

Tab 5

Metropolitan Water District of Salt Lake & Sandy
FY2024 CAPITAL PROJECTS REPORT
April 2024

Last updated: April 2, 2024

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: Weekly progress is made on punch list items.

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:	-\$10,369.83 / -1.8%	
	FY23	FY24
FY Budget:	\$600,000.00	\$100,000.00
Spent to Date:	\$409,529.29	\$0.00
District Purchases:	\$4,813.50	\$778.00
Expenses to Date / Percent Spent:	\$415,120.79 / 70.4%	

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: An alignment and hazard overview was presented to staff on March 28, 2024. Staff will meet on April 3 to discuss and determine how to proceed.

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:	\$123,735.12
District Purchases:	\$0.00
FY2024 Expenses to Date / Percent Spent:	\$123,735.12 / 61.9%

POMWTP PC/S Hardware Replacement Project

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

Update: Equipment is being installed. A change order was completed to replace several additional network switches with new equipment and firmware.

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%	\$14,212.00 / 6.8%
Spent to Date:	\$156,665.00	\$149,138.18
District Purchases:	\$0.00	\$2,723.00
Expenses to Date / Percent Spent:	\$307,771.18 / 68.4%	

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. An SUV was received in December 2023. Procurement is complete for fiscal year 2024.

District Project Manager:	Michael Carter
Project Budget:	\$200,000.00
Project Spent to date:	\$176,855.33 / 88.4%

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 2024. Staff was notified of several emergency procurements in FY24, including slope repairs near the penstock and a commercial mower.

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 was installed on February 28, 2024.

District Project Manager:	Gardner Olson
Project Budget:	\$12,000.00
Project Spent to date:	\$11,567.33 / 96.4%

LCWTP Flash Mix Replacement

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

Update: The equipment was received.

District Project Manager:	Andy Reidling
Project Budget:	\$50,000.00
Project Spent to date:	\$44,770.40 / 89.5%

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. An RVSS is being replaced in FY24. Staff plans to replace the final RVSS in FY25.

Update: Project complete.

District Project Manager:	Scot Collier
Contractor:	EMC
Final Completion Date:	June 30, 2024
Project Budget ¹ :	\$90,000.00
Contract Amount:	\$87,285.16
Spent to Date:	\$87,285.16
Other Costs:	\$1,085.55
Project Spent to date:	\$88,370.71 / 98.2%

¹ Project budget was reduced at the February 26, 2024 board meeting.

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: Installation is underway.

District Project Manager:	Brian Pehrson
Contractor:	Avtec
Final Completion Date:	June 30, 2024
Budget ¹ :	\$135,000.00
Contract Amount:	\$116,836.02
Change Orders / Percent:	\$16,870.35 / 14.4%
Spent to Date:	\$0.00
District Purchases:	\$0.00
Project Spent to Date:	\$0.00 / 0.0%

¹ Project budget was increased at the February 26, 2024 board meeting.

UPS Replacement

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

Update: The UPS systems were received in December 2023.

District Project Manager:	Scot Collier
Project Budget ¹ :	\$40,000.00
Project Spent to date / Percent Spent:	\$37,891.06 / 97.7%

¹ Project budget was decreased at the February 26, 2024 board meeting.

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. An organics laboratory dishwasher was ordered in March.

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 was received. Additional servers were ordered in March.

District Project Manager:	Darin Klemin
Project Budget:	\$70,000.00
Project Spent to date / Percent Spent:	\$14,747.44 / 21.1%

Miscellaneous: Two chlorinators were received and installed to replace failing units at the LCWTP at a cost of \$21,793 (awaiting invoice).

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, labels, and the final report are complete. One-line diagrams are in progress. The expected completion is April 30, 2024.

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:	\$74,800.00 / 37.4%

Financial Strategist

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

Update: Two tasks began in April – 1) development of a funding plan / strategy for external funding sources and 2) assistance with a BRIC scoping application for the LCWTP Rebuild.

District Project Manager:	Annalee Munsey		
Project Budget:	\$100,000.00		
Contractor:	AE2S	AE2S	AE2S
Final Completion Date:	June 30, 2024	June 30, 2024	June 30, 2025
Contract Amount:	\$20,000.00	\$49,910.00	\$24,330.00
Project Spent to date:	\$19,424.50 / 19.4%	\$0.00 / 0.0%	\$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: The server room assessment is nearly complete. The consultant is currently working on the HMI evaluation and began preparing to map LCWTP fiber infrastructure.

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:	\$60,256.76 / 40.1%

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 was completed in January 2024. Injection testing was completed in February 2024.

The surface infiltration basins are fully excavated and drain holes drilled. Site grading is complete. The contractor is ordering electrical equipment. Work restarted on the well piping in March 2024. The contractor is preparing piping and conduits for the well house concrete pad to be placed in April. Seeding around the site perimeter will occur in early April.

