temporary conserved water transfer and has identified existing environmental documents that cover the proposed deliveries. SSWD is not in the place of use of SJWD's pre-1914 appropriative water right, but is added to the place of use each year pursuant to the temporary transfer rules applicable to conserved water transfers and applicable environmental laws.

4.1.3.5. CVP Section 215 Water

SSWD has received a nominal amount of Central Valley Project (CVP) Section 215 water. This water is available for diversion when surplus conditions exist in the American River watershed as they relate to Reclamation's operations of Folsom Reservoir. When this surplus water is available, SSWD may have an opportunity to divert and deliver this water in its service area. SSWD's service area lies within the CVP's Place of Use.

4.1.4. SSWD Groundwater Supplies

SSWD has 74 wells with a total extraction capacity of 86,238 gallons per minute to capture groundwater supplies in the North Basin.

Table 5: SSWD Wells

Well Number	Well Name	GPM	Well Number	Well Name	GPM
N5	Hillsdale	775	13	Calderwood/Marconi	625
N24	Don Julio	1,130	14	Marconi South/Fulton	600
N25	Sutter	1,590	22	West/Becerra	725
N26	Monument	780	23	Marconi North/Fulton	600
N32-A	Poker 1	2,000	24	Becerra/Woodcrest	600
N32-B	Poker 2	2,000	26	Greenwood/Marconi	700
N34	Cottage	2,000	28	Red Robin/Darwin	700
N35	Antelope	2,570	30	Rockbridge/Keith	600
N14	Orange Grove	1,300	37	Morse/Cottage Park	80
N15	Cabana	1,070	40	Auburn/Yard	700
N17	Oakdale	1,020	41	Albatross/Iris	500
N1	Evergreen	800	43	Edison/Traux	850
N3	Engle	900	45	Jamestown/Middleberry	750
N6A	Palm	3,000	60	Whitney/Concetta	500
N7	Rosebud	1,130	65	Merrily/Annadale	1,100
N8	Field	950	66	Eastern/Woodside Church	1,300
N9	Cameron	1,050	2A	Watt/Arden	1,100
N10	Walnut	1,300	32A	Eden/Root	1,650
N12	St Johns	1,100	33A	Auburn/Norris	2,400
N20	Cypress	1,100	40A	Auburn/Yard	2,300
N22	River College	860	4B	Hernando/Santa Anita Park	600
N23a	Freeway	1,050	18	Riding Club/Ladino	700
N29	Merrihill	860	25	Thor/Mercury	700
N30	ParkOaks	1,000	35	Ulysses/Mercury	700
N39	Coyle	1,350	75	Enterprise/Northrop	1,000
N23a	Rutland	1,500	20A	Watt/Arden	1,100
MC10	McClellan Business Park	723	47	Copenhagen/Arden	950
27	Melrose/Channing	875	71	River Drive/Jacob	2,700
31A	Watt/Elkhorn	900	72	River Walk/NETP	1,400
52	Weddigen/Gothberg	900	73	River Walk/NETP East	3,400
56A	Fairbairn/Karl	2,230	74	River Walk/NETP South	2,600
58	Thirty Second/Elkhorn	920	55A	Stewart/Lyndale	2,100
59A	Bainbridge/Holmes School	3,000	46	Jonas/Sierra Mills	750
64	Galbrath/Antelope Woods	1,200	70	Sierra/Blackmer	600
5	Bell/El Camino	325	76	Fulton/Fair Oaks	400
9	Ravenwood/Eastern	500	77	Larch/Northrop	300
12	Hernando/Santa Anita Park	600	3A	Auburn/Norris	2,400

Note that several SSWD wells are offline due to mechanical issues. To address these wells and competition for support, SSWD signed a five-year contract with a well contractor in 2022, who will work 100% for SSWD, with an option to purchase the firm. This will assist in responding to both reactive and proactive issues to existing wells. In addition, SSWD is currently in the process of constructing six new wells, as well as six more wells in the next five to six years. The well contractor and expanding portfolio of groundwater assets would be a boon to a combined organization and help ensure the operability of the larger well portfolio.

4.2. Future Changes to Water Rights and Supplies

The water assets available to CWD and SSWD may be changed in the future. Climate variation and regulatory changes threaten the availability of each agencies' water supplies while opportunities with additional storage may prove advantageous to both Districts' conjunctive use activities. The brief sections below describe these key issues.

4.2.1. Bay-Delta Water Quality Control Plan

As noted in the Raftelis report in 2021, the Bay-Delta Water Quality Control Plan (Plan) may permanently change water rights in the Sacramento River watershed. In 2018, SWRCB adopted Plan amendments that require increased "unimpaired flows" in the tributaries of the San Joaquin River.[44] The implementation plan to meet the San Joaquin River's unimpaired flows requirements is informative for the Sacramento River watershed because the Sacramento River watershed plan is not yet fully developed.[45] Water diversions in the Sacramento River watershed will likely need to be reduced in order to meet the flow requirements necessary to meet the Delta Water Quality objectives. The American River watershed purveyors have been negotiating "Voluntary Agreements" that would provide the water supplies to meet the flow requirements into the Sacramento River from the American River. These negotiations have been slow and have encountered some opposition from external entities. Whether or not the Voluntary Agreement negotiations are successful, the regional water purveyors will likely have some obligations to forgo diversions of some portion of their surface water supplies in order to meet the Plan objectives.

4.2.2. Snowpack and Runoff Variation

As noted in the Raftelis report in 2021, there are future climate change scenarios that also impact the timing, volume, and availability of surface water supplies.[46] The California Department of Water Resources (DWR) has already recorded decreases in snowpack and earlier spring runoff. DWR predicts that California will experience "a 48-65% loss [in snowpack] from the historical April 1 average." This change in natural storage will impact the timing of natural flows in the American River watershed and thereby impact the availability of supplies under the water rights that have no storage components (all of CWD's water rights and a few of the City of Sacramento's water rights). In addition, California's Natural Resources Agency recently published a report stating: "Our climate has changed. We are experiencing extreme, sustained drought conditions in California…. This is our new climate reality, and we must adapt."[47]

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[44] https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/

[45] https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/comp_review.html

[46] https://water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Change-and-Water

[47] https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf

Accordingly, future considerations related to the viability of surface water supplies under changed climate conditions should account for potential changes to the availability of those rights based on snowpack and runoff variation.

4.2.3. Groundwater Banking and Extraction

The RWA is working to develop the Sacramento Regional Groundwater Bank (Bank) in the American River watershed region.[48] The Bank is a water storage facility with approximately 1.8 million acre-feet of storage capacity and an annual storage input of approximately 60,000 acre-feet.[49] The proposed Bank could improve long-term regional water supply reliability by improving opportunities for conjunctive water management by regional purveyors. CWD and SSWD already conjunctively manage their available surface water and groundwater resources. The Bank would provide a more formalized opportunity for these entities to optimize their collective water assets for long-term water supply reliability and for water asset monetization. Utilizing the proposed Bank with an integrated conjunctive use program could maximize opportunities for both Districts.

4.3. The Opportunities

CWD and SSWD have numerous opportunities to integrate their water asset portfolios to meet both short-term and long-term water reliability objectives. This section will address the long-term water supply objectives that could be realized through a combination.

4.3.1. CWD's Water Rights

CWD's three appropriative water rights are not available for use in SSWD's service area without obtaining authorization from the State Board. Specifically, CWD's water rights have specific identified places of use that do not include any portion of the SSWD service area. In order to expand the place of use under CWD's water rights, CWD would be required to file a petition for change with the State Board and the State Board would need to rule on the viability of the change petition. The State Board's determination would hinge on its findings, through an evidentiary hearing process, of whether the proposed change would cause injury to other legal users of water or the environment. Simply expanding the place of use of water available under the water rights would likely result in a determination that "more water would be used under the water rights than would have otherwise been used" and thus there would be a reduction in supplies available for other legal water users and the environment.

PCWA undertook this place of use expansion in order to include portions of SSWD's service area under Permits 13856 and 13858. The State Board's petition and hearing process took over five years and was considerably expensive, approximating $5 million in transaction costs. Nevertheless, PCWA was able to secure an expanded place of use to include SSWD's service area. This expanded use of water was not deemed injurious to other legal users because PCWA would only deliver supplies that it had already captured in its American River reservoirs. CWD does not have any reservoirs and only captures the natural flow of the American River in delivering water supplies into its service area. Thus, capturing additional natural flows that CWD otherwise does not already divert may be construed as injury to other legal users and the environment. Nevertheless, in a place of use change petition, both CWD and SSWD would be able to divert and treat water

[48] https://rwah2o.org/sacramento-regional-water-bank/

[49] https://rwah2o.org/wp-content/uploads/2019/04/WaterBank_Insert_9-FINAL.pdf

in wetter periods to optimize Bajamont Water Treatment Plant's spare capacity and store the water via ASR operations.

However, a change petition that affirmatively demonstrated that CWD had historically been diverting and using the water that is the subject of the petition may have a better chance of success. Specifically, CWD would need to demonstrate that affirmative actions within CWD have conserved water resources that CWD would have otherwise diverted and used but for those conservation activities. Conserved water is protected for future use under Water Code section 1011 and CWD has conserved as much as 4,000 acre-feet from its historical maximum use that could be made available for alternative uses. As such, there may be opportunity to expand the place of use related to CWD's conserved water for use in SSWD's service area through a State Board process, but the process would be prolonged and expensive.

CWD could also utilize a temporary change petition process to potentially deliver conserved water or water derived from a groundwater substitution process into SSWD's service area. The State Board has never addressed a temporary change petition process that is derived strictly from conserved water that is no longer diverted by an agency. The State Board has heretofore only addressed conservation transfers that were attributable to reductions in consumptive use under the provisions in the Water Transfer Whitepaper.[50] The American River watershed regional purveyors have been developing a program to facilitate urban conservation-based transfers. As noted in previous sections, SJWD has been successful in its conservation-based transfer with SSWD that is derived from its pre-1914 appropriative water right. CWD's water rights would require affirmative State Board approvals in order to execute a conservation-based transfer.

CWD could continue its foray into groundwater substitution transfers and deliver SSWD its surface water supplies under these temporary transfer rules. In this scenario, CWD would pump groundwater in an equal amount to the surface water it transferred to SSWD under any of its three water rights. Although this type of transfer is plausible, it would simply result in CWD increasing groundwater pumping and SSWD decreasing groundwater pumping and using CWD's surface water. In other words, a groundwater substitution transfer may not be a practical and cost-effective water management action between the two Districts as they would essentially be trading water supplies.

4.3.2. CWD's Other Supplies

CWD's other water supplies, not derived from CWD's groundwater wells, may be available for use in SSWD's service area. For instance, water supplies made available from GET LA and GET LB could potentially be diverted at the City of Sacramento's American River or Sacramento River diversion facilities and delivered to SSWD's service area. These developed water supplies derived from the treatment activities of Aerojet and discharged into the American River are available for diversion so long as Aerojet's other water supply contracts are satisfied.[51]

The City of Sacramento's water supplies could be used in the portion of CWD contained in Area D, approximately 320 acres. The four Permit supplies derived from the American River watershed could be made available by adding a point of diversion to these rights to include CWD's Bajamont facilities and by

[50] https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Management/Water-Transfers/Files/Draft_WTWhitePaper_20191203.pdf

[51] SCWA and GSWC hold supply contracts for 8,900 AF and 5,000 AF respectively derived from Aerojet's GET water. The SCWA and GSWC contracts are settlement contracts from litigation related to groundwater contamination.

coordinating an agreement with the City to divert, treat, and deliver those supplies to CWD's customers within Area D. This process may be less scrutinized by the SWRCB because the water supplies were contemplated for use in Area D in previous water rights proceedings and the lands within CWD's service area are already part of the Permits. As such, there is no unanticipated additional uses associated with the change in point of diversion. In the alternative, SSWD could deliver these surface water supplies to CWD's service area in Area D through its existing 2004 Agreement with the City of Sacramento with an amendment recognizing the delivery to CWD's service area. This action is wholly within the current confines of the City's water rights and would not require any SWRCB approvals. Last, SSWD could deliver the City's Permit 992 and Pre-1914 appropriative water right into CWD's service area that lies within "the City of Sacramento". It may also be possible to deliver conserved water supplies derived from the City's pre-1914 appropriative water right (as SJWD does for SSWD) through SSWD's system. The City's availability to deliver Area D water is limited to the Hodge Decision and may not be available during the drier years. The engineering complexities of delivering water assets from the City's Sacramento diversion facilities to CWD's service area is beyond the scope of this memorandum. While the City has indicated that it will not open its permit to add new point of diversion, the State will automatically open the permit in 2030 or 2036, and at that point a temporary annual diversion could be explored.

As an alternative to a permanent change petition, the City could add a temporary additional point of diversion through the temporary change petition process that may make the City's four American River Permits easily available to CWD's service area in Area D on an annual basis with the SWRCB. Moreover, this action would allow CWD to divert and treat water that could then be delivered into SSWD's service area through the CWD and SSWD interties. This action may provide a litmus test as to the viability of adding a point of diversion for longer-term water diversions at CWD's Bajamont facility (or at least provide a precedent for future emergency transfers should they be necessary). The temporary change petition process is relatively straightforward, is exempt from the California Environmental Quality Act, and provides a streamlined approach to accomplishing the proposed objective. Accordingly, adding a temporary point of diversion for some of the City's American River water rights and diverting those waters at that location may provide a foundational piece for better water asset integration.

Last, SJWD's pre-1914 appropriative water right (S000656) is available for use in CWD's service area. This water right had historically been delivered to CWD and CWD has recently taken delivery of this supply for use in its service area by contract. The distinguishing characteristic of CWD's use of this supply is that the supply is not subject to any transfer provisions that are applicable to SSWD's use of the water. Specifically, whether or not the water had historically been conserved is irrelevant to the availability for use in CWD's service area. Accordingly, the SJWD water supply may be more valuable for use in CWD's service area than SSWD's service area, as it would allow for greater use under the water right that could support larger conservation-based transfers in the future.

CWD's groundwater supplies are derived from the same groundwater basin as SSWD's groundwater supplies. As such, there is no real limitation on the two agencies sharing supplies derived from their respective groundwater extraction systems.

4.3.3. SSWD's Water Contracts

The water supplies delivered to SSWD under the 2004 Agreement could not be used outside SSWD's service area without the concurrence of the City and a modification to the 2004 Agreement. Although the potential to deliver these supplies to CWD's service area exists, moving water from the City's Fairbairn Treatment Plant

or its Sacramento River diversion facility up into CWD would require additional engineering analysis beyond the scope of this report.

SSWD's water contract with PCWA also has limited utility for CWD. PCWA's water right permits 13856 and 13858 do not include CWD in their places of use. As such, any delivery of these water supplies would require a temporary change petition at the State Board and a modification to the PCWA contract.

It is viable that CVP Section 215 water could be diverted at CWD's Bajamont facility and delivered to the combined entity. This action may require further consultation with the Bureau of Reclamation to determine whether an existing Warren Act Contract could cover these forms of diversion and use or whether an additional contract or an amendment would be needed to deliver these supplies. CVP 215 water is rarely available for delivery and under those conditions spare capacity at the Bajamont Water Treatment Plant may be sufficient to serve CWD's and SSWD's needs. The delivery of CVP 215 water into SSWD's service area through CWD's Bajamont system may be worth pursuing if SSWD's alternative surface water opportunities in wet conditions become problematic.

4.3.4. Conjunctive Management

CWD and SSWD have significant surface water and groundwater facilities available for conjunctive management actions. Developing options that allow additional surface water supplies to be directed through CWD's Bajamont facility for use in CWD's and SSWD's service area would be worthwhile to maximize groundwater storage and prepare for reduced reliability conditions. Finding opportunities to use more surface water supplies in both CWD and SSWD would allow both Districts to reduce their uses of groundwater and store that groundwater for alternative future uses. These in lieu recharge activities would further both Districts' groundwater management objectives.

In addition, actions that would allow CWD to inject its surface water supplies into a groundwater bank or for SSWD to inject the City's, PCWA's, or SJWD's supplies into a groundwater bank would also support the long-term conjunctive management objectives. Actions related to Aquifer Storage and Recovery (ASR) that have been successfully developed in both the City of Roseville and the City of Woodland would be positive additions for a combined conjunctive management. Injecting and storing surface water in groundwater basins would require some additional modifications to CWD's, the City's, and PCWA's surface water rights. SJWD's pre-1914 water, Aerojet water, and other conserved water may not require any additional actions from the State Board in order to inject those supplies into the groundwater system.

4.4. Recommended Options for Water Asset Combination

CWD and SSWD may consider finding opportunities to combine water resources to best meet the short-term and long-term needs of their customers. The primary objectives of both Districts should be to maintain the same level of reliable water service in light of future climatological and regulatory conditions. The predicted conditions indicate that surface water supplies will be less available based upon changed hydrological conditions in the American River Watershed and increased regulatory demand to meet the Bay-Delta Water Quality Control Plan requirements. Accordingly, developing opportunities to diversify the surface water asset portfolio and improve water storage opportunities would likely insulate CWD and SSWD against future surface water deficits.

CWD and SSWD have ample groundwater wells to extract native groundwater supplies and banked groundwater supplies to meet their combined needs. Although CWD may have less groundwater extraction wells, its connections to SSWD and their recent joint facility development efforts should alleviate any groundwater extraction restrictions. Maintaining and improving access to groundwater basins is a critical component of long-term water supply reliability for both Districts. However, it is equally important that CWD and SSWD capture and use as much surface water as possible in order to (a) improve banked groundwater supplies to meet long-term supply reliability; and (b) monetize surface supplies through future groundwater substitution water transfers.

CWD and SSWD should primarily focus the surface water combination actions on surface supply reliability under dry conditions in the American River watershed. There are four primary water assets that can improve surface water reliability for the Region, particularly if pursued as a combined organization:

- City of Sacramento's Permits 11359 and 11360 on the American River that are tied to storage in SMUD's Upper American River Project.
- SJWD's pre-1914 appropriative right that is available for use in a portion of CWD's service area and can be easily transferred to SSWD under conservation-based transfers.
- CWD's License 1387 use in SSWD's service area through a conservation-based temporary transfer through the State Board.
- GSWC's Aerojet Supply diversion and delivery in CWD's and SSWD's service areas.

4.4.1. City of Sacramento American River Water Rights

The City of Sacramento's Permits 11359 and 11360 have storage components that insulate them against drought conditions and are already available for use in CWD's service area that are contained in Area D. The storage components of these two rights allow them to be delivered for diversion to both SSWD and CWD even if natural flow conditions in the American River are low and if Hodge Conditions are met at the City's Fairbairn intake facility. An appropriate starting point for this diversion would be to coordinate with the City of Sacramento to temporarily add a point of diversion to include CWD's Bajamont Treatment facility for delivery to CWD's portion of Area D. This initial step would set precedent for this type of action, especially under critically dry future conditions. Though, to date the City has been unwilling to add a permanent point of diversion when the contract is opened a temporary annual measure might garner more traction.

4.4.2. SJWD Pre-1914 Appropriative Right Deliveries

SSWD and CWD have taken delivery of SJWD's pre-1914 appropriative water right (S000656). CWD took delivery because of its inclusion in SJWD's place of use and SSWD took delivery through a conservation-based transfer. Both entities may use this source of water and finding an opportunity to deliver the supplies in dry years – either through Bajamont or the Cooperative Transmission Pipeline (CTP) – would add redundancy to both Districts' supply portfolios. SJWD's supply is based upon its priority date and its contract with Reclamation, which includes storage and delivery from Folsom Reservoir. The right's priority date and storage component make it highly valuable in dry hydrological conditions.

