

To: Regional and Corporate Services Committee
From: Meghan Jackson, Park Technician II
Building

Date: 2020-09-09
File No: 6140-20-

Subject: Mount Cheam Toilet Installation and Kiosk Replacement

INTENT

This report is intended to advise the Regional and Corporate Services Committee of information pertaining to the installation of a urine-diversion toilet (UDT) and the replacement of an information kiosk at the Mount Cheam trailhead. Staff is not looking for a recommendation and has forwarded this information should members want more clarification to discuss the item further.

STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship
Support Healthy & Sustainable Community

PRIORITIES

Priority #4 Tourism
Priority #5 Outdoor Recreation

BACKGROUND

In 2014, the Fraser Valley Regional District (FVRD) entered into a partnership agreement with Recreation Sites and Trails BC (RSTBC) for Mount Cheam and Elk-Thurston trails, under which the FVRD provides management and maintenance services for these trails. Over the last few years, FVRD staff had observed that the outhouse at Mount Cheam trailhead, a traditional pit toilet, was reaching the end of its useful service and getting close to capacity. Staff also identified that the information kiosk for this site was due for an update and should be moved closer to the trailhead.

In 2018, the FVRD installed a unique urine-diversion toilet (UDT) near the top of Elk Mountain in partnership with RSTBC, and the unit has performed well in this remote and popular area. Given the success of that project and the similarities of the Mount Cheam site, FVRD and RSTBC staff began planning for the installation of a new UDT at the Mount Cheam trailhead. This type of

toilet was chosen because these units manage waste more effectively than a traditional pit toilet, making them better suited to backcountry locations.

This technology separates liquids and solids resulting in less waste volume to manage (typically 70% of what goes into an outhouse is liquid waste) and also improved decomposition because liquids and solids are not mixing. Sterile liquids are automatically diverted into a separate pipe under the unit, filtered and dispersed through an on-site drain field. Solids are transferred through a user-operated foot pump conveyor system to a contained area with a dirt floor at the back of the unit, allowing microbes from the soil to help with decomposition. Solids are turned and rotated as needed, and periodically moved to the side and covered to increase decomposition. Once fully decomposed, the waste piles are expected to be inert enough to spread on-site, or can be bagged and removed if preferred. However, given the seasonal use at the Mount Cheam site and the expected rate of accumulation, the removal of waste would likely not be required for several years.

DISCUSSION

This July, a UDT and new information kiosk were installed at the Mount Cheam trailhead. Before the installation, FVRD and RSTBC staff had spent the previous winter planning, sourcing materials, and hiring and preparing a contractor for this unique job.

The installation of this project was completed over four days, involving both FVRD and RSTBC staff and vehicles (see Appendix A for pictures). Project materials were transported by truck up 19 km of remote and rough logging roads, and then carried by hand and wheelbarrow from the trailhead to the installation sites. The UDT construction had multiple steps, including the construction of the base and drain field, assembly of the enclosure, and setup of the urine-diversion unit. Once the UDT and new kiosk installation were complete, the old structures were decommissioned and removed from the site.

COST

The cost of the urine diversion toilet (not including staff time) was \$14,397 and the cost of the kiosk was \$3,120. These project costs were approved in the Regional Parks budget (700) for 2020.

CONCLUSION

The Mount Cheam UDT installation and kiosk replacement is another successful partnership project between the FVRD and RSTBC intended to enrich the user experience and minimize impact in a popular hiking area. The new kiosk will provide the public with important

information closer to the trailhead, while the UDT will improve waste management at the site, helping to preserve our beautiful backcountry.

COMMENTS BY:

Stacey Barker, Director of Regional Services: Reviewed and supported.

Kelly Lownsborough, Chief Financial Officer/ Director of Financial Services: Reviewed and supported.

Jennifer Kinneman, Chief Administrative Officer: Reviewed and supported.

Appendix A: Mount Cheam Urine-Diversion Toilet Installation and Kiosk Replacement Project



Transporting materials to Mount Cheam





Old and new Mount Cheam kiosk





Mount Cheam Urine Diversion Toilet