

NPDES Permit Application Information

Treatment Process description

Wastewater enters the influent lift station through a 30-inch gravity sewer pipe and is lifted over 20 feet by the screw pumps. Additional wastewater flow is introduced just upstream of the screen through an 18-inch sewer force main from the CSO Pump Station. Influent wastewater is mechanically screened and then fed by gravity to Lagoon No. 1. From Lagoon No. 1, the wastewater travels through each of Lagoons No. 2, 3, and 4 where the SFF modules are installed. As the wastewater travels through each of these lagoons, the wastewater is detained for biological oxidation of organic matter and ammonia, and subsequent settling of biomass.

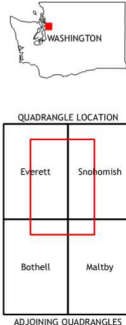
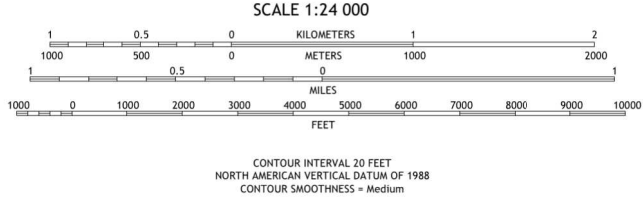
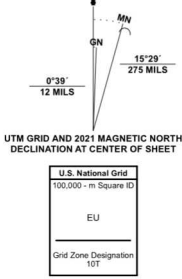
The wastewater exits Lagoon No. 4 through the outlet structure into the effluent control structure. The filters are used to reduce effluent TSS, and subsequently effluent CBOD₅, particularly during the critical warmer dry weather months (July through October). The filters can treat effluent flow up to 0.9 MGD, which is conveyed by the filter pump station. The effluent from the filters flows to the mixing manhole and is mixed with the remaining flow from Lagoon No. 4. Any flow not treated through the filters is conveyed directly to the mixing manhole. At the mixing manhole, peracetic acid is added for disinfection. From the mixing manhole, the effluent flow proceeds to the contact tank where sufficient contact time is provided to reduce the fecal coliform count. After leaving the contact tank, the disinfected effluent is conveyed through an outfall pipe to discharge into the Snohomish River.