4.4.3. CWD's License 1387 Conservation Transfer

CWD and SSWD should pursue a temporary conservation-based transfer of License 1387 through the State Board process to deliver water under License 1387 to SSWD. CWD and SSWD should target a normal water year to execute this transfer so as to lessen the perceived injury of this transfer to other legal water users and the environment. The conservation-based transfer would require quantifying that amount of water that CWD

has conserved specifically under License 1387 (a portion of its 4,000 acre-feet of conserved water noted elsewhere in this memo) and delivering that water through its system intertie with SSWD into SSWD's service area. This precedent-setting transaction would provide a baseline from which to potentially include SSWD in CWD's water rights place of use for permanent conserved water deliveries.

4.4.4. GSWC Aerojet Supplies

GSWC's Aerojet water supplies are derived from Aerojet's GET facilities that discharge water into the American River watershed. These facilities produce 5,000 acre-feet of water that CWD diverts and delivers to GSWC at Bajamont. CWD and SSWD could secure delivery of these supplies in dry years from GSWC by enabling GSWC to meet its dry year demands with groundwater extractions in its service area. The GSWC Aerojet supplies can be delivered to any location in CWD's and SSWD's service area without any formal approvals from any regulatory body and are impervious to dry year extraction restrictions.

If all opportunities are pursued and successful costs for these efforts could be as high as $5.25 million in total and annual increases in water sales of about 10% would produce an additional $6.5 million in combined revenue annually.[52]

[52] The water sales side of this estimate of ~10% increase in combined monetization or water sales was provided by district leadership and based on current transfer activity and in light of the opportunities identified in this report as a rough estimation of monetization over time as additional supplies are unlocked and added to current sources. This is likely both a very rough but also reasonably conservative attempt to estimate upside potential. It could be much higher or lower depending on regulatory actions that limit water for Delta flows, climate, or successes achieved through the highlighted opportunities.

5. Finances

In this section we review each agencies' finances and explore the implications of a potential combination of the two Districts. In each section, we discuss the current situation for CWD, SSWD, and the projected result should the two be consolidated.

Bookkeeping

Each District currently operates as a single enterprise fund. An enterprise fund is defined by the Governmental Finance Officers Association (GFOA) and the Governmental Accounting Standard Board (GASB), who set the guidelines for governmental accounting standards, as a separate accounting and financial reporting mechanism for municipal services for which a fee is charged in exchange for goods or services (akin to a business). Because utilities charge rates to ratepayers for their services, utilities operate as enterprise funds.

Consolidating the CWD and SSWD financials would necessitate a single enterprise fund for water operations. In essence, the current accounting structures could continue as-is, but would be brought together in a single set of books with a combined enterprise fund rather than one for each entity. All recovered revenue would be applied to cover the costs of water service provision and the combined District would continue to comply with all accounting standards and California laws. As is the case now, municipal governments would not funnel water revenues away from the agency except where they provide any specific services to the District, and no property tax revenues would be routed to the agency.

The most difficult aspect of combining finances would be merging into a single chart of accounts to govern coding of financial transactions. The consolidated utility would require one enterprise fund, and a full chart of accounts with codes for all necessary transactions would be required. At first, the two charts of accounts could be merged, and duplicative entries removed. The financial staff in the two utilities would need to meet and agree upon a new chart of accounts for implementation over time and make the associated changes to the setup in their respective financial software systems. Ideally, the chart of accounts would be fully merged and streamlined. The effort to create a unified chart of accounts and implement it into the systems is estimated to take six to twelve months.

Financial staff would also need to examine and determine which software systems, account codes, and procedures are most beneficial for use in the combined utility, though one primary software system, Microsoft Dynamics GP, is already used by each. While in the short-term the likelihood is that both systems would be run concurrently, in the longer-term a determination would need to be made about which setup and procedures best accomplishes the needs of the District. A review of the pros and cons of current and other potential systems and account structures would occur, a selection would be made, data transferred, and staff trained as needed. This could be a two-to-three-year process from start to finish, which is why having concurrent systems running in the meantime is likely necessary.

5.1. Revenues

Revenues for each agency are unlikely to be greatly affected by a combination and, in our view, would remain largely unchanged from current projections in the near to mid-term.
CWD has FY2022 budgeted revenues of just over $17 million. Revenue sources are summarized as water sales (~90% of revenues), non- rate revenues (~9%), and interest income (~1%). Non-rate revenues include capacity sales, delivery charges, and connection fees. The following table shows a five-year breakdown of CWD revenues beginning FY18. CWD operates on a July 1st to June 30th fiscal year.

Table 6: CWD Revenues FY2018 to FY2022[53]

CWD Revenues	FY2018 Actuals	FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Budget	Percent Change FY2018 to FY2022
Water Sales	$10,859,913	$11,392,509	$12,279,163	$13,331,681	$14,525,600	34%
Interest Income	$47,719	$138,012	$155,748	$48,458	$23,000	-52%
Non-Rate Revenue	$871,618	$932,257	$947,881	$1,028,855	$2,565,000	194%
TOTAL CWD REVENUES	**$11,779,250**	**$12,462,778**	**$13,382,792**	**$14,408,994**	**$17,136,600**	**45%**

Reported rate revenue for CWD grew steadily by ~11% annually from FY2018 through FY2022, including projected FY2022 budgets. CWD received non-rate revenues from Aerojet through the Bajamont Water Treatment capacity sale to GSWC in 2016. During the study period of FY 2018 through FY2022, Aeroject's annual payment to CWD is $1,400,000 per year. Beginning Calendar Year 2021, CWD also implemented a 9.5% rate increase per year with a majority portion of the rate increase revenue funding a reserve for the eventual replacement of Bajamont Water Treatment Plant's microfiltration system.

SSWD has FY2022 budgeted revenues of over $51 million. Revenue sources were summarized as water sales (~93% of revenues), non-rate revenues (5%), and interest income (~2%). Non-rate revenues include facility development charges, delivery charges, and service fees. The following table shows a five-year breakdown of SSWD revenues since FY18. SSWD operates on a calendar year fiscal timeline.

Table 7: SSWD Revenues FY2018 to FY2022[54]

SSWD Revenues	FY2018 Actuals	FY2019 Actuals	FY2020 Actuals	FY2021 Actuals	FY2022 Budget	Percent Change FY2018 to FY2022
Water Sales	$44,092,000	$43,902,000	$47,643,000	$48,559,000	$49,957,000	13%
Interest Income	$767,000	$1,076,000	$1,077,000	$649,000	$574,000	-25%
Non-Rate Revenue	$3,932,000	$3,171,000	$2,430,000	$2,731,000	$830,000	-79%
TOTAL SSWD REVENUES	**$48,791,000**	**$48,149,000**	**$51,150,000**	**$51,939,000**	**$51,361,000**	**5%**

FY2018 to FY2022 SSWD revenue generation was somewhat up and down depending on the year, in total growing by just 5% across the period. SSWD's revenue growth from FY2018-FY2022 lagged that of CWD's, though this is likely to the benefit of customers, as long as costs are recovered, and service levels are

[53] CWD CAFR 2021/CWD Budget 2022: pages 73/29

[54] SSWD 2021 Annual Report Page 78/2022 Annual Budget

maintained. This lower rate of growth reflects healthy support from reserves to minimize rate impacts. Higher rate increases for CWD have been recently required to ensure plant reserves are in place for the membrane replacement project, but over time may also be reflective of the smaller ratepayer base, which concentrates cost recovery among fewer customers.

Based on FY2022 budgeted revenues, the combined entity would have total revenues of approximately $68.5 million. Table 8 Table 8 summarizes the projected combined agency revenues. If combined, the resulting utility District would, at a surface level, have experienced 13% revenue growth from FY2018 to FY2022. However, this is not reflective of efficiencies that could be achieved through a combination, where it is expected that over time revenue trends would look more like that of SSWD than that of CWD.

Table 8: Combined CWD and SSWD Revenues FY2018 to FY2022

Total Revenues	FY2018 Actual	FY2019 Actual	FY2020 Actual	FY2021 Actual	FY2022 Budget	Percent Change FY2018 to FY2022
Water Sales	$54,951,913	$55,294,509	$59,922,163	$61,890,681	$64,505,600	17%
Interest Income	$814,719	$1,214,012	$1,232,748	$697,458	$597,000	-27%
Non-Rate Revenue	$4,803,618	$4,103,257	$43,377,881	$3,759,855	$3,395,000[55]	-29%
COMBINED REVENUES	**$60,570,250**	**$60,611,778**	**$64,532,792**	**$66,347,994**	**$68,497,600**	**13%**

5.2. Operating Expenditures

Expenditures for each agency would initially be expected to remain near current forecasts if combined, depending on the desired pace of efforts to come together.

CWD had the following operating expenditures for FY2018 to FY2021 on an accrual basis as reported in available audited financial statements. Note the increase over time but also the fluctuations and variability by function. Such variability can be driven by high cash funding of capital, which both agencies practice, and the variability of capital needs. Cash balances and reserves can be used to smooth rate impacts during such periods of variability. It is also noteworthy that the ongoing but slowing Covid-19 pandemic occurred over this period, which had significant operational impacts on utilities and further drove trend breaks and variability in many communities.

Table 9: CWD Expenses FY2018 to FY2021[56]

Category	FY2018 Actual	FY2019 Actual	FY2020 Actual	FY2021 Actual	Percent Change FY2018 to FY2022
Total Administrative Costs	$3,185,882	$3,057,560	$3,543,045	$3,685,101	16%
Total Production Costs	$2,306,629	$2,239,287	$2,825,493	$2,490,090	8%
Total Distribution Costs	$3,987,102	$4,149,381	$4,405,074	$3,789,747	-5%

[55] Include $1.4 million for temporary Aerojet capacity sales income.

[56] CWD 2021 Annual Report Page 73, Accrual Basis

Category	FY2018 Actual	FY2019 Actual	FY2020 Actual	FY2021 Actual	Percent Change FY2018 to FY2022
Cash Funded Capital[57]	$1,891,322	$2,307,762	$6,123,364	$4,154,579	120%
Total Debt Service[58]	$2,183,575	$2,186,350	$2,311,530	$2,539,828	16%
Total Revenue Requirement	**$13,554,510**	**$13,940,340**	**$19,208,506**	**$16,659,345**	**23%**

SSWD had the following operating expenditures for FY2018 to FY2021 on an accrual basis as reported in available audited financial statements. SSWD has experienced declines in expenditures over this period as well as variability driven by cash funding of capital and the pandemic.

[57] Cash Funded Capital for a given year refers to in-year expenditures for ongoing or completed capital projects that were paid for without any financing such as revenue bonds or other forms of debt.
[58] Total Debt Service refers to debt service payments made in a given year as part of a loan amortization schedule.

Table 10: SSWD Expenses FY2018 to FY2021[59]

Category	FY2018 Actual	FY2019 Actual	FY2020 Actual	FY2021 Actual	Percent Change FY2018 to FY2022
Total Administrative Costs	$9,533,000	$9,983,000	$10,374,000	$9,981,000	5%
Total Production Costs	$8,735,000	$8,720,000	$7,165,000	$7,006,000	-20%
Total Distribution Costs	$4,193,000	$6,721,000	$4,548,000	$5,100,000	22%
Cash Funded Capital	$17,800,000	$17,200,000	$15,600,000	$15,400,000	-13%
Total Debt Service	$7,462,000	$7,150,000	$7,238,000	$7,121,000	-5%
Total Revenue Requirement	**$47,723,000**	**$49,774,000**	**$44,925,000**	**$44,608,000**	**-7%**

Most expenditures for both utilities are for essentials such as salaries and benefits, purchases of supplies and materials such as chemicals, and utilities. We assume for the purpose of this review that capital project expenditures going forward will also remain similar to those already in their respective capital improvement plans.

Variable expenditures include administrative costs like office supplies, some staffing, and other areas where a combined utility will result in overlaps of existing resources. In the short-term (2-5 years), there will likely be an increase in expenditures as the combined utility implements unified financial software and other support systems, contracts for various studies such as account classification and compensation reviews, and other costs of combination. Over time, it is expected that these costs of combination will cede as the newly combined entity moves forward and begins to benefit from efficiencies. Table 11 shows combined historical expenses from FY2018 to FY2021 as nearly flat over time as one agency increased spending and the other reduced spending, ultimately cancelling each other out. It is important to note that the rate impacts for customers would not have reflected these trends given the reserves and cash balances that were deployed in each year. Over longer periods of time, inflation will drive any organization's costs higher as operational costs like salaries and capital investment costs escalate, which is why often even organizations with available cash and reserves to buffer rate impacts tend to gradually escalate rates at least in line with inflation.

Table 11: Combined Expenses FY2018 to FY2021

Category	FY2018 Actual	FY2019 Actual	FY2020 Actual	FY2021 Actual	Percent Change FY2018 to FY2022
Total Administrative Costs	$12,718,882	$13,040,560	$13,917,045	$13,666,101	7%
Total Production Costs	$11,041,629	$10,959,287	$9,990,493	$9,496,090	-14%
Total Distribution Costs	$8,180,102	$10,870,381	$8,953,074	$8,889,747	9%
Cash Funded Capital	$19,691,322	$19,507,762	$21,723,364	$19,554,579	-1%
Total Debt Service	$9,645,575	$9,336,350	$9,549,530	$9,660,828	0%
Total Revenue Requirement	**$61,277,510**	**$63,714,340**	**$64,133,506**	**$61,267,345**	**-0%**

[59] SSWD 2021 Annual Report Page 78

5.3. Normalized Expenditures

This section is an analysis of cost per function comparing the financials for CWD and SSWD from 2018-2021. Average total costs were compiled and compared with the following functions: per connection, millions/gallons of water production (MG), per MG w/o Aerojet, per mile of pipe, per population served, and per acre. The following figures have been used to determine the efficiency of past costs per category.

Figure 11: 2018 to 2021 Normalized Costs per Connection

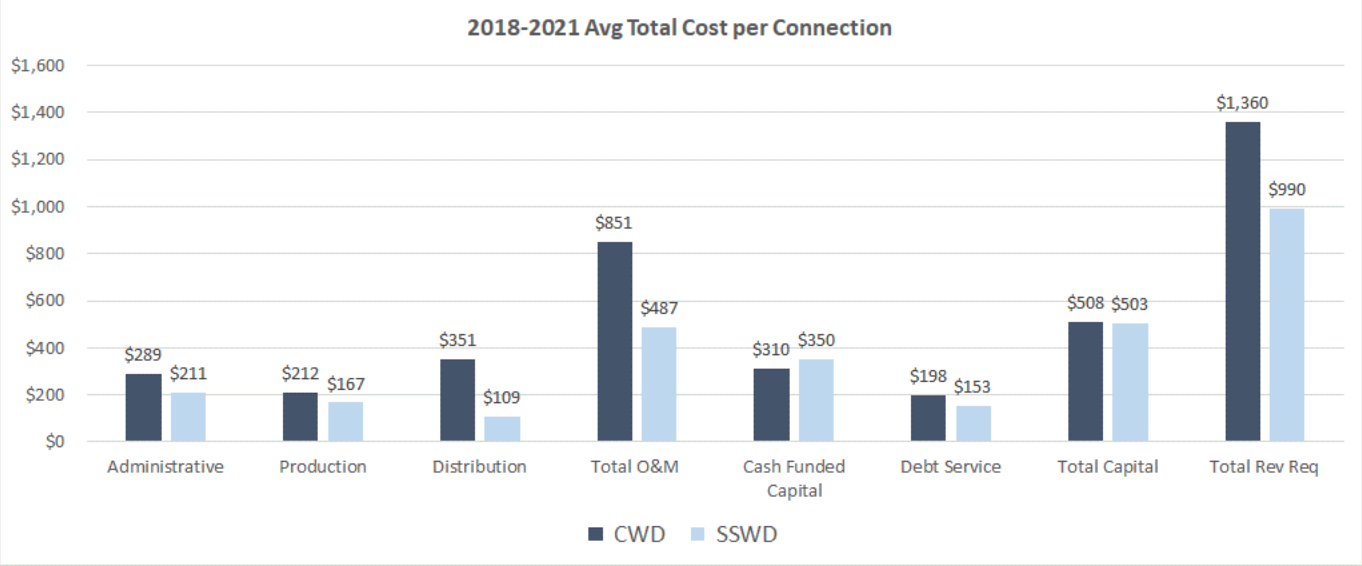


Figure 11 suggests that there is potential for scale efficiencies. There is a generally similar allocation of resources, for example SSWD's total revenue requirement costs per connection are 73% of CWD's ($990 vs $1,360).

Figure 12: 2018 to 2021 Normalized Cost per Million Gallons (MG) Produced

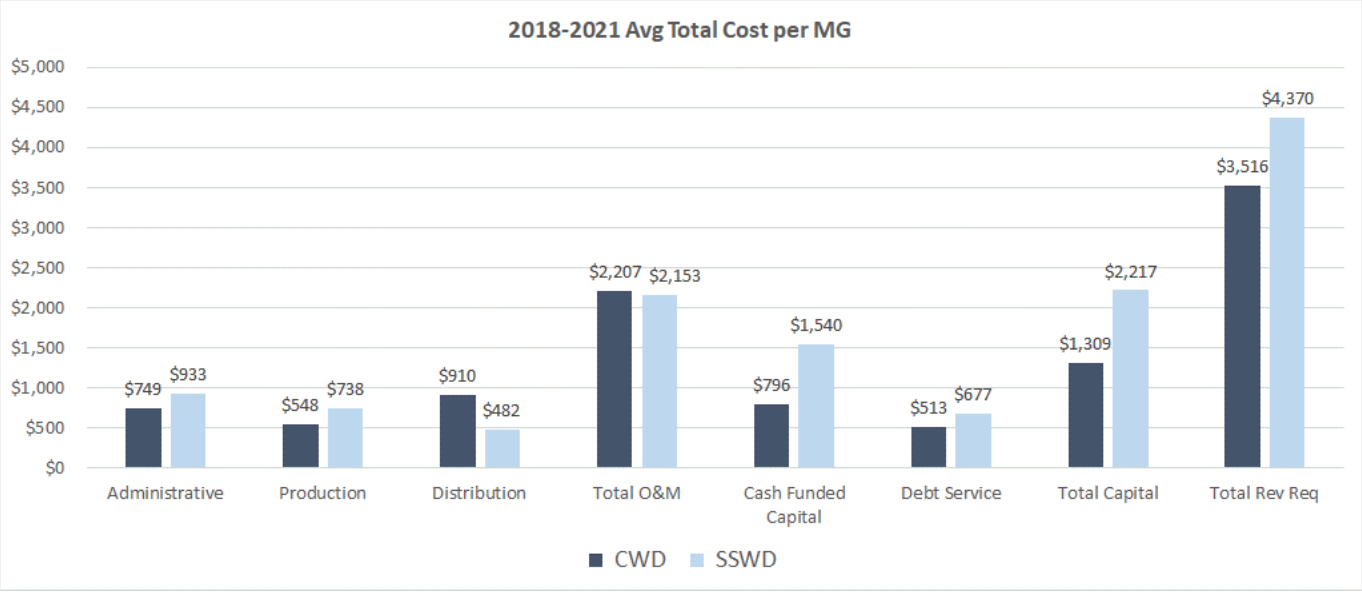


Figure 12 reveals that CWD's revenue requirement costs per MG produced are 80% of SSWD's ($3,516 vs $4,370). The significant difference in cost between these two utilities is driven by the GSWC/Aerojet contract which accounts for a single high volume CWD account.

