COMMISSION OF SILICON VALLEY CLEAN WATER
JOINT POWERS AUTHORITY
SPECIAL MEETING – Monday, January 10, 2022
8:00 a.m.

THIS MEETING WILL BE HELD REMOTELY UNDER PARAGRAPH (1) OF SUBDIVSION (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
   - C. Financial Report
     1. Investment Report……..…..pg. 11
   - D. Engineering Capital Projects Report……..….pg. 15
   - E. Commission Requested Staff-Level Action Items…… pg. 19
   - F. RESCU Program Design-Build Project Status Update…… pg. 22

6. MATTERS OF COMMISSION MEMBER'S INTEREST

7. CONSIDERATION OF MOTION APPROVING CONSENT CALENDAR (begins pg. 30)

8. BUSINESS ITEMS

   A. CONSIDERATION OF RESOLUTION APPROVING REMOTE COMMISSION MEETINGS UNDER GOVERNMENT CODE SECTION 54953 OF THE BROWN ACT DURING EMERGENCY CONDITIONS (pg. 40)

      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 RESOLUTION ADOPTING THE 2022 CIP UPDATE AND CORRESPONDING CEQA CONCLUSIONS (pg. 43)

      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

   C. CONSIDERATION OF MOTION APPROVING SILICON VALLEY CLEAN WATER LONG-RANGE FINANCIAL PLAN 2022 UPDATE (pg. 102)

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

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 – December 13, 2021- Special Meeting (pg. 30)

   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 (pg. 35)

   C. CONSIDERATION OF RESOLUTIONS APPROVING CHANGE TO THE REGULAR DAY OF THE MONTHLY SVCW COMMISSION MEETING AND SETTING 2022 REGULAR COMMISSION MEETING SCHEDULE (pg. 37)

      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

Microsoft Teams Access Information
Silicon Valley Clean Water
Special Meeting
Monday, January 10, 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 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

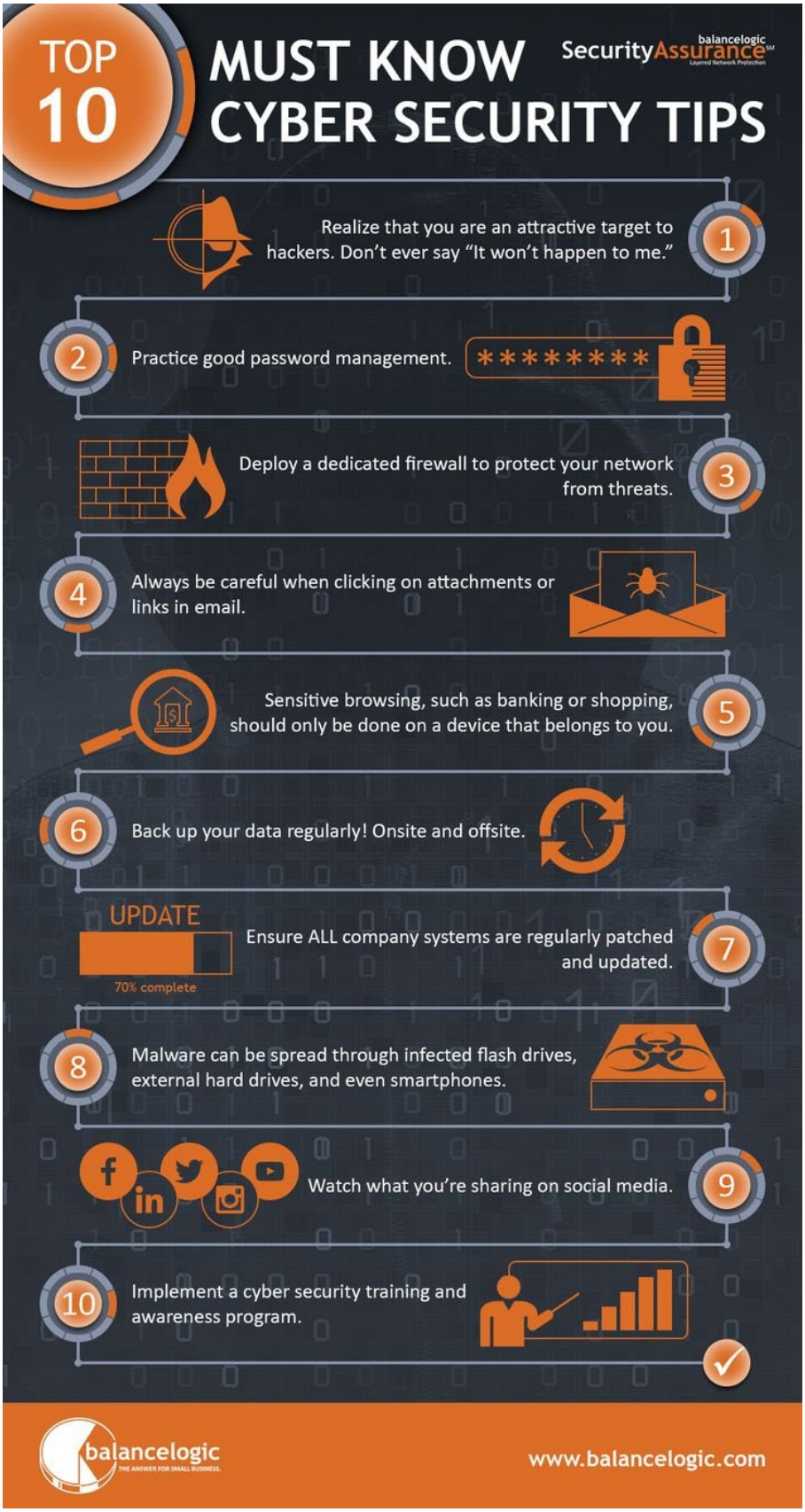
Upon request, SVCW will provide for access to individuals with disabilities to fully engage in the meeting process. Joining the meeting via the teleconference instructions above will provide access to open captioning. For other accommodations, please email your request to commission@svcw.org or call 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.

AGENDA ITEM 5A

Cyber Security Tips



AGENDA ITEM 5B

Recurring and Upcoming 2022 Commission Actions
Updated for January 2022 Meeting

January	**February**	**March**	**April**
• Review Investment Policy • CIP Update (annual or biennial) • Long Range Financial Plan	• Recycled Water Planning	• Budget Workshop	• Operating Budget Approval
May	**June**	**July**	**August**
• Initiate Manager Performance Evaluation • Review Reserve Funds Policy	• Approve Resolution 77-6 "Personnel Resolution" • Perform Manager Evaluation	• Nominate Commission Chair & Vice Chair; Appoint Secretary	• Conflict of Interest Update (Biennial; even-numbered years) • Investment Program Status Annual Update
September	**October**	**November**	**December**
• Review Debt Policy		• Audited Financial Report	• Commission Meeting schedule for following year • Specifications Update (annual or biennial)

- Recurring Commission Actions
- Upcoming Commission Actions

AGENDA ITEM 5C

Silicon Valley Clean Water Authority
Cash & Investments Summary Report
November 30, 2021

Description	Market Value	% of Total Holdings	Yield
Reserve Accounts			
Operating Reserve* - Securities	$ 3,768,443	1.78%	0.92%
Operating Reserve - Money Market Fund Balance	71,592	0.03%	0.02%
CIP Reserve* - Securities	18,892,750	8.94%	1.70%
CIP Reserve - Money Market Fund Balance	186,721	0.09%	0.02%
Stage 2 Capacity Reserve* - Securities	14,824,310	7.01%	1.66%
Stage 2 Capacity Reserve - Money Market Fund Balance	82,547	0.04%	0.02%
Total Market Value: Operating and Reserve Accounts	**$ 37,826,364**	**17.9%**	**1.59%**
Total Accrued Interest: Operating and Reserve Accounts	137,261		
GRAND TOTAL, RESERVE ACCOUNTS	**$ 37,963,625**		
Trustee Accounts:			
2018 Bond Project Fund Account - CAMP	$ 8,499,053	4.02%	0.05%
2018 Bond Revenue Account	5,044	0.00%	0.01%
2019A Notes WIFIA - Money Market Fund	1,580,224	0.75%	0.01%
2019A Notes Capitalized Interest Account* - Securities	15,639,717	7.40%	2.15%
2019A Notes Capitalized Interest Account - Money Market Fund	9,414	0.00%	0.01%
2021 Refunding Bonds Revenue Account	61,217	0.03%	0.01%
2021 Refunding Bonds Interest Account	0	0.00%	0.01%
2021A Notes (RESCU) - Money Market Fund	68,219,372	32.28%	0.01%
2021B Notes (WWTP) - Money Market Fund	31,927,939	15.11%	0.01%
2021B Notes (WWTP)* - Securities	39,863,227	18.86%	1.20%
2021 Notes Capitalized Interest Account - Money Market Fund	2,051,435	0.97%	0.01%
2021 Notes Cost of Issuance Account	61,091	0.03%	0.01%
Total Market Value, Trustee Accounts	**$ 167,917,733**	**79.45%**	**0.49%**
Accrued Interest:	203,260		
Operating Cash (includes outstanding checks)	5,390,889	2.55%	0.00%
Local Agency Investment Funds (LAIF) Balance	210,428	0.10%	0.20%
Total Cash & Investments	**$ 211,685,935**	**100.00%**	**0.68%**

12/13/2021

Matthew P Anderson
Chief Financial Officer / Assistant Manager

Date

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

Silicon Valley Clean Water
Operating and Reserve Funds - Sector Allocation & Compliance November 30, 2021

Security Type	Operating Reserve	CIP Reserve	Capacity Reserve	Total Market Value	% of Total Portfollio	% Allowed by Policy	In Compliance	% Change vs. Prior Month
U.S. Treasury	$ 1,465,232	$ 8,078,512	$ 6,457,930	$ 16,001,673	42%	100%	✓	0.0%
Supranationals	353,936	-	-	353,936	1%	15%	✓	0.0%
Federal Agency/GSE	932,358	2,132,661	1,569,547	4,634,565	12%	100%	✓	(2.0%)
Federal Agency/CMBS	-	542,721	372,683	915,404	2%	100%	✓	0.0%
Federal Agency CMO	-	1,179,411	880,676	2,060,087	5%	100%	✓	(1.0%)
Federal Agency MBS	-	2,051,855	1,672,516	3,724,371	10%	100%	✓	2.0%
Municipal	-	911,946	738,543	1,650,489	4%	30%	✓	0.0%
Corporate Notes	643,121	3,438,395	2,709,496	6,791,011	18%	30%	✓	0.0%
Asset-Backed Securities	373,796	557,250	422,920	1,353,966	4%	10%	✓	1.0%
Securities Sub-Total	**3,768,443**	**18,892,750**	**14,824,310**	**37,485,503**	**99%**			
Accrued Interest	8,564	70,643	58,053	137,261				
Securities Total	**3,777,007**	**18,963,393**	**14,882,364**	**37,622,764**				
Money Market Fund	71,592	186,721	82,547	340,861	1%	20%	✓	0.0%
Total Investments	**$ 3,848,599**	**$ 19,150,114**	**$ 14,964,911**	**$ 37,963,625**	**100%**			
As % of 6/30/22 Target:	*100.0%*	*92.9%*	*100.0%*	*96.3%*				

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 and 2019A bond 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 bond 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

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: DECEMBER 2021
CAPITAL IMPROVEMENT PROGRAM

UPCOMING COMMISSION ACTIONS:

Capital Improvement Program Update: Regular update of Capital Improvement Program (CIP) Document

The CIP is the roadmap for upcoming capital construction projects at the treatment plant and for the conveyance system. It is used as a planning document for programming construction projects as well as providing cashflow information needed for the Long-Range Finance Plan. SVCW staff has been developing an update to the CIP, which will be presented to the Commission for approval.

Planned Commission Actions: Approve CIP Update – January 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 January.

Planned Commission Actions: Accept Construction Project – February 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 – February 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 – February 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 is expected to start in January 2022.

Planned Commission Actions: Award Construction Contract – February 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 is expected to start in January 2022.

Planned Commission Actions: Award Construction Contract – March 2022

ONGOING PROJECTS IN CONSTRUCTION:

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: None currently anticipated

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 desk 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 24th 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 **JANUARY 10, 2022**

Commissioners' Requested Action Items **AGENDA ITEM 5E**

Updated: 1/03/2022

Commission Meeting Date		Action Item	Requested or Estimated Date for Completion	Status			Date of Completion	Notes
				Ongoing	In Progress	Complete		
12/13/2021	1	Investment Report Summary	N/A		✓			Show information on p. 43 of report for all 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.
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	The MTBM became stuck while tunneling the Belmont Gravity Pipeline. Provide status updates as details become known.
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 occuring
	2	Gravity Pipeline project - San Carlos Shaft	N/A		✓			if a source for ammonia becomes known, report out to Commission. As of January 2022, source 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

Silicon Valley Clean Water **JANUARY 10, 2022**

Commissioners' Requested Action Items **AGENDA ITEM 5E**

Updated: 1/03/2022

Commission Meeting Date		Action Item	Requested or Estimated Date for Completion	Status			Date of Completion	Notes
				Ongoing	In Progress	Complete		
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		✓			Inform Commission if the natural gas excursion on Cogen Engines result in a fine from BAAQMD. None as of this update.
> 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.

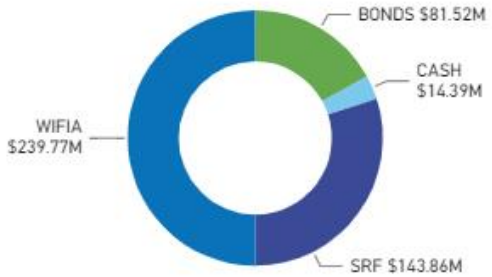
AGENDA ITEM 5F

Overview

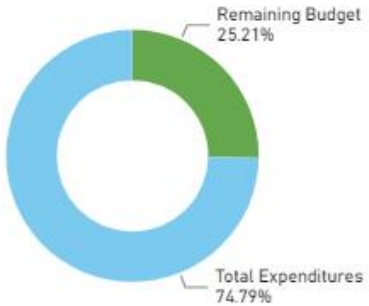
RESCU Program describes eleven projects which constitute full replacement and rehabilitation of SVCW's conveyance system. RESCU includes the Gravity Pipeline, Front of Plant, Pump Stations, and Belmont Force Main projects. The Front of Plant includes six and Pump Stations includes four of the eleven 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.

Available Budget	Total Expenditure	Remaining Budget
$554.36M	$414.69M	$139.67M

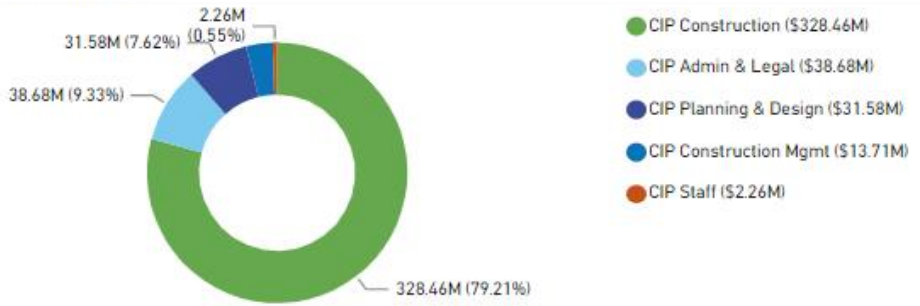
Source of Funds (per LRFP 2021)



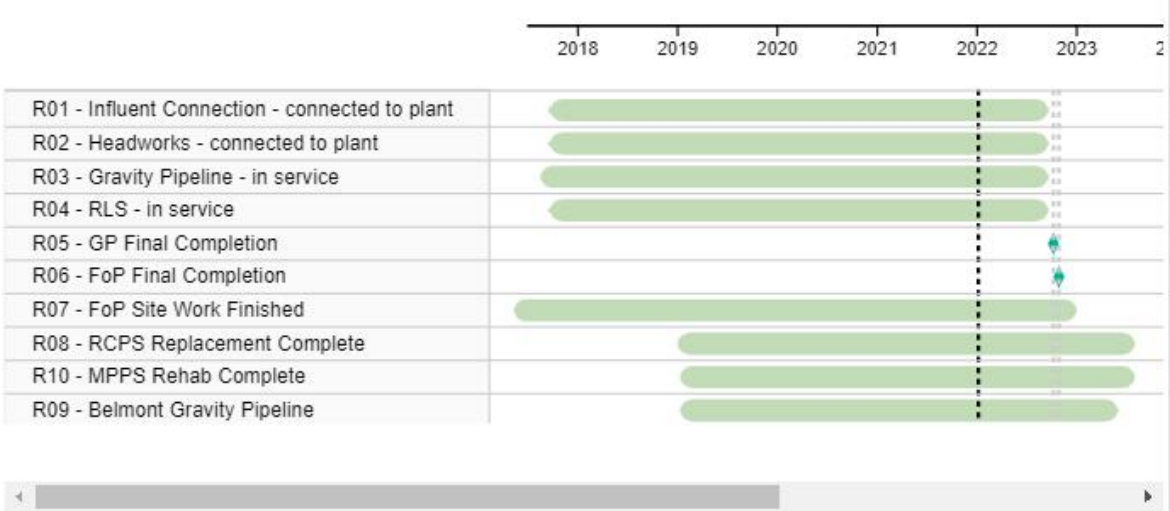
Budget vs Expenditures



Expenditures by Object



Project Schedule



As of : 2021 - 12

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)

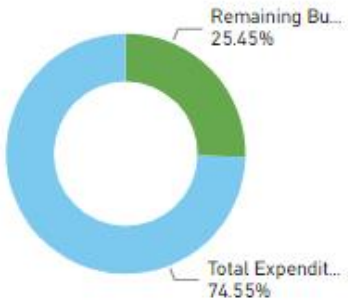
The Front of Plant (FoP) Project consists of the design, construction, permitting, start-up, commissioning, and final acceptance for the Receiving Lift Station (RLS), Surge and Flow Splitter (SFS), Headworks Facility, Odor Control System, Influent Connector Pipe, Emergency Overflow pipe to an existing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

Available Budget	Total Expenditure	Remaining Budget
$161.95M	$120.74M	$41.21M

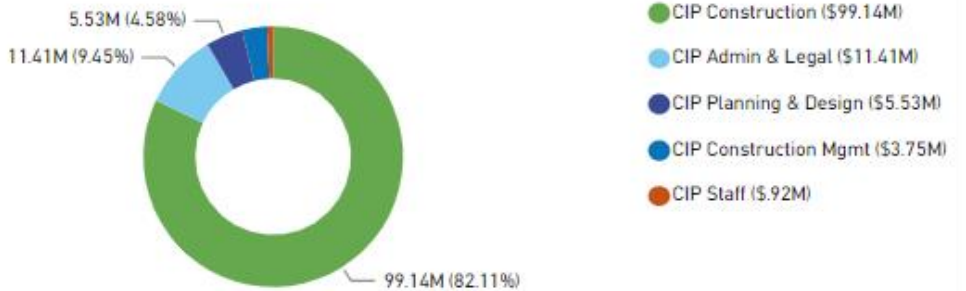
Milestone Schedule

	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)

As of : 2021 - 12

Front of Plant Progressive DB Project (CIP 9502)

Major Accomplishments this Period

Construction	- SPJV continues the installation of electrical control devices around the Headworks Facility. - SPJV continues punchlist items on the 125' Deck level, the Odor Control area and the Truck Bay mechanical work. - SPJV placed and secured four RLS precast roof sections and began forming two additional precast roof sections. - SPJV set the steel forms for the SFS Second Pass Wall (SPW) Ring Section No. 1 of 4 and placed concrete 12/16. Rebar and steel forms will be installed for SPW Ring Section No. 2 by end of month. - SPJV completed the installation of Phase 1 utilidor along the west access road, and will be installing Phase 3 throughout the rest of December. Phase 2 was resequenced to occur in January 2022. High pressure air, 1W and 3W piping will be installed in the utilidor in the future. - SPJV continues the installation of aluminum floor grating and stairs and handrailing around the stairs for the RLS Maintenance Platform. - SPJV installed the RLS permanent exhaust fan on the south side of the RLS.
Design	- O&M and B&C have returned their final comments on the Control Strategies to SPJV and CID and a final for record copy is in development. - SPJV is working on refining the third draft of the start-up and testing plan.
Procurement of Trade Packages	- WIFIA and SRF requirements compliance for trade packages issued. - All major headworks equipment is onsite except RLS pumps. Factory testing of the RLS pumps and the gas detection system are scheduled to take place in January 2022.

3 - Month Look Ahead

	Start	End	January	February	March
Install conduit, wire and electrical devices to major equipment at the Headworks Facility	July 1, 2021	January 30, 2022	X		
Excavation and Installation of Utilidor	November 15, 2021	January 12, 2022	X		
Install RLS Wall Mounted Jib Crane	December 29, 2021	January 18, 2022	X		
Install southern storm drain system	January 13, 2022	March 1, 2022	X	X	
Install RLS Pumps	February 28, 2022	March 3, 2022		X	X
Install SFS Second Pass Walls	November 19, 2021	April 8, 2022	X	X	X
Form/Set Rebar/Place Concrete for Precast RLS Roof Sections (8 Cast, Place in March)	June 1, 2021	April 20, 2022	X	X	X

Potential Issues

- 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)

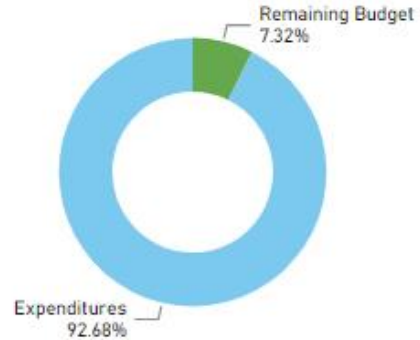
The Gravity Pipeline (GP) Project consists of the design, construction, permitting, start-up, commissioning, and closeout of approximately 17,600 feet of wastewater gravity FRP pipe inside a concrete-segment tunnel. The work includes three shafts and will interface directly with the Front of Plant (FoP)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

Available Budget	Total Expenditure	Remaining Budget
$259.23M	$240.26M	$18.97M

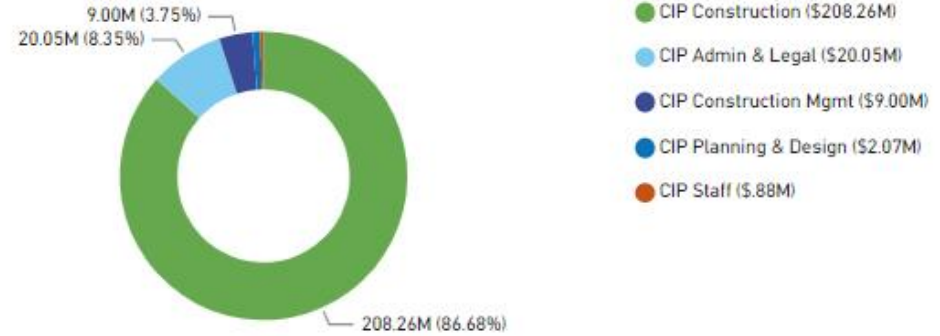
Milestone Schedule

	Start	Finish
San Carlos Inlet Structure Installation	5/6/2022	6/7/2022
Bair Island Inlet Structure Installation	1/4/2022	5/12/2022
FRP Pipe Installation and Annular Grout	9/27/2021	4/21/2022
Substantial Completion		7/1/2022

Budget vs Expenditures



Expenditures by Object



Cost Performance Index (CPI)

Schedule Performance Index (SPI)

As of : 2021 - 12

Gravity Pipeline Progressive DB Project (CIP 6008)

Major Accomplishments this Period

Construction	- BBJV continues grouting in the first half of pipe installation in the now-completed second tunnel drive. BBJV completed pipe installation in the first tunnel drive.
Design	- BBJV is incorporating SVCW comments into the Issued-for-Construction (IFC) design drawings for San Carlos and Bair Island connection piping.
Muck Disposal	- 76% of Muck Disposal Amendment spent - 24% of Muck Disposal Amendment remaining - Last Muck bin offhaul and San Carlos Adit spoils remaining
Procurement of Trade Packages	- San Carlos/Bair Island piping subcontractor outreach in progress - Outreach in conformance with SRF and WIFIA funding requirements

3 - Month Look Ahead

	Start	End	January	February	March
FRP Pipe Installation	September 27, 2021	March 3, 2022	X	X	X
FRP Annular Space Grouting	November 18, 2021	April 21, 2022	X	X	X

Potential Issues

Additional costs for SFS Break-in approach
San Carlos and Bair Island Connecting Piping

Project Changes

Additional Survey at Governors Bay
Bair Island Force Main Exposure and Additional Monitoring
Bair Island Weir Optimization
Connecting Piping Material Procurement
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
Soil Conditioner Leak at CPT Hole STA 171 + 80

Safety Spot Light

Lost Time	1
Near Misses	4
Recorded Losses	5

As of : 2021 - 11

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.

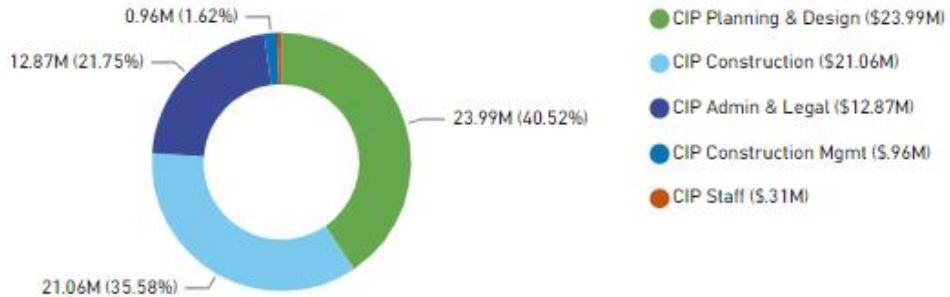
Available Budget	Total Expenditure	Remaining Budget
$119.68M	$59.19M	$60.49M

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	2/25/2022	6/3/2022
RCPS - Electrical Building Completed	2/8/2021	10/4/2022
RCPS - PG&E Service Work	7/19/2022	8/1/2022
RCPS - Wet Well & Screening Building Completed	3/15/2023	3/29/2023
Substantial Completion - BGP		6/5/2023
Substantial Completion - MPPS		8/7/2023
Substantial Completion - RCPS		8/7/2023

Budget vs Expenditures

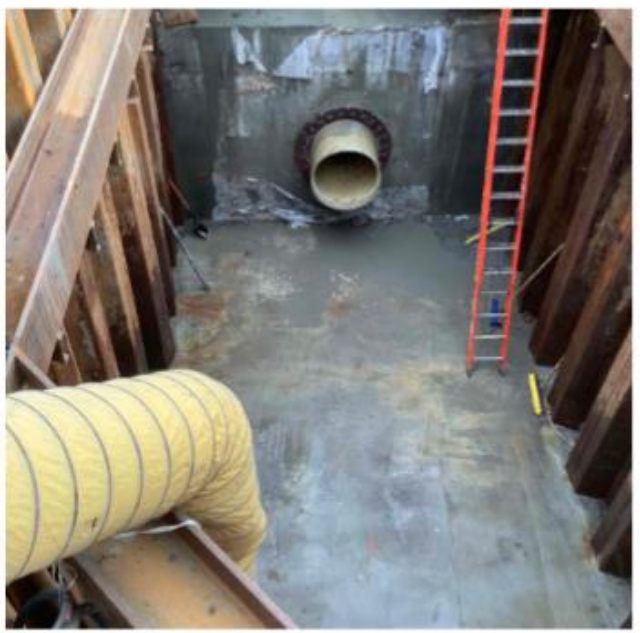
Expenditures by Object



Cost Performance Index (CPI)

Schedule Performance Index (SPI)

As of : 2021 - 12



Pump Stations (CIP 9501)

Major Accomplishments this Period

Construction	- BGP: Vadnais completed microtunneling from JS-2 to RS-2 and completed demobilizing from BGP. Open cut construction was completed and the open cut excavation was restored. - RCPS: Roofing installed on electrical building. Wet well 1st lift wall installed on west side of wet well and screening structure excavation. - MPPS: Cladding was installed on the upper section of the MPPS building. Existing 1-inch PVC water line and roof drain was relocated. Lightweight concrete pad installed up to existing PLC in the elecctrical room. Concrete switch pad installed and backfilled.
Design	SPJV is preparing an additional alternative for declassification of the San Carlos Pump Station.

3 - Month Look Ahead

	Start	End	January	February	March
MPPS - PG&E Design and Construction	August 26, 2020	April 21, 2022	X	X	X
MPPS - Segment 1 and 2 CARVs	February 25, 2022	June 3, 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 RS-1	November 19, 2021	January 5, 2022	X		
BGP - Backfill and Remove Shoring at JS-2	January 6, 2022	February 11, 2022	X	X	
BGP - Set Up Phase 3 Traffic Control	February 14, 2022	February 25, 2022		X	
RCPS - Wet Well & Screening Building Excavation and Backfill	May 24, 2021	September 15, 2022	X	X	X
RCPS - Wet Well and Screening Building Structural Concrete	September 8, 2021	October 26, 2022	X	X	X

Potential Issues

BGP Storm Drain Impacts, Catch Up Amendment
Challenges from permitting and land acquisition conditions at RCPS

Project Changes

BGP Design Development
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 – December 13, 2021
8:00 a.m.
This meeting took place remotely pursuant to
SVCW Resolution No. 21-36 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
Cindy Hui, SVCW Finance Supervisor
Kiki Newberry, SVCW Financial Analyst
Jessica Mangual, SVCW Secretary Pro Tem
Bill Tanner, Tanner Pacific
Mark Minkowski, Kennedy Jenks
Sheryl Chia, Kennedy Jenks
Grace Zhang, Maze & Associates
Sergio Ramirez, West Bay Sanitary District
Steven Machida, City of San Carlos
Derek Rampone, City of Redwood City
Molly Flowerday, City of Redwood City
Aren Hansen, Brown & Caldwell
EJ Shalaby, DNS Strategic Partners
Monique Spyke, PFM

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 how to stay safe this holiday season.

