



Williams Lake Conservation Company

Comments & Concerns

Staff Report on Declining Water Levels in Williams Lake

Environment & Sustainability Standing Committee

February 3, 2022

1. ORIGIN

.....“The report should investigate the influences of climate change, development, and other relevant factors on water levels and water quality in the Williams Lake watershed and if there are mitigating actions that might be beneficial.....”

Climate Change and Development in Williams Lake Watershed

The Staff Report did not mention:

- WLCC’s historical reporting on lake levels and rainfall measurements indicate lower rainfall and global warming as also lowering water levels, thereby making the dam a critical component of a healthy, functioning and accessible lake.
- The impact of housing developments in the Williams Lake watershed that have reduced over-all water flow into Colpitt Lake and Williams Lake contributing to reduced water quality.
- Changes to storm water drainage in the Williams Lake watershed that have increased the amount of sediment entering Williams Lake, particularly at the western end, degrading the aquatic habitat.

2. **RECOMMENDATION**

WLCC Supports Two of Three Recommendations:

- ✓ Mayor write a letter to the Province requesting that the Williams Lake Dam be assumed by a provincial body and repaired or replaced to address its impact on declining water levels in Williams Lake.
- ✓ HRM will test the quality of Williams Lake water through a new water quality monitoring program approved by Regional Council.

WLCC Does Not Support:

- WLCC does not support the recommendation for the province to revisit its position on granting permits or agreements for community group ownership or maintenance of dams.

3. **DISCUSSION**

Low Water Levels and Impacts

The Staff Report did not mention:

- West end of Williams Lake frequently reduced to mudflats by mid-summer, the combined effect of higher seasonal temperatures, lower summer rain fall and a faulty dam structure leaking approximately on average, five Olympic-sized swimming pools of lake water, per day.
- Shaw Wilderness Park shoreline becomes less safe to access the lake because of the exposed rocks, mud and poorer water quality - unsafe conditions are barriers to community access.
- Wildlife, biodiversity, ecosystems are impacted by fluctuating changes in the water levels, with lower levels in summer associated with higher water temperatures and lower flow rates, conditions that promote blue-green algal blooms.
- HRM's Acorn Drive Park – non motorized boat launch has no community access to Williams Lake when lake levels are low.
- Rocky shoreline along the HRM's Pine Bluff Island Park is a safety hazard as well as a barrier to the well-used swimming and boating area.

- Williams Lake Beach (Cunard Beach) was closed for the majority of August for water-based recreation because of blue-green algae.
- Williams Lake Beach is dependent on the seasonal lake levels in the main lake as two culverts connect water from the main lake to flush in and out of Cunard Pond. If the current dam fails completely, the water quality in Cunard Pond will become severely degraded due to loss of exchange with the main lake.

HRM's Municipal Parks

The Staff Report did not mention:

- Parks and lakes are used as central, promotional assets for marketing HRM.
- “Informal” use of HRM’s four parks on the lake is reduced without a dam that holds lake water to safe, seasonal and accessible levels.
- The year-round, popular use of the lake by the wider, HRM community.
- MECO report which indicated the potential for the structural failure of the dam and provided a flood simulation chart showing the potential damage to properties, Shaw Wilderness Park and boat club downstream from the dam.

Property Owners on the Lake

The Staff Report did not mention:

- Lake-side property owners have historically expressed concerns to HRM about the impact of low lake levels and water quality on community access. HRM access points on Acorn Drive Park and Pine Bluff Park are unusable and unsafe when the lake level is low.

Causes of Low Water Levels and Changing Water Quality

No explanation or research support for these statements:

- “Changing climate and development in the area were reviewed and were not found to have significant impact on water levels.”

This statements ignores WLCC’s historical reports of summer rainfall versus lake levels showing strong correlation between the two. It also ignores documentation of increasingly higher summer temperatures and lower rainfall which were provided.

- “...water is flowing through and likely underneath the dam.”

This is not just ‘likely’ as WLCC has documented water flowing well beneath the dam, even at times when lake levels were so low that the shoreline was several meters beyond the front face of the dam.

4. ENVIRONMENTAL IMPLICATIONS

“No environmental implications were identified.”

The Staff Report did not mention:

- WLCC’s historical reports of data on water quality, fluctuating lake levels, impact of development on Williams Lake watershed and water flow analysis.

WLCC Remarks:

While we acknowledge and appreciate Councillor Cleary’s motion of December, 2020 this Staff Report of February, 2022 has substantial gaps in substantive information, supporting data to claims and addressing the main issues of the motion.

WLCC does support two out of the three recommendations of this Staff Report and appreciates the ESSC’s support in saving this recreational lake by remediating the Williams Lake dam as soon as possible.

WLCC contacts:

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February 1, 2022