Figure 13: 2018 to 2021 Normalized Cost per MG w/o GSWC + Aerojet

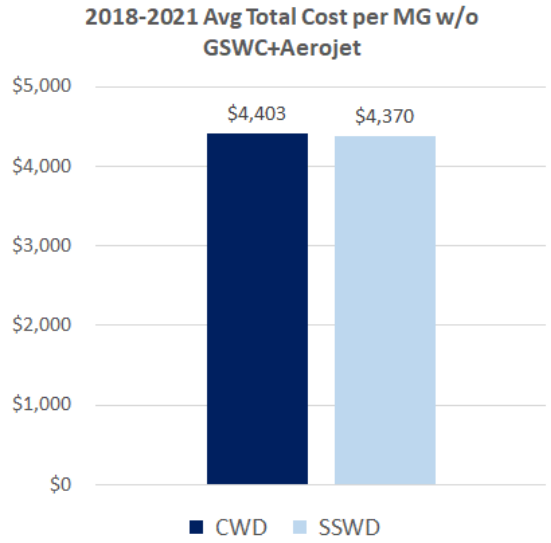


Figure 13 shows that SSWD's revenue requirement or costs ~~costs~~ per MG produced without Aerojet are 99% of CWD's ($4,370 vs $4,403), or slightly lower but remarkably close. ~~There is a generally similar allocation of resources in all categories. This is noteworthy because it highlights that among retail customers, it is on other operational aspects outside of water production such as distribution, overhead, administration, customer service, conservation activities, finance, accounting, billing etc. where efficiency may be concentrated through the combination as demonstrated in the other figures.~~Consumption per account is also lower in SSWD than CWD, which is an important context here because SSWD is able to achieve a similar cost per unit of water produced despite serving a larger number of accounts.[60] This is suggestive of the operational efficiencies that the larger scale of SSWD is able to achieve, which is supported by the other charts in this section and can potentially be further enhanced through a well-managed combination with CWD. It is also important to note that in addition to scale, another factor in determining cost efficiency is the density of the infrastructure and the amount of infrastructure in place that is required to service each account. The next chart gets at that point as well.

[60] A family of four in SSWD on average uses less than 12 ccf per month while in CWD this number is over 18 ccf. This is likely attributable to property, lot, and meter size but may also be due in part in to customer behavior differences or differences in district conservation practices. https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html

Figure 14: 2018 to 2021 Normalized Cost per Mile of Pipe

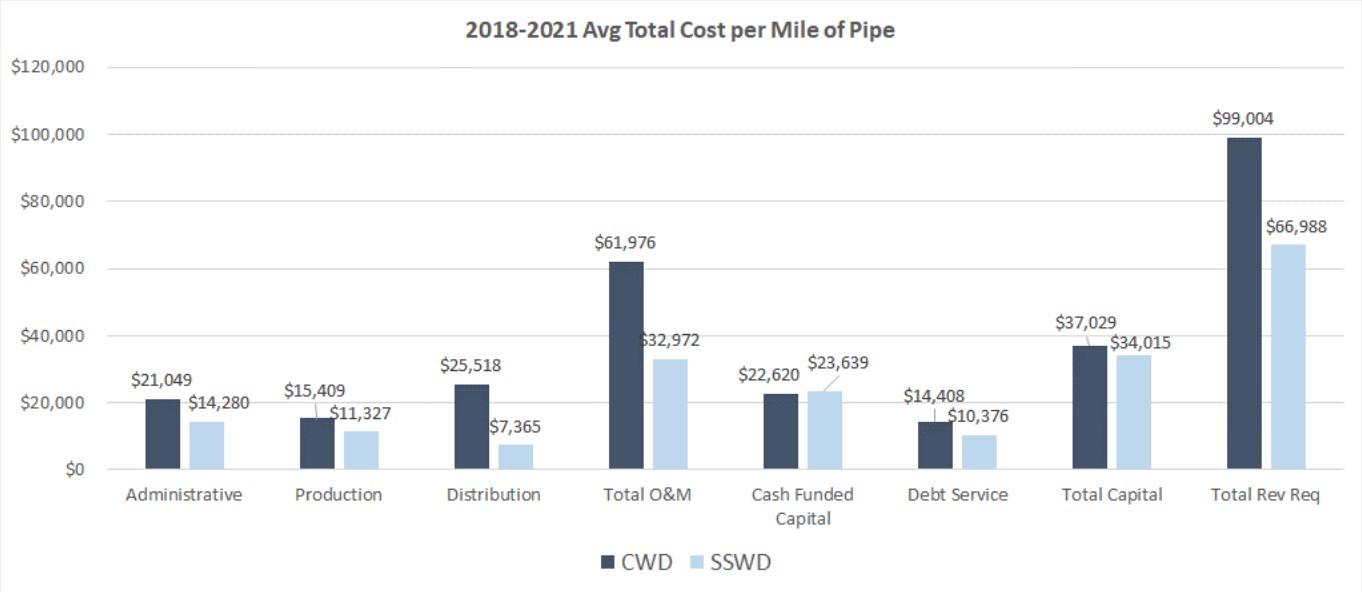


Figure 14 demonstrates that SSWD's revenue requirement costs per mile of pipe are 68% of CWD's ($66,988 vs $99,004). Most functions exhibit the same trend for this function, meaning that SSWD has greater efficiency. This data suggests that there is significant potential for combined efficiencies. While one might assume that this could be due to differences in density, the number of accounts served per mile of pipe are actually quite similar at 68 in SSWD vs. 73 in CWD.

Figure 15: 2018 to 2021 Normalized Cost per Population Served

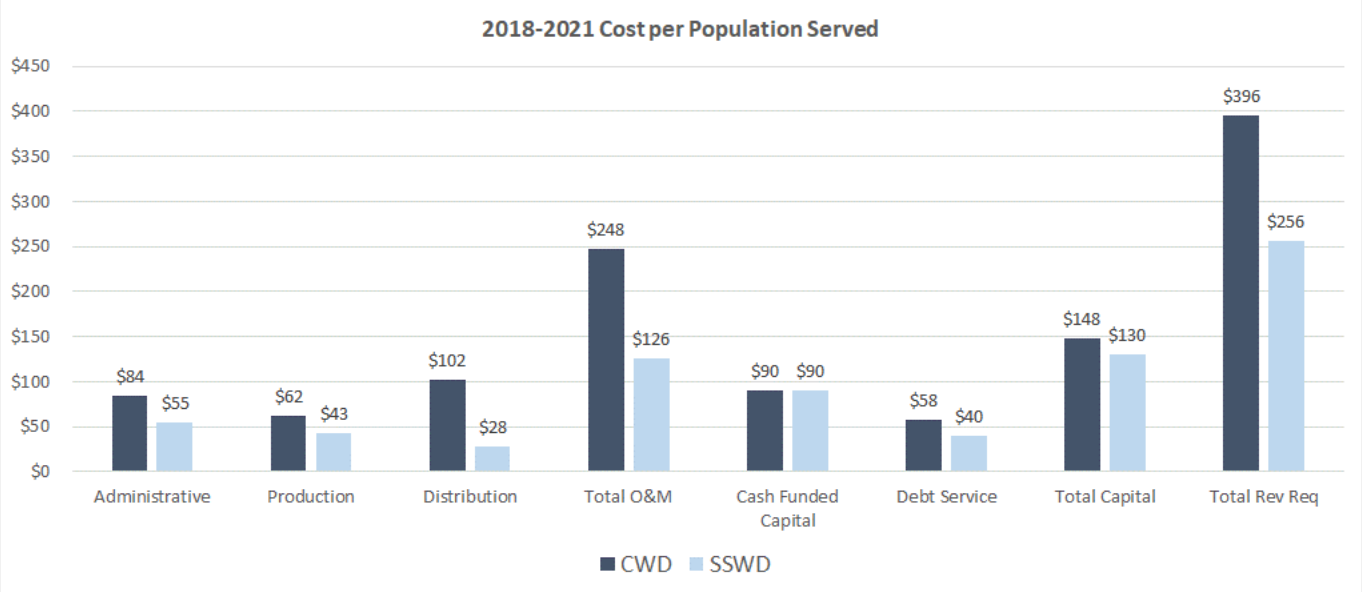


Figure 15 indicates that SSWD's revenue requirement costs per population served is 65% of CWD's ($256 vs $396). This data suggests that there is significant potential for combined efficiencies.

Figure 16: 2018 to 2021 Normalized Cost per Acre

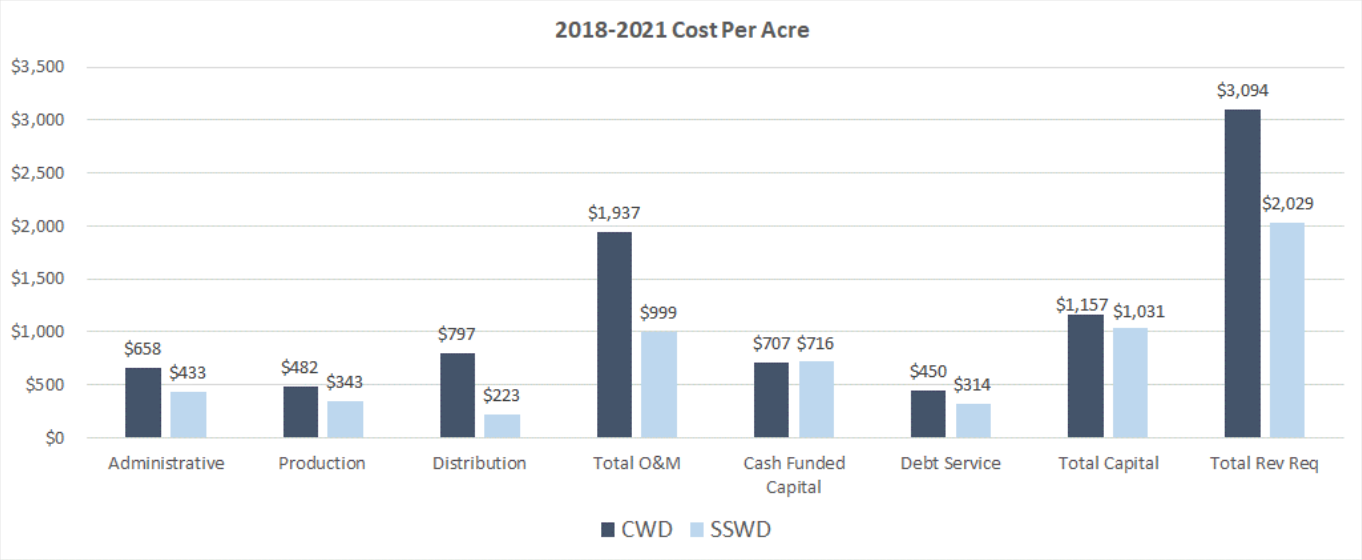


Figure 16 shows that SSWD's revenue requirement costs per acre served is 66% of CWD's ($2,029 vs $3,094). This data suggests that there is significant potential for combined efficiencies.

The normalized cost figures above display the differences in regional scale efficiencies between CWD and SSWD. In figures 11, 14, 15, and 16 CWD has consistently greater costs for the following categories administrative, production, distribution, total O&M, debt service, and revenue requirement. This frequent trend demonstrates SSWD greater financial economies of scale in all graphs except for figure 12 (where CWD normalized costs are lower) and figure 13 (where normalized costs are about the same). The GSWC/Aerojet contract, which accounts for a single high volume CWD account, enables CWD to have greater overall scale efficiency in this figure.

5.4. Capital Improvement Plans

The capital improvement plans (CIP) of CWD and SSWD lay out each utility's investments in the water system typically over five- and ten-year forecasts. It is important to note the distinction between cash funded capital and debt service payments included in the operating expenditure review in Section 5.2 and the CIP, which includes all system investments in a given year including cash funding and cash flows from bond proceeds.

As for operating expenditures, CIP investments were normalized using a range of units to assess the intensity of investment levels at each utility. This analysis was conducted across historical data on actual investment levels as well as the available forecasts for each utility. While operating costs generally increase in a modestly upward fashion over time, CIP programs can be more variable and include spikes where major system components come due for replacement or there is significant growth and new facilities. For example, when the membranes at the CWD treatment plant are due for replacement, CIP levels are higher than in most other years. As a result of this variability, relatively higher normalized investment levels can be due to where a given utility finds itself in time relative to its initial construction or other major infrastructure replacement milestones. Further, while higher normalized CIP investments can often drive rate impacts, this also depends heavily on how investments are ultimately financed and what available reserve levels are at the time of investment. Based on available data, a backward and forward looking capital investment trend covering the

period from 2018 to 2031 is presented in Figure 17, we observe a steady upward trend in investment levels for SSWD and brief peak for CWD attributable to a period of more intensive investment in the system that includes the aforementioned membrane replacement project.

Figure 17: 2018 to 2031 CIP Spend

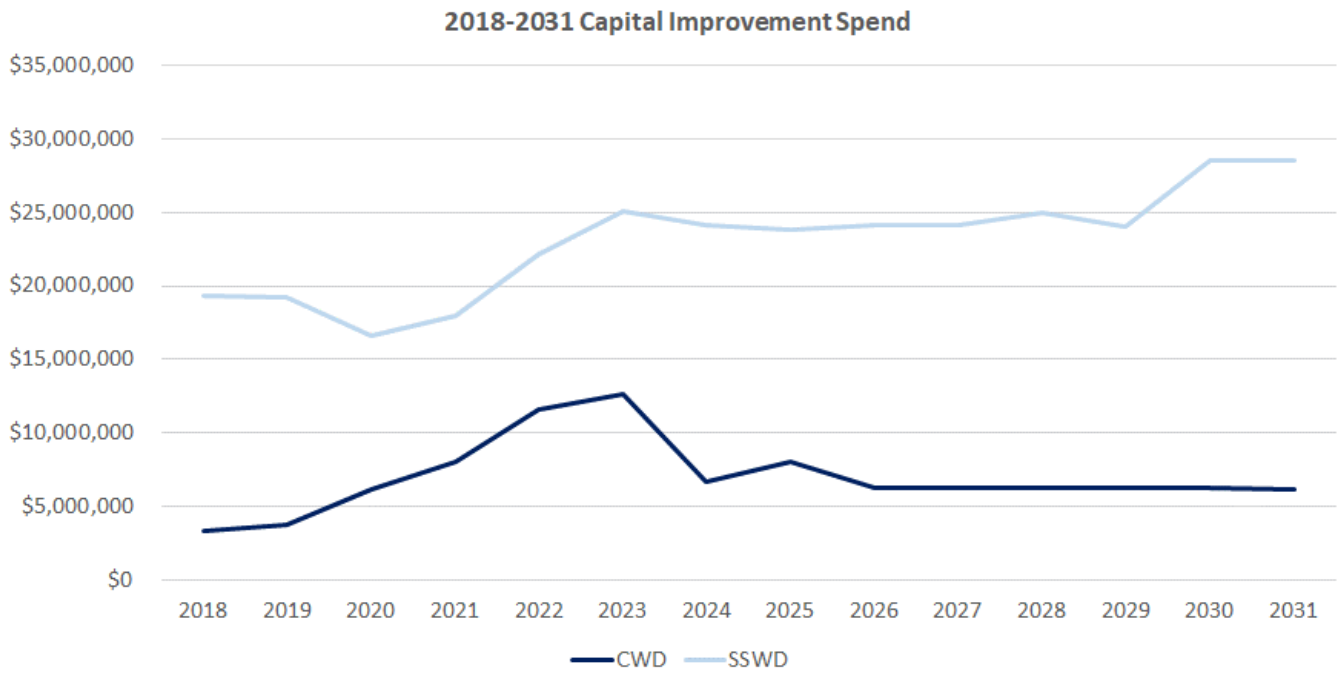


Figure 17 shows normalized CIP comparisons to account for the different scales of the two utilities and to smooth investment over this same period (2018 to 2031) for comparative purposes. Generally, the observations from this data are consistent with the normalized operating expenditure analysis, as they again suggest that there is a degree of scale efficiency and savings in larger retail systems for most metrics (~-20-30% range). However, again we see the impact of the award-winning GSWC and Aerojet agreement where we note that CWD on a normalized basis is able to produce water at a lower cost per MG (~-32%). Further, again we observe that when we look at the retail water production of CWD, only a somewhat smaller advantage in CIP investment per MG produced is observed (~-16%). Across the industry, groundwater is generally a cheaper source of supply than surface water; however, many individual retail accounts are also more expensive to serve than one large wholesale customer who consumes a significant percentage of a given utilities' supply. In part the larger properties in CWD, which consume 56% more water per account, also drive this normalized CIP per MG produced advantage.

Figure 18: 2018 to 2031 CIP Per Connection

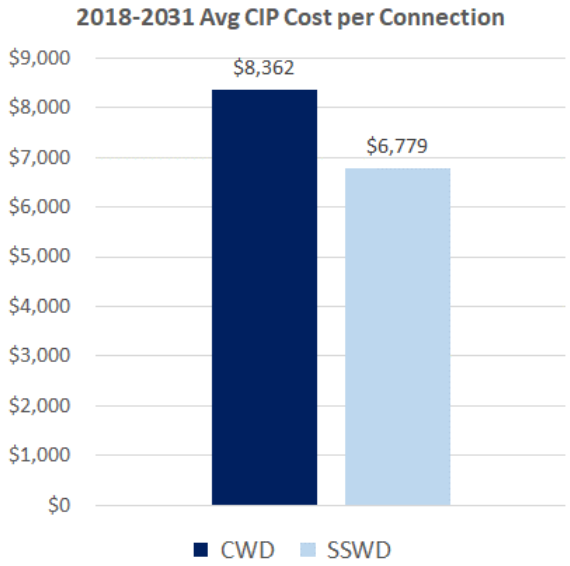


Figure 19: 2018 to 2031 CIP per Population Served

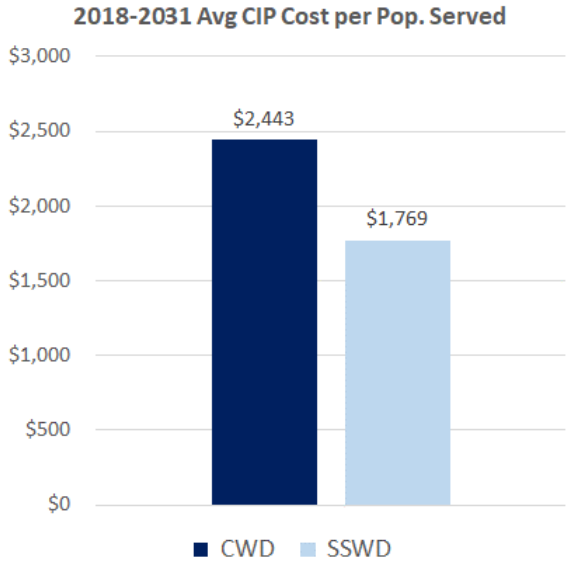


Figure 20: 2018 to 2031 CIP per Mile of Pipe

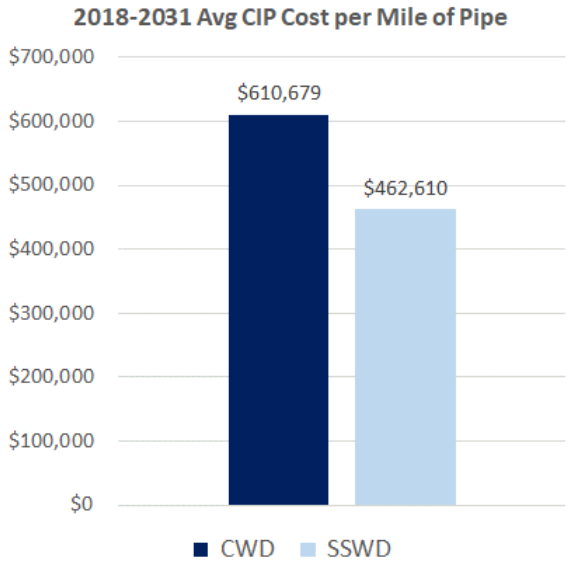


Figure 21: 2018 to 2031 CIP per Acre Area

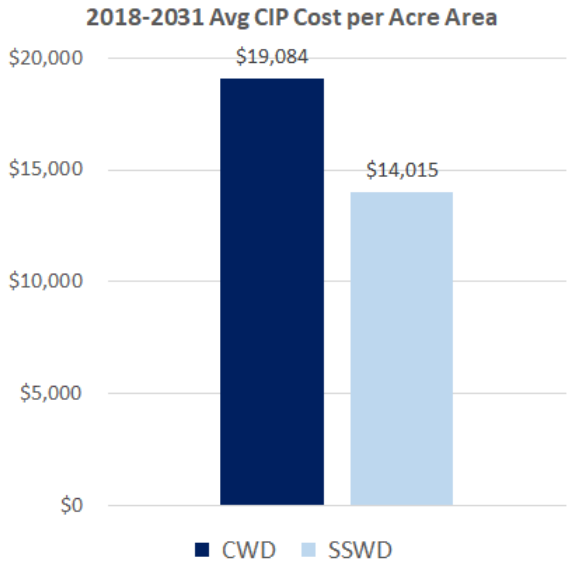


Figure 22: 2018 to 2031 CIP per MG Produced

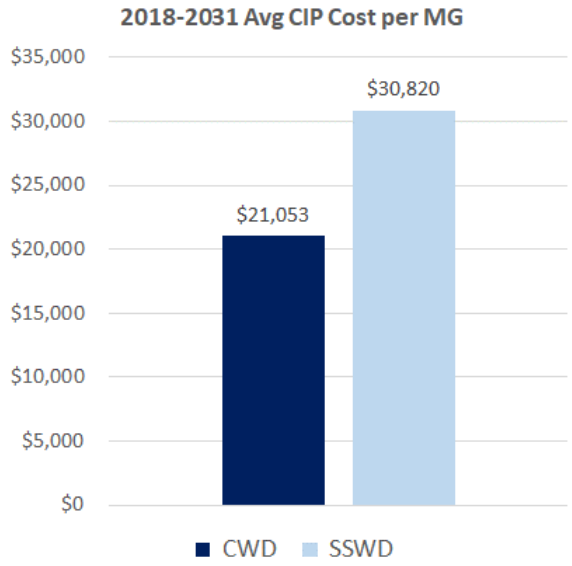
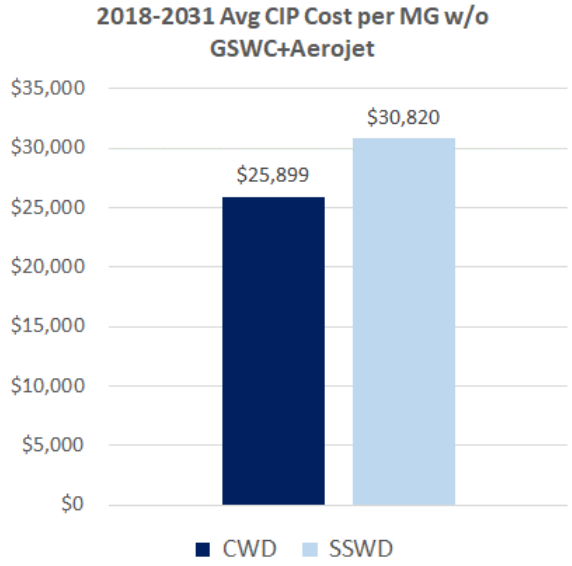


