

Tab 1

Metropolitan Water District of Salt Lake & Sandy
Board Meeting Packet
Last Update: December 4, 2023

Agenda Item: Consider approval of contract for pipe preorder for SLAR-CC project

Objective: Preorder pipe for the Cottonwoods Conduit Reach 1 (CC-1) East portion of the Cottonwoods Connection project.

Background: The Salt Lake Aqueduct Replacement – Cottonwoods Conduits project (SLAR-CC or Cottonwoods Connection) includes more than 21,000 feet of new pipe ranging from 36 to 72 inches in diameter. It is anticipated the project will be advertised on January 2, 2024 for award in February 2024.

The pipe supplier preselection was approved by the board on October 16, 2023. The project team is working with the supplier on shop drawings. Once shop drawings are approved, the supplier reports a lead time of approximately 20 weeks from order until delivery, consisting of 8 weeks to procure material and 12 weeks to fabricate the pipe.

The first portion of the project to be constructed is within Big Cottonwood Road east of Wasatch Boulevard (CC-1 East). This pipe must be installed before June 30, 2024 due to a UDOT resurfacing project. To meet this deadline, the District must preorder 1,447 feet of pipe. The cost of this pipe is \$419,659.

Although the District is ordering the pipe, receipt and payment will be handled by the selected contractor. If the project is not awarded, or award is delayed until after the pipe is delivered, then the District will be responsible for receiving, storing, and paying for the pipe. As the pipe is for Salt Lake City's CC-1 East, Salt Lake City has agreed to reimburse the District should this situation occur.

Committee Activity: The Engineering Committee discussed this item on November 15, 2023.

Recommendation: The Engineering Committee forwards a positive recommendation to the board for award of \$419,659 to Thompson Pipe Group for 1,447 feet of pipe for the CC-1 East portion of the SLAR-CC project.

Metropolitan Water District of Salt Lake & Sandy
FY2024 CAPITAL PROJECTS REPORT
December 2023

Last updated: November 21, 2023

Routine Non-Capacity Improvement Projects

SCS Hardware and Software Replacement Project (LC067)

Purpose: Replace and update security control system hardware at LCWTP and POMWTP.

Update: The contractor continues to work on punch list items. The primary effort is to resolve nuisance alarms in the system and work progresses weekly.

District Project Manager:	Darin Klemin	
Design Engineer / Contractor:	Avtec	
Final Completion Date:	June 30, 2024	
Project Budget:	\$600,000.00	
Contract Amount:	\$584,126.40	
Change Orders / Percent:	\$0.00 / 0.0%	
	FY23	FY24
FY Budget:	\$600,000.00	\$100,000.00
Spent to Date:	\$409,529.29	\$0.00
District Purchases:	\$4,813.50	\$0.00
Expenses to Date / Percent Spent:	\$414,342.79 / 69.1%	

LCC Replacement and Intake Modifications

Purpose: Replace the raw water Little Cottonwood Conduit and modify the lower intake structure. This is a multi-year project (through FY2026).

Update: A seismic level-of-service meeting was held on November 20, 2023. Geotechnical exploration is in progress. We are coordinating with property owners.

District Project Manager:	Gardner Olson
Design Engineer:	Bowen Collins & Assoc.
Preliminary Design Completion Date:	June 30, 2024
FY2024 Budget:	\$200,000.00
FY2024 Contract Amount:	\$200,000.00
Change Orders / Percent:	\$0.00 / 0.0%
Spent to Date:	\$2,474.91
District Purchases:	\$0.00
FY2024 Expenses to Date / Percent Spent:	\$2,474.91 / 1.2%

POMWTP PC/S Hardware Replacement Project

Purpose: Replace and update Process Control / SCADA system hardware at POMWTP.

Update: Equipment is on order. This is the second year of a two-year project.

District Project Manager:	Gardner Olson	
Design Engineer / Contractor:	SKM	
Final Completion Date:	June 30, 2024	
	FY23	FY24
FY Budget:	\$200,000.00	\$250,000.00
Contract Amount:	\$182,358.73	\$207,888.80
Change Orders / Percent:	\$0.00 / 0.0%	\$0.00 / 0.0%
Spent to Date:	\$156,665.00	\$0.00
District Purchases:	\$4,813.50	\$265.00
Expenses to Date / Percent Spent:	\$156,930.00 / 34.9%	

Fleet Program Replacement:

Purpose: Purchase two trucks and two SUVs.

