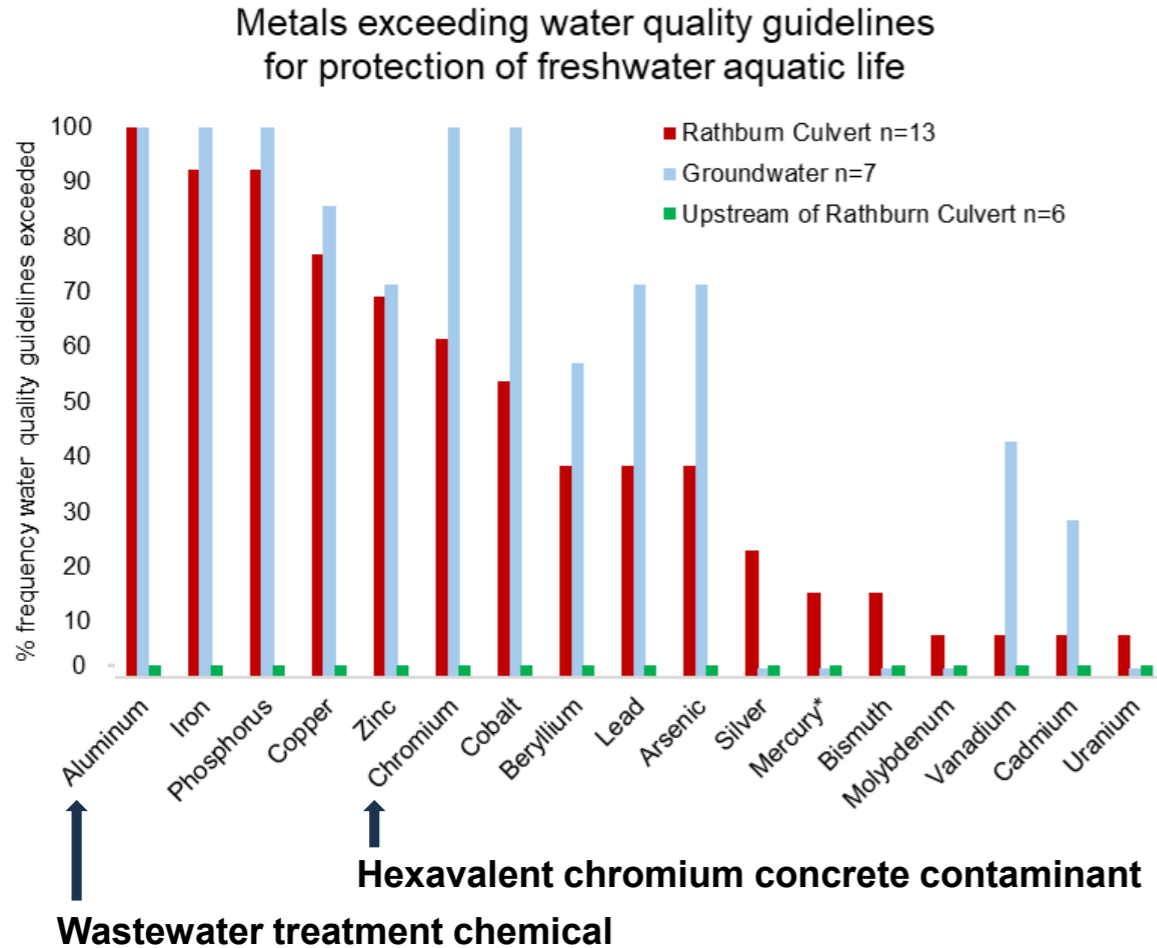




Construction Impacts on Stoney Creek: Proposed Mitigation Measures

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Metal Contaminants in Stoney Creek



RED BARS - Elevated metals in Stoney Creek downstream of construction wastewater discharge at Rathburn Culvert

BLUE BARS - Elevated metals in local groundwater

GREEN BARS - Metal levels upstream of construction wastewater discharge. No exceedances detected.

Correlation between metals in groundwater and metals in Stoney Creek downstream of construction discharge suggests **groundwater discharge is responsible for metal chemistry changes in Stoney Creek**

No metal exceedances upstream of discharge

Protecting stream water quality - regulatory gaps

Burnaby 2050 Official Community Plan

Policy Action 5.3.3

“Explore strengthening requirements for groundwater management to: Protect the water quality of streams by preventing discharge of pollutants from development sites during construction.”

