Gray & Osborne, Inc.
CONSULTING ENGINEERS

MEMORANDUM

TO:	CITY OF SUMNER
FROM:	NANCY LOCKETT, P.E.
DATE:	MARCH 19, 2025
SUBJECT:	ZONING CONDITIONAL USE PERMIT – CITY OF SUMNER WASTEWATER TREATMENT PLANT BIOSOLIDS MODERNIZATION PROJECT CITY OF SUMNER, PIERCE COUNTY, WASHINGTON G&O #22446.00

The Sumner Wastewater Treatment Plant (WWTP) is located within a Low-Density Residential District. The WWTP is allowed in a Low-Density Residential Zone as a Conditional Use, per Sumner Municipal Code (SMC) Section 18.12.040 F. Major Utility Facilities, and Section J – Public Facilities, Chapter 18.48.050 establishes Criteria to Grant Conditional Uses as follows.

A. The proposed use will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the proposed use or in the district in which the subject property is situated.

The Biosolids Modernization Project proposed by the Sumner Public Works Department is being undertaken to update equipment that has reached the end of its 20-year useful life, improve operational and energy efficiency, ensure that the City will maintain compliance with the conditions of the Plant's National Pollutant Discharge Elimination System (NPDES) Permit, and to protect water quality and aquatic habitat in the White and Puyallup Rivers. The majority of the proposed improvements involve replacement of equipment in existing buildings. Ground disturbance will be limited to construction of an expansion of the existing Solids Handling Building and Biosolids Loading Dock, installation of an emergency generator, a digester gas hydrogen sulfide removal system, digester gas treatment system, a new waste gas burner system, yard piping replacement/rerouting in the interior of the WWTP site, and construction of a vehicle turn-around adjacent to the south end of State Street. The project will not result in ground disturbance and environmental disruption to neighboring properties during construction of the proposed improvements. Once construction is complete, there will be no significant

increase in traffic or other environmental disturbances associated with the operation of the Sumner WWTP.

B. The proposed use shall meet or exceed the performance standards that are required in the district it will occupy.

The Biosolids Modernization Project at the Sumner WWTP will meet the Performance Standards as outlined in SMC 18.12.080, including the following.

- *Exterior mechanical devices.* The Sumner WWTP site is currently screened from neighboring residential properties to the east, as the City has acquired several properties adjacent to the WWTP for this purpose, and to provide additional space for future expansions. The majority of the new mechanical equipment that will be installed in the Biosolids Modernization Project will be located in existing buildings or the expanded Solids Handling Building. The exception to this is the new digester gas/hydrogen sulfide removal system (skid-mounted), the digester gas treatment system (skid-mounted), the waste gas burner, and the new diesel generator. A new enclosed flare type waste gas burner will replace the existing open flare. The enclosed flare waste gas burner tower is 20 feet tall, which does not exceed the height of the existing buildings on the WWTP site. The waste gas burner is located approximately 500 feet from the nearest residential unit and approximately 100 feet from the Puyallup River Trail. The enclosed flare waste gas burner does not have an open flame and meets the Washington State Environmental Protection Agency (EPA) strict emission standards. The diesel generator will be housed in a Level 2 acoustic enclosure. Level 2 enclosures limit generating operation noise to 63 to 78 decibels at 23 feet. The diesel generator is located in the west side of the WWTP approximately 100 feet from the Puyallup River Trail and 300 feet from the nearest residential structure.

- *Required landscaping*. The majority of the work associated with the Biosolids Modernization Project takes place within existing structures and the underground piping revisions are located in existing paved or gravel surfaces within the treatment plant site. Currently, the north face of the WWTP (63rd Street East) is landscaped. The expansion of the Solids Handling Building is

located in currently paved or grassed areas. Eighteen ornamental shrubs, two fruit trees, shrubs, and a mix of grassed and graveled areas will be removed to install the new paved areas to the north of the UV Disinfection Facility, and next to the addition of the Solids Handling Building and the gas-conditioning unit. One cedar tree and three pine trees will be removed adjacent to the WWTP 63rd Street East, to allow a clear view for the WWTP security cameras. Native shrubs and trees will be planted to replace the removed vegetation at a 2:1 ratio. The new vehicle turn-around adjacent to State Street is located in an existing grassed area.

- *Outdoor storage of vehicles.* New pavement will be installed into the north of the UV Disinfection Facility and adjacent to the Solids Handling Building Expansion but no new outdoor vehicle parking is proposed as part of the Biosolids Modernization Project.

- *Detached accessory structures.* This performance standard is primarily for accessory buildings, etc., associated with residential structures and does not directly apply to the Sumner WWTP. However, it should be noted that none of the new structures proposed under the Biosolids Modernization Project will be located closer than 3 feet to the rear or interior sides of property lines (see Site Plan).

- *Setbacks from alleys.* Does not apply, as there are no alleys in the vicinity of the WWTP.

- *Yard projections.* Does not apply.

- *Residential antennas.* Does not apply.

- *Swimming pools.* Does not apply.

- *Building height exceptions.* The addition to the Solids Handling Building will expand an existing portion of the one-story structure (16 feet tall) and an existing portion of the two-story structure (30 feet tall) to match the height of the existing structures. The new digester gas burner is 20 feet tall. The Biosolids Modernization Project will not be adding structures that exceed the permitted height in this zone.

- *Fences.* Exceptions to the standards set forth in this subsection include public facilities and minor and major utility facilities. Chain-link fencing and the flood wall that currently surrounds the Sumner WWTP will not change as a part of this project.

- *Site distance requirements*. Does not apply.

- *School and church height exceptions.* Does not apply.