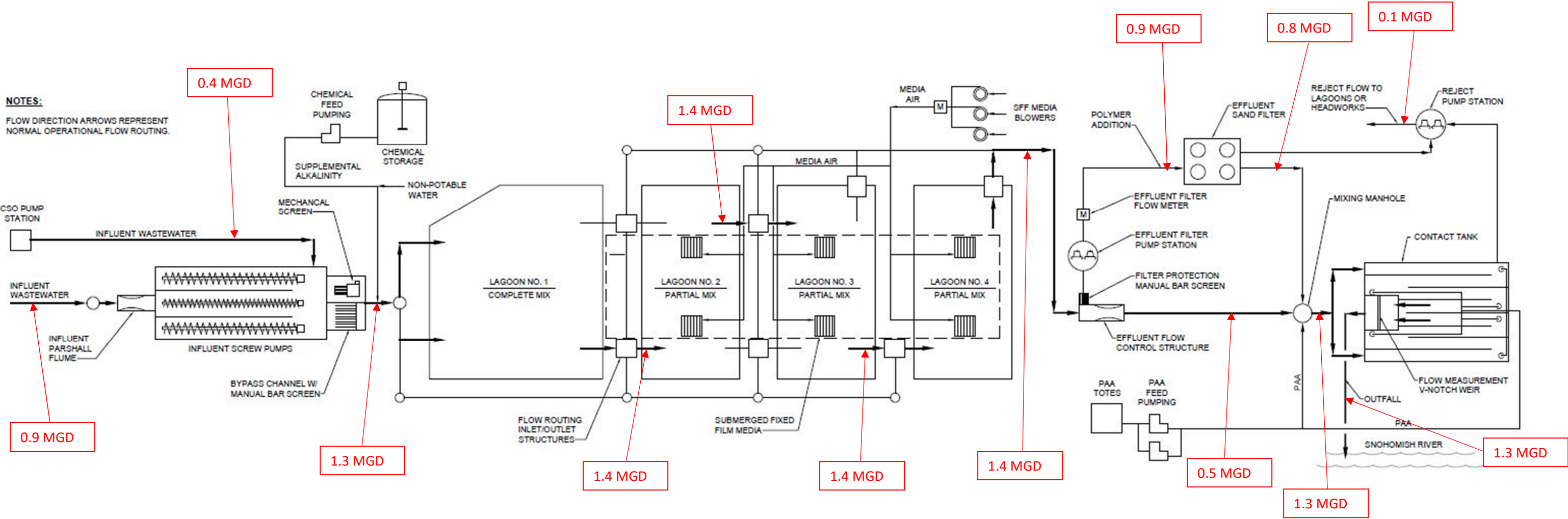
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1 000-meter grid: Universal Transverse Mercator, Zone 10T
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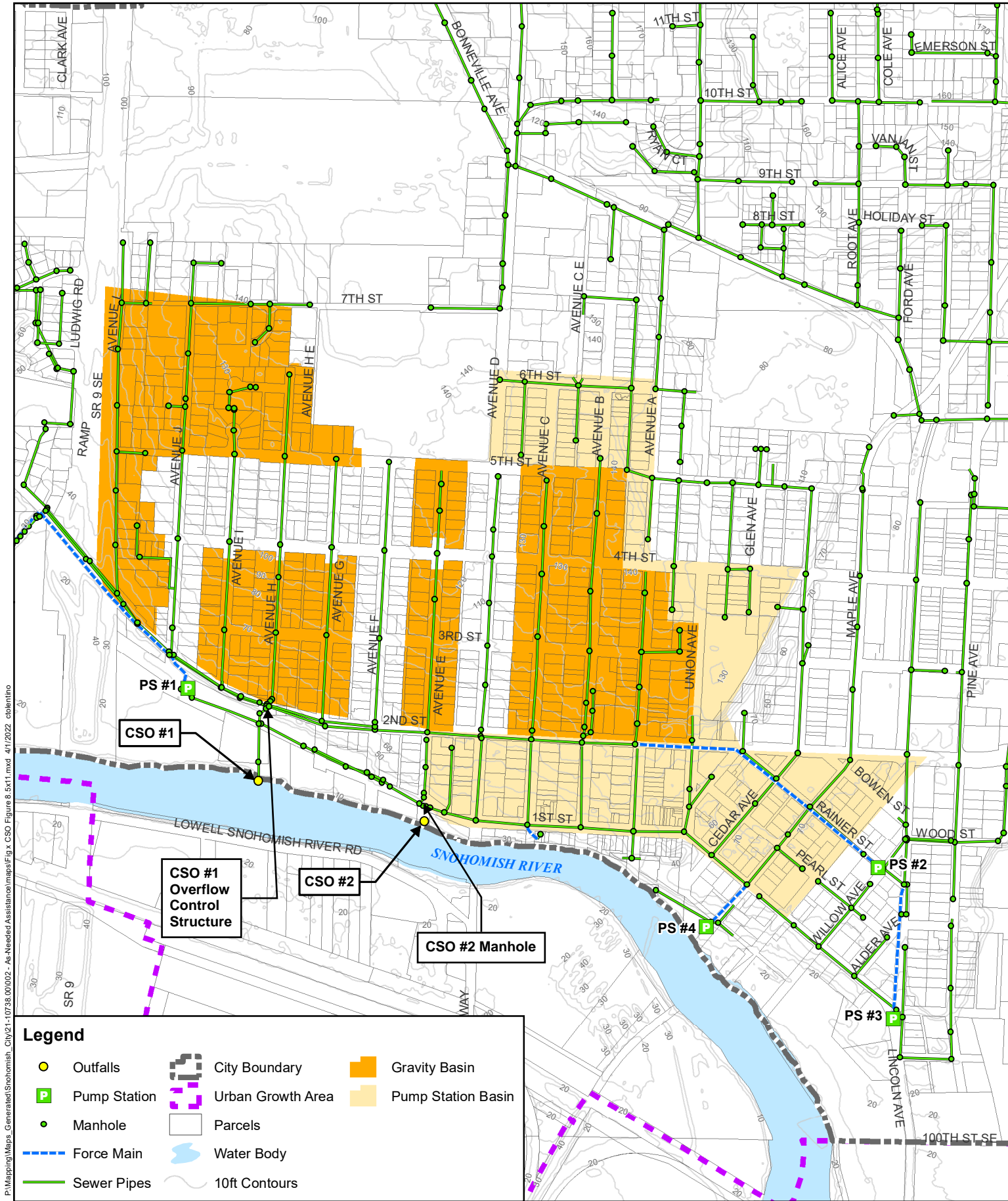
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Snohomish WWTP Process Diagram





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CSO Figure
Snohomish WWTP
O&M Manual Update
City of Snohomish, Washington
April 2022