City of Burnaby Watercourse Bylaw 1988

- lacks a robust framework needed to prevent discharge of pollutants into the stormwater system and ultimately into streams

City of Burnaby Groundwater Management Bulletin

- grants an exemption for groundwater to be discharged into the stormwater system during construction excavation

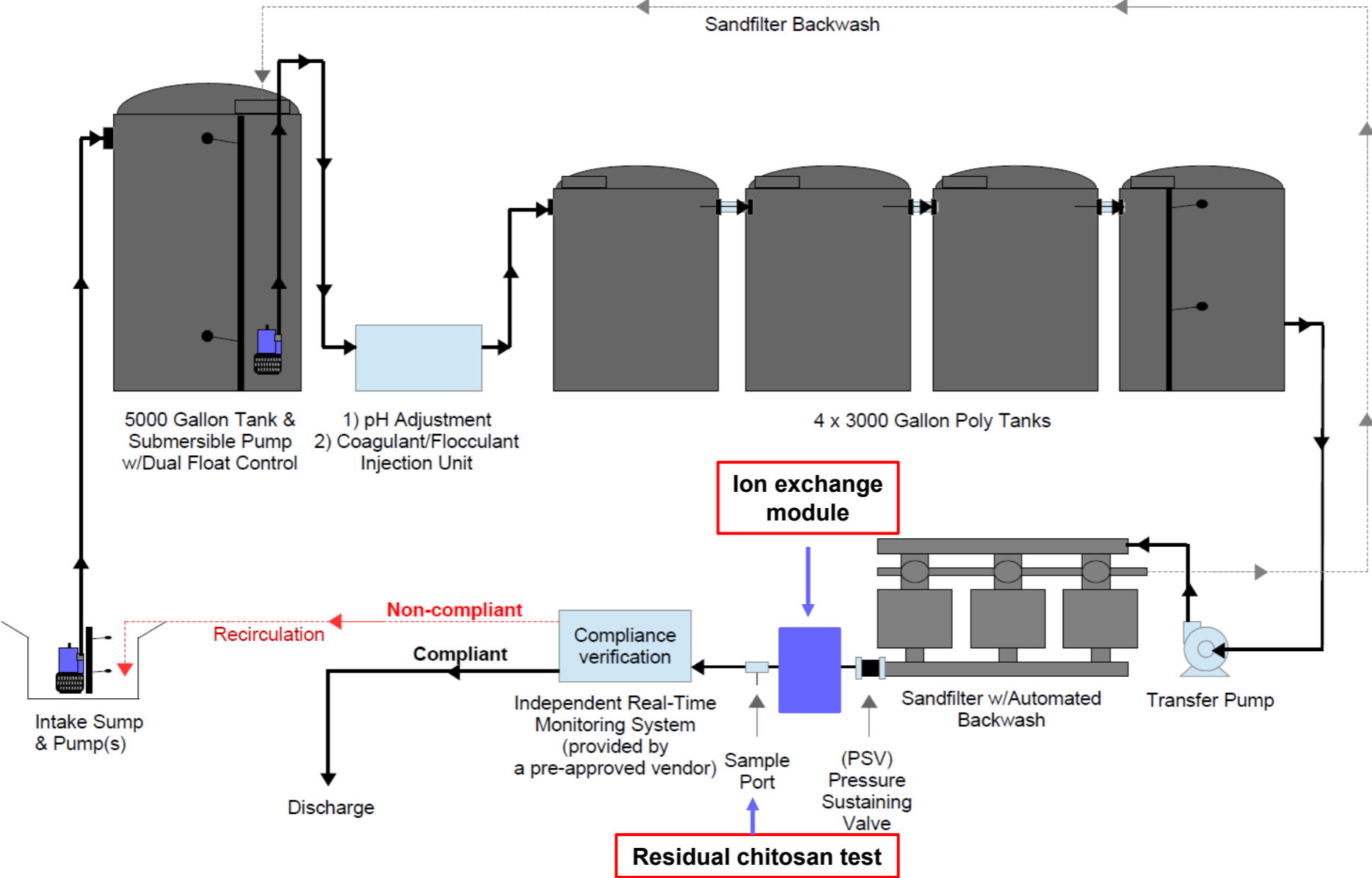
Protecting stream water quality – a more robust bylaw

City of Port Moody Stream and Drainage Bylaw #3426

Prohibited Materials” includes, but is not limited to:

- a) soil, sediment, earth, or excavation waste, including sand, silt, clay, gravel, or other aggregate materials;
- b) concrete wash, solvents, paint, or household or industrial cleaning products;
- c) soaps, detergents, or chlorinated water;
- d) pesticides, herbicides, or fertilizers;
- e) waste oil, motor oil, cooking oil, wax, gasoline, diesel fuel, transmission fluid, or antifreeze;
- f) any ‘deleterious substance’ as defined under the Fisheries Act, RSC 1985, c. F-14 as amended or re-enacted from time to time;
- g) any ‘waste’ as defined under the Environmental Management Act, SBC 2003, c 53 as amended or re-enacted from time to time; and
- h) any substance or material that results in the water exceeding the Approved and Working BC Water Quality Guidelines (BCWQGs) or the Canadian Environmental Quality Guidelines (CEQGs) as amended or re-enacted from time to time.

Protecting stream water quality – Erosion and Sediment Control Permit Application



Path Forward: Protecting Stream Water Quality in Burnaby

- Initiate work and public consultation on OCP Policy Action 5.3.3
- Hold off where possible on approving development applications in the Stoney Creek Watershed until there is a bylaw change with more stringent requirements, including permits that require updated technology.
- For existing applications, utilize the Erosion and Sediment Control permits to implement validated technology to protect Stoney Creek.

Burnaby has an opportunity to make Stoney Creek a model, not a cautionary tale.

Establish the model for others to follow.