Figure 23: 2018 to 2031 CIP per MG Produced w/o GSWC + Aerojet



5.5. Debt Considerations

At the time of this review, CWD had two outstanding debts. The largest is the 2019 Certificates of Participation Series A, followed by 2019 Certificates of Participation Series B. The 2019 Certificates of Participation Series A was issued in 2019 to finance the acquisition and construction of certain water storage, pumping, treatment, transmission, and appurtenant facilities for the water supply, treatment, and distribution system. The Series A debt has an original issue premium which is being amortized over the life of the certificate, and an interest rate ranging from 4-5% with maturity dates from November 2030 through November 2037. The Certificates of Participation Series B was issued to refund the 2010 Water Revenue Refunding Certificates of Participation, and to pay certain costs incurred in connection with the execution and delivery of the Series B Certificates. The Series B debt has interest rates ranging from 1.834-2.739% with

maturity dates from November 2020 through November 2029. Both Certificates of Participation are jointly secured on a parity basis by the pledge of the revenues of the District's water system and certain funds and accounts created under the installment sale agreement and will be paid from said revenues and said funds and accounts without preference or priority with respect to one another. The obligation of the District to make such installment payments is a special obligation of the District payable solely from net revenues of the District's water system and said funds and accounts. The Installment Sale Agreement will require the District to fix, prescribe and collect rates fees and charges and manage the operation of the water system for each fiscal year to yield net revenues during such fiscal year ended of at least 120% of the annual debt service in such fiscal year. In the tables below are the yearly debt service payments along with the remaining balance on each certificate and premium.

Table 12: CWD Debt Obligations[61]

CWD Debt Balance	2018	2019	2020	2021
2010 Certificate of Participation	$20,964,732	$18,620,000	$0	$0
2019 Certificate of Participation Series A	$0	$0	$16,510,000	$16,510,000
2019 Certificate of Participation Series B	$0	$0	$15,775,000	$14,300,000
Unamortized Premium	$0	$951,557	$3,566,080	$3,362,304
Total Debt	$20,964,732	$19,517,557	$35,851,080	$34,172,304

Table 13: CWD Debt Service[62]

CWD Debt Service	2018	2019	2020	2021
Debt Service	$2,183,575	$2,186,350	$2,311,530	$2,539,828
Total Debt Service	$2,183,575	$2,186,350	$2,311,530	$2,539,828

In general, SSWD funds new capital with mostly cash; many of the bonds SSWD takes on are to refund previous obligations. At the time of this review, SSWD had four active debts, Series 2009A, Series 2009B, Series 2012A, and Series 2018A. The Series 2009A was issued in June 2009 for $42,000,000 to refund the balance on the current Series 2004. The maturity of the Series 2009A is November 1, 2034. On April 19, 2012, the District issued $29,200,000 of Refunding Revenue Bonds Series 2012A (bonds) at a true interest cost of 3.66%, to current refund the Series 2008A-2 COP obligation with an outstanding balance of $33,300,000. This serial bond's maturity extends to November 1, 2027, and is subject to optional and extraordinary redemption provisions, without premium. On May 2, 2018, the District issued $19,615,000 of Refunding Revenue Bonds Series 2018A (Series 2018A Bond) with an average coupon rate of 3.40%, to advance refund $22,065,000 of outstanding Series 2009B COP Obligations with an average coupon rate of 5.27%. The net proceeds of $19,403,895 (after payment of $211,105 in underwriting fees and other cost of issuance expenses) plus an

[61] CWD CAFR FY 2020-2021: Page 80

[62] CWD CAFR FY 2020-2021: Page 81

additional $3,533,324 of Series 2009B restricted debt service reserve funds were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent and the Series 2009B COP has been repaid in full.

Table 14: SSWD Debt Obligations[63]

SSWD Debt	2018	2019	2020	2021
Series 2009A	$46,632,000	$46,288,000	$45,937,000	$45,578,000
Series 2009B	$0	$0	$0	$0
Series 2012A	$17,502,000	$15,102,000	$12,628,000	$10,068,000
Series2018A	$0	$14,830,000	$12,275,000	$9,630,000
Total Debt	$81,429,000	$76,220,000	$70,840,000	$65,276,000

Table 15: SSWD Debt Service[64]

SSWD Debt Service	2018	2019	2020	2021
Debt Service	$7,462,000	$7,150,000	$7,238,000	$7,121,000
Total Debt Service	$7,462,000	$7,150,000	$7,238,000	$7,121,000

Not included above, but relevant to this review are new bonds taken on by SSWD in 2022. On March 16, 2022, SSWD issued $6,585,000 of Refunding Revenue Bonds Series 2022B (Series 2022B Bonds) with an average coupon rate of 1.86% to advance refund $6,265,000 of outstanding Series 2012A Revenue Refunding Bonds (2012A Bonds) with an average coupon rate of 4.67%. The net proceeds of $6,532,398 (after payment of $52,327 in underwriting fees and other cost of issuance expense) were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to be used to satisfy the outstanding 2012A Bonds.

A consolidated debt service for both CWD and SSWD is provided in the following table. As can be seen, debt service totals just over $9 million per year, with the total combined debt around $100 million in FY 2021.

Table 16: CWD Debt Service[65, 66]

SSWD + CWD Debt Service	2018	2019	2020	2021
Combined Debt Service	$9,645,575	$9,336,350	$9,549,530	$9,660,828
Total Debt Service	$9,645,575	$9,336,350	$9,549,530	$9,660,828

[63] 2021 SWD Annual Financial Report: Page: 77

[64] 2021 SWD Annual Financial Report: Page 78

[65] CWD CAFR FY 2020-2021: Page 81

[66] 2021 SWD Annual Financial Report: Page 78

Table 17: Combined Debt Obligations[67, 68]

CWD Debt	2018	2019	2020	2021
2010 Certificate of Participation	$20,964,732	$18,620,000	$0	$0
2019 Certificate of Participation Series A	$0	$0	$16,510,000	$16,510,000
2019 Certificate of Participation Series B	$0	$0	$15,775,000	$14,300,000
Unamortized Premium	$0	$951,557	$3,566,080	$3,362,304
Series 2009A	$46,632,000	$46,288,000	$45,937,000	$45,578,000
Series 2009B	$0	$0	$0	$0
Series 2012A	$17,502,000	$15,102,000	$12,628,000	$10,068,000
Series2018A	$0	$14,830,000	$12,275,000	$9,630,000
Total Debt	$85,098,732	$95,791,557	$106,691,080	$99,448,304

5.6. Fiscal Policies

5.6.1. Working Capital and Reserves

Working capital (reserves) for utilities are the accumulated difference over time between revenues and expenditures. When a utility's revenues exceed its expenditures, the difference is added to its working capital which will build over time with a goal of having funds available to help manage risk. Conversely, should a utility expend more than its revenues, this overspend in a single year will be drawn from the accumulations of working capital from prior positive years. Having funds available to mitigate risk is critical for utilities due to the uncertainty that can impact them, such as unforeseen breaks in very high-cost capital assets, lower than budgeted usage, extreme weather events, and source supply and energy costs that are not in the utility's control, among other factors. The level of working capital can be measured as the available buffer or margin for an enterprise fund.

According to its financial statements, CWD has established three different types of reserves: Unrestricted/Undesignated Cash, Designated Cash, and Restricted Cash, as shown in the following table. Unrestricted/Undesignated Cash reserves are made up of the operating cash, expenditures from this account are Board approved through the annual budget process. Designated Cash is kept to anticipate and prepare for significant financial obligations; this reserve is funded through the annual budget process and only may be withdrawn in the case of its specific purpose. Restricted Cash reserves are accounts held by the trustee or held by the District that are constrained through external requirement. Construction or acquisitions of capital assets and payments for long term debt are paid for from the restricted cash reserve.

[67] CWD CAFR FY 2020-2021: Page 80

[68] 2021 SWD Annual Financial Report: Page: 77

Table 18: CWD FY2021 Unrestricted/Undesignated Reserves

Reserve Category	June 30, 2021 Balance
Operating Cash	$11,239,033
Cash on Hand	$1,000
Total	**$11,240,033**

2020-2021 CWD CAFR pdf. Page 26

Table 19: CWD FY2021 Designated Reserves

Reserve Category	June 30, 2021 Balance
Membrane Replacement Fund	$689,704
Operating Reserve Fund	$3,568,489
Rate Stabilization Fund	$500,000
Total	**$4,758,193**

2020-2021 CWD CAFR pdf. Page 26

Table 20: CWD FY2021 Restricted Reserves

Reserve Category	June 30, 2021 Balance
Capital Assets	$14,642,255
Debt Service	$14
Facility Fees	$599,331
Total	**$15,241,600**

2020-2021 CWD CAFR pdf. Page 26

SSWD, conversely, has no committed reserves but does have two different cash reserves as shown in the following table.

Table 21: SSWD FY2021 Reserves

Reserve Category	Description	June 30, 2021 Balance
Restricted for Debt Service Reserve Fund	This component consists of external legal constraints placed on District assets by long-term debt holders.	$16
Unrestricted Cash	This component of net position consists of the net amount of assets, deferred outflows of resources, liabilities and deferred inflows of resources that do not meet the definition of “net investment in capital assets” or “restricted for debt service reserve fund.” Amounts included as unrestricted are available for designation for specific purposes as established by the District’s Board of Directors. When an expense is incurred for which both restricted and unrestricted net position are available for use, it is the District’s policy to use restricted resources first then unrestricted resources as they are needed.	$35,873,664
Total		**$35,873,680**

SSWD 2021 Annual Filing pdf. Pages 15,23

In summary, CWD reserve funds have been set aside from more specific uses by the organization, while SSWD reserves are also not available to be repurposed without Board action, but are committed to more general categories of use. In both cases, reserves can ultimately be changed by action of the respective Board.

5.7. Rates

Agency combinations can ultimately involve tradeoffs for customer bills should participating agencies seek to normalize rates over time with the goal of simplifying rate setting and financial management. The tradeoff may lead to rate increases for some or possibly even reduced rates for others, and as a result, how this transition is managed is critical to a successful combination. This section details the current rate structures and levels of each organization and discusses potential future states.

5.7.1. Sacramento Suburban Water District

SSWD rates include two customer account types. Both Non-Metered Flat Rate Accounts and Meter Rate Accounts pay user charges determined based on specified units, and fixed charge amounts that vary by either connection or meter sizes respectively. SSWD customers with Non-Metered Flat Rate Accounts must pay a usage charge at a predetermined dollar rate per thousand square feet of built area, as well as a fixed charge that varies by the size of their connection. Usage charges for Meter Rate Accounts are determined by two tiers of rates applied to different volumes of consumption (Single Family Residential) or by the customer class an account may fall in (Multi-Family Residential, or Non-Residential). Although usage is charged ($/100 cubic feet) for all Meter Rate Accounts, different residential categories are charged at varying rates for their anticipated water usage to potentially incentivize water savings.[69]

As mandated by California State law, all SSWD customers will be metered by 2025. Only a small portion of Non-Metered Flat Rate accounts remain, making this task achievable. Once the Water Meter Retrofit Plan has been fulfilled, the Flat Rate charge structure will become obsolete.[70]

5.7.2. Carmichael Water District

All customers within the Carmichael Water District pay the same water usage rate in addition to their monthly flat service charge that is determined by the size of their water meter.[71] All CWD customers are metered.

5.7.3. Rate Structure and Bill Comparison

Typical Monthly Bills using the latest *Meter Rate Charge Structures* for CWD and SSWD (2022) are detailed in Table 22. Although the volumetric rate per CCF is higher for CWD, meter charges at CWD are consistently lower than SSWD. A range of decisions made in rate design studies and cost of service allocations can dictate these levels. Often utilities will allocate a portion of fixed costs (often 40% or less or capital costs) as well as meter service and billing charges into fixed charges, and the remaining portion of the revenue requirement from fixed and operational costs into volumetric rates.

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[69] Microsoft Word - SacSuburban Water COS Draft Report - 6-3-2018 (sswd.org)
[70] Water Meters | Sacramento Suburban Water District (sswd.org)
[71] 2021-Water-Rates.pdf (carmichaelwd.org)

Table 22: Summary of Current Rate Structures

Rate Component	CWD	SSWD
Volumetric rate per ccf:		
Tier 1 (0-15 ccf)	$1.88	$0.95
Tier 2 (16+ ccf)	$1.88	$1.24
Multifamily	N/A	$1.35
Non-Residential	N/A	$1.42
Meter Charge:		
Multifamily	$32.01	N/A
5/8”	N/A	$34.29
3/4”	$32.01	$47.56
1”	$50.14	$74.12
1.5”	$94.46	$140.51
2”	$149.84	$220.16
3”	$276.73	$432.60
4”	$458.00	$671.59
6”	$911.18	$1,335.44
8”	$1,455.00	$2,397.61
10”	N/A	$3,194.24
12”	N/A	$4,488.76

Figure 24 shows a typical bill using each agency’s rates as applied to an average of the two service areas consumption (14.92 ccf per household per month) based on State reporting on the residential gallons of water consumption per capita per day (R-GPCD), an average household size of 2.6 people (US average), and a 3/4” meter size. Please note that CWD households more frequently have 1” meters, however this chart purposefully uses 3/4” meters to show an apples-to-apples bill comparison. The trend in Figure 24 (percent change over period CWD = +62%, SSWD = +27%) suggests that CWD will charge more than SSWD into the future, having recently eclipsed the typical SSWD monthly bill for the same meter size. If we compared a ¾” meter in SSWD to a 1” meter in CWD, that trend would likely be even more severe but larger properties with larger meters that also use more water should expect higher bills. State reporting indicates that CWD accounts use 56% more water than SSWD accounts per capita on average.

Figure 24: 2017 to 2024 Bill Comparison for ¾" Meters

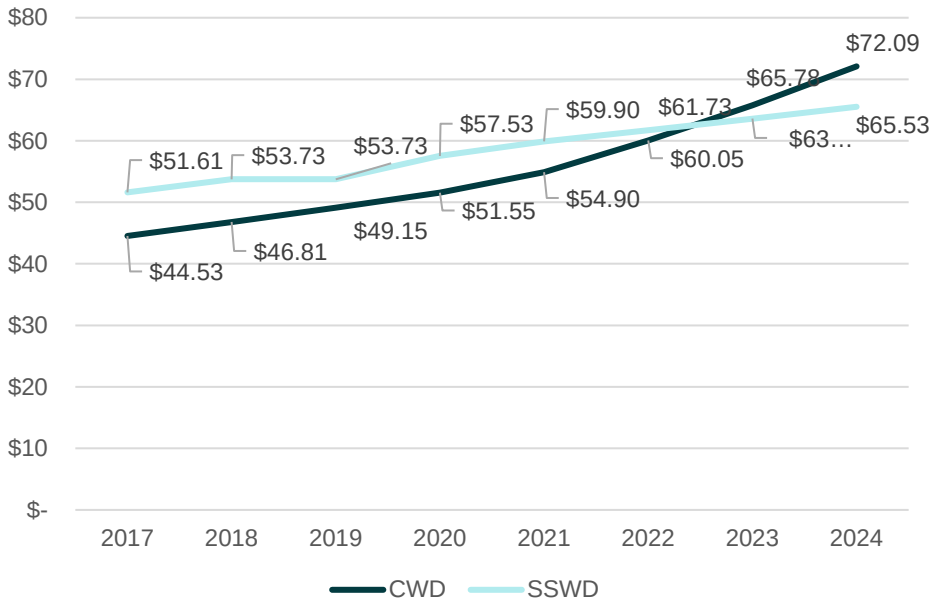
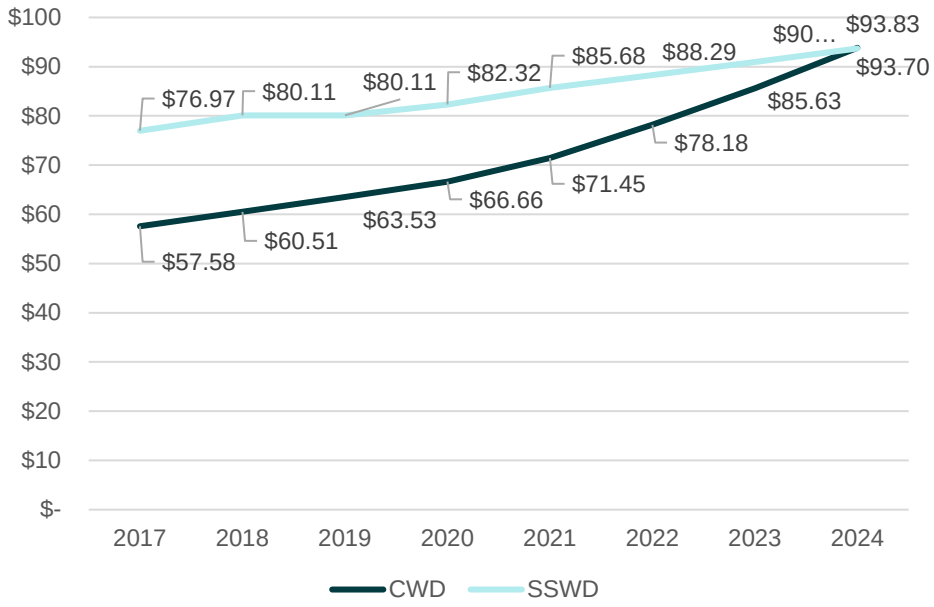


Figure 25 shows the same analysis for 1" meters. While historically 1" meters were more expensive in SSWD, as would be expected as the second and less common step in the meter charge scaling that would typically be done in rate design, the faster growth in CWD shows 1" meter bills eclipsing those in SSWD for the same unit of consumption. Had we used a higher consumption level (rather than combined average), the higher bills in CWD on this curve would likely occur earlier due to the higher volumetric rate in CWD at any SSWD tier.