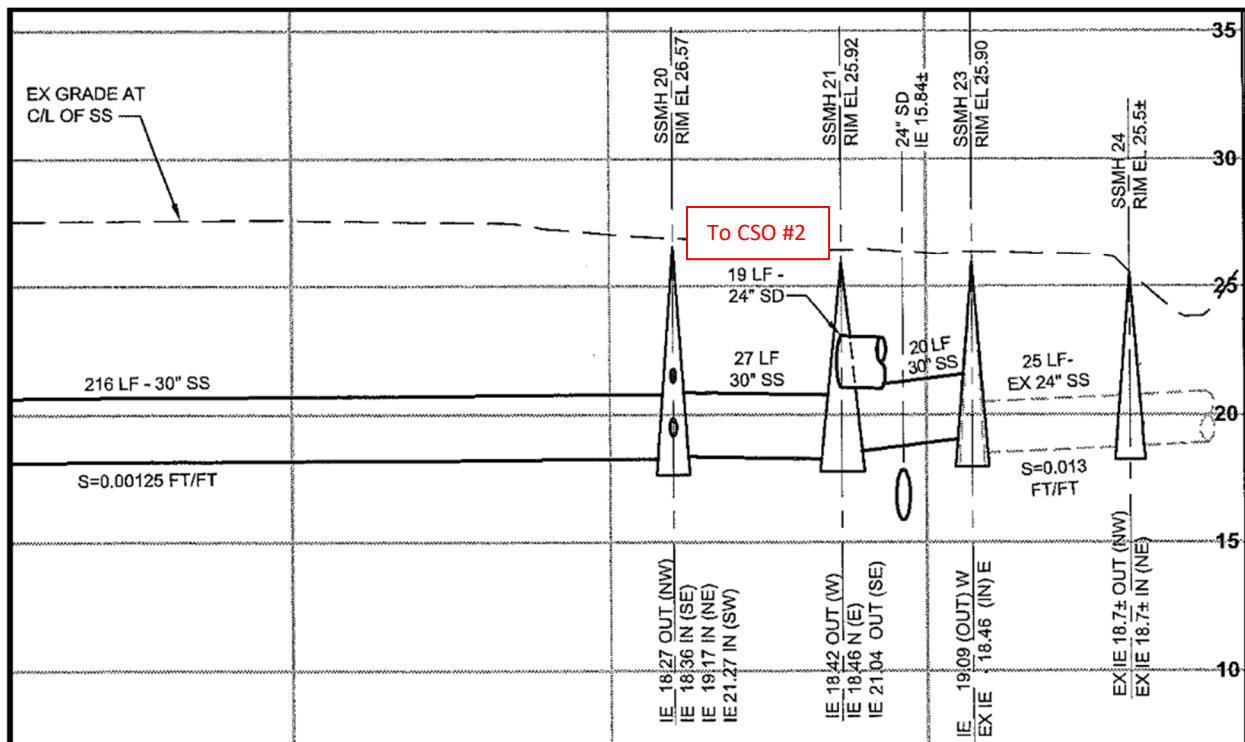
Figure



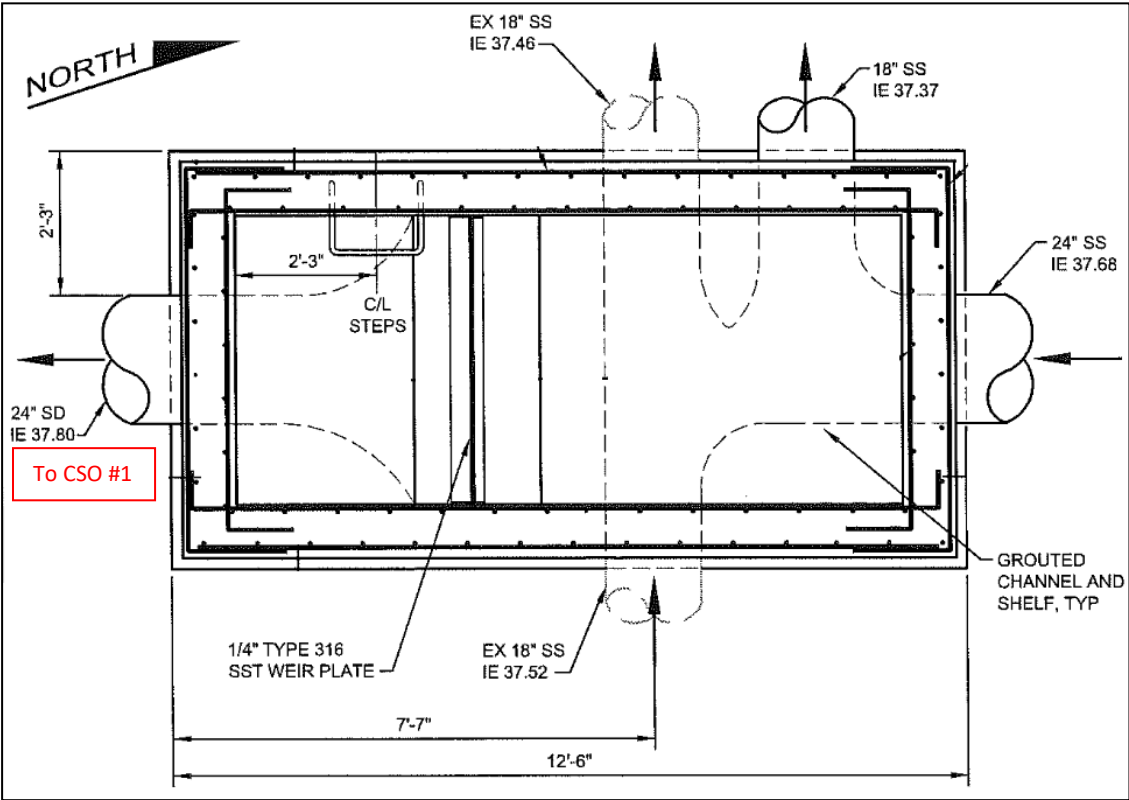
CSO #2 Inlet



CSO#2 Piping



CSO #1 Overflow Control Structure



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