



Highlighted Projects - Water

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Engineering*

Active Projects Highlight Report

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Project Name: Water Plant Production Flow Measurement and Related Facility Improvements		
GLWA Project Manager: Jorge Nicolas	Contractor: LGC Global	Contract Number: CON-133
Project Start Date: 7/31/2017	Project Completion Date: 6/1/2020	Contract Amount: \$ 6,876,833.00
Invoiced to Date: \$5,174,207.00	Balance Remaining: \$ 1,702,626.00	Project Schedule (% Complete) 75%

Current Work Status	Project Projections
<p>- <u>Southwest Water Treatment Plant</u>: all physical work is complete. Instrument calibration and testing is being performed now.</p> <p>- <u>Northeast Water Treatment Plant</u>: Substantial completion of the project has been achieved. All rehabilitated meters are in satisfactory service.</p> <p>- <u>Springwells Water Treatment Plant</u>: Rehabilitation of Venturi Meter # 7 is complete. Rehabilitation of VM-6 is in process.</p>	<p>- <u>Springwells Water Treatment Plant</u>: Finalize VM-6 rehabilitation and then proceed to the other VM's</p> <p>- <u>Southwest Water Treatment Plant</u>: Achieve substantial completion on 7/16/2019</p>

CON-133 Water Plant Production Flow Measurement and Related Facility Improvements

Southwest Plant – Removed blind flange from the end of VM-6 header in the North Pipe Gallery in the high lift building.



Springwells Plant – Sump discharge piping for de-watering located at Chamber 3-4.

Project Name: Water Works Park Chlorine Disinfection System Replacement and Improvements		
GLWA Project Manager: Mike Dunne	Contractor: Detroit Contracting Inc	Contract Number: CON-208
Project Start Date: 1/10/2018	Project Completion Date: 4/10/2020	Contract Amount: \$ 6,110,000.00
Invoiced to Date: \$5,423,189.00	Balance Remaining: \$686,811.00	Project Schedule (% Complete): 89%

Current Work Status

- Installed new schedule 80 PVC conduit piping for process equipment.
- Completed installation of (3) evaporators, chlorine gas header piping and processing equipment.
- Completed electrical wiring of HVAC equipment and installation of exhaust ductwork for the chlorine feed, storage and control rooms.
- Prepped and painted storage room floor with epoxy paint as specified.
- Resin wrapped FRP ductwork in chlorine storage.
- Charged and started new roof top AC units.
- Continuing with routing new scrubber control panel conduit.

Project Projections

- Complete the last major installation in the next 3 weeks.
- Proving period for new equipment, punch list items and training.
- Contractor will begin working on project close out documents.

CON-208 Water Works Park Chlorine Disinfection System Replacement and Improvements



Chlorine Room epoxy paint flooring

Resin wrapped FRP ductwork



Project Name: Lake Huron Water Treatment Plant Miscellaneous Mechanical Heating, Ventilating and Air-Conditioning System Improvements		
GLWA Project Manager: Brian VanHall	Contractor: Detroit Contracting Inc	Contract Number: CON-212
Project Start Date: 2/14/2018	Project Completion Date: 5/14/2020	Contract Amount: \$7,660,000.00
Invoiced to Date: \$5,875,800.00	Balance Remaining: \$1,784,200.00	Project Schedule (% Complete) 80%

Current Work Status

- Completed installation of heating and ventilation system in pipe gallery, filter gallery and high lift.
- New AC and ventilation units in VFD room and electrical room are completed.
- All five new roll-up doors have been installed in the process buildings.
- heating ductwork and new chlorine sensors and horns are installed.
- All seven filter gallery stairwell enclosures have been renovated.
- Demolition of existing boilers is finished.