Figure 25: 2017 to 2024 Bill Comparison for 1" Meters



Despite the observations being made about these curves, the key takeaway of this rate review is that CWD and SSWD actually have remarkably similar rate structures and bill levels. The impact of combination on

rates alone would be expected to have minimal impact on the bottom lines of a typical household in either District.

While the exercise of combining organizations will involve additional costs at first, it is expected that over time the rate of growth in rates would be less than otherwise expected given the scale efficiencies of a larger and more efficient combined organization. Since customers' bills are currently quite close, it is likely that the savings of combination would benefit customers and overcome any impact of rate alignment efforts to either party.

It is important to memorialize the concept of inflation, particularly in the water sector where costs are rising faster than in other parts of the economy due to climate change, drought, aging infrastructure, and supply chain issues. That is, where we use the term "savings" for customers, such savings would often be experienced as slower rate increases rather than rate reductions. This is because achieving the full benefits of combination will take several years to be realized depending on a number of factors such as required democratic processes, the level of aggressiveness of any Board and management cost cutting measures, water supply actions, system changes, and policy changes, all occurring as the rate of inflation of infrastructure proceeds along its current trend.

It is important for the Boards and management of each organization to focus not only on cost optimization for customers but also on service levels, water supply reliability, management simplicity, and the overall business case for combination rather than rates alone. In general, in this particular case rates do not appear to be a major factor in the business case in any way that would be obvious for customers, though over time benefits are expected due to greater scale efficiencies that are observable in normalized costs.

5.8. Financial Business Case Summary

In the prior regional study of collaboration opportunities in the Sacramento area conducted with CWD, SSWD and others, repeatable avoided cost ranges on the order of 8-20% relative to uncombined organizations were noted for utility consolidations. Such levels again appear achievable in this case based on the aforementioned 20-30% lesser costs at SSWD across normalized retail services. A key unknown variable is the monetization of water supplies, which could further drive economic benefits in this case.

Table 23 details a rough financial estimate of the expected impact of combination activities based on industry costs estimated as part of similar studies by Raftelis and based on analyses of CWD and SSWD's current normalized cost spreads. For this exercise we have not included any facilities costs such as a combined distribution facility and warehousing, as those would be subject to future Board and operational discretion as well as heavily dependent on market conditions, but these are currently not believed to be necessary.

A major unknown is the degree of potential surplus water supply monetization that could be achieved, as it is highly dependent on the degree of investments that the agencies make towards those efforts, market conditions, and regulatory actions outside of the control of the organizations. While based on current water rights there appear to be surpluses available, it is unclear to what degree these can be subject to inter-basin transfers and how much might be curtailed by surface water and aquifer management decisions outside of the organization's control. We have conservatively estimated a 10% (~$6.5 million) increase in water sales or supply monetization over a 10 year period, which relative to a maximum estimated expense for legal and other efforts contemplated to pursue all water supply opportunities of $5.25 million. This results in a net profit

for the water supply line item after 10 years of $1.25 million that would grow over time, but is admittedly a very rough and conservative estimate.

The nearly $15 million dollars in savings (or net additional revenues) over the first 10 years of integration equates to over 2% of current combined operating expenses annually. However, this analysis is limited to the line items noted below that are immediately relevant to the combination effort, and does not account for broader worker productivity gains attributable to increased specialization, systems optimization, and the ability of the combined larger ratepayer base to bring down costs per unit and drive additional efficiencies. Together those impacts could account for additional savings of 5-15%+ annually based on the normalized cost analyses detailed previously in this Section and the range of efficiency gains seen in other utility combinations nationally.

Table 23: Business Case Summary

Description	Type	One Year		Over 10 Year Horizon	
		Low Estimate	High Estimate	Low Estimate	High Estimate
Elimination of redundant staff salary and benefits (Implemented Years 3-10)[72]	Ongoing	$0	$1,250,000	$0	$12,500,000
Cost of providing salary parity[73]	One-Time	($75,000)	($450,000)	($750,000)	($4,500,000)
Cost of providing benefits parity[74]	One-Time	$5,000	$300,000	$50,000	$3,000,000
Software & Technology[75]	One-Time	($25,000)	($1,000,000)	($25,000)	($1,000,000)
Relocation costs[76]	One-Time	($10,000)	($40,000)	($10,000)	($40,000)
Combination-related studies and legal costs[75]	One-Time	($250,000)	($500,000)	($250,000)	($500,000)
Existing legal services savings	Ongoing	$0	$29,000	$580,000	$1,280,000
Board consolidation savings[77]	Ongoing	$21,000	$63,000	$630,000	$1,050,000
Water supply changes	Ongoing	$0	($1,050,000)[78]	$0	$2,750,000[79]

[72] Based on possible redundancies identified in interim and long-term org charts resulting from preliminary staffing examples developed by Raftelis.
[73] Based on analysis of salaries (see Appendix E) and assuming the higher levels are pursued.
[74] Based on analysis of benefits costs provided by the Districts and assuming the less expensive per FTE option pursued.
[75] Based on Raftelis industry experience in other proceedings.
[76] Based on the number of folks in admin that would relocate to current available facilities and assuming minimal renovation required.
[77] Based on current expenses and one Board of 5 vs. two.
[78] Derived by annualizing what is estimated to be up to $5.25 million over 5 years.
[79] Management estimate of up to $8 million increase in combined water sales from monetization and optimization of supplies over 10 years, less $5.25 million legal and other expenses to pursue opportunities.

NET COST IMPACTS OF COMBINATION	**($334,000)**	**($1,148,000)**	**$225,000**	**$14,790,000**

Finally, it is important to remember that in addition to the financial upside potential of a combination of 8-20%, it is the increased ability to manage supplies, implement best practices, and provide quality and reliable service customers that must also be qualitatively considered in any agency combination business case exercise.

Overall, the business case evaluation did not yield any fundamental barriers to combining agencies. Financial expectations are higher to the upside than to the downside, particularly over the longer-term. While there are initial net costs to combining, these would likely be outweighed by operational benefits and service reliability improvements, particularly once the combined agency refines its operational model and matures.

6. Communications

Please refer to Appendix F for the Communications Plan developed early in this Study. At the time of this writing, the agencies have already begun to follow the plan to ensure transparency about the process of evaluating the business case for a combination. Should the agencies move further down the path of exploring combination, this plan can be used as a guide to ensure engagement is purposeful and comprehensive. The plan should be updated periodically depending on the pace of any subsequent actions and evolutions in stakeholder dynamics and messaging needs.

7. Timelines & Implementation

If the business case is compelling for SSWD and CWD management and their Boards, it will then be important to move thoughtfully through an implementation timeline. If combination is pursued, it will likely proceed in three phases across near, intermediate, and long-term time frames. In the near-term over the next couple years, actions would need to be taken internally and then through the LAFCo and associated democratic processes. An intermediate transition period would then likely take three to five years before the combination reaches its full operating potential. Finally, within five years the combination of systems, staff, and operational optimizations should be in full swing.

7.1. Current State

If approved, by mid-2024 CWD and SSWD can likely move to combine through either of LAFCo's reorganization or consolidation procedures. The timeline below details key milestones along that path.

1. Conduct public outreach to educate CWD and SSWD stakeholders about reasons to consider combination (Sept-Dec 2022)[80]
2. Boards review study and vote to move forward with combination (Oct-Dec 2022)[81]
3. Prepare reorganization/consolidation application for LAFCo (Jan-March 2023)
4. Continue public outreach during LAFCo application process and respond to LAFCo comments and questions (March-Sept 2023)[82]
5. Establish staff teams to work on key issue areas of HR, IT, facilities, operations, capital delivery, and finance (Sept 2023 to Feb 2024)
6. LAFCo process activities (Sept 2023 to Feb 2024)[83]
7. Implement work team recommendations (Feb-June 2024)
8. Utilities formalize interim combined structure at start of new fiscal year on July 1, 2024
9. Begin interim phase

7.2. Transition Period

If combination is approved, the full synergies of the larger entity will take time to realize. During a transition period estimated at three to five years, staffing and Boards can be optimized through role change or attrition at the discretion of the Boards and utility leadership and management. Current vacancies across the organization suggest that staffing impacts can be minimal. During this period, systems integration will also proceed with decisions about preferred financial, billing, CIS, CMMS, GIS, and other critical supporting software taking shape. Beyond the cost avoidance that is expected to result from scale efficiencies, role specialization, and systems integration, large financial decisions about water supply optimization and any facilities modifications can also be explored during this period. By the end of this period, staffing levels should take essentially their "final" form given that CWD and SSWD are largely built out communities where staffing is not expanding through growth.

[80] Potential off-ramp if public resistance is strong.
[81] Potential off-ramp if Board's do not not approve matching resolutions, or if one does not dissolve or the other does not annex under a Reorganization scenario, or both do not dissolve under a Consolidation scenario.
[82] Potential off-ramp if LAFCo does not approve.
[83] Potential off-ramp if public votes represent sufficient assessed value to block (refer to Section 3.1.3.).

The transition period will allow a newly created Strategic Advisor/Business Operations Executive role to manage the combination as gradually as desired to make it beneficial for staff rather than stressful. This is a period where each organization's staff will find opportunities in each activity and function to make a larger impact in regional water management and service delivery for their communities, while also presenting opportunities for staff to specialize more fully in the tasks and functions that they most enjoy and excel at. If the combined staff is not engaged in a collective bargaining contract at the time of the combination, this is also a period for staff to gel and determine if that approach is desirable under the combined entity. The Strategic Advisor/Business Operations Executive role would go away once the transition is complete, with the Director of Finance and Administration role taking over leadership of that branch of the organizational chart at that time.

7.3. Future State

After the transition period, the goal is to have a combined organization that is firing on all cylinders with a lean but well supported staff of specialized experts and focused divisional and organizational leadership, management, and governance. It is during this period where the benefits of the combined organization will begin to significantly compound year over year as service levels are optimized based on the best practices and thinking from both current Districts. It is expected that annual cost avoidance of 8% to 20% will be realized relative to a current path where the organizations remain separate. Importantly, given the changing climate of California it is also expected that during this period the water supplies of these two areas will be more secure than they could otherwise have been for its citizens given the combined capabilities and water rights of CWD and SSWD. An even longer-term goal might be to consider additional integration with surrounding utilities that do not benefit from the resources of an agency as capable and efficient as CWD and SSWD can become together.

8. Conclusion

There are both pros and cons to considering a combination of CWD and SSWD. Prominent pros include the following:

- Ability to achieve greater scale efficiencies through a larger organization: the two entities each have areas of strength, as well as under and over-utilized staff; combining the two entities could provide efficiencies if resources are used strategically
- Greater water resource sharing and utilization: maximizing the use of water resources is a complex process filled with regulatory and political hurdles, but with the portfolio or groundwater, imported, remediated, and surface water assets possessed by both Districts, there are significant opportunities to maximize resources
- Greater political advocacy: a larger organization that covers a broader service area will likely be able to increase its political advocacy in the region, helping it protect resources and ensure that it is appropriately represented so customers' needs are addressed
- Higher levels of customer service are possible by combining resources, allowing more specialization of staff, greater levels of scale efficiency, and perhaps new or expanded services
- More rate and financial stability are possible with a combined organization featuring a larger and stable of water resources, a broader customer base, and an improved ability to deal with changes in operating conditions brought on by water resource challenges, staffing shortages, and inflation
- Upward mobility for staff at a bigger organization
-

While the pros to combination are significant, there are also notable cons including the following:

- A perceived loss of local control and the dilution of representation in a combined entity may be a concern; a combined entity would have Board members representing a larger number of constituents, assuming the Board is of the same size as the current Boards
- A larger organization often means more bureaucracy, and if not managed, redundancy and inefficiency; sound leadership will need to ensure scale efficiency is created while avoiding the pitfalls of a larger organization
- Adapting to changes can be challenging for staff, which requires attention and management effort to effectively navigate and thoughtfully consider as the new organization takes shape
- Challenges to water resources and/or limited ability to maximize resources: the regulatory and political environment may make it difficult to use water resources with maximum efficiency and could even invite some challenges to current arrangements

Note that stakeholders reading this report that remain unconvinced of the value of combining CWD and SSWD can take heart in the following:

- The LAFCo process creates numerous off-ramps that can be led by different stakeholder groups such that those opposed to moving forward should not feel that starting the process has an inevitable conclusion
- If any of the off-ramps to combination are ultimately taken the spirit of collaboration between the agencies can still continue through shared service pursuits such as those detailed in a prior related study that included an even broad set of agencies

Raftelis projects nearly $15 million dollars in savings (or net revenues) over the first 10 years of integration, which equates to over 2% of current combined operating expenses. This does not account for broader worker productivity gains attributable to increased specialization, systems optimization, and the ability of the combined larger ratepayer base to bring down costs per unit and drive additional efficiencies. It also does not account for any improvements in the use of water resources which are possible, but may be too complex to realize. Together, those impacts could account for additional savings of 5-15%+ annually or more based on the normalized cost analyses.

Given that some of the pros and cons of combination are subjective, a decision to combine cannot be based solely on a quantitative cost-benefit analysis. However, Raftelis estimates that a combined entity could at least achieve the same level of cost per customer as SSWD currently achieves. This would provide value to current CWD customers and is highly likely to provide some savings to current SSWD customers. Nevertheless, the biggest potential benefits carry the biggest number of unknowns. Integrating water resources could buttress existing water supplies and has the possibility of substantial monetization, but there are regulatory and political challenges. Integrating the staff and operations of the two entities could provide a host of benefits, but if not managed well could result in new inefficiencies and a host of staffing problems. A careful and deliberate process is recommended for integration..

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APPENDIX:

Appendix A: CWD Organizational Chart

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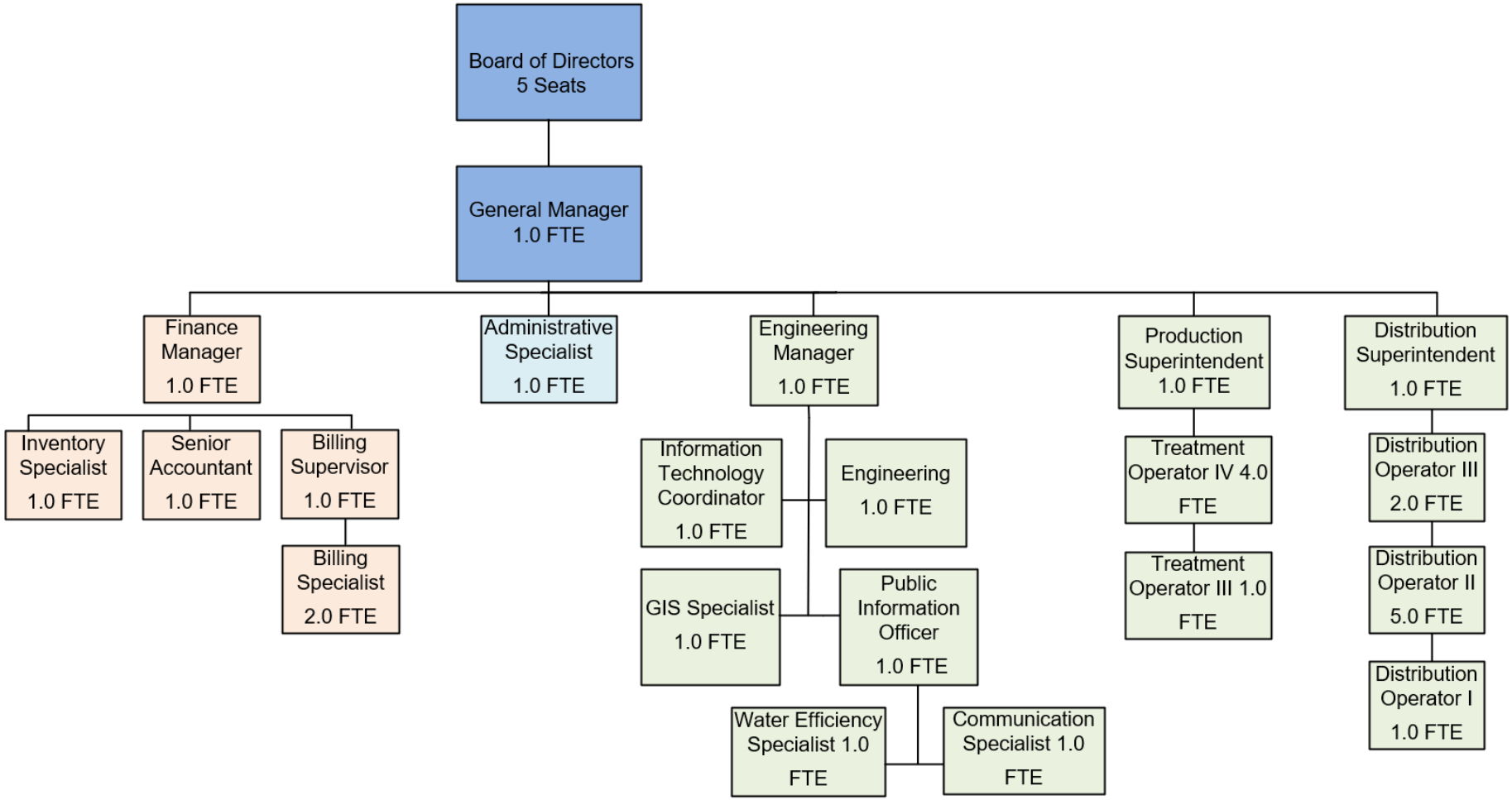
CWD Organizational Chart



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APPENDIX:

