

# Tab 3

Metropolitan Water District of Salt Lake & Sandy  
Board Packet  
Last Update: April 6, 2023

**Agenda Item:** Consider approval of Supervisory Control and Data Acquisition (SCADA) software license renewal

**Objective:** Discuss renewal procurement for GE SCADA human machine interface (HMI) software licenses care of TMMI Technical Marketing MFG powered by GrayMatter Systems.

**Background:** GE software license renewals are due on or before June 28 annually.

The District uses the GE software to monitor, record, and control the water treatment plants and remote sites. This software is required in order for the operators to operate the water treatment process and to help the District maintain compliance with drinking water regulatory requirements.

GE Software has been used in the District water treatment system since 2005. There has been a continuous renewal price increase since initial purchase. The cost of this software renewal has now crossed the \$50,000 threshold and requires approval from the Board.

- Renewal cost: \$52,081.92
- GE Digital LLC is a District-approved sole source supplier
- Quote was received directly from GE and will be processed through GrayMatter Systems who is GE's assigned local authorized product representative

The GE Software renewal has not previously exceeded \$50,000; this is the first time since initial purchase in 2005 and will continue to increase over time. The renewal cost represents an 8.4% increase over the fiscal year 2022 expense of \$48,047.71.

**Committee Activity:** The Engineering Committee discussed this item on April 4, 2023.

**Recommendation:** The Engineering Committee recommends the Board authorize \$52,081.92 to GE Digital LLC care of GrayMatter Systems to renew the District's SCADA HMI software license.

**Agenda Item:** Consider approval of SLAR-CC easement procurement guidelines and forms

**Objective:** Seek approval of the easement acquisition process for the SLAR-CC project.

**Background:** The Salt Lake Aqueduct Replacement – Cottonwoods Conduit (SLAR-CC, or “Cottonwoods Connection”) project is currently in design with construction anticipated beginning January 2024. Construction of the pipeline must be complete by June 30, 2025 to enable Salt Lake City to begin replacement of the Big Cottonwood Water Treatment Plant (BCWTP). Staff anticipates a regular series of updates, discussions, and decisions with the Engineering Committee and Board of Trustees throughout design.

With this agenda item, staff wishes to discuss the process that will be used to acquire the pipeline easements required for the Cottonwoods Connection project. This process is represented by a workflow that engages various roles from staff, consultants, and sub-consultants to successfully identify, investigate, appraise, and acquire easements along the Cottonwoods Connection corridor. A visualization of the easement acquisition workflow is attached for your reference.

There are currently 79 parcels that have been identified that will require an easement to be acquired. The status and activities surrounding each individual easement are actively being managed using a secured online system.

As each affected property owner is approached, they will be presented with a packet of information containing, among other things:

- The agreements and contracts to acquire the easement,
- A visual representation of the required easement (an example is attached for your reference),
- A summary of how the value of the easement was obtained, and
- Contact information for the State’s Office of the Property Rights Ombudsman if they choose to use those services available to them.