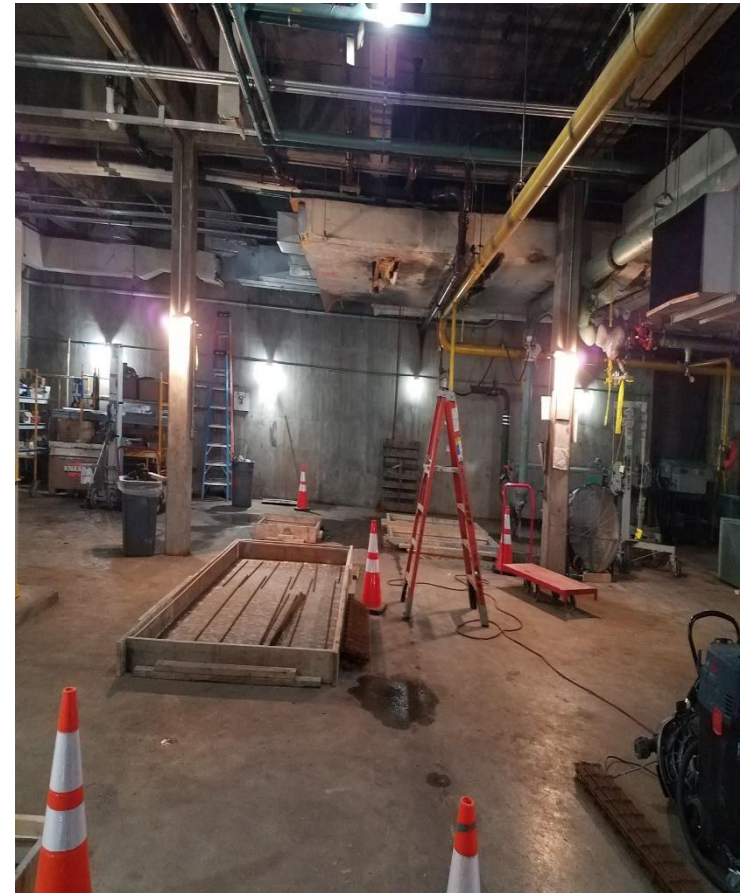
Project Projections

- Install new boilers and associated pumps in mechanical room.
- New AC unit for administrative building.
- Tie in new chlorine room equipment into the control system.

CON-212 Lake Huron Water Treatment Plant Miscellaneous Mechanical Heating, Ventilating and Air-Conditioning System improvements



1 of 7 newly completed stairwell enclosures



Demolition of old boilers and duct work

Project Name: Orion Pumping Station Improvements		
GLWA Project Manager: Jorge Nicolas	Contractor: Detroit Contracting, Inc.	Contract Number: CON-225
Project Start Date: 1/9/2018	Project Completion Date 7/26/2019	Contract Amount: \$1,747,000.00
Invoiced to Date: \$1,657,376.00	Balance Remaining: \$89,624.00	Project Schedule (% Complete) 95%

Current Work Status

- Emerson has completed the on-site Ovation training
- SW Controls completed on-site training for the Flow Meter
- Painting of pipes, pumps and valve handles and external gas piping has completed
- Placed additional pipe supports under the gate valves on L1, L2,L3 & L4.

Project Projections

- Contract will be complete and close out on time.

CON-225 Orion Pumping Station Improvements



Painting of pipes and pumps

Project Name: Springwells Water Treatment Plant 1958 Rapid Mix Improvements		
GLWA Project Manager: Pete Fromm	Contractor: J.F. Cavanaugh Company	Contract Number: CON-251
Project Start Date: 5/15/2018	Project Completion Date: July 14, 2019	Contract Amount: \$ 803,647.00
Invoiced to Date: \$738,445.00	Balance Remaining: \$65,201.00	Project Schedule (% Complete) 97%

Current Work Status	Project Projections
<ul style="list-style-type: none"> -Finalized restoration of existing Terrazzo. -Furnished and installed 24" butterfly valve. -Staff O&M training on the new mixers and electrical gear was provided in February. 	<ul style="list-style-type: none"> -Project is scheduled to close out early and will be completed under budget

CON-251 Springwells Water Treatment Plant 1958 Rapid Mix Improvements



Removed existing 24" Butterfly Valve & Wall Thimble

New 24" Butterfly valve



Project Name: Springwells Water Treatment Plant Reservoir Fill Line Improvements		
GLWA Project Manager: Erich Klun	Contractor: Ric-Man Construction	Contract Number: CON-253
Project Start Date: 4/20/2018	Project Completion Date: 7/19/2019	Contract Amount: \$4,270,500.00
Invoiced to Date: \$1,855,504.00	Balance Remaining: \$3,474,713.00	Project Schedule (% Complete) 35%

Current Work Status

- Installed 42" blind flange cap on the upstream side of the 42" ductile iron piping.
- The existing/abandoned brick vault wall was demolished above the pipe. A probing rod was then used to determine the location of the 72" Water Main.
- Relocated 6" drain under the fill line
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Project Projections

