Shoreline Substantial Development Permit -

AMENDMENT

Rock Creek Pump Station, Force Main, and WWTP Upgrade



Applicant: City of Stevenson, WA Submitted by Wallis Engineering

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APPLICANT INFORMATION

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ROCK CREEK PUMP STATION, FORCE MAIN, AND WWTP UPGRADE AMENDMENT

BACKGROUND

On March 15, 2021, the City of Stevenson, Washington approved a Shoreline Substantial Development Permit (SSDP) for the Rock Creek Pump Station and Force Main. The city filed the approved permit with the Department of Ecology on March 21, 2021. The mandatory Department of Ecology appeal period ended 21-days letter without an appeal. Consequently, the Rock Creek Pump Station and Force Main SSDP is final.

Although the original application for the Rock Creek Pump Station and Force Main discussed the Stevenson sanitary sewer system, indicating that the existing Wastewater Treatment Plant (WWTP) would be updated, the application and the approved SSDP did not fully address the Shoreline implications of proposed improvements to the WWTP. The pump station, force main and WWTP are classified as utilities by the Stevenson Shoreline Master Program. Consequently, by this application, the city proposes to amend the 2021 SSDP to specifically address the Shoreline implications of the improvements more fully to the sanitary treatment plant.

PROPOSAL

The WWTP is in the western portion of parcel number 02070120120100 and consists of an operational wastewater treatment plant with numerous existing structures. The WWTP is bound by Rock Creek Park Road to the east and south, by Rock Creek Drive to the north, and by a rock outcropping and developed parking and existing buildings to the west. The WWTP is west of Rock Creek Park Road approximately 65 feet west of the OHWM of Rock Creek.



Improvements to the WWTP were identified in the City's 2017 General Sewer Plan and Wastewater Facilities Plan Update. The City obtained

outside funding for the project from two federal agencies. Each agency required independent reviews under their National Environmental Policy Act (NEPA). The project has been reviewed under the State Environmental Policy Act under City File # SEPA2019-03.

Permanent improvements to the WWTP will occur within same footprint as the existing treatment plant. All proposed improvements to the WWTP are above the ordinary high water mark (OHWM) setback. Proposed improvements within the 200-foot Shoreline jurisdiction line include: a new UV channel, new aeration basin, and new mixed liquor splitter box. Proposed improvements outside of shoreline jurisdiction include the blower building, headworks, and gate and access driveway. All work will be conducted landward of the functionally isolated riparian buffer of Rock Creek.

<u>WWTP LOCATION</u>. 686 SW Rock Creek Drive Site Parcel: <u>02070120120100</u>. 8.19 acres. Property Owner: City of Stevenson.

<u>USE</u>. Utilities

SHORELINE ENVIRONMENT DESIGNATIONS. Active Waterfront

<u>ZONING</u>. The WWTP is in the Public Use and Recreation District (PR). SMC 17.35.020. The purposes of the PR zone are to accommodate existing uses, to minimize conflicts of use, and to maintain and conserve the environmental qualities of the Rock Creek pond area. SMC 17.35.020.A. "County, City, or state public works facility, support buildings and structures, shops and yards" are a permitted (P) use in the PR zone. SMC Table 17.35.040-1 Public Districts Use Table.

AUTHORITY TO AMEND AN APPROVED SSDP

WAC 173-27-100 provides, in part:

A permit revision is required whenever the applicant proposes substantive changes to the design, terms or conditions of a project from that which is approved in the permit. Changes are substantive if they materially alter the project in a manner that relates to its conformance to the terms and conditions of the permit, the master program and/or the policies and provisions of chapter 90.58 RCW. Changes which are not substantive in effect do not require approval of a revision. When an applicant seeks to revise a permit, local government shall request from the applicant detailed plans and text describing the proposed changes.

(1) If local government determines that the proposed changes are within the scope and intent of the original permit, and are consistent with the applicable master program and the act, local government may approve a revision.

(2) "Within the scope and intent of the original permit" means all of the following:

- (a) No additional over water construction is involved except that pier, dock, or float construction may be increased by five hundred square feet or ten percent from the provisions of the original permit, whichever is less;
- b) Ground area coverage and height may be increased a maximum of ten percent from the provisions of the original permit;
- (c) The revised permit does not authorize development to exceed height, lot coverage, setback, or any other requirements of the applicable master program except as authorized under a variance granted as the original permit or a part thereof;
- (d) Additional or revised landscaping is consistent with any conditions attached to the original permit and with the applicable master program;
- (e) The use authorized pursuant to the original permit is not changed; and
- (f) No adverse environmental impact will be caused by the project revision.

(7) The revised permit is effective immediately upon final decision by local government or, when appropriate under subsection (6) of this section, upon final action by the department.

APPLICANT'S REPONSE TO WAC AMENDMENT APPROVAL CRITERIA

The applicant's response to the WAC approval criteria is based on Figure 3, Proposed Improvements



Permanent improvements to the WWTP will occur within same footprint as the existing treatment plant. All proposed improvements to the WWTP are above the ordinary high water mark (OHWM) setback.

Proposed improvements within the 200-foot Shoreline jurisdiction line include:

- UV channel (new impervious surface area) 185 sq. ft.,
- Aeration basin (existing impervious surface area) portion within Shoreline jurisdiction 991 sq. ft., and
- Mixed liquor splitter box (Existing impervious surface area) 489 sq. ft

The combined area of all proposed improvements within Shoreline jurisdiction is 1,665 sq. ft., of which 185 sq. ft. is new impervious surface area.

Proposed improvements outside of shoreline jurisdiction include the blower building, headworks, and gate and access driveway.

WAC 173-28-100(2)(a - f)

(2) "Within the scope and intent of the original permit" means all of the following:

(a) No additional over water construction is involved except that pier, dock, or float construction may be increased by five hundred square feet or ten percent from the provisions of the original permit, whichever is less;

Applicant's Response

No overwater construction is proposed. This criterion is met.

b) Ground area coverage and height may be increased a maximum of ten percent from the provisions of the original permit;

Applicant's Response

The only proposed treatment plant improvement that is located beyond the limits of the existing developed pervious site is a new UV channel which has a footprint of 185 square feet.

The ground area coverage of the approved Rock Creek pump station (excluding the force main and associated underground trenches) is 2,820 square feet. Therefore, the total increase of ground area coverage is 6.5%.

(185 S.F. new UV channel divided by 2,820 S.F of Rock Creek ground area coverage = 0.065)

The total ground cover increase at the WWTP is less than 10% of the total ground area coverage of the Rock Creek Pump Station. This criterion is met.

(c) The revised permit does not authorize development to exceed height, lot coverage, setback, or any other requirements of