

Subject Engineering and Utilities Report to Board

Month November 2024

UTILITY SYSTEMS

Eastside Lake Windermere Water

A substantial leak was discovered on the start of the distribution for the 940 system. (12" HDPE line near the treatment plant). Utility operators worked with Vaughn of Kinbasket Water and Sewer to reroute water from Holland Creek System to the 940 pressure zone via Timbermont connection. The repair was successful and repressurizing of the system to normal flow occurred on Oct 25th. A cautionary boil water advisory was issued during the repair and was lifted on October 26th.

A big thank you goes out to Vaughn and Kinbasket Water and Sewer Co. for their invaluable assistance in keeping water flowing to customers during this repair.

The quarterly testing samples have been completed.

Ramtech completed maintenance on the UV units, replacing parts and cleaning.

Taynton Bay replaced/upgraded transformer to support charging electric vehicles and to prevent overloading system during peak demand.

MPE and KJ Controls are working on SCADA controls and PLC upgrades. This work includes control hardware upgrades, programming work and SCADA upgrades to increase the functionality of the system, reduce cyber security vulnerabilities, and eliminate the use of obsolete or unsupported equipment. These communication and controls upgrades should be complete by Nov. 1st, 2024.

Holland Creek Water and Sewer Systems

Meter head replacement in Holland Creek is still ongoing and a final notice was issued to the remaining property owners, roughly 35 properties. The process is replacing the analog meters with radio frequency (RF) heads that can be read more efficiently with the new meter reading equipment.

Actizyme, a sewer additive to break down fats/oils/greases (FOG) is placed in the sewer system weekly. The microbes in Actizyme help breakdown FOG and prevent blockages. The lift station was cleaned for FOG on October 19th.

Edgewater Water and Sewer

System hydrant flushing was performed and quarterly water samples taken.

The 5-week Columbia River samples testing has been completed and the quarterly testing samples were taken at the lagoon effluent. Contactors were also out to cut the weeds around the lagoons.

The pump at lift station 2 has been faulting and will be pulled week of November 4-8 for inspection.

MPE has begun touring the Edgewater Water and Sewer system for the Edgewater Master Plan. These comprehensive master plans will provide guidance and direction on the operation, maintenance, capital works, infrastructure renewal, and financial planning requirements to sustainably operate the utilities. These master plans are funded by the Growing Communities Fund.

Elko Water

Work has begun at the Elko pump house to install roof and ground mounted solar arrays. The intention is to reduce the BC Hydro consumption as much as possible on the site. Some trees were fallen the week of October 21st in order to allow for more solar coverage of the parcel. The current plan is to have panels installed and commissioned by early December.

Rushmere Water

MPE is working on SCADA controls and PLC upgrades.

No major issues to report.

The water plant is aging and may require many upgrades over the coming years.

Spur Valley Water

No major issues or events to report.

Utilities General

Operators, along with several RDEK Firefighters, completed Confined Space training in the Columbia Valley office with Dynamic Rescue on October 9th and 10th.

FLOOD CONTROL

Fairmont Flood and Landslide Service – Cold Spring Creek Debris Flow Mitigation

Construction is continuing on the Cold Spring Creek Project. During October, grillage has been installed in the outlet structure, the permanent diversion has been completed and the creek is now flowing through the outlet structure.

Construction of the roller compacted concrete (RCC) barrier is ongoing. There are temperature specifications associated with the RCC placement so this work is closely tied to weather conditions. McElhanney and Mackay are working hard to complete the RCC part of the project in 2024 before the winter temperatures really set in. Completion of the barrier will be required for substantial completion. After the RCC is complete, there will still be some work remaining for total construction completion to be achieved which will happen in 2025.

The original date of substantial completion was September 30. As happens in a project of this size and complexity, there have been delays and the date of substantial completion continues to change. Cost projections show the project being completed within the available budget.

The are two photos included below. One is of the outlet structure, taken in early October, and the other is of barrier construction taken on October 23.

Outlet Structure



Barrier Construction



Fairmont Flood and Landslide Service – Fairmont Creek

The Fairmont Creek Debris Flow Hazard and Risk Assessment and Mitigation Options Update project was kicked-off in August. This project is anticipated to be completed in Spring 2025.

Rosen Lake

McElhanney Engineering has discovered during site investigations that the consequence of failure risk is likely going to change from low to significant due to the potential to washout of Rosen Lake/Audia Rd which would isolate properties on the north end of Audia Rd. McElhanney is unable to assess dams at this level on consequence rating. Alternative options are being explored including the addition of a sub-consultant that can assess a significant dam consequence rating.

Area A Flood Control

Consultants have debriefed on the field work that was completed in August, developed a flood frequency analysis for the clearwater component, developed sediment volumes, improved understanding of the debris flow and debris flood mechanisms and scenarios for design, started developing the numerical model, and began work on the report outline.

Lotic Environmental will conduct a habitat assessment for Hosmer Creek. McElhanney will be conducting a ground survey, likely in early November (following leaf-off). Once BGC Engineering has the survey data, we will finalize the setup of the numerical model, and identify target storage volumes and potential locations for storage. At this point, we anticipate McElhanney will begin developing high-level concepts in December, and for the options presentation to RDEK to occur in January.

GIS, MAPPING, & CIVIC ADDRESSING

The Esri NG911 Readiness Assessment kick off meeting and workshop was on October 2nd and staff will begin conducting stakeholder interviews October 25th. It is anticipated that interviews will continue through November and possibly into December.

The assessment is reviewing RDEK GIS data which includes District of Invermere, Village of Radium, ᑭᓴᓴᓴᓴᓴ (Akisqnuq First Nation), ᑭᓴᓴᓴᓴᓴ ᑭᓴᓴᓴᓴᓴ (Tobacco Plains), ᑭᓴᓴᓴᓴᓴ, ᑭᓴᓴᓴᓴᓴᓴ (Shuswap Band), who are supported with GIS services through the RDEK. The recommendations and final report will be shared with ALL EKEMP partners, to help everyone understand the updates required for the NG911 transition.