Appendix B: SSWD Organizational Chart

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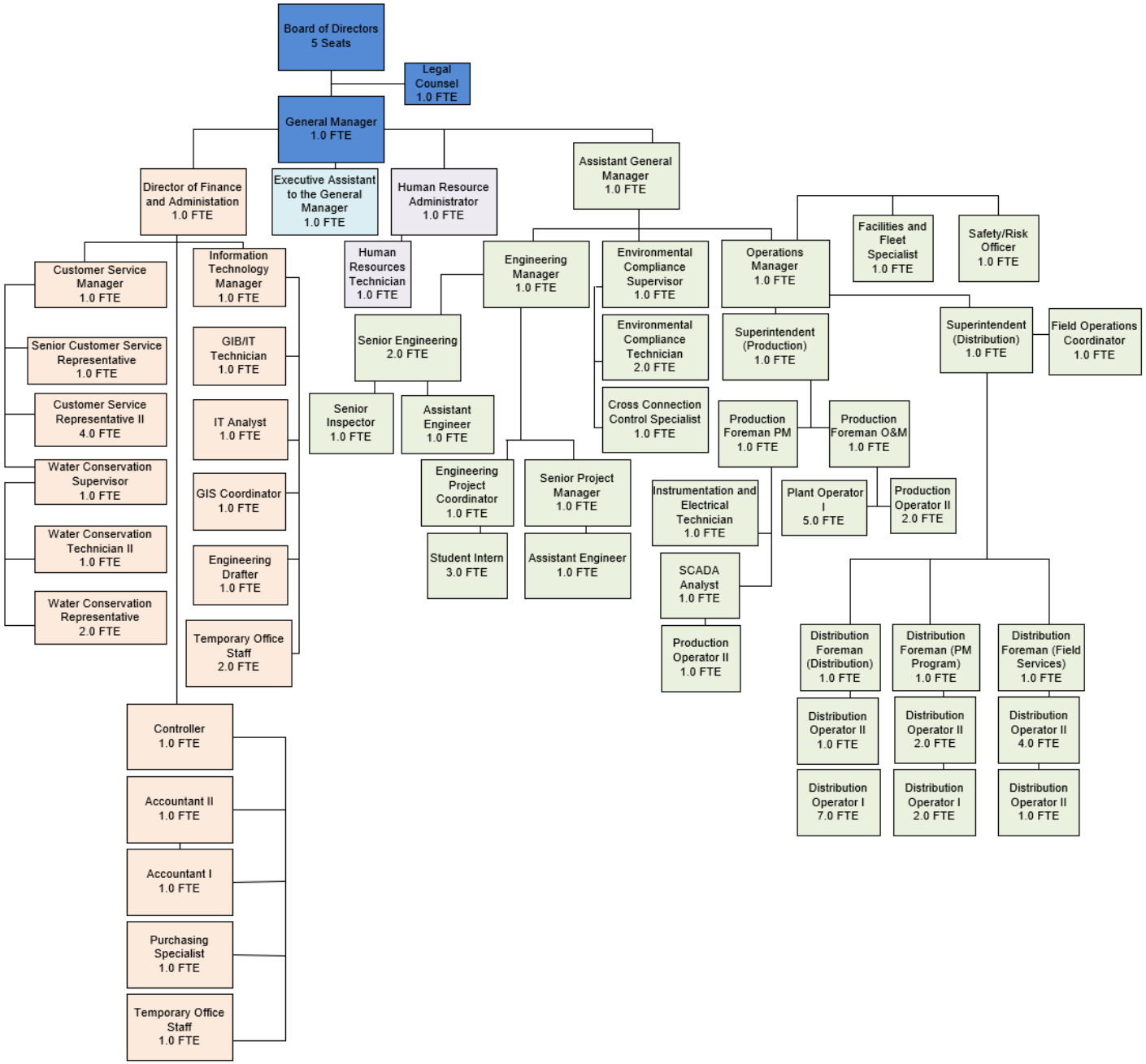
SSWD Organizational Chart



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APPENDIX:

Appendix C: Example Interim Combined Organizational Chart

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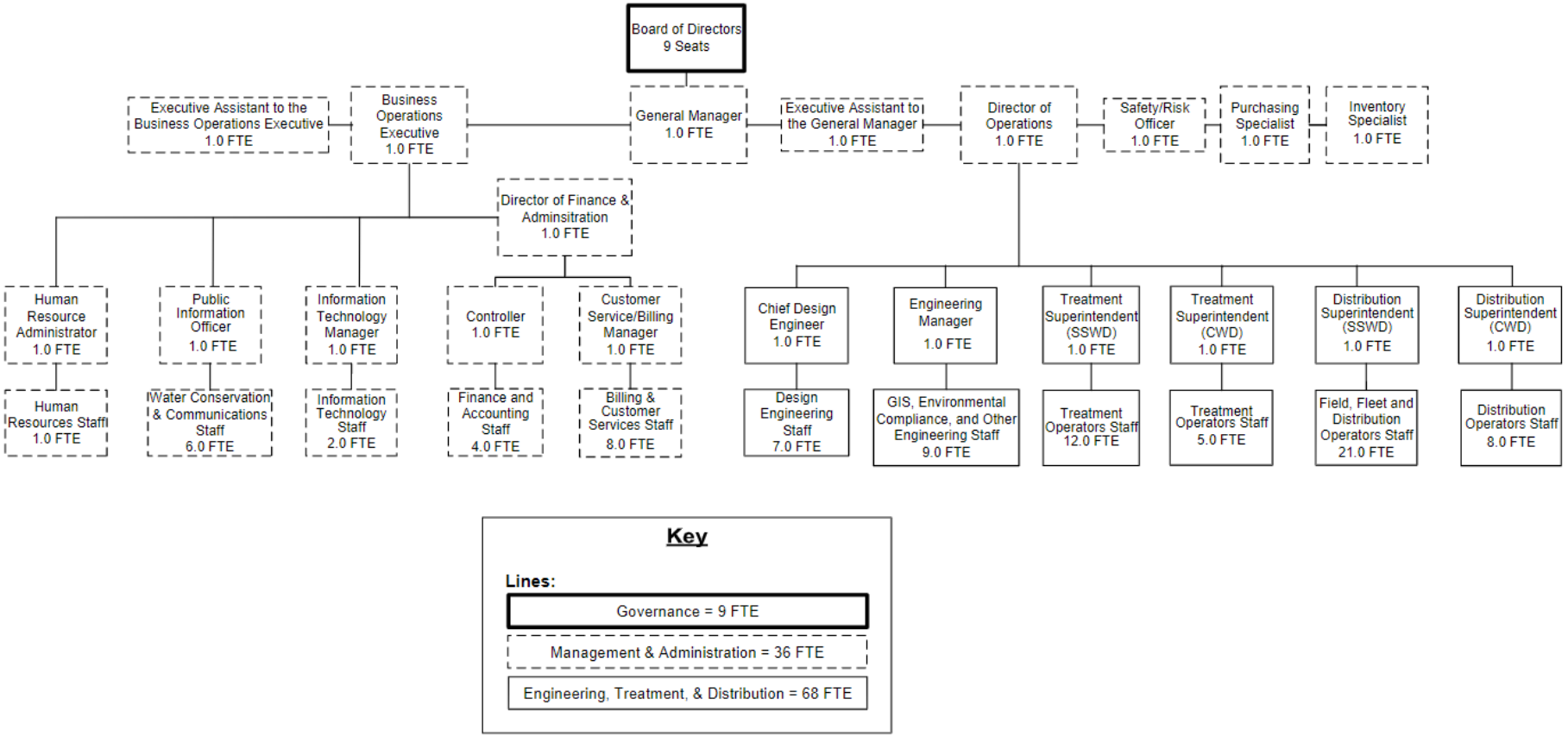
Example Interim Combined CWD+SSWD Organizational Chart



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APPENDIX:

Appendix D: Example Long-Term Combined Organizational Chart

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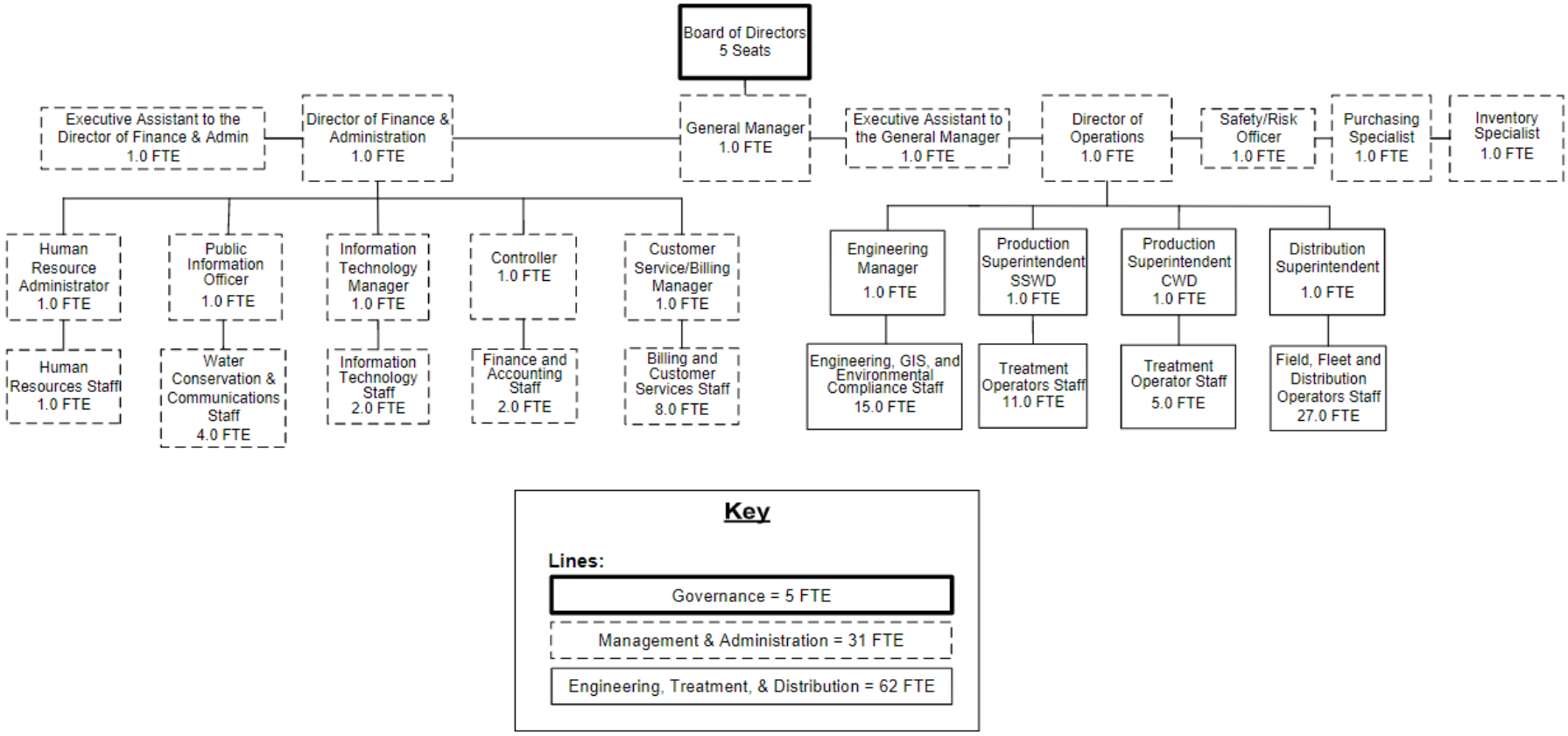
Example Long-Term Combined CWD+SSWD Organizational Chart



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APPENDIX:

Appendix E: Position Compensation Comparison

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Position & Compensation Comparison

Position Title	Agency	Starting Salary Range	Midpoint Salary Range	High Salary Range
General Office Clerk	CWD	Min. Wage	N/A	N/A
Billing Support Trainee	CWD	Min. Wage	N/A	N/A
Billing Support 1	CWD	$29,823	$33,037	$36,250
Billing Support 2	CWD	$34,607	$38,336	$42,065
Public Information Assistant 1	CWD	$34,818	$38,570	$42,322
Water Efficiency Specialist 1	CWD	$36,829	$40,797	$44,766
Billing Specialist 1	CWD	$40,940	$45,351	$49,763
Distribution Operator 1*	CWD	$43,179	$45,875	$48,570
Treatment Operator 1*	CWD	$43,179	$45,875	$48,570
Inventory Specialist 1	CWD	$44,322	$49,097	$53,873
Public Information Assistant 2	CWD	$44,618	$49,426	$54,234
Water Efficiency Specialist 2	CWD	$47,010	$52,075	$57,141
Customer Service Representative I	SSWD	$47,802	$53,778	$59,753
Billing Specialist 2	CWD	$48,957	$54,233	$59,508
Treatment Operator 2*	CWD	$52,534	$55,814	$59,094
Customer Service Representative II	SSWD	$52,584	$59,157	$65,730
Distribution Operator 2*	CWD	$51,603	$59,755	$67,906
Administrative Assistant I	SSWD	$54,477	$61,287	$68,096
Water Conservation Technician I	SSWD	$55,366	$62,286	$69,207
Inventory Specialist 2	CWD	$56,576	$62,672	$68,769
Communications Specialist 1	CWD	$57,064	$63,212	$69,361
Administrative Specialist 1**	CWD	$57,589	$63,795	$70,000
GIS Specialist	CWD	$58,334	$64,620	$70,905
Senior Customer Service Representative	SSWD	$57,842	$65,072	$72,302
Distribution Operator I	SSWD	$58,306	$65,595	$72,883
Production Operator I	SSWD	$58,306	$65,595	$72,883
Administrative Assistant II	SSWD	$59,925	$67,415	$74,906
Engineering Drafter	SSWD	$60,221	$67,749	$75,276
Distribution Operator 3*	CWD	$58,672	$67,941	$77,209
Water Conservation Technician II	SSWD	$60,898	$68,510	$76,123
Treatment Operator 3*	CWD	$59,695	$69,125	$78,555
Engineer in Training	CWD	$65,297	$70,444	$75,590
Environmental Compliance Technician	SSWD	$63,606	$71,557	$79,507
Distribution Operator II	SSWD	$64,135	$72,152	$80,169
Facilities & Fleet Specialist	SSWD	$64,135	$72,152	$80,169
Production Operator II	SSWD	$64,135	$72,152	$80,169
Purchasing Specialist	SSWD	$64,135	$72,152	$80,169
Information Technology Technician I	SSWD	$64,238	$72,268	$80,297
Human Resources Technician	SSWD	$65,258	$73,415	$81,573
Executive Assistant to the General Manager**	SSWD	$60,616	$73,606	$86,595

Position Title	Agency	Starting Salary Range	Midpoint Salary Range	High Salary Range
Accountant	CWD	$67,131	$74,364	$81,598
Billing Supervisor	CWD	$62,508	$75,232	$87,955
Administrative Specialist 2**	CWD	$68,284	$75,642	$83,000
Cross Connection Control Specialist	SSWD	$67,340	$75,758	$84,175
Field Operations Coordinator	SSWD	$67,340	$75,758	$84,175
Accountant I	SSWD	$68,297	$76,834	$85,371
Communications Specialist 2	CWD	$69,382	$76,858	$84,334
Engineering Project Coordinator	SSWD	$70,662	$79,494	$88,327
Information Technology Technician II	SSWD	$70,662	$79,494	$88,327
Accountant II**	SSWD	$65,744	$79,832	$93,920
Treatment Operator 4*	CWD	$69,518	$80,500	$91,481
Senior Inspector	SSWD	$73,306	$82,469	$91,633
Senior Accountant	CWD	$74,866	$82,933	$91,000
Information Technology Analyst**	SSWD	$71,825	$87,216	$102,607
Instrumentation Technician	SSWD	$77,992	$87,741	$97,490
Engineer, Associate	CWD	$79,383	$87,937	$96,490
Foreman (Production, Distribution)	SSWD	$82,446	$92,751	$103,057
Scada Analyst	SSWD	$82,446	$92,751	$103,057
GIS Coordinator	SSWD	$83,186	$93,584	$103,983
Water Conservation Supervisor**	SSWD	$77,212	$93,757	$110,303
Information Technology Coordinator**	CWD	$85,587	$94,809	$104,031
Human Resources Administrator**	SSWD	$78,302	$95,081	$111,860
Assistant Engineer	SSWD	$86,211	$96,988	$107,764
Public Information Officer**	CWD	$88,059	$97,548	$107,037
Project Manager**	SSWD	$82,617	$100,321	$118,025
Safety/Risk Officer**	SSWD	$85,653	$104,008	$122,362
Distribution Superintendent**	CWD	$94,886	$105,110	$115,334
Superintendent (Production, Distribution)**	SSWD	$86,570	$105,120	$123,671
Associate Engineer**	SSWD	$86,746	$105,334	$123,922
Environmental Compliance Supervisor**	SSWD	$88,273	$107,188	$126,104
Production Superintendent**	CWD	$97,480	$107,984	$118,488
Customer Services Manager**	SSWD	$89,976	$109,256	$128,537
Information Technology Manager**	SSWD	$90,707	$110,144	$129,581
Senior Project Manager**	SSWD	$95,011	$115,370	$135,730
Controller**	SSWD	$97,254	$118,094	$138,934
Engineer, Senior**	CWD	$107,088	$118,627	$130,166
Senior Engineer**	SSWD	$99,759	$121,136	$142,513
Operations Manager**	SSWD	$111,135	$134,949	$158,764
Finance Manager**	CWD	$122,504	$135,704	$148,905
Engineering Manager**	SSWD	$113,069	$137,298	$161,527
Director of Finance and Administration**	SSWD	$119,058	$144,570	$170,082
Engineer, Manager**	CWD	$137,984	$152,852	$167,720

Position Title	Agency	Starting Salary Range	Midpoint Salary Range	High Salary Range
Assistant General Manager**	SSWD	$133,848	$162,530	$191,212
General Manager**	CWD	Contract	$187,000	Contract
General Manager**	SSWD	Contract	$191,717	Contract

*Union employee
**Overtime exempt employee

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APPENDIX:

Appendix F: Communications Plan

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Questions and Comments From 2x2 Committee on Draft Business Case for a Potential Combination Report

Below are questions/comments received from the CWD / SSWD 2x2 Committee members upon conclusion of their review of the Draft Business Case for a Potential Combination Report conducted by Raftelis:

Executive Summary

1. **What evidence is there to suggest that "The Great Resignation" has had an effect upon the reduction of resources, presumably in the labor market? (Page 1)**
   Answer: Amendments made to this section.

2. **What has been the sustained overall financial benefit seen by the Northridge/Arden-Arcade merger? (Page 1)**
   Answer: Addressed in later sections as this topic didn't warrant substantial detail in the Executive Summary. The below verbiage was placed on Page 8:
   - Permanent removal of one General Manager and one Assistant General Manager and related costs.
   - Permanent removal of 5 Board members and related costs.
   - Economies of scale by having a larger customer base allowing the spreading of administrative and regulatory costs over a larger customer base.
   - Better access to capital markets.
   - Larger total capital funds available for projects.
   - Larger influence in region.
   - More buying power and leverage as a larger organization.
   - Ability to hire "specialty" positions not available in smaller organizations. (EC, HR, SCADA, etc.) Positions can specialize and not have to wear many hats.
   - Ability to invest in more technology to increase productivity.

3. **On the "Pro" side of combining organizations, are there other scale efficiencies besides the most apparent ones of operations and management that may be realized? (Page 2)**
   Answer: Raftelis can add some narrative around more specific examples if that is the ask, although as this is the Executive Summary, they are not sure they would all make it to this section. Raftelis feels the wording in this section is already quite expansive and broad in highlighting organizational benefits.

4. **In combining just essential operational systems, such as CMMS, GIS, CIS and others, what are the benefits, including cost potential cost reductions, due to scale efficiencies to be realized? (Page 3)**
   Answer: Raftelis feels they speak to technology and reducing redundancy in the report. Raftelis also provides some broad ranges for overall operational savings that are likely. This was also addressed by expanding text in other sections that touched on technology systems.

Chapter 2

5. **2.1.2 What is the evidence that customers are "reportedly happy" with CWD [water] quality and services? (Page 10)**
   Answer: This was language collected from the regional collaboration study. Both CWD and SSWD have similar reporting mechanisms to report water quality data to Division of Drinking Water. In addition, both agencies meet all Federal, State, and local regulations.

6. **2.1.2 What are the indicators that CWD staff will want assurances in implementation of combination, and what would be those assurances? (Page 10)**
   Answer: This would be the case for both SSWD and CWD staff. The respective Boards of each agency could place certain language in the LAFCo Resolution, similar to the Resolutions adopted by both Arcade Water District and Northridge Water District that would indicate staff would not lose their job, but the General Manager has the authority to reclassify positions based on the needs of the organization.

Chapter 3

7. **3.1.3.1 Reorganization – Is the scenario different if SSWD were to be dissolved and CWD to annex SSWD? (Page 17)**
   Answer: That scenario could proceed in the same process, but was not contemplated as deeply based on the weight of evidence in the business case analytics and higher level of organization (County) of SSWD. Particularly since SSWD is already the product of a combination and has some larger facilities that can be important for the effort. In addition, "Sacramento" is at the beginning of SSWD's name, which provides service to North Highlands, Antelope, Town & Country, Arden Arcade, Citrus Heights, City of Sacramento, County of Sacramento, and Carmichael, of which all are located in Sacramento County. CWD's name is relevant to only the area of Carmichael that they serve.

