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Highlighted Projects - Water

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

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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.

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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	Project Projections
-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.	-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.

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

Chlorine Room epoxy paint flooring

Resin wrapped FRP ductwork

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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	Project Projections
-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.	-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.

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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

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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.

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CON-225 Orion Pumping Station Improvements

Painting of pipes and pumps

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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
-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.	-Project is scheduled to close out early and will be completed under budget

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CON-251 Springwells Water Treatment Plant 1958 Rapid Mix Improvements

Removed existing 24” Butterfly Valve & Wall Thimble

New 24” Butterfly valve

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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
-

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

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CON-253 Springwells Water Treatment Plant Reservoir Fill Line Improvements

Installation of 42” Blind Flange / Cap

Interior Wall of Reservoir

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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.

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CON-288 Lake Huron Water Treatment Plant Electrical Tunnel Rehabilitation

Completed exterior of stairwell structure.

Crane lowering precast planks into place

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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

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

Repairs to wall & ceiling in 1930 Admin Building

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

Digital read out for phosphoric acid storage tanks

New distiller and deionizer

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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

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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