Update: Two trucks were received in August 2023. A utility van was received in November 2023. Staff is preparing to purchase an SUV.

District Project Manager:	Michael Carter
Project Budget:	\$200,000.00
Project Spent to date:	\$134,001.28 / 67.0%

Little Dell Dam Improvements:

Purpose: Salt Lake City plans to replace a control panel in FY24.

Update: Design is underway with anticipated bid advertisement in January 2024.

District Project Manager:	Bernard Mo, SLCDPU
Project Budget:	\$400,000.00
Project Spent to date:	\$0.00 / 0.0%

Repair and Replace

LCWTP Ozone Control Valve Replacement

Purpose: Control valves on the LCWTP ozone system were inspected in 2021. The valves are wearing from use, with five of the eleven valves identified for replacement over the next four years, beginning with ozone destruct.

Update: The control valve is on order.

District Project Manager:	Gardner Olson
Project Budget:	\$12,000.00
Project Spent to date:	\$0.00 / 0.0%

LCWTP Update Fuel Tank and Dispenser Monitoring Hardware

Purpose: The District's fuel tank and dispenser monitoring hardware was installed in 2011. The equipment is at the end of its life and the software is no longer supported. This project will replace both with a more current, reliable, and supported system.

Update: Staff plans to prepare an RFP to procure this item.

District Project Manager:	Michael Carter
Contractor:	TBD
Final Completion Date:	June 30, 2024
Project Budget:	\$65,000.00
Contract Amount:	TBD
Project Spent to date:	\$0.00 / 0.0%

LCWTP Flash Mix Replacement

Purpose: The LCWTP flash mixers introduce and mix chemical into water upstream of flocculation. One flash mixer gear box was replaced in FY23. The second will be replaced in FY24.

Update: The equipment is on order.

District Project Manager:	Andy Reidling
Project Budget:	\$50,000.00
Project Spent to date:	\$0.00 / 0.0%

POMFWP RVSS Replacement

Purpose: The Point of the Mountain Finished Water Pump Station has five pumps - two pumps are operated with variable frequency drives (VFD) and three with reduced-voltage soft starts (RVSS). The equipment has reached the end of its design life and is experiencing increased maintenance and operation issues. One RVSS was replaced in FY22 and the two VFDs were replaced in FY23. Staff plans to replace the remaining two RVSS, one each in FY24 and FY25.

Update: Installation began November 7; testing is anticipated the week of November 27.

District Project Manager:	Scot Collier
Contractor:	EMC
Final Completion Date:	June 30, 2024
Project Budget:	\$110,000.00
Contract Amount:	\$87,285.16.00
Spent to Date:	\$0.00
Other Costs:	\$0.0
Project Spent to date:	\$0.0 / 0.0%

CCTV Hardware Replacement

Purpose: The District's closed circuit television (CCTV) security system is 20 years old at LCWTP and 14 years old at POMWTP. The equipment has exceeded its expected life and is no longer supported by the manufacturer. The remaining two years of this project will split camera replacement at POMWTP.

Update: Equipment is on order.

District Project Manager:	Brian Pehrson
Contractor:	Avtec
Final Completion Date:	June 30, 2024
Budget:	\$130,000.00
Contract Amount:	\$116,836.02
Change Orders / Percent:	\$0.00 / 0/0%
Spent to Date:	\$0.00
District Purchases:	\$0.00
Project Spent to Date:	\$0.00 / 0.0%

UPS Replacement

Purpose: Two UPS systems at the LCWTP are scheduled for replacement.

Update: Equipment is on order.

District Project Manager:	Scot Collier
Project Budget:	\$60,000.00
Project Spent to date / Percent Spent:	\$0.00 / 0.0%

Lab Equipment Replacement

Purpose: The lab department requires replacement of an organics laboratory dishwasher, auto titrator, microscope, and inductively coupled plasma mass spectrometry (ICP/MS) instrument. The purge and trap and autosampler installed in FY23 experienced issues, were returned, and will be replaced.

Update: The ICP/MS, microscope, purge and trap and autosampler, and autotitrator are installed. Staff is obtaining quotes for an organics laboratory dishwasher.