8. **Consolidation – Does SSWD currently receive and special tax or benefit assessment? (Page 17)**
   Answer: No to the question. However, SSWD is under the County Water District Law, which is authorized to provide water service and to take associated actions to develop water rights and resources, to build, operate, maintain and upgrade necessary infrastructure, and to engage on related activities to ensure its authority to supply water to its customers. County water districts also may provide wastewater, fire protection, solid waste, and limited electrical generation and recreational services. SSWD, however, exercises none of these additional powers.

9. **Figures 5 & 6 – Could these figures be presented as a stacked bar graph by general employee grouping: administrative, management, production, distribution? (Page 19)**
   Answer: This is derived from total employee counts from each agency.

10. **3.3.1 Labor - How many current SSWD Classic members hired before 1/1/2003 are there? (Page 20)**
    Answer: The question pertains to SSWD's pre-consolidation employees who are in the CalPERS 3%@60 retirement plan. Eleven remain, which will be reduced to 10 by end of

2022, as one of these employees is retiring on December 30, 2022. Information added to benefits section of the report.

11. **Does CWD offer any "personal holidays" and how many? (Page 22)**
    Answer: CWD does not offer personal holidays. SSWD offers a personal holiday in exchange of a holiday to ensure the District is open to the public a few more days a year. Information added to benefits section of the report.

12. **3.4.2 Opportunities – What is the basis to identify a contract legal savings of up the $1.28M/10-years? (Page 27)**
    Answer: This was based on data provided for the same services for the combined organization, which could be reduced by up to roughly half over the long-term to deliver the same services for one organization instead of two. As an example, a combined district would now have one General Manager and one general counsel.

13. **3.5.2 What is the basis to state that employees responsible for more roles are not able to focus work effort resulting in possible less proficiency? (Page 29)**
    Answer: The relationship between specialization and efficiency are well accepted theories of labor economics that were hypothesized long ago and have strongly proven out over time. Initial Source: "An Inquiry into the Nature and Causes of the Wealth of Nations" (1763) by Adam Smith. The business case analytics also support this concept and it is likely one among several correlated contributors.

14. **3.5.3 Challenges - How can the difficulty on the integration of CMMS and GIS procedures be best characterized? (Page 30)**
    Answer: Details here are typically vetted through technology studies that we have proposed in the business case. The level of integration in the field, the tools and training that staff use, even within the same software the various widgets and workflows that teams gravitate to can vary tremendously. Change management is inevitably necessary in these areas to align teams and identify best practices between field and office based teams and to then ensure that finance, management, and engineering are leveraging the information that systems produce to deliver effective and efficient service.

15. **3.6.3 Challenges – What are the primary challenges found between CWD and SSWD distribution infrastructures that limit opportunities for joint purchasing? (Page 31)**
    Answer: What Raftelis was attempting to convey is that in some places you may use different materials, have different equipment needs, or infrastructure differences that require separate rather than joint purchases of equipment, materials, and supplies at least until ideally over time they are aligned for efficiency.

16. **Was there any key impediment found in review of the Union MOU that would prohibit a "functional" integration of distribution operations as a single combined service area? (Page 31)**
    Answer: Legal counsel to address.

17. **3.7.1 Utility Comparison - Should "[environmental] compliance and cross-contamination" be discussed as a distribution activity rather than a production activity, or should they be split? (Page 32)**

Answer: These groupings are just examples and reflect differences between the two districts organizational charts where some roles are housed. Ultimately, decisions about where roles move will be up to management based on locations, reporting relationships etc. These roles sat in a loosely defined area under the AGM between engineering and production in the SSWD organizational chart. This is just a function of where SSWD has chosen to place the Environmental Department due to the majority of the tasks are related to the Production Department.

18. **What is the characterization, including costs, of SSWD production activities and staffing? Could it include the operation and maintenance of wells performed by the sole contractor**? **(Page 32)**
    Answer: The costs associated with the sole well contractor is separated as the SSWD has chosen to monitor that cost each year to determine efficiencies as a result of contracting with the sole well contractor.

19. **3.7.2 Opportunities – Is there anything that would prevent cross training and cross-operations of SSWD and CWD staffs in production roles? (Page 32)**
    Answer: Answer to the question is no. Staff members who operate a treatment plant and groundwater wells are both required to obtain certain levels of State of California treatment certifications.

Chapter 4

20. **4.1.3.1 City of Sacramento Contract – What, if any other than the Hodge Flow decision, restrictions exist for the procurement and delivery of the 26K AF? (Page 40)**
    Answer: The wholesale cost is a concern, which is currently $595 per af. However, SSWD and the City of Sacramento are currently addressing that concern. In the meantime, the two agencies have conducted a pilot for delivering surface water at a rate of $120 per af.

21. **4.1.3.3 PCWA Contract – Is SSWD obligated to pay under this contract even if there is no delivery due to circumstance other than normal and above-normal water years? (Page 43)**
    Answer: No, if the water is unavailable due to circumstances beyond SSWD's control, SSWD is not obligated to pay.

22. **4.1.3.4 SJWD and SSWD – could CWD divert SSWD water under this contract and deliver it to SSWD? (Page 43)**
    Answer: This would require an additional technical review.

23. **4.1.3.5 CVP Section 215 Water – is CWD in within the Bureau of Reclamation's place of use? (Page 43)**
    Answer: Yes.

24. **4.3.3 SSWD' Water Contract – An "elephant in the room" is the contract SSWD has in fluoridation of it water, which may be discussed in another section but not encountered by this review. What are contract terms for the treatment and delivery of this water, and are there restrictions on any inter-agency transfer? (Page 48)**

Answer: Contract with First Five expires in 2027, however, to discontinue fluoridation in the South Service Area, SSWD has to receive DDW's approval of that concept. In addition, City of Sacramento has no plans to discontinue fluoridating their water supply.

25. **4.4.4 GSWC Aerojet Facilities – Is there a breakdown table of water sale/transfer activities monetized to best-case, worst-case scenarios? (Page 51)**
    Answer: This would require an additional technical review.

Chapter 5

26. **5.3 Normalized Expenditures - Table 8 – Does this chart include the $1.4M temporary Aerojet capacity sales income? Is "Total Capital" the sum of CIP projects and Debt Service? (Page 54)**
    Answer: Total Capital is referring to annual expenditures through cash funded "pay-go" capital for that year plus debt service payments made in that year.

27. **Figure 14 - Is this figure or should this figure be normalized to the connection density of each area? (Page 59)**
    Answer: Density of course matters. While one might assume that this could be due to differences in density, the number of accounts served per mile of pipe are actually quite similar at 68 in SSWD vs. 73 in CWD.

28. **Figure 15 – Should this figure not reflect the cost per connection served? (Page 60)**
    Answer: No action item. It is correlated but not the same as household sizes can vary.

29. **Why are we using the term "this data" rather than "these data"? (Page 59)**
    Answer: Raftelis to review for grammar.

30. **5.4 CIP – Figure 17 – Should this figure be normalized to the number of connections served? (Page 62)**
    Answer: Raftelis did that in this section, though this is an introductory topline trend to show where spending is going.

31. **Figure 18 – Could this figure be presented as a stacked bar chart reflecting the type, if there are types, of CIP project? (Page 62)**
    Answer: Raftelis feels that analysis is not possible at this stage, but if the data is easily and readily available, and both districts agree that the classification is consistent, then they can add it.

32. **5.7.3 Rate Structure and Bill Comparison – Is there a comparison table that lists those elements that comprise the fixed costs of a service charge for each agency? (Page 69)**
    Answer: Cost allocation and breakdown of revenue requirement by charge was not in scope.

33. **Table 22 – Is this chart, in comparing charges, normalizing CWD residential usage to ¾" from the 1" predominant residential meter size? Should there be a comparison of a "meter equivalence" cost in both agencies? This comparison might be able to show and substantiate further the statement "CWD and SSWD have remarkably similar rate structures and bill levels". (Page 70)**

Answer: This is done through the bill trends. In addition, this is also dealing with varied consumption, so the rate alone doesn't mean a lot. Raftelis does show the meter charges in the report.

34. **5.8 Financial Business Case Summary – From where does the 10% water sales increase in water sales over the next 10 years come? (Page 73)**
    Answer: This was an estimate offered by management in response to the water supply section and presumably informed in part by recent success with transfers. Given the range of opportunities 10% was deemed conservative. Addressed in a footnote.

35. **Table 23 – Is there a breakdown of the assumptions taken for each of items presented in this table? (Page 73)**
    Answer: These estimates are detailed throughout the report in various detail, but are informed by Raftelis' estimates from industry experience, including from other combination studies, as well as the range of management studies, technology procurements, etc. They are intended as rough orders of magnitude, but each will vary depending on what opportunities the agencies pursue.

Communications

36. **This Communications Plan is much appreciated in that there is the need to provide assurance to all stakeholders of the combination processes that includes transparency as the key component. An educated mind is one that can give constructive feedback. As an aide to identify the decision-making points in the process, a figure or chart should be developed showing the various off-ramps that could be taken to terminate or suspend the process. Such decision points could likely include: one Board deciding to "stop" the process after a certain phase, LAFCo not approving the combination, significant protesting of combination from ratepayers, SSWD not approving combination, a change external conditions, etc., all without a prescribed optimal or expected timeline. (Page 75)**
    Answer: These are evident in the timeline section rather than here.

Conclusions

37. **A great description of the pros and cons. Could a list of current projects and programs be developed that potentially be integrated without governance combination or external approval ordered by the ease by which integration could occur and a cost estimate and key obstacles for each item's integration? (Page 78)**
    Answer: That was the focus of a prior study, but a full vetting of each opportunity here is not possible. There were innumerable collaboration opportunities identified in the prior study and a deeper dive on each here cannot be completed. This would be an option if combination is not moved forward and the two agencies choose to collaborate.

38. **The discussion of water rights (4.1.3.1.) contains the sentence 'The ability to use supplies derived from these rights is subject to the rules in the 2004 Agreement related to "Firm" and "Non-Firm" capacity'. The term "Firm" and "Non-Firm" capacity should be defined. (Page 40)**
    Answer: Further analysis to be conducted.

39. **On page 48 the sentence 'there are four primary water assets that can improve surface water reliability:' I think means that these 4 water assets can be used in the SSWD service area. If that is its meaning, the sentence should more clearly say that. (Page 43)**
    Answer: Clarification has been conducted.

40. **The last sentence in section 4 discusses the cost of pursuing all options. If we are serving the same customer base only as a combined entity, how would there be increases in water sales? (Page 51)**
    Answer: This sales side of this estimate was provided by staff and based on current transfer activity, and in light of the opportunities identified in this report as a rough estimation of monetization over time, as surplus supplies are unlocked and added to current sources. This is likely both a very rough, but also conservative attempt to estimate upside potential.

41. **From page 55, "This is noteworthy because it highlights that among retail customers, it is on other operational aspects outside of water production such as distribution, overhead, administration, customer service, conservation activities, finance, accounting, billing etc. where efficiency may be concentrated through the combination as demonstrated in the other figures CIP assessment." Does this say that a combined district would be operationally more efficient? (Page 58)**
    Answer: The idea is that the costs per unit of water produced may be similar in retail operations, but that other operational lenses clearly highlight how the larger organization with more accounts has lower costs per unit. Consumption per account is also lower in SSWD than CWD, which is an important context here because SSWD is able to achieve a similar cost per unit of water produced despite serving a larger number of accounts. This is suggestive of the operational efficiencies that the larger scale of SSWD is able to achieve, which is supported by the other charts in this section and can potentially be further enhanced through a well-managed combination with CWD. It is also important to note that in addition to scale, another factor in determining cost efficiency is the density of the infrastructure and the amount of infrastructure in place that is required to service each account.

42. **The phrase 'largely voluntary requests for customer usage reductions and penalties for repeat offenders' is repeated twice verbatim. I'm not sure that I ever voted for penalties, nor do I think that I support 'increasingly strict enforcement and penalties.**
    Answer: SSWD Board did not support strict enforcement and penalties during the droughts.

43. **Did the State stop all CWD withdrawals from the American River in the summers of 2014, 2015, 2021, and 2022?**
    Answer: Yes

44. **Probably ought to explain what the 'take or pay caveat in the agreement' means. Take or pay may not be a known term to our constituents.**
    Answer: The Take or Pay caveat in the SSWD / PCWA agreement means if the water is available, the District must pay PCWA for the 8,000 af Take or Pay amount, even if SSWD chooses to not receive the water. If SSWD chooses to not receive the water when available, SSWD could potentially lose the subject water supply.

45. Why is a County water district a higher level of organizational constitution than an irrigation district?

Answer: This is called a "Powers and Authority and Enabling Acts", of a County Water District and an Irrigation District. SSWD was formed under the County Water District Law, Water Code sections 30000 through 33901. SSWD is authorized to provide water service and to take associated actions to develop water rights and resources, to build, operate, maintain and upgrade necessary infrastructure, and to engage on related activities to ensure its authority to supply water to its customers. County Water Districts also may provide wastewater, fire protection, solid waste, and limited electrical generation and recreational services. SSWD, however, exercises none of these additional powers.

CWD was formed under the Irrigation Law, Water Code section 20500. CWD is authorized to sell and lease water; operate sewage collection and disposal system; deliver water for fire protection; dispose and salvage sewage water; protect against damage from flood or overflow; provide drainage made necessary by the irrigation provided; maintain recreational facilities in connection with any dams, reservoirs, etc.; and operate and sell electrical power. CWD, however, exercises none of these additional powers.

46. In terms of representation, it might be worth noting that SSWD directors are elected by divisions while CWD directors are elected by the district at large.

Answer: CWD is currently an At-Large district, however, they are in the process of transitioning from At-Large elections to By-Division elections.

Bartkiewicz, Kronick & Shanahan
A Professional Corporation

MEMORANDUM

TO: **SACRMENTO SUBURBAN WATER DISTRICT & SAN JUAN WATER DISTRICT 2x2 COMMITTEE MEMBERS**
ROB ROSCOE, GENERAL MANAGER, SSWD
SHAUNA LORANCE, GENERAL MANAGER, SJWD

CC: **ED FORMOSA, ASSISTANT GENERAL MANAGER, SSWD**
KEITH DURKIN, ASSISTANT GENERAL MANAGER, SJWD

FROM: **JOSH HOROWITZ**

DATE: **JULY 11, 2013**

RE: **JOINT WATER MANAGEMENT OPPORTUNIES – RESPONSES TO BOARDS' REQUEST FOR INFORMATION ON DISTRICT COMBINATION AND WATER RIGHTS ISSUES**

At their June 18, 2013 joint meeting, the Boards of Directors of the Sacramento Suburban Water District ("SSWD") and the San Juan Water District ("SJWD") requested that we provide the 2x2 Committee formed by the SSWD and SJWD Boards with information regarding three issues related to a potential combination of SSWD and SJWD and related water right and water supply issues. This memorandum provides the requested information to assist in the Boards' further discussion of potential joint SSWD and SJWD water management and operational opportunities.

I. QUESTIONS ASKED:

A. What are the differences in the powers and authority of a county water district and a community services district and the advantages and disadvantages of each?

B. What are the options and process if SSWD's and SJWD's Boards decide to consider combining the two Districts?

C. What are the water rights and entitlements held by the Sacramento Suburban Water District and the San Juan Water District and what are their limitations?

II. RESPONSES TO THE BOARDS' QUESTIONS:

A. <u>The Differences in the Powers and Authority of County Water Districts and Community Services Districts and Advantages and Disadvantages of Each</u>

SSWD was formed under the County Water District Law, Water Code sections 30000 through 33901, and SJWD was formed under the Community Services District Law, Government Code sections 61000 through 61226.5. The different "enabling acts" under which

each District was formed provide for somewhat different scopes of authority, although they share many powers in common as will be outlined below.

1. Summary of Powers and Authority of Each Form of District

Under the County Water District Law, SSWD is authorized to provide water service and to take associated actions to develop water rights and resources, to build, operate, maintain and upgrade necessary infrastructure, and to engage on related activities to ensure its authority to supply water to its customers. County water districts also may provide wastewater, fire protection, solid waste, and limited electrical generation and recreational services. SSWD, however, exercises none of these additional powers.

Under the Community Services District Law, SJWD also is authorized to take all necessary actions to provide water service to its customers. The Community Services District Law, because it was designed by the Legislature to permit community services districts to act as the local municipality in more undeveloped areas, also authorizes such districts to provide a broad range of services such as law enforcement, animal control, street lighting, recreation, and many other municipal-level services. Like SSWD, however, SJWD only provides water supply services. Unlike SSWD, however, SJWD provides wholesale as well as retail water service.

It should be noted that wholesale water service is not specifically called out or authorized in either SSWD's or SJWD's enabling act. SJWD's provision of that service comes within the scope of the Community Services District Law's general authorization to community services districts to provide water supply services. Likewise, there is no prohibition or limitation in the County Water District Law that would prevent SSWD from providing wholesale water supply service.

Under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (called here the "LAFCO Law"), neither District may exercise any power that it is not actively exercising now unless and until that District applies to LAFCO to exercise the proposed latent power and LAFCO approves the application. It is my understanding that the Boards' joint discussions do not include a proposal to expand the services provided by either SSWD or SJWD beyond the water supply services that each currently provides. Among other things, many of the services a CSD provides are already being provided by established agencies (e.g., SMUD for power; PG&E for gas; Metro Fire for fire; etc.)

2. Differences and Advantages and Disadvantages of Each Form of District

As noted above, SSWD's and SJWD's authority under their respective enabling acts are more similar than different. Because the current discussions between SSWD and SJWD concern opportunities for joint management of water resources and services and do not involve any proposal to expand the scope of services offered by either District or a combined district, one of the key advantages of a community services district, i.e., the availability of broader powers, is not relevant to the discussion.

For purposes of the two Boards' discussion, there are two key advantages that a county water district holds over a community services district. First, a county water district, such as SSWD, is not subject to the requirements and limitations imposed by the public contracting laws. However, county water districts are still subject to the prevailing wage laws and still have a common law duty to ensure that they construct public works projects at contract prices that provide value to customers and that do not result in any on-discrimination against contractors or that result in any potential for corruption in contracting.

The second key advantage of a county water district versus a community services district involves the composition of a Board of Directors if a combination of existing agencies results in the formation of a new county water district. Under the County Water District Law, a LAFCO may approve a permanent board of directors that is larger than five members. Under the Community Services District Law, if the new district is a community services district, the ultimate size of the board can be no greater than five members. Note that regardless of which form of agency is selected, the initial board of a new district may be 11, 9 or 7 members, with reductions occurring over several election cycles until the permanent size is reached.

As will be discussed in more detail in the following sections of this memorandum, the advantages and disadvantages that will present the greatest challenges to the two Boards are connected to each District's specific water supplies, operations, and policy considerations.

B. Options and Process for a Potential Combination of SSWD and SJWD

There are a variety of options that the two Boards could pursue if they later determine that combining SSWD and SJWD would be advantageous for the public and the agencies. I intentionally have used the words "combine" and "combination" in this memorandum because the Boards have several options for how they might proceed in joining SSWD and SJWD. The process for a proposed combination of the two Districts will be dictated by the type of combination desired and whether it is directly negotiated between SSWD and SJWD or supervised and conducted by LAFCO.

1. Options for a Potential Combination of SSWD and SJWD

One of the options that the Board has under consideration is a "functional" combination that would leave each existing District intact and independent while seeking opportunities to participate in joint projects and operations where feasible. If the SSWD and SJWD Boards choose this option, generally speaking no outside approvals would be required and the Districts could arrange for joint projects and operations by agreement.

The one significant exception to this general rule, however, would occur if the Districts decide to request that the United States Bureau of Reclamation ("Reclamation") expand the place of use of SJWD's Central Valley Project ("CVP") contract water supplies. In that case, the Districts would need to submit a request that Reclamation expand the place of use and engage in environmental review of the proposed change. (See Part II.C for additional discussion of this issue.)