- The topping slab / roof of the valve vault along with the hatch & precast panels will be poured.
- Excavation and backfill the new vault.
 - The Ovation work will begin.
 - Electrical work within the vault is tentatively scheduled for the end of June.
 - Connection to the 72" water main is still pending due to being unable

CON-253 Springwells Water Treatment Plant Reservoir Fill Line Improvements



Installation of 42”
Blind Flange / Cap

Interior Wall of Reservoir



Project Name: Lake Huron Water Treatment Plant Electrical Tunnel Rehabilitation		
GLWA Project Manager: Jorge Nicolas	Contractor: Clark Construction	Contract Number: CON-288
Project Start Date: 9/24/2018	Project Completion Date: 9/25/2019	Contract Amount: \$ 3,888,000.00
Invoiced to Date: \$2,462,477.00	Balance Remaining: \$1,425,523.00	Project Schedule (% Complete) 63%

Current Work Status

- Completed building new stairwell at the end of the tunnel near the transformer yard.
- Completed repairs of tunnel leaks.
- Continuing with concrete repairs/replacement in the tunnel.
- Installed new LED lighting.
- Precast planks were placed for the repair of the tunnel roof structure.

Project Projections

- Transformer #1 shutdown is scheduled for September
- Continue with repairs to the ventilation system.

CON-288 Lake Huron Water Treatment Plant Electrical Tunnel Rehabilitation



Completed exterior of stairwell structure.

Crane lowering precast planks into place



Project Name: Springwells Water Treatment Plant, 1958 Filter Rehabilitation and Auxiliary Facility Improvements		
GLWA Project Manager: Khader Hamad	Contractor: Walsh Construction	Contract Number: SP-563
Project Start Date: 7/8/2013	Project Completion Date: 12/31/2018	Contract Amount: \$75,899,000.00
Invoiced to Date: \$72,545,070.00	Balance Remaining: \$ 3,353,930.00	Project Schedule (% Complete) 89%

Current Work Status

- Start up and training for the water distiller and deionizer in the rehabilitated section of the laboratory was done.
- Started demolition of phase 3 in the water sampling laboratory and transferred equipment to the phase 2 completed area.
- Continued with repairing walls and ceilings in the lobby and stairwell of the 1930 Administration Building
- Completed installing the new vertical turbine pump for the high-pressure water system.

Project Projections

- Weekly controls meetings are being conducted to closely monitor this critical path work item

SP-563 Springwells Water Treatment Plant. 1958 Filter Rehabilitation and Auxiliary Facility



Repairs to wall & ceiling in 1930 Admin Building

SP-563 Springwells Water Treatment Plant. 1958 Filter Rehabilitation and Auxiliary Facility



Digital read out for phosphoric acid storage tanks

New distiller and deionizer



Project Name: Fairview Sewage Pumping Station Improvements		
GLWA Project Manager: Michael Graham	Contractor: Weiss Construction	Contract Number: CON-297
Project Start Date: 1/07/2019	Project Completion Date: 5/16/2021	Contract Amount: \$28,891,000.00
Invoiced to Date: \$523,000.00	Balance Remaining: \$ 28,368,000.00	Project Schedule (% Complete) 12%

Current Work Status

- The Gatehouse was lifted off its foundation and moved to the new location.
- Installed a temporary wooden handrail around the wet well at the previous Gatehouse location
- Poured new footings and started new foundation at the new location for the Gatehouse.
- Comet Demolition and National Environmental Group were onsite this week to do a site walk through inside of the Fairview Sewage Plant. They reviewed the hazardous material survey previously recorded and started planning the necessary work

Project Projections

- New foundation for Gatehouse will be completed and relocation will be complete.
- Start working in the wet well to prep for the slide gate which is due to arrive on site in approximately 2 weeks

CON-297 Fairview Sewage Pumping Station Improvements



New location and
Foundation for the
Gatehouse.

Gatehouse moved
and centered on the
new foundation



Construction Projects Completed and Closed Out

1. DWS-858 Wick Station Rehabilitation
2. DWS-891 Pressure Regulating Valve Vault Improvements
3. DB-093 Springwells 1930 Filter Building Roofing
4. CON-247 Southwest Raw Water Sampling System Modifications.
5. CON-248 Southwest Phosphoric Acid Feed System Improvements