District Project Manager:	Jeff Matheson
Project Budget:	\$283,500.00
Project Spent to date / Percent Spent:	\$264,523.05 / 93.3%

Annual Network Server Replacement

Purpose: The District operates servers on multiple networks. These servers have a life expectancy of seven years. New servers host the most critical services for the first three to five years of the lifecycle and then are moved to a less critical role for the remainder of the life cycle.

Update: A PCS server is on order. Staff are reviewing additional servers and obtaining quotes.

District Project Manager:	Darin Klemin
Project Budget:	\$70,000.00
Project Spent to date / Percent Spent:	\$0.00 / 0.0%

FY23 Carryover – Caustic Recirculation Pump: The pump was received in FY23. No further activity is anticipated for this line item.

District Project Manager:	Steve Slack
Project Budget:	\$20,373.00
Project Spent to date / Percent Spent:	\$0.00 / 0.0%

Miscellaneous: No activity to date.

District Project Manager:	Ammon Allen
Project Budget ¹ :	\$50,000.00
Project Spent / Percent Spent:	\$0.00 / 0.0%

Non-Routine O&M (Selected Projects)

LCWTP Arc Flash Coordination

Purpose: LCWTP Arc Flash Coordination: The National Fire Protection Association (NFPA) Standard for Electrical Safety in the Workplace mandates reviewing the arc flash study of a facility a maximum of every five years. Recent changes at the LCWTP make this effort timely.

Update: Data collection is complete. The contractor is coordinate short circuit and breaker studies. Labels and a final report are anticipated by the end of December 2023.

District Project Manager:	Gardner Olson
Contractor:	Powmation
Final Completion Date:	June 30, 2024
Project Budget:	\$200,000.00
Contract Amount:	\$149,700.00
Project Spent to date:	\$21,695.00 / 10.9%

Financial Strategist

Purpose: Application assistance for WIFIA funding for MWDSLS long term Capital Finance program.

Update: A consultant is assisting the District with a BRIC grant for the SLAR Reaches 2 and 3 conceptual design.

District Project Manager:	Wayne Winsor
Contractor:	AE2S
Final Completion Date:	June 30, 2024
Project Budget:	\$100,000.00
Contract Amount:	\$20,000.00
Project Spent to date:	\$0.00 / 0.0%

IT Master Plan

Purpose: The Information Technology department has many project needs. A master plan will be developed to prioritize and define these projects.

Update: Assessment of the District's server rooms / data centers is in progress.

District Project Manager:	Ryan Nicholes
Contractor:	Hazen and Sawyer
Final Completion Date:	June 30, 2024
Project Budget:	\$150,000.00
Contract Amount:	\$149,905.00
Project Spent to date:	\$13,862.50 / 9.2%

MWDSLS Multi-hazard Mitigation Plan

Purpose: A facility-wide hazard mitigation plan will identify the effect of natural and non-natural hazards on District facilities, and will make the District eligible for federal planning and construction grants.

Update: The plan was approved by FEMA.

District Project Manager:	Wayne Winsor		
Design Engineer:	Elwell Consulting Group		
Final Completion Date:	October 20, 2023		
Project Budget:	\$207,323.00		
Fiscal Year:	2022	2023	2024
Spent:	\$35,218.69	\$162,855.99	\$23,440.46
Project Spent to date / Percent Spent:	\$210,994.68/ 106.9%		

Capacity Improvement Projects

Managed Aquifer Recharge Pilot Testing and Phase 1 (LC063)

Purpose: The District will construct two infiltration basins and an injection well at the LCWTP. These facilities will recharge an estimate 29 acre-feet of water into the aquifer per day. The water can then be extracted through any number of customer-owned wells down-gradient and within the same aquifer.

Update: Construction of the ASR well was completed on September 13, 2023. Well development is under way and anticipated to be complete by January 31, 2024. The project team is looking to a variety of chemical development methods.

The surface infiltration basin contractor began mass excavation on August 14, 2023. The basins are fully excavated and drain holes drilled. Site grading is expected to be complete by December 7, 2023. Equipping of the well and construction of the well house is on hold to ensure the pump and electrical equipment is appropriately sized for the well (this will be determined during development).

