

**COMMISSION OF SILICON VALLEY CLEAN WATER  
JOINT POWERS AUTHORITY  
REGULAR MEETING – Monday, February 14, 2022  
8:00 a.m.**

**THIS MEETING WILL BE HELD REMOTELY UNDER PARAGRAPH (1) OF SUBDIVISION (e) OF GOVERNMENT CODE SECTION 54953 DUE TO THE CURRENT PROCLAIMED STATE OF EMERGENCY. THIS MEETING WILL NOT HAVE A PHYSICAL LOCATION.**

**SEE PAGE 5 OF THIS AGENDA FOR MEETING ACCESS INFORMATION AND INSTRUCTIONS**

**COMMISSIONERS**

COUNCIL MEMBER ALICIA AGUIRRE, REDWOOD CITY – CHAIR  
BOARD MEMBER GEORGE OTTE, WEST BAY SANITARY DISTRICT – VICE CHAIR  
COUNCIL MEMBER WARREN LIEBERMAN, BELMONT – SECRETARY  
COUNCIL MEMBER RON COLLINS, SAN CARLOS – MEMBER

**MANAGER:** TERESA A. HERRERA

**ATTORNEY FOR THE AUTHORITY:** CHRISTINE C. FITZGERALD

**CONTROLLER:** MICHELLE P. FLAHERTY

**TREASURER:** MATTHEW ANDERSON

**AMERICANS WITH DISABILITIES ACT**

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact SVCW (650) 591-7121. Notification in advance of the meeting will enable the Authority to make reasonable arrangements to ensure accessibility to this meeting.

**AGENDA**

1. CALL TO ORDER
2. ROLL CALL
3. PLEDGE OF ALLEGIANCE

4. PUBLIC COMMENT

Any member of the public may address and ask questions of the Chair under this item relating to any matter within the Commission's jurisdiction that does not appear as a separate item on the Agenda. An opportunity will be provided for members of the public to address the Chair and ask questions about any item that is listed on the agenda at the time the Commission considers the item and before action is taken. Instructions for addressing the Commission during public comment periods are provided below. If you

address the Commission on a non-agenda item, be aware that the Ralph M. Brown Act (Gov. C. § 54950 et seq.) prohibits the Commission from acting on or discussing such matters at this meeting. Any such item may be referred to staff for a decision with regard to placing it on a future agenda for discussion, action or a report.

5. SAFETY MOMENT and REPORTS

- A. Safety Moment.....pg. 7
- B. Manager's Report
  - 1. Upcoming Commission Actions.....pg. 9
  - 2. Chemical Price Forecast 2022-23.....pg. 11
- C. Financial Report
  - 1. Investment Report.....pg. 19
- D. Engineering Capital Projects Report.....pg. 23
- E. Commission Requested Staff-Level Action Items..... pg. 26
- F. RESCU Program Design-Build Project Status Update..... pg. 29

6. MATTERS OF COMMISSION MEMBER'S INTEREST

7. CONSIDERATION OF MOTION APPROVING CONSENT CALENDAR (begins pg. 37)

8. BUSINESS ITEMS

- A. CONSIDERATION OF RESOLUTION APPROVING REMOTE COMMISSION MEETINGS UNDER GOVERNMENT CODE SECTION 54953 OF THE BROWN ACT DURING EMERGENCY CONDITIONS (pg. 49)

Proposed Action:

Move adoption of RESOLUTION MAKING FINDINGS AND DETERMINATIONS AND AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE COMMISSION OF SILICON VALLEY CLEAN WATER UNDER GOVERNMENT CODE SECTION 54953 OF THE BROWN ACT DURING EXISTENCE OF STATE OF EMERGENCY CONDITIONS RELATED TO THE COVID-19 PANDEMIC

- B. CONSIDERATION OF MOTION APPROVING TASK ORDER FOR NEXINITE LLC DESIGN AND IMPLEMENTATION SCOPE OF WORK AND BUDGET FOR EQUIPMENT INFORMATION MANAGEMENT SYSTEM PROJECT (CIP #9196) (pg. 52)

Proposed Action:

Move approval of TASK ORDER FOR ELECTRONIC INFORMATION MANAGEMENT SYSTEM DEVELOPMENT (CIP #9196) IN AN AMOUNT NOT TO EXCEED \$892,000 AND AUTHORIZE MANAGER TO APPROVE UP TO A TEN PERCENT CONTINGENCY FOR ADDITIONAL WORK ON AN AS-NEEDED BASIS – NEXINITE LLC

C. CONSIDERATION OF MOTION APPROVING CONTRACT CHANGE ORDER FOR SAN CARLOS SHAFT CONNECTION TUNNELING FOR THE GRAVITY PIPELINE PROJECT (CIP #6008) (pg. 56)

Proposed Action:

Move approval of CONTRACT CHANGE ORDER FOR THE GRAVITY PIPELINE PROJECT IN AN AMOUNT NOT TO EXCEED \$1,990,000.

D. RECEIVE UPDATE ON SVCW RECYCLED WATER ACTIVITIES (pg. 60)

Proposed Action:

NO ACTION REQUIRED

E. STATUS UPDATE ON THE ORGANICS CO-DIGESTION PROJECT (CIP# 9229) (pg. 64)

Proposed Action:

NO ACTION REQUIRED

9. CLOSED SESSION

A. Conference with Legal Counsel – Existing Litigation (Gov't. Code §54956.9(d)(1))  
Re: Daniel Child v. Silicon Valley Clean Water, et al. (San Mateo County Sup. Ct. No. 20-CIV-01384)

10. RECONVENE IN OPEN SESSION – Announce action taken in Closed Session, if any

11. ADJOURN

## CONSENT CALENDAR

### **NOTICE TO PUBLIC**

All matters listed under CONSENT CALENDAR are considered to be routine. There may be discussion on items on the CONSENT CALENDAR. All items will be enacted by one motion with a voice vote unless members of the Commission, staff, or public request specific items be removed from the CONSENT CALENDAR for separate action.

7. A. APPROVAL OF MINUTES – January 10, 2022 - Special Meeting (pg. 37)

B. CONSIDERATION OF MOTION APPROVING CLAIMS AND CHECKS DATED DECEMBER 23, 2021, JANUARY 3, 2022, AND JANUARY 7, 2022, NECESSARY PAYMENTS THROUGH JANUARY 7, 2022 (pg. 42)

C. CONSIDERATION OF RESOLUTION APPROVING AGREEMENT FOR DEPOSITORY AND TREASURY MANAGEMENT SERVICES WITH WELLS FARGO BANK, N.A. (pg. 44)

Proposed Action:

Move adoption of RESOLUTION APPROVING MASTER SERVICES AGREEMENT FOR DEPOSITORY AND TREASURY MANAGEMENT SERVICES WITH WELLS FARGO BANK, N.A.

D. CONSIDERATION OF MOTION APPROVING PAYMENT OF ESTIMATED RELOCATION CONSTRUCTION COSTS TO CALIFORNIA WATER SERVICE (PUMP STATIONS IMPROVEMENTS PROJECT – CIP #9501) (pg. 46)

Proposed Action:

Move approval of PAYMENT OF ESTIMATED CONSTRUCTION COSTS (\$188,971) AND AUTHORIZE MANAGER TO APPROVE UP TO TEN PERCENT CONTINGENCY FOR ADDITIONAL WORK ON AN AS-NEEDED BASIS – CALIFORNIA WATER SERVICE

Microsoft Teams Access Information  
Silicon Valley Clean Water  
Regular Meeting  
Monday, February 14, 2022

**WEBSITE:** [Link to access meeting](#)

**MEETING ID:** 395 025 034#

**CALL IN PHONE NUMBER:** +1 747-216-0281

You may log in via URL located on SVCW's website at <https://svcw.org/about/governance/commission-meetings>. You may view video during the meeting via live stream. An audio will be available after the meeting at SVCW's website. If you experience technical difficulties or have technical questions prior to or during the meeting, please contact Teams meeting support at 707-862-0859. Note: Public participation is not permitted during closed session discussion items.

Public Comment

Public comment may be made by joining the meeting using the link or phone number above. Members of the public may provide public comments via the Teams platform by using the "raise hand" feature or, if calling in by phone, by unmuting and beginning to speak. In response to a "raised hand", SVCW will unmute the member of public and allow them to speak. In response to a phone request to speak, SVCW will ask what is the nature of the comment and will provide directions to follow to provide comment. Public comments will be limited to three minutes.

Public comment may also be made by emailing comments to [commission@svcw.org](mailto:commission@svcw.org) up to two hours prior to the scheduled meeting time. Indicate in your email the agenda item to which your comment applies. If you have anything that you wish distributed to the Commission and included for the official record, please include it in your email.

Accessibility for Individuals with Disabilities

Upon request, SVCW will provide for access to individuals with disabilities to fully engage in the meeting process. Joining the meeting via the teleconference instructions above will provide access to open captioning. For other accommodations, please email your request to [commission@svcw.org](mailto:commission@svcw.org) or call 650-591-7121 at least four (4) days prior to the scheduled meeting time. Requests will be granted whenever possible and resolved in favor of accessibility.

Subject to Change:

Given the current public health emergency and the rapidly evolving federal, state, and local orders, the format of this meeting may be altered or the meeting may be canceled. You may check on the status of the meeting by visiting SVCW's website [www.svcw.org](http://www.svcw.org).

## **AGENDA ITEM 5A**

## Staying Hydrated with Water

Getting enough water every day is important for your health. Drinking water can prevent dehydration, a condition that can cause unclear thinking, result in mood change, cause your body to overheat, and lead to constipation and kidney stones.

### Water helps your body:

- Keep a normal temperature
- Lubricate and cushion joints
- Protect your spinal cord and other sensitive tissues
- Get rid of wastes through urination, perspiration, and bowel movements



### Your body needs more water when you are:

- In hot climates
- More physically active
- Running a fever
- Having diarrhea or vomiting

Most of your fluid needs are met through the water and beverages you drink. You can get some fluids through the foods that you eat – especially foods with high water content, such as many fruits and vegetables.

### Tips to Drink More Water

- Carry a water bottle with you and refill it throughout the day.
- Freeze some freezer safe water bottles. Take one with you for ice-cold water all day long.
- Choose water over sugary drinks.
- Opt for water when eating out. You'll save money and reduce calories.
- Serve water during meals.
- Add a wedge of lime or lemon to your water. This can help improve the taste and help you drink more water than you usually do.
- Make sure your kids are getting enough water too. Learn more about drinking water [in schools](#) and [early care and education settings pdf icon](#)[PDF-3.68MB].

### Purity of Water

Ensure the water you drink is pure and clean. Use a filter or other treatment system at home to make sure any contaminants are removed.

## AGENDA ITEM 5B1

Recurring and Upcoming 2022 Commission Actions  
Updated for February 2022 Meeting

<p><b>January</b></p> <ul style="list-style-type: none"> <li>Review Investment Policy</li> <li>CIP Update (annual or biennial)</li> <li>Long Range Financial Plan</li> </ul>	<p><b>February</b></p> <ul style="list-style-type: none"> <li>Recycled Water Planning</li> <li>Organic Co-Digestion Update</li> </ul>	<p><b>March</b></p> <ul style="list-style-type: none"> <li>Budget Workshop</li> </ul>	<p><b>April</b></p> <ul style="list-style-type: none"> <li>Operating Budget Approval</li> </ul>
<p><b>May</b></p> <ul style="list-style-type: none"> <li>Initiate Manager Performance Evaluation</li> <li>Review Reserve Funds Policy</li> </ul>	<p><b>June</b></p> <ul style="list-style-type: none"> <li>Approve Resolution 77-6 “Personnel Resolution”</li> <li>Perform Manager Evaluation</li> </ul>	<p><b>July</b></p> <ul style="list-style-type: none"> <li>Nominate Commission Chair &amp; Vice Chair; Appoint Secretary</li> </ul>	<p><b>August</b></p> <ul style="list-style-type: none"> <li>Conflict of Interest Update (Biennial; even-numbered years)</li> <li>Investment Program Status Annual Update</li> </ul>
<p><b>September</b></p> <ul style="list-style-type: none"> <li>Review Debt Policy</li> </ul>	<p><b>October</b></p>	<p><b>November</b></p> <ul style="list-style-type: none"> <li>Audited Financial Report</li> </ul>	<p><b>December</b></p> <ul style="list-style-type: none"> <li>Commission Meeting schedule for following year</li> <li>Specifications Update (annual or biennial)</li> </ul>

-  - Recurring Commission Actions
-  - Upcoming Commission Actions

## AGENDA ITEM 5B2



February 14, 2022

To: SVCW Commissioners

From: Teresa Herrera

Subject: Chemical Pricing Volatility

This is a summary memorandum to inform the Commissioners of highly volatile and increasing costs for chemicals used by SVCW in its treatment processes and conveyance system. The attached letter from Monte Hamamoto, SVCW's Chief Operations Officer provides detail on the state of the chemical marketplace. Monte has done significant research and outreach to chemical vendors and other utilities in a quest to locate reliable and least expensive sources of chemicals. He continues his efforts towards assuring SVCW can obtain the chemicals it needs to adequately treat wastewater and meet our permit compliance requirements while also attempting to find lowest price points possible.

#### **Chemicals Used by SVCW and Forecasted Prices for FY22-23**

The following chemicals are required to be used by SVCW.

<b>Chemical</b>	<b>% Price Increase FY21-22 to 22-23</b>	<b>FY21-22 Price</b>	<b>FY22-23 Price</b>
Sodium Hypochlorite 12.5%	35%	\$0.739/gal	\$0.998/gal
Sodium Bisulfite 40%	14.3%	\$1.75/gal	\$2.00/gal
Ferric Chloride 41%*	62%	\$764/dry ton	\$1,240/dry ton
Cationic Polymer	10%	\$1.35/lb	\$1.485/lb
Calcium Nitrate	7%	\$2.07/gal	\$2.215/gal

\*between July 1 and December 8, 2021, price increased 50%, from \$764/dry ton to \$1,149/dry ton

#### **Impact to Next Year's Budget**

The FY21-22 budget for chemicals is \$1.9 million. The overall impact of price volatility as shown above and described more fully in the attached letter is a 33% increase. This leads to a forecasted \$1 million increase to the chemical budget for a total of \$2.9 million line item in FY22-23 operating budget.