Item 5F RESCU Update detailed potential changes to the RESCU program

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 – November 15, 2021- Regular Meeting

B. CONSIDERATION OF MOTION APPROVING CLAIMS AND CHECKS DATED OCTOBER 29, 2021, NOVEMBER 1, 2021, AND NOVEMBER 12, 2021, AND NECESSARY PAYMENTS THROUGH NOVEMBER 12, 2021

C. CONSIDERATION OF RESOLUTION APPROVING SVCW STANDARD CONTRACT DOCUMENTS, VERSION DECEMBER 2021

   Proposed Action:
   Move adoption of RESOLUTION APPROVING SVCW'S STANDARD LONG-FORM CONTRACT DOCUMENTS AND STANDARD SHORT-FORM CONTRACT DOCUMENTS - VERSIONS DECEMBER 2021

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 / Dr. Lieberman
The Motion carried by Unanimous Roll Call Vote

ITEM 8B
CONSIDERATION OF MOTION APPROVING SVCW COMMISSION MEETING SCHEDULE FOR CALENDAR YEAR 2022

Proposed Action:
Move adoption of COMMISSION'S REGULAR MEETING SCHDULE FOR CALENDAR YEAR 2022

Motion/Second: No action was taken at this time

ITEM 8C
CONSIDERATION OF RESOLUTION APPROVING CONTRACT CHANGE ORDERS TO RESCU PROJECTS (CIP #6008, 9501, AND 9502)

Proposed Action:

i. Move adoption of RESOLUTION AUTHORIZING THE SILICON VALLEY CLEAN WATER MANAGER TO APPROVE A CONTRACT CHANGE ORDER FOR THE GRAVITY PIPELINE PROJECT IN AN AMOUNT NOT TO EXCEED $558,000

ii. Move adoption of RESOLUTION AUTHORIZING THE SILICON VALLEY CLEAN WATER MANAGER TO APPROVE A CONTRACT CHANGE ORDER FOR THE FRONT OF PLANT PROJECT IN AN AMOUNT NOT TO EXCEED $2,250,000

iii. Move adoption of RESOLUTION AUTHORIZING THE SILICON VALLEY CLEAN WATER MANAGER TO APPROVE A CONTRACT CHANGE ORDER FOR THE PUMP STATIONS IMPROVMENTS PROJECT IN AN AMOUNT NOT TO EXCEED $208,000

Motion/Second: Mr. Collins / Dr. Lieberman
The Motion carried by Unanimous Roll Call Vote

ITEM 8C
CONSIDERATION OF RESOLUTION APPROVING PROFESSIONAL SERVICES AGREEMENT WITH OPERATIONAL TECHNICAL SERVICES, LLC FOR TEMPORARY STAFFING

Proposed Action:
Move adoption of RESOLUTION AUTHORIZING SVCW MANAGER TO NEGOTIATE AND EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH OPERATIONAL TECHNICAL SERVICES, LLC

Motion/Second: Mr. Otte / Mr. Collins
The Motion carried by Unanimous Roll Call Vote

ITEM 9
No Closed Session

ITEM 10
No Closed Session items to report

ITEM 11
ADJOURN

There being no further business, the meeting adjourned at 9:06 a.m.

Minutes prepared by Teresa A. Herrera
Reviewed by General Counsel

_____
Warren Lieberman, Secretary

AGENDA ITEM 7B

SVCW WARRANT REGISTER

SVCW Warrant Registers dated November 17 – November 29, 2021 and November 30 – December 13, 2021, were scanned and a copy was emailed to Commissioners and Legal Counsel on January 4, 2022.

AGENDA ITEM 7C

CONSIDERATION TO CHANGE COMMISSION MEETING DAY

ISSUE

Approve Change to the Regular Day of the Monthly SVCW Commission Meeting and adopt Calendar Year 2022 Regular Meeting Schedule

BACKGROUND

The day and time of regular meetings of Silicon Valley Clean Water's (SVCW) Commission are established by resolution pursuant to the SVCW Bylaws. At its December 6, 2018 meeting, the Commission adopted Resolution No. 18-82 establishing the regular meeting date to be the third Monday of each month, commencing at 8:00 a.m.

DISCUSSION

From January 2018 through December 2021, SVCW Commission meetings took place on the third Monday of every month at 8:00 a.m. The meeting day of the third Monday of each month falls on several Holidays throughout the year and, therefore, new dates to meet need to be found and special meetings noticed. At its December 2021 Special Meeting, it was proposed to change the meeting day to the second Monday of each month at the same time (8:00 a.m.). If the Commission desires to change the day or time of its meetings, Resolution 18-82, which references the day and time of Commission meetings, must be rescinded via Commission resolution and a new resolution adopted to reflect the change.

The SVCW Manager recommends recission of Resolution 18-82 and adoption of new Resolution to reflect that regular meeting of the SVCW Commission be held on the second Monday of each month at 8:00 a.m. The Manager further recommends that the Commission adopt the attached regular meeting schedule for calendar year 2022.

FINANCES

There are no direct financial impacts to this action.

RECOMMENDATION

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

Report By: __T.H.__

DRAFT FOR DISCUSSION

Silicon Valley Clean Water

Commission Meeting Dates for Calendar Year 2022*

Meeting Date	Type of Meeting
January 10, 2022	Special
February 14, 2022	Regular
March 14, 2022	Regular
April 11, 2022	Regular
May 9, 2022	Regular
June 13, 2022	Regular
July 11, 2022	Regular
August 8, 2022	Regular
September 12, 2022	Regular
October 10, 2022	Regular
November 14, 2022	Regular
December 12, 2022	Regular

*Regular Meetings are scheduled for the second Monday of each month

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 are circulating 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 Delta and Omicron 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 appears to spread 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.

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

CAPITAL IMPROVEMENT PROGRAM
2022 CIP UPDATE AND CEQA COMPLIANCE

ISSUE

Adopt the 2022 CIP Update and Corresponding CEQA Conclusions

BACKGROUND

The core function of a wastewater treatment facility is to protect public health and the environment. To meet this core function, it is necessary for a public agency to adequately protect its capital assets. A current and comprehensive CIP is a common and invaluable tool for public agencies, as it allows methodical planning for capital improvements to ensure that facilities necessary for transport and treatment of the community's wastewater are provided.

There are many uses of a long-range CIP. For example, it allows an agency to make informed decisions about funding it will need, it serves to ensure the rates it collects from its citizens are adequate to meet the required expenditures when they occur, and it is a valuable vehicle to comply with environmental documentation necessary for California Environmental Quality Act (CEQA) compliance. Anticipated budget needs contained within the CIP are captured in SVCW's Long Range Financial Plan which is updated at the beginning of each calendar year. The LRFP is the subject of Agenda Item 8C.

SVCW's first Capital Improvement Program (CIP) was adopted by the Commission in May 2008. At the time, it was intended that the CIP would be a "living program" and regularly updated to accurately reflect the status of infrastructure needs at SVCW and appropriately plan and implement capital facility replacement and improvements. To that end, the CIP has been updated 8 times since its inception and, to date, over 130 projects have been undertaken and completed. Using a long term, rolling-process approach to identify and address capital facility needs keeps the SVCW facilities in good operating condition and performing their intended service.

DISCUSSION

The current update to the CIP includes information on projects previously identified and newly identified, updates estimated project costs and timing, and includes consideration of necessary CEQA actions. For most of the projects within the treatment plant, CEQA actions are comprised of Statutory Exemptions or Categorical Exemptions*. For projects that occur outside the wastewater treatment plant boundary, Initial Studies and subsequent environmental documentation may be needed. Specific CEQA actions are determined on a project-by-project basis and anticipated actions for every project are included in this CIP Update.

* Statutory Exemptions are applicable to planning or feasibility studies. Examples for a Categorical Exemption are projects that replace or restore existing facilities, new construction of small structures, and cogeneration projects at existing facilities.

The CIP is almost 14 years old and projects that were completed early in the program need to be revisited and possibly repeated to keep the treatment plant operating effectively. SVCW currently has a robust preventative maintenance program in place and to augment this capability for long-range planning, is implementing an asset management program. The asset management program will be used to ensure SVCW's assets are rehabilitated or replaced prior to failure, to inform future CIP updates, and to adequately forecast funding needs.

The CIP is organized into six categories:

1. Conveyance System, which includes RESCU
2. Structural Rehabilitation, including Corrosion Control
3. Underslab and Above Grade Piping Rehabilitation
4. Mechanical, Electrical, and Instrumentation Rehabilitation
5. Site Civil Rehabilitation
6. Process Efficiency and Regulatory Mandates
7. CIP Support

1. Conveyance System

Projects within the Regional Environmental Sewer Conveyance Upgrade program (RESCU) comprise most of the Conveyance System section of the CIP. Using currently identified risks at probable likelihood of occurring and probable cost, the RESCU budget is projected to increase by approximately $20 million, as presented at the December Commission meeting. Per discussion at the December meeting, if all identified risks are included in a budget increase, the value would be $27.2 million. Comparing the "probable or likely to occur risks" with "all risks currently identified", this delta of $7.2 million translates to an approximately 0.33% increase to sewer rates. The LRFP reflects the range of values in its overall funding needs.

In addition to RESCU, one new project was added to the Conveyance System CIP category. Project #6018 will address work associated with decommissioning the old 54-Inch Force Main once the new Gravity Pipeline is commissioned. Work will involve preparing it for future use, possibly to be used to convey recycled water from the treatment plant.

Finally, staff is tracking the need and timing for a future CIP project (beyond 10-years), which is repair and/or replacement of the 33-Inch Force Main (this is the pipeline between the Menlo Park Pump Station and the Redwood City Pump Station and conveys sewage from West Bay Sanitary District's service area). Recent inspection of the pipeline indicates that it has 10+ years of life remaining. Since it is not projected to be initiated within a 10-year timeframe, funding for this project is not included in this CIP Update nor was included in the Long-Range Financial Plan.

2. Structural Rehabilitation

This section of the CIP covers structural issues associated with the corrosive environment inherent in a wastewater environment. It includes replacement of protective coatings inside process tanks and channels, replacement of coatings on

steel piping, crack repair on structures, and seismic improvements. Investigation of corrosion issues and replacement of coatings is a constant process (think Golden Gate Bridge) and coating projects that were completed early in the CIP's inception need to be repeated.

3. **Underslab and Above Grade Piping Rehabilitation**
   Recent inspections have revealed that the steel piping conveying wastewater from process to process within the treatment plant is experiencing corrosion and loss of thickness. Approximately $17 million was added to the CIP to address known and unknown piping rehabilitation. This additional budget will allow for further inspection and major repair of in-plant piping.

4. **Mechanical, Electrical, and Instrumentation Rehabilitation**
   This section covers rehabilitation and/or replacement of equipment that is no longer performing efficiently. Since almost every piece of equipment in the plant has been replaced over the last 13 years, most of the new projects in this section consist of evaluation and rehabilitation of equipment that has been in service for that period of time, including those rehabilitated as part of the original CIP.

5. **Site Civil Rehabilitation**
   This section of the CIP includes grounds and site improvements and repair/replacement projects. Since the treatment plant location is situated on a deep layer of Young Bay Mud, anything not on constructed upon deep piles moves significantly. This results in cracks, settlement of roadways and grounds, and non-pile-supported pipes and structures. The need to attend to such settlement is an ongoing work effort for SVCW engineering and maintenance staff.

6. **Process Efficiency and Regulatory Mandates**
   Contained in this section are improvement projects that will help the plant perform more efficiently and/or more cost effectively. Examples of projects in this section include the BioForceTech biosolids drying system and the Food Waste System. An example of regulatory mandates is an anticipated requirement to replace the waste gas burners which will be an upcoming industry-wide mandate for San Francisco Bay treatment plants. One project was added to this program, called Capital Support for Process Engineering. This project will allocate $2,000,000 over a 10-year period for small construction projects to support process optimization research.

7. **CIP Support**
   This section covers administrative tasks for supporting the CIP, including standard specification updates, cost estimating services, and support for SRF and WIFIA funding.

In total, there are 7 new projects added to this CIP update, with a total budget of $34.9 million.

Staff will provide a presentation at the meeting which will explain the CIP 2022 Update in greater detail.

FINANCES

This 2022 CIP predicts approximately $330.5 million will be spent in the next 10 years (beginning July 1, 2021), which will be financed using a defined long-term debt strategy. Since Member Agency sewer rates provide the underlying repayment security for this financing, SVCW annually updates its LRFP as a roadmap for funding the CIP. The LRFP Update is the subject of a separate action.

RECOMMENDATION

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

CAPITAL IMPROVEMENT PROGRAM

2022 UPDATE

FY21-22 to FY30-31

SVCW
Silicon Valley Clean Water
One Drop at a Time

January 2022

Silicon Valley Clean Water

CAPITAL IMPROVEMENT PROGRAM

2022 UPDATE

ACKNOWLEDGEMENTS

SVCW Commission

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

SVCW Manager

Teresa Herrera

Authority Engineer

Kimberly Hackett

Chief Operating Officer

Monte Hamamoto

Assistant Manager/Chief Financial Officer

Matthew Anderson

CIP Document Preparation

Kimberly Hackett – Authority Engineer
Matthew Anderson – Chief Financial Officer

TABLE OF CONTENTS

The Capital Improvement Program (CIP)

Silicon Valley Clean Water (SVCW) has prepared this CIP 2020 Update as an ongoing update to the Program. Previous versions of the CIP were prepared in 2008 (original CIP), April 2011 (2011 Update), July 2012 (2012 Update), November 2013 (2013 Update), June 2015 (2015 Update), October 2017 (2017 Update), October 2018 (2018 Update), and January 2020 (2020 Update). The 2022 Update provides continued and current information on projects that allow for adequate planning and funding of the capital facilities. Public agencies develop and maintain a Capital Improvement Program (CIP) to ensure those capital facilities necessary for the operation, maintenance, and expansion of the wastewater conveyance, treatment and disposal systems are provided. A CIP allows an agency to make informed decisions about the rates it collects from its service area customers to ensure the rates are adequate to offset the expenditures. This CIP includes projects related to the Wastewater Treatment Plant (the Plant, WWTP), and the Conveyance System, which includes remote pump stations, transmission sewer pipelines (Influent Force Main, Belmont FM, tunnel and gravity sewer) and effluent outfall. Future treatment for Nutrients, as will be required by the Regional Water Quality Control Board, are included in the CIP. Recycled water treatment and distribution facilities owned by the City of Redwood City are not included in this CIP. Stage 2 Expansion projects also are not included in this CIP.

The wastewater treatment plant has been well operated since its startup in 1980. SVCW has enjoyed the benefits of a well-designed, Federal/State/Local funded facility with good reliability. Forty years after the original operational startup, major electrical, mechanical and instrumentation components have reached the end of their useful lives. In addition, both concrete structures and the miscellaneous metal components of the facilities are in need of rehabilitation to ensure a continued useful life into SVCW's future.

Reliable and efficient operation and maintenance of the Plant and Conveyance System infrastructure are required for ensuring the continued health and protection of the public and the environment and for meeting the effluent quality and discharge requirements set forth in SVCW's NPDES permit (NPDES Permit No. CA0038369). Other regulatory permit requirements are also placed upon SVCW, including air quality, odor control, safety, and record-keeping. The various regulatory permits under which SVCW operates require expenditure of capital to ensure that fines are not levied against SVCW for violations and to meet possible future, restrictive changes to the permits. It is also necessary to upgrade the facilities to improve operations in an effort to reduce costs as well as improving the facility's operational reliability. Finally, it is necessary to expend capital funds to match the capacity needs of the service area.

The operational integrity of the existing facilities as well as facility improvements needed to address future regulatory changes, wet weather treatment capacity increases, and safety were evaluated and integrated into the original 2008 CIP 10-Year plan. Each project was developed by defining the project scope, estimating the necessary budget required to complete the defined project, setting a year to implement the project and allocating expenditures to a specific funding source.

The timeframe of this CIP 2020 Update covers the fiscal years beginning in 2021-2022 and extends to fiscal year 2030-2031. Projects that have been completed in the time period previous to this update have

been removed from the program. This 2022 Update includes a snapshot of expenditures over the next 10 years.

An agency's CIP requires ongoing refinement, with defined projects and their scopes and budgets reviewed at least once a year. In this respect, this document is a "living document"; it will continue to be reviewed, refined, and updated as needed.

SVCW Capital Facilities

Silicon Valley Clean Water (SVCW) is a Joint Powers Authority comprised of the City of Belmont, City of Redwood City, City of San Carlos, and West Bay Sanitary District (member agencies). SVCW owns and operates a wastewater treatment plant, including support facilities necessary for the operation and maintenance of the treatment plant, wastewater conveyance system force mains, five wastewater conveyance pump stations, and an effluent outfall into the San Francisco Bay. Land upon which the pump stations are located are owned by the individual member agencies. SVCW also leases and utilizes the Flow Equalization Facilities (FEF) owned by the West Bay Sanitary District and located in Menlo Park.

Wastewater Conveyance System: Force Mains and Pump Stations

Approximately eight miles of force main pipe is owned, operated and maintained by SVCW. The pipe varies in diameter from 33-inch to 63-inch (previously identified as 54-inch). Four pump stations pump raw wastewater to the SVCW force main and one booster station pumps peak wet weather flows from West Bay Sanitary District and City of Redwood City when necessary. SVCW owns, operates and maintains the pump stations and is reimbursed by the individual member agencies for costs expended on the operation and maintenance related to the member agency's service areas. The five pump stations are:

Belmont Pump Station
Menlo Park Pump Station
Redwood City Pump Station
San Carlos Pump Station
San Carlos Booster Station

RESCU Program

All elements of the SVCW Wastewater Conveyance System described above require rehabilitation or replacement. The program for rehabilitating the Conveyance System is called the Regional Environmental Sewer Conveyance Upgrade (RESCU) Program. During Years 2013 to 2016, conveyance system program analyses were performed to develop a proposed project to meet the goals set forth by SVCW. A systematic and rigorous analysis was performed and alternatives were scored based on success factors, risk analysis, and costs. Resultant proposed project(s) were identified and include the following elements:

- 48-inch Force Main from Redwood City Pump Station to the north end of Inner Bair Island (substantially complete as of December 2015)
- Gravity pipeline from the north edge of Inner Bair Island to the treatment plant
- Receiving Lift Station at the treatment plant site
- Rehabilitated Pump Station at the Menlo Park Pump Station location and a replacement pump station at the Redwood City Pump Station location.

- A gravity sewer from the Belmont Pump Station to the gravity pipeline at a location near the San Carlos pump station location
- Headworks facility at the treatment plant site
- Civil site improvements at the treatment plant site
- Connector pipe between the Headworks and the primary treatment process

Five projects (Receiving Lift Station, Headworks, Stormwater management, Site Civil, and Connector Pipe) have been consolidated into a single project known as "Front of Plant" project. In November and December 2017, respectively, SVCW entered into Progressive Design-Build agreements with two joint venture entities for design and construction of the Gravity Pipeline and Front of Plant facilities. The pump stations and the Belmont gravity sewer have also been consolidated into a single project, "Pump Station Improvements" and also uses the Progressive Design Build project delivery method. The design build firm was selected in February 2019. The RESCU program is scheduled to be completed in 2023.

Wastewater Treatment Plant

SVCW's Wastewater Treatment Plant is located in the Redwood Shores area of Redwood City. The Plant processes all wastewater delivered to the Plant from the member agencies' service areas via the conveyance system. The Plant is comprised of liquid and solids treatment processes.

Liquid Processing

The wastewater from the pump stations is conveyed in the 63-inch diameter (AKA 54-inch) force main to the influent lift station, then is delivered directly to the Plant's primary sedimentation tanks (PSTs). The PSTs provide the first step of treatment to the raw sewage. The PST process is followed by biological treatment that consists of roughing with fixed film reactors (FFR) and aeration polishing in the aeration basins (AB). The water in the aeration basins is then directed to the secondary sedimentation tanks (SST) for separation of solids from the liquid. The SST process generates relatively clear effluent that flows to the dual media filters (DMF). Filtration followed by disinfection with sodium hypochloride concludes the treatment of the liquid stream in the Plant. Disinfected and dechlorinated tertiary effluent is then pumped to the bay via a 66-inch diameter outfall. During summer months, the filtered water is sent to the City of Redwood City Recycled Water Storage and Distribution facilities at the northwest side of the treatment plant.

Solids Processing

The Plant processes a solids stream that is predominantly made up of a primary sludge and waste activated sludge. Primary sludge consists of settled solids and primary scum (a slurry with floated oil/grease/scum) withdrawn from the primary clarifiers. The waste activated sludge (WAS) is derived from the aeration basins. In addition to the primary sludge, the primary scum and the WAS, the anaerobic digesters also receive grease and oily wastewater delivered to the grease receiving station at the Plant. With mixing and heating, the anaerobic digesters stabilize the sludge and produce sufficient digester gas to fire co-generation engines that generate electricity to power much of the electrical demand within the Plant.

The digested solids are withdrawn and transferred to Rotary Presses to reduce its volume. The two Rotary Presses were installed in 2016 as replacement for a centrifuge that was installed at the inception of the treatment facilities. The centrifuge was beyond its useful life, had no redundancy, and high levels of maintenance were required. Dewatered biosolids are then transferred to either solar drying beds or to BioForce Tech facilities for further drying readying for ultimate disposal. The sludge in the drying beds is dried to 50%-75% solids and is loaded onto trucks for disposal off-site. Offsite disposal is contracted with a biosolids handling company and is disposed in accordance with government regulations. Biosolids directed to BFT are further dried, undergo pyrolysis, and the "biochar" is then sold to end users as fertilizer. In summary, the primary function of the solids handling facilities is to stabilize the organic solids, reclaim the heat value of the organic solids for power generation and reduce the sludge volume to minimize the cost of disposal.

Plant Site Characteristics

The treatment processes selected for the Plant are typical for a tertiary treatment plant. However, the arrangement of the facilities in the Plant makes it unique. The treatment process tanks were built primarily on the same level; however, the lighter structures were built on top of the process concrete tanks making the facility a "double deck" plant.

The ground immediately beneath the Plant is predominantly young bay mud which is highly liquid and inadequate for supporting heavy loads. This required the installation of deep reinforced concrete piles to support the process tank structures. The administration building and laboratory were placed on top of the PST, while the FFR were placed on top of the chlorine contact tanks (CCT). Placing the lighter facilities on top of the heavier liquid bearing concrete tanks reduces the overall construction costs but creates unique maintenance issues. The PST and the CCT are completely covered; access to the tanks for maintenance and servicing the mechanisms installed inside the tanks is through hatches.

Outfall

Approximately 1.25 miles of 66-inch diameter pipe carries treated effluent from the Plant for discharge to the San Francisco Bay. The outfall is reinforced concrete pipe equipped with a multiport diffuser and extends approximately 6700 feet offshore in the main shipping channel of the San Francisco Bay for a deep-water discharge. An on-shore portion of the effluent pipeline was replaced in 2005 and the remainder of the on-shore pipeline was replaced in 2015/2016; the replacement pipe is 63-inch diameter HDPE pipe material.

Location and Process Codes

SVCW has undertaken implementation of a new Enterprise Resource Planning program which changes the financial, asset and work management, and human resources functions of the agency. To this end, a new system to track capital assets is currently being adopted. There are location and process codes established to enable tracking to occur. The location and process codes are shown in the list below.

Location Codes of SVCW

00	General
01	West Bay S.D.
02	Redwood City
04	San Carlos
05	Belmont
06	Booster Pump Station
10	33-inch FM
11	48-inch FM
12	54-inch FM
13	Belmont Force Main
15	Gravity Pipeline
20	Flow Equalization
30	Front of Plant
50	Wastewater Treatment Plant
51	Admin/Control Building
52	Laboratory Building
53	Maintenance Building
54	Warehouse
55	1404 Radio Road
56	1406 Radio Road
65	Fair Oaks
66	Harbor Sanitary Muni. District
67	Redwood Shores
68	Port of Redwood City
72	Outfall

Process Codes of SVCW

00	General
05	Pretreatment
06	Influent
10	Conveyance Pumping
15	Flow Equalization
20	Conveyance Pipelines
25	Drop Connection
27	Energy Management
35	Odor Control
42	Fine Screening
45	Lift Pumping
47	Storm Water
50	Primary Sedimentation
52	F.F.R.
54	Nutrient Removal
55	Aeration
56	Secondary Clarifiers
60	Filtration
62	Disinfection
64	Dechlorination
70	Recycled Water DSP
71	Sludge Thickening
72	Sludge Digestion
74	Sludge Dewatering
75	Sludge Drying
78	Sludge Disposal
81	FOG and Organic Waste
90	Effluent
92	Recycled Water (non-DSP)
95	Pollution Prevention

Master Capital Projects List

Organization of Master Capital Projects List

From the original 2008 CIP through the 2013 Update, projects contained within the CIP were categorized into sixteen Programs. Starting with the 2020 Update, as the focus of the Programs has moved from repair, replacement, and automation to a preventative and predictive maintenance approach, Program listings have been refined. There are now seven Programs in the CIP.

- Conveyance System
- Structural Rehabilitation
- Underslab and Above Grade Piping Rehabilitation
- Mechanical, Electrical, & Instrumentation Rehabilitation
- Site Civil Rehabilitation
- Process Efficiency and Regulatory Mandates
- CIP Support

Under the original CIP, four master plans were prepared (Conveyance System; force main and pump stations, Energy System, Biosolids, and Corrosion/Odor Control). The results of the master plans facilitated completion of the 2011 CIP Update. Completion of subsequent updates was facilitated by needs identified during the course of construction in the treatment plant and further work on the conveyance system program. As construction has progressed on many large and far-reaching projects, facilities either related to the specific construction or ancillary to the construction have been identified as needing replacement. Additionally, a Capacity Study was completed that identified four new projects that need to be completed for SVCW to reliably treat its projected wet weather flows. These changes were reflected in the 2013 Update.

Since the 2013 Update, the primary change to projects identified is reflected in the conveyance system programs; pipelines and pump stations. Beginning in 2013, as planning and community outreach began for the conveyance system program elements and as tunnel-construction methods in the bay area developed, the projects identified for the conveyance system changed. The 2015 Update reflected the latest information for the conveyance system programs. Additionally, the regulatory climate is shifting to require treatment plants to remove nutrients (nitrogen and phosphorous). Scientific studies are ongoing for the impact to the bay from treatment facility contributions but it is considered a given that nutrient removal will be required in future NPDES permits. A project to address nutrient removal requirements was also a factor contributing to the large allocated budget increase in the 2015 Update. Also in the 2015 Update, inflationary impacts were added to all relative projects; a task that had not been done since the original 2008 CIP which used 2007 dollar values.

The 2018 Update included updated budgets resulting from inflationary factors (escalated from 2017 dollars and brought to mid-point of construction). This Update also included a reduction in the Nutrient

Removal Program costs, as new information continues to be garnered from the Regional Water Quality Control Board and its efforts in concert with Bay Area Clean Water Agencies to more fully define issues with nutrients in the San Francisco Bay.

The 2020 Update represented a change in approach to capital project planning. Now that the majority of the processes and equipment have been upgraded over the last, almost twelve years, the focus of the CIP is on maintaining the assets. Some of the projects that were initiated in 2008 have already shown signs of age and failure. In particular, concrete coatings and instrumentation equipment have expected lives of approximately 10 years. This 2020 Update removed completed projects from the master list of projects, providing a view forward of the work that is envisioned to be completed over the next 10 years.

The 2022 Update further refines the program as the asset management program is developed and projects are identified to rehabilitate plant processes. Specifically, a new program was added to address the rehabilitation of underslab and above grade piping. Much of this process piping is original to the plant construction, and it is difficult to access for inspection and rehabilitation efforts.

Along with the projects that have been identified as part of this 10-year CIP update, there are two additional capital projects that SVCW is anticipating to be required at or beyond 2031. The first is replacement or rehabilitation of the 33” Force Main in the Conveyance System. The current cost estimate for this project is projected at $39 million. Also, if the regulations regarding nutrient discharge into San Francisco Bay continue to tighten after 2030, SVCW is tracking a cost of $30 million to comply with new regulations. These two projects are not included in the 10-year master list of projects.

The following pages include a list of completed projects and the master list of 2022 CIP Update projects is included.