Staff looks forward to reporting to the Board in more detail in May regarding the project purpose, progress, and future.



March 18, 2024: Overall site progress.



March 18, 2024: The contractor excavated to prepare for the well house.



March 27, 2024: Piping and conduits are installed prior to concrete placement.

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	\$182,091.80
Engineering Design Spent to date:	\$681,121.58 / 70.8%		

Wells Construction		
Contractor:	Hydro Resources	
Final Completion Date:	October 31, 2023	
Contract Amount:	\$3,674,441.00	
Change Orders / Percent:	-\$19,782.00 / -0.5%	
	2023	2024
Wells Spent to date	\$2,504,420.15	\$0.00
Total Spent to date:	\$2,504,420.15 / 68.5%	

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:	\$3,590,937.00 / 64.7%

Other Project Costs	
Contractor:	SKM
Final Completion Date:	March 30, 2024
Budget:	\$94,500.00
Contract Amount:	\$39,890.00
Change Orders / Percent:	\$0.00 / 0.0%
SKM Spent to date:	\$487.50 / 1.3%
District Purchases	\$1,204.00
Total Other Costs Spent to date:	\$1,691.50 / 1.8%

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:	\$6,868,440.28 / 63.4%

Other Capital Improvement Projects

Salt Lake Aqueduct Replacement - 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: Design is complete.

Construction: Construction contracts were awarded on February 26, 2024. Kickoff meetings were held in March. A coordination and partnering pre-construction meeting with both contractors was held on April 3. Construction on CC-1 is anticipated to begin on or about April 15. Construction on the SLAR is anticipated to begin in July 2024.

Easement Acquisition: There are 59 permanent easements (54 residential, 5 non-residential) being acquired. We have received 57 appraisals to date. Of those, 62 were extended offers. All offers are actively being negotiated for the new SLAR easement. Twenty eight offers have been accepted. Twenty three easements have been acquired to date.

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: Project funding was approved on February 26, 2024.

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	\$ 1,160,873.13
Engineering Spent to Date:		\$ 3,197,675.94 / 87.0%	

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	\$ 37,667.29
Engagement Spent to Date:		\$ 75,002.63 / 69.2%	

**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

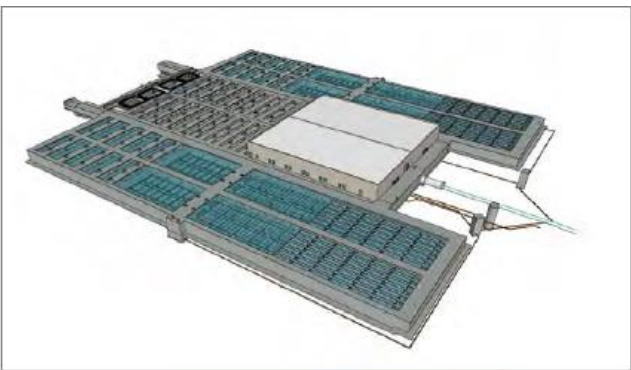
This report is taken from JVWCD’s March 2024 board packet and covers January 13, 2024 to February 15, 2024.

JVWCD is working with the Division of Drinking Water and Unified Fire regarding the JVWTP Filter and Chemical Feed Upgrades and expansion projects. Design is progressing.

JVWCD staff provided comments on the 90% drawings for the Sedimentation Basins 1-2 Seismic and Capacity Upgrades project. See pictures below. JVWCD reapplied for a BRIC grant.



Existing circular clarifier to be replaced with upgraded technology as part of this project



Basin 1-2 engineering rendering of new JVWTP Sedimentation Building

CALENDAR 2024

April

- 2 Executive Committee Meeting – 8:30 a.m.
- 2 Finance Committee Meeting – 10:00 a.m.
- 2 Property Tax Presentation to Salt Lake City Council (Work Session) – 4:30 p.m.
- 15 MWDSLS Work Session 3:30 p.m.
- 15 MWDSLS Board Meeting 4:30 p.m.
- 16 Property Tax Presentation to Sandy City Council (Business) – 5:15 p.m.
- 18 SCPUAB Meeting – 7:30 a.m.
- 23 Engineering Committee Meeting – 10:00 a.m.
- 25 SLCPUAC Meeting – 7:30 a.m.
- 25 PRWUA Annual Shareholders Meeting and Board Meeting – 10:00 a.m.
- 30 Environmental Committee meeting – 10:00 a.m.

May

- 16 SCPUAB Meeting – 7:30 a.m.
- 20 MWDSLS Work Session – 3:30 p.m.
- 20 MWDSLS Board Meeting – 4:30 p.m.
- 20 MWDSLS Public Hearing – 6:00 p.m.
- 21 Management Advisory Committee 8:30 a.m.
- 21 Finance Committee Meeting 10:00 a.m.
- 23 SLCPUAC Meeting – 8:00 a.m.
- 30 PRWUA Board Meeting – 10:00 a.m.