Teresa Herrera  
SVCW Manager  
1400 Radio Road  
Redwood City, CA 94065

January 31, 2022

SUBJECT: SVCW Chemical Pricing forecast 2022-23

Hi Teresa,

During this 2022-23 Budget development period, I have been in contact with our various chemical vendors to find out what they have been observing in the chemical industry and what are they projecting for budgetary pricing FY 2022-23. The chemical industry has been impacted with numerous issues ranging from raw material shortages to transportation difficulties due to a shortage of qualified truck drivers.

The following information is specifically centered around the chemicals procured and used by SVCW.

- **Sodium Hypochlorite 12.5%**
  - Utilized for disinfecting the treated wastewater prior to discharge to the SF Bay or Recycled Water to Redwood City
- **Sodium Bisulfite 40%**
  - Used to dechlorinate or remove the residual chlorine from treated water discharged to SF Bay
- **Ferric Chloride 41%**
  - Directly fed to the SVCW Anerobic Digesters to manage the Hydrogen Sulfide (H<sub>2</sub>S) concentration in the produced biogas to meet the BAAQMD Permit requirements.
  - Fed directly into the Redwood Shores force-main to control the H<sub>2</sub>S concentrations coming into the treatment plant for odor and corrosion control
- **Cationic Polymer (C-6265)**
  - Used in various operations (GBT, RDT, Fournier Rotary Press) to thicken or dewater solids
- **Calcium Nitrate**
  - Odor control in the current force-mains
    - Fed at the Menlo Park PS, San Carlos PS, and Redwood Shores lift station LS-12

#### **Sodium Hypochlorite 12.5%**

The Sodium Hypochlorite 12.5% market price has been rapidly increasing since June 2021. Sodium Hypochlorite is manufactured by bubbling 100% Chlorine gas through a Sodium Hydroxide (Caustic Soda) solution. The price increase trend for Sodium Hypochlorite coincides with the supply-demand issues surrounding Caustic Soda.

### 12-Month Percent Change

Series Id: WPU06130302

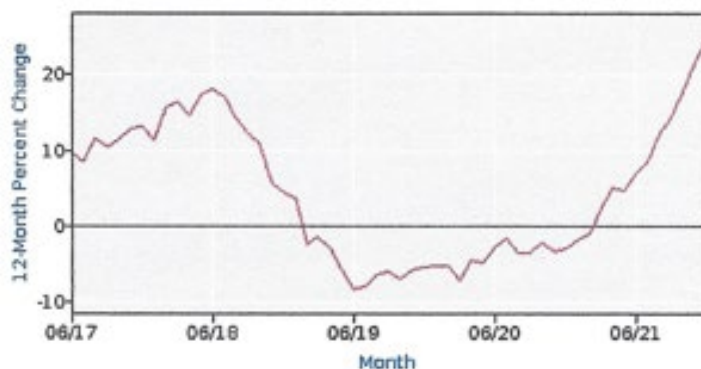
Not Seasonally Adjusted

Series Title: PPI Commodity data for Chemicals and allied products-Chlorine, sodium hydroxide, and other alkalis, not seasonally adjusted

Group: Chemicals and allied products

Item: Chlorine, sodium hydroxide, and other alkalis

Base Date: 200506



Download: [Excel](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2017						9.7	8.6	11.6	10.5	11.4	12.9	13.1	
2018	11.5	15.7	16.5	14.6	17.4	18.2	17.2	14.3	12.4	11.0	5.8	4.5	13.2
2019	3.9	-2.2	-1.3	-2.8	-5.8	-8.1	-7.8	-6.3	-6.0	-6.8	-5.8	-5.3	-4.6
2020	-5.2	-5.2	-7.1	-4.4	-4.7	-2.6	-1.5	-3.4	-3.4	-2.0	-3.2	-2.8	-3.9
2021	-1.8	-1.0	2.2	5.1	4.8	7.1	8.5	12.2	14.4(P)	17.7(P)	21.3(P)	24.7(P)	

P : Preliminary. All indexes are subject to monthly revisions up to four months after original publication.

## Caustic Soda (January 2022)

Tom Edman, Product Director – Caustic Soda

Supply	Demand	Pricing
<p><b>CENTRAL</b></p> <ul style="list-style-type: none"> <li>Domestic producers have Q1 outages scheduled, but in general are running well, and diaphragm caustic remains balanced.</li> <li>Shintech started up membrane expansion capacity in Plaquemine, LA which brought balance to the membrane market which has been persistently tight.</li> <li>Domestic producers continue to support operating rates with exports due to strong global market pricing.</li> </ul> <p><b>WEST</b></p> <ul style="list-style-type: none"> <li>Northeast Asian caustic supply is tight due to more energy (coal) and COVID disruptions.</li> </ul> <p><b>EAST</b></p> <ul style="list-style-type: none"> <li>EU caustic pricing remains high (impacting exports to the US East Coast) due to persistently high energy costs.</li> </ul>	<ul style="list-style-type: none"> <li>Domestic demand is seasonally soft for the winter months but is expected to improve as the US works through the continuing supply chain issues impacting a wide range of demand segments.</li> <li>The high pricing levels in the market have likely caused some customers to minimize their caustic consumption (or substitute other chemistry) resulting in some level of demand destruction.</li> <li>Pulp and Paper demand remains strong and refinery demand is picking up.</li> </ul>	<ul style="list-style-type: none"> <li>US market pricing is stabilizing in January (and for Q1) following significant price increases at the end of 2021.</li> <li>Domestic producers announced \$80/dst price increases to offset rising energy costs and to account for their ability to export at higher prices. The increases still do not have broad support.</li> <li>Importers' highest-cost inventory has landed in import tanks on the East and West Coasts.</li> <li>Global export market prices have softened for Q1 2022 but remain high from a historical perspective. The fall of Northeast Asian prices has attenuated due to renewed product tightness.</li> </ul>

The information provided above indicates an actual percent change December 2020 to December 2021 of 24.7%. The suppliers of Sodium Hypochlorite 12.5% forecast a price increase from the previous FY 2021-22 between 35%-50%.

For budgetary purposes, the SVCW Operations Division will forecast a 35% increase in Sodium Hypochlorite 12.5% FY 2022-23.

Chemical	Current Price	Units	Forecast % Increase	Forecasted Price Increase	Forecasted Price
Sodium Hypochlorite 12.5%	\$ 0.739	gallon	35.00%	\$ 0.259	\$ 0.998

### **Sodium Bisulfite 40%**

Sodium Bisulfite manufacturing is dependent on Sulfuric Acid. Copper metal is dissolved in Sulfuric Acid to an endpoint resulting in the formation of Sodium Bisulfite crystals. The crystals are then processed to form Sodium Bisulfite solution.

## **Sulfuric Acid – December 2021**



### **Supply**

- *US market supply continues to struggle as a result of unplanned outages. The current supply environment could begin to stabilize within the next 30-60 days.*
- Unplanned events in 2021 including the Kennecott and Chemtrade FM announcements have contributed to over 1MM tons removed from NA supply.
- Import economics currently support export vs import to the US market which could leave us 500,000 – 1M tons undersupplied for 2022.

### **Demand**

- Strong fertilizer demand now forecasted to continue through 2022.
- Strong metals pricing continues to drive strong leaching demand.
- Sustained improvement on overall US economic conditions stimulating increased demand for sulfuric acid and other key commodities although forecast for H1-2022 is still uncertain.

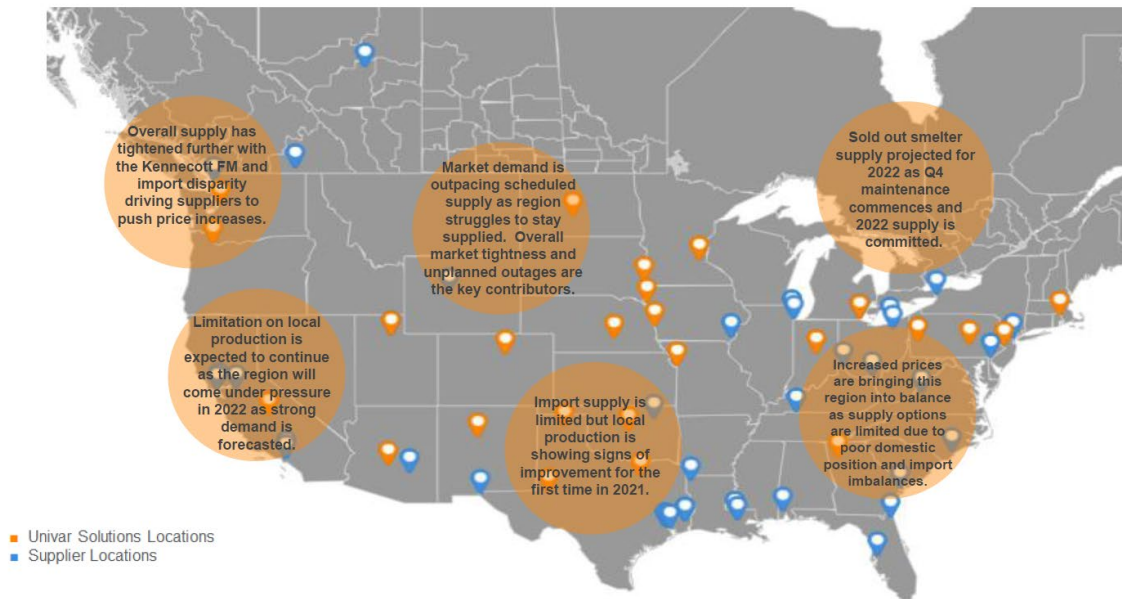
### **Pricing**

- *Increases for 2022 contracts are ranging between \$80-150/ton above 2021 levels with higher than historic regional variances.*
- Import vessel pricing remains firm as European availability is almost non-existent as the US market is forecasted to import significantly less in 2022.
- *Sulfuric Acid increases of > \$100/ton have been implemented YTD with additional increase likely for 1/1/22.*

### **Forecast**

- **The US sulfuric acid market is experiencing severe shortness that will last well into 2022.** This tightness has been recognized in significantly higher YoY contracts. The 2022 contract season started early and has for the most part concluded before the Thanksgiving holiday. This is the earliest we have seen in the past 10 years and security of supply has been cited as the Top Priority for many consumers. Significant supply improvement, **curtailed demand** and adjusted international values are now necessary to balance the 2022 market which will not likely materialize until at least H2-2022. Univar is in position to grow **strategically** for 2022 with the breadth of our supplier relationships and overall supply chain capabilities.

## US Sulfuric Supply & Demand Overview



SVCW's current supplier for Sodium Bisulfite 40% is forecasting an estimated increase of \$0.25 per gallon. The current price is \$1.75/gallon. For budgetary purposes, SVCW Operations Division will utilize the recommended price of \$1.75 + \$0.25 = \$2.00/gallon.

Chemical	Current Price	Units	Forecast % Increase	Forecasted Price Increase	Forecasted Price
Sodium Bisulfite 40%	\$ 1.750	gallon	14.30%	\$ 0.250	\$ 2.000

### **Ferric Chloride 41%**

In July 2021, our chemical supplier Thatcher Chemical claimed a Force Majeure due to their supplier of Ferric Chloride US Magnesium Corporation experiencing a major fire that damaged their manufacturing facility. US Magnesium is a major manufacturer of Ferric Chloride in the U.S.. With their plant out of production, a significant shortage of Ferric Chloride began across the Country. The EPA informed the remaining manufacturers and suppliers that drinking water treatment plant that use Ferric Chloride as a coagulant in their process take priority over wastewater treatment facility that use the chemical for odor and corrosion control.

SVCW's supply of Ferric Chloride ended in August 2021. Thatcher Chemical was able to provide a substitution of Ferrous Chloride for H<sub>2</sub>S control in SVCW biogas used for cogeneration of electricity. The supply of Ferrous Chloride also dwindled due to the increased demand by drinking water treatment facilities. In October 2021, Thatcher Chemical offered another chemical Ferric Sulfate. SVCW could not procure any other Ferric or Ferrous alternatives, so they began to feed Ferric Sulfate into the anaerobic digesters in October 2021. The Ferrous Sulfate demand by the digesters was so great that the SVCW chemical feed system was overwhelmed resulting in high H<sub>2</sub>S concentrations in the produced biogas. This resulted in H<sub>2</sub>S concentrations that exceeded the regulatory limits in our BAAQMD Air Permit for the treatment facility.

Kemira Chemical Company in Southern CA was able to increase their production of Ferric Chloride and offer to supply SVCW in early December 2021. On December 08, 2021, SVCW began feeding Ferric Chloride to the digesters and by December 11, 2021, the H2S concentrations reduced to compliant levels.

All the issues surrounding this supply and demand situation resulted in significant price increases.

Chemical	Supplier	Start Date	Current Price	Units	Per Load (Includes Freight + Tax)
Ferric Chloride	Thatcher	7/1/2021	\$ 764.00	Dry Ton	\$ 7,938.00
Ferrous Chloride	Thatcher	8/31/2021	\$ 315.00	Wet Ton	\$ 12,687.00
Ferric Sulfate	Thatcher	10/5/2021	\$ 575.00	Wet Ton	\$ 16,534.00
Ferric Chloride	Kemira	12/8/2021	\$ 1,148.54	Dry Ton	\$ 12,431.00

The price increases have negatively impacted the SVCW Operations Budget for Ferric Chloride FY 21-22. This price increase will also impact the upcoming FY 22-23 Budget with projected pricing from Kemira at \$1,240.00 per dry/ton delivered. The Operations Division will use this price estimate for Budget Preparation FY 22-23.