Completed CIP Projects

(As of January 2022)

Project Number	*Project Name*	*Project Number*	*Project Name*
6001	48-inch Force Main Reliability Improvement	9075	IMS System Equipment Replacement
6002	Conveyance System Master Plan (CSMP)	9076	Digester Mix Pump Rehabilitation
6005	Influent Force Main - Rehabilitation or Parallel	9077	Engine Generator #4 Complete Rebuild
6006	Conveyance System CEQA	9094	Thickener Overflow Line Butterfly Valve Replacement
6010	Force Main Conveyance System Program - General Support	9095	Digester #2 Cover Repair
6012	Effluent Pipeline and Outfall Reliability Improvement	9098	Shipping and Receiving Trailer
7010	Pump Stations Preliminary Design and CEQA	9099	Solids Handling Building HVAC Air Scrubber-Implementation
7013	Pump Stations Secondary Communications	9101	Fresh Water Lagoon Cleaning
8001	Central Data Acquisition Unit PLC System Upgrade	9102	Storm Drain System Improvements and Maintenance Wash Rack
8002	Auto-reset of Effluent Pumps	9104	Septage Receiving Area Odor Control
8003	Disinfection Area SCADA	9106	Laboratory Information Management System (LIMS)
8004	Install SCADA Servers	9108	Scum Flowmeter
8005	Install MCC PLC	9114	Historian Software
8006	Turbine #1A-4B Air Flow Monitor	9119	RAS Discharge Line 36" Butterfly Valve Replacement
8007	Primary Sedimentation Control System	9124	Biosolids Master Plan
8008	Aeration Basins #1-4 Motorized Effluent Gate Controls	9125	Plant Service Road Resurfacing-Phase 1
8009	Aeration Basins #1-4 Mudvalve Operation	9127	PEC & PST 1 & 2 Protective Coatings
8010	WAS Flow Controls	9132	Storage and Purchasing Warehouse
8011	RAS Pump #1-6 Speed Adjust	9144	Solids Handling Program - General Support
8012	Secondary Clarifier Inner / Outer Gates Motorized Controls	9145	Plant Energy System Program - General Support
8013	WAS Pump #1-4 Speed Adjust	9150	Odor & Corrosion Control Program - General Support
8014	Primary Sludge Piping System Valve Automation	9152	Small Capital Equipment Replacement
8015	CCT Weir Sluice Gate Operator	9153	High Pressure Pump Safety Cutout Switch Replacement

Project Number	*Project Name*	*Project Number*	*Project Name*
8017	Activated Sludge Process Automation (Aeration and Secondary Clarifiers).	9154	Cogeneration Engine Replacement
8018	Gravity Thickener Process Automation	9155	Natural Gas to Plant
8019	Aeration Basin Gate Actuators	9156	Administation and Plant Control Building Replacement
8020	Aeration Basin #1-4 Inlet Gate Controls	9157	Solids Handling Building Roof Replacement
8021	Anaerobic Digestion Process Automation	9163	Demolition of Abandoned Equipment in Solids Handling Building
8022	SCADA Process Graphics on Information Management System	9164	Dewatering and Solids Handling Improvements - Phase I
8024	Thickening Pump #1-6 Remote on / off / speed controls	9165	Seismic Upgrade of Digester Mix Room and Boiler Room Piping
8026	Septic System (Grease Receiving) Auto Controls and Level Measurement	9167	Boiler Replacement
8027	Drying Bed Feed Flow Measurement	9172	Thickening Improvements - Phase II
8030	Automation: Instrumentation & SCADA Program - General Support	9178	Levee Repair behind Warehouse
8032	Final Effluent Pumping Control System (FEP) Upgrade	9179	Pretreatment Program Sample Room
8033	Dechlorination Control System Upgrade	9180	Maintenance Shop Reconfiguration
8034	Tertiary Filter Feed Pump Control System Upgrade	9182	Property Acquisition
8035	Chorination Control System Upgrade	9183	Stage 1 Screening at Plant Influent
8036	Automation System Integration - SRF Funded	9191	Cathodic Protection at WWTP
8037	Automation System Integration - Bond Funded	9193	T1 and T2 Replacement
8038	Process Return Flow Meter and Sampler Installation	9194	T3 Replacement
9005	Primary Scum Grinders	9195	Wetside Power
9006	Purchase Integrated Tool Vehicle	9198	Hot Water Piping Improvements - Phase I
9007	Industrial Roll-up Doors for Warehouse	9199	Hot Water Piping Improvements - Phase II
9008	Centrifuge Motor Drive Replacement	9201	Dimminutor procurement and installation
9010	Real-time Wind Direction Information	9202	DMF Valve Replacement
9011	Portable Trash Pump	9203	Central Chillers Replacement
9012	Digester #3 Rehabilitation and Upgrade	9204	MPPS Concrete Repair
9013	Waste Gas Burner Rehabilitation	9205	1406 Radio Road Property Improvements
9015	Hypochlorite Dosing System Rehabilitation Automation	9207	Maintenance Building Roof Replacement

Project Number	*Project Name*	*Project Number*	*Project Name*
9016	High Pressure Air Piping and Instrument Air	9208	Solids Handling Building Demolition and Improvements - Phase II
9018	Recycled Water For In-Plant Use	9211	Secondary Clarifier 6" Water Line Replacement
9019	Bisulfite Injector System Improvements	9213	Area Lighting
9021	Grease Receiving Station Reliability Improvements and Odor Control	9214	Alternate Bisulfite Injection Point
9022	Existing Freight Elevator Modernization	9216	3W System Improvements
9023	Odor & Corrosion Control Master Plan	9222	Dual Media Filters 6A and 6B
9028	Laboratory Building Roof Rehabilitation	9226	DMF Platforms
9029	Solids Handling Building Control Room HVAC/Scrubber	9227	Sodium Bisulfite Tank Alarms & Controls
9030	Secondary Clarifier Collector Drive Rehabilitation	9228	Diesel Pump Upgrade
9032	Wireless Network Access Expansion	9801	12 kV Primary Switchgear Replacement
9035	Effluent Pipe Access Hatch	9802	Motor Control Center P-1,2,3, &4 Replacement
9036	Primary Sludge Piping Rehabilitation	9803	Electrical System Redundancy
9038	Moyno Progressive Cavity Pump Replacement	9804	Standby Power Upgrade
9040	Digester #2 Cleaning	9805	Cogeneration System Connection to Primary Switchgear
9067	Dewatering Process Control System Upgrade	9806	Wetside Redundant Power Improvements

Detail CIP Projects Listing

2022 Update Project #	Launch Date	2022 Update Project Name	Project Description	2020 CIP Budget	Spent as of 6/30/21	2022 CIP Budget	Budget Increase (Decrease)	2022 Budget Remaining
Conveyance System								
6003	2008	Influent Force Main Emergency Repair	As-needed repairs if leaks in the influent force m	2,882,920	2,882,920	2,882,920	0	-
6008	2011	Tunnel and Gravity Pipeline	Installation of gravity pipeline, using tunneling construction methods for conveying wastewater to the plant.	259,228,131	223,097,658	264,357,794	5,129,663	41,260,136
9500	2020	RESCU Administrative Activities	Holds programmatic management costs including Owners' Representative consulting fees (Kennedy Jenks) and Owner-Controlled Insurance Program (OCIP) costs.	13,503,048	9,454,527	15,303,048	1,800,000	5,848,521
9501	2017	Pump Stations Improvements	Rehabilitate Menlo Park Pump Station, Replace Redwood City Pump Station, convert Belmont Conveyance to a gravity sewer in order to convey 2040 flows to the new tunnel constructed under the Gravity Pipeline Project.	119,677,613	34,525,953	132,289,099	12,611,486	97,763,146
9502	2017	Front-of-the-Plant	Construct a Receiving Lift Station, Headworks and connecting piping as part of the RESCU Program.	161,953,930	106,443,461	162,209,435	255,505	55,765,974
6018	2022	Decommission 54-Inch Force Main	Disinfect and prepare force main for future use.			500,000	500,000	500,000
Subtotal				**557,245,642**	**376,404,519**	**577,042,296**	**19,796,654**	**200,637,777**
Structural Rehabilitation								
9014	2008	Process Tanks Concrete and Steel Protective Coatin	Apply coatings to process tanks and steel approximately every ten years.	5,624,786	4,539,018	5,600,000	(24,786)	1,060,982
9071	2008	Plant Gallery Floor and Wall Crack Sealing	Seal gallery floors to prevent infiltration of GW. Unplug in-slab drain pipes.	628,476	201,943	500,000	(128,476)	298,057
9096	2008	Plant Architectural Painting	Plant-wide painting including pumps, piping, equipment and structures. Painting necessary to prevent corrosion & for longevity of Plant's assets.	1,975,283	428,722	1,038,692	(936,591)	609,970
9097	2008	Plant Deck Re-coating	Add painted walkway under the Plant Control building.	239,624	2,685	50,000	(189,624)	47,316
9107	2008	CCT Concrete and Steel Protective Coating Replacer	Recoat walls and Ceiling of CCT	5,608,246	3,102,561	5,608,246	-	2,505,685
9128	2008	PST 3 & 4 Protective Coatings	Complete with 9080 - PST Collector System Replacement	3,329,420	3,334,217	3,334,217	4,797	-
9215	2013	Digester #1 Rehabilitation	Repair of coatings and structural elements in Digester #1. Project includes replacement of the two mix nozzles, two wall penetrations and the upper and lower vertical mix pipe manifold as previously included in CIP #9170. Also include interior coating of 24-inch horizontal mix piping as previously included in CIP #9171.	-	519,915	3,400,000	3,400,000	2,880,085
9241	2020	Primary Effluent Channel Recoating	Recoat Primary Effluent Channel, replace PST effluent launders, replace hatches on primary deck	3,402,000	415,740	3,402,000	-	2,986,260
9244	2020	Digester 3 Cleaning and Rehab	Clean, inspect and rehabilitate Digester 3. Previous rehab completed August 2021	2,015,875	-	2,414,000	398,125	2,414,000
9245	2020	Digester 2 Cleaning and Rehab	Clean, inspect and rehabilitate Digester 2. Previous rehab completed April 2023	2,138,641	-	2,272,000	133,359	2,272,000
9259		Primary Effluent Structural Rehabilitation	Replace primary weirs and launders plus hatch replacement and concrete resurfacing.			4,260,000	4,260,000	4,260,000
Subtotal				**114,304,398**	**47,412,801**	**146,195,158**	**31,890,760**	**98,782,357**
Underslab and Above Grade Piping Rehabilitation								
9600	2022	Buried and Exposed Process Pipe Repair	Identify process piping that needs rehabilitation/replacement. New projects will be developed that utilize budget from this project.			16,920,000	16,920,000	16,920,000
9120	2008	RAS Pump Suction Pipe Replacement	Slip-line the in-slab pipe. The high content of solids in sludge piping wears the pipe out over time; the RAS piping is thin due to the continued abrasion of the sludge transported through it.	3,268,454	358,046	3,800,000	531,546	3,441,954
9252	2020	Repair of Final Effluent Pump Suction Piping	Inspect and repair Final Effluent Pump Suction Piping between CCT Wet Pits A and B and the Pumps.	429,000	17,400	429,000	-	411,600
9601	2022	WAS Influent Pipe Rehab	Rehablitate or replace waste activated sludge suction piping. Condition is anticipated to be similar to RAS suction pipe.			2,100,000	2,100,000	2,100,000
Subtotal				**20,191,636**	**7,747,878**	**47,939,463**	**27,747,827**	**22,873,554**
Mechanical, Electrical, and Instrumentation Rehabilitation								
8025	2008	No. 3 Water Control System	Provide VFD control of 3 water pumps as well as instrumentation and piping to assure reliable supply.	1,260,081	87,299	100,000	(1,160,081)	12,701
9017	2008	Plant #1 Water System Pipe Repair and Supply Upg	Rehabilitate potable water system: replace air gap tank , hydropneumatic tank, and pumps.	1,032,287	704,424	1,032,287	-	327,863
9033	2008	Plant Electrical System Panel Replacement	Complete replacement and addition of additional panels and subpanels	4,300,000	4,247,660	4,300,000	-	52,340
9034	2008	Electrical Conductor and Small Panel Replacement	Multiple year project to replace old and corroded electrical cabling, lighting panels, and other electrical equipment throughout the Plant.	2,963,054	308,844	2,963,054	-	2,654,210
9041	2008	Underground Fuel Tank Replacement	Underground Storage Tank regulations require removal of this tank. Remove 15,000 gallon underground fuel (diesel) tank and replace with a tank that meets regulatory requirements when necessary. Electrical costs include conduit and wiring for new underground tank leak detection equipment necessitated by moving the tank.	929,500	215,445	270,000	(659,500)	54,555
9080	2008	Primary Sedimentation Tanks Collector System Rep	Replace or rebuild collector drive system, including chains and filghts; one tank every 2 years.	4,480,314	4,395,253	4,410,000	(70,314)	14,747
9105	2008	ERP Implementation (Cogsdale)	Phase 2 of the IMMS; use for CIP information management.	2,565,746	3,080,749	3,082,038	516,291	1,289
9168	2011	Thickening Improvements - Phase I	Replace thinkener technology with Rotary Drum Thickeners, installed in the Solids Handling Building.	3,761,095	4,701,383	4,741,437	980,342	40,054
9196	2012	Electronic O&M Manuals	Develop Electronic O&M manuals to replace existing paper manuals. Extent of e-manuals will be determined to coincide with full plant automation requirements.	1,187,870	118,991	1,187,870	-	1,068,879
9223	2013	Final Effluent Pump Replacement	Replace pumps and vfds.	2,836,241	97,693	2,836,241	-	2,738,548
9242	2020	Fixed Film Reactor Rehabilitation	Remove and replace media, perform structural improvements, improve inlet piping.	25,740,000	73,404	29,820,000	4,080,000	29,746,596
9246	2020	Activated Sludge Process Rehabilitation	Evaluate instrumentation and mechanical and electrical equipment associated with the Activated Sludge Process. Replace and Rehabilitate as needed.	2,565,854	-	1,900,000	(665,854)	1,900,000

2022 Update Project #	Launch Date	2022 Update Project Name	Project Description	2020 CIP Budget	Spent as of 6/30/21	2022 CIP Budget	Budget Increase (Decrease)	2022 Budget Remaining
9247	2020	SHB Electrical Rehabilitation	Evaluate Electrical and Standby Power systems in SHB. Replace and Rehabilitate as needed.	4,374,381	5,096	4,374,381	-	4,369,285
9248	2020	Cogeneration Engine System Rehabilitation	Evaluate cogeneration system, including engines, generators, gas conditioning system, instrumentation. Replace and Rehabilitate as needed.	5,898,046	-	1,900,000	(3,998,046)	1,900,000
9249	2020	Fine Screening Process Rehabilitation	Evaluate instrumentation and mechanical and electrical equipment associated with the Fine Screening Process. Replace and Rehabilitate as needed.	1,416,729	-	900,000	(516,729)	900,000
9250	2020	Wet Side Power Rehabilitation	Evaluate Electrical and Standby Power systems on "wet side" of plant. Replace and Rehabilitate as needed.	2,552,287	-	2,200,000	(352,287)	2,200,000
9251	2020	Laboratory HVAC Rehabilitation	Replace Air Handling Unit, Motor Control Centers, supply and exhaust fans, and control system for laboratory HVAC system, which is over 25 years old	2,300,000	826,343	3,241,363	941,363	2,415,020
9503	2017	WWTP Improvements Phase II	Construct rotary presses for sludge dewatering, replace blowers for Activated Sludge Process, replace Backwash Pumps.	12,810,274	12,056,051	13,195,442	385,168	1,139,391
9808	2017	In-Plant Power (12kV) Rehabilitation	Repair of 12 kV settling between Control Building and Solids Handling Building.	2,670,833	3,512,890	3,512,890	842,057	-
9255	2021	3W Capacity Upgrades Project	Add new 3W pumps, piping, and a strainer to address redundancy and capacity issues with the current system.		$ 61,030.24	5,100,000	5,100,000	5,038,970
9256	2022	Spent Backwash Pump System Rehabilitation	Replace spent backwash pumps and rehabilitate suction piping			2,700,000	2,700,000	2,700,000
Subtotal				**85,644,593**	**34,492,555**	**93,767,004**	**8,122,411**	**59,274,449**
Site Civil Rehabilitation								
9103	2008	Landscape Impoundment Improvements	Project is slated to provide improvements to the impoundment. Work in addition to what was originally intended may be done for future Plant process needs.	270,525	138,211	200,000	(70,525)	61,789
9131	2008	Plant Service Road Resurfacing-Phase 2	Plant site grading and paving.	1,188,996	422,362	1,188,996	-	766,634
9237	2017	Radio Road Habitat Grading Project	Change grading and provide piping to the area behind the dog park to make a suitable habitat for birds	3,823,448	-	3,823,448	-	3,823,448
Subtotal				**5,282,969**	**560,574**	**5,212,444**	**(70,525)**	**4,651,871**
Process Efficiency and Regulatory Mandates								
9229	2015	Food Waste: Receiving Station and Digester Improv	Plan, Design and Construct Receiving Station for Accepting Food Waste from SBWMA. After initial capital investment to support pilot, project has been put on hold.	20,404,629	2,054,423	2,072,348	(18,332,282)	17,925
9257	2022	Food Waste Improvements	Capital improvements to increase reliability and efficency of Food Waste Acceptance Facility.			2,000,000	2,000,000	2,000,000
9231	2015	BioforceTech Dryer System	Work with BioforceTech for half-scale biosolids drying Facility. SVCW to provide suitable site and utilities; Bioforce Tech to construct and operate. Budget added for agreement with BFT for purchasing the equipment.	3,950,621	2,823,711	3,950,621	-	1,126,910
9232	2015	Long Term Strategic Recycled Water Planning	SVCW would begin collaboration with outside stakeholders for long-term planning of recycled water expansion as a drought proof water supply, explore IPR/DPR treatment requirements etc. Budget is for staff time to attend meetings and begin long-term planning, plus work with consultants on conceptual studies. No construction dollars are included. Large scale expansion of recycled water treatment may offset dollars spend on future nutrient removal compliance	217,809	27,265	200,000	(17,809)	172,735
9235	2015	Digester Gas Storage	Construct storage for digester gas gas equalization in support of optimizing the cogeneration engine operation/electricity output. Gas production expected to rise with introduction of co-digestion materials (food waste and FOG). Project Buget has been transferred to project 9229.	-	42,949	42,949	42,949	-
9236	2018	CEC SAF-MBR	Build a pilot facility using CEC grant monies and in-kind services using a new treatment process developed at Stanford University. The process is called Staged Anaerobic Fluidized-Bed Membrane Bioreactor (SAF-MBR). This process could facilitate nutrient removal, recycled water production and, possibly, replace SVCW's secondary treatment processes.	540,076	644,010	644,010	103,934	-
9240	2020	Standby Generators Feed Relocation and Electrical Panel Upgrades	Relocate feeders for standby generators 4 and 5 to connect to 12kV switchgear and provide power to all plant processes. Replace aging panels.	3,575,000	1,315,004	4,800,000	1,225,000	3,484,996
9243	2020	PST Thickening Project	Replace Primary Sludge Pumps and add VFDs to support thickening in the PSTs once the Headworks is complete. Change discharge piping to deliver directly into the digesters.	2,343,899	-	2,000,000	(343,899)	2,000,000
9254	2020	Waste Gas Burner Replacement	Replace "candlestick" type waste gas burner with new technology if required by BAAQMD	2,000,000		2,000,000	-	2,000,000
9400	2015	Nutrient Removal	Perform studies to determine the plant's ability to perform nutrient removal using existing infrastructure.	948,817	774,661	774,661	(174,156)	-
9401		Side Stream Treatment	Treatment of sidestreams for nutrient removal.	10,510,000	28,159	10,510,000	-	10,481,841
9807	2017	12 kV Primary Switchgear	Install a new 12 kV feed to the plant that will serve the new loads from Receiving Lift Station. This new new switchgear will also be tied to existing cogen system to allow export/import of power to PG&E after Rule 21 modifications. New solar and energy storage will be also tied to this new switchgear.	11,338,583	12,403,729	12,403,729	1,065,146	-
9810	2017	Energy Storage	Install 1MW/2MWh energy storage system that uses Lithium-Ion battery.	2,210,085	1,079,574	1,100,000	(1,110,085)	20,426
9258	2022	Capital Support for Process Engineering	Minor capital projects to support research that may improve efficiency or reliablity of plant processes.			2,000,000	2,000,000	2,000,000
Subtotal				**58,039,520**	**21,193,485**	**44,498,318**	**(13,541,202)**	**23,304,833**
CIP Support								
9078	2008	10-Yr CIP Program Annual Updates	Update the 10-Year CIP and costs annually or as needed to ensure that projects are scheduled and funds are available each year	153,092	71,653	71,653	(81,439)	-
9130	2008	Capital Improvement Engineering	Funds staff required to coordinate and implement the Capital Improvement Program.	162,937	40,432	40,000	(122,937)	(432)

2022 Update Project #	Launch Date	2022 Update Project Name	Project Description	2020 CIP Budget	Spent as of 6/30/21	2022 CIP Budget	Budget Increase (Decrease)	2022 Budget Remaining
9158	2011	CIP Financial Assistance	State Water Resources Control Board SRF construction loan assistance. Funding received for Admin Building and WWTP Improvements and planning loan for Conveyance System. Future applications will be submitted for Conveyance System and Future Treatment Plant projects. Budget includes ongoing compliance with loan requirements.	510,307	1,170,153	1,170,153	659,846	-
9159	2011	OCIP Funding	Repository for funding the OCIP and payment to Aon for management of the program for first five years. New OCIP program being evaluated in 2015.	129,527	5,654,147	5,654,147	5,524,620	-
Subtotal				**955,863**	**6,936,385**	**6,935,953**	**5,980,090**	**(432)**
Totals				**735,828,392**	**452,507,763**	**783,084,169**	**47,255,778**	**330,576,406**

Appendix A
Developing the CIP

Appendix A
Developing the CIP and CIP Updates

The original effort of preparing a comprehensive CIP 10-Year Plan resulted in a significant list of capital projects requiring implementation to ensure that SVCW's facility assets are managed and maintained in good working condition. A capital project is defined as an improvement or replacement of an existing asset with a value equal to or higher than $20,000 and a life expectancy beyond five years. Expansion projects (Stage 2) are not included in this CIP. Each project is identified by Location Code, is assigned a CIP Project number and placed into a Program.

Sources of CIP Update Projects

The original list of 131 projects in the 2008 CIP resulted from combining several outstanding lists of identified improvements that had been compiled over years of operation and maintenance of the facilities. The majority of projects were derived from lists kept by the Operations, Maintenance, Technical Services departments, and the Manager.

For preparing the Updates, Program Managers were requested to prepare revised lists of projects that they could identify after having been involved in the CIP for multiple years. Some of the revisions resulted from master planning efforts from which new facility needs were identified while some of the revisions resulted from projects being combined or merged to take advantage of potential efficiencies. The majority of projects arose from needs being identified during construction projects. Finally, some projects were deleted entirely if they were found unnecessary for accomplishing the overall goal of ensuring longevity for the SVCW facilities.

Criteria Used for Identifying Projects

The following criteria were established early in the CIP development process to assist in identifying needed improvements. The same criteria are maintained for the CIP Updates.

Regulatory Compliance/Process Reliability. This is a mandatory requirement based upon SVCW's various permits, federal, state and local regulations, laws, and codes. It includes providing and maintaining process reliability to ensure that regulatory compliance is achieved.

End of Useful Life/Catastrophic Failure Avoidance. This represents those pieces of equipment, structures, and other facilities that have reached the end of their useful life and, if not replaced or rehabilitated, will experience an unavoidable failure. This category also includes equipment that has become obsolete and is no longer supported by the original manufacturers. In the 2020 update, this criteria has changed, as SVCW has taken on a philosophy of preventative maintenance to avoid the expense and unpredictable nature of running equipment to the end of its useful life. The criteria is now called **Preventative Maintenance**

Safety. The identified project includes a repair, replacement, modification or expansion aspect that relates to public or worker safety.

Efficiency and Functional Improvement. Efficiency refers to specific equipment, facilities and work methods that represents a means to reduce operating cost. A functional improvement will increase the efficiency and effectiveness of how a particular facility or work method is maintained and/or operated.

Plant Appearance. Projects that will enhance, improve, and modify the appearance of the treatment plant; onsite buildings and facilities are included in this category. The importance of Plant appearance rests on public perception of the plant and SVCW as a whole. "Public" includes recipients of tours (children and adults), Commission members and other elected officials, regulatory personnel on site visits, and others.

CIP Cost Estimating Methodology

A key element to the CIP planning process is determining costs for each of the identified projects and allocating the costs to specific funding sources. Information on funding sources is included in Appendix B.

For the CIP Updates, Program Managers prepared update cost estimates for each of the projects within a particular Program. The cost estimates include construction costs and soft costs as described below.

CIP budgets for individual projects are comprised of five elements or "phases" of the capital project. The five phases are: Planning, Design, Construction, Construction Management, and Project Management. Some projects may include all phases; others, such as studies, may include only one phase.

For the most part, the cost element that is independently estimated is the Construction phase budget. The other cost elements are percentages of the Construction phase (except in special cases such as study-only projects). These phases are termed "soft costs". In addition to the soft costs and in recognition that the cost estimating for this level of project planning is inherently rough, a "Confidence Level" factor may be applied to the final Construction + Soft Costs estimates.

The methodology for estimating the Construction phase cost is described below. The percentages used to derive the other phases of the capital project and the confidence level factor follow.

Construction Phase Budget

The construction cost estimating procedure utilized the following guidelines:

- Estimate construction costs in 2007 dollars for the original projects, 2010 dollars for the projects added in the 2011 Update, 2011 dollars for the projects added in the 2012 Update, 2012 dollars for the projects added in the 2013 update.
- Bring all construction costs for new projects identified for the 2015 Update to 2015 dollars and for the 2017 Update to October 2017 dollars.
- Estimate mid-points of construction and escalate costs to that point for the 2018 Update; this represents the base costs.
- Projects to be implemented in future years have costs represented as base costs values; i.e., future costs are not escalated except in the case of the conveyance system program.
- Construction cost estimates and the contingency factor used are based on the level of confidence that the program manager has in its estimate.
- Construction cost estimates includes costs for bonds, insurance, mobilization/ demobilization, overhead, and profit. The program managers will use their best judgment as to what these amounts should be, based on the type and size of project and industry standard.
- The program manager will take into account if any testing, start-up, training, etc. will be required by the construction contractor and add in costs for these items.

Soft Costs Derivation

Soft costs derivation is based upon industry standards for typical design-bid-build projects. For other project delivery methods, the individual project soft costs were adjusted according to today's knowledge about a project. In addition, for projects involving instrumentation (SCADA or other types of software and hardware programming), soft cost percentages will be higher than for typical construction projects.

There are instances where SVCW program managers and/or the consultant preparing the cost estimates are aware that the percentages shown will not be sufficient to cover the necessary tasks or are an over-estimate of individual task costs. An example where the typical percentages would not be sufficient is: a project that involves permitting tasks or CEQA review will have higher percentages; alternatively, a project that can be implemented with in-house forces may have lower percentages assigned. Percentages indicated below are for "typical" projects.

Soft Costs for Design-Bid-Build Project Delivery Methods

Planning – 5% of Construction Cost

Design – 10% of Construction Cost

Construction Management – 18% of Construction Cost
where: Construction Management/Inspection = 10%
Design Services During Construction = 3%
Testing/Surveying/etc = 5%

Project Management – 5% of Construction Cost

Construction Change Orders – 5%

Total Soft Cost Percentage = 43%

Soft Costs for Instrumentation Projects

For Instrumentation projects, the percentage allocation should be:

Planning – 20%

Design – 25%; includes Programming

Construction Management – 40%

where: Construction Management/Inspection = 10%
Design Services During Construction = 20%
Testing, etc = 10%

Project Management – 5%

Construction Change Orders – 5%

Total Soft Cost Percentage = 95%

Staff Time and Confidence Level Factor

In the original 2008 CIP preparation, a percentage of 5% and 10% for staff time related to typical projects and instrumentation projects, respectively, was added to each project. During the course of preparation and ultimate adoption by the Commission, staff time was deleted from each project and, instead, a project listed as "Capital Improvement Engineering" was added. This project remained in the CIP Updates until the 2017 Update. Instead, staff time dedicated to CIP development is allocated to the individual projects which project managers are working. While the budgets for each project were not

increased to account for staff time, staff is working diligently to keep their work hours as efficient as possible. There may come a need to reinstate this Capital Improvement Engineering project back into future CIP Updates.

Also in the original CIP preparation, each project had a 30% confidence factor applied to the sum of the Construction phase costs + Soft Costs. Again, during the course of preparation and Commission review and adoption, these confidence factors were removed for the majority of projects. This remains true for the CIP Updates; i.e., projects do not include a 30% confidence level factor.

Appendix B
Funding Requirements

Appendix B
Funding Requirements

Financial Structure and Management

SVCW has no taxing power and therefore receives nearly all of its funding, other than interest earnings and other miscellaneous revenues, according to rules established through a Joint Powers Agreement between Member Agencies. Combined, Member Agencies pay all expenditures associated with operations, capital repairs, capital reserves, debt service, and debt reserves. Capital and Reserve allocation factors, according to the JPA, are as follows:

City of Belmont	9.45%
City of Redwood City	48.57%
City of San Carlos	15.145
West Bay Sanitary District	26.84%

Each year, the SVCW Commission adopts a budget for the following year. The budget establishes the funding requirements for each of the Members. Funding occurs in twelve monthly installments. After the close of the fiscal year, the annual payments made by each Member are reconciled against the actual expenditures allocated to each Member according to the JPA. Any difference is applied toward fund reserves held by the Authority on behalf of each Member.

Financial Planning

Member Agency sewer rates provide the underlying repayment security for all SVCW financing. SVCW prepares a Long Range Financial Plan annually and presents it to the Commission in January, to incorporate revised CIP figures and/or funding strategies. The plan describes how each agency should consider SVCW operating and capital funding expenditures when setting sewer rates. The 2022 Long Range Financial Plan was accepted at the January 2022 Commission Meeting in conjunction with this CIP Update.

Appendix C
CEQA Documentation

Appendix C
CEQA Documentation

California Environmental Quality Act Compliance

SVCW will act as Lead Agency for the projects in the 2020 CIP Update. The California Environmental Quality Act (CEQA) requires that SVCW adequately assess the environmental impacts of its capital projects. Some projects in the CIP will require an Initial Study to comply with CEQA, some will require further project definition to analyze for necessary CEQA action, while some projects will fall under statutorial or categorical exemption from further CEQA analysis. The Commission will consider approval of CIP projects after preparation and certification of the appropriate CEQA documentation.

For certain projects, SVCW may act as a Responsible Agency and would rely on other agencies to prepare the primary environmental documentation. These projects require Environmental Impact Reports (EIRs) or Negative Declarations, which were previously approved by other agencies.

