



# CITY OF SNOHOMISH

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## City of Snohomish – Peracetic Acid (PAA) Project Project Shoreline Substantial Development Permit

October 2, 2019

### Narrative Describing:

- The proposed project that includes the proposed use or uses and other activities necessary to accomplish the project;

The project is for changing the City's effluent disinfection from chlorination to Peracetic Acid (PAA) at the City's wastewater treatment plant and proposes the following improvements:

1. A packaged PAA building complete with PAA dosing equipment, controls, required safety features and HVAC, electrical, lighting and plumbing. This building will be installed on an engineered concrete slab.
  2. A pre-engineered metal canopy that includes space for PAA storage and containment of PAA totes. The canopy will include a 2-hour fire wall for separation from the PAA building and an engineered concrete foundation with integral containment for the PAA totes.
  3. New piping for delivery of the PAA.
  4. New instruments for monitoring PAA residual, flow and leak detection.
  5. New PAA injection assemblies (one in the existing chlorine mixing manhole and three in each of the contact chambers).
  6. Minor repairs to and interior recoating of the existing contact tank.
  7. Electrical modifications to provide power to the new PAA system. These will also be connected to the existing emergency power supply at the plant.
  8. Modifications to existing control panels to include control and monitoring of the new PAA system.
  9. Modifications to the existing SCADA system to integrate the new PAA system.
- The property as it now exists including its physical characteristics and improvements and structures;

The property currently exists as the city's wastewater sewer plant. The City's wastewater collection facilities include gravity sewers, sewer force mains, and pump stations that convey wastewater to the City's WWTP. The WWTP is a four-stage lagoon treatment system, which was retrofitted with a submerged fixed-film (SFF) media system in 2012. The WWTP also includes influent pumping and flow measurement, screening, addition of

supplemental alkalinity, effluent filtration, and chlorine disinfection followed by dechlorination. Treated wastewater is discharged to the Snohomish River. Biosolids that collect in the lagoons are periodically dredged, dewatered and land applied at a beneficial use facility (BUF).

- The vicinity of the proposed project including identification of the adjacent uses, structures and improvements, intensity of development and physical characteristics;

#### Project Vicinity and Adjacent Land Uses

The project is located at 2115 Second Street at the City's wastewater treatment plant. Specifically, the site is located at the southern portion of the property adjacent to the Snohomish River. The property maintains several structures which house equipment for controlling and running the daily operations of the wastewater treatment plant.

State Route 9 right-of-way is adjacent to the subject property to the east, the Snohomish River is adjacent to the south and to the west, vacant City property and Pilchuck Audubon Society property is adjacent to the north.

#### Physical Improvements

The project is for changing the City's effluent disinfection from chlorination to Peracetic Acid (PAA) at the City's wastewater treatment plant and proposes the following improvements:

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#### Intensity of Development

The improvements as previously described are minor in nature with minimal land disturbance. The existing property in the location of the improvements currently maintains existing pavement and some above-ground buildings associated with equipment for the wastewater treatment plan. Essentially, one small structure (+/- 200

SF) will be erected and a temporary trench through the existing pavement to conduit water to the new building.

- Compliance with the City's Shoreline Master Program and consistency with the policies of the Shoreline Management Act in RCW 90.58.020

### **City's Shoreline Master Program**

The proposed project will be in compliance with the City's Shoreline Management Program which is consistent with Washington State's Shoreline Management Act. Specifically, this project is consistent with the following significant policy: *"Protect shoreline natural resources, including "...the land and its vegetation and wildlife, and the water of the state and their aquatic life..."*

The project will be in accord with this policy by implementing a new method of effluent disinfection by changing from chlorination to Peracetic Acid (PAA), a safer environmental application.

### **RCW 90.58.020**

The legislature declares that the interest of all of the people shall be paramount in the management of shorelines of statewide significance. The department, in adopting guidelines for shorelines of statewide significance, and local government, in developing master programs for shorelines of statewide significance, shall give preference to uses in the following order of preference which:

- (1) Recognize and protect the statewide interest over local interest;
- (2) Preserve the natural character of the shoreline;
- (3) Result in long term over short term benefit;
- (4) Protect the resources and ecology of the shoreline;
- (5) Increase public access to publicly owned areas of the shorelines;
- (6) Increase recreational opportunities for the public in the shoreline;
- (7) Provide for any other element as defined in RCW **90.58.100** deemed appropriate or necessary.

### **Compliance with Shoreline Regulations**

Washington State RCW 90.58.020 allows for protecting the statewide interest over local interest, as well as, protecting and preserving the natural character and resources of the Shoreline and provide long term benefit.

This project addresses all of these as implementing the new Peracetic Acid (PAA) method of effluent disinfection will provide for less impact to the environment.