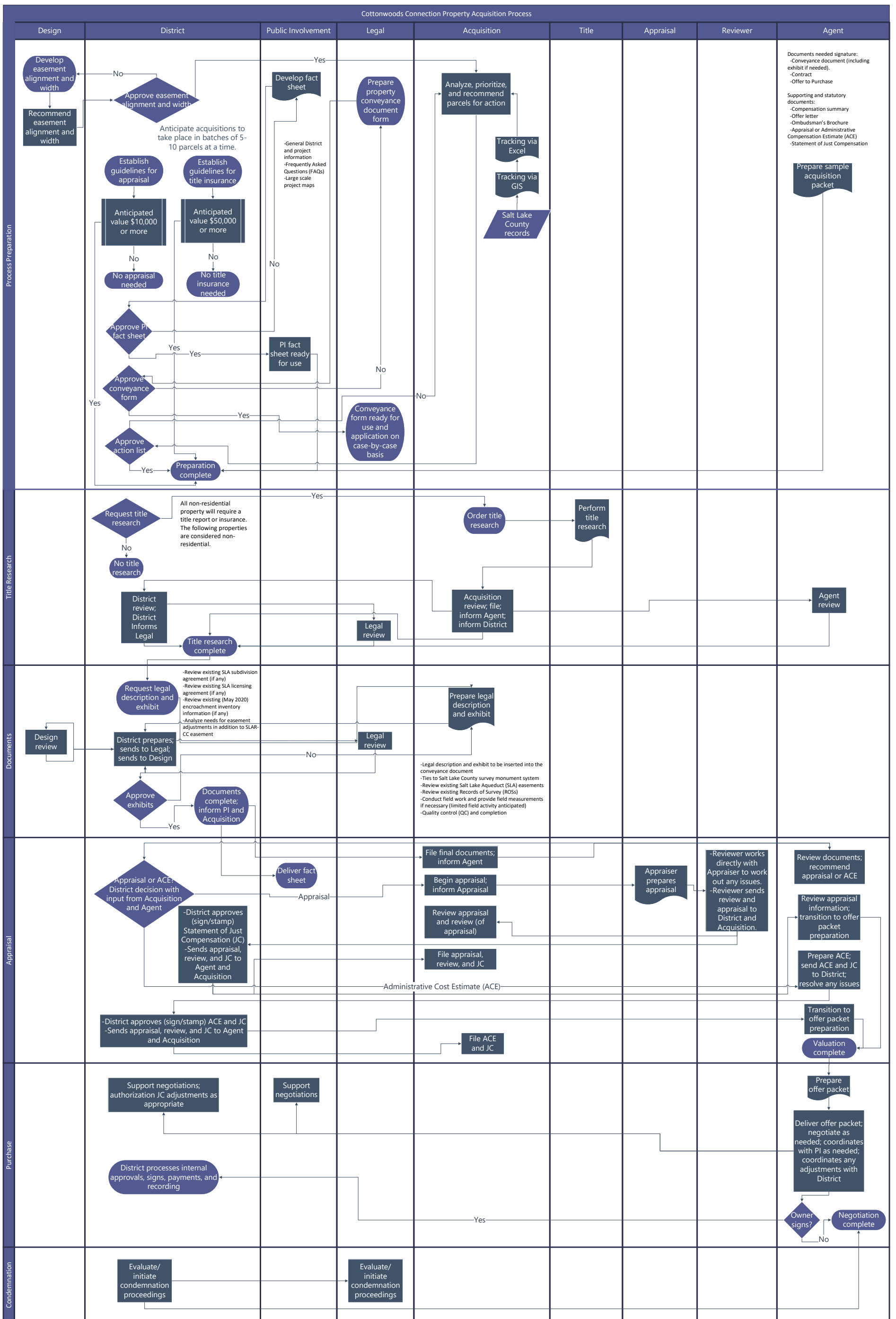
As the workflow process has matured, MWDSLs guidelines around the easement acquisition process have been identified. Legal counsel has been tasked with formulating an authorization guidance that was brought to the Engineering Committee for discussion.