CEQA Exemptions

The CIP itself is exempt from CEQA as a planning study (CEQA Guideline Section 15262). Some projects included in this CIP are likewise exempt under CEQA. The CEQA certifications for these projects are considered approved when the Commission adopts the 2020 Update.

The following summary lists the applicable exemptions for SVCW's CIP projects:

Statutory Exemption:
- CEQA Guideline 15262 – Feasibility and Planning Studies
- CEQA Guideline 15269 – Emergency Project

Categorical Exemption:
- CEQA Guideline 15301 –Existing Facilities (repair, operation, maintenance; negligible or no expansion of an existing use)
- CEQA Guideline 15302 – Replacement or Reconstruction of Existing Facilities
- CEQA Guideline 15303 – New Construction or Conversion of Small Structures
- CEQA Guideline 15306 – Information Collection
- CEQA Guideline 15322 – Educational or Training Programs Involving No Physical Changes
- CEQA Guideline 15329 – Cogeneration Projects at Existing Facilities
- CEQA Guideline 15330 – Minor Actions to Prevent, Minimize, Stabilize, Mitigate, or Eliminate the Release or Threat of Release of Hazardous Waste or Hazardous Substances
- CEQA Guideline 15378 – Activity is not defined as a project per guidelines.

CEQA Compliance Status

The CEQA compliance status was reviewed for all projects listed in the CIP. Each project was reviewed for the type of CEQA documentation that is required. Types of CEQA compliance are indicated in the table below.

Types of CEQA Compliance

Further Project Definition Required	In some cases, the project is not yet sufficiently defined to allow a determination to be made on the appropriate level of environmental documentation. A preliminary review of these projects will be made when the project is more clearly defined.
Exemption	A preliminary review of the project has concluded that the project designated in the table as exempt has been granted an exemption by statute or by categories established in the State CEQA Guidelines. Adoption of the CIP Budget constitutes Commission approval of the projects that are listed in the table as exempt under CEQA. Certain CIP projects noted as "Not a Project Under CEQA" are also exempt from further CEQA review.
Initial Study/ EIR/Negative Declaration	Initial Study of the project will be undertaken to determine if the project may have a significant effect on the environment. Depending on the results of the study, either a Negative Declaration or EIR will be prepared. Commission approval of the project will follow approval of the Negative Declaration or EIR.
Previous CEQA Document Approved	For these projects, CEQA compliance has already been achieved through documents previously prepared and approved. If CEQA documents were prepared by other agencies, SVCW may need to make specific findings and, subsequently, file additional documentation at the time the project receives Commission approval.

The CEQA compliance status of the various projects in the CIP is indicated in the following tables. For each project listed in the table, the type of CEQA documentation that has been completed or is anticipated to be required is indicated. The table is organized by CIP Project number. In some cases, Notices of Exemptions (NOE) are filed with the State Clearinghouse. SVCW is not required to file NOEs with the State but in some cases does so to be in compliance with State and/or Federal funding requirements or other reasons such as requests from sureties or contractors.

This analysis and approval complies with CEQA Guidelines issued by the State of California.

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
6003	Influent Force Main Emergency Repair	2008	SE	Emergency Project	15269			
6008	Tunnel and Gravity Pipeline	2015				IS Required; CEQA Required	Included in EIR for Conveyance System	EIR approved April 13, 2017
6018	Decommission 54-Inch Force Main	2022				IS Required; CEQA Required	Included in EIR for Conveyance System	EIR approved April 13, 2017
8025	No. 3 Water Control System	2011	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9014	Process Tanks Concrete and Steel Protective Coatings Replacement	2009	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9017	Plant #1 Water System Pipe Repair and Supply Upgrade	2008	CE	Repair of Existing Facilities	15301			
9033	Future Plant Electrical System Panel Replacement	2014	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE filed April 27, 2010

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9034	Electrical Conductor Replacement - MCC Room to Wetside/Dryside Loads	2014	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE filed April 27, 2010
9041	Underground Fuel Tank Replacement	2008	CE	Replacement or Reconstruction of Existing Facilities	15302			
9071	Plant Gallery Floor Sealing	2008	CE	Repair of Existing Facilities	15301			
9078	10-Yr CIP Program Annual Updates	2008	CE	Not a project under CEQA	15378			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9080	Primary Sedimentation Tanks Collector System Maintenance	2008	CE	Replacement or Reconstruction of Existing Facilities	15302			
9096	Plant Architectural Painting	2009	CE	Repair of Existing Facilities	15301			
9097	Plant Deck Re-coating	2012	CE	Replacement or Reconstruction of Existing Facilities	15302			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9103	Landscape Impoundment Improvements	2015				May be included w/Conveyance System CEQA	Included in EIR for Conveyance System	EIR was approved April 13, 2017
9105	Document Management System	2008	SE	Feasibility and Planning Study	15262			
9107	CCT Concrete and Steel Protective Coating Replacement	2012	CE	Replacement or Reconstruction of Existing Facilities	15302			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9120	RAS Pump Suction Pipe Replacement	2008	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9128	PST 3 & 4 Protective Coatings	2015	CE	Replacement or Reconstruction of Existing Facilities	15302			
9130	Capital Improvement Engineering	2008	CE	Not a project under CEQA	15378			
9131	Plant Service Road Resurfacing-Phase 2	2008	CE	Replacement or Reconstruction of Existing Facilities	15302			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9158	State Revolving Fund Financial Assistance	2009	CE	Not a project under CEQA	15378			
9159	OCIP Funding	2009	CE	Not a project under CEQA	15378			
9168	Thickening Improvements - Phase I	2008	CE	Replacement or Reconstruction of Existing Facilities	15302			
9196	Electronic O&M Manuals	2013	CE	Not a project under CEQA	15378			
9215	Digester #1 Rehabilitation	2015	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9223	Final Effluent Pump Replacement	2014	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9229	Food Waste: Receiving Station and Digester Improvements	2015	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE filed March 23, 2016
9231	BioforceTech Dryer System	2015	CE	Cogeneration Projects at Existing Facility	15329			NOE filed 10/01/2015 Notice of non-responsibility 11/06/2015
9232	Long Term Strategic Recycled Water Planning	2015	SE	Feasibility and Planning Study	15262			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9235	Digester Gas Storage	2016	CE	Cogeneration Projects at Existing Facility	15329			
9236	CEC SAF-MBR	2018	CE	Existing Facility	15329			NOE filed 06/03/2017
9237	Radio Road Wetlands Restoration	2017				IS Required		
9240	Standby Generators Feed Relocation and Electrical Panel Upgrades	2020	CE	Existing Facilities	15301			NOE Filed 03/30/2021
9241	Primary Effluent Channel Recoating	2020	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9242	Fixed Film Reactor Rehabilitation	2020	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021
9243	PST Thickening Project	2020	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9244	Digester 3 Cleaning and Rehab	2020	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021
9245	Digester 2 Cleaning and Rehab	2020	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021
9246	Activated Sludge Process Rehabilitation	2020	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021
9247	SHB Electrical Rehabilitation	2020	CE	Repair of Existing Facilities	15301			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9248	Cogeneration Engine System Rehabilitation	2020	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021
9249	Fine Screening Process Rehabilitation	2020	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021
9250	Wet Side Power Rehabilitation	2020	CE	Repair of Existing Facilities	15301			
9251	Laboratory HVAC Rehabilitation	2020	CE	Repair of Existing Facilities	15301			
9252	Repair of Final Effluent Pump Suction Piping	2020	CE	Repair of Existing Facilities	15301			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9254	Waste Gas Burner Replacement	2020	CE	Replacement or Reconstruction of Existing Facilities	15302			
9255	3W Capacity Upgrades Project	2021	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9256	Spent Backwash Pump System Rehabilitation	2022	CE	Replacement or Reconstruction of Existing Facilities	15302			
9257	Food Waste Improvements	2022	CE	Replacement or Reconstruction of Existing Facilities	15302			
9258	Capital Support for Process Engineering	2022	CE	Replacement or Reconstruction of Existing Facilities	15302			

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9259	Primary Effluent Structural Rehabilitation	2022	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9400	Nutrient Removal	2017	CE	Replacement or Reconstruction of Existing Facilities	15302	Further Project Definition Required		
9401	Side Stream Treatment	2018	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9500	RESCU Administrative Activities	2020	CE	Not a project under CEQA	15378			
9501	Pump Station Rehabilitation	2015				IS Required; CEQA Required	Included in EIR for Conveyance System	EIR approved April 13, 2017

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9502	Front-of-the-Plant	2015				IS Required; CEQA Required	Included in EIR for Conveyance System	EIR approved April 13, 2017
9503	WWTP Improvements Phase II	2017	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021
9600	Buried and Exposed Process Pipe Repair	2022	CE	Repair of Existing Facilities	15301			NOE Filed 03/30/2021
9601	WAS Influent Pipe Rehab	2022	CE	Replacement or Reconstruction of Existing Facilities	15302			NOE Filed 03/30/2021

Project No.	Project Name	Start Date	Exempt Projects			CEQA Documentation		
			SE=Statutory CE=Categorical Exemption	Reason for Exemption	CEQA Guideline Reference	Initial Study Required?	Action Taken	Date
9807	12 kV Primary Switchgear	2017	CE	New Construction of Small Structures	15303			
9808	In-Plant Power (12kV) Rehabilitation	2017	SE	Emergency Project	15269			
9810	Energy Storage	2017	CE	New Construction of Small Structures	15303			

Appendix D
References

Appendix D
References

Information contained in the SVCW 2020 Capital Improvement Program Update was derived from multiple sources, including written documents and staff and consultant knowledge. The following list comprises the reference basis for the project information.

SVCW 10-Year Capital Improvement Program – April 2008

- Adopted CIP inclusive of 131 Projects

SVCW 10-Year Capital Improvement Program – 2018 Update

- Adopted CIP Update

SVCW Engineering Division Staff

- Program Managers from each CIP Program

SVCW Operations & Maintenance Division Staff

- Needs assessment; discussions with O&M Department Manager

Outside Resources

- Construction Management Team
- Operations, Maintenance & Engineering Consultants
- Owners' Advisors teams for RESCU

Capital Improvement Program Project Master Plans

- Energy System Master Plan, CDM, dated June 2009
- Biosolids Master Plan, Brown and Caldwell, dated September 2010
- Corrosion and Odor Control Master Plan, Whitley Burchett & Associates, dated June 2010
- Conveyance System Master Plan, Winzler & Kelly, draft dated December 2011

SVCW Capacity Analysis Report

- Prepared by Brown and Caldwell, October 2013
- Verification Technical Memorandum prepared by Kennedy/Jenks, April 2017

BACWA Nutrient Removal Studies

- Participation in Contracts Management Group and Permit Group

AGENDA ITEM 8C

LONG RANGE FINANCIAL PLAN
2022 UPDATE

ISSUE
Receipt and Approval of the Silicon Valley Clean Water Long Range Financial Plan 2022 Update

BACKGROUND
Silicon Valley Clean Water ("SVCW") updates its Long-Range Financial Plan ("LRFP" or "the Plan") at the beginning of each calendar year. The update describes cash flows needed over a 10-year projection and, therefore this proposed LRFP 2022 update describes the cash flows needed by SVCW through fiscal year 2031-32. It includes funding for operations and maintenance of wastewater facilities, revenue-funded capital projects, debt service payments, and ongoing cash reserve contributions. The purpose of the LRFP is to inform Member Agency staff who may incorporate the financial projections into rate planning and other decision-making associated with its sewer operations.

The Plan conforms to the financial and budgetary aspects of the SVCW Joint Powers Agreement. It incorporates the adopted 2021-22 operating/capital budgets along with relevant fiscal policies that may shape SVCW cash flow requirements. SVCW staff intends the Plan to be consistent with actual operating costs, construction activities, and debt coverage measures.

DISCUSSION
In 2008 SVCW initiated its Capital Improvement Program ("CIP") to replace and rehabilitate the wastewater conveyance and treatment system in a structured and prioritized manner. Now in its fourteenth year, the CIP has completed over 130 projects to rebuild, rehabilitate, and upgrade SVCW facilities. Over the next two years the Authority anticipates completion of the largest capital project in its history, the Regional Environmental Sewer Conveyance Upgrade ("RESCU"). Following RESCU completion in fiscal year 2024, other CIP projects are much smaller in scope and cost. From July 01, 2021 through Fiscal Year ended 2030-2031, expenditures for projects identified in the CIP are estimated at $330 million as illustrated below:

Identified Capital Expenditures through Fiscal Year 2031; by CIP Program ($ Millions)

CIP Program	FYE 2022	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	Total
Gravity Pipeline	$ 39.6	$ 1.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 41.3
Front of Plant Facilities	43.7	12.1	-	-	-	-	-	-	-	-	55.8
Pump Stations & Pipelines	70.0	29.3	4.9	-	-	-	-	-	-	-	104.1
Treatment Facilities	30.9	28.7	26.7	13.9	9.6	6.1	4.1	4.1	2.6	2.6	129.4
Total	**$ 184.2**	**$ 71.7**	**$ 31.6**	**$ 13.9**	**$ 9.6**	**$ 6.1**	**$ 4.1**	**$ 4.1**	**$ 2.6**	**$ 2.6**	**$ 330.5**

Report By: _M.A._ 8C-1

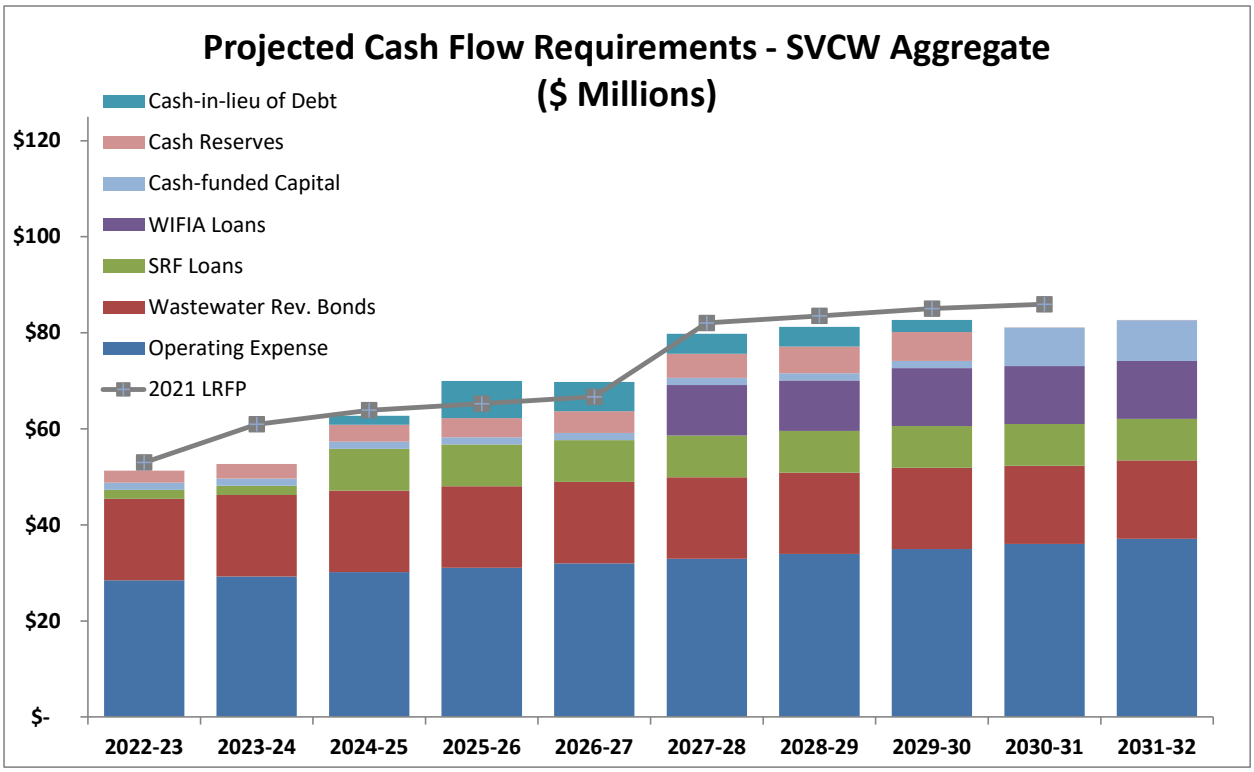
The CIP has been chiefly funded with long-term debt, with some members opting to contribute cash in lieu of participating in SVCW debt issuance. In recent years SVCW was able to secure over $300 million in low-interest government loans, with unanimous participation of members.

Each year, the LRFP updates funding strategies by considering three critical items:

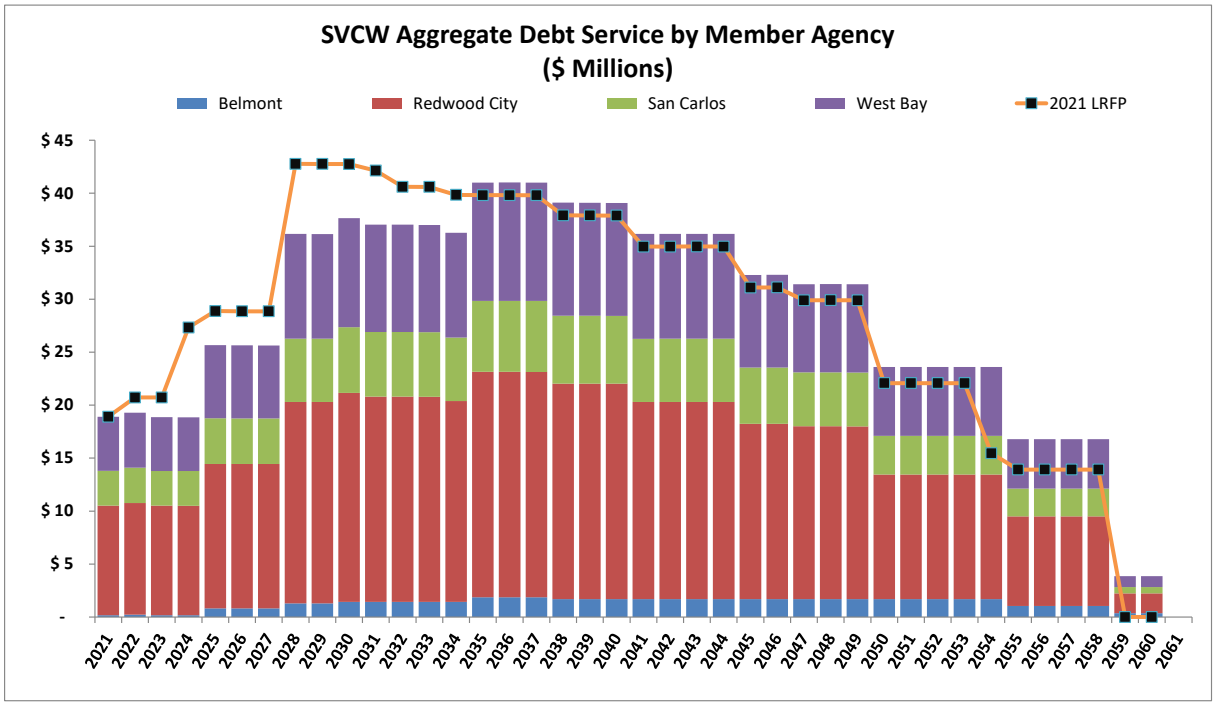
- **CIP Update**: SVCW continuously updates cost estimates of remaining CIP projects by including project additions and deletions, changes in project scope, and new pricing information. These factors, as presented separately in Agenda Item 8B, have been incorporated into the LRFP.
- **Construction Timing:** The RESCU program has remained on schedule due to successful implementation of a Progressive Design-Build project delivery method.
- **Financing Sources and Rates**: The LRFP reflects the low interest rates and favorable loan terms were secured over the past year. With help of Governmental loans from the California State Water Resource Control Board ("SWRCB") and the U.S. Environmental Protection Agency ("U.S. EPA"), the Authority has now funded the entirety of the RESCU program. Concurrently, other outstanding debt was refinanced to reduce borrowing costs. Details include:
    - Three SWRCB State Revolving Fund Loans, valued at $169 million, were executed at 0.90% to help fund RESCU. Debt service payments will commence in fiscal year 2024-25, one year after project completion.
    - Two U.S. EPA Water Infrastructure Finance Innovation Act ("WIFIA") Loans were executed with principal of $68.9 million (RESCU program) and $73.8 million (Treatment Plant projects), respectively. The EPA allowed SVCW to adjust both loans' debt service into a wrapped structure, which reduced an otherwise sharp increase in SVCW's total debt service. This approach outweighed the interest rates of these two loans, which at 1.93% and 1.94% were slightly above the 1.75% assumed in the prior year's LRFP.
    - An advanced refunding of two bond series from 2014 and 2015 as well as one State Revolving Fund Loan from 2011. The combined $125 million in refunding closed at a True Interest Cost of 2.30%; a better rate than the 2.67% assumed in the 2021 LRFP.

FINANCES

The 2022 LRFP describes the structure, timing, and amount of all SVCW expenditures over the next decade and is useful to Member Entities for rate-setting purposes. It incorporates inflationary factors, estimates debt service payments, provides for cash-funded capital projects, and accounts for future contributions to cash reserves. SVCW anticipates $51.3 million of cash flows are needed in fiscal year 2022-23, with the annual figure rising to $82.7 million in ten years. Projected cash flow requirements are shown on the following page.



Debt service payments, cumulative over the next ten years, is approximately $299 million, which is $46.9 million less (in nominal dollars) than the prior year Plan. Discounted to January 2022 dollars, this is a reduction of NPV $43.2 million. The Maximum Annual Debt Service payment (or "MADS") is now anticipated in fiscal year 2034-35 and estimated at $41.0 million, which is a $1.7 million reduction from last year's predicted MADS in 2027-28 and a benefit of wrapped payment structures used on new WIFIA Loans.



With the above-described debt issuances, $286.3 million of remaining CIP expenditures has been secured, leaving approximately $44.3 million in expenditures for which a source of funds must be identified. The Authority proposes the following approach:

Proposed Sources to fund CIP Expenditures not yet secured by existing debt ($ Millions)											
Description	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	FYE 2032	TOTAL
Stage 2 Capacity Funds	$ -	$ 2.2	$ 12.1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$14.3
Cash in lieu of Debt	-	-	1.8	7.7	6.1	4.1	4.1	2.6	-	-	26.4
CIP Reserve, Redirected	-	-	-	-	-	-	-	-	2.6	1.0	3.5
TOTAL	**$ -**	**$ 2.2**	**$ 13.9**	**$ 7.7**	**$ 6.1**	**$ 4.1**	**$ 4.1**	**$ 2.6**	**$ 2.6**	**$ 1.0**	**$44.3**

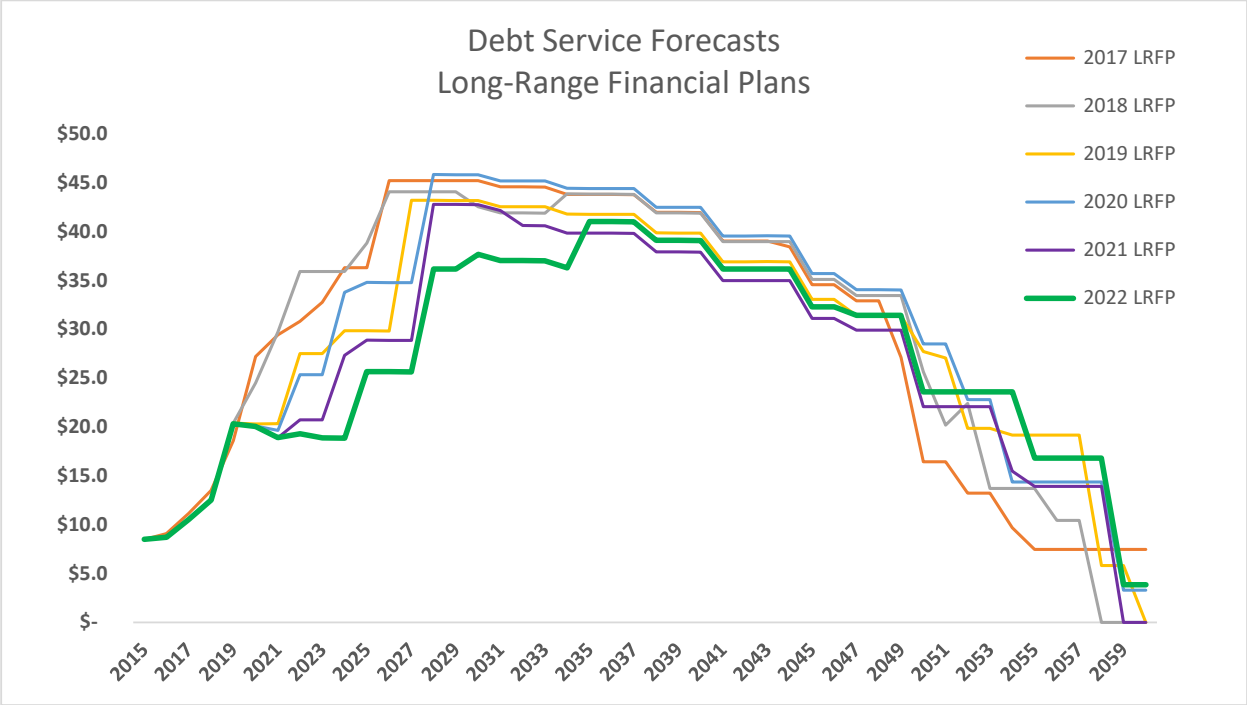
- **Stage 2 Reserves:** As of November 30, 2021, approximately $14.3 million is held in this reserve to be spent towards construction projects that maintain and/or expand SVCW's treatment capacity.
- **Cash in lieu of Debt**: As surplus cash was available Members have at times opted to fund CIP construction with cash rather than issuing additional debt. A similar approach is proposed for a six-year period beginning Fiscal Year 2024-25, when approximately $26.4 million in project expenditures need finding. Alternatively, Members may choose to utilize SVCW's line of credit or issue fixed-rate wastewater revenue bonds.
- **Redirected CIP Reserve Contributions:** Beginning Fiscal Year 2030-31, the CIP Reserve Fund is predicted to reach its target balance. The Commission, in November 2019, adopted amendments to the CIP Reserve Policy (Policy #2013-03) that recognized the importance of setting this target balance, and thereafter redirecting contributions to CIP projects. By applying this policy, Members' contributions would pay for projects in Fiscal Year 2030-31 and thereafter to mitigate future borrowing.

The above proposed approach, excluding use of Stage 2 Reserves, would require cash contributions from Members as follows:

Member allocations of Proposed Cash Funding ($ Millions)												
Description	*JPA %*	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	FYE 2032	TOTAL
Redwood City	*48.57%*	$ -	$ -	$ 0.9	$ 3.8	$ 3.0	$ 2.0	$ 2.0	$ 1.2	$ 1.2	$ 0.5	$14.6
WBSD	*26.84%*	-	-	0.5	2.1	1.6	1.1	1.1	0.7	0.7	0.3	8.1
San Carlos	*15.14%*	-	-	0.3	1.2	0.9	0.6	0.6	0.4	0.4	0.2	4.5
Belmont	*9.45%*	-	-	0.2	0.7	0.6	0.4	0.4	0.2	0.2	0.1	2.8
TOTAL	*100.00%*	**$ -**	**$ -**	**$ 1.8**	**$ 7.7**	**$ 6.1**	**$ 4.1**	**$ 4.1**	**$ 2.6**	**$ 2.6**	**$ 1.0**	**$30.0**

Cash flows are described in more detail on pages 39 through 43 of the attached LRFP, which reflects factors such as contributions in lieu of debt, participation assumptions for future debt issuances, and flow & loading behaviors. A presentation further discussing the 2022 LRFP Update will be given at the Commission meeting.

The Long-Range Financial Plan concludes the majority of financial planning necessary to fund SVCW's CIP. Having taken advantage of government loans and declining interest rates, anticipated debt costs have significantly improved from prior years' estimates:



RECOMMENDATION

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

Long Range Financial Plan (DRAFT)

January 2022

Silicon Valley Clean Water

Presented January 2022 by:

Matthew Anderson
Chief Financial Officer / Assistant Manager
Silicon Valley Clean Water
1400 Radio Road
Redwood City, CA 94065
manderson@svcw.org
(650) 832-6261

Silicon Valley Clean Water Commissioners

Commissioner	Title	Member Agency
Alicia Aguirre	Chair	City of Redwood City
George Otte	Vice Chair	West Bay Sanitary District
Warren Lieberman	Secretary	City of Belmont
Ron Collins	Member	City of San Carlos

Member Agency Staff

Name	Title	Member Agency
Michelle Poche Flaherty	Assistant City Manager	City of Redwood City
Derek Rampone	Finance Director	City of Redwood City
Terrence Kyaw	Public Works Director	City of Redwood City
Grace Castaneda	Finance Director	City of Belmont
Afshin Oskoui	City Manager	City of Belmont
Rebecca Mendenhall	Administrative Services Director	City of San Carlos
Grace Le	City Engineer	City of San Carlos
Steven Machida	Public Works Director	City of San Carlos
Sergio Ramirez	District Manager	West Bay Sanitary District
Debra Fisher	Finance Manager	West Bay Sanitary District

THIS PAGE INTENTIONALLY LEFT BLANK

Silicon Valley Clean Water Staff

Name	Title
Teresa A. Herrera	SVCW Manager
Matthew Anderson	Assistant Manager & Chief Finance Officer
Kim Hackett	Authority Engineer
Arvind Akela	Engineering Director
Monte Hamamoto	Chief Operating Officer

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 1 – EXECUTIVE SUMMARY AND INTRODUCTION

This Long Range Financial Plan (LRFP; or the Plan) describes the anticipated cash flows required by Silicon Valley Clean Water (SVCW; or the Authority) over the next decade to provide wastewater services and fund critical construction for the communities it serves. This includes funding for operations and maintenance of wastewater facilities, revenue-funded capital projects, as well as Capital Improvement Program (CIP) program expenditures and associated debt service payments. It also describes contributions to cash reserves to fund future capital improvements. This Plan is meant to encourage discussion and support decision-making. It provides up-to-date financial information to Member Agencies ("Member Agencies", as herein defined) as they measure the financial implications of decisions and communicate with internal and external stakeholders.

