

Japan Gulch Disinfection Facility Upgrade – Frequently Asked Questions

What is the project budget?

The Regional Water Supply Commission has approved a project budget of \$9 million. The contract was awarded to Trittech for \$6.2 million. The remaining budget is needed to pay for a number of associated requirements, some of which include decommissioning of the existing facilities, new equipment, electrical system programming and update, consulting fees, taxes, utility connections, warranties, management effort, system connection works, municipal development charges and permit costs.

How does the CRD Treat Drinking Water?

The Japan Gulch Water Treatment Facility provides disinfection for the majority of potable water delivered to the Greater Victoria population. The Japan Gulch facility utilizes Ultraviolet irradiation as the primary disinfectant which is then followed by free chlorine. Ammonia is added to the system downstream of the plant to produce chloramines which act as a long-term stable secondary disinfectant. The CRD has used the process of chloramination as secondary treatment since 1945. Due to our high quality source water, effective watershed management and a multi-barrier disinfection process the current system meets the requirements for filtration exclusion as defined in the Guidelines for Canadian Drinking Water Quality.

Why was the Design-Build procurement Strategy Selected?

A number of options for project delivery were analysed with a goal to reducing and containing risks and delivering the project in the most cost effective way. The resulting delivery options and analysis report concluded that the design-build approach would provide the best value to the CRD. There are many benefits to using a design-build procurement strategy for delivery of capital projects. Some of the benefits include the opportunity for innovation and reducing the risks to the CRD with respect to budget and schedule for the project, giving the CRD several designs to choose from and establishing the project cost and schedule early in the project process. In addition, this approach requires that the designers and building contractor to work together earlier in the process and be accountable to each other for project outcomes. The designer and contractor work together to compete with other teams to provide the most innovative solution that meets or exceeds pre-set performance requirements.

Why is the Disinfection Facility Upgrade necessary?

A new facility is required to improve operator safety, increase the formation of chloramines (secondary disinfection), and address outdated infrastructure, high annual equipment maintenance and replacement costs, and obsolete or outdated equipment.

When will construction begin? When will it be completed?

Construction of the new facility is expected to start in September 2016 with substantial completion in February of 2018. Some site preparation may occur prior to this. The new facility will be commissioned between October 2017 and February 2018. The existing facility will be left on-line during operation of the new facility to provide a backup treatment system as processes are optimized. Decommissioning of the existing facility will take place after several months of successful operation of the new facility, likely the summer of 2018.