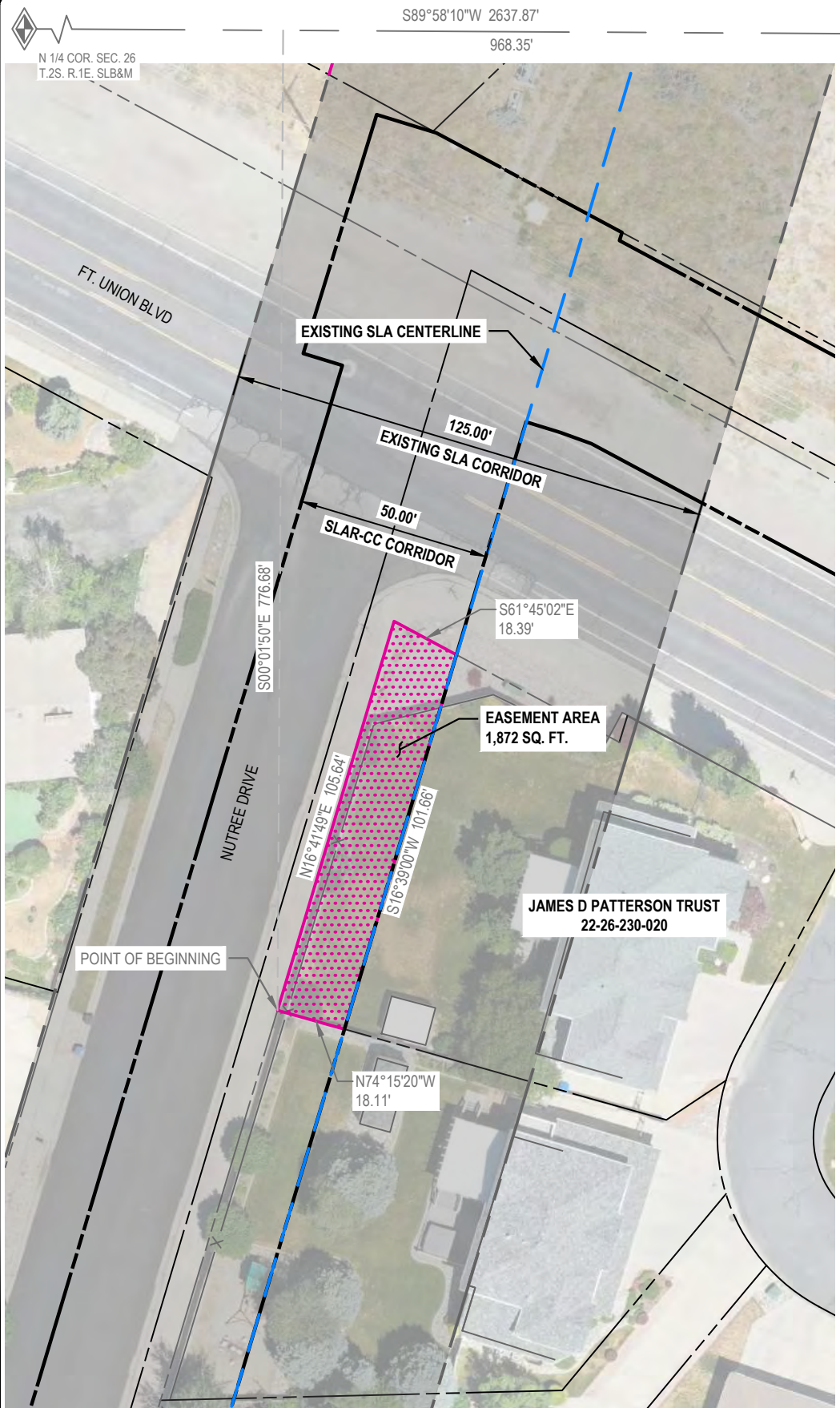
**Committee Activity:** The Engineering Committee discussed this item on April 4, 2023.

**Recommendation:** The Engineering Committee recommends authorization of the easement acquisition process for the Cottonwoods Connection project as described in the Memo to Board regarding Right of Way Acquisition.