SVCW's Wastewater Treatment Plant (WWTP) was placed in operation November 1981 and connected to an influent conveyance system and effluent disposal system built in 1969. In 2006, engineering studies determined the majority of SVCW fixed assets were beyond their useful lives and needed replacement. SVCW therefore initiated a CIP that identifies equipment and facilities that need replacement or rehabilitation; and describes the schedule of construction and expenditures (Capital expenditures or costs) in a structured and prioritized manner. It has also anticipated that more stringent treatment requirements will be necessary. The CIP is the Authority's guiding document and a concurrent update estimates that, inclusive of spending to date, the majority of the program will have been constructed by Fiscal Year Ended 2024.

This Plan incorporates the guidelines from the SVCW Joint Powers Agreement, the adopted Operating and Capital Budget from 2021-22, and relevant fiscal policies that influence cash flow requirements. It also recognizes the importance of growing the Authority's cash reserves dedicated to future projects.

The LRFP is updated each year to measure SVCW's financial position relative to anticipated cash flows needed from SVCW's Member Agencies. After incorporating CIP construction and expenditure schedules, the LRFP-recommended strategy ensures SVCW obligations can be met while Members strengthen their credit ratings.

Compared to the February 2021 LRFP, this Plan considers three significant factors:

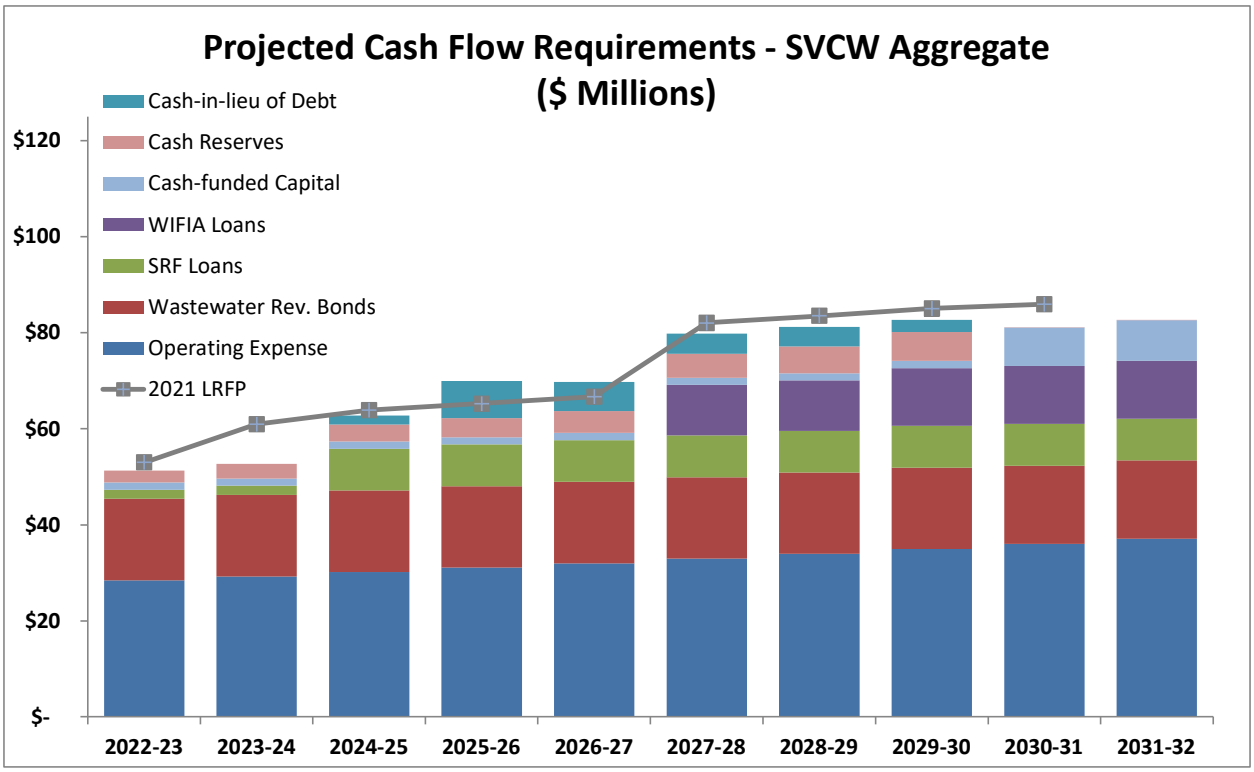
- **CIP Update**: SVCW continuously updates its cost estimates for remaining CIP projects by adjusting for project additions and deletions, changes in project scope, and new pricing information. These factors, as presented separately in Agenda Item 8B, have been incorporated into the LRFP.
- **Construction Timing:** The RESCU program has remained on schedule due to successful implementation of a Progressive Design-Build project delivery method.

- **Financing Sources and Rates**: The LRFP reflects the low interest rates and favorable loan terms secured over the past year. With help of Governmental loans from the California State Water Resource Control Board ("SWRCB") and the U.S. Environmental Protection Agency ("U.S. EPA"), the Authority has now funded the entirety of the RESCU program. Concurrently, other outstanding debt was refinanced to reduce borrowing costs. Details include:
    - Three SWRCB State Revolving Fund Loans, valued at $169 million, were executed at 0.90% to help fund RESCU. Debt service payments will commence in fiscal year 2024-25, one year after project completion.
    - Two U.S. EPA Water Infrastructure Finance Innovation Act ("WIFIA") Loans were executed with principal of $68.9 million (RESCU program) and $73.8 million (Treatment Plant projects), respectively. The EPA allowed SVCW to adjust both loans' debt service into a wrapped structure to blunt an otherwise sharp rise in SVCW's total debt service. The benefit of this approach outweighed slightly-higher interest rates of the new WIFIA loans which, at 1.93% and 1.94% were slightly higher than the 1.75% assumed in the prior year.
    - A 2021 Bond issuance to advance refund two bond series from 2014 and 2015 as well as one State Revolving Fund Loan from 2011. The combined $125 million in refunding closed at a True Interest Cost of 2.30%; a better rate than the 2.67% assumed in the 2021 LRFP.

Like many other wastewater treatment and conveyance facilities, SVCW infrastructure was originally funded by the 1972 Clean Water Act. As assets aged, the absence of a capital replacement fund at SVCW created a reliance on debt to fund the current CIP. The Authority now strives to obtain the lowest-cost financing available through a combination of Wastewater Revenue Bonds, low-cost Governmental Loans at federal and state levels, and cash reserves when available. Additionally, SVCW has taken steps to increase capital reserves to reduce its reliance on debt issuances for future capital projects.

When made aware in 2008 of the need to invest a significant amount into SVCW infrastructure, Member Agencies enacted strategies to increase sewer rates. Regular updates to the SVCW CIP and this LRFP keep Member Agencies informed of the next decade's cash flow requirements and, as a result of their steady rate adjustments, forecasted rate increases are likely modest.

This LRFP projects total cash flows required of SVCW Member Agencies over the next decade. Annual cash flow requirements in FY 2022-23 are estimated at $51.3 million and are thereafter projected to reach $82.7 million in ten years. The largest increase in expenditures over the next decade is for debt service payments, estimated to peak at $41.0 million annually once fully in place. Other non-debt related expenditures are less impactful; the average annual increase in Operating Expense is approximately 3%, ongoing reserve contributions follow adopted policies, and a certain amount of capital projects are recommended to be funded by cash rather than issuance of new debt.



Projected SVCW Cash Flow Requirements - Aggregate ($ Millions)										
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Operating Expense	$ 28.44	$ 29.29	$ 30.17	$ 31.08	$ 32.01	$ 32.97	$ 33.96	$ 34.98	$ 36.03	$ 37.11
Wastewater Rev. Bonds	16.97	16.97	16.97	16.95	16.95	16.95	16.94	16.92	16.31	16.31
SRF Loans	1.89	1.89	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69
WIFIA Loans	-	-	-	-	-	10.52	10.52	12.03	12.03	12.03
Cash-funded Capital	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	8.00	8.50
Cash-in-lieu of Debt	-	-	1.84	7.73	6.10	4.11	4.11	2.55	-	-
Cash Reserves	2.53	3.03	3.53	4.03	4.53	5.03	5.53	6.03	0.03	0.03
TOTAL	$ 51.33	$ 52.67	$ 62.70	$ 69.98	$ 69.77	$ 79.78	$ 81.25	$ 82.71	$ 81.09	$ 82.67

THIS PAGE INTENTIONALLY LEFT BLANK

INTRODUCTION

Purpose of Long-Term Financial Planning

Member Agencies' sewer rates provide the underlying repayment security for all SVCW financing. As such, in 2008, SVCW developed a Five-Year Financial Plan (the "Financial Plan") to provide a financial roadmap for funding the CIP and ongoing operating costs. The Financial Plan was frequently updated and presented to the SVCW Commission (as hereinafter defined) to incorporate CIP budget figures. It provides a roadmap that Member Agencies follow when considering sewer rates.

A long-term financial plan combines financial projections with strategy. The Government Finance Officers Association (GFOA) recommends that all governments regularly engage in long-term financial planning as a collaborative process to consider future scenarios and help navigate challenges. By aligning financial capacity with long-term service objectives, SVCW and its Member Agencies) gain insight as to financial resources needed to support strategies. With this information, Member Agencies can balance objectives and financial challenges.

SVCW will manage its finances and meet critical funding needs while recognizing Member Agencies' need to maintain reasonable wastewater rates. This LRFP will be enacted as SVCW and its Members adopt annual budgets, monitor financial performance, and incorporate Commission-directed actions. The LRFP is based upon financial planning models that include long-term forecasts of operating and capital expenditures. It includes reasonably conservative assumptions and attempts to account for uncertainties. It aims to generate adequate cash reserves for capital projects while maintaining good standing in the credit markets to provide ready access to cost-effective capital financing when needed. It evaluates the capital financing and debt service coverage policies to optimize cash funding of capital investments. Finally, it continues to evaluate cash reserve policies that must consider intergenerational equity with regards to funding capital projects and raising rates.

The LRFP includes a debt structure model to document recommended debt strategy, identify risks to that strategy, and offer mitigation steps available or alternative funding solutions. As part of the Plan a financial model (the Model) was created to assess financing alternatives for the CIP.

This LRFP is meant to stimulate discussions for decision making by providing up-to-date financial information. Member Agencies can incorporate this material to understand the financial impact of decisions, and to communicate those impacts to internal and external stakeholders. This long-term financial plan includes the following elements:

- **Time Horizon**: The plan looks ten years into the future.
- **Scope**: The plan considers all expenditures associated with the conveyance and treatment of wastewater received from Member Agencies. Expenditures include all SVCW operating costs, capital improvements, debt service, and cash reserve requirements.
- **Frequency**: This long-term plan is updated annually to aid Member Agencies with their own budgets and rate-setting processes.
- **Content**: The plan includes an analysis of the economic and financial environments, revenue and expenditure forecasts, debt position and affordability analysis, strategies for achieving and maintaining financial balance, and monitoring mechanisms such as a scorecard of key financial health indicators. Adherence with the financial plan and the ability to comply with the financial requirements of this Plan can be measured primarily through debt service coverage and the number of days cash on hand. SVCW can readily monitor these financial metrics through an annual review of the Member Agencies' respective audited financial statements.
- **Visibility**: The plan will inform Member Agencies about the long-term financial prospects of SVCW. Each year going forward, actual results will be compared to the LRFP by integrating it into future LRFPs.

SVCW Member Agency staff was involved in advance of Plan preparation to identify necessary tables, discuss assumptions, and review results. Member Agencies, via the Silicon Valley Clean Water Commission can now integrate the information provided into their own respective financial plans.

Organizational and Business Structure

SVCW was founded in 1975 as the successor to the Strategic Consolidation Sewerage Plan. SVCW took title to all property, capital and equipment of the Strategic Consolidation Sewerage Plan. SVCW maintains and operates sanitary sewerage pumping, transmission and outfall facilities that were originally constructed or otherwise owned by the Strategic Consolidation Sewerage Plan. SVCW provides wastewater transmission, treatment, and effluent disposal services for the surrounding communities including the Cities of Belmont, Redwood City, and San Carlos and for the West Bay Sanitary District (collectively, the Members Agencies). SVCW provides recycled water to the City of Redwood City.

SVCW is a Joint Exercise of Powers Authority (JPA) that provides wastewater transmission, treatment, recycled water, and effluent disposal services to its Member Agencies, all facilities of which (hereinafter referred to as Joint Facilities) are located in the northern part of Silicon Valley between the cities of San Francisco and San Jose. SVCW's wastewater treatment plant is located in the City of Redwood City. SVCW serves more than 200,000 people and businesses located predominantly in San Mateo County, California. SVCW operates in a strong Bay Area economy, with a customer base that includes large business customers such as Oracle Corporation, EA Sports, and Facebook.

SVCW owns and operates a regional wastewater treatment plant with an average dry weather flow permitted capacity of 29 million gallons per day, an approximately nine-mile influent force main pipeline that conveys wastewater from the Member Agencies to SVCW's treatment plant, four wastewater pump stations, and a 1.25-mile effluent disposal pipeline that discharges treated effluent into the San Francisco Bay. SVCW also provides recycled water to the City of Redwood City.

Governance & Management

The JPA is governed by a four-Member Commission consisting of one appointed person from each of the Member Agencies' governing bodies. There is a total of 100 votes, allocated as follows:

- City of Redwood City 42 votes
- West Bay Sanitary District 28 votes
- City of San Carlos 19 votes
- City of Belmont 11 votes

A vote of at least 75% is required to adopt or amend bylaws, rules, and regulations; to adopt or modify any budget; to approve any capital costs, contracts, appropriations, or transfers of more than $75,000; to employ the manager and certain consultants; to sell or dispose of property; and to approve other designated items. Other actions of the Commission must be approved by a

simple majority of the votes. In addition, any amendment to the Joint Powers Agreement must be approved by a four-fifths vote by each of the Member Agencies' governing bodies.

Financial Oversight and Control

SVCW sets an annual budget according to goals established by the Commission that support operational priorities, the CIP and the LRFP. The Budget reflects a progressive approach to fund wastewater operations while controlling costs, minimizing unplanned expenditures, limiting risks, and investing in projects and programs that provide the long-term resources needed for the community.

SVCW has no taxing power. SVCW receives nearly all funding, other than interest earnings and other miscellaneous revenues, from payments made by the Member Agencies for operations, capital improvements, debt service, and cash reserves.

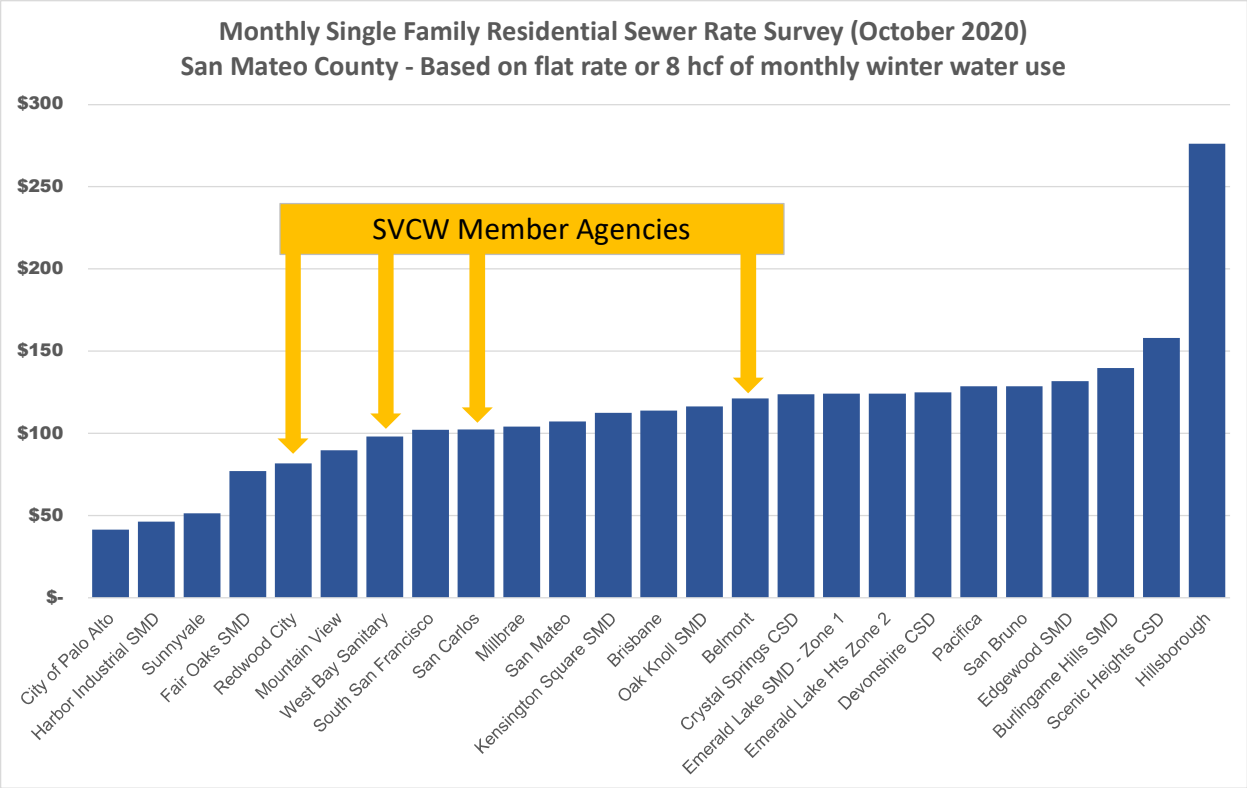
Comparative Residential Sewer Charges

Member Agencies have adopted significant rate increases and currently generate adequate revenues to fund their share of the CIP and capital program costs. The below tables show Members' increases in single family residential monthly sewer rates over the past decade.

Residential Sewer Rates by Member Agency Based on 8 HCF of flow										
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Belmont	$51.34	$72.13	$77.33	$82.77	$88.13	$ 88.13	$ 99.47	$ 105.35	$ 116.14	$ 121.28
Redwood City	$48.72	$53.10	$57.88	$63.09	$68.77	$74.95	$75.11	$76.68	$78.24	$81.76
San Carlos	$46.82	$50.10	$53.10	$67.29	$80.75	$88.82	$88.82	$93.26	$97.93	$102.32
West Bay SD	$54.17	$57.50	$62.67	$68.33	$74.42	$81.08	$85.92	$89.33	$93.83	$98.08

Residential Sewer Rate Year-over-Year % Increase, by Member Agency										
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Belmont	6.8%	40.5%	7.2%	7.0%	6.5%	0.0%	12.9%	5.9%	10.2%	4.4%
Redwood City	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	0.2%	2.1%	2.0%	4.5%
San Carlos	7.0%	7.0%	6.0%	26.7%	20.0%	10.0%	0.0%	5.0%	5.0%	4.5%
West Bay SD	16.1%	6.1%	9.0%	9.0%	8.9%	8.9%	6.0%	4.0%	5.0%	4.5%

Despite these increases, Member Agencies' rates remain among the middle tier of San Mateo County sewer rates:



Regulations and Permits

The federal Clean Water Act requires that all municipal, industrial and commercial facilities that discharge wastewater or stormwater directly from a point source into a water of the United States (such as a lake, river, bay, or ocean) must obtain a National Pollutant Discharge Elimination System ("NPDES") permit. All permits are written to ensure the receiving waters will achieve certain water quality standards.

The federal government delegates the NPDES Program to the State of California for implementation through the State Water Resources Control Board and its nine Regional Water Quality Control Boards, collectively Water Boards. It is the responsibility of the Water Boards to preserve and enhance the quality of the state's waters through the development of water quality control plans and the issuance of NPDES Permits.

SVCW currently operates under a five-year NPDES permit that is valid through September 2022. As an active Member in the Bay Area Clean Water Agencies ("BACWA"), a consortium of publicly-owned treatment works Agencies that operate within the nine-county San Francisco Bay Area, SVCW prepares for future NPDES permit requirements. BACWA is central since some

requirements imposed may be efficiently fulfilled as a group. Through BACWA, SVCW meets provisions related to overall receiving water quality monitoring, Total Maximum Daily Load and Site Specific-Objective Support, Mercury Special Studies, Copper Action Plans, and Cyanide Action Plans.

Regulatory requirements of the NPDES program may increase in the future. Many California Agencies have already been required to significantly increase treatment to remove nutrients (ammonia, nitrates and phosphates) and further reduce pathogenic organisms. Studies are also underway regarding Active Pharmaceutical Ingredients to monitor the cumulative effects of pharmaceuticals and personal products, including anti-psychotic and antihypertensive drugs.

Additionally, nutrients like nitrogen and phosphorus are found in municipal waste. When excessive, these nutrients are considered harmful water pollutants leading to such problems as algae blooms. Nutrient management is an important planning consideration for California wastewater treatment operators – both to remove and to recover these resources. This LRFP funds certain research to assess future nutrient mitigation in wastewater. It should be noted, however, that SVCW also participates in a cooperative to explore joint response strategies to future Nutrient Removal requirements.

Financial Modeling

The CIP estimates approximately $330 million remains to be spent on capital expenditures over the next ten fiscal years. This Financial Plan documents the funding strategy, risks to this strategy, and anticipated mitigation and/or alternative funding solutions available. Prior to issuing debt SVCW updates a capital finance model to evaluate the impact of capital program spending, operations and maintenance costs, and debt service to its, and the Member Agencies', financial condition. To that end, SVCW maintains a quantitative model that includes, but is not limited to, the following:

- Historic and projected cash flows;
- Historic and projected capital expenditures;
- Historic and projected operating costs;
- Historic and projected cash reserve balances, including the Operating Fund, the CIP Fund, Revenue-funded Capital Fund, and Debt Service Reserve Fund, if any;
- Historic and projected debt service coverage;
- The most efficient mix of funding sources (debt and cash);
- The most efficient form of debt (government-subsidized loans, capital market offerings, or private loans) and most efficient structures;
- Projected revenue requirements; and
- Revenue Sources, including miscellaneous revenues and grants.

The Plan incorporates these factors to develop an all-inclusive projection of future cash flow requirements. As part of the Plan, the Financial Model was created to generate and assess multiple debt-based financing alternatives for the CIP. Several scenarios were analyzed to reach the recommended plan, including the extent to which funds would be sourced from Wastewater Revenue Bonds versus Governmental Loans. Further analysis and results are described in Sections 2 and 3 of this Plan.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 2 – GUIDING DOCUMENTS AND PRINCIPLES

Audited Financial Reports

SVCW financial statements are maintained in accordance with all state and federal laws, Generally Accepted Accounting Policy, and standards of the Government Accounting Standards Board. This means revenues and expenses are recognized on a full accrual basis, where revenues are recognized in the period earned and expenses are recognized in the period incurred.

An annual audit is performed by an independent public accounting firm, with an unqualified opinion that SVCW financial statements are presented fairly in all material respects.

Operating Budgets

Each year, the adopted budget establishes the funding requirements for Member Agencies. It includes all operating costs, revenue-funded capital needs, debt service payments, and cash reserves requirements. A full overview of all expenditures facilitates discussion of anticipated changes. Subsequent to the fiscal year-end closing, annual payments made by each SVCW Member Agency are reconciled against the actual expenditures allocated to each SVCW Member Agency and any differences are applied toward funding reserves held by SVCW.

The Budget is constructed consistent with goals established by the Commission to support operational priorities and the CIP. The Budget reflects a progressive approach to controlling costs, minimizing unplanned expenditures, limiting risk, and investing in activities that provide the long-term resources needed for the community.

Used as a baseline for this study, the 2021-22 Budget was $50.5 million. This includes $27.6 million in operating expenditures, $1.5 million for revenue-funded capital projects, additional cash reserve contributions of $2.0 million, and debt service payments estimated at $19.4 million.

2021-22 Budget - Total Contributions by Member Agency					
Description	City of Belmont	Redwood City	City of San Carlos	West Bay San District	TOTAL
Net Operating Expenditures	$ 3,056,516	$ 14,859,965	$ 3,471,004	$ 6,225,028	$ 27,612,513
Revenue-Funded Capital Expendit	141,514	727,336	226,722	401,929	1,497,500
Reserve Contributions	189,000	971,400	302,800	536,800	2,000,000
Projected Debt Service	228,943	10,591,588	3,341,522	5,232,733	19,394,786
Total Contributions to SVCW	**$ 3,615,973**	**$ 27,150,288**	**$ 7,342,048**	**$ 12,396,489**	**$ 50,504,799**

Expenditure Allocation

SVCW annual operating and maintenance costs are allocated according to the Joint Powers Agreement. Specifically, administrative, safety, and conveyance operating costs are allocated based on each Member Agency's proportionate share of total flow contributed to the Joint Facilities. Treatment plant operation and maintenance costs are allocated according to each Member Agency's proportionate contribution of hydraulic flow ("Flow"), Biochemical Oxygen Demand ("BOD") and Suspended Solids ("SS") to the Joint Facilities. The total annual treatment plant maintenance and operation costs are allocated as 26.5% to flow, 33.5% to Biochemical Oxygen Demand and 40.0% to Suspended Solids. Specific Pump Station maintenance and operation costs are tracked as actual costs by coding to each pump station and borne by the Member Agency served by that particular pump station. However, maintenance and operation costs of the booster station are split on a percentage basis between West Bay Sanitary District and Redwood City at 92% and 8%, respectively.

Accordingly, the 2021-22 Operating Budget allocates costs as follows:

2021-22 Budget Revenue Allocation to Member Agencies - Adopted

Description				Belmont	Redwood City	San Carlos	West Bay San District	TOTAL
Allocation Factors								
Flow				*11.30%*	*53.24%*	*13.65%*	*21.81%*	*100%*
Biochemical Oxygen Demand (BOD)				*11.31%*	*52.55%*	*12.05%*	*24.09%*	*100%*
Suspended Solids (SS)				*10.61%*	*55.52%*	*11.80%*	*22.07%*	*100%*
	Weightings							
Operating Expenditures	***Flow***	***BOD***	***SS***					
Operations	*26.5%*	*33.5%*	*40.0%*	$ 1,192,045	$ 5,828,788	$ 1,337,617	$ 2,451,447	$ 10,809,897
Maintenance	*26.5%*	*33.5%*	*40.0%*	799,107	3,907,422	896,693	1,643,367	7,246,589
Laboratory	*26.5%*	*33.5%*	*40.0%*	198,295	969,610	222,510	407,794	1,798,210
Environmental Services	*26.5%*	*33.5%*	*40.0%*	109,581	535,822	122,963	225,354	993,719
Engineering	*26.5%*	*33.5%*	*40.0%*	153,568	750,910	172,322	315,814	1,392,615
Safety	*100.0%*	*0.0%*	*0.0%*	55,608	261,997	67,173	107,328	492,106
Information Services	*26.5%*	*33.5%*	*40.0%*	217,939	1,065,665	244,554	448,193	1,976,351
Administrative Services	*100.0%*	*0.0%*	*0.0%*	424,657	2,000,774	512,971	819,626	3,758,027
Total Operating Expend.				$ 3,150,800	$ 15,320,988	$ 3,576,802	$ 6,418,923	$ 28,467,513
Subtract Miscellaneous Income	*26.5%*	*33.5%*	*40.0%*	$ 94,284	$ 461,023	$ 105,798	$ 193,895	$ 855,000
2021-22 Net Operating Revenue Required				**$ 3,056,516**	**$ 14,859,965**	**$ 3,471,004**	**$ 6,225,028**	**$ 27,612,513**
2020-21 Net Operating Revenue Required				*3,119,636*	*13,023,505*	*3,602,305*	*6,883,538*	*26,628,984*
$ Increase / (Decrease)				*(63,120)*	*1,836,460*	*(131,301)*	*(658,510)*	*983,529*
% Increase / (Decrease)				*(2.02%)*	*14.10%*	*(3.64%)*	*(9.57%)*	*3.69%*

Capital costs are distributed based on each Member Agency's percentage of its capacity rights as defined in the Joint Powers Agreement:

Belmont	San Carlos	Redwood City	West Bay SD
9.45%	15.14%	48.57%	26.84%

Unrelated to the number of votes originally ascribed to Member Agencies in the Joint Powers Agreement, the above capital cost distributions are derived from each Member Agency's share of maximum capacity rights of the originally-built facilities ("Stage 1" capacity) plus its share of capacity-related projects ("Stage 2"), based on average dry weather flows.