Chemical	Current Price	Units	Forecast % Increase	Forecasted Price Increase	Forecasted Price
Ferric Chloride 41%	\$ 764.000	Dry Ton	62.30%	\$ 476.000	\$ 1,240.000

#### **Cationic Polymer (C-6265)**

SVCW was fortunate to realize consistent pricing of cationic polymer from Polydyne Solutions of \$0.98/lb. This price remained stable for approximately 4-years until June 2021. Polydyne informed SVCW of a significant price increase due to the following factors:

- Raw material supply shortages due to the increased production of PVC piping
- Cationic emulsion polymers are hydrocarbon based and depended on the oil market pricing. Oil has increased dramatically in 2021.
- Transportation issues caused by the shortage of qualified truck drivers. Polydyne's manufacturing facility is located in Georgia. SVCW orders full truckloads that are shipped factory direct to save costs.

Based on these influential variables, Polydyne increased their price from \$0.98/lb to \$1.35/lb, a 37.8% increase. SVCW contacted the other suppliers of Cationic Polymers, and they would not even bid against this price. Polydyne is projecting a 10% increase in price in this upcoming FY 22-23. The Operations Division is utilizing this information in the preparation of their FY 22-23 Budget.

Chemical	Current Price	Units	Forecast % Increase	Forecasted Price Increase	Forecasted Price
Cationic Polymer (C-6265)	\$ 1.350	Lbs	10.00%	\$ 0.135	\$ 1.485

### **Calcium Nitrate**

Calcium Nitrate markets follow the agricultural fertilizer supply and demand environment. Current Calcium Nitrate prices are stable but the transportation and diesel cost for farm equipment is driving prices up. The early estimates for Calcium Nitrate increases are at 7%. This is the increase that will be used in the Operations Chemical Budget for FY 22-23.

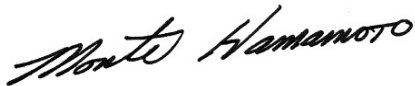
Chemical	Current Price	Units	Forecast % Increase	Forecasted Price Increase	Forecasted Price
Calcium Nitrate	\$ 2.070	gallon	7.00%	\$ 0.145	\$ 2.215

### **Conclusion**

All SVCW chemical costs for FY 22-23 will increase based on the chemical vendor estimates and the tracking of price indices. The rough estimates will come close to a 1/3 increase or 33%.

The current chemical Budget for FY 21-22 is \$1.9 million. A 33% increase will be close to \$1.0 million. We are working with chemical suppliers and have committed to participate in the Bay Area Chemical Consortium (BACC) Bid process for Sodium Hydroxide 12.5%, Sodium Bisulfite 40%, and Ferric Chloride 41% to keep prices as low as possible. The BACC chose to not bid Calcium Nitrate and polymer this upcoming year. SVCW is currently developing bid documents for the two chemicals in an effort to obtain the lowest prices.

Respectfully submitted by:




Monte Hamamoto  
SVCW COO

cc: Matt Anderson, SVCW CFO  
Daniel Buenrostro, SVCW Director of Operations

## AGENDA ITEM 5C1

**Silicon Valley Clean Water Authority  
Cash & Investments Summary Report  
December 31, 2021**

<b>Description</b>	<b>Market Value</b>	<b>% of Total Holdings</b>	<b>Yield</b>
<b><u>Reserve Accounts</u></b>			
Operating Reserve* - Securities	\$ 3,824,349	1.96%	0.97%
Operating Reserve - Money Market Fund Balance	10,807	0.01%	0.02%
CIP Reserve* - Securities	18,871,746	9.68%	1.69%
CIP Reserve - Money Market Fund Balance	315,229	0.16%	0.02%
Stage 2 Capacity Reserve* - Securities	14,729,731	7.55%	1.65%
Stage 2 Capacity Reserve - Money Market Fund Balance	130,744	0.07%	0.02%
<b>Total Market Value: Operating and Reserve Accounts</b>	<b>\$ 37,882,605</b>	<b>19.4%</b>	<b>1.58%</b>
Total Accrued Interest: Operating and Reserve Accounts	164,071		
<b>GRAND TOTAL, RESERVE ACCOUNTS</b>	<b>\$ 38,046,677</b>		
<b><u>Trustee Accounts:</u></b>			
2018 Bond Project Fund Account - CAMP	\$ 7,816,855	4.01%	0.05%
2018 Bond Revenue Account	5,044	0.00%	0.01%
2019A Notes WIFIA - Money Market Fund	1,580,253	0.81%	0.01%
2019A Notes Capitalized Interest Account* - Securities	15,584,371	7.99%	2.16%
2019A Notes Capitalized Interest Account - Money Market Fund	9,414	0.00%	0.01%
2021 Refunding Bonds Revenue Account	61,218	0.03%	0.01%
2021 Refunding Bonds Interest Account	0	0.00%	0.01%
2021A Notes (RESCU) - Money Market Fund	58,397,487	29.95%	0.01%
2021B Notes (WWTP) - Money Market Fund	30,890,909	15.84%	0.01%
2021B Notes (WWTP)* - Securities	39,761,377	20.39%	1.20%
2021 Notes Capitalized Interest Account - Money Market Fund	2,051,473	1.05%	0.01%
2021 Notes Cost of Issuance Account	61,092	0.03%	0.01%
<b>Total Market Value, Trustee Accounts</b>	<b>\$ 156,219,491</b>	<b>80.11%</b>	<b>0.53%</b>
Accrued Interest:	221,957		
Operating Cash (includes outstanding checks)	695,863	0.36%	0.00%
Local Agency Investment Funds (LAIF) Balance	210,428	0.11%	0.21%
<b>Total Cash &amp; Investments</b>	<b>\$ 195,394,415</b>	<b>100.00%</b>	<b>0.73%</b>

  
Matthew P Anderson  
Chief Financial Officer / Assistant Manager

1/11/2022  
Date

\* Monthly report of security transactions and interest available upon request

Silicon Valley Clean Water Operating and Reserve Funds - Sector Allocation & Compliance December 31, 2021								
Security Type	Operating Reserve	CIP Reserve	Capacity Reserve	Total Market Value	% of Total Portfolio	% Allowed by Policy	In Compliance	% Change vs. Prior Month
U.S. Treasury	\$ 1,759,993	\$ 8,228,289	\$ 6,591,965	\$ 16,580,247	44%	100%	✓	2.0%
Supranationals	353,426	-	-	353,426	1%	15%	✓	0.0%
Federal Agency/GSE	645,538	2,122,262	1,461,325	4,229,125	11%	100%	✓	(1.0%)
Federal Agency/CMBS	-	538,060	369,506	907,565	2%	100%	✓	0.0%
Federal Agency CMO	-	1,092,125	822,894	1,915,019	5%	100%	✓	0.0%
Federal Agency MBS	-	1,996,185	1,622,603	3,618,789	10%	100%	✓	0.0%
Municipal	-	907,087	734,710	1,641,797	4%	30%	✓	0.0%
Corporate Notes	692,241	3,432,025	2,704,974	6,829,239	18%	30%	✓	0.0%
Asset-Backed Securities	373,151	555,713	421,753	1,350,618	4%	10%	✓	0.0%
<b>Securities Sub-Total</b>	<b>3,824,349</b>	<b>18,871,746</b>	<b>14,729,731</b>	<b>37,425,826</b>	<b>99%</b>			
Accrued Interest	8,060	86,031	69,981	164,071				
<b>Securities Total</b>	<b>3,832,409</b>	<b>18,957,777</b>	<b>14,799,711</b>	<b>37,589,897</b>				
Money Market Fund	10,807	315,229	130,744	456,780	1%	20%	✓	0.0%
<b>Total Investments</b>	<b>\$ 3,843,215</b>	<b>\$ 19,273,006</b>	<b>\$ 14,930,455</b>	<b>\$ 38,046,677</b>	<b>100%</b>			
<i>As % of 6/30/22 Target:</i>	<i>99.9%</i>	<i>93.5%</i>	<i>100.0%</i>	<i>96.6%</i>				

*This report contains financial information which has not been reviewed or audited by an independent auditor, does not reflect the application of generally accepted accounting principles in all instances and is subject to future revision. This report has not been prepared with a view to informing an investment decision in any of the Authority's bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in this report are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of the Authority's bonds, notes or other obligations and investors and potential investors should rely only on information filed by the Authority on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures and website, maintained at <https://emma.msrb.org>*

- 1. All operating fund accounts are in compliance with SVCW's Investment Policy, and all bond proceeds accounts are in compliance with the relevant bond documents.*
- 2. SVCW has adequate funding levels for more than six months of operations and claim payments, as referenced in CA Code Section 53646.*
- 3. Market valuations for the Operating and Reserve accounts along with the 2018 bond, 2019A note, 2021 bond, 2021A and 2021B notes proceeds accounts are provided by PFM Asset Management LLC (PFM). Generally, PFM's market prices are derived from closing bid prices as of the last business day of the month as supplied by ICE Data Services or Bloomberg. Where prices are not available from generally recognized sources the securities are priced using a yield-based matrix system to arrive at an estimated market value. Prices that fall between data points are interpolated. Non-negotiable FDIC-insured bank certificates of deposit are priced at par. Although PFM believes the prices to be reliable, the values of the securities do not always represent the prices at which the securities could have been bought or sold.*
- 4. In accordance with Generally Accepted Accounting Principles (GAAP), month-end holdings and information are reported on a trade date basis.*
- 5. The yields shown for securities portions of the operating and reserve accounts and the 2019A and 2021A&B notes proceeds accounts are the yields to maturity at cost.*
- 6. The yield for LAIF is the average monthly effective yield. Source: [https://www.treasurer.ca.gov/pmia-laif/historical/avg\\_mn\\_ylds.asp](https://www.treasurer.ca.gov/pmia-laif/historical/avg_mn_ylds.asp)*
- 7. The yields shown for the PFM-managed money market funds are the Yield to Maturity at Cost, and the Yield to Maturity at Market sourced from the respective fund providers' statements. Yields for BNY-managed funds are Market Yields sourced from the respective fund providers' statements.*
- 8. Yield shown for CAMP is the monthly distribution yield.*

## **AGENDA ITEM 5D**

**ENGINEERING REPORT: JANUARY 2022  
CAPITAL IMPROVEMENT PROGRAM**

**UPCOMING COMMISSION ACTIONS:**

**RESCU Program (6008, 9501, 9502):** Design and construct conveyance system improvements.

SVCW awarded progressive design build contracts to Barnard Bessac Joint Venture for the Gravity Pipeline (GP) Project and Shea Parsons Joint Venture for the Front of Plant (FoP) and Pump Stations Improvements (PSI) Projects. SVCW staff and consultant project team are intricately involved in all stages of work.

All three projects are in their construction phases; refer to Commission Item 5F for status updates.

Planned Commission Actions: Contract Change Orders for Connecting Pipe Construction – February and March 2022

**Laboratory Building HVAC (9251):** Replace HVAC system serving Laboratory Building.

The HVAC system serving the Laboratory is original (circa 1991) and is past its useful life. Maintenance on the system is no longer possible. A new system was designed, the project bid and construction is in progress with anticipated completion in February.

Planned Commission Actions: Accept Construction Project – March 2022

**CCT Valve Replacement (9107):** Rehabilitation of Chlorine Contact Tank

Recoating concrete surfaces in all three passes of the chlorine Contact Tank, replacement of associated valves and piping.

Planned Commission Actions: Accept Construction Project – March 2022

**Generator Feed Relocation (9240):** Provide new generator feed and transformer.

Relocation of the power feed and a new transformer will enable SVCW's existing backup generators to be used for the Front of Plant headworks facility. This project will use existing infrastructure, saving significant costs.

Planned Commission Actions: Accept Construction Project – March 2022

**Return Activated Sludge (RAS) Pipeline Rehabilitation (9120):** Rehabilitation of RAS pipeline.

The RAS pipes, connecting the secondary clarifiers to the six RAS pumps in the pump room, are steel pipes with cement mortar lining and were constructed more than 40

years ago. Various condition assessment reports conducted indicate that these pipes have undergone significant corrosion and have lost 10% to 30% pipe wall thickness. Kennedy Jenks is currently designing the rehabilitation of the pipeline. The bidding process started in January 2022 and bids are due by end of February.

Planned Commission Actions: Award Construction Contract – March 2022

**Digester #1 Rehabilitation (9215):** Rehabilitation of Digester #1.

This project includes repair of coatings and structural elements in Digester #1. The design of the project is being completed by Kennedy/ Jenks and the bidding process has started in January 2022 and bids are due in March 2022.

Planned Commission Actions: Award Construction Contract – March 2022

**ONGOING PROJECTS IN CONSTRUCTION:**

**BioforceTech Improvements (9231):** Biodryer and Pyrolysis Facility improvements.

Work involves replacing feed conveyor system to be followed by co-operation of the entire facility.

**SAF-MBR (9236):** Pilot testing of new treatment system in conjunction with Stanford University

System is operational with particular equipment being tested. Additional equipment being procured to further test different scenarios of treatment.

**Primary Channels Rehabilitation and Hatch Replacement (9241):** Re-coating concrete surfaces and replacing deck hatches.

Recoating concrete surfaces in Primary Sedimentation Tanks 3 and 4, in Primary Influent Channel, and Primary Effluent Channel. Work needs to ensure continued treatment in other tanks and channel. Hatches on the deck above the tanks are aluminum and significant corrosion is visible; the hatches will be replaced with FRP (fiberglass reinforced plastic) hatches.

The extreme storm event on October 24<sup>th</sup> caused staff to instruct the contractor to remove a channel bypass that was placed for this project and stop work. The potential for flooding due to constricted flow posed a risk to the facilities. The remaining work has been moved to next year's dry season period (July 2022).