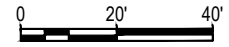
**Attachments:**

- Salt Lake Aqueduct Replacement - Cottonwoods Connection – Easement Acquisition Process Diagram, March 15, 2023
- Salt Lake Aqueduct Replacement – Cottonwoods Connection – Parcel 76 Easement Exhibit, March 13, 2023





NE COR. SEC.26  
T.2S. R.1E. SLB&M



**EASEMENT DESCRIPTION**

A PORTION OF A FIFTY FOOT WIDE PERPETUAL EASEMENT FOR A WATERLINE LYING WITHIN THE EXISTING METROPOLITAN WATER DISTRICT OF SALT LAKE & SANDY AQUEDUCT EASEMENT AND BEING A PORTION OF THE JAMES D. PATTERSON TRUST PROPERTY, APN 22-26-230-020, LOCATED IN THE NORTHEAST QUARTER OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 4, COTTONVIEW RIDGE SUBDIVISION, FILE NO. 97-2P-44, SALT LAKE COUNTY RECORDS, WHICH POINT LIES SOUTH 89°58'10" WEST ALONG THE SECTION LINE 968.35 FEET AND SOUTH 00°01'50" EAST 776.68 FEET FROM THE NORTHEAST CORNER OF SAID SECTION 26; AND RUNNING THENCE NORTH 16°41'49" EAST 105.64 FEET ALONG THE WEST LINE OF SAID LOT 4 TO THE NORTHWEST CORNER OF SAID LOT 4; THENCE SOUTH 61°45'02" EAST 18.39 FEET ALONG THE NORTH LINE OF SAID LOT 4; THENCE SOUTH 16°39'00" WEST 101.66 FEET TO THE SOUTH LINE OF SAID LOT 4; THENCE NORTH 74°15'20" WEST 18.11 FEET ALONG SAID SOUTH LINE TO THE POINT OF BEGINNING.

CONTAINS 1,872 SQUARE FEET, MORE OR LESS.

SLA = SALT LAKE AQUEDUCT  
SLAR-CC = SALT LAKE AQUEDUCT  
REPLACEMENT-COTTONWOODS CONDUIT



4246 S Riverboat Rd, Ste 200 | Salt Lake City, UT 84123 | P: 801.359.5565 | www.crsengineers.com

METROPOLITAN WATER DISTRICT OF SALT LAKE & SANDY  
SLAR-CC EASEMENT  
APN 22-26-230-020  
JAMES D. PATTERSON TRUST  
COTTONWOOD HEIGHTS, UTAH

PROJECT NUMBER  
2022-0037

SHEET	1	OF	1
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SHEET NUMBER

EXHIBIT A  
BP029

# Metropolitan Water District of Salt Lake & Sandy FY2023 CAPITAL PROJECTS REPORT

April 2023

Last updated: March 27, 2023

## Routine Non-Capacity Improvement Projects

**SCS Hardware and Software Replacement Project (LC067):** The contractor’s project manager changed in early February. The contractor is installing new card readers throughout the District. The project remains on track to be completed in April 2023.

District Project Manager:	Ryan Nicholes Darin Klemin
Design Engineer / Contractor:	Avtec
Final Completion Date:	June 30, 2023
FY2023 Contract Amount:	\$584,126.40
Change Orders / Percent:	\$0.00 / 0.0%
Spent to Date:	\$102,226.05
District Purchases:	\$3,568.50
FY2023 Budget:	\$600,000.00
FY2023 Expenses to Date / Percent Spent:	\$105,794.55 / 17.6%

**POMWTP PCS Hardware Replacement Project:** Fiscal year 2023 work was completed in February with the exception of three parts that are scheduled for delivery in April.

District Project Manager:	Gardner Olson
Design Engineer / Contractor:	SKM
Final Completion Date:	June 30, 2023
FY2023 Contract Amount:	\$182,358.73
Change Orders / Percent:	\$0.00 / 0.0%
Spent to Date:	\$143,962.51
District Purchases:	\$0.00
FY2023 Budget:	\$200,000.00
FY2023 Expenses to Date / Percent Spent:	\$143,962.51 / 72.0%

**Fleet Program Replacement:** An articulating lift and tilt trailer were received in July 2022. A mower was received in August 2022. A truck was received in February 2023. The last truck is expected to arrive in March 2023.