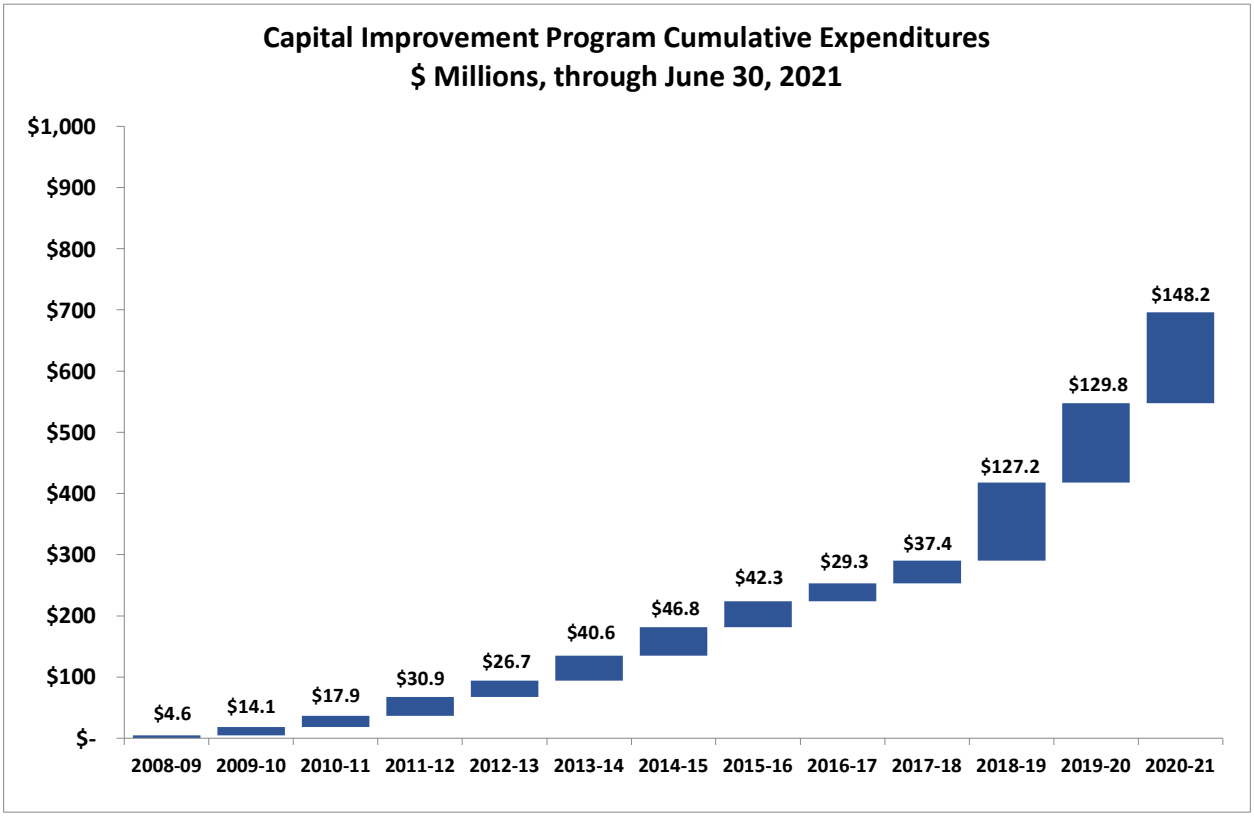
Capital costs associated with the Joint Facilities include improvements resulting from reconstruction, replacement, rehabilitation, remodeling, or relocation. This includes all costs meeting the definition of a capital expense as defined in SVCW's Capital Expense Policy.

2021-22 Capital and Reserve Allocation Calculations					
Description	City of Belmont	Redwood City	City of San Carlos	West Bay San District	TOTAL
Capital and Reserve Allocation Factors	9.45%	48.57%	15.14%	26.84%	100.00%
CAPITAL IMPROVEMENT					
Plant (cash-funded capital)	$ 131,119	$ 673,909	$ 210,068	$ 372,405	$ 1,387,500
Pump Stations	-	-	-	-	-
Force Main	-	-	-	-	-
Equipment	10,395	53,427	16,654	29,524	110,000
Subtotal	$ 141,514	$ 727,336	$ 226,722	$ 401,929	$ 1,497,500
RESERVE CONTRIBUTIONS					
Operating Reserve	$ -	$ -	$ -	$ -	$ -
CIP Reserve	189,000	971,400	302,800	536,800	2,000,000
Subtotal	$ 189,000	$ 971,400	$ 302,800	$ 536,800	$ 2,000,000
Contributions for Capital & Reserves	**$ 330,514**	**$ 1,698,736**	**$ 529,522**	**$ 938,729**	**$ 3,497,500**

Capital Improvement Program (CIP)

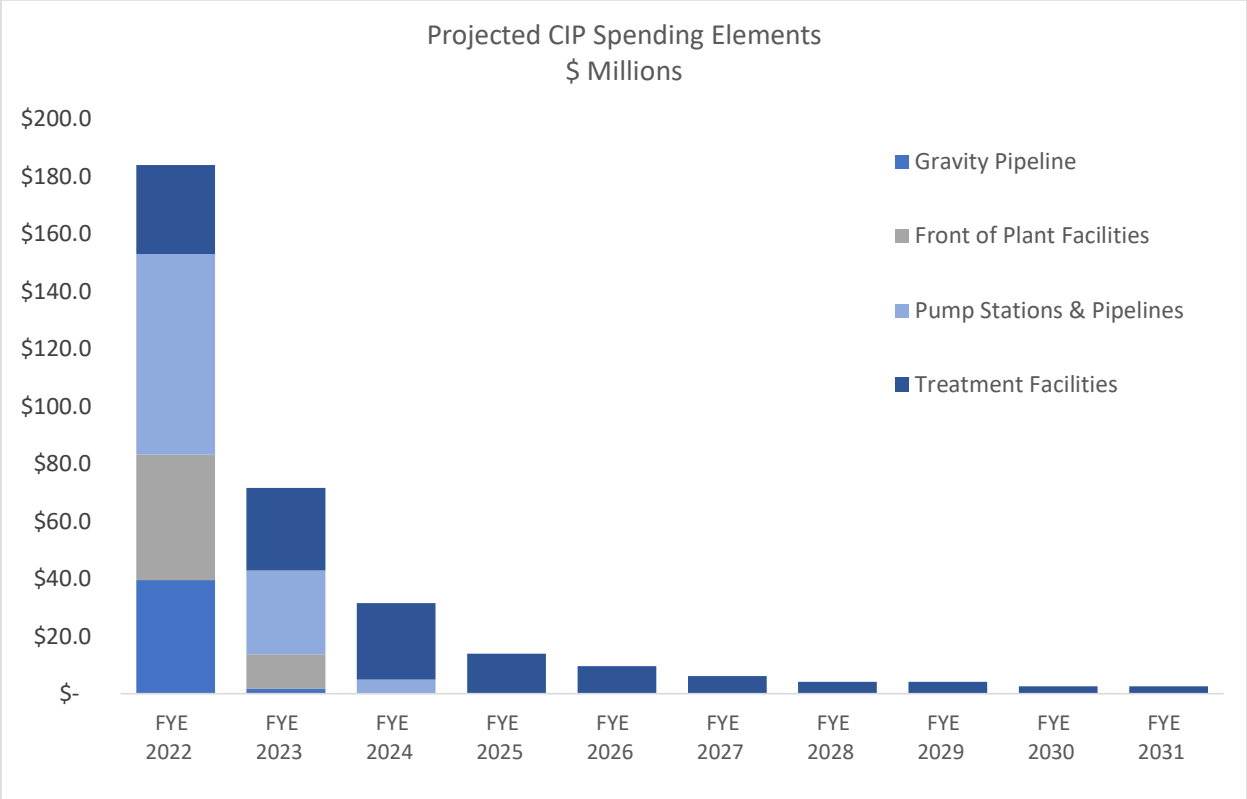
SVCW has made substantial progress to rebuild, rehabilitate, and update its wastewater conveyance and treatment facilities that have approached the end of their useful operating lives. The CIP was originally implemented in 2008 to address near-term and long-term capital replacement needs. Engineering staff periodically updates the CIP to include projects that will address known Joint Facility deficiencies. This includes rehabilitation and replacement of aging infrastructure and equipment; improvements and additions to the treatment plant and conveyance system that substantially enhance reliability; technological upgrades, required regulatory treatment improvements and system-wide automation projects designed to improve operational efficiency and reliability (thereby reducing future operating and maintenance expenses); and additional energy management solutions.

Charges to the CIP include all capitalized components of projects such as planning, design, engineering, construction, and construction management. The costs also include certain administrative costs like insurance and the engineering labor time directly charged to projects. Construction expenditures have risen since 2018 once RESCU projects commenced.



Forecasted CIP Expenditures

Concurrent with this LRFP update, the CIP continues to be updated. It currently identifies remaining expenditures of approximately $330.5 million over the next ten years.



Identified Capital Expenditures through Fiscal Year 2031; by CIP Program ($ Millions)

CIP Program	FYE 2022	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	Total
Gravity Pipeline	$ 39.6	$ 1.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 41.3
Front of Plant Facilities	43.7	12.1	-	-	-	-	-	-	-	-	55.8
Pump Stations & Pipelines	70.0	29.3	4.9	-	-	-	-	-	-	-	104.1
Treatment Facilities	30.9	28.7	26.7	13.9	9.6	6.1	4.1	4.1	2.6	2.6	129.4
Total	**$ 184.2**	**$ 71.7**	**$ 31.6**	**$ 13.9**	**$ 9.6**	**$ 6.1**	**$ 4.1**	**$ 4.1**	**$ 2.6**	**$ 2.6**	**$ 330.5**

Capital expenditures are allocated to Members per the Joint Powers Authority Agreement, as displayed in the following projection:

Identified Capital Expenditures through Fiscal Year 2031; by Member Allocation ($ Millions)												
CIP Program	*JPA %*	FYE 2022	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	Total
Redwood City	*48.57%*	$ 89.5	$ 34.8	$ 15.3	$ 6.8	$ 4.7	$ 3.0	$ 2.0	$ 2.0	$ 1.2	$ 1.2	$ 160.5
WBSD	*26.84%*	49.4	19.2	8.5	3.7	2.6	1.6	1.1	1.1	0.7	0.7	88.7
San Carlos	*15.14%*	27.9	10.9	4.8	2.1	1.5	0.9	0.6	0.6	0.4	0.4	50.0
Belmont	*9.45%*	17.4	6.8	3.0	1.3	0.9	0.6	0.4	0.4	0.2	0.2	31.2
Total	*100.00%*	**$184.2**	**$ 71.7**	**$ 31.6**	**$ 13.9**	**$ 9.6**	**$ 6.1**	**$ 4.1**	**$ 4.1**	**$ 2.6**	**$ 2.6**	**$ 330.5**

The majority of upcoming CIP expenditures is attributed to projects within the RESCU program. RESCU is comprised of three significant elements with combined remaining expenditures of approximately $201 million. These projects include:

1. Gravity Pipeline: Replaces the influent force main with a gravity pipeline;
2. Front of Plant: Constructs a headworks facility comprised of a receiving lift station, screening and grit removal, peak flow and storm water handling facilities, and an influent connector pipeline; and
3. Pump Station Improvements: Replaces, rehabilitates, decommissions SVCW pump stations.

Cash Reserves Policy

In 2013, the SVCW Commission adopted a cash reserves policy that protects its fiscal solvency and funds future long-term capital needs. The policy describes the goals and amounts intended to be held in reserves. Each year during the budget process, SVCW reviews reserve balances and adjusts as needed. SVCW debt reserves mitigate the negative impact of revenue shortfalls from economic fluctuations, to fund unforeseen expense requirements, to provide stable rates for Member Agencies, and to help fund future long-term capital needs.

- The Operating Reserve must be maintained at a minimum balance of 10% of approved Operating Budget expenses, plus $1 million. This fund allows for continued operation in times of local, regional state, or national crisis or for unbudgeted, unexpected operational, maintenance or capital expenses approved by the SVCW Commission. As of November 30, 2021 the amount held in this reserve was $3.84 million.
- The objective of the CIP Reserve Fund is to accrue funds towards replacement of capital assets when their useful life is reached and other funding sources may not be immediately available. This fund will provide for unanticipated capital expenditures and, when its target value is reached, steer funding to pay-as-you go projects. Per policy, a minimum of $2.0 million was added to the CIP Reserve Fund in fiscal year 2021-22. This amount will increase by $500 thousand annually until the reserve balance reaches an inflation-adjusted $50 million in 2019 dollars. As of November 30, 2021 the CIP Reserve was $19.1 million.
- The Stage 2 Capacity Reserve is utilized to pay for capital projects that will increase or maintain SVCW's treatment capacity. Funding is received after Members collect fees associated with new sewer connections. SVCW may use this reserve on construction as approved by the SVCW Commission. As of November 30, 2021 the amount in this reserve was $14.9 million.

Debt Policy

SVCW adopted a debt management policy in 2017, which was most recently amended in September 2020. The policy considers intergenerational equity between residents, strives to achieve the lowest possible cost of capital, and mitigates market and credit risk. Appropriately structured, the debt policy attempts to assign capital costs between current ratepayers and future generations.

Significant capital acquisitions can be funded through traditional bonds or alternative financing mechanisms such as government loans (e.g. SRF and WIFIA) and/or public/private partnerships.

Long term financings are structured to minimize transaction-specific risk and total debt portfolio risk to SVCW and its Member Agencies.

SVCW debt must comply with all laws, legal agreements, contracts, best practices, and adopted policies related to debt issuance and management, including disseminating, in a timely manner, disclosure information concerning SVCW's and SVCW's Member Agencies' financial condition. It must also follow sound procurement practices to avoid conflicts of interest.

SVCW debt promotes cooperation and coordination with all stakeholders in the financing and delivery of services by maintaining cost-effective access to capital markets through prudent debt management. This includes integrating debt policies with the operating and capital budgets, the multi-year CIP, the Long-Range Financial Plan, and other financial goals. SVCW must also maintain good investor relationships through the timely dissemination of material financial information to maintain the highest practical credit rating and ensure efficient access to capital markets.

Long-term debt financing is not used to fund operating costs or operating deficits of SVCW. The principal types of municipal debt instruments employed by SVCW to finance long-term capital projects are government subsidized loans, WIFIA and SRF Loans, and Wastewater Revenue Bonds. Such instruments may be refunded by the issuance of refunding obligations for economic savings and/or restructuring considerations.

Short-term debt has terms to maturity of less than five years and may be issued to provide financing for the acquisition and/or construction of long-lived capital projects that could otherwise be funded by long-term debt financing described above. This includes commercial paper notes that are issued to provide interim project financing, Bond Anticipation Notes which may have a final maturity of not more than five years and are issued in anticipation of the issuance of wastewater revenue bonds, and a short-term line of credit not to exceed five years.

Investment Policy

SVCW has an adopted policy to invest monies not required for immediate expenditure. The policy is reviewed annually and establishes a standard of care to ensure investments are made with the appropriate considerations of capital safety, liquidity, and yield. The investment portfolio is diversified such that losses, if any, on specific securities are offset by the revenue generated from other investments. The portfolio is also kept sufficiently liquid to meet the operating and capital needs of SVCW. Within these two constraints, as well as in accordance with California Government Code Section 53601 through 53686, the investment portfolio is designed to attain the market rate of return after consideration is given to safety and liquidity.

SECTION 3 – MODELING ASSUMPTIONS

SVCW has developed a Debt Model (the Model) to project debt service costs associated with the Capital Improvement Plan. Currently approximately $381 million of capital projects requires funding over the next decade. The Model produces multiple funding scenarios that compare debt service costs at aggregate and Member Agency levels. The Model also optimizes variables by considering the impact of using cash, longer repayment terms, caps on debt service levels, deferred repayment, and changes in interest rate assumptions.

The Model displays total aggregate debt service, maximum aggregate annual cost, average annual debt service cost, weighted average cost of capital and weighted average CIP repayment year, among a few other debt summary outputs. Additionally, the Model illustrates the height and length of the debt service "plateau", a critical consideration for Members' sewer rates. Finally, the Model also compares efficiency versus affordability of financing the debt by determining the length of each repayment period and financing rates.

Debt Structure

Using the Model, SVCW staff generated and compared multiple debt financing scenarios that could fund the remaining CIP by comparing interest rates and average costs per year. The flexibility of the Model allows for changing multiple assumptions, including interest rates, the timing and structure of government loan or bond repayments, and the mix of financing methods such as government loans or wastewater revenue bonds.

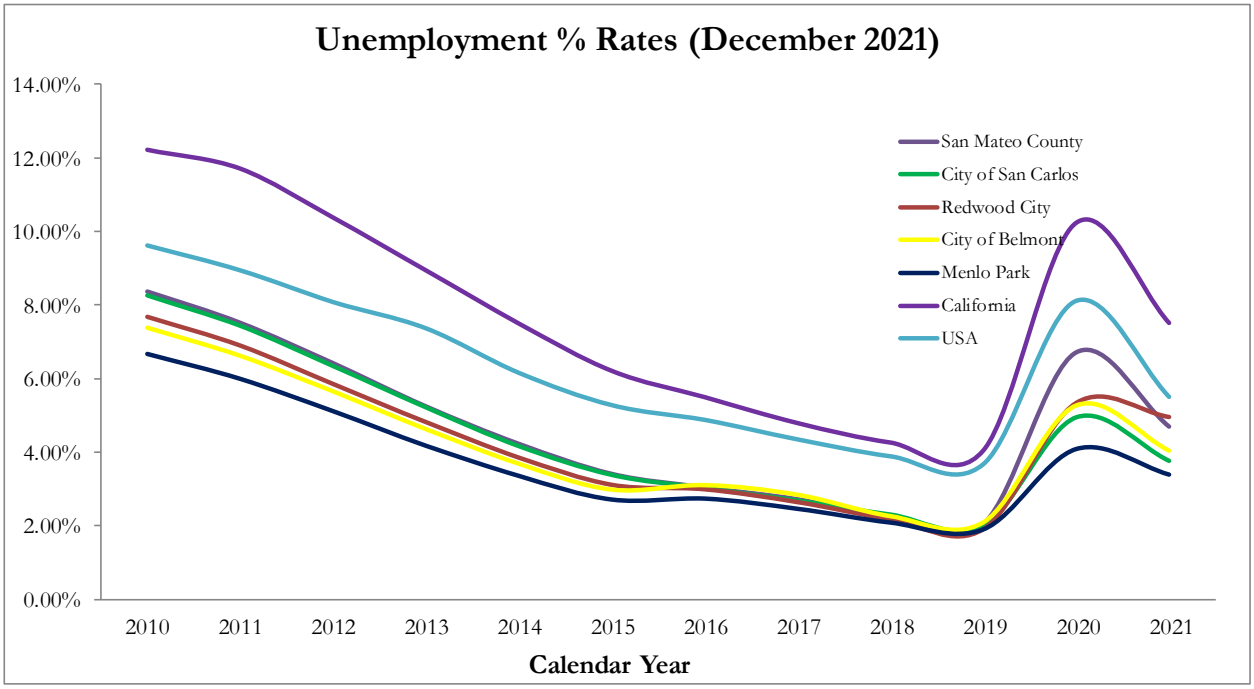
When government loan programs like SRF and WIFIA previously present timing challenges, both were pursued for their attractive low interest rates and flexible repayment structures. While structurally similar to revenue bonds, the SRF loan amortizes over 30 years at an interest rate equal to half the California General Obligation Bonds rate. WIFIA loans amortize over 35 years at a rate equal to Treasury rates plus one basis point, and repayment begins four years after construction is complete.

Economic Factors

Sewer revenues are somewhat influenced by the strength of the economy and other financial indicators. SVCW-estimated operating costs and the timing of CIP expenditures assume neither a significant downturn nor expansion in the San Francisco Bay Area economy. General economic conditions are comprised of many different factors; but sewer revenues are likely influenced by only a few factors. This report therefore focuses on six different broad factors that are good indicators of a strong economic environment: unemployment, assessed property valuation, taxable sales, income (measured by effective buying income and median household income), and interest rates.

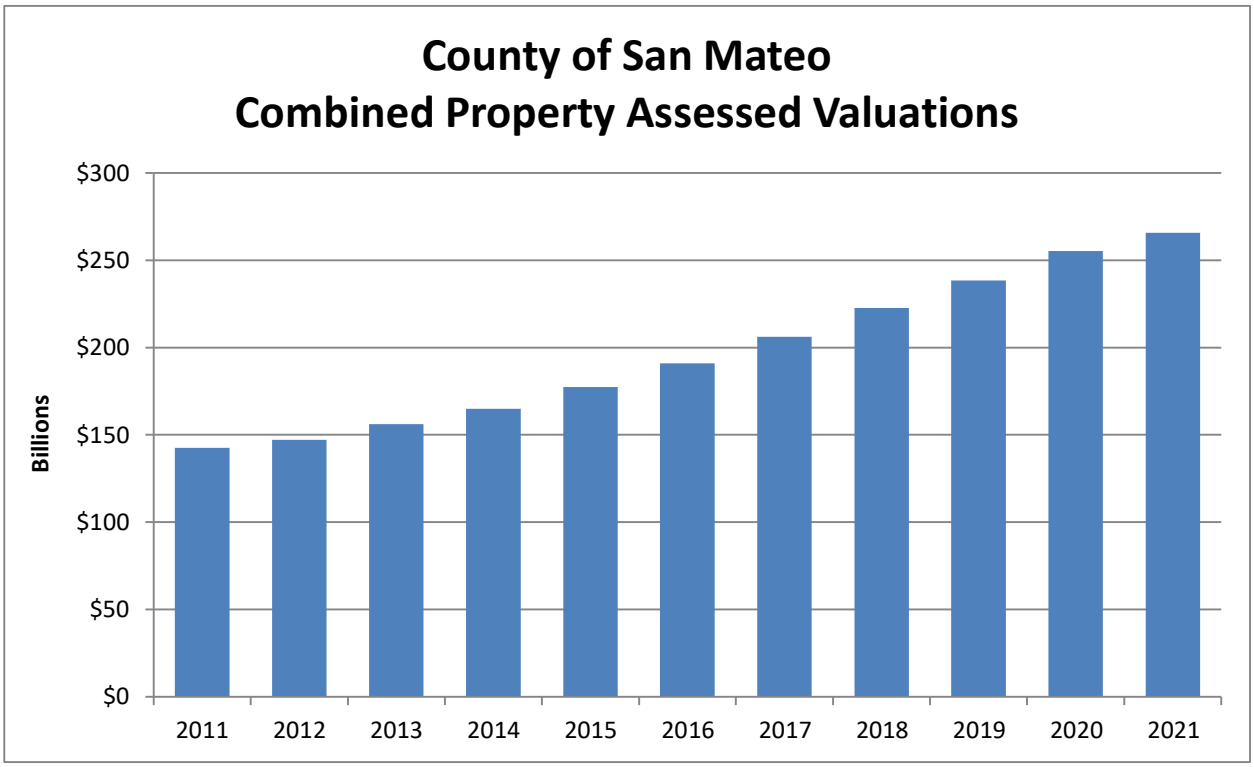
Unemployment

The Bay Area economy, like others, experienced significant negative impacts from the COVID-19 pandemic. Recent data from the United States Bureau of Labor Statistics shows how unemployment rates for San Mateo County and SVCW Member Agencies rose to 4% to 6% last year, faring considerably better than statewide California and nationwide U.S. rates. Unemployment has improved since its peak, now at 3.5% to 5.0% amongst Members.



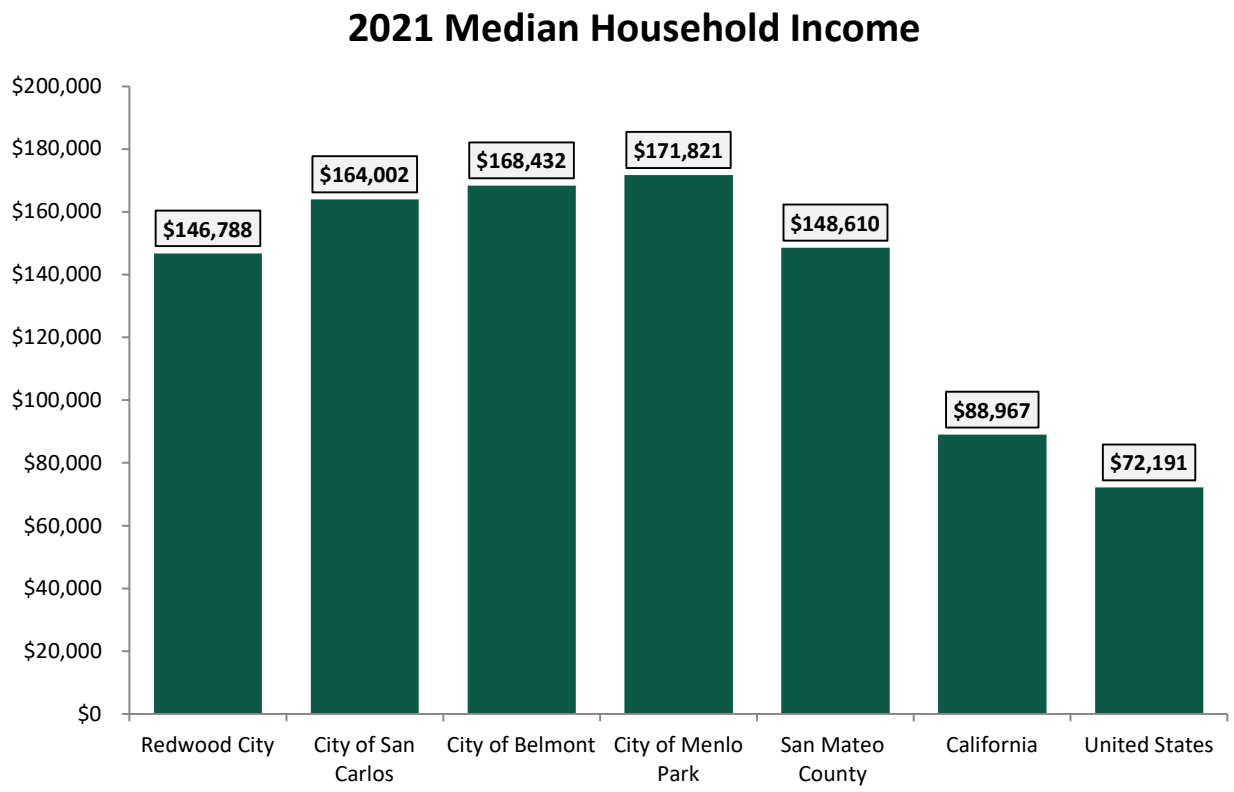
County Assessed Valuations

San Mateo County had approximately $266 billion in total assessed 2021 real property valuation, an increase of $10.6 billion (or 4.2%) from the previous year. Recent trends indicate that, during the COVID pandemic, assessed property values have continued to further increase.



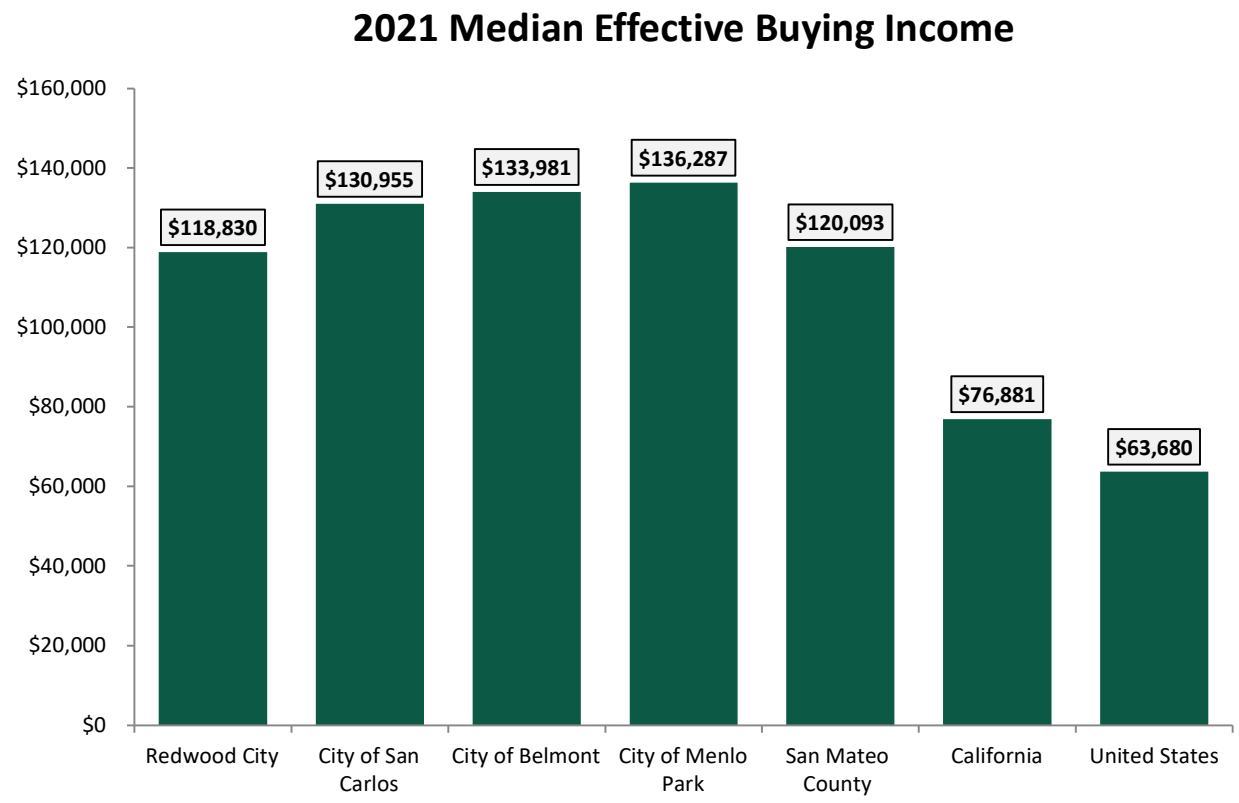
Median Household Income

The median household incomes and effective buying incomes of Member Agencies are consistently above the State and National levels. Public 2021 economic data shows that the median household income of San Mateo County, at $148 thousand, is 206% and 167% of the Nation's and State's median household income, respectively.