## AGENDA ITEM 5E

**Silicon Valley Clean Water**  
**Commissioners' Requested Action Items**

**FEBRUARY 14, 2022**  
**AGENDA ITEM 5E**

Updated: 2/4/2022

Commission Meeting Date		Action Item	Requested or Estimated Date for Completion	Status			Date of Completion	Notes
				Ongoing	In Progress	Complete		
1/10/2022	1	Long-Range Financial Plan	prior to finalizing			✓		Enhance discussion re: nominal savings and NPV savings as to reflect (positive) impact on fixed-income individuals. Enhance description of dips and increases on treatment unit costs (primarily dependent on flows/drought conditions). LRFP redistributed to member agency finance staff.
12/13/2021	1	Investment Report Summary	N/A			✓		Show information on p. 43 of report for <u>all</u> funds on a single summary page (esp. Yield @ cost and Yield @ market)
	2	Article in Climate Magazine featuring SVCW	N/A			✓	12/13/2021	Send copy of article to all Commissioners
	3	RESCU Update	1/10/2022			✓	1/3/2022	Analyze effect of including all known risks into LRFP model. State values as \$ (vs %) as this translates to rates more readily
	4	Commission meeting dates	1/10/2022			✓	1/3/2022	Bring to Commission an agenda item to change meeting dates to 2nd Monday/month (vs 3rd Monday/month)
11/15/2021	1	Recycled Water Exploratory Program	Jan/Feb		✓			Provide discussion on PREP (Potable Reuse Exploratory Program), status and activities. Summary to be provided Feb 14.
10/18/2021	1	Water Feature Development	N/A		✓			Research feasibility of creating a water feature behind the Shores Dog Park including possible funding mechanisms.
	2	RESCU Pump Station project	N/A			✓	11/9/2021	MTBM became stuck while tunneling the Belmont Gravity Pipe. It was repaired & tunneling continues. No schedule impact.
9/20/2021	1	Financial Information / Notes Issuance	N/A			✓	9/20/2021	Commission request powerpoint slides re: Notes Issuance. Slides sent to Commission and member agency finance staff.
	2	Meeting Log-in	10/18/2021			✓	10/11/2021	Spell out URL for Commission meeting log-in. Note that the URL is very long but it is now included in the agenda packet. Note also that logging in can be accomplished easily via the SVCW website.
8/16/2021	1	Investment Reports	next qrtly report			✓		Included in December Commission meeting agenda
7/16/2021	1	Cyber-Security Training	N/A			✓	11/15/2021	Reported at November Commission meeting
	2	Recycled Water Expansion	8/16/2021			✓		Presentation made to Commission at August meeting. As information changes, updates will be provided.
6/21/2021	1	No Action Items						
5/17/2021	1	CWEA Plant of the Year Award - Public Info	6/21/2021			✓	6/20/2021	Public info "blast" out on award(s) received have and are occurring

**Silicon Valley Clean Water**  
**Commissioners' Requested Action Items**

**FEBRUARY 14, 2022**  
**AGENDA ITEM 5E**

Updated: 2/4/2022

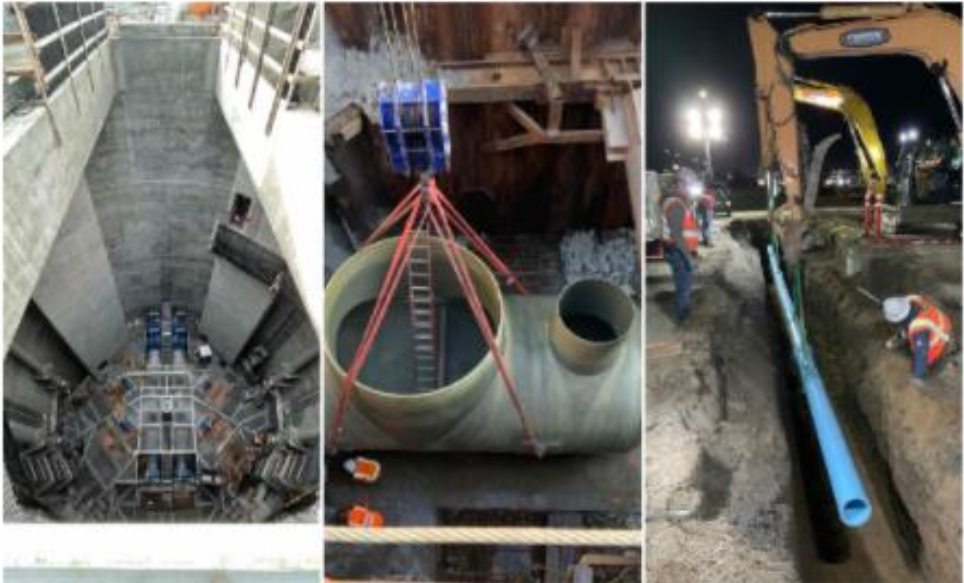
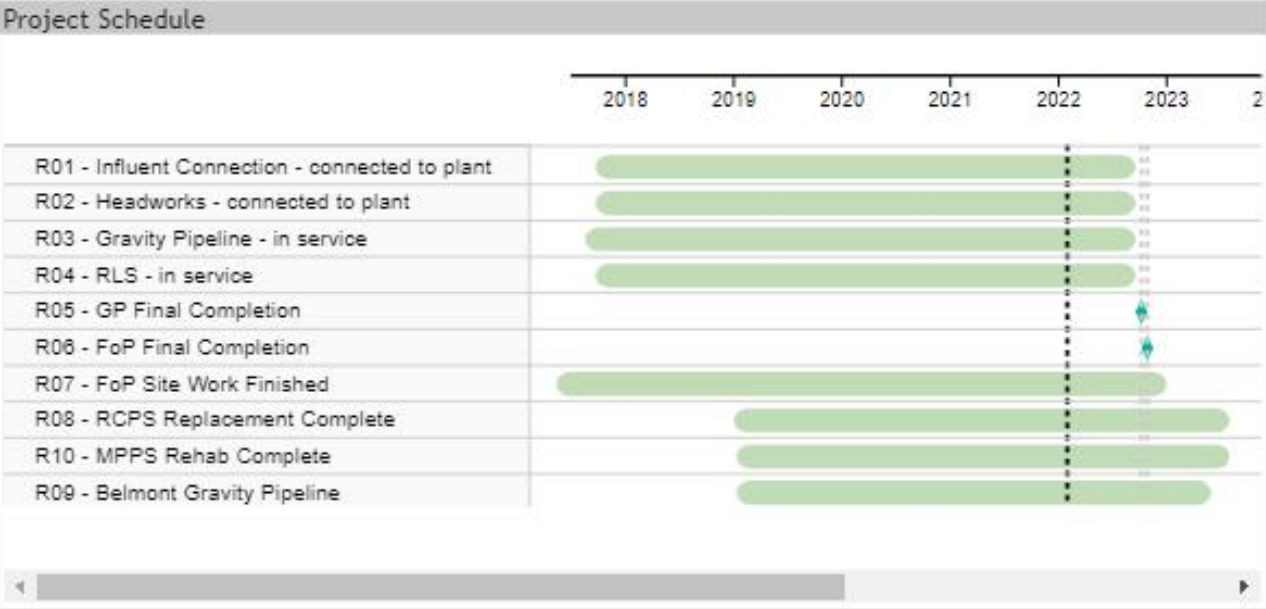
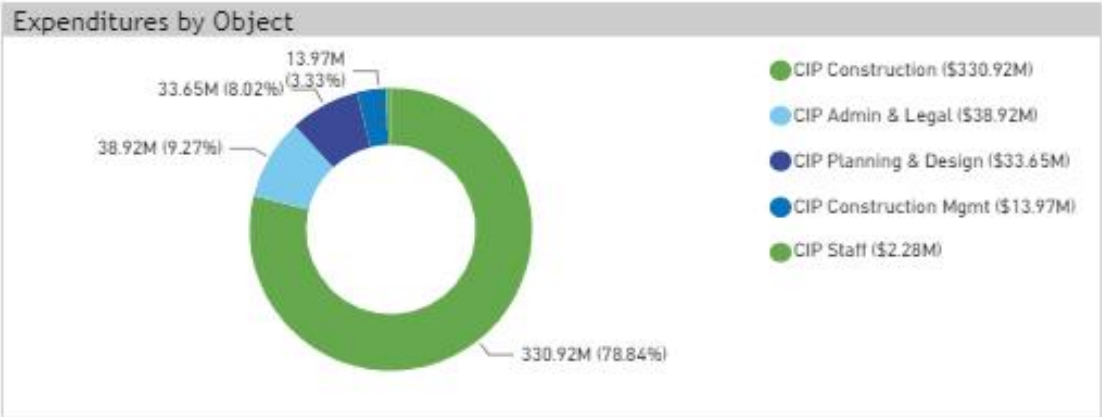
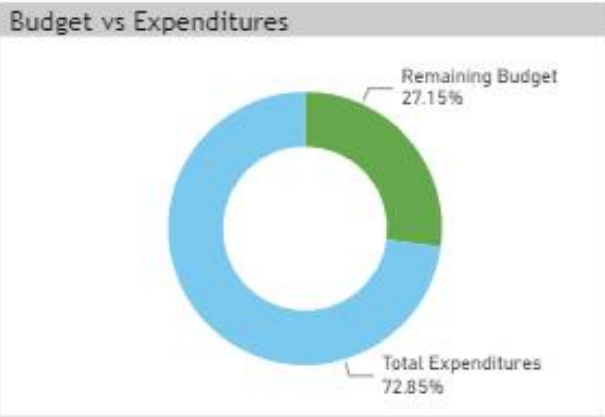
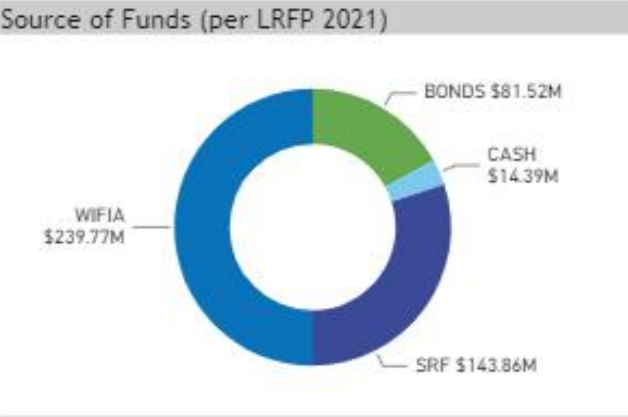
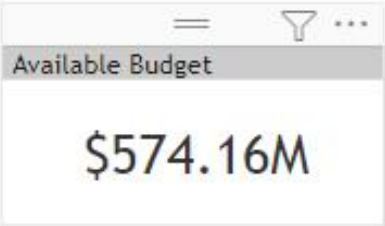
Commission Meeting Date	Action Item		Requested or Estimated Date for Completion	Status			Date of Completion	Notes
				Ongoing	In Progress	Complete		
	2	Gravity Pipeline project - San Carlos Shaft	N/A			✓		if a source for ammonia becomes known, report out to Commission. As of February 2022, source remains unknown.
4/19/2021	1	Schedule Performance Index for RESCU FoP	5/17/2021			✓	5/17/2021	SPI increased for April due to delivery and payment of large equipment items. SPI now at 0.95
3/15/2021	1	No Action Items						
2/22/2021	1	Staff Re-Organization	2/26/2021			✓	2/22/2021	Send new organization chart to commissioners
1/25/2021	1	Air Permit Excursion	N/A			✓	1/31/2022	Inform Commission if the natural gas excursion on Cogens result in a fine from BAAQMD. None expected as a year has passed.
> One Year	1	8E - JPA Amendment; re-initiate "clean up" to JPA	N/A		✓			Make required and requested changes to the JPA a priority. Comments received; Manager has consolidated. Next step to meet with member agencies for consensus. Incorporate plant capacity information re: connection fees.
	2	Project Changes/Commission Notification	N/A	✓			Ongoing	Ensure Commission is kept apprised of possible/potential project cost and/or schedule increases.
	3	Maple Street Development	N/A	✓				SVCW and RWC staff coordinating efforts and messages to developer to protect mutual and exclusive interests.
	5	1406 Radio Road Building	N/A		✓			Research and make recommendation related to historic registry restraints on what can/can't be done with buildings. On hold due to Covid-19. Historic marker applied Aug. 28, 2021.
	6	Pump Stations Improvements - Capital vs Life Cycle Costs	N/A		✓			Reducing pump stations from 5 to 2 have been reported to save long-term costs; provide analysis results to Commissioners.

## AGENDA ITEM 5F

Overview



RESCU Program describes eleven projects which constitute full replacement and rehabilitation of SVCW's conveyance system. RESCU includes the Gravity Pipeline, Front of Plant, Pump Stations, and Belmont Force Main projects. The Front of Plant includes six and Pump Stations includes four of the eleven projects. The Conveyance System Improvements Environmental Impact Report completed and adopted by the SVCW Commission in April 2017 covers work to be done under all the RESCU Program projects.



NOTE: all information in this report are as of the end of previous month, except for the SPI data, which is one month behind all other information.

# Front of Plant Progressive DB Project (CIP 9502)

The Front of Plant (FoP) Project consists of the design, construction, permitting, start-up, commissioning, and final acceptance for the Receiving Lift Station (RLS), Surge and Flow Splitter (SFS), Headworks Facility, Odor Control System, Influent Connector Pipe, Emergency Overflow pipe to an existing storage basin and other related process support systems. Work is being implemented under a Progressive Design-Build procurement process in stages.