June

- 4 Engineering Committee Meeting – 10:00 a.m.
- 10-13 AWWA National – Anaheim, CA
- 17 MWDSLS Work Session – 3:30 p.m.
- 17 MWDSLS Board Meeting – 4:30 p.m.
- 20 SCPUAB Meeting – 7:30 a.m.
- 27 SLCPUAC Meeting – 7:30 a.m.
- 27 PRWUA Board Meeting – 10:00 a.m.

MWDSLS – Metropolitan Water District of Salt Lake & Sandy
PRWUA – Provo River Water Users Association
SLCPUAC – Salt Lake City Public Utilities Advisory Committee
SCPUAB – Sandy City Public Utilities Advisory Board

Last 4/4/24

January 2024						
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April 2024						
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June 2024						
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August 2024						
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September 2024						
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October 2024						
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November 2024						
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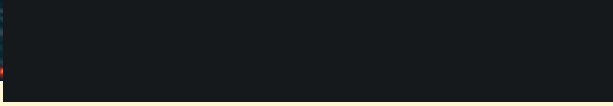
December 2024						
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MWDSLS Board of Trustees

EVENT	TIME
Work Session	3:30 PM
Board Meeting	4:30 PM
Feb/May Public Hearing	6:00 PM
Management Advisory Committee	8:30 AM
Executive Committee	8:30 AM
Environmental Committee	10:00 AM
Engineering Committee	10:00 AM
Finance Committee	10:00 AM
Holidays	

EVENT	DATE
Utah Water Users Workshop – St. George, UT	March 18-20
AWWA National – Anaheim, CA	June 10-13
Intermountain Section AWWA - Layton	Sept 11-13
Utah Association of Special Districts - Layton	Nov 6-8
NWRA Annual Conference – Albuquerque, NM	Nov 6-8
CRWUA – Las Vegas, NV	Dec 4-6

2024



Terminal Reservoir Inspection

District staff annually clean and inspect one of the Terminal Reservoir cells. Last month, staff drained, inspected, and cleaned Terminal North Cell A. During the inspection, seven wall-to-floor joints had expanded. The areas were left as-is and will be monitored over the next few years. Underdrains will also be monitored for any increase in leakage. After the inspection, staff washed the reservoir with fire hoses and disinfection took place. The reservoir has since been refilled so samples could be taken and Cell A can be used.



HUMAN RESOURCES

New Employees:

- Wade Ewell – Maintenance Technician II
- Josh McDougall – Senior SCADA HMI Administrator
- Ryan Martin – Facilities Technician

FIRST AID TRAINING

In the past, the District has hosted first aid training every two years to guarantee that staff is working in a safe, well-equipped environment. This year, the District has taken steps to have four employees trained as Red Cross-certified first aid instructors so the training can be facilitated entirely in-house. The first in-house first aid training will be held during May's District Training session. The four instructors will be able to teach smaller groups of staff to ensure maximum comprehension and it should provide a meaningful, comprehensive learning experience.



TOUR OF JORDAN VALLEY WATER TREATMENT PLANT

Recently, District staff toured the Jordan Valley Water Treatment Plant in Bluffdale. Jordan Valley completed seismic and treatment improvements to four of its sedimentation basins, including additional structure support, new chain and flight, and new plate settlers. The project (which is in the first of three phases) was completed in 2023 and has been reported to improve basin treatment capacity by approximately 30% while reducing filter loading. Phase two is in design and will address structural and capacity upgrades in the remaining two sedimentation basins. The third phase will address upgrades to chemicals and filters. Staff appreciate Jordan Valley for sharing their time and experience with this project. District staff anticipates many of the same design and delivery methods will be considered with the upcoming LCWTP rebuild.

Additional Offices

The District's growing staffing levels have required some creativity to create other office spaces. The District recently hired a Senior SCADA HMI Administrator who needs an office. Staff has been working to construct two additional offices to accommodate the new hire: one office for the SCADA HMI Administrator and the other office for the Operation Leads. Staff is in the process of framing and hanging sheetrock in the offices. I&E will assist in providing the power and SCADA connections while Maintenance staff reroutes the HVAC.

Increased Storage

The "Gold Room" in the LCWTP's maintenance building houses a majority of the warehouse items and supplies used by Maintenance staff. Part of the original maintenance building from 2003 is a partial mezzanine. Fred Strickland, Warehouse Administrator, designed the expansion of the mezzanine and procured the metal frames, posts, and other parts. Fred cut and welded the pieces and is in the process of finishing the walkways and handrails. This project will add additional storage space for tools and equipment at LCWTP.