Public input continues to increase as the site is graded, with a big interest on how the site will look post-construction. A flier will be sent to the community in early-to-mid December to share this information.



November 8: Overall site progress.



October 24: Drilling for drain holes.



November 8: The ASR Vault was placed.



November 8: The ASR Well developing equipment is installed and swabbing the well. Swabbing is a process to kick-start the well by freeing up materials that are caught in the production zone.

Design			
District Project Manager:	Ammon Allen		
Design Engineer:	Hansen, Allen and Luce		
Final Completion Date:	December 31, 2024		
Implementation Plan Spent (FY21):	\$78,487.55		
Engineering Design Contract Amount:	\$961,937.15		
Fiscal Year:	2022	2023	2024
Spent to date:	\$78,431.03	\$420,598.75	\$119,932.27
Engineering Design Spent to date:	\$618,962.05 / 64.4%		

Wells Construction		
Contractor:	Hydro Resources	
Final Completion Date:	October 31, 2023	
Contract Amount:	\$3,674,441.00	
Change Orders / Percent:	\$123,121.00 / 3.4%	
	2023	2024
Wells Spent to date	\$2,504,420.15	\$370,837.50
Total Spent to date:	\$2,875,257.65 / 75.7%	

SIB and Infrastructure Construction	
Contractor:	COP Construction
Final Completion Date:	February 16, 2024
Contract Amount:	\$5,550,687.00
Change Orders / Percent:	\$0.00 / 0.0%
SIB and Infrastructure Spent to date:	\$2,846,200.15 / 51.3%

Other Project Costs	
Contractor:	SKM
Final Completion Date:	March 30, 2024
Budget:	\$94,500.00
Contract Amount:	TBD
Change Orders / Percent:	\$0.00 / 0.0%
SKM Spent to date:	\$0.00 / 0.0%
District Purchases	\$1,204.00
Total Other Costs Spent to date:	\$1,204.00 / 1.3%

Total Project Budget:	\$10,821,309.10
ARPA Grant:	\$3,000,000.00
ASR Reserve (as of June 30, 2022):	\$4,115,104.90
Non-ASR Reserve:	\$3,706,204.20
Total Project Spent to date:	\$6,420,111.40 / 59.3%

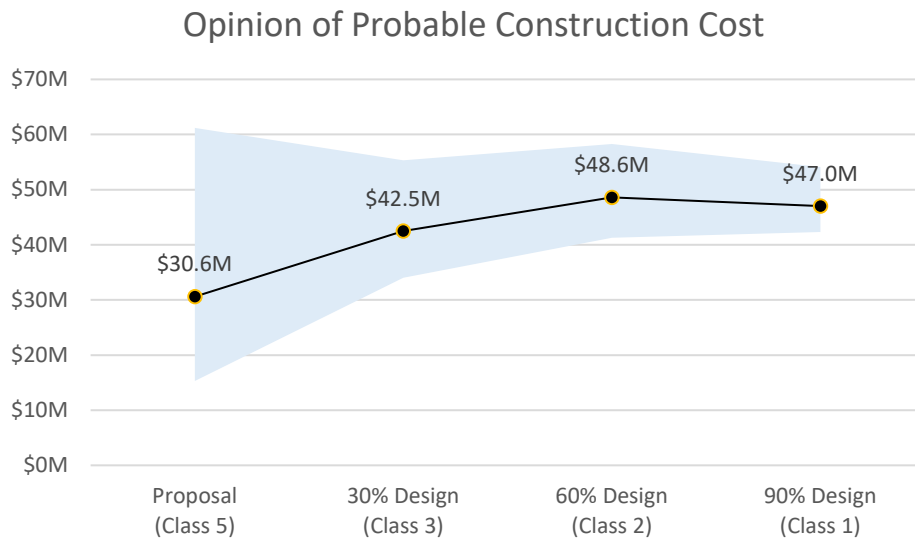
Other Capital Improvement Projects

Salt Lake Aqueduct Resiliency - Cottonwoods Conduit (SLAR-CC):

Purpose: The Big Cottonwood Water Treatment Plant (BCWTP) is in need of replacement. The SLAR-CC is a pipeline that connects the BCWTP and the Little Cottonwood Water Treatment Plant (LCWTP) to bring raw water from Big Cottonwood Creek to the LCWTP for treatment. Without this infrastructure, the District will incur an additional demand of up to 24,000 ac-ft annually during the BCWTP replacement.

