

PROTECTING THE BOW RIVER

The Need to Protect the Bow River

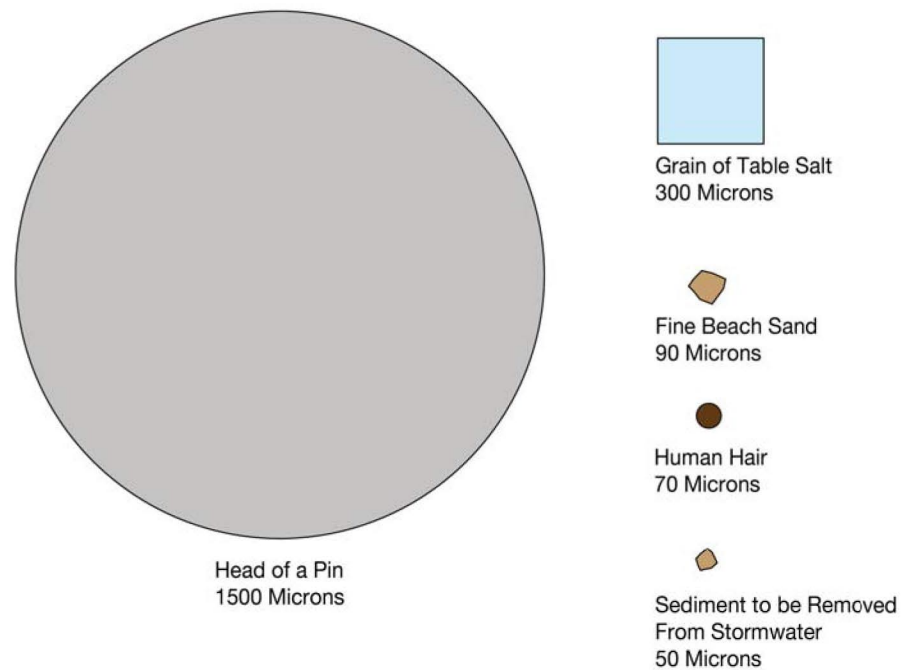
Up until the 1980's, The City of Calgary's stormwater system involved a conveyance system only. The conveyance system includes catch basins collecting stormwater at the surface, as well as the underground system of pipes that carry the stormwater to the Bow River, where it is discharged through outfalls. No treatment existed before the water entered the Bow River. Many older neighborhoods, including those in the East Bowmont catchment area, were constructed using this type of stormwater system.

The untreated water from a large area of Northwest Calgary is currently discharged into the Bow River, where fish species such as Rainbow Trout, Brown Trout, Mountain Whitefish and Burbot have been observed. The sediment carried in the stormwater affects the health of fish and pollutes their habitat. The stormwater quality management system planned for East Bowmont Park is expected to reduce by approximately 50% the annual sediment load to the Bow River from this catchment area.