If the SSWD and SJWD Boards decide to pursue a legal combination of the two Districts, there are several options. As an initial matter, before January 1, 2005, the LAFCO Law prohibited the consolidation of districts formed under different enabling acts. Since that date, however, Government Code section 56826.5 of the LAFCO Law permits districts formed under different enabling acts to combine. Thus, there is no prohibition against a combination of SSWD and SJWD conducted under the LAFCO Law.

The first option, as mentioned above, would be for SSWD and SJWD to combine under Government Code section 56826.5. There are two options for proceeding under Section 56826.5. The first option would be for SSWD and SJWD to "consolidate," which means that the two existing Districts would be dissolved and all of their assets and liabilities would be combined into a single new district. The new district could be a county water district or a community services district. The second option would be to nominate either SSWD or SJWD as the "successor agency" and to dissolve the other District and to transfer all of its assets and liabilities to the "successor" district. As discussed below, if the Boards decide to combine SJWD and SSWD, choosing option two would be preferable because it would avoid providing Reclamation or other agencies with a way to attack SJWD's CVP water entitlement.

2. Annexing SSWD into SJWD as a New Wholesale Customer Agency

The two Boards specifically asked if it would be possible to annex SSWD into SJWD's wholesale territory as a separate retail agency with an independent Board similar to existing SJWD wholesale agencies SJWD-Retail, Citrus Heights Water District, Fair Oaks Water District, the City of Folsom north of the American River, and Orange Vale Water Company (collectively the "Wholesale Agencies"). The LAFCO Law permits SSWD to apply to LAFCO to be annexed into SJWD's wholesale service area. There is, however, an important distinction that probably would make this option ineffective. Under SJWD's existing system, each of the Wholesale Agencies are independent and the only legal relationship between those agencies and SJWD is the contractual relationship formed between SJWD and each Wholesale Agency under their respective wholesale water supply agreements.

In addition, Reclamation recognizes the combined service areas of the Wholesale Agencies as the SJWD service area in SJWD's CVP water supply agreement. Unfortunately, SSWD's service area is not recognized as part of the SJWD service area in the CVP contract. Under that contract, annexing SSWD into SJWD would not automatically include SSWD's service area into SJWD's CVP service area. Under Sections 1(f) and 35 of the CVP water supply contract between SJWD and Reclamation, SJWD may not expand the place of use of its CVP water supplies without Reclamation's prior written consent even if the change occurs under the LAFCO Law or other laws.

My understanding is that Reclamation has already advised SJWD General Manager Shauna Lorance that Reclamation will not consent to such a service area expansion without a public and environmental review process that would expose SJWD's existing contractual entitlement to public review and possible attack because SJWD has not fully used that entitlement. In any case, pursuing an annexation would not result in any advantage that a "functional" combination would not provide because SSWD would still be an independent agency. Using the annexation option,

however, would most likely result in increased water supply, financial, time, and political costs that would be avoided in a functional combination.

3. Process for Combining SSWD and SJWD

The Boards asked for a summary of the process for each option if they decide to combine SSWD and SJWD. As discussed above, a "functional" combination has no set process and would be a matter of studying possible ways to effectively share resources and then negotiating agreements to implement any desired arrangements between the two Districts. As to the consolidation and dissolution options, they would require SSWD and SJWD to make an application to LAFCO. If an application to LAFCO is necessary, the process would be substantially similar.[1]

The LAFCO application process for a "legal combination" can be summarized as follows:

- The proceedings for a legal combination would be conducted by the Sacramento LAFCO because majority of the total assessed valuations of property in both Districts is located in Sacramento County.

- SSWD and SJWD first would be required to conduct appropriate CEQA review, a consolidation study, and hold pre-application meetings with LAFCO staff.

- Once CEQA proceedings and the study are final and issues worked out between the Districts' and LAFCO's staffs, the SJWD and SSWD Boards would initiate the formal LAFCO application process by adopting a substantially similar resolution of application with the supporting documentation required by the LAFCO (maps, demographic and financial data, etc.).

- LAFCO staff then would review the application and work with the two Districts' Boards and staffs on additional information requests and other issues such as hearings.

- If the Districts' application is not protested, LAFCO would process and tentatively approve the application, LAFCO and the Districts would hold hearings, and then LAFCO would give its final approval to the combination.

- The final step in an uncontested application would be LAFCO's recording in both Sacramento and Placer Counties of a Notice of Completion finalizing the combination.

- If the application is protested, the LAFCO would be required to hold additional proceedings and require the Districts to hold an election to permit their voters to approve or disapprove the proposed combination. A successful protest would require that at least 25% of landowners of property assessed at 25% or more of total assessed value, or 25%

[1] The annexation process is similar, but with some differences. Because annexation does not appear to provide any advantage to SSWD and SJWD and could result in negative impacts, this memorandum will not detail those differences. If SSWD and SJWD decided to pursue an annexation, we can provide a more detailed explanation of LAFCO's annexation process at that time.

of all registered voters within the two Districts, sign a protest petition and timely submit it to LAFCO.

- If required, a protest election would be held within both Districts. If the proposal is disapproved by a majority of voters, LAFCO must immediately terminate proceedings. If a majority of voters approve the proposal, then LAFCO may complete the proceedings and record the Notice of Completion finalizing the combination.

- The combination would become effective on the day that LAFCO records the Notice of Completion.

Finally, the two Boards should keep in mind that the LAFCO Law provides for a "cookie cutter" process. A legal combination of SSWD and SJWD, however, is not a cookie cutter situation because of issues such as how to integrate a solely retail water agency into an agency that provides both retail and wholesale water service and political issues like Board composition. Because of such considerations, one option that the SSWD and SJWD Boards may wish to consider, if they decide to pursue a legal combination, is to pursue special legislation. Special legislation may be desirable in terms of resource conservation, avoidance of LAFCO proceedings and potential of a protest, and to accommodate the unique circumstances that a combination of SSWD and SJWD present as discussed below.

4. A SSWD and SJWD Combination Presents Unique Issues the Boards Must Consider

In deciding which type of combination and process of combining would be most effective, the SSWD and SJWD Boards and staff also should bear in mind some of the unique issues that a proposed combination of these two agencies present. This list is not intended to be exhaustive, but includes:

- SJWD's role as a wholesale and retail water supplier. The Peterson Water Treatment Plant is a unique asset, as is SSWD's significant groundwater supply, including banked water. The Boards will need to evaluate the value of each agency's unique assets carefully to ensure that those assets would be properly valued and utilized in a combination.

- A related issue is SJWD's relationship and history with the Wholesale Agencies. The integration and treatment of SSWD into SJWD in light of the existing Wholesale Agencies' rights and obligations will require careful analysis. While SJWD has no legal obligations to the existing Wholesale Agencies beyond the terms of each wholesale water supply agreement, the historical fact that the Wholesale Agencies banded together to form SJWD to act as the owner of the water rights those agencies traditionally relied upon for their supplies and to treat and serve that water cannot be ignored.

- Which form of District should be chosen? Because of the issues connected with SJWD's water rights and entitlements (see Part C below for more detailed discussion), it appears that SJWD should be the successor district, but there are additional legal and policy

considerations that the two Boards will need to evaluate if they decide to pursue a legal combination.

- If the SSWD and SJWD Boards would like to pursue a legal combination, they will need to decide how large the successor district's permanent Board of Directors should be. As discussed above, a community services district's permanent board size is a maximum of five, while LAFCO may approve a board of directors larger than five for a county water district. In addition, SSWD customers currently elect their Directors "by division" (i.e., the Director must live in the division and is voted for only by that division's voters), while SJWD's customers elect their Directors at large. How to make the two voting systems consistent also will need to be addressed before any legal combination could occur. The resolution of this issue may involve an election to change the voting system by at least one District's voters, although this is not entirely clear and will require additional research if the Boards decide to pursue a legal combination. An alternative would be to implement the selected changes by special legislation.

C. Description of SSWD's and SJWD's Water Rights and Entitlements and the Limitations of Each

Finally, the Boards asked me to provide a summary of each District's water rights and entitlements and to also identify any limitations on the use of each water right or entitlement within both SSWD and SJWD. In summary, SSWD has significant rights to groundwater and two contractual entitlements and SJWD has significant surface water rights and contractual entitlements, but no direct right to groundwater.[2] While many pages could be written about all of the issues and nuances involved in each District's water rights and entitlements, this memorandum presents only a summary of the nature and key issues involved in each right or entitlement.

1. SSWD Water Rights and Entitlements

SSWD has three water sources, including established rights to pump groundwater to supply all customer demands and two contractual entitlements to surface water, one from the City of Sacramento and one from the Placer County Water Agency ("PCWA"). A brief summary of each of SSWD's water sources follows.

a. Groundwater

SSWD has established rights to pump groundwater to supply the entire needs of District customers in any one year. Under California law, SSWD is not required to obtain a permit or other approval from the State of California, Sacramento County or another agency to establish its right to pump this groundwater supply (although SSWD must comply with all applicable state water quality and drinking water standards, and County well construction requirements). SSWD

[2] In about 2006-2006, SJWD and the Wholesale Agencies discussed a potential dry year water supply plan that would utilize Citrus Heights Water District's and Fair Oaks Water District wells to provide at least a supplemental water supply to SJWD-Retail if Folsom Reservoir surface water supplies are unavailable or significantly reduced. It is unclear at this time if this plan is effective, although the issue is currently under investigation.

has almost 90 wells to pump groundwater and has the ability to turn wells on and off depending upon demand and availability of surface water. SSWD pumps from the North American Groundwater Basin, which is managed by the Sacramento Groundwater Authority under a groundwater management plan adopted consistent with state law.

In addition, SSWD has operated an active conjunctive use program since 1998. Under this program, SSWD supplies treated surface water to its customers under its City of Sacramento and PCWA contractual entitlements (discussed below), which permits its groundwater supplies to be naturally recharged by wet season rains and other water sources. This operation is referred to as "in-lieu recharge." SSWD's in-lieu recharge program has resulted in the banking of over 200,000 acre-feet of groundwater since 1998. SSWD's Board has adopted a resolution that asserts SSWD's right to recover and use this banked groundwater. SSWD also files periodic reports with the State Water Resources Control Board to document its banked water.

b. City of Sacramento Wholesale Water Supply Agreement

SSWD's predecessor, Arcade Water District ("AWD"), entered into an agreement with the City of Sacramento to reserve a supply of "Area D Water." That agreement committed a portion of the City's surface water supplies for future use by AWD, subject to annual payments. After SSWD was formed in 2002, it continued AWD's payments to the City for the Area D Water and also continued AWD's planning and design of facilities that would enable SSWD to receive treated water from the City of Sacramento's E.A. Fairbairn Water Treatment Plant.

In 2004, SSWD and the City of Sacramento entered into a Wholesale Water Supply Agreement under which the City agreed to supply up to 20 million gallons per day ("mgd") of treated surface water to SSWD. The Wholesale Water Supply Agreement, however, contains three significant limitations. First, SSWD may use treated surface water received from the City only in Area D, which covers most, but not all of the District's South Service Area (most of the former AWD territory), and none of SSWD's North Service Area (the former NWD territory). Second, SSWD may only obtain surface water from the City when flows in the American River exceed the "Hodge Flow Limitations," which generally means that City surface water is available for limited times in wetter water years. Third, the City has complete discretion to set the price of treated surface water supplied to SSWD, which has become prohibitively expensive because of City wholesale pricing practices. In sum, SSWD's City water supplies are not very reliable and when available, are very expensive. SSWD's best use of these supplies has been for water transfers to buyers south of the Delta.

c. Placer County Water Agency Contract for up to 25,000 Acre Feet Per Year

In 2000, SSWD's predecessor, Northridge Water District ("NWD"), entered into an agreement to purchase water from PCWA. When it was formed in 2002, SSWD assumed this contract. The PCWA water supply contract provides that SSWD would buy an increasing amount of surface water each year from PCWA until the maximum contract amount of 29,000 acre-feet per year was reached in 2014 through the expiration of the contract in 2025. SSWD's PCWA water supply contract has a "take or pay" provision that requires SSWD to pay for its

entire annual allocation of PCWA water regardless of whether SSWD is able to take delivery of the entire amount that is made available by PCWA.

PCWA may not deliver water to SSWD in any year when the March through November unimpaired inflow into Folsom Reservoir is less than 1,600,000 acre-feet, although SSWD may take water in the following December through February when water is being spilled from the reservoir for flood protection. The contract also is subject to cutback if PCWA needs any portion of the SSWD entitlement to serve PCWA customers in Placer County, SJWD under its PCWA water supply contract (see below), or to meet PCWA's Middle Fork Project power generation obligations to PG&E. SSWD may use the PCWA water in PCWA's expanded place of use that covers the portion of SSWD comprising the former NWD (North) service area. SSWD also may sell or transfer any portion of its available PCWA entitlement. In 2009, SSWD transferred a portion of its PCWA entitlement to DWR's Drought Water Bank.

In 2008, SSWD and PCWA amended the PCWA water supply contract to reduce SSWD's annual "take or pay" entitlement to 12,000 acre-feet per year, although if PCWA is able to make additional water available to SSWD in any one year, SSWD has the right to take up to 17,000 acre-feet of additional water on a "pay-go" basis. The 2008 amendment makes no other changes to the 2000 contract.

2. SJWD Water Rights and Entitlements

SJWD owns a pre-1914 appropriative water right and has two contractual entitlements to surface water supplied by Reclamation and PCWA. A brief summary of each of SJWD's surface water supplies follows.

a. Pre-1914 Appropriative (Settlement) Water Right

San Juan is the owner, as the successor of the North Fork Ditch Company, of the right to divert 26,400 acre-feet per year from the American River at a rate of up to 60 cubic feet per second under a pre-1914 appropriative water right with a priority date of 1853. It is one of the most senior water rights in the state and one of the two oldest on the American River. As part of the construction of Folsom Dam and Reservoir and to settle a dispute with other American River water right applicants, including the Wholesale Agencies, the United States agreed in a 1954 settlement contract to deliver to SJWD in perpetuity a total of 33,000 acre-feet of water per year (at a rate not to exceed 75 cfs) from Folsom Reservoir without charge or reduction in supply.

The additional 6,600 acre-feet of water added to SJWD's original pre-1914 water right under the settlement contract was provided via a contested post-1914 water right permit application in settlement of a dispute between the North Fork Ditch Company and the United States regarding the interference of the company's facilities with the operation of Folsom Dam and Reservoir. After its formation in early 1954, SJWD acquired all of the North Fork Ditch Company's water system and water rights, including the rights under the 1954 settlement agreement with the United States. Reclamation also recognizes SJWD's pre-1914 water right and the added tranche of water under the post-1914 right in the District's CVP water supply contract.

b. *Central Valley Project Water Supply Contract for 24,200 Acre Feet Per Year*

Over the years, SJWD has been party to several Central Valley project ("CVP") water supply contracts with the United States through Reclamation. The existing CVP water supply contract was renewed in 2006 for a total annual entitlement of 24,200 acre-feet. SJWD's 2006 CVP water supply contract expires on February 28, 2045, but includes the right for a renewal for successive periods of up to 40 years each. As discussed previously, SJWD's right to use water diverted under its CVP entitlement is limited to its existing wholesale service area. That place of use cannot be changed without Reclamation's approval. As also discussed previously, Reclamation has indicated that it will not approve a change in SJWD's CVP place of use without an environmental review, which would likely require an EIR/EIS. In addition, SJWD uses its CVP entitlement as the water source of last resort because of the take or pay provisions in its PCWA water supply contract. SJWD has generally used only a small portion of the 24,200 acre-feet of CVP entitlement. This last issue is of concern because there may be others that would like to see SJWD's entitlement reduced.

c. *Placer County Water Agency Contract for 25,000 Acre Feet Per Year*

On December 7, 2000, San Juan entered into a water supply contract with PCWA for the delivery to Folsom Reservoir of 25,000 acre-feet per year. The PCWA water supply contract expires on December 31, 2021. Under the PCWA water supply contract, SJWD is permitted to use the PCWA water supply in Placer County (including, on certain conditions, in areas of Placer County outside of San Juan's boundaries), and within SJWD's present wholesale boundaries in Sacramento County. Like SSWD's PCWA contract, SJWD's PCWA water supply contract is a "take or pay" agreement that requires SJWD to pay for the annual 25,000 acre-feet water entitlement regardless of whether SJWD takes delivery of the entire amount. If PCWA has insufficient water supplies to serve its customers in Placer County, it may reduce the quantity of water made available to SJWD for use outside of SJWD's Placer County service area. Under the PCWA water supply contract, SJWD pays a higher rate for water supplies that SJWD diverts and conveys to customers within Sacramento County.

PCWA delivers water requested by SJWD to Folsom Reservoir. In order to obtain conveyance of that water, SJWD entered into a "Warren Act" contract with Reclamation. The Warren Act contract provides that the PCWA water conveyed under the contract can be used only in Placer County, unless the place of use of PCWA's water rights is changed, and Reclamation agrees in writing to convey PCWA water to the expanded place of use. Although PCWA expanded the place of use of its water supplies in 2000, San Juan has not yet requested that Reclamation provide its approval. SJWD therefore accounts for the use of all PCWA water supplies by its customers in Placer County.

3. *Limitations on Use of SSWD and SJWD Water Rights and Entitlements*

There are some limitations on the use of SSWD's groundwater supplies, although those limitations probably are more theoretical than real. Sacramento County has adopted an ordinance that prohibits the export of groundwater out of the County, but the County probably would not object to SSWD moving groundwater within the SGA membership's area in

emergency conditions. Also, SSWD could claim that it was transmitting banked water to Placer County, which would not require the County's permission. The other limitations would be SSWD's injury to another pumper from over-extraction or pumping above its share of the safe yield of the groundwater basin as established by SGA. Again, SSWD could backstop these issues by claiming it was pumping and using banked water, but there also is a low likelihood that an injury of this kind would occur if SSWD temporarily pumped additional groundwater to assist SJWD in an emergency or shortage situation.

As discussed above in the summary of SSWD's surface water rights, its City of Sacramento entitlement is limited by the Hodge Flow Limitations, the cost of that supply, and the Area D place of use limitation. Both SSWD's and SJWD's PCWA water entitlements also are limited as described above. But it should be recognized that the potential total supply of PCWA water to SSWD and SJWD is up to 54,000 acre-feet annually and that some combination of that supply can be used in most years in at least part of each District's service area and thus combined probably would provide some increase in water supply reliability if a combined district retained both contracts.

The SSWD and SJWD Boards specifically asked that, if SSWD could be annexed into SJWD wholesale as a separate retail agency, would this resolve the issues involved with using the SJWD CVP Entitlement in SSWD's service area? This question is answered in the negative in Section II.B.2, page 4 of this memorandum. However, SJWD's pre-1914 water rights do provide potential flexibility for making more SJWD surface water available in SSWD's service area.

Under Water Code section 1706, the owner of a pre-1914 water right may change the place of use, purpose of use or point of diversion as long as no other water users are injured. Thus, SJWD could serve water diverted and treated under its pre-1914 right to SSWD subject to this "no injury rule." The likelihood that another water user could demonstrate an injury from serving this water to SSWD would be low because SJWD has diverted and used its entire pre-1914 water supply for many years and would continue to divert that supply from Folsom, treat it at the Peterson Water Treatment Plant, and transmit it through the Cooperative Transmission Pipeline.

Regardless of above limitations, SSWD's groundwater and banked water supplies and SJWD's Pre-1914 water right water supplies would form a backbone supply that could be used flexibly in a combined District. The concept would be to push a significant portion of SJWD's Pre-1914 water right water supply into SSWD and for SJWD to use its PCWA and CVP entitlements within SJWD's existing service area. This concept also would enhance the reliability of the two District's water supplies because if SJWD's surface water supplies were reduced in drier years, SSWD could push groundwater and banked water into SJWD's service area to supplement SJWD's reduced surface water supplies.