District Project Manager:	Michael Carter
Project Budget:	\$215,000.00
Project Spent to date:	\$136,295.59 / 63.4%

**LCWTP Standby Generator Replacement (LC066):** Project complete.

District Project Manager:	Gardner Olson		
Design Engineer	Energy Management Corp. (EMC)		
Fiscal Year:	2022	2023	
Contractor:	Various	EMC	SKM
Final Completion Date:	December 31, 2022		
Contract Amount:	\$1,453,794.00	\$9,280.00	\$8,090.00
Change Orders / Percent:	\$15,513.25 / 10.7%	\$0.00 / 0.0%	\$0.00 / 0.0%
Spent to date:	\$1,464,377.07	\$6,520.00 / 70.3%	\$8,090.00 / 100.0%
District Purchases:			\$2,919.00
Fiscal Year Budget:	\$1,550,000.00		\$25,000.00
Expenses to Date / Percent Spent:	\$1,464,377.07 / 94.5%		\$17,529.00 / 70.1%

**Little Dell Dam Improvements:** No activity reported to date.

District Project Manager:	Bernard Mo, SLCDPU
Project Budget <sup>1, 2</sup> :	\$501,920.00
Project Spent to date:	\$0.00 / 0.0%

<sup>1</sup> Budget reduced at the September 19, 2022 Board Meeting.

<sup>2</sup> Budget reduced at the January 23, 2023 Board Meeting.

**WIFIA Funding Application Strategist:** Awarded contract to LYR&B at the February 27, 2023 Board Meeting. A coordination meeting with the WIFIA consultant and District Financial Advisor was held on March 13. A conference call was held March 24 with the Assistant Director of EPA.

District Project Manager:	Wayne Winsor
Consultant:	LYR&B
Project Budget <sup>1</sup> :	\$100,000.00
Contract Amount:	\$93,550.00
Project Spent to date:	\$0.00 / 0.0%

<sup>1</sup> Budget added at the January 23, 2023 Board Meeting.

**Repair and Replace**

**Jordan Narrows Pump Station Roof Replacement:** Project complete.

District Project Manager:	Augusto Robles
Contractor:	Pinecreek Roofing
Final Completion Date:	December 31, 2022
Project Budget <sup>1</sup> :	\$15,000.00
Contract Amount:	\$13,200.00
Project Spent to date:	\$13,200.00 / 88.0%

<sup>1</sup> Budget increased at the September 19, 2022 Board Meeting.



**LCWTP HVAC Replacement:** The new equipment in Power Supply Unit (PSU) No. 2 is functioning properly. Demolition was completed on PSU No. 1 and new equipment will be installed the week of March 27, 2023.

District Project Manager:	Augusto Robles
Contractor:	New City HVAC
Final Completion Date:	June 30, 2023
Project Budget <sup>1</sup> :	\$135,000.00
Contract Amount:	\$115,000.00
Project Spent to date:	\$57,500.00 / 42.6%

<sup>1</sup> Budget increased at the September 19, 2022 Board Meeting.

**POMFWP VFD Replacement:** Both units are scheduled to be installed beginning April 12, 2023. Motor protection relays were installed and programming efforts are underway.

District Project Manager:	Scot Collier
Contractor:	District / Siemens
Final Completion Date:	June 30, 2023
Project Budget:	\$275,000.00
Contract Amount:	\$271,303.16
Other Costs <sup>1</sup> :	\$15,361.16
Project Spent to date:	\$15,361.16 / 5.6%

<sup>1</sup> Other costs include relay replacement and programming.

**CCTV Hardware Replacement:** Cameras are installed. Staff is completing the networking and recording equipment upgrades.

