



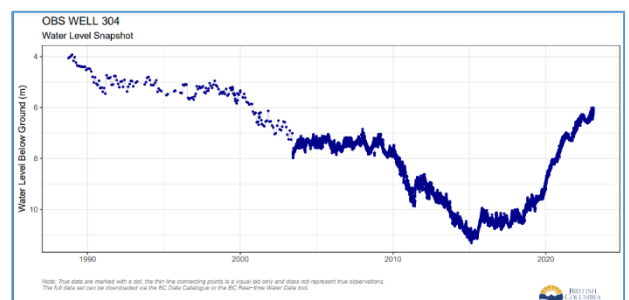
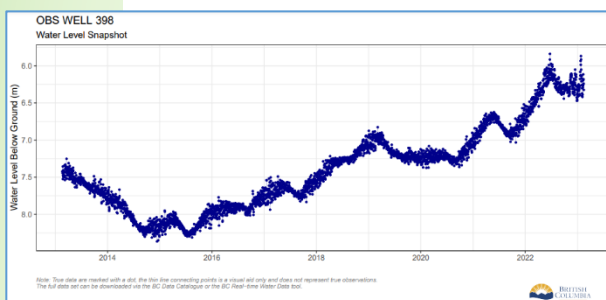
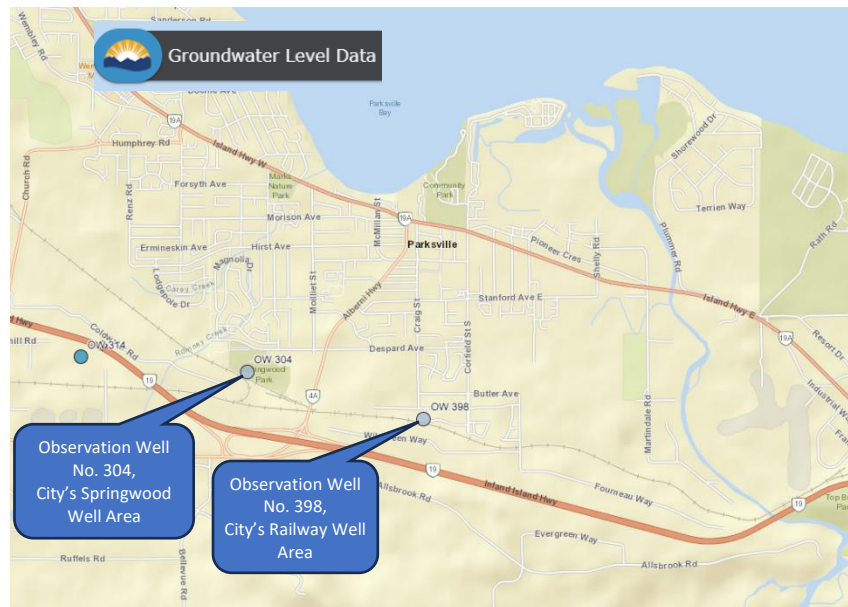
AWS/ERWS Operations June Updates

Update #5 July 2023



Photos of Eman Claybank events
May to June 2023

- Routine deep cleaning of the river intake chamber was completed to remove silt, sand and debris buildup from the fall and winter seasons.
- Staff work closely with various agencies and stakeholders to share information on the Eman Claybank. Several high turbidity events were noticed. Managing and removing clay particles is part of the water treatment plant process system and this event did not impede our ability to treat water.
- In preparation for 2023 conditions, staff met with the Ministry of Forests (MoF), Department of Fisheries and Oceans (DFO), and our partners to review historical records, climate changes affecting the Englishman River baseflow, and projected weather patterns and trends. Like the 2009 conditions and last year, a special order was issued by MoF to reduce the water release from the Arrowsmith Dam to reserve, prolong, and proactively manage the water supply for river aquatic health and fish habitat later in the year. The City and RDN implemented Stages 3 and 4 water restrictions thereafter to support regional water conservation efforts.
- The City of Parksville has two water supply sources, groundwater from an aquifer and surface water from Englishman River. Since the commissioning of the water treatment plant facility, less water is drawn from the aquifer source (~25%). Nearby observation wells are showing an increase in groundwater level or incline trends, pre 2005 conditions or better. The reserved or surplus source will be used where necessary to ensure a sustainable potable water supply is maintained for the community. Refer to the graphs below for the observation well trends.





- In the proposal and planning phase of the Englishman River Water Service, it was projected the new water treatment plant would provide support for the well system that was showing signs of decline. This has recently come to fruition and even during significant drought conditions, the monitoring wells are still showing stable well capacity.

Upcoming

- The Englishman River and Arrowsmith Dam Provisional Operation Rule Water Supply Review project will be evaluated and awarded. An expert consultant will be retained to review climate change affects on Englishman River baseflow and Arrowsmith Dam operating conditions and provide recommendations to support an updated Provisional Operating Rule guideline for 2024 and beyond.
- The water supply transmission main statutory right of way (SRW) is in final review with the Island Corridor Foundation and Southern Railway of Vancouver Island (ICF and SVI) groups.
- The scope of work for the **Water Use Planning and Management Study** request of proposal will be developed and reviewed with all the stakeholders. This study was identified through the City of Parksville Council strategic plan as an important long-term goal and vision in protecting and securing the community water supply from climate change affects. This will identify possible additional sources of water supply or innovations for enhanced storage/production to meet future demands and include conservation measures that can be introduced to reduce costly infrastructure expansion. As this is a comprehensive study, it will be conducted in several phases spanning over multiple years. The ERWS board approved a joint effort with the ERWS Water Resiliency Study and the Parksville plan to realize efficiencies with scope of work to include the Electoral area.

Watershed and Dam Level Updates

- Arrowsmith Lake Dam was **90% full** (elevation 826.4m, end of June 2023). The mountain snowfall in early April and thawing of the snow pillow (spring freshet) in May filled the reservoir.
- Warmer than normal weather patterns in May and June melted the snow pillow earlier than usual which affected the Englishman River baseflow. This required water from the Arrowsmith Dam to be released two to three weeks earlier to supplement the river baseflow.
- Consumption in June was 20% higher than the previous year due to drier than normal weather.

Monthly Production and Consumption Facts