## Available Budget

\$162.21M

## Total Expenditure

\$120.96M

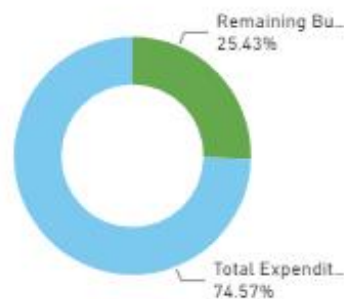
## Remaining Budget

\$41.25M

## Milestone Schedule

	Start	Finish
Interconnection Pipe Completed	7/24/2020	4/13/2022
Headworks Facility Completed	12/6/2018	11/5/2022
SFS/RLS Completed	12/6/2018	7/1/2022
Substantial Completion		9/30/2022

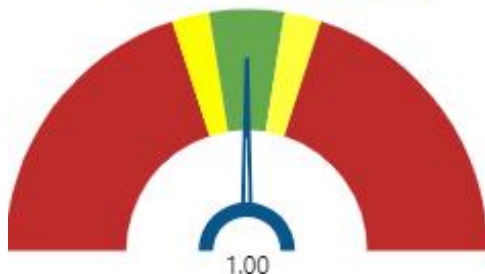
## Budget vs Expenditures



## Expenditures by Object



## Cost Performance Index (CPI)



## Schedule Performance Index (SPI)



## Major Accomplishments this Period

Construction	<ul style="list-style-type: none"> <li>- SPJV continues the installation of electrical control devices around the Headworks Facility.</li> <li>- SPJV pulled the medium voltage feeders from the FoP electrical room to SVCW's existing switchgear. Feeders to be terminated at a later date.</li> <li>- SPJV installed media in the odor control filters for the FoP odor control system.</li> <li>- SPJV installed three precast roof deck panels on the RLS.</li> <li>- SPJV completed the installation of the wall mounted jib crane in the RLS.</li> <li>- SPJV completed the installation of the maintenance platform of the base of the RLS and installed utility stations (3-water, high pressure air) at various locations.</li> <li>- SPJV installed form savers and stair tower in the SFS for the construction of the second pass walls. SPJV placed rebar, steel formwork, and concrete for two of four lifts for the SFS Second Pass Wall. Each lift is approximately 25 feet tall.</li> <li>- SPJV began the excavation for the southside storm drain catch basins and 12-inch HDPE pipe.</li> <li>- SPJV placed precast concrete trench boxes for the utilidor from the east side of the Headworks Facility to the edge of the Sybert Lot.</li> </ul>
Design	<ul style="list-style-type: none"> <li>- SPJV and CID finalized the Process Control Narrative and Control Strategies.</li> </ul>
Procurement of Trade Packages	<ul style="list-style-type: none"> <li>- WIFIA and SRF requirements compliance for trade packages issued.</li> <li>- All major headworks equipment is onsite except RLS pumps. Factory testing of the RLS pumps was completed this month. The pumps are being prepared to ship from Sweden.</li> <li>- The gas detection system to be the factory tested in February.</li> </ul>

## 3 - Month Look Ahead

	Start	End	February	March	April
Install conduit, wire and electrical devices to major equipment at the Headworks Facility	July 1, 2021	February 25, 2022	X		
Excavation and Installation of Utilidor	November 15, 2021	February 28, 2022	X		
Install southern storm drain system	January 13, 2022	March 1, 2022	X		
Install RLS Pumps	February 28, 2022	March 3, 2022	X	X	
Install SFS Second Pass Walls	November 19, 2021	March 30, 2022	X	X	
Install SFS Sloped Concrete (connection from gravity tunnel to RLS manifold inlets)	February 23, 2022	May 24, 2022	X	X	X

## Potential Issues

Bair Island and San Carlos Pump Station Pipe Connection Work  
 Intrinsically Safe Relay Panel  
 Plant water pipeline size upgrade and related fixtures  
 Utilidor extension for piping

## Project Changes

Change order for odor control system  
 Credit for deletion of 48" bypass from 54" force main  
 Credit for the deletion of the chemical storage system  
 Electrical System  
 New County/Local Sales Tax  
 Project Management past December 2021

## Safety Spot Light

Lost Time	0
Near Misses	5
Recorded Losses	2

# Gravity Pipeline Progressive DB Project (CIP 6008)



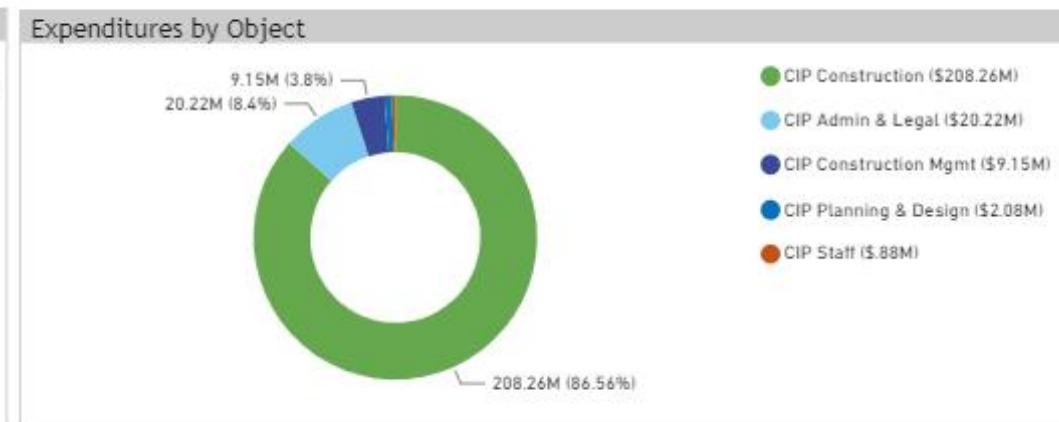
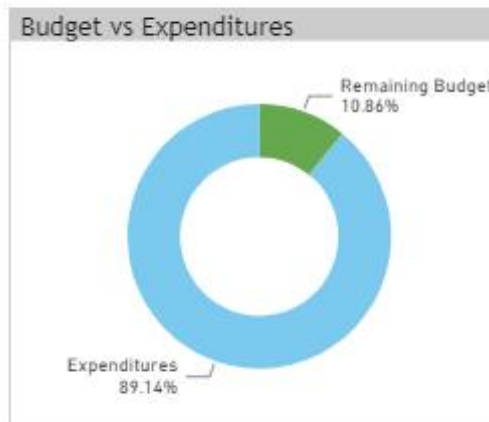
The Gravity Pipeline (GP) Project consists of the design, construction, permitting, start-up, commissioning, and closeout of approximately 17,600 feet of wastewater gravity FRP pipe inside a concrete-segment tunnel. The work includes three shafts and will interface directly with the Front of Plant (FoP) Project at the Surge & Flow Shaft (SFS). Work is being implemented under a Progressive Design-Build procurement process.

Available Budget  
\$264.36M

Total Expenditure  
\$235.66M

Remaining Budget  
\$28.70M

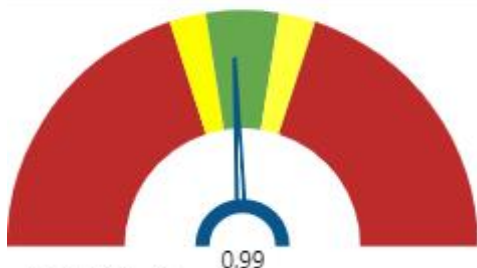
Milestone Schedule		
	Start	Finish
San Carlos Inlet Structure Installation	5/9/2022	6/8/2022
Bair Island Inlet Structure Installation	1/4/2022	5/24/2022
FRP Pipe Installation and Annular Grout	9/27/2021	4/15/2022
Substantial Completion		7/1/2022



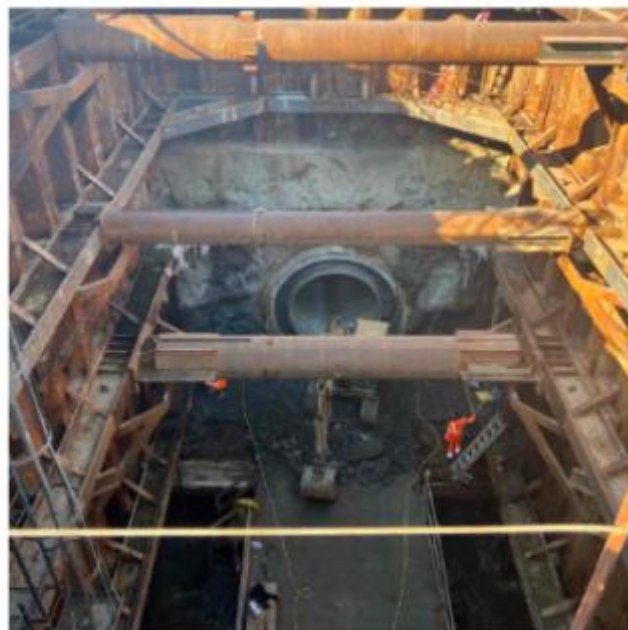
## Cost Performance Index (CPI)



## Schedule Performance Index (SPI)



As of : 2022 - 01



## Major Accomplishments this Period

Construction	<ul style="list-style-type: none"> <li>- BBJV completed grouting in the first half of pipe installation in the second tunnel drive and began grouting the first tunnel drive.</li> <li>- BBJV began the remaining pipe installation in the second tunnel drive.</li> <li>- BBJV began installation of the Bair Island Drop Structure</li> </ul>
Design	<ul style="list-style-type: none"> <li>- BBJV is transferring Connecting Piping design documents to SPJV</li> </ul>
Muck Disposal	<ul style="list-style-type: none"> <li>- 76% of Muck Disposal Amendment spent</li> <li>- 24% of Muck Disposal Amendment remaining</li> <li>- Last Muck bin offhaul and San Carlos Adit spoils remaining</li> </ul>
Procurement of Trade Packages	<ul style="list-style-type: none"> <li>- Bair Island shaft backfill subcontractor outreach in progress</li> <li>- Outreach in conformance with SRF and WIFIA funding requirements</li> </ul>

## 3 - Month Look Ahead

	Start	End	February	March	April
FRP Pipe Installation	September 27, 2021	February 25, 2022	X		
FRP Annular Space Grouting	November 18, 2021	April 15, 2022	X	X	X
Bair Island Drop Structure Installation	January 4, 2022	May 24, 2022	X	X	X

## Potential Issues

Additional costs for SFS Break-in approach
San Carlos Basement Connection

## Project Changes

Additional Survey at Governors Bay
Bair Island Force Main Exposure and Additional Monitoring
Bair Island Weir Optimization
Exceedence of Muck Offhaul Allowance
New County/Local Sales Tax and US Tariffs
Redwood City Sales Tax Increase 2021
San Carlos Adit Ammonia Mitigation
San Carlos Shaft Ammonia Mitigation
SCPS Basement Connection
Soil Conditioner Leak at CPT Hole STA 171 + 80

## Safety Spot Light

Lost Time	1
Near Misses	4
Recorded Losses	5

# Pump Stations (CIP 9501)

All SVCW pump stations require replacement or rehabilitation. Menlo Park PS will be rehabilitated. Redwood City PS will be replaced. Belmont PS will be replaced with a gravity pipeline. San Carlos PS is no longer needed due to the new gravity pipeline; flows from San Carlos and Belmont will enter into the gravity pipeline via a drop structure at the current San Carlos pump station site. Flows from MPPS and RCPS will flow through the new 48-inch force main to a drop structure at Inner Bair Island. RCPS pumps MPPS flows during wet weather events.

Available Budget

\$132.29M

Total Expenditure

\$51.47M

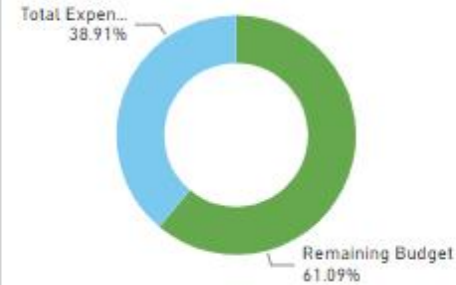
Remaining Budget

\$80.82M

## Milestone Schedule

	Start	Finish
BGP - Gravity Pipe Installed	9/30/2022	12/13/2022
MPPS - A-side Pumps Completed	8/25/2022	2/11/2023
MPPS - B-side Pumps Completed	3/15/2022	8/24/2022
MPPS - Segment 1 and 2 CARVs Completed	3/29/2022	7/6/2022
RCPS - Electrical Building Completed	2/8/2021	10/13/2022
RCPS - PG&E Service Work	7/28/2022	8/10/2022
RCPS - Wet Well & Screening Building Completed	3/24/2023	4/7/2023
Substantial Completion - BGP		6/5/2023
Substantial Completion - MPPS		8/7/2023
Substantial Completion - RCPS		8/7/2023

## Budget vs Expenditures



## Expenditures by Object



## Cost Performance Index (CPI)



## Schedule Performance Index (SPI)



As of : 2022 - 01



## Major Accomplishments this Period

Construction	<p>- BGP: Power Engineering (PEC) completed manhole installation and 36-inch pipe installation in JS-2, backfilled JS-2, and began pulling sheets from JS-2 as part of final shaft restoration. PEC completed restoration of MPWD's 8-inch water line. PEC installed conduit at RS-3's future location so that PG&amp;E can perform their work before RS-3 construction begins.</p> <p>- RCPS: Installed rebar and formwork for wet well first lift wall on the east side of the wet well and screening structure and placed concrete for the wall.</p> <p>- MPPS: Performed shutdown for CARV vault work, including removing and replacing existing flowmeter, removed and replaced existing steel piping, and installed a new knife gate valve.</p>
Design	SPJV provided an additional alternative for reclassification of the San Carlos Pump Station, which is under review by the OA team. SPJV is preparing additional detail for their estimate of the 60-inch pipe installation work at the RCPS.