District Project Manager:	Ryan Nicholes Darin Klemin
Contractor:	Avtec
Final Completion Date:	June 30, 2023
FY2023 Contract Amount:	\$88,768.50
Change Orders / Percent:	\$0.00 / 0/0%
Spent to Date:	\$43,635.80
District Purchases:	\$49,382.13
FY2023 Budget:	\$150,000.00
FY2023 Expenses to Date / Percent Spent:	\$93,017.93 / 62.0%

**LCWTP Caustic Recirculation Pump Replacement:** A caustic pump was ordered in December 2022.

District Project Manager:	Steve Slack
Project Budget:	\$35,000.00
Project Spent to date / Percent Spent:	\$0.00 / 0.0%

**Lab Equipment Replacement:** The inductively coupled plasma/mass spectrometer arrived in August. Staff are working with the manufacturer to resolve equipment defects.

District Project Manager:	Jeff Matheson
Project Budget <sup>1</sup> :	\$130,000.00
Project Spent to date / Percent Spent:	\$127,040.95 / 97.7%

<sup>1</sup> Budget reduced at the September 19, 2022 Board Meeting.

**Annual Network Server Replacement:** The equipment was received in late January 2023.

District Project Manager:	Darin Klemin
Project Budget:	\$70,000.00
Project Spent to date / Percent Spent:	\$59,109.93/ 84.4%

**LCWTP Actuator Procurement:** Four actuators were ordered in July 2022.

District Project Manager:	Scot Collier
Project Budget:	\$50,000.00
Project Spent to date / Percent Spent:	\$0.00/ 0.0%

**Miscellaneous:** A new flash mixer gear box was ordered for the LCWTP. A breaker was ordered for Load Center A-1 on March 20, 2023 to replace one damaged in a power outage on March 10.

District Project Manager:	Wayne Winsor
Project Budget:	\$50,000.00
Project Spent / Percent Spent:	\$0.00 / 0.0%

**FY2022 Carryover – LCWTP Actuator Replacement:** Two actuators, ordered in December 2021, were received on August 1, 2022. Staff plan to install the actuators in early Spring 2023.

District Project Manager:	Scot Collier
Project Budget:	\$32,000.00
Project Spent / Percent Spent:	\$29,618.30 / 92.6%

**FY2022 Carryover – Lab Equipment Replacement:** Equipment was received in late June 2022; installation occurred in August 2022. This project is complete.

District Project Manager:	Wayne Winsor
Project Budget <sup>1</sup> :	\$5,000.00
Project Spent / Percent Spent:	\$2,570.00 / 51.4%

<sup>1</sup> Budget reduced at the September 19, 2022 Board Meeting.

## Non-Routine O&M (Selected Projects)

**MWDSLS Multi-hazard Mitigation Plan:** The project is in its final phase, Phase D, which will assemble data from this assessment and previous Little Cottonwood Water Treatment Plant and Salt Lake Aqueduct hazard assessments. A final risk-priority document will be prepared and reviewed by the District, the state, and FEMA prior to its proposed adoption by the Board in summer 2023.

Adoption is required prior to final submission to FEMA for approval. Once approved by FEMA, the District will be positioned to seek federal grants through the Building Resilient Infrastructure and Communities (BRIC) program. BRIC funding is being considered in the District's overall funding strategy for capital projects over the next several decades.

District Project Manager:	Wayne Winsor	
Design Engineer:	Elwell Consulting Group	
Final Completion Date:	December 31, 2023	
Project Budget:	\$207,323.00	
Fiscal Year:	2022	2023
Spent:	\$35,218.69	\$95,670.27
Project Spent to date / Percent Spent:	\$130,888.96/ 63.1%	

## Capacity Improvement Projects

**Managed Aquifer Recharge Pilot Testing and Phase 1 (LC063):** Managed aquifer recharge (MAR) is a common term that applies to all forms of groundwater replenishment. This project includes two forms of MAR: an injection well and surface infiltration basins. The District identified available water rights in Little Cottonwood Creek in early spring that, if captured, could be stored in the aquifer for future extraction. The District received a \$3,000,000 grant from the State of Utah through the American Rescue Plan Act (ARPA) to construct the first phase of the project, which will recharge up to an estimated 29 acre-feet of water daily.

