



Polson Water Resource Recovery Facility

Construction Progress Report

(For Month of October 2018)

TO: Ashley Walker, W/S Superintendent
106 First Street East
City of Polson, MT 59860

CC: Polson City Council

FROM: Kevin Johnson, P.E.
Project Manager – DOWL

DATE: November 5, 2018

This construction progress report includes work for the month of October 2018.

Headworks Building:

The headworks building plumbing and HVAC is nearing 100% as is the electrical work. The fiberglass covers required over the flow channels are yet to be installed. Minor punchlist items remain for this building.

The compaction grouting for the foundation reinforcement is tentatively scheduled to begin November 26 and will require three to four weeks for completion.

SBR Tanks:

Final vendor checkout (dry check) of the SBR equipment is not yet completed. Some final welding and installation of pump hoist equipment and adjacent railing sections remains. The electrical conduit to all the process equipment, pumps, and instrumentation is in place and much of this is wired and ready to power.

Final grading around the SBR inlet vault and construction of the pump access platforms is in process. See Figure 1.

UV Building & Post Equalization Tank:

The work in this building in October was predominantly electrical work, as a major proportion of the motor control centers and control panels are in this building. Some minor leak repair has progressed in the concrete flow channels to eliminate some leakage between the flow channels and the lower pipe gallery.

Control Building and Digesters:

The last of the concrete floor repairs were completed this month (Figure 3) and cleanup of the building has commenced. The blower piping was completed, and the building HVAC systems are nearly ready to activate. Propane tanks were set and concrete sidewalks all around the building were completed. The east access road was compacted, geotextile stabilization fabric was installed, and the aggregate base course was placed and compacted for the roadway. See Figures 4, 6 & 7. Approximately four feet of water was placed in the digesters and the basement has remained dry (Figure 5). The digesters must be filled again for verification water in the basement was not from the digesters.

The roof installation is 99% complete. A few flashings around roof penetrations remain to be completed. The laboratory cabinets, counters and sinks are all installed. Preparations for cleaning the floor and applying the floor coatings is under way.

Yard Piping & Earthwork:

The three, force main flow meter vaults are all installed, and the force main collection vault is in place. See Figures 8 and 9. The collection vault will be coated with a special lining to protect the concrete from hydrogen sulfide gas. Then piping connections can be completed and the bypass provisions removed to allow use of the new process piping through the meter vaults and the force main collection vault.

The sidewalks around the control building and the UV building were set to help establish the final grades around these structures. Grading throughout the site is nearly to the final grades before the surface restoration will progress likely next spring with topsoil placement and seeding. Final paving of the site will not take place until next spring when all the paving can be completed at the same time, after the facility is on line and the existing lagoons can be taken out of service, drained and the lagoon dikes removed to allow completion of the final grading and storm water routing provisions.

Startup Plan and Schedule:

Equipment vendors are tentatively scheduled along with the overall system integration (computer programming) over the time period from November 12 through mid-December. The general sequence for startup and checkout of equipment includes the following:

- HVAC systems activation/startup
- Post Equalization Basin outlet control valves
- UV disinfection system
- Chlorine feed systems, scum pumps and site lift station pumps
- SBR Equipment operation (motive pumps, WAS pumps, blowers, decanters, instrumentation)
- Digester equipment (blowers, compressor, instrumentation)
- Sludge pumps, control valve and instrumentation

- Headworks equipment (screens, grit pumps, grit washer)

Following successful equipment checkout, testing and startup with clean water, the facility will be ready to process wastewater. With the potable water left in the tanks for equipment testing, the process equipment will need to operate and cycle pumps and blowers to keep the water from freezing and affecting the equipment in the uncovered tanks. Switchover of the system to process wastewater may depend on the weather conditions at the time the facility is ready to process wastewater.

Overall Project Status Summary:

Contract Time: 585 Calendar Days to Substantial Completion of Treatment Facility

Days Expended: (558) Through October 26, 2018; Approximate Schedule A Completion Due Date: 11/22/2018. Schedule B (Lagoon Decommissioning) Additional 70 Calendar Days following plant startup and 7-day test period.

Original Contract Amount:	\$12,213,000
Change Order #1	\$29,087 (2 Calendar Days)
Change Order #2	\$2,542
Change Order #3	\$25,004
Change Order #4	\$223,210 (15 Calendar Days)
Change Order #5	\$50,956 (1 Calendar Day)
Change Order #6	\$55,996 (4 Calendar Days)
<u>Change Order #7</u>	<u>\$110,126 (9 Calendar Days)</u>
Current Contract Amount:	\$12,709,921

Total To Date: \$11,276,002; (88.7%)



Figure 1 - SBR Final Grading, Lighting, Electrical



Figure 2 - Control Building Roof In Process



Figure 3 - Control Building Floor Repair, Complete



Figure 4 - Control Building, Propane Tanks



Figure 1 - Control Building Basement (Dry)



Figure 6 - East Access Road, Sidewalk Prep.



Figure 7 - East Access Road, Geocomposite Placement



Figure 8 - Ducharme Force Main, Meter Vault & Bypass



Figure 9 - Force Main Collection Vault (Bypass Piping)