- *Expansion of existing uses*. *Existing automotive and motorized vehicle sales, etc.* Does not apply.

- *Manufactured homes*. Does not apply.

- *A minimum of 50 percent of the area of the front and street side yards shall be landscaped*. Thirty-six native shrubs and twelve native trees will be planted along the front of the WWTP, adjacent to 63rd Street East and State Street, as mitigation for the non-native trees and shrubs removed for the project. The replacement ratio of the trees and shrubs is 2:1.

- *Professional offices are permitted as a conditional use*. Does not apply.

- *Mineral extraction use*. Does not apply.

- *Permanent supportive housing and transitional housing*. Does not apply.

C. The proposed development shall be compatible generally with the surrounding land uses in terms of traffic and pedestrian circulation, building, and site design.

The proposed Biosolids Modernization Project is designed to be compatible with the existing facility design. While much of the Biosolids Modernization Project is an upgrade of existing mechanical systems that are installed in existing structures and are a replacement or installation of new underground piping and vaults, this project includes an addition to the existing Solids Handling Building that will mimic the design and height of the existing building, a new enclosed flame gas burner, and auxiliary

generator housed in a sound attenuating enclosure. The project also includes installation of a gate at the sound end of State Street to provide additional security for this essential site. A vehicle turn-around will be installed adjacent to State Street.

Construction of the proposed improvements will temporarily increase traffic in and out of the WWTP site for a period of approximately 2 years. Once construction is complete, traffic and pedestrian circulation at the WWTP and in the surrounding neighborhood to the east will not be significantly different than it is today. Over the course of the 20-year planning period the number of sludge hauling trips out of the WWTP site and through the Low Density Residential District will gradually double as the loadings to the WWTP increase in response to population growth and expansion of the service area. These additional truck trips can be timed to avoid peak traffic periods and to minimize any potential impacts to the adjacent Low Density Residential District to the east.

Potential impacts associated with increased vehicle traffic during construction of the Biosolids Modernization Project and impacts to non-construction-related vehicle traffic and pedestrian traffic will be restricted to the WWTP site.

D. The proposed use shall be in keeping with the goals and policies of the Sumner Comprehensive Plan.

The various elements of the *2020 Sumner Comprehensive Plan* were reviewed with the proposed Biosolids Modernization Project in mind. The proposed WWTP upgrades are consistent with goals and policies of several Plan Elements, including the following.

- *Economic Development Element, Goal 2: Provide the necessary infrastructure, protections against incompatible uses, support facilities, and services to attract and maintain a high-quality manufacturing and industrial center, and to make the City a desirable place to live, work in, and do business*. The proposed Biosolids Modernization Project will provide adequate wastewater treatment and disposal for the cities of Sumner, Bonney Lake, and the adjacent portions of Pierce County within the service area through 2044 (the 20-year estimated useful life of major equipment). The proposed improvements are confined to the existing WWTP site.

- *Economic Development Element, Goal 3: Assure that adequate public facilities and public services are available to support industrial and commercial development*. The proposed project implements the *2023 Wastewater Treatment Facility Final Comprehensive Plan Addendum 3* (Gray & Osborne, Inc., May 2023), to ensure adequate wastewater treatment and disposal through the planning period, by replacing critical components of the biosolids treatment system.

- *Capital Facilities and Public Services Element: Goal 1.8, Provide effective, efficient, and quality capital facilities and public services at the level necessary to support a growing community*. In accordance with Policy 1.8, implementation of the proposed WWTP improvements will provide a sanitary sewer system adequate to meet the demands of the community through the planning period.

- *Environment Element Goal 1: Practice environmental stewardship by protecting, enhancing, and promoting the natural environment in, and around the City of Sumner*. The project supports this goal by providing secondary treatment and disposal of wastewater for the service area. Specifically, the project will implement Policy 1.4 – Protect Surface Water Quality and Quantity from Significant Degradation.

- *Shoreline Master Program, Recreation Element, Goal 4, Provide public access an opportunity for recreation along the shoreline, wherever possible.* The project work elements take place within the existing WWTP site and do not interfere with the existing public access on the Puyallup River Trail around the perimeter of the site.

- *Shoreline Master Program, Flood Hazard Element, Goal 7, Protect the City of Sumner from losses and damage created by flooding*. The proposed project, with the exception of the installation of a gate on State Street, will take place within the floodwall around the Sumner WWTP that provides protection to this critical facility from at least the 100-year flood. New infrastructure associated with this project will be elevated above

the 100-year flood elevation, in addition to being protected by the floodwall.

E. All measures have been taken to minimize the possible adverse impacts which the proposed use may have on the area in which it is located.

The proposed Biosolids Modernization Project, with the exception of the installation of a gate and vehicle turn-around on State Street, will be installed in existing buildings, in an addition to an existing building or adjacent to existing facilities. The improvements, with the exception of the gate and vehicle turn-around on State Street, will be located within the existing WWTP floodwalls. The project will result in little, if any, encroachment into the 100-year floodplain of the Puyallup and White Rivers. Removal of non-native upland vegetation has been minimized. Native trees and shrubs will be planted at a 2:1 ratio to replace the vegetation that will be removed to facilitate construction of the project and continued operation of the WWTP. Construction Best Management Practices for the control of sedimentation and erosion will be implemented during construction. A Construction Traffic Management Plan will be developed to minimize impacts of construction machinery and vehicles on the Low-Density Residential District to the northeast of the Sumner WWTP. The proposed improvements to the biosolids treatment system will assure compliance with the WWTP NPDES Permit and help to protect water quality in the White and Puyallup Rivers and the businesses, industries, and recreational uses that depend upon these streams.

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