Effective Buying Income

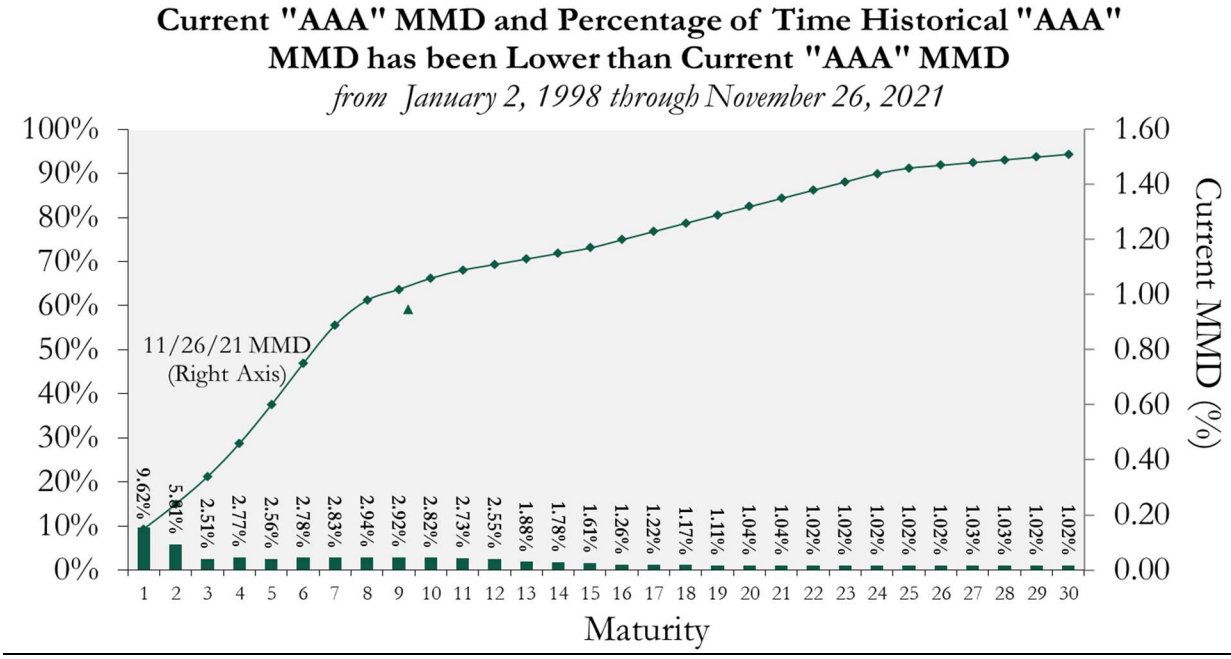
The Communities served by SVCW show high effective buying income levels in comparison to National and State medians. The Effective Buying Income is the amount of a consumer's disposable income; it reflects the money consumers retain after taxes. The following chart shows that SVCW communities have Effective Buying Incomes of $119 thousand to $136 thousand, which is 187% to 214% of the National levels, and 155% to 177% of California levels.



Interest Rates

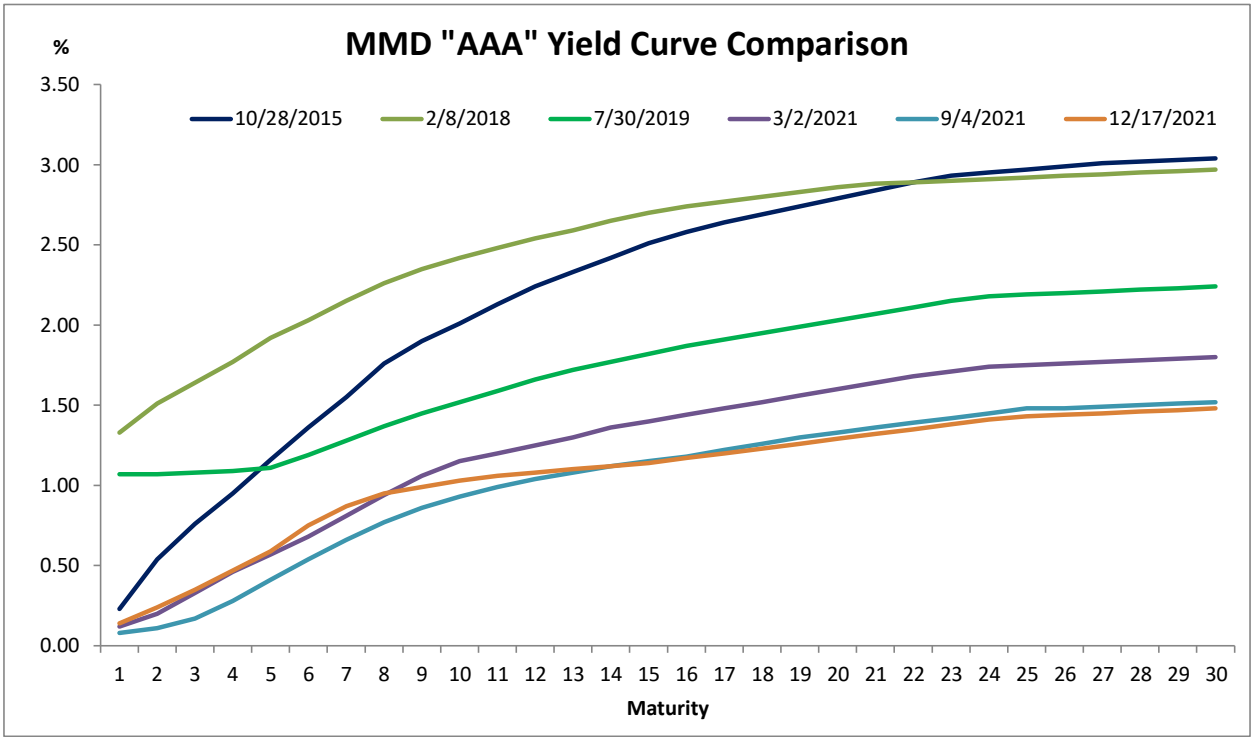
Based upon market conditions, every financing tool has projected interest rates depending on the type of the debt whether it is fixed or variable. For example, recently-closed SRF loans for the RESCU program were executed in mid-2021 at 0.90%. Two more WIFIA Loans were executed in September 2021 at approximately 1.9%, and the Authority's Line of Credit reflects the agreement's LIBOR-indexed rate.

The table below provides context for tax-exempt interest rates in the Municipal Market Index as of November 26, 2021 and compares current rates to historical rates by term. The data demonstrates that interest rates are lower historically across maturities, indicating advantageous market conditions for issuing long-term debt.



Source: Thomson Municipal Market Monitor

The six yield curves shown below are a snapshot of interest rates when SVCW issued prior series of Bonds or Notes, with a comparison to December 17, 2021. Notably, current rates remain the lowest throughout the 30-year maturities. With such low interest rates, it was advantageous to finance projects and refinance outstanding debt.



Source: Thomson Municipal Market Monitor

Interest earnings on Project Funds and Reserves:

It is estimated that funds held by SVCW related to the CIP, including reserve funds required by the SRF Loan program, will achieve investment earnings of 1.75% annually over the long term.

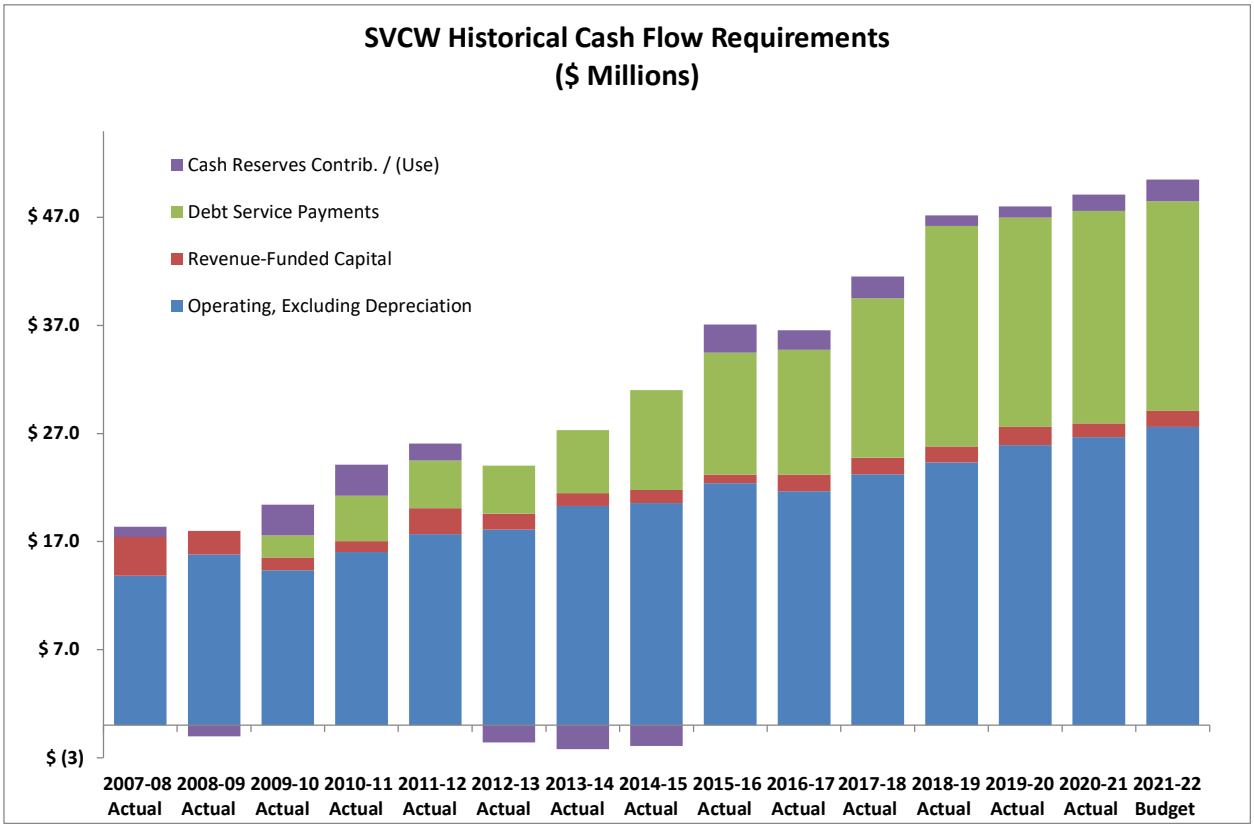
THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 4 – HISTORICAL FINANCIALS

Historical Cash Flow Requirements

Total Cash Flow Requirements

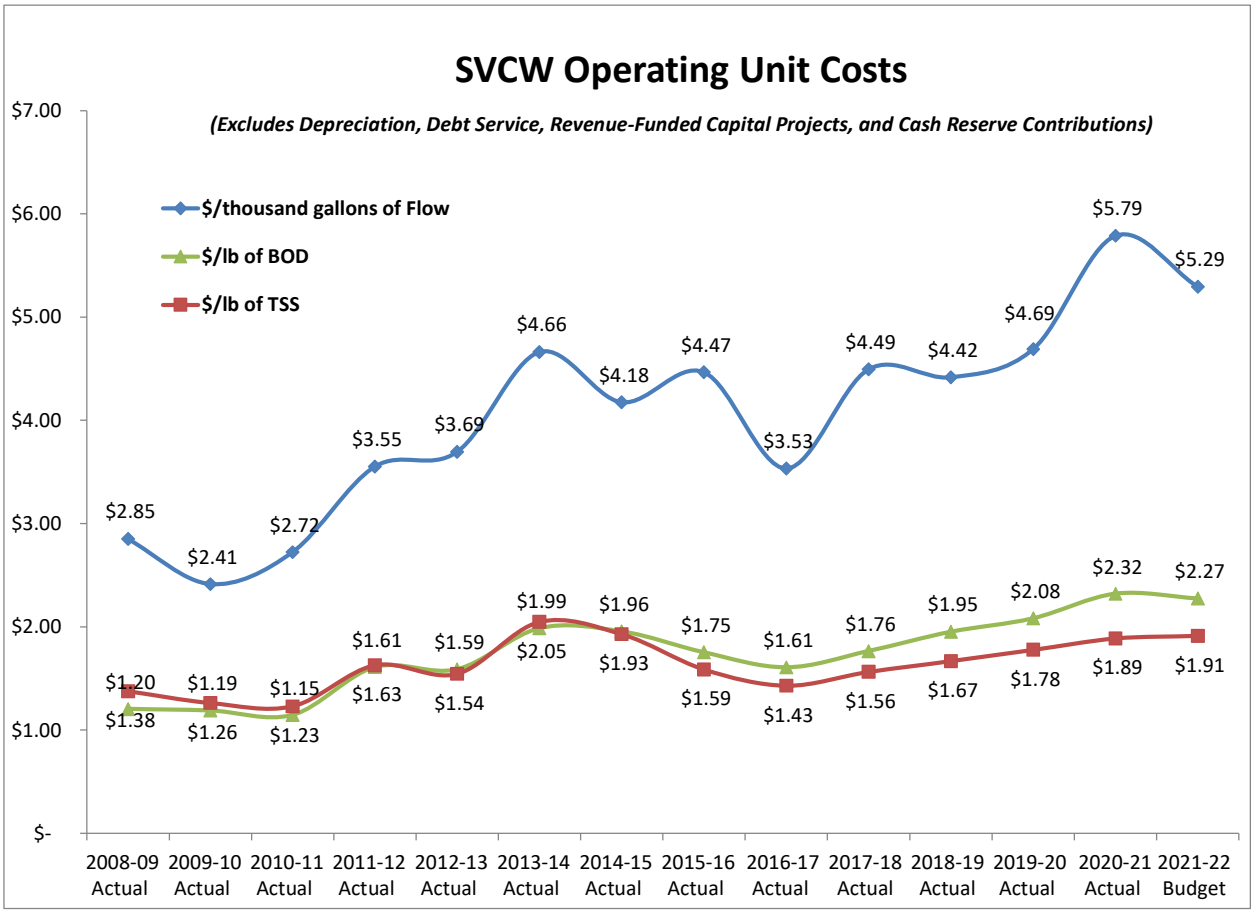
SVCW annual cash flow requirements from Members have more than doubled over the past decade, mostly due to higher debt service payments needed to finance its CIP.



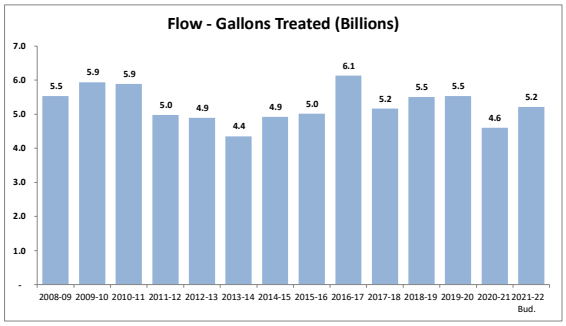
Historical Unit Costs

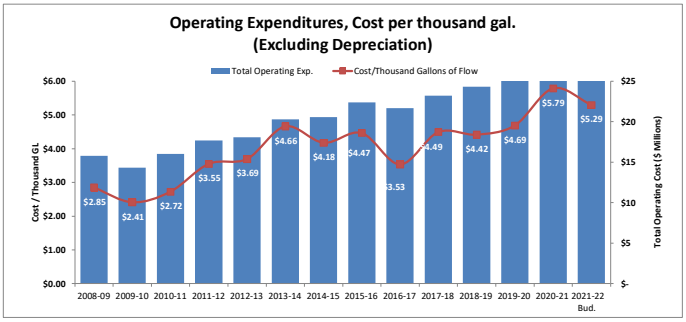
When isolated to only Operating Expenditures (excluding Depreciation), SVCW historical operating unit costs have increased 92% since the 2008 CIP was first initiated. These increases were driven by ordinary inflationary pressures, increased staffing to better operate and maintain SVCW assets, and creating an engineering division to develop and manage the CIP.

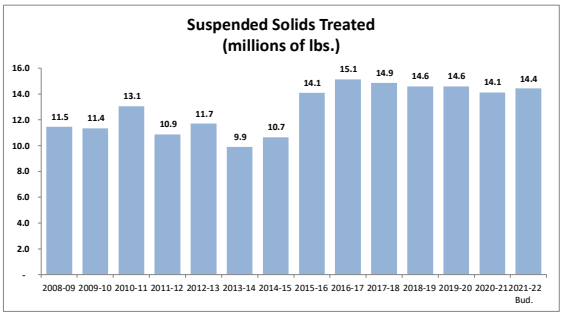
In addition to the change in wastewater flows caused by droughts, the characteristics of the wastewater stream have also changed as local communities added housing and commercial developments. The following charts provide a side-by-side comparison of operating volumes and unit cost trends.

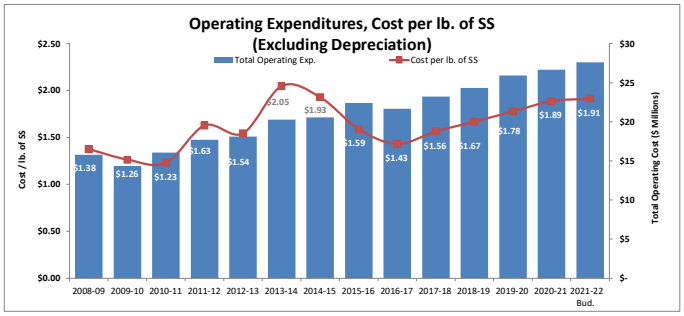


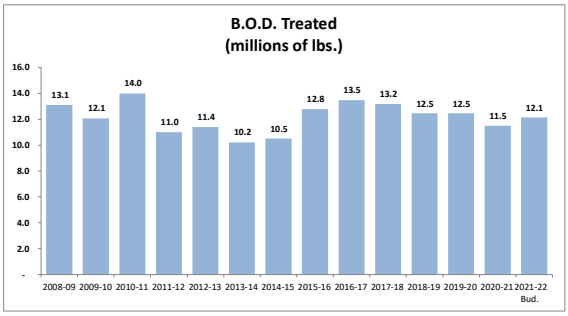
A significant influencing factor on unit costs is volatility of operating volumes including Flow, Biological Oxygen Demand (BOD), and Total Suspended Solids (TSS). Drought conditions have particularly influenced flow unit costs at times, when declining flow numbers caused Unit Costs to rise between 2011 to 2016 and again 2021. Operating Unit Costs are measured per thousands of gallons treated, per pound of TSS, and per pound of BOD.

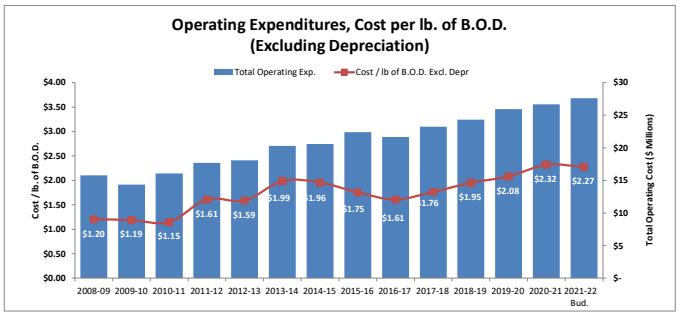










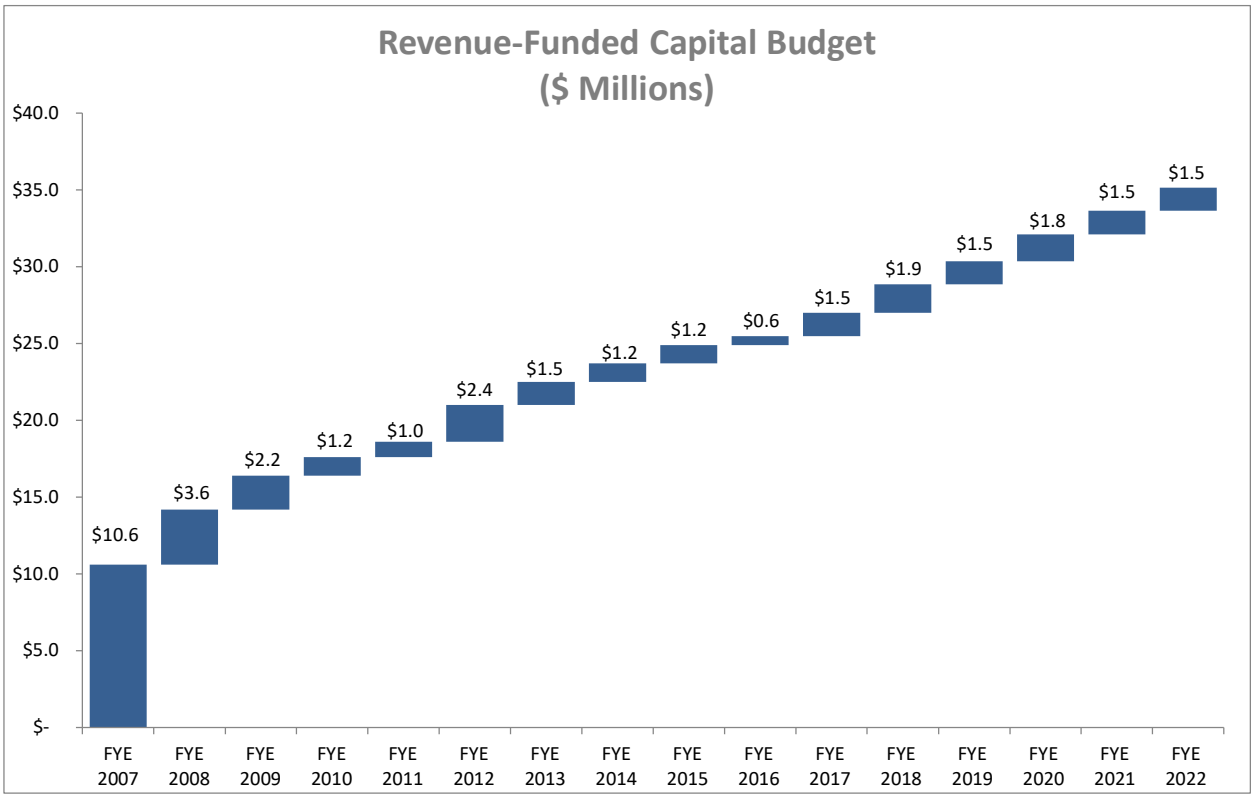


Revenue-Funded Capital Expenditures

Revenue-Funded Capital Expenditures are for capital projects that are generally each less than $1 million and can be completed within one year. These projects typically include purchase of vehicles or heavy equipment, maintenance repairs that improve an asset's useful life, as well as planning studies or preliminary engineering analysis for major capital improvements. Due to their relatively minor cost, it is appropriate to fund these items using cash rather than long-term debt.

Since 2006-07, SVCW has spent approximately $35.2 million on Revenue-Funded Capital. Prior to formally adopting the CIP in fiscal year 2007-08, Member Agencies would make relatively large cash

contributions to address SVCW's immediate capital project needs. Since 2008-09, however, SVCW has averaged $1.5 million annually in Revenue-Funded capital expenditures.



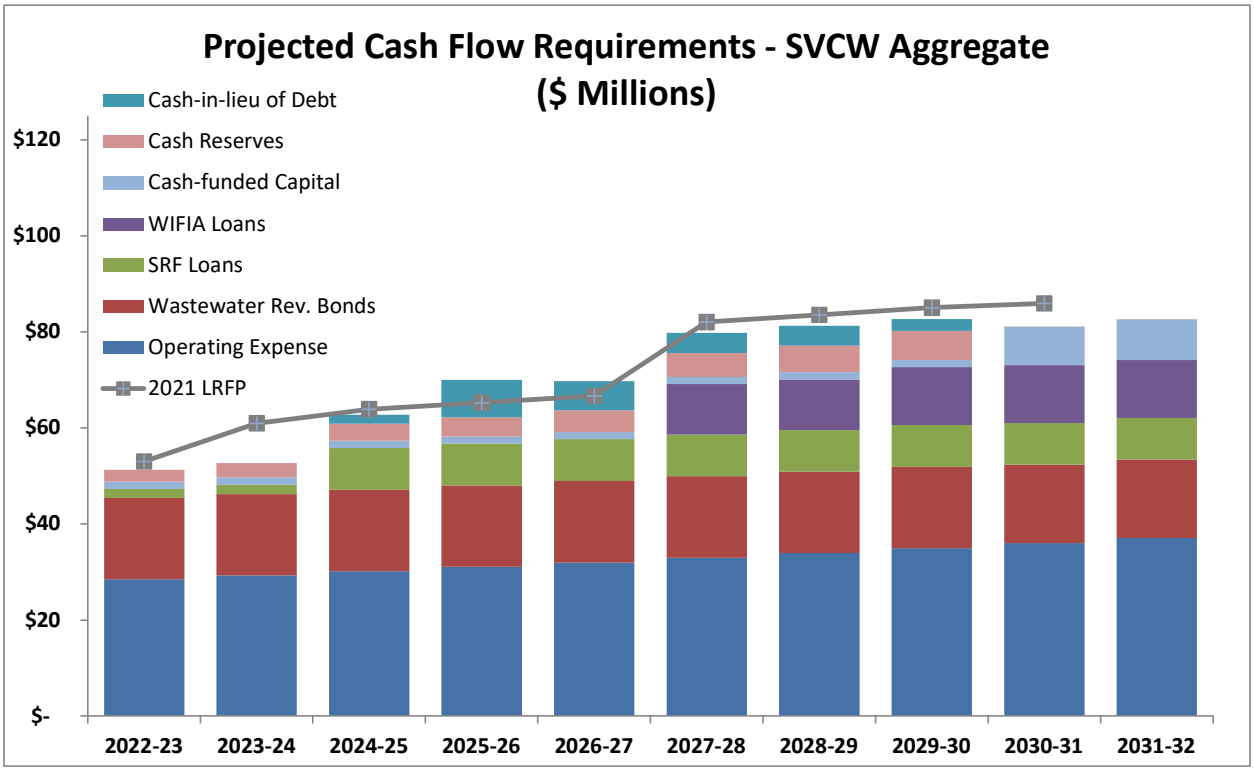
Cash Reserves

The SVCW Commission has adopted cash reserve policies to document the goals and describe amounts intended to be held in reserves. Each year, the SVCW budget process reviews all reserve balances and adjusts as needed to comply with policy. In 2020-21, $1.5 million was contributed to the CIP Reserve and another $2.0 million is being contributed in 2021-22.

SECTION 5 – TEN-YEAR FINANCIAL PROJECTIONS

In fiscal year 2022-23 SVCW anticipates total expenditures will be $51.33 million for all costs of operations, debt service, revenue-funded capital, and reserve contributions. This figure is anticipated to grow to $82.67 million over the next ten years. SVCW has now secured savings provided by its low borrowing costs. This is evident in the chart below, showing how anticipated cash flows will be less than the amounts estimated in the prior year LRFP.

Projected SVCW Cash Flow Requirements - Aggregate ($ Millions)										
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Operating Expense	$ 28.44	$ 29.29	$ 30.17	$ 31.08	$ 32.01	$ 32.97	$ 33.96	$ 34.98	$ 36.03	$ 37.11
Wastewater Rev. Bonds	16.97	16.97	16.97	16.95	16.95	16.95	16.94	16.92	16.31	16.31
SRF Loans	1.89	1.89	8.69	8.69	8.69	8.69	8.69	8.69	8.69	8.69
WIFIA Loans	-	-	-	-	-	10.52	10.52	12.03	12.03	12.03
Cash-funded Capital	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	8.00	8.50
Cash-in-lieu of Debt	-	-	1.84	7.73	6.10	4.11	4.11	2.55	-	-
Cash Reserves	2.53	3.03	3.53	4.03	4.53	5.03	5.53	6.03	0.03	0.03
TOTAL	$ 51.33	$ 52.67	$ 62.70	$ 69.98	$ 69.77	$ 79.78	$ 81.25	$ 82.71	$ 81.09	$ 82.67



Projected SVCW Operating Expenditures

Overall operating expenses are expected to increase by approximately 3.0% annually over the next decade. This includes benefits derived from efficient operations and power generation.

SVCW Operating Expenditures ($ Millions)											
Description	2021-22 Budget	2022-23 Forecast	2023-24 Forecast	2024-25 Forecast	2025-26 Forecast	2026-27 Forecast	2027-28 Forecast	2028-29 Forecast	2029-30 Forecast	2030-31 Forecast	2031-32 Forecast
Personnel	$ 18.3	$ 18.8	$ 19.4	$ 20.0	$ 20.6	$ 21.2	$ 21.8	$ 22.5	$ 23.2	$ 23.9	$ 24.6
Utilities	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.1	2.1
Administrative Costs	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8
Equipment & Supplies	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7
Chemicals	1.9	2.0	2.0	2.1	2.2	2.2	2.3	2.4	2.4	2.5	2.6
Professional Services	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3
Contractual Services	2.0	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.6
Regulatory and Training	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Total Expenditures	**$ 28.5**	**$ 29.3**	**$ 30.2**	**$ 31.1**	**$ 32.0**	**$ 33.0**	**$ 34.0**	**$ 35.0**	**$ 36.1**	**$ 37.1**	**$ 38.3**
Less Misc. Revenue	(0.9)	(0.9)	(0.9)	(0.9)	(1.0)	(1.0)	(1.0)	(1.1)	(1.1)	(1.1)	(1.1)
Net Operating Expend.	**$ 27.6**	**$ 28.4**	**$ 29.3**	**$ 30.2**	**$ 31.1**	**$ 32.0**	**$ 33.0**	**$ 34.0**	**$ 35.0**	**$ 36.0**	**$ 37.1**

Debt Service Structure / Annual Debt Service Payments

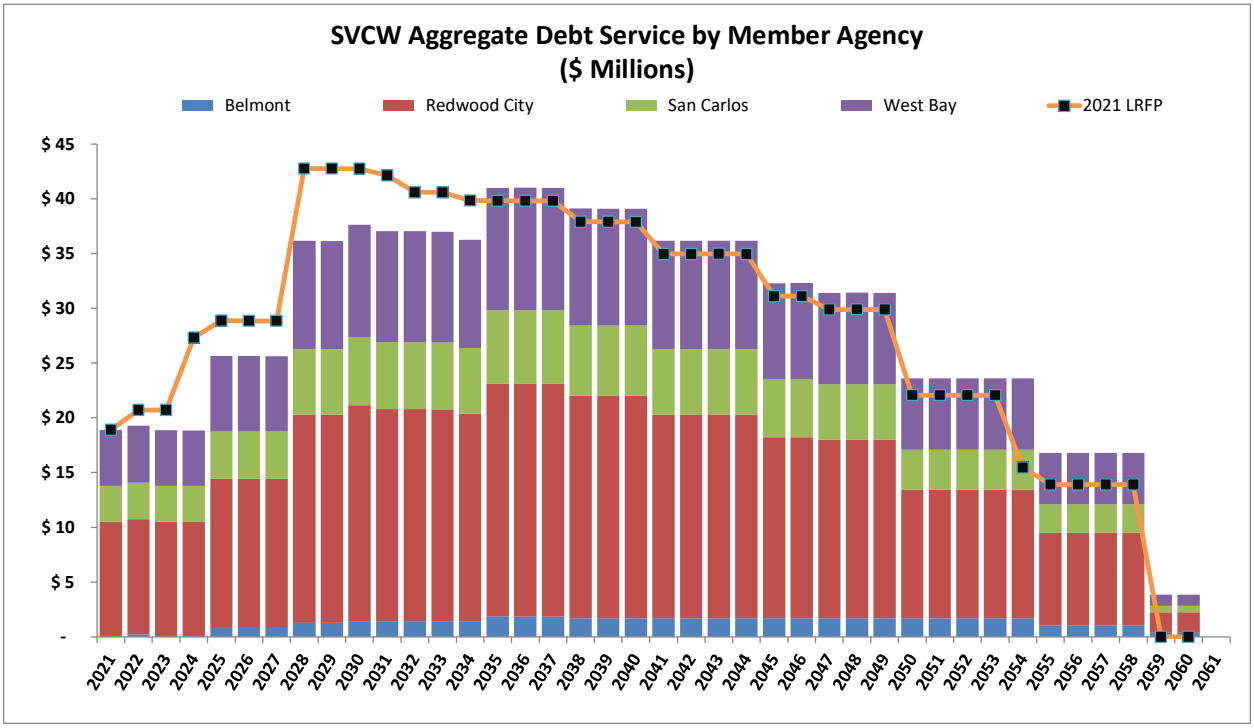
SVCW and its Members historically leveraged the debt markets to fund the CIP. Approximately $959 million of funding has been raised to date. Sources of funds include Wastewater Revenue Bonds, Member Agency cash contributions, SRF Loans, WIFIA Loans / Notes and Grants.

