

Shoreline Exemption Submittal Materials for the Sewer SCADA Systems Replacement—Pump Station 21

Project Narrative

Introduction

Mercer Island sewer pump stations and their associated emergency back-up generators are monitored by the City's Supervisory Control and Data Acquisition (SCADA) system. SCADA is a computer-based remote operating system that provides real-time data for each of the City's sewer pump stations. The components for this system vary in age, with much of the equipment exceeding normal life expectancy and some parts no longer being available by manufacturers. Additionally, there are frequent false alarms, reliability, and usability issues within the system. The SCADA-Sewer Replacement project will upgrade the system to provide accurate alarm notifications of problems arising through the wastewater collection system and reduce the risk that an aging component may fail.

The SCADA upgrades will occur within 17 existing vaults or structures located within the City's shoreline jurisdiction. This memo and associated documents have been prepared for one of the pump station sites (Pump Station 21), and is intended to demonstrate the project's compliance with shoreline exemption requirements.

Project Description

Mercer Island Public Works proposes to upgrade pump station and generator equipment at Pump Station 21 located at 8000 Avalon Drive (Figure 1). The pump station is located within an easement under an existing dock along the shoreline of Lake Washington in the backyard of a residential property at 8002 Avalon Place. The wet well hatch for access is located on the surface of the wooden dock. The generator is located in a fenced-off, above-ground enclosure between East Mercer Way and the shoreline (Attachment 1). Interior work at the pump station will include control panel replacement, instrument demolition and replacement, go/no-go panel installation, and associated electrical work. Interior work at the pump station emergency generator includes control panel installation and associated electrical work. Exterior work at both the pump station and the generator will include antenna installation (8 feet tall). Work will occur primarily below ground and within the generator enclosure with limited disturbance above grade.

Upgrades to the pump station and emergency generator are designed to not expand past the current existing footprint and to minimize the environmental impacts associated with construction. The SCADA-Sewer Equipment Upgrade is considered minor expansion of public utility structures, under MICC 19.07.120(D)(2). All repair and maintenance activities at the pump station, the emergency back-up generator, and any associated appurtenances are landward of the Ordinary High Water Mark (OHWM).

Shoreline Exemption Request

The project is subject to compliance with criteria for developments exempt from substantial development permits (MICC 19.13; WAC 173--27-040) and standards and requirements included in MICC 19.13.050(A) - Table C, and MICC 19.13.050(K)(2). Compliance with these rules and standards is described below.

Pump Station 21 is located within 200 feet of Lake Washington's OHWM, placing the project within the shoreline jurisdiction and subject to the regulations defined in the City of Mercer Island's shoreline code (MICC 19.13).

This project qualifies for a shoreline exemption under WAC 173-27-040(2)(b) which states:

(2) The following developments shall not require substantial development permits:

(b) Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. "Normal maintenance" includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition, including but not limited to its size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction, except where repair causes substantial adverse effects to shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including but not limited to its size, shape, configuration, location and external appearance and the replacement does not cause substantial adverse effects to shoreline resources or environment.

To maintain the pump stations as part of a functioning system, it is necessary to upgrade communication technology to enable the station to continue to communicate with the SCADA system. The existing communication system is no longer viable, and the installation of the new antenna will maintain the remote monitoring that exists. The repair is critical to maintain the existing level of service for the sewer utility. No buildings or other structures are being expanded as part of these upgrades.

The project is subject to shoreline development standards included in MICC 19.13.050(A) - Table C, Setbacks for All Structures (Including Fences over 48 Inches High) and Parking (a) 25 feet from the OHWM and all required setbacks of the development code.

Some of the existing stations are located within 25 feet of the OHWM and are considered legally nonconforming with respect to this standard. Placing antennas on top of existing station structures does not constitute expansion of these structures. None of the internal equipment replacements or exterior antenna placements result in the structures being moved closer to the OHWM. As a result, the nonconformance of existing pump stations will not be increased.

The project is subject to general requirements outlined in MICC 19.13.050(K)(2) for utilities on shorelines.

- i. Utilities shall be placed underground and in common rights-of-way wherever economically and technically practical.*

The pump stations already exist. The project is solely to upgrade infrastructure to make these stations more reliable and to continue to communicate with the system. No new utilities are being constructed as part of this project.

- ii. Shoreline public access shall be encouraged on publicly owned utility rights-of-way, when such access will not unduly interfere with utility operations or endanger public health and safety. Utility easements on private property will not be used for public access, unless otherwise provided for in such easement.*

The project does not change the location or access characteristics of shoreline public access where it currently exists.

- iii. Restoration of the site is required upon completion of utility installation.*

No vegetation clearing or ground disturbance is needed as part of this work. Therefore, restoration is not required.

Development Application Sheet

Attached.

Title Report

Attached.

Development Plan Set

Attached (see Figure 1 Site Plan Overview and Plan Instrumentation Detail Sheet)

Critical Areas Study

Attached (see Critical Areas Technical Memo)

Arborist Report

Not applicable; no trees will be impacted by project activities.

SEPA Checklist

This project is categorically exempt from SEPA under WAC 197-11-800 (3), which states:

(3) Repair, remodeling and maintenance activities. The following activities shall be categorically exempt: The repair, remodeling, maintenance, or minor alteration of existing private or public structures, facilities or equipment, including utilities, recreation, and transportation facilities involving no material expansions or changes in use beyond that previously existing; except that, where undertaken wholly or in part on lands covered by water, only minor repair or replacement of structures may be exempt (examples include repair or replacement of piling, ramps, floats, or mooring buoys, or minor repair, alteration, or maintenance of docks).