Update:

Design: The 90% project design was received. The Opinion of Probable Construction Cost as of October 20, 2023 is \$47.0M (-10% to +15%).



Construction: Bidder prequalification documents were advertised between October 16 and November 6. Six statements of qualifications were received. Four statements were accepted.

Easement Acquisition: There are 61 permanent easements (56 residential, 5 non-residential) being acquired. We have received 18 appraisals to date. All 18 were extended offers. 17 of the 18 are actively being negotiated for the new SLAR easement. The first parcel has been acquired (one of the 18).

Five additional temporary easements on non-residential properties are also being pursued to provide staging and logistical areas used during construction. The location, size, and timing of the temporary easements have been defined. Legal descriptions and exhibits have been created. Appraisals have been ordered.

Funding: Staff is also working with our financial strategist to procure project funding.

Design			
District Project Manager:	Kelly Stevens		
Design Engineer:	Hazen and Sawyer		
Final Completion Date:	30-Jun-24		
Original Contract Amount:	\$ 2,355,137.00		
Contract Amendments:	\$ 1,321,445.00		
Total Contract Amount:	\$ 3,676,582.00		
Fiscal Year:	2022	2023	2024
Spent to Date:	\$ 36,856.25	\$ 1,999,946.56	\$ 734,097.52
Engineering Spent to Date:		\$ 2,770,900.33 / 75.4%	

Public Engagement			
District Project Manager:	Kelly Stevens		
Design Engineer:	Wall Consulting Group		
Final Completion Date:	30-Jun-24		
Original Contract Amount:	\$ 108,388.75		
Contract Amendments:	\$ -		
Total Contract Amount:	\$ 108,388.75		
Fiscal Year:	2022	2023	2024
Spent to Date:	\$ 4,455.46	\$ 32,879.88	\$ 14,342.08
Engagement Spent to Date:		\$ 51,677.42 / 47.7%	

**Jordan Valley Water Conservancy District (JVWCD)
Jordan Aqueduct System and 150th South Pipeline – Capital Projects**

The District is responsible for 2/7 of Jordan Aqueduct (JA) system improvements which include JA Reaches 1 – 4, Jordan Valley Water Treatment Plant (JVWTP), and the JA Terminal Reservoir. The District is responsible for one half of improvements associated with the 150th South pipeline. Projects identified for FY2024 include:

Major Rehabilitation or Replacement of Existing Facilities

- JA Normal, Extraordinary Maintenance and Replacement \$ 142,857
- 150th South Pipe Normal Maintenance and Replacement \$ 62,500
- JA TR Basins 3, 4 Roof Deck Joint Sealant Replacement \$ 142,857
- JVWTP Normal, Extraordinary Maintenance and Replacement \$ 342,857
- JVWTP Floc/Sed Basins 3-6 Mechanical Equipment Replacement \$ 385,714
- JVWTP Floc/Sed Basins 1-2 Mechanical Equipment Replacement \$ 285,714

New Non-Capacity Facilities (Compliance/Functional Upgrade)

- JVWTP Filter and Chemical Feed Upgrades \$ 885,714
- JVWTP Floc/Sed 1-2 Seismic Upgrade \$ 662,143
- Jordan Aqueduct Seismic Resiliency \$ 14,286

JVWTP Project Management Expenses \$ 50,000

Total Request FY2024: \$2,974,643

This report is taken from JVWCD’s November 2023 board packet and covers September 19, 2023 to October 16, 2023.

The JVWTP Filter and Chemical Feed Upgrade project is working toward 60% design. JVWCD decided to continue using chlorine gas for post-treatment disinfection, but in a new building for improved operator safety. Construction is scheduled for summer 2025.

The consultant is preparing 90% drawings for the Sedimentation Basins 1-2 Seismic and Capacity Upgrades project. JVWCD staff is recommending an engineering amendment to include a new pump station with this project for efficiency reasons. The project did not receive BRIC funding in 2023; plans are underway to reapply next year.

The Sedimentation Basins 3-6 Equipment Replacement is proving successful, as shown by the picture to the right (high quality water being produced by the new plate settlers). Commissioning testing is complete. The contractor is now completing site grading and owner-requested change orders.