## Potential Issues

Challenges from permitting and land acquisition conditions at RCPS

## 3 - Month Look Ahead

	Start	End	February	March	April
MPPS - PG&E Design and Construction	August 26, 2020	May 23, 2022	X	X	X
MPPS - Segment 1 and 2 CARVs	March 29, 2022	July 6, 2022	X	X	X
MPPS - Building/Roof Improvements	September 10, 2021	November 29, 2022	X	X	X
MPPS - Electrical Room Improvements	July 6, 2021	November 28, 2022	X	X	X
BGP - Backfill and Remove Shoring at JS-2	January 6, 2022	February 18, 2022	X		
BGP - Set Up Phase 3 Traffic Control	February 22, 2022	February 28, 2022	X		
RCPS - Wet Well & Screening Building Excavation and Backfill	May 24, 2021	September 26, 2022	X	X	X
RCPS - Wet Well and Screening Building Structural Concrete	September 8, 2021	November 29, 2022	X	X	X
RCPS - Electrical Building & Restroom	February 8, 2021	October 13, 2022	X	X	X

## Project Changes

BGP Design Development  
 Differing Site Conditions and MPPS Generator Warranty Release  
 Segment 1 Force Main Junction Box Repairs  
 Stage 2 Baseline Schedule Revision  
 Traffic Control Changes Allowance Release

## Safety Spot Light

Lost Time	0
Near Misses	0
Recorded Losses	0

## AGENDA ITEM 7A

**MINUTES OF SILICON VALLEY CLEAN WATER  
SPECIAL MEETING – January 10, 2022  
8:00 a.m.**

**This meeting took place remotely pursuant to  
SVCW Resolution No. 21-40 due to coronavirus pandemic**

**ITEM 1**

**CALL TO ORDER**

The meeting was called to order at 8:02 a.m.

**ITEM 2**

**ROLL CALL - Commissioners Duly Appointed by Each Agency**

Council Member Alicia Aguirre, Redwood City – Chair  
Board Member George Otte, West Bay Sanitary District – Vice-Chair  
Council Member Warren Lieberman, Belmont – Secretary  
Council Member Ron Collins, San Carlos

**Staff, Consultants and Visitors Present**

Teresa A. Herrera, SVCW Manager  
Christine C. Fitzgerald, SVCW Legal Counsel  
Jennifer Flick, SVCW Human Resources Director  
Matt Anderson, SVCW Chief Financial Officer/Assistant Manager  
Monte Hamamoto, SVCW Chief Operating Officer  
Kim Hackett, SVCW Authority Engineer  
Arvind Akela, SVCW Engineering & Environmental Services Director  
Kara Tremblay, SVCW Associate Engineer  
Kiki Newberry, SVCW Financial Analyst  
Jessica Mangual, SVCW Secretary Pro Tem  
Mark Minkowski, Kennedy Jenks  
Sheryl Chia, Kennedy Jenks  
Derek Rampone, City of Redwood City  
Molly Flowerday, City of Redwood City  
Theresa Yee, City of Redwood City  
Aren Hansen, Brown & Caldwell  
EJ Shalaby, DNS Strategic Partners  
Lora Carpenter, PFM  
Suzanne Solomon, LCW  
Jim Lewis, Member of the Public

**ITEM 3**

**PLEDGE OF ALLEGIANCE**

The Pledge of Allegiance was recited by those in attendance

**ITEM 4**

**PUBLIC COMMENT**

There was no Public Comment

**ITEM 5**

**SAFETY MOMENT AND REPORTS**

Instructions for enabling live captioning and providing public comment during the remote meeting site were provided.

Item 5A Safety Moment concerned tips on cyber security.

For other written reports contained within the agenda packet, there were no questions or comments.

**ITEM 6**

**MATTERS OF COMMISSION MEMBER'S INTEREST**

**ITEM 7**

**CONSIDERATION OF MOTION APPROVING CONSENT CALENDAR ITEMS 7A THROUGH 7C**

- A. APPROVAL OF MINUTES – December 13, 2021- Special Meeting
- B. CONSIDERATION OF MOTION APPROVING CLAIMS AND CHECKS DATED NOVEMBER 24, 2021, DECEMBER 1, 2021, AND DECEMBER 10, 2021, AND NECESSARY PAYMENTS THROUGH DECEMBER 10, 2021
- C. CONSIDERATION OF RESOLUTIONS APPROVING CHANGE TO THE REGULAR DAY OF THE MONTHLY SVCW COMMISSION MEETING AND SETTING 2022 REGULAR COMMISSION MEETING SCHEDULE

Proposed Actions:

- i. Move adoption of RESOLUTION ESTABLISHING DAY, TIME, AND PLACE OF REGULAR MEETINGS OF THE COMMISSION OF SILICON VALLEY CLEAN WATER AND RESCINDING RESOLUTION NO. SVCW 18-82
- ii. Move adoption of RESOLUTION ESTABLISHING AND ADOPTING COMMISSION'S REGULAR MEETING SCHEDULE FOR CALENDAR YEAR 2022

**Motion/Second: Dr. Lieberman / Mr. Otte**

The Motion carried by Unanimous Roll Call Vote

**ITEM 8A**

**CONSIDERATION OF RESOLUTION APPROVING REMOTE COMMISSION MEETINGS UNDER GOVERNMENT CODE SECTION 54953 OF THE BROWN ACT DURING EMERGENCY CONDITIONS**

Proposed Action:

Move adoption of RESOLUTION MAKING FINDINGS AND DETERMINATIONS AND AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE COMMISSION OF SILICON VALLEY CLEAN WATER UNDER GOVERNMENT CODE SECTION 54953 OF THE BROWN ACT DURING EXISTENCE OF STATE OF EMERGENCY CONDITIONS RELATED TO THE COVID-19 PANDEMIC

**Motion/Second: Mr. Collins/Otte**

The Motion carried by Unanimous Roll Call Vote

**ITEM 8B**

CONSIDERATION OF RESOLUTION ADOPTING THE 2022 CIP UPDATE AND CORRESPONDING CEQA CONCLUSIONS

Proposed Action:

Move adoption of RESOLUTION APPROVING AND ADOPTING THE 2022 UPDATE OF THE SILICON VALLEY CLEAN WATER CAPITAL IMPROVEMENT PROGRAM AND CORRESPONDING CEQA CONCLUSIONS

**Motion/Second: Mr. Otte / Dr. Lieberman**

The Motion carried by Unanimous Roll Call Vote

**ITEM 8C**

CONSIDERATION OF MOTION APPROVING SILICON VALLEY CLEAN WATER LONG-RANGE FINANCIAL PLAN 2022 UPDATE

Proposed Action:

Move approval of RECEIPT AND ACCEPTANCE OF SILICON VALLEY CLEAN WATER LONG RANGE FINANCIAL PLAN 2022 UPDATE

**Motion/Second: Mr. Otte / Mr. Collins**

The Motion carried by Unanimous Roll Call Vote

**ITEM 9**

Closed Session was called to order at 8:46 a.m.

**ITEM 10**

RECONVENE IN OPEN SESSION

Open Session reconvened at 9:34 a.m.

Ms. Fitzgerald reported that, as to closed session item 9A, no action was taken and direction was given to staff and Counsel.

**ITEM 11**

**ADJOURN**

There being no further business, the meeting adjourned at 9:34 a.m.

Minutes prepared by Teresa A. Herrera  
Reviewed by General Counsel

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Warren Lieberman, Secretary

## AGENDA ITEM 7B

**SVCW WARRANT REGISTER**

SVCW Warrant Registers dated December 14 - December 27, 2021 and December 28 2021 - January 10, 2022, were scanned and a copy was emailed to Commissioners and Legal Counsel on February 8, 2022.

## AGENDA ITEM 7C

**WELLS FARGO COMMERCIAL BANKING AGREEMENT**

**ISSUE**

Approve an agreement for Depository and Treasury Management services with Wells Fargo Bank, N.A.

**BACKGROUND**

Silicon Valley Clean Water (SVCW), via the City of Redwood City (City) as Controller, has used Wells Fargo banking services since inception. SVCW implemented its own financial software solution in 2018, and as the City also transitions to a new financial system, both entities will enter into respective banking agreements.

**DISCUSSION**

SVCW has, through extension of the City's bidding processes, satisfied bidding requirements for banking services. Since implementation of a new Enterprise Resource Planning (ERP) financial solution, the finance and accounting personnel at SVCW have taken on primary responsibility for banking activities. These activities include management of deposits, accounts payable disbursements, and payroll processing activities. The City, in its Financial Controller capacity, will continue to maintain access and visibility to SVCW banking records.

Wells Fargo has provided good service to SVCW over the past few decades and, as banking services are increasingly integrated into financial systems, smooth business operations can continue without interruption. Such stability is important as SVCW continues to improve its utilization of financial, payroll, and reporting systems.

**FINANCES**

Prices, as negotiated, are slightly favorable to existing terms and will be fixed for an initial three (3) year term. Annual savings, using average volumes incurred over the past year, are estimated at \$4,400.

**RECOMMENDATION**

Move adoption of RESOLUTION APPROVING MASTER SERVICES AGREEMENT FOR DEPOSITORY AND TREASURY MANAGEMENT SERVICES WITH WELLS FARGO BANK, N.A.

## AGENDA ITEM 7D

**PAYMENT OF ESTIMATED CONSTRUCTION COSTS TO CALIFORNIA WATER  
SERVICE (PUMP STATIONS IMPROVEMENTS PROJECT – CIP #9501)**

ISSUE

Approve Payment to California Water Service to Relocate a 12-Inch Water Line that Conflicts with SVCW Pump Stations Improvements Project Construction in Shoreway Road

BACKGROUND

SVCW's Regional Environmental Sewer Conveyance Upgrade (RESCU) Program includes conveyance system improvements to transport wastewater from member agencies' collection systems to the SVCW wastewater treatment plant. RESCU is comprised of three projects: Pump Stations Improvements, Gravity Pipeline, and Front of Plant. The Pump Stations Improvements (PSI) Project improves the facilities that move flow from the member agency collection systems into the SVCW force main and gravity pipeline system, which will then discharge flow to the Front of Plant facilities.

The PSI Project includes three distinct scopes of work: Menlo Park Pump Station Rehabilitation, Redwood City Pump Station Replacement, and Belmont Gravity Pipe Construction. The Belmont Gravity Pipe is a 36-inch diameter sewer being constructed via a microtunneling technique within the Shoreway Road right-of-way. In microtunneling, a series of shafts are constructed and a boring machine is pushed from one shaft to another, removing the impeding soil and installing a new pipeline as it progresses. Microtunneling requires shafts 1,500 feet apart or less (as opposed to tunneling as in the Gravity Pipeline project which can tunnel for miles without intermediary shafts). When constructing a shaft, one of the first activities is to relocate any pipelines or conduits that run within the footprint of the shaft.

There are many utilities in Shoreway Road, including gas, water, and sewer pipelines, and telecommunications conduits. Specific to water and sewer pipes, California Waterworks Standards (California Code of Regulations, Title 22, Division 4, Chapter 16, Section 64572) outlines requirements for separating water and sewer pipelines in underground construction. These regulations ensure that public health isn't jeopardized in the event of a sewer or water main leak and requires that sewer and water pipelines be constructed at least 10 feet apart from each other in a horizontal direction.

DISCUSSION

California Water Service (Cal Water) is a private water utility regulated by the California Public Utilities Commission. Cal Water's Bayshore District provides drinking water to San Carlos, San Mateo, and South San Francisco. Part of their distribution system includes a 12-inch water line in Shoreway Road. This pipeline is in direct conflict with the location for Microtunnel Receiving Shaft No. 3 and must be relocated to excavate the shaft.

SVCW worked with Cal Water to find an appropriate alignment for their relocated water main, considering the physical constraints of the location of the shaft and other utilities in the road, as well as the regulatory constraints that require separation between water and

sewer pipes. A new alignment was chosen and approved by the CA Public Utilities Commission but will require that Cal Water acquire a maintenance easement from a private property owner (Public Storage) for access to the pipeline. SVCW is working with Cal Water and the property owner to develop the easement agreement.

Cal Water has provided an estimate for relocation work to be completed. Since the relocation of the pipeline is necessitated by SVCW's construction project, SVCW will be responsible for the associated costs while work to relocate the pipeline will be completed by Cal Water's contractor. The total estimated cost is \$238,971, which SVCW must pay before the work begins. The actual costs of construction will be tracked, and if they differ from the estimate, the difference between the two costs will be reconciled between the two agencies.

SVCW has paid Cal Water a \$50,000 deposit to expedite Cal Water's efforts in scheduling a contractor and purchasing materials for the work. SVCW staff seeks authorization of the additional \$188,971 to be paid to Cal Water for its construction work to commence.

A future agenda item will be presented to the Commission related to the permanent maintenance easement referenced above.

#### FINANCES

The cost of this work has been included in the budget for the Pump Stations Improvements Project (CIP #9501) as part of the risk register contingency budget.

#### RECOMMENDATION

Move approval of PAYMENT OF ESTIMATED RELOCATION CONSTRUCTION COSTS (\$188,971) AND AUTHORIZE MANAGER TO APPROVE UP TO TEN PERCENT CONTINGENCY FOR ADDITIONAL WORK ON AN AS-NEEDED BASIS – CALIFORNIA WATER SERVICE

## AGENDA ITEM 8A

**COMMISSION MEETINGS ATTENDANCE**

ISSUE

Remote Commission Meetings Under Government Code Section 54953 of the Brown Act During Emergency Conditions

BACKGROUND

AB361 was signed into law by the Governor on September 16, 2021. AB361 amends Government Code Section 54953 of the Brown Act by allowing local agencies to hold meetings remotely during emergency situations, under the following conditions:

1. An emergency situation arises that produces an imminent risk to public health and safety.
2. A gubernatorial state of emergency is declared (pursuant to Gov't. Code § 8625).
3. A local agency wishes to meet remotely via teleconferencing as a result of the emergency. A meeting notice/agenda are produced and posted, with an agenda item dedicated to consideration of a resolution to transition to teleconferenced meetings consistent with the terms of Gov't. Code § 54953, subdivision (e).
4. A resolution is passed by majority vote consistent with the terms of Gov't. Code § 54953, subdivision (e), paragraph (1), subparagraph (B) i.e., determining that in-person meetings present imminent risks to the health or safety of attendees or when state or local officials impose or recommend social distancing measures. This resolution is valid for 30 days.
5. 30 days later: if the state of emergency remains active, a local agency may pass a resolution authorizing continued teleconferenced meetings upon finding that legislative body has both 1) reconsidered the circumstances of the state of emergency, and 2) the state of emergency continues to directly impact the ability of the members to meet safely in person or state/local officials continue to impose or recommend social distancing measures.

