



# Polson Water Resource Recovery Facility

## Construction Progress Report

(For Month of January 2019)

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**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:** February 4, 2019

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This construction progress report includes work for the month of January 2019.

### Headworks Building:

The week of January 28, the startup and training services were completed for the equipment in the headworks building including the influent screens, the grit separator, the grit washer, and the grit pumps. All controls and programming details were resolved, and the equipment is ready for operation with raw sewage. Other work in the headworks building included commissioning of the heating and ventilation systems and general cleanup of the building and installation of grit pump removal rail/hoist. Repairs to a few masonry blocks and floor cracks resulting from the compaction grouting were itemized along with other punch list items and will be in process in coming weeks. See Figure 1

### SBR Tanks:

The handrail, hoists and walkways were completed this month. The week of January 21 included the startup, commissioning and training services by Fluidyne for the SBR process. The mechanical, electrical, instrumentation and controls were checked and tested throughout the week with clean water cycles. The pumps, blowers, instruments and overall controls are nearly ready. A few controls issues remain with the blowers but they are minor programming details we expect to have resolved this week. See Figure 2.

### UV Building & Post Equalization Tank:

The work in this building was limited to cleaning and minor punchlist work. The HVAC systems were commissioned and now ready for operation.

### Control Building and Digesters:

Work in the control building included general cleanup, completion of the epoxy floor coating system in the lab and office area, installation of the office counter tops and cabinets,

installation of doors, touchup painting and ongoing sealing of minor leaks and wet spots on the digester walls in the basement of the control building. The HVAC systems were also commissioned and ready to operate. A few programming issues on the digester blowers remain. The blower startup representative will have to return to make additional adjustments to the blowers and harmonic filters (protective devices) before these blowers are ready to operate. Further, the startup representatives for Enviromix will return once there is water and sludge in the digesters to establish the operating parameters for the system. See Figures 3 and 4.

Other outstanding issues in this building include resolution of the final floor coatings to be applied beyond the lab/office/restroom area that has received the specified epoxy.

#### Yard Piping & Earthwork:

Some final pipe testing of water lines and gravity sewer and manholes was completed. A few additional sidewalks and stairways were completed. The perimeter walls around drying beds #1 and #2 were completed. The storm water discharge pipe was installed from near the headworks building to the discharge basin to the west. The remainder of this pipe to the stormwater pond will be completed once the existing lagoons are taken out of service and the lagoon dikes are lowered. See Figures 5 and 6.

#### Startup Plan and Schedule:

The general sequence for startup and checkout of equipment includes the following:

- Sludge pumps, control valve and instrumentation startup; Feb 6-7
- Electrical switch gear, automatic transfer switch, motor control centers, variable frequency drives startup (Feb 6-7)
- Pending successful startup of these items and resolution of relatively few other control and programming items, the system will be ready for wastewater and the required 7-day test before the contractor can apply for substantial completion for this schedule A.

#### Overall Project Status Summary:

Contract Days Approved: 580 Contract Days (532 original contract + 48 additional via change orders) to Substantial Completion of Treatment Facility

Days Expended: (630) Through January 28, 2019; Approximate Schedule A Completion Was Due Date: 12/9/2018. Construction contract (Schedule A) is in Liquidated Damages. \$75,000 has been withheld to date for Liquidated Damages. Another \$46,500 was withheld in September of 2017 in accordance with the critical dates established in the contract for successful passing of the digester leak tests. These funds were to be returned if the overall project was completed on time. At this point the contract does not require return of these funds.

Schedule B (Lagoon Decommissioning): This work includes an 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)
Change Order #7	\$110,126 (9 Calendar Days)
<u>Change Order #8</u>	<u>\$364,652 (17 Calendar Days)</u>
Current Contract Amount:	\$13,074,573

Total To Date: \$12,136,050; (93%)



Figure 1 - Installing Grit Pump Hoist Rail in Headworks Basement



Figure 2 – SBR Tank #1 With Aeration and Mixing in Operation



Figure 3 – Control Building Basement. Digester Leaks Repair Progress



Figure 4 – Control Building Lab/Office, Floor Coating



Figure 5 – Sludge Drying Basins #1/#2 Perimeter Walls



Figure 6 – Storm Pipe Installation