

Picton Heights Water Booster Pumping Station

The Picton Heights Booster Pumping Station was originally owned and operated by the Department of National Defence, before being sold to a private developer, and ultimately conveyed to the County of Prince Edward as part of development negotiations. Ainley Group was involved throughout the negotiation process. The booster pumping station supplies water to the Town of Picton and to the Macaulay Village subdivision. The original pumping station, reservoir and distribution system was constructed between 1952 and 1958. The facility had undergone repairs and upgrades since 1956, including a structural assessment of the adjacent reservoir in 2008 by the Ainley Group.



View from Picton Heights Water Booster Pumping Station.

The County of Prince Edward retained Ainley Group as the prime consultant to provide comprehensive engineering services to prepare preliminary and detailed design including surveying and structural engineering, preparation of tender documents/specifications, and contract administration services and on site supervision during construction. Sub-consultants were used for electrical and mechanical engineering.



New Water Booster Station pumps.

The new station consists of four variable speed booster pumps, a single constant speed max duty pump, a single pressure relief valve returning high pressure flow from the Macaulay Village distribution system back to the reservoir, a self-controlling sodium hypochlorite top up system and a stand-by diesel generator. The pumps can be upgraded to provide higher flows to meet future demands. Ainley Group

completed engineering design and contract administration for the construction of the new booster pumping station consisting of a cast in place lower pumping level, and an upper level including 5 pumps, process piping, chlorine disinfection, motor controls, yard piping, valve chambers and the demolition/removal of the existing pumping station. Other items included waterproofing and crack sealing of the adjacent concrete reservoir, fencing, and paving.



View of Water Booster Pumping Station building post construction.

Ainley Group collected, reviewed and assessed all existing information, including previously completed conditional assessment reports; prepared a design brief to establish maximum day demands and fire flows; reviewed opportunities to reduce capital costs; discussed logistical issues and constraints with County personnel, including maintaining of supply to residents during commissioning / decommissioning; carried out all design and chaired all milestone meetings (30%, 60%, design complete); secured all approvals; prepared construction cost estimates and tender documents; provided engineering support during tendering and made award recommendation; provided contract administration and full-time inspection including all meetings, change orders, payment and completion certificates.