### ***Permitting***

A groundwater recharge permit application was filed with the Utah Division of Water Rights (DWR) on May 11, 2022. Advertisement began July 22, 2022 and closed on August 18, 2022. The project team was notified in April 2022 the permitting process would require at least six months. In a meeting on January 10, 2023, the division shared concerns with the application in light of ongoing water rights adjudication in Little Cottonwood Creek. DWR toured the site on March 2, 2023. On March 22, 2023 staff was notified the draft permit is under internal review and is expected to be released “within the next couple weeks.” Approval will be narrowed to select rights.

### ***Construction***

**ASR Well and Monitoring Wells:** On October 17, 2022 the Board awarded ASR and monitoring well drilling. Work on the monitoring wells began December 19, 2022 at Monitoring Well (MW) 2 on the west side of the LCWTP. MW2 was completed in February 2023. MW1 was completed in March 2023. Work began on MW3 on March 15, 2023.

Drilling for the ASR Well conductor casing began on January 9, 2023 and concluded January 13, 2023. The conductor casing completes the first 110 feet of the 700-foot deep well. The contractor plans to mobilize in mid-April to complete the remaining drilling. Temporary sound walls are installed around the well. A temporary noise permit was received from the Salt Lake County Health Department and written notification of the activity and permit sent to all neighbors within 800 feet of the site on February 14, 2023.

The observed water level in MW1 and MW2 is about 400 feet below ground surface. This is in comparison to observed water levels from 2007 at 300 feet. Staff is working with the consultant to determine how to react to this information, if at all. It is an interesting data point to consider affects on the aquifer with the recent drought years.

**Surface Infiltration Basins and Infrastructure:** The District will construct about 4.29 acres of surface infiltration basins (SIBs). Each basin will be outfitted with several drain holes to improve efficiency. Water sent to the SIBs is not treated in advance as it is not in direct contact with the aquifer. An investigation performed in 2007 suggests these basins will be capable of infiltrating five feet of water daily. Staff is actively involved with the consultant in designing this infrastructure, and recently performed several potholes (underground utility locating) at the LCWTP. The 90% design drawings are under review. The SIBs are anticipated to bid in April 2023 for award at the June 2023 Board meeting.

**Public Notice**

Public notices were sent on December 14, 2022; January 18, 2023; and February 22, 2023. The project website is updated weekly. We received three inquiries from the public, all seeking project information, with no complaints. A fourth inquiry was concerned about the lack of water in Little Cottonwood Creek and was appreciative of staff's response.





A sounds wall stands around the ASR well site.

**Budget**

The project will extend into FY2024, with an anticipated completion date in April 2024 for pilot testing. Permitting will extend into the first half of FY2025. Actual project costs and contracts follow:

<b>Design</b>		
District Project Manager:	Ammon Allen	
Design Engineer:	Hansen, Allen and Luce	
Final Completion Date:	December 31, 2024	
Engineering Contract Amount:	\$961,937.15	
Fiscal Year:	2022	2023
Spent to Date:	\$78,431.03	\$221,055.80
Staff Time (Reported to State for ARPA Funds):	\$5,508.99	\$4,900.50
Engineering Spent to date / Percent Spent:	\$299,486.83 / 31.1%	

<b>Construction</b>		
District Project Manager:	Ammon Allen	
	Wells	SIBs
Contractor:	Hydro Resources	TBD
Final Completion Date:	March 31, 2023	TBD
Contract Amount:	\$3,674,441.00	TBD
Change Orders / Percent:	-\$11,225.00 / -0.3%	\$0.00 / 0.0%
District Purchases	\$0.00	
Construction Spent to date / Percent Spent:	\$263,834.30 / 7.2%	

