

RECLAIMED WATER

The LPWRF produces Class A reclaimed water. Class A reclaimed water is the highest quality of reclaimed water produced and has many beneficial non-potable water uses.

CLASS A RECLAIMED WATER USES:

- Irrigation
- Commercial processes
- Decorative fountains and ponds
- Pressure washing
- Dust control
- Toilet flushing



Much of the reclaimed water produced at LPWRF will be piped to large customers such as Semiahmoo Resort, who will use it to irrigate its golf course. The City will use it for street cleaning, other industrial uses and for the plant's "Glass Waterfall" art installation by local artist, Shirley Erickson.



The Glass Waterfall Installation at LPWRF uses reclaimed water



City of Blaine Public Works

1200 Yew Ave
Blaine, WA

Phone: 360-332-8820

Fax: 360-332-7124

City of Blaine—Public Works

The Peace Arch City. Where America Begins

Lighthouse Point Water Reclamation Facility



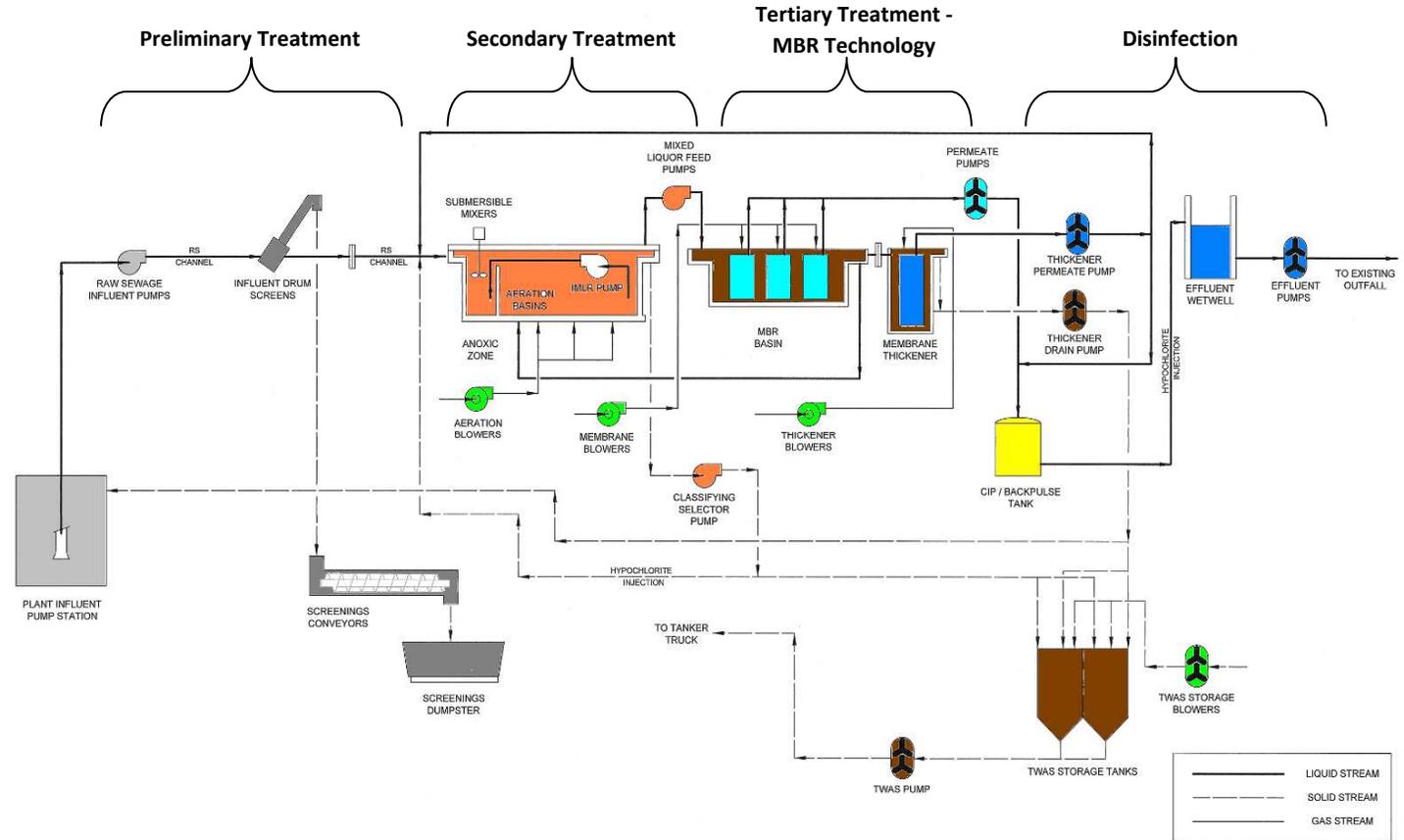
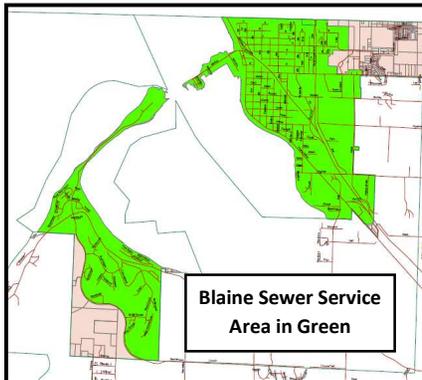
Wastewater Treatment Process



City of Blaine Wastewater Collection System

FACILITY:

The Lighthouse Point Water Reclamation Facility (LPWRF), located along Marine Park, is a 23,000 square foot complex designed to treat the city of Blaine's wastewater influent. The complex was designed to minimize noise, odor and view obstructions at the park by housing most of the treatment systems underground. It has the capability of treating up to 3.1 million gallons per day of domestic sewage.



1. **PRELIMINARY TREATMENT:** Removes materials that can be easily collected from raw wastewater (trash, paper, wood, kitchen refuse) through the screening process.

2. **SECONDARY TREATMENT:** Process where most of the suspended solids settle out of the wastewater.

3. **TERTIARY TREATMENT—Membrane Bio-reactor (MBR) Technology:** Process where soluble and fine suspended dissolved materials that have not been removed from secondary treatment are removed. The LPRWF utilizes Membrane Bio-Reactor (MBR) technology for tertiary treatment.

The MBR process includes:

- Fine screens which remove debris and inorganic material larger than 2 mm from the wastewater
- Aeration basins that promote growth of microorganisms that consume organic matter, which creates wastewater that is less organic matter that can decompose
- Membrane tanks that separate the liquids from the solids.

4. **DISINFECTION:** Kills any remaining pathogens in the effluent to a level that complies with water quality discharge permits. Sodium hypochlorite (chlorine) is used for disinfection. After chlorine contact time is complete, our effluent is acceptable for reuse as class A reclaimed Water.



Membrane cartridges that pull wastewater through microscopic pores that are smaller than the diameter of a human hair.