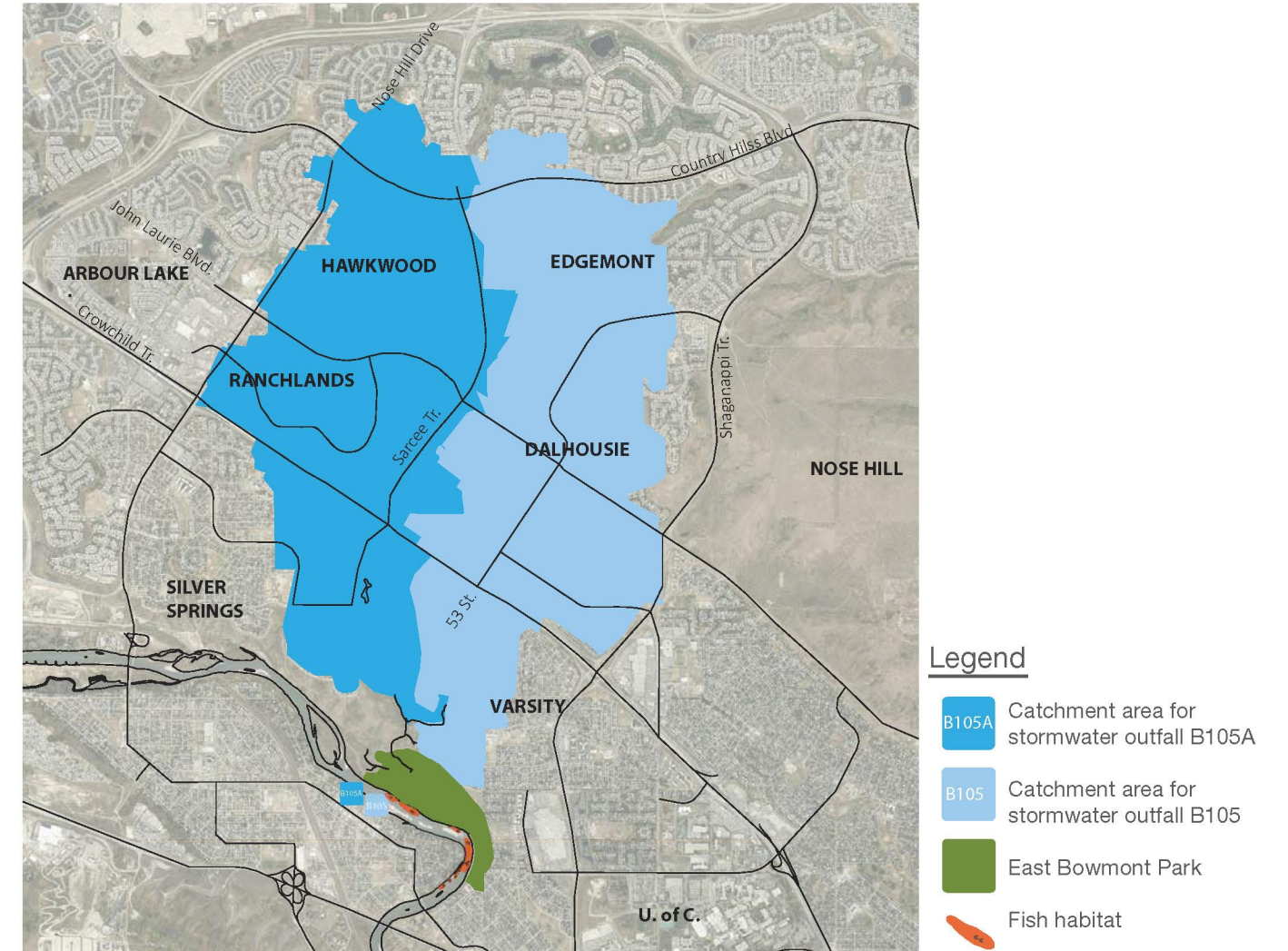
Stormwater Design Objectives

- Treat as much stormwater from existing outfalls as is feasible
- Treat stormwater to meet City requirements of 85% removal of total suspended solids (sediments) for particle sizes 50 microns and greater
- Provide secondary and tertiary treatment of stormwater to further improve water quality
- Expose the physical infrastructure and processes of stormwater collection that are normally hidden from view
- Create valuable and biodiverse habitats within treatment areas
- Optimize the contribution of stormwater facilities to recreational opportunities and visitor experience
- Emphasize and educate visitors about the journey of the water and flood events through design
- Limit the impact of flooding and stormwater facilities on existing high-value habitat
- Collaboration with the City's Watershed + program lead artists on project design

How Big is 50 Microns?



Catchment Areas with Outfalls in East Bowmont Park



The City of Calgary Stormwater Management Precedents



Marshall Springs Pond + Wetland, Fish Creek Provincial Park

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AECOM

WATERSHED+

O2 PLANNING + DESIGN