## Other Capital Improvement Projects

### Salt Lake Aqueduct Replacement / Cottonwoods Conduit (SLAR-CC)

Work on the SLAR-CC is continuing forward:

- The Preliminary Design Report was finalized and delivered.
- The Utility and Geophysics Reconnaissance work was completed.
- The draft Statement of Qualifications for Bidder Pre-Qualification is in review.
- The Easement Acquisition team identified 79 new permanent easements to acquire for the SLAR. Preparations are underway for contacting affected property owners and beginning the acquisition process.
- The design team is meeting regularly with Cottonwoods Heights City to coordinate construction with a city storm drain project in the same corridor as the CC-1 pipeline.
- Amendment No. 1 for right of way acquisition and additional design work is with Salt Lake City for signature. Amendment No. 2 for additional geotechnical work is under review.

Upcoming major milestones include:

- receive the 60% Design Submittal (Apr 2023);
- advertise Pre-Qualification Statement of Qualifications (Jul 2023); and
- advertise for the pre-purchase items that have long lead times (Aug 2023).

<b>Design</b>		
District Project Manager:	Kelly Stevens	
Design Engineer:	Hazen and Sawyer	
Final Completion Date:	December 31, 2023	
Contract Amount:	\$2,355,136.00	
Contract Amendments:	\$611,162.00	
Total Contract Amount:	\$2,966,298.00	
Fiscal Year:	2022	2023
Spent to Date:	\$36,856.25	\$1,151,798.78
Engineering Spent to date / Percent Spent:	\$1,188,655.03 / 40.1%	

<b>Public Engagement</b>		
District Project Manager:	Annalee Munsey/Kelly Stevens	
Consultant:	Wall Consulting Group	
Final Completion Date:	June 30, 2025	
Contract Amount:	\$108,388.75	
Fiscal Year:	2022	2023
Spent to Date:	\$4,455.46	\$23,268.24
Engineering Spent to date / Percent Spent:	\$27,723.70 / 25.6%	

**Jordan Valley Water Conservancy District (JVWCD)  
Jordan Aqueduct System and 150<sup>th</sup> 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 FY2023 include:

**Major Rehabilitation or Replacement of Existing Facilities**

- JA Normal, Extraordinary Maintenance and Replacement \$ 273,142
- JVWTP Normal, Extraordinary Maintenance and Replacement \$ 227,143
- TR Normal, Extraordinary Maintenance and Replacement \$ 21,429
- JVWTP Sedimentation Basins 3 through 6 Mechanical Equipment Replacement \$ 1,485,714

**New Non-Capacity Facilities (Compliance/Functional Upgrade)**

- JVWTP Utility Water and Backwash Tank Back-up Facilities \$ 21,429
- JVWTP Floc/Sed Basins 1 and 2 Seismic Upgrade and Capacity Increase (to 180 MGD) \$ 180,000
- JVWTP Floc/Sed Basins 3 through 6 Seismic and Process Upgrade \$ 571,429
- JVWTP pH Control Chemical Feed Facility \$ 42,857

**New Capacity Facilities (Supply, Treatment, Conveyance, or Storage)**

- 15000 South Pump Station \$ 12,500

**JVWTP Project Management Expenses** \$ 50,000

Total Request FY2023: \$ 2,885,643

This report is taken from JVWCD’s March 2023 board packet and covers January 12, 2023 to February 10, 2023.

The Sedimentation Basins 1-2 Seismic and Capacity Upgrades consultant is preparing 60% design drawings including architectural drawings for the new building to cover the sedimentation area of basins 1 and 2. JVWCD is waiting to hear on a potential BRIC grant prior to bidding for project construction.

On the Sedimentation Basins 3-6 Equipment Replacement the contractor installed plate settlers in basin 3, which are now being leveled/aligned. Chain and flight equipment is installed. Basin 4 is being prepared to receive plate settlers as they arrive on site from the manufacturer. Demolition in basins 5 and 6 is complete.