At its September 20 meeting the Commission considered the above requirements and made the determination to hold remote meetings by adopting Resolution No. 21-32. At subsequent meetings, the Commission has reiterated its determination via Resolution.

DISCUSSION

This item is for the purpose of reconsidering whether the current state of emergency warrants holding remote meetings for the next 30 days. To continue to qualify for AB 361's waiver of in-person meeting requirements, the Commission must, within thirty (30) days of its first meeting under AB361, and every thirty (30) days thereafter, make findings that a) state or local officials continue to recommend measures to promote social distancing, or that b) an in-person meeting would constitute an imminent risk to the safety of attendees.

Despite sustained efforts to reduce the threat of COVID-19, the underlying state of emergency proclaimed by the Governor on March 4, 2020 remains active, as well the local emergency proclaimed by the County of San Mateo on March 11, 2020. At

present, two primary variants of SARS-CoV-2 continue to circulate throughout the County (B.1.617.2, Delta and B.1.1.529, Omicron). Both variants are highly transmissible in indoor settings and require multi-component prevention strategies to reduce spread. Despite high vaccination rates, San Mateo County is experiencing substantial levels of community transmission due to the variants.

While the rate of vaccinated and persons receiving the vaccine booster is high in the County, COVID-19 cases continue to increase, and the Omicron variant spreads more easily than Delta, including to vaccinated persons. Moreover, Cal-OSHA regulation 3205 continues to recommend physical distancing in the workplace generally and regulates a “close contact” defined as being within 6 feet of another under certain circumstances. Finally, on December 15, the state of California instituted a 30-day mandate for all individuals to wear face coverings while indoors at public settings and regardless of vaccination status. This mandate has been extended to February 15<sup>th</sup>.

For the above reasons, holding in-person meetings poses an imminent risk to attendees and staff recommends that remote meetings are presently necessary to protect the health and safety of all attendees, including SVCW staff and Commissioners.

#### FINANCES

There is no financial impact to this agenda item.

#### RECOMMENDATION

Move adoption of RESOLUTION MAKING FINDINGS AND DETERMINATIONS AND AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE COMMISSION OF SILICON VALLEY CLEAN WATER UNDER GOVERNMENT CODE SECTION 54953 OF THE BROWN ACT DURING EXISTENCE OF STATE OF EMERGENCY CONDITIONS RELATED TO THE COVID-19 PANDEMIC

## **AGENDA ITEM 8B**

**EQUIPMENT INFORMATION MANAGEMENT SYSTEM PROJECT  
(CIP #9196)  
APPROVAL OF PROJECT TASK ORDER**

**ISSUE**

Approve Task Order for Nexinite LLC Design and Implementation Scope of Work and Budget for Equipment Information Management System Project (CIP #9196)

**BACKGROUND**

In SVCW's Capital Improvement Program (CIP), a technology solution is included that would record, store, and deliver digital equipment records across all Divisions. Named the Equipment Information Management System (EIMS), it will provide critical management solutions for over 10,000 pieces of equipment across the conveyance system and wastewater treatment processes. These records are extensive in number and content and include drawings, Original Equipment Manufacturer (OEM) manuals, repair manuals, Standard Operating Procedures (SOP), historical work orders of repairs and parts, Lock-Out Tag-Out (LOTO) events, Safety Data Sheets (SDS), training materials, and other critical items.

The condition of equipment records has evolved. Originally, records consisted mostly of paper-bound documents. Records now include indexed PDFs, technical drawings, photos, videos, and other multimedia formats. SVCW has historically managed this information in a decentralized manner over physical libraries, various network drives, SQL databases, thumb drives, and email folders. In 2019 SVCW took a preparatory step towards integrated records when it implemented Microsoft SharePoint as a central repository to house all records.

Asset records have grown tremendously over the past decade, both in complexity and volume. SVCW has rehabilitated and/or replaced most treatment plant process equipment and the Regional Environmental Sewer Conveyance Upgrade ("RESCU") is scheduled for completion in 2023. SVCW must ensure it is prepared to manage all records associated with its new assets in a way that ensures accuracy, completeness, and non-redundancy. Any SVCW user must be able to quickly retrieve records associated with specific equipment, using an equipment-naming protocol already developed that includes metadata records to facilitate searches.

As further context SVCW, like many organizations, has experienced significant staff turnover due to retirements. Over the past two years alone, ten SVCW employees with a collective 195 years of experience have retired. It is anticipated that another 9 employees with 240 cumulative years' experience will retire in the next five years. The consequent loss of information and experience is a concern that EIMS will help mitigate, by capturing, identifying, and delivering information in a modernized way.

**DISCUSSION**

SVCW conducted a competitive proposal process for this project by issuing a Request for Proposals (RFP). Five firms expressed interest and provided descriptions of potential

solutions; three firms were invited for full demonstrations. A selection panel, comprised of staff from all SVCW divisions, scored proposals and demonstrations based on a list of criteria developed to ensure the best delivery of key functions. Key and critical functions required of the EIMS solution include:

- a single, comprehensive, and integrated document management system
- intuitive user interface to encourage its use and increase productivity
- non-proprietary to ensure long-term viability and enable readily available technical support
- interface with SVCW's 3<sup>rd</sup> party SQL systems where work order transactional data currently exists
- enable reporting capabilities to allow SVCW to analyze the condition of records and act, for example, when files expire
- provide a means to eliminate "offline shadow systems" including spreadsheets, Word documents, handwritten notes, etc. that currently are used to track document status
- support use of mobile devices to gain accessibility via web browsers from PCs, tablets, and phones.

The selection committee unanimously chose an experienced Microsoft partner, Nexinite LLC, to implement the EIMS solution. Nexinite has extensive experience with SVCW, having designed and implemented the information management system being used for RESCU as well as designing SVCW's SharePoint intranet system. Nexinite team members have deep knowledge and experience in designing EIMS systems using common Microsoft tools. SVCW currently has a Master Consulting Agreement in place with Nexinite and work can be authorized via a task order.

Nexinite will leverage and build upon SVCW's existing SharePoint and Power Apps tools and will utilize PowerBI query solutions. This will provide users a familiar interface and ensure the solution fits within SVCW's existing technology ecosystems. Nexinite has designed an interface to provide a unified document management solution that will ease user training and maintain the accuracy, structure, and control required. The proposed solution also leverages standard security and access controls available within the Microsoft universe.

EIMS will avoid the reliance on institutional knowledge of employees drawn from personal maintenance experience. This is especially important as the industry – and SVCW – continues to lose knowledge when staff retire. Accurate documentation on critical equipment minimizes risk of failing to inspect and repair equipment, facilitates training on new equipment, and ensures a broad knowledge base amongst SVCW staff.

Over the past 5 years, staff has worked diligently to implement various comprehensive computer management solutions ranging from accounting and finance to human resources and laboratory data reporting. EIMS culminates SVCW's efforts towards modernizing the methods in which data is collected, organized, and ultimately used.

Upon approval, project work will begin immediately and is anticipated to take approximately one year to complete. Staff has negotiated a scope of work and budget with Nexinite and recommends authorizing a task order to Nexinite at a not-to-exceed fee of \$892 thousand. Work will be billed on a time and expense basis.

#### FINANCES

EIMS implementation will be funded by CIP project #9196 which, as of December 31, 2021, has \$1,068,879 in remaining funding.

#### RECOMMENDATION

Move approval of TASK ORDER FOR ELECTRONIC INFORMATION MANAGEMENT SYSTEM DEVELOPMENT (CIP #9196) IN AN AMOUNT NOT TO EXCEED \$892,000 AND AUTHORIZE MANAGER TO APPROVE UP TO A TEN PERCENT CONTINGENCY FOR ADDITIONAL WORK ON AN AS-NEEDED BASIS – NEXINITE LLC

## AGENDA ITEM 8C

**GRAVITY PIPELINE PROJECT (CIP #6008)  
APPROVE PROJECT CHANGE ORDER****ISSUE**

Approve Contract Change Order for San Carlos Shaft connection tunneling for the Gravity Pipeline Project (CIP #6008)

**BACKGROUND**

In 2017 SVCW approved design-build contracts for the design and construction of the projects within the Regional Environmental Sewer Conveyance Upgrade (RESCU) program. Design-build contracts consist of two stages of contract negotiations. Phase 1 of the contract is the design phase, in which the design-builder develops the design to the 60% level. Stage 2 consists of work to complete the design and construction phases of the project.

Barnard Bessac Joint Venture (BBJV) was selected for the Gravity Pipeline Project using best value criteria. These criteria included not only cost, but also safety and quality of work of the contractor in performing tunneling projects of similar size and level of complexity. Similarly, Shea Parsons Joint Venture (SPJV) was selected for the Front of Plant and Pump Stations Improvements Projects based on, in part, their experience in successfully completing projects similar in scope and scale.

As previously discussed at the December 2021 Commission meeting, when the Stage 2 contract for the Gravity Pipeline project was negotiated, the connecting piping design was not yet at the 60% design level. Significant progress couldn't be made on the design until the two tunnel connecting shafts were fully designed and fabricated. It was agreed that the connecting piping at the San Carlos Shaft and the Inner Bair Island Shaft locations was to be added to the Stage 2 scope of work via amendment once their designs were completed.

The interconnecting piping scope includes the following work:

***San Carlos Shaft site:***

- Tunnel from San Carlos Shaft into San Carlos Pump Station Structure and install two FRP pipe "stubs" through the pump station structure's wall
- Modify San Carlos Pump Station basement to allow for installation of piping
- Install HDPE pipe, valves, and flow metering equipment to connect San Carlos flow to one of the FRP "stubs"
- Provide SCADA programming to bring flow meter signals to be monitored and used in Front of Plant Project control strategy

***Inner Bair Island site:***

- Install HDPE pipe and valves to connect Redwood City and West Bay Sanitary District flows to the tunnel

The connection of Belmont flows will be performed later, as part of the Pump Stations Improvements Project in Spring 2023.

## DISCUSSION

Throughout all phases of the project, SVCW and its Owner Advisor (OA) team work collaboratively with the design-builder teams for ways to cost-effectively perform the work while minimizing risks to the program. This collaborative approach to the work has been instrumental in the projects' successes thus far in delivering a reliable, robust conveyance system with minimal schedule delays and contract change orders.

BBJV completed the design for the connecting piping, solicited quotes for the equipment and materials needed to perform the work, and discussed the scope with the OA team, including preliminary cost information. This preliminary cost information was shared with the Commission in December, with the cost for the work estimated to be approximately \$3 million. As BBJV continued to develop the costs for this work, it became clear that the costs would exceed \$3 million.

The OA team developed options for decreasing the cost of these critical items of work, including value-engineering. After significant discussion with the OA team and the design-builders, staff determined that costs can be reduced, and risks avoided, by dividing the work between SPJV and BBJV. Mechanical equipment and piping installation is not part of BBJV's core expertise as a tunneling contractor, and BBJV planned for the majority of the work to be performed by subcontractors who do have experience in installation of piping and mechanical and instrumentation equipment.

Installation of piping and appurtenances is a strength of SPJV's. Also, software integration of the flowmeter signal from the San Carlos pump station is important for the successful start-up of the Front of Plant project. For these reasons, the SVCW OA team approached both BBJV and SPJV with the idea of transferring the pipe, valve, and flowmeter installation to the SPJV construction contract for the Front of Plant. This alternative would reduce the costs to the program in three ways: (1) SPJV will "self-perform" much of the work rather than rely on subcontractors; this reduces overhead costs to SVCW, (2) SPJV has a lower overhead and profit markup percentage, meaning that markups on SPJV's direct costs are lower than BBJV's, and (3) BBJV will be able to complete the Gravity Pipeline project on time (July 2022), no schedule adjustment needed and, therefore, no additional overhead costs. Both design-builders recognized that this choice is in the best interests of the program, are supportive of this direction, and are revising their work scopes and schedules accordingly.

It was agreed that BBJV would perform a smaller scope of work than originally anticipated. A short tunnel needs to be constructed between the San Carlos Shaft and the San Carlos Pump Station structure, with some modifications to the pump station interior needed to penetrate its wall and bring in two FRP stubs. This work is appropriate to keep within BBJV's responsibility since it directly affects their installed work at the drop structure and involves tunneling between it and the pump station.

BBJV has provided a cost estimate for tunneling and San Carlos Pump Station modifications portions of the connecting piping work. The estimate has been reviewed by SVCW's OA team. The negotiated price for the tunneling and pump station modification work is \$1,990,000.

SPJV is developing a detailed cost estimate for the remaining scope of work. A recommendation for authorization of the SPJV Contract Change Order will be presented at a future commission meeting, anticipated in March or April 2022.

In December, the Commission approved a contract change order for BBJV to purchase piping, valves, and flowmeters for the interconnection work. Since this scope of work is anticipated to be completed by SPJV, the previously approved BBJV contract change order will not be executed.

#### FINANCES

This change order will result in an additional cost of \$1,990,000 to the Gravity Pipeline Project. The associated change order to the SPJV/Front of Plant project has not yet been estimated but its range could be \$3-5 million. It is expected that there is sufficient contingency in the RESCU program budget to cover the additional costs.