Source of CIP Funds to date ($ millions)			
Description	All-in TIC / Interest Rate	Max Proceeds	Available Proceeds at Nov. 30 2021
Bonds			
2008 Wastewater Revenue Bonds*	5.03%	$ 10.01	$ -
2009 Wastewater Revenue Bonds*	5.12%	55.86	-
2014 Wastewater Revenue Bonds*	4.18%	65.54	-
2015 Wastewater Revenue Bonds*	3.75%	30.00	-
2018 Wastewater Revenue Bonds / Refunding	3.43%	148.98	8.50
2021 Refunding Bonds	2.30%	-	-
Subtotal - Bonds		310.38	8.50
Cash Contributions in lieu of Debt			
Belmont		46.84	-
Redwood City		10.00	-
West Bay Sanitary District		13.02	-
Subtotal - Cash		69.85	-
Government Loans			
SRF - Control Building	2.60%	11.36	-
SRF - WWTP Improvements	1.80%	31.55	-
SRF - Conveyance Planning	1.60%	14.00	-
SRF - RESCU Construction Loans	0.90%	169.00	157.62
WIFIA / Notes - RESCU Program	1.40%	207.33	-
WIFIA / Notes - RESCU II	1.93%	68.90	68.22
WIFIA / Notes - WWTP	1.94%	73.80	71.79
Subtotal - Government Loans		575.94	297.63
Grant Funding			
PG&E Cogeneration Grant		2.40	-
California Energy Commission		0.50	-
Subtotal - Grant Funding		2.90	-
TOTAL		**$ 959.08**	**$ 306.14**

** Bond series advance refunded*

Over the next four decades displayed below, total remaining aggregate debt service is $1.10 billion, an amount nearly equal to the prior year's Plan in nominal dollars but in NPV terms, $13 million less.

This Plan anticipates Maximum Annual Debt Service payments (MADS) will be $1.7 million less than predicted in the prior year plan.



SVCW Wastewater Revenue Bonds

Financing Agreements adopted between SVCW and its Member Agencies obligate each of Member for their respective allocable share of debt service. The City of Belmont has, to date, not participated in SVCW Wastewater Revenue Bonds financing and is therefore not obligated to make debt service payments on the bonds currently outstanding.

Bond debt service payments are $16.97 million in fiscal year 2021-22 including two outstanding series from 2018 and 2021 which, combined, refunded all earlier bond series.

State Revolving Fund Loans

SVCW has financed certain projects by entering into six separate sale-repurchase agreements with the State Water Resources Control Board (SWRCB). This program is funded from the California State Revolving Fund (SRF) program. The project funds, including any accrued interest, are repaid in annual installments commencing one year after construction.

Current SRF loan payments will peak at $8.7 million in fiscal year 2024-25, when recently-executed 2021 RESCU Loans repayments commence atop earlier SRF loans for the Control

Building, Wastewater Treatment Improvements, and conveyance system planning. These new series of SRF loans secured $169 million for the RESCU program at an interest rate of 0.90%.

Line of Credit

SVCW holds a $30 million Line of Credit (LOC), with an accordion feature for up to $65 million, providing bridge financing for CIP projects. The LOC remains a valuable tool to manage cash flow and reduce borrowing costs. Specifically, the LOC furnishes interim cash flows between bond issuances or when SVCW awaits reimbursement of construction costs funded by the SRF program. When borrowing through SRF, SVCW pays for services and afterwards submits paid invoices to the state for reimbursement. Reimbursement generally takes 30 to 90 days and the LOC acts as a bridge loan during this period.

Remaining Funding to be Secured

This LRFP recognizes most of these projects are now funded, with approximately $44 million not yet secured. The Authority recommends the following approach to finance this balance:

Proposed Sources to fund CIP Expenditures not yet secured by existing debt ($ Millions)

Description	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	FYE 2032	TOTAL
Stage 2 Capacity Funds	$ -	$ 2.2	$ 12.1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$14.3
Cash in lieu of Debt	-	-	1.8	7.7	6.1	4.1	4.1	2.6	-	-	26.4
CIP Reserve, Redirected	-	-	-	-	-	-	-	-	2.6	1.0	3.5
TOTAL	**$ -**	**$ 2.2**	**$ 13.9**	**$ 7.7**	**$ 6.1**	**$ 4.1**	**$ 4.1**	**$ 2.6**	**$ 2.6**	**$ 1.0**	**$44.3**

- **Stage 2 Reserves:** As of November 30, 2021, approximately $14.3 million is held in this reserve to be spent towards construction projects that maintain and/or expand SVCW's treatment capacity.
- **Cash in lieu of Debt**: As surplus cash was available Members have at times opted to fund CIP construction with cash rather than issuing additional debt. A similar approach is proposed for a six-year period beginning Fiscal Year 2024-25, when approximately $26.4 million in project expenditures need finding. Alternatively, Members may choose to utilize SVCW's line of credit or issue fixed-rate wastewater revenue bonds.
- **Redirected CIP Reserve Contributions:** Beginning Fiscal Year 2030-31, the CIP Reserve Fund is predicted to reach its target balance. The Commission, in November 2019, adopted amendments to the CIP Reserve Policy (Policy #2013-03) that recognized the importance of setting this target balance, and thereafter redirecting contributions to CIP projects. By applying this policy, Members' contributions would pay for projects in Fiscal Year 2030-31 and thereafter to mitigate future borrowing.

Revenue-Funded Capital Expenditures

Over the next decade, until the CIP Cash Reserve balance reaches its target, SVCW anticipates investing approximately $1.5 million annually to revenue-funded capital projects. These projects are typically installed and managed by staff and include such things as fleet, valve replacements, new pumps and motors, gear assemblies, technology upgrades, or maintenance equipment.

Cash Reserves Contributions

The table below shows the projected annual cash reserve contributions to the Capital Improvement Program Fund, its earnings, and the balances. Cash Reserve contributions follow SVCW policy at $2.0 million contributed in fiscal year 2020-21, after which contributions increase annually by $500 thousand. Such contributions continue until the CIP Reserve balance reaches an inflation-adjusted target of $50 million in 2019 dollars, after which the contributions will be redirected to Revenue-Funded Capital projects.

After ten years SVCW is projected to have approximately $60 million in cash reserves available to fund unanticipated project expenditures or for selected capital improvements.

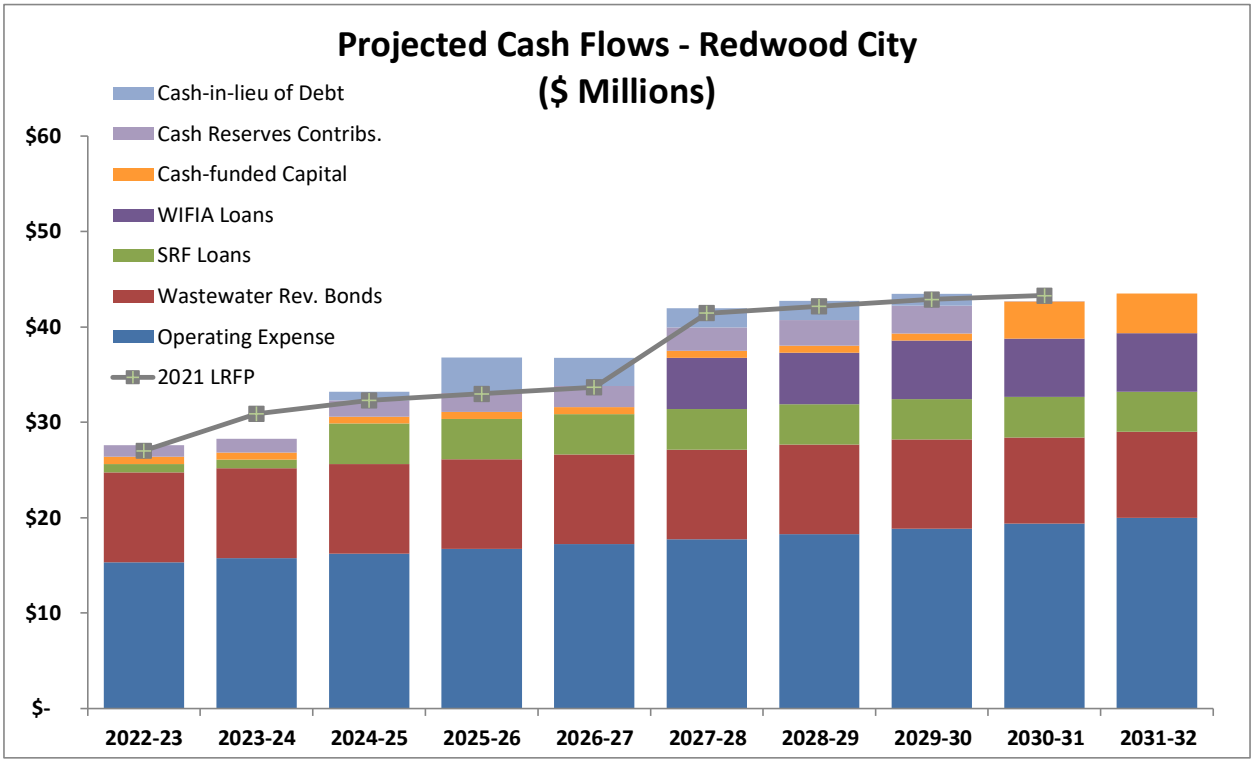
CIP Cash Reserves Forecast ($ Millions)

Description	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030
Beginning Balance	$ 20.5	$ 23.4	$ 26.9	$ 30.9	$ 35.6	$ 40.8	$ 46.6	$ 53.0
Contributions	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Earnings (at 1.75%)	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0
Ending Balance	**$ 23.4**	**$ 26.9**	**$ 30.9**	**$ 35.6**	**$ 40.8**	**$ 46.6**	**$ 53.0**	**$ 60.0**

Total Cash Flow Projections by Member Agency

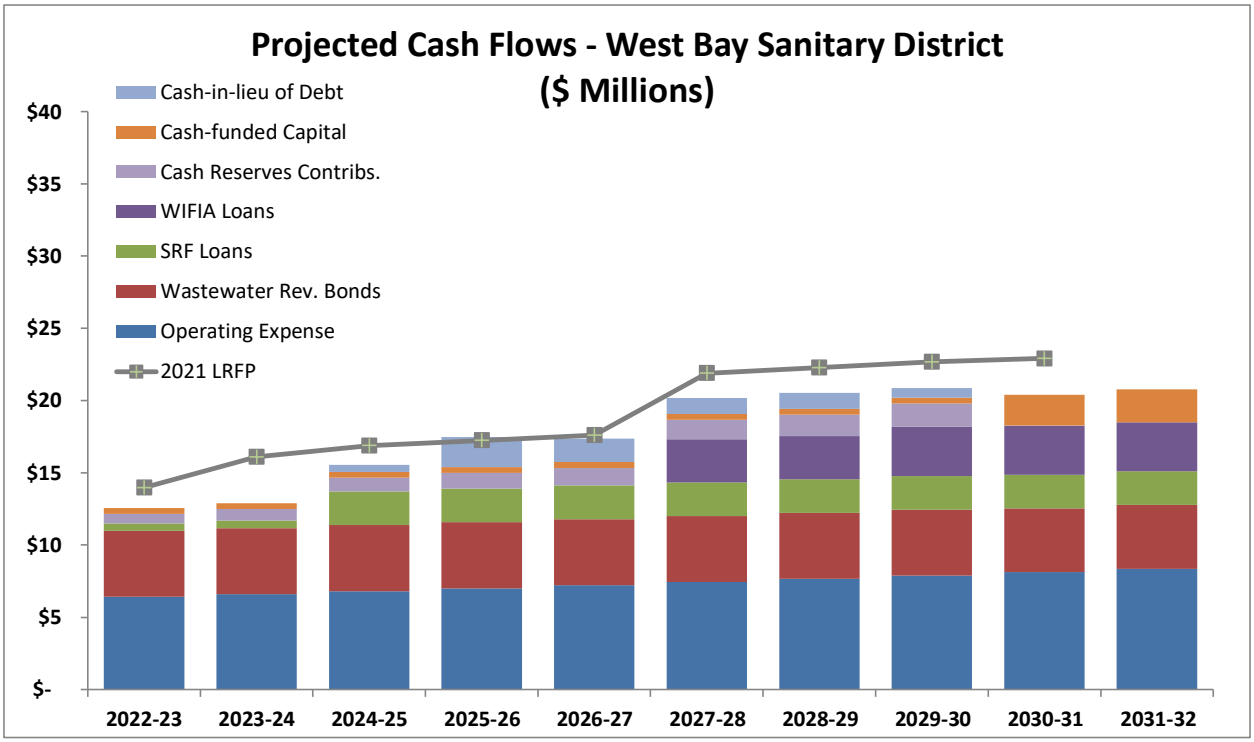
The following charts and tables describe the cash flow projections required for all SVCW expenditures. Each Member Agency is also provided with a detailed description for their own planning purposes.

Redwood City



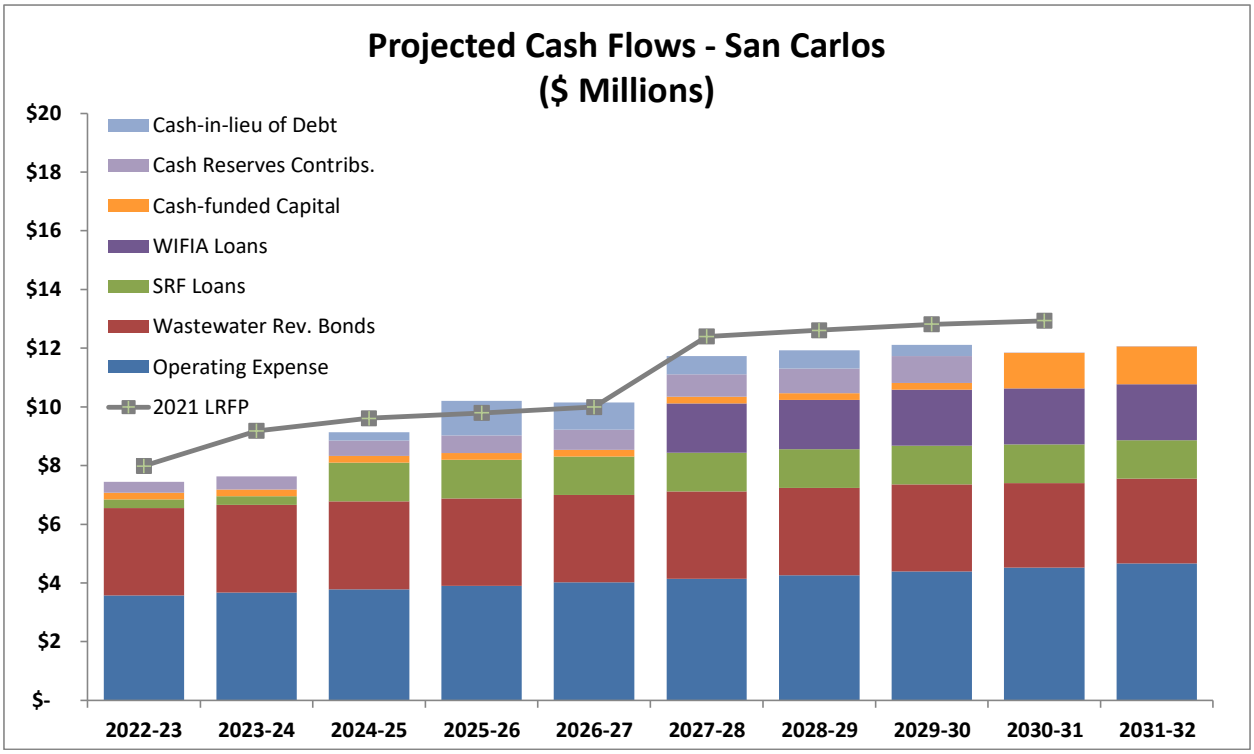
Projected SVCW Cash Flow Requirements - Redwood City ($ Millions)										
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Operating Expense	$ 15.31	$ 15.77	$ 16.24	$ 16.73	$ 17.23	$ 17.74	$ 18.28	$ 18.83	$ 19.39	$ 19.97
Wastewater Rev. Bonds	9.42	9.41	9.41	9.41	9.41	9.41	9.40	9.39	9.03	9.02
SRF Loans	0.92	0.92	4.22	4.22	4.22	4.22	4.22	4.22	4.22	4.22
WIFIA Loans	-	-	-	-	-	5.40	5.40	6.13	6.13	6.13
Cash-funded Capital	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	3.89	4.13
Cash-in-lieu of Debt	-	-	0.89	3.76	2.96	2.00	2.00	1.24	-	-
Cash Reserves Contribs.	1.23	1.47	1.71	1.96	2.20	2.44	2.69	2.93	0.02	0.02
TOTAL	$ 27.60	$ 28.29	$ 33.20	$ 36.80	$ 36.75	$ 41.94	$ 42.70	$ 43.46	$ 42.67	$ 43.49

West Bay Sanitary District



Projected SVCW Cash Flow Requirements - West Bay Sanitary District ($ Millions)										
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Operating Expense	$ 6.41	$ 6.60	$ 6.80	$ 7.01	$ 7.22	$ 7.43	$ 7.65	$ 7.88	$ 8.12	$ 8.36
Wastewater Rev. Bonds	4.57	4.57	4.58	4.57	4.57	4.57	4.56	4.57	4.40	4.40
SRF Loans	0.51	0.51	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33
WIFIA Loans	-	-	-	-	-	2.98	2.98	3.39	3.39	3.39
Cash-funded Capital	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	2.15	2.28
Cash-in-lieu of Debt	-	-	0.49	2.08	1.64	1.10	1.10	0.69	-	-
Cash Reserves Contribs.	0.68	0.81	0.95	1.08	1.21	1.35	1.48	1.62	0.01	0.01
TOTAL	$ 12.57	$ 12.89	$ 15.55	$ 17.47	$ 17.37	$ 20.17	$ 20.52	$ 20.88	$ 20.40	$ 20.77

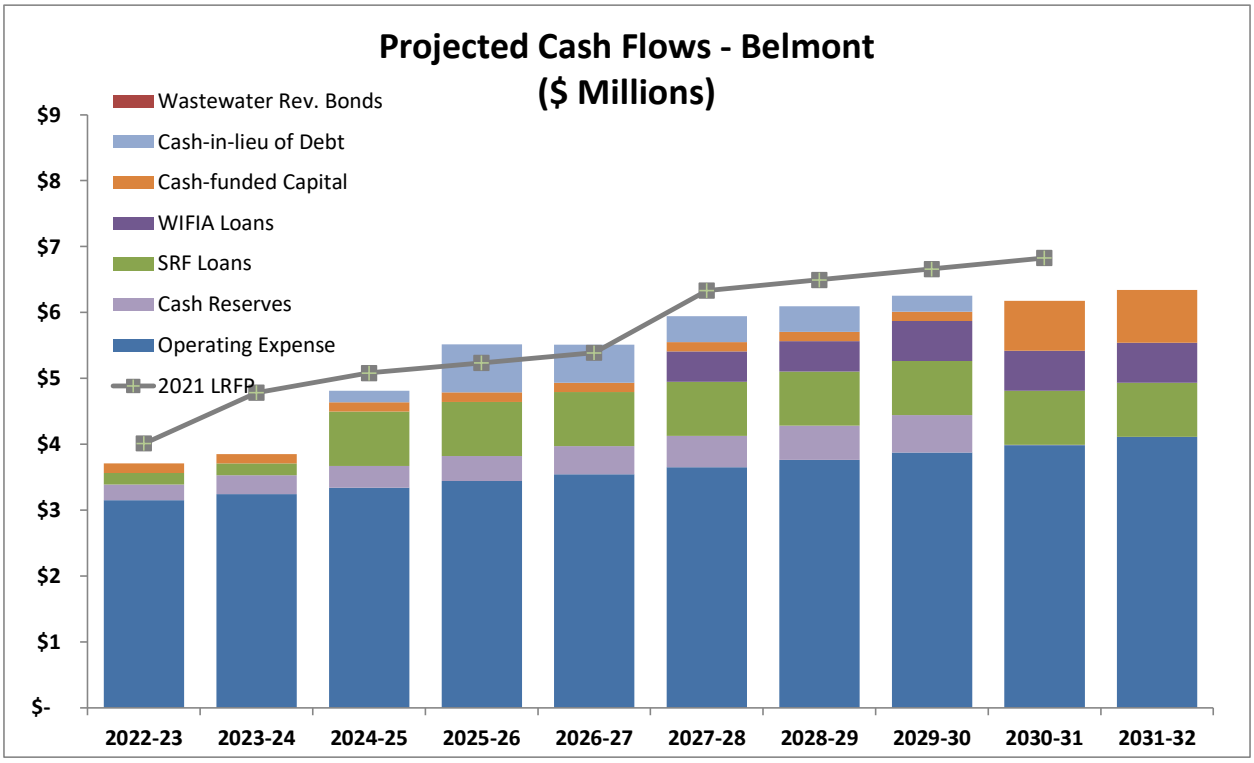
San Carlos



Projected SVCW Cash Flow Requirements - San Carlos ($ Millions)										
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Operating Expense	$ 3.58	$ 3.68	$ 3.79	$ 3.91	$ 4.02	$ 4.14	$ 4.27	$ 4.40	$ 4.53	$ 4.66
Wastewater Rev. Bonds	2.98	2.99	2.99	2.98	2.97	2.98	2.98	2.97	2.88	2.89
SRF Loans	0.29	0.29	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32
WIFIA Loans	-	-	-	-	-	1.68	1.68	1.91	1.91	1.91
Cash-funded Capital	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	1.21	1.29
Cash-in-lieu of Debt	-	-	0.28	1.17	0.92	0.62	0.62	0.39	-	-
Cash Reserves Contribs.	0.38	0.46	0.53	0.61	0.68	0.76	0.84	0.91	0.00	0.00
TOTAL	$ 7.45	$ 7.64	$ 9.14	$ 10.21	$ 10.15	$ 11.73	$ 11.93	$ 12.12	$ 11.84	$ 12.07

Belmont

Belmont has not joined SVCW Bond issuances, instead contributing cash in lieu of debt participation. It has, however, fully participated in certain SRF loans and the majority of WIFIA government loans.



Projected SVCW Cash Flow Requirements - Belmont ($ Millions)										
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32
Operating Expense	$ 3.15	$ 3.24	$ 3.34	$ 3.44	$ 3.54	$ 3.65	$ 3.76	$ 3.87	$ 3.99	$ 4.11
Wastewater Rev. Bonds	-	-	-	-	-	-	-	-	-	-
SRF Loans	0.18	0.18	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
WIFIA Loans	-	-	-	-	-	0.46	0.46	0.60	0.60	0.60
Cash-funded Capital	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.76	0.80
Cash-in-lieu of Debt	-	-	0.17	0.73	0.58	0.39	0.39	0.24	-	-
Cash Reserves	0.24	0.29	0.33	0.38	0.43	0.48	0.52	0.57	0.00	0.00
TOTAL	$ 3.71	$ 3.85	$ 4.81	$ 5.52	$ 5.51	$ 5.94	$ 6.10	$ 6.25	$ 6.17	$ 6.34

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 6 – SENSITIVITIES

Traditional risks to the efficient completion of large capital plans include unanticipated increases such as inflation and interest rate volatility. The risks of inflation and rising interest rates are outside the control of SVCW; however, strategies can mitigate these risks. The Plan, for instance, assumes an across-the-board 3.0% inflation factor in operating costs. Further, interest rates utilized by the Model are conservative and generally based on best available information and, as a result, are presumed to be higher than market rates. As another example of cost preparedness, CIP estimates include 4.0% cost inflators through the midpoint of construction.

Capital Improvement Program Adherence

The timing of CIP projects is considered achievable under present economic and operational assessments. Adhering to the budget and timing of the CIP is singularly the most cost-effective strategy to manage costs. As the regional economy continues to expand, inflationary pressures rise. It is estimated that a one-year delay to remaining RESCU expenditures, for example, would increase costs by approximately $5.0 million based upon a construction cost inflation factor of 4%. SVCW has shown the Progressive Design-Build project delivery method has avoided such schedule risks.

Inflation

Operating Expenditures - The LRFP includes inflationary assumptions of approximately 3% on operating costs. The Consumer Price Index (CPI) is a measure of the “average change in prices over time in a fixed market basket of goods and services” which translates to a guide for determining the prices on food, energy, fuel and other goods and services. CPI is a good indicator of how the economy holds up against inflation and surrounding economic changes.

Capital Expenditures – Construction costs of labor and materials continue to increase. While SVCW negotiates for best pricing on projects, the rise in material and labor costs places upward pressure on the CIP. Such inflationary estimates are based on Engineering News Record’s construction cost index. Additionally, the list of capital projects will evolve as SVCW’s wastewater infrastructure continues to age, new regulations are introduced, or project scopes change.

Interest Rates

It is impossible to predict interest rate levels or the timing of changes. What is known, however, is current interest rates are attractive. With tax-exempt interest rates at historical low levels, a decrease in rates is unlikely. A more plausible outcome would be for the market to experience higher interest rates in the future. The impact of such interest rates changes, however, is mitigated by the lack of need for further borrowing.

SECTION 7 – SUMMARY

SVCW provides this LRFP as a recommendation and implementation strategy to fund the next decade of capital improvements. The Plan documents possible alternatives. After recently securing the majority of funding needed for the remainder of the CIP, this Plan recommends a cash-based approach to fund approximately $44 million. Individual Members may of course determine that, for their own specific purposes, the debt market is appropriate for their needs.

Proposed Sources to fund CIP Expenditures not yet secured by existing debt ($ Millions)

Description	FYE 2023	FYE 2024	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031	FYE 2032	TOTAL
Stage 2 Capacity Funds	$ -	$ 2.2	$ 12.1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$14.3
Cash in lieu of Debt	-	-	1.8	7.7	6.1	4.1	4.1	2.6	-	-	26.4
CIP Reserve, Redirected	-	-	-	-	-	-	-	-	2.6	1.0	3.5
TOTAL	**$ -**	**$ 2.2**	**$ 13.9**	**$ 7.7**	**$ 6.1**	**$ 4.1**	**$ 4.1**	**$ 2.6**	**$ 2.6**	**$ 1.0**	**$44.3**

- **Stage 2 Reserves:** As of November 30, 2021, approximately $14.3 million is held in this reserve to be spent towards construction projects that maintain and/or expand SVCW's treatment capacity.
- **Cash in lieu of Debt**: As surplus cash was available Members have at times opted to fund CIP construction with cash rather than issuing additional debt. A similar approach is proposed for a six-year period beginning Fiscal Year 2024-25, when approximately $26.4 million in project expenditures need finding. Alternatively, Members may choose to utilize SVCW's line of credit or issue fixed-rate wastewater revenue bonds.
- **Redirected CIP Reserve Contributions:** Beginning Fiscal Year 2030-31, the CIP Reserve Fund is predicted to reach its target balance. The Commission, in November 2019, adopted amendments to the CIP Reserve Policy (Policy #2013-03) that recognized the importance of setting this target balance, and thereafter redirecting contributions to CIP projects. By applying this policy, Members' contributions would pay for projects in Fiscal Year 2030-31 and thereafter to mitigate future borrowing.

This LRFP's recommendations and its outcomes are for planning purposes. SVCW believes it is a reasonable forecast of expenditures over the next year, including an informed position that SVCW and its Members will have the cash resources to meet this recommendation. This LRFP may be used by each Member Agency as it considers budgets and analyzes sewer rates.

THIS PAGE INTENTIONALLY LEFT BLANK