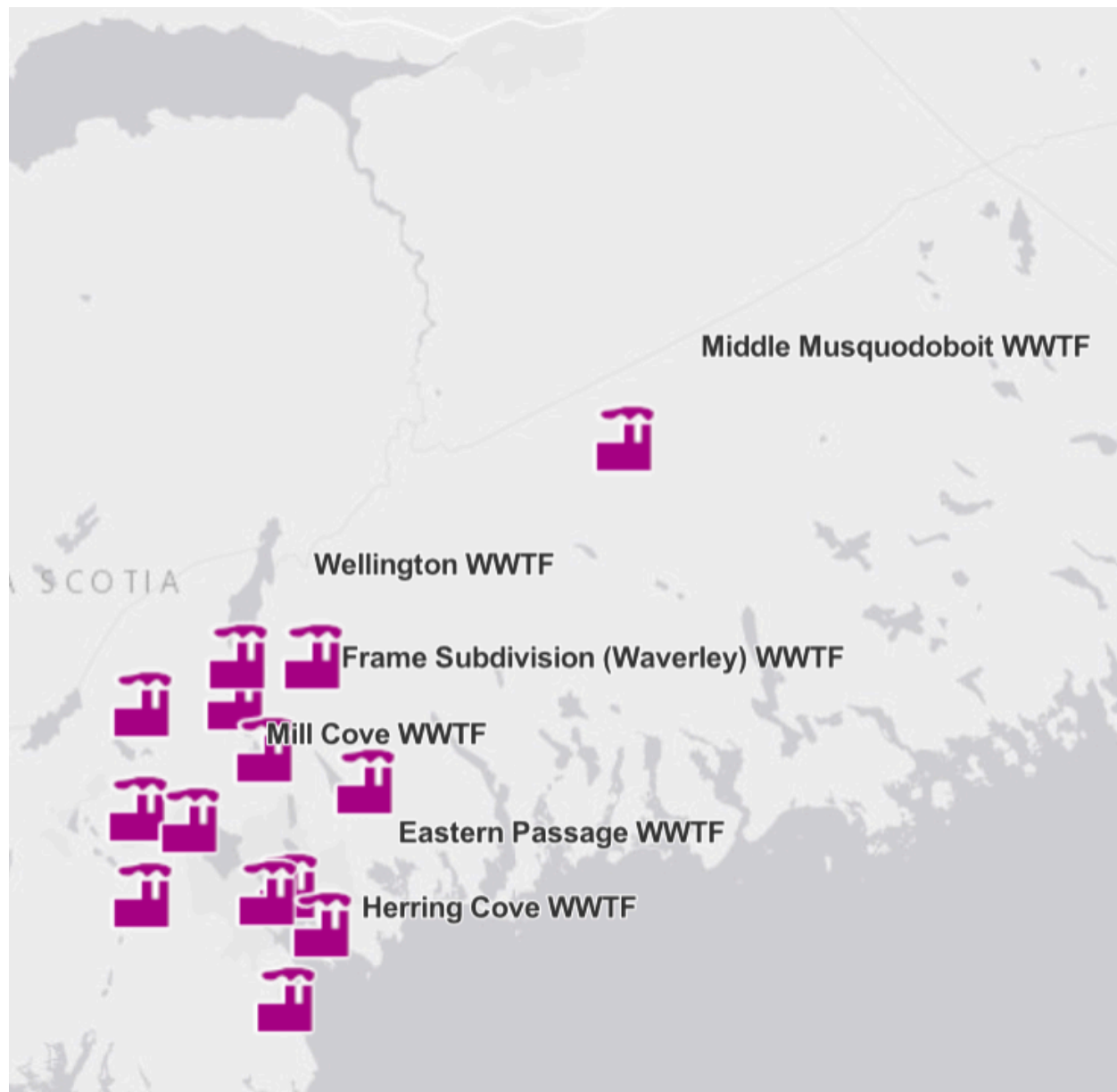


HRM WW Pipe System and its Potential Discharge and Treatment Methods

Wastewater (sanitary sewer) system: this includes substances such as human waste, food scraps, oils, soaps, and chemicals. In homes, this includes water from sinks, showers, bathtubs, toilets, washing machines, and dishwashers. Businesses and industries also contribute their share of used water that must be cleaned.



[Wastewater Service | Halifax Water](#)

Purpose: The major aim of wastewater treatment is to remove as much of the pollutants and suspended solids as possible before the remaining water—called effluent—is discharged back to the environment. As solid material decays, it uses up oxygen, which is needed by the plants and animals living in the water.

Each treatment facility uses a combination of physical, biological, and chemical treatment stages. The degree or level of treatment required often depends on:

- The nature and quality of the receiving water (i.e., salt water, inland fresh water bodies, etc.)
- Federal and provincial regulations
- Quantity of flow from the treatment plant
- Uses and existing quality of receiving waters
- The amount of mixing between plant effluent and receiving waters
- Assimilation capacity of the receiving water

Advanced Primary Treatment: The Halifax, Dartmouth, and Herring Cove wastewater treatment facilities all utilize advanced primary wastewater treatment technology. The advanced primary treatment process removes up to 70% of the suspended solids in the wastewater. (manually remove suspended solids TSS)

Biosolids Management: The solid material collected from wastewater during the treatment process, also known as bio-solids, is a beneficial organic resource. Rather than dump this material in a landfill or the incinerator, the Halifax Regional Municipality puts it through something called the N-Viro process. The N-Viro process delivers a safe, high-quality product, suitable for a number of applications such as:

- Soil amendment
- Fertilizer product
- Lime substitute
- Sod farming

The final product must meet USEPA Class A standards for biosolids products, and also meet Canadian Food Inspection Agency requirements under the Canadian Fertilizer Act, for labeling as a fertilizer product for sale in Canada.

Ultra Violet (UV) Disinfection System: The Halifax, Dartmouth, and Herring Cove wastewater treatment facilities also use Ultra Violet (UV) disinfection. UV disinfection means that high-intensity, ultra-violet lights are used to kill bacteria in the treated flows. This is the final stage in the treatment process before the effluent is released into the harbour.

Wastewater is discharged into Halifax Harbour: It can occur during scheduled maintenance at the Halifax Wastewater Treatment Facility or due to pump failures at the Duffus Street pumping station. When this happens, the discharged water is usually screened to remove solids but is still untreated, meaning bacteria may be present. When such discharges occur, Halifax Water issues a health advisory to the public, recommending that people avoid recreational use of the harbour and limit contact with the water, even though the water is UV treated.