#### RECOMMENDATION

Move approval of CONTRACT CHANGE ORDER FOR THE GRAVITY PIPELINE PROJECT IN AN AMOUNT NOT TO EXCEED \$1,990,000

## AGENDA ITEM 8D

**POTABLE REUSE EXPLORATORY PLAN STATUS UPDATE**ISSUE

Receive Update on SVCW Recycled Water Activities

BACKGROUND

SVCW has been collaborating with water and wastewater agencies for the last five years on a multi-phased concept-level analysis to explore opportunities for potable reuse on the San Francisco Mid-Peninsula. SVCW had the vision to initiate this effort in 2016 as part of **SVCW's Long Term Strategic Recycled Water Planning Efforts**. At that time, SVCW was anticipating new effluent regulations from the San Francisco Regional Water Quality Control Board to reduce the concentration of nutrients in SVCW's effluent. To address these new regulations, SVCW recognized the potential to reduce effluent discharges and nutrient concentrations by developing recycled water as a potable water supply. Indirect Potable Reuse (IPR) was seen as an opportunity to help lower wastewater treatment costs, reduce discharges of nutrients to the Bay, and create a new water supply source for the region. To explore this new opportunity for recycled water, SVCW began discussions with local Water Agencies to understand the mutual benefits that could be gained from a regional potable reuse program.

The **Potable Reuse Exploratory Plan (PREP)** is a regional effort to resolve multiple water supply and wastewater issues, while realizing the benefits of shared infrastructure, asset recovery, economies of scale and a more competitive strategy to pursue funding. **PREP Parties** include the Bay Area Water Supply and Conservation Agency (BAWSCA), Cal Water, San Francisco Public Utilities Commission (SFPUC), Silicon Valley Clean Water, City of Redwood City, and other wastewater providers and water users in the area.

Kennedy Jenks leads the technical work and facilitates meetings between the PREP Parties. Through the PREP studies, the Parties have utilized an integrated approach to identifying projects that enhance local water supply resiliency and reduce discharge to the San Francisco Bay, with the goal of developing a regional project with multiple economic, environmental, and social benefits. Three phases have been performed thus far, including:

- **Phase 1 Initial Study:** documented the first step by the PREP Parties to consider potable reuse through reservoir water augmentation and groundwater replenishment. The study identified sites for an advanced water treatment plant, pipeline alignments to convey the purified water to its place of use, opportunities to repurpose existing assets, and regulatory requirements for potable reuse.
- **Phase 2 Concept and Institutional Studies:** further defined the preferred reservoir augmentation site identified in Phase 1, confirmed the ability to meet regulatory requirements, revisited alignment and facility siting options and explored institutional benefits, limitations, and possible frameworks for implementation.

- **Phase 3 Feasibility Study:** initiated in 2020 to further simulate the impact of reservoir augmentation on the regional water system and explore direct potable reuse opportunities through raw water augmentation and treated drinking water augmentation. This work is still in progress.

In **Phase 3**, a short-list of projects was identified to progress into further development, which is good timing for the SFPUC Regional Water System's overall water supply planning efforts. SFPUC projects a shortfall of dry year supply and a PREP project is one of multiple projects that can address the inadequate water supplies. SFPUC has made a commitment to the SFPUC Commission that, by July 2023, projects ready for analysis under the California Environmental Quality Act (CEQA) will be presented after which the SFPUC Commission can decide on what projects to implement.

PREP Parties are also interested in preparing the Phase 3 Feasibility Study in the form of a US Bureau of Reclamation (USBR) Title XVI Feasibility Study / SWRCB Recycled Water Facilities Planning Study (RWFPS) to be able to get in line for funding through USBR and the California State Revolving Fund (SRF).

### DISCUSSION

The next step for PREP is to develop a Basis of Design Report (BODR) for a project to be "CEQA Ready". "CEQA Ready" to SFPUC means preparation of a 10% design that allows a project to move forward with CEQA and to be compared with other projects.

At the most recent meeting with the PREP Parties on Jan 25<sup>th</sup> 2022, the Parties aligned on developing the BODR for a phased potable reuse project, described as follows:

- Phase 1 – Indirect Potable Reuse (IPR) via Reservoir Water Augmentation (RWA) at Crystal Springs Reservoir (CSR)
- Phase 2 – Direct Potable Reuse (DPR) via Treated Drinking Water Augmentation (TDWA) for local use by the City of Redwood City, Cal Water and/or potentially the Mid-Peninsula Water District.
- Construction of a new Advanced Water Purification Facility (AWPF) that meets regulatory requirements for IPR and DPR.
- Conveyance infrastructure to deliver tertiary effluent to the new AWPF, purified water to the place of use, and brine discharge line.
- Upgrades at SFPUC's Pulgas Plant to treat and discharge purified water into CSR.
- Source water from both SVCW and the San Mateo Wastewater Treatment Plant

CalWater delivers water to the City of San Carlos and unincorporated areas within SVCW's service area. The City of Belmont is served by Mid-Peninsula Water District who, thus far, is not a PREP participant but has recently indicated interest in joining as a PREP Party for future phases of work. The WBSD service area is provided water from a variety of water districts, including CalWater and BAWSCA.

Dawn Taffler, the Kennedy Jenks PREP project lead will present to the Commission a summary of the Phase 3 Feasibility Study and next steps for PREP and SVCW.

- PREP Phase 1-3 Overview
- Types of Potable Reuse
- Source Waters
- PREP Phase 3 | Project Facilities
- PREP Phase 3 | Alternative Development and Flows
- Comparison of Costs to Projected SFPUC Wholesale Rates
- PREP Next Steps
- SVCW Next Steps

### FINANCES

PREP Parties are working under a Memorandum of Agreement (MOA) which defines cost-sharing for the Phase 1 to 3 studies. A summary of expenditures to date is provided in the table below.

<b>PREP PARTIES</b>	<b>Phase 1 INITIAL STUDY</b>		<b>Phase 2 CONCEPT and INSTITUTIONAL STUDIES</b>		<b>Phase 3 FEASIBILITY STUDY</b>		<b>Phase 1 – 3 Contributions to Date</b>	
SVCW:	\$25,000	39%	\$35,750	25%	\$35,750	13%	\$96,500	20%
San Mateo:		0%	\$35,750	25%	\$35,750	13%	\$71,500	15%
BAWSCA:		0%	\$10,000	7%	\$10,000	4%	\$20,000	4%
Cal Water:	\$8,000	13%	\$10,000	7%	\$20,000	7%	\$38,000	8%
Redwood City:		0%	\$10,000	7%	\$20,000	7%	\$30,000	6%
SFPUC:	\$31,000	48%	\$41,500	29%	\$160,661	57%	\$233,161	48%
<b>Total</b>	<b>\$64,000</b>	<b>100%</b>	<b>\$143,000</b>	<b>100%</b>	<b>\$282,161</b>	<b>100%</b>	<b>\$489,161</b>	<b>100%</b>

The scope of work and cost for the BODR (CEQA Ready, 10% Design) are being defined; it is anticipated that the study will cost approximately \$1 million. A new MOA or amendment to the existing MOA with defined cost-sharing percentages is being developed by the PREP Parties and will be presented to each of the Parties respective governing bodies. The SVCW Commission will receive regular updates and be given opportunity to express important points of interest in the coming months.

### RECOMMENDATION

Receive summary presentation. No other action requested.

## AGENDA ITEM 8E

**ORGANICS CO-DIGESTION PROJECT (CIP #9229)  
PROJECT STATUS UPDATE****ISSUE**

Status Update on the Organics Co-Digestion Project (CIP# 9229)

**BACKGROUND**

Solids removed from incoming wastewater are sent to anaerobic digesters resulting in two main byproducts: 1) heat and 2) biogas. Heat is used in onsite boilers to heat the buildings throughout the treatment plant and to heat the digesters. Biogas is used in cogeneration engines to produce electricity. Under the Capital Improvement Program, two new 633 kW cogeneration engines were installed to replace the two very old 500 kW engines. SVCW's cogeneration engines currently generate 61% of the treatment plant power demand and have significantly lowered the amount of power purchased from PG&E, improving overall energy costs. SVCW's in-house cost of power production is approximately 7 cents per kilowatt-hour as compared to more than 22 cents per kilowatt-hour when purchased from PG&E. Hence, staff continues to explore further options to increase biogas production.

SVCW undertook two major initiatives to increase biogas production: 1) improve Grease Receiving Station (GRS) performance to better handle an increased volume of Fats, Oils and Greases (FOG), and 2) investigate feasibility of an organics co-digestion (food waste) program.

**Grease Receiving Station Improvements**

FOG contains organic material readily digestible by the anaerobic bacteria in digesters. Biogas is a byproduct of bacterial breakdown of organic matter in the solids fed them and the digestibility of FOG makes this a readily available fuel source for this bacterial action. For relatively small amounts of FOG fed to the digesters, the subsequent increase in biogas is significant.

Work to retrofit the GRS included numerous improvements to increase reliability and to automate the facility. Major work on the GRS was completed in 2011 with additional minor improvements installed in 2017. SVCW has since experienced significant improvements in the operation of the GRS, an increase in volume of FOG being received from grease haulers, and a consequent increase in biogas production from the digesters.

**Organic Co-Digestion**

Plans to embark on an organics co-digestion project began in 2014 when SVCW and South Bayside Waste Management Authority (SBWMA) executed a Memorandum of Understanding (MOU) to collaborate on a feasibility investigation of a food waste project that could mutually benefit both agencies. In 2016, the State of California mandated reduction in short-lived climate pollutants contributing to greenhouse gas emissions by diverting organics from landfills; SBWMA is required to comply with this CalRecycle-administered regulation. Implementation of this project would help SBWMA divert organics in their solid waste stream away from landfill disposal. While SVCW is not subject to this regulation, participation could benefit with increased biogas production.

In 2018, SVCW constructed a pilot-scale food-waste receiving facility that could receive up to 20 tons of organics extracted from residential waste in San Francisco. The pilot study was conducted in partnership with the California Energy Commission (CEC) and Recology-San Francisco to study the operability, impacts, and viability of organics co-digestion at SVCW. Grant funding from the CEC was used to construct the facility and perform associated studies. The pilot study proved that addition of food waste boosted biogas production, in turn increasing in-house energy generation.

With a successful pilot demonstration from the San Francisco Recology waste stream, SVCW began working with SBWMA towards analyzing a full-scale organics co-digestion project. "Full-scale" was defined as 200 tons per day of organic matter that could be received, based on a high-level estimate of available digestion capacity performed in 2014.

SBWMA indicated it would complete its first pilot-scale organics separation and processing facility with an operational start up in late 2020. To meet this expected startup date, in 2019 SVCW began preliminary design efforts towards a full-scale project to enable SVCW to receive an SBWMA delivery of 200 tons per day of organic waste material.

Based on the complexity of a full-scale project, SVCW staff recommended progressive design-build delivery approach and the engineering firm, CDM-Smith, to serve as the Owner's Advisor (OA). Staff brought forward for Commission approval a Task Order for CDM-Smith to serve as Owner's Advisor (September 2019 Commission Meeting).

### **Co-Digestion Impact Study**

Under the CDM-Smith Task Order, a first task was to complete an Impact Study. Through this Study, potential impacts of organics co-digestion on wastewater treatment processes (solids dewatering, nutrient loading, side-stream treatment, digestion, etc.) were investigated and the capital facilities needed to implement a full-scale facility were identified. A project cost estimate and financial payback evaluations were also conducted as part of the Impact Study, which was completed in April 2021.

As this project is not driven by a regulatory requirement for SVCW it is important that SVCW recovers associated costs including any additional labor, chemicals, energy, disposal of biosolids, and capital improvements. A financial payback analysis was completed to determine break-even tipping fee estimates necessary to recoup the capital cost expenditures within a reasonable industry-accepted timeframe for public projects (7-8 years). Using this approach, SVCW would finance the project and recoup its expenditures through additional biogas production (and hence electricity generated) in conjunction with a per-ton tipping fee charged to SBWMA.

Capital cost estimates were limited to infrastructure improvements needed to implement the full-scale project and, if beneficial to both SVCW and SBWMA, adjusted to recognize when SVCW would have pursued such capital upgrades on its own. Certain costs were shared based on proportional waste stream loading, an industry-standard practice. Operational costs associated with processing the food waste stream at SVCW facilities were determined

net of energy savings from the generation of additional biogas. Combined, these capital and operational cost estimates were modeled to derive tipping fees needed.

The financial model included multiple scenarios to achieve an 8-year breakeven point, with tipping fees estimated between \$96 to \$137 per wet ton. SBWMA has referenced a tipping fee expectation of \$35 per wet ton which was based upon a high-level estimate established from 2014 (if strictly limited to inflationary increases since 2014, this would be \$42 per wet ton).

The most material change from the original high-level analysis is the determination that capital improvement costs are substantial. It is likely that facility changes would cost approximately \$61.2 million, inclusive of alternative ideas to reduce project expenditures. Even with significant cost-savings ideas implemented, a \$35 to \$42 per wet ton tipping fee is not achievable. Currently, there is no clear path forward to implement a full-scale facility.

### DISCUSSION

SVCW's receiving facility built for the pilot project with Recology San Francisco can handle 20 tons per day. Additionally, the air permit for the facility allows for the 20 tons/day amount.

To assist SBWMA and to develop accurate operational costs, SVCW accepted organic waste material from SBWMA on a pilot-testing basis between April and November of 2021. During this time, both SBWMA and SVCW were able to fine-tune their respective facilities' operations and gather useful information.

From its pilot testing period, staff estimates a tipping fee of \$50 per wet ton is necessary to recoup solely the operating costs associated with receiving 20 tons/day of organic waste. As SBWMA considers this rate, no waste is currently being received. In the meantime, SVCW will undertake efforts to modify the air permit for the pilot facility, which would allow flexibility for SBWMA food waste trucking operations and potentially reduce SBWMA costs. Also, there is possible grant funding available for organic co-digestion projects which SVCW staff is investigating.

The intent of this agenda item is to bring the Commission background information and provide a status update of this project. No action is being requested at this time.

### FINANCIAL IMPACT

There is no financial impact associated with the suspension of receiving food waste.

### RECOMMENDATION

Receive summary presentation. No other action requested.