



## **Shoreline Exemption Project Narrative**

### **Sewer SCADA Systems Upgrade/Generator Replacement – PS 23**

#### **BACKGROUND**

Supervisory Control and Data Acquisition (SCADA) systems monitor water and wastewater facilities and associated equipment. Depending on the age of the SCADA system, it can provide real time status of the utility condition as well as remote control of critical utility functions for operators. The City of Mercer Island's sewer SCADA system has exceeded its expected service life. In addition to providing limited real-time monitoring, historical records documentation is non-existent and the system regularly sees false alarms and reliability and usability issues. SCADA upgrades are needed at all 17 sewer pump stations within the City's shoreline jurisdiction.

Each pump station on the island is equipped with its own emergency standby generator. These generators provide backup power should utility power be disrupted. These generators, along with their associated transfer switches and electrical panels, are typically located within a short vicinity of the station itself, and are mounted on an above ground pad, or below ground vault. The generator at pump stations 23 is beyond its useful life of 25-30 years. Once this replacement is completed, the current replacement cycle for all pump stations will be completed. This program will begin again in 2028 to fund one generator replacement per year.

This memo and associated documentation have been prepared to demonstrate the project's compliance with the shoreline exemption requirements.

#### **PROJECT INFORMATION**

Mercer Island Public Works proposes to upgrade pump station and generator equipment at Pump Station 23, located at 5406 96<sup>th</sup> Ave SE (Refer to PS 23 Plans). The project area includes the pump station and associated emergency generator, as well as the immediately adjacent areas. The pump station generator and pump station are located within easements in the private road and community tract, respectively, of the Cay Hills community above Lake Washington. Interior work (within the underground vaults) at the pump station generator include like for like replacement of the existing generator. Exterior work (above ground) for the generator includes installation of fuel tank ventilation and ventilation pipe support as required by current National Fire Protection Agency (NFPA) codes, and replacement and relocation of the existing automatic transfer switch (ATS), manual transfer switch (MTS), and associated electrical equipment to the existing electrical pedestal adjacent to the pump station to comply with current National Electric Code (NEC) requirements. Interior work at the pump station will include control panel replacement, instrument demolition and replacement, go/no-go panel installation, and associated electrical work. Exterior work (above ground) at the pump station will include antenna installation (8 feet tall).

Upgrades to the pump station and emergency generator are designed to not expand beyond the existing station footprint. The SCADA Sewer Equipment Upgrade is considered repair, maintenance, reconstruction and replacement of existing public utility structures under MICC 19.07.120(E)(2). More specifically, the project replaces obsolete electrical panels and communication technology with today's industry accepted equivalent while meeting current regulations and maintaining the same level of service and sewage pumping capacities. 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 23 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 station as part of a functioning system, it is necessary to replace the emergency standby generator. The addition of above ground fuel tank ventilation and relocation of ATS, MTS to a new above ground service panel is a direct result of updated NFPA and NEC requirements.

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 current level of remote monitoring that exists. Integration of a wireless communication antenna is an industry accepted method for replacement of both dedicated lines of no line-of-sight communication 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.

No portions of pump station 23 is located within 25 feet of the OHWM. No proposed replacements or upgrades will result in non-conformity.

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.*

Sewer pump station 23 and its emergency standby generator already exist. The work under this project performs necessary in-kind replacement of the generator and upgrades monitor and remote control capabilities of the pump station. 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. Title Report is dated April 6, 2023. Request that the requirement for Title Report not less than 30 days old be waived.

#### **DEVELOPMENT PLAN SET**

Attached.

Request certain items in the Site Plan be waived and have all of the Landscaping Plans waived, due to location and nature of the work to existing facilities.

#### **CRITICAL AREAS STUDY**

This project is exempt from this section and does not require review for compliance under MICC 19.07.120 (E)(2), which says.

*Activities listed as exempt in this section do not require review for compliance with this chapter, provided they are otherwise consistent with the provisions of other city, state, and federal laws and requirements.*

*E. The following activities are exempt from city review and approval but must comply with the standards of this chapter:*

*2. Repair and maintenance of existing utility facilities. Repair, maintenance, reconstruction and replacement of public utility structures and conveyance systems and their associated facilities, including but not limited to service lines, pipes, mains, poles, equipment and appurtenances, both above and below ground.*

This project by definition performs replacement of generator and SCADA system equipment within the pump station and associated standby generator. Replacement of this associated equipment requires the installation new equipment (fuel tank ventilation, control panel, instruments, go/no-go panel, associated wiring, and communication antenna), to meet industry standards and applicable codes. There is no expansion of use, capacity, or footprint as a result of this project. No new utilities will be

constructed as a result of this project. This activity is therefore exempt from city critical area review and approval.

**ARBORIST REPORT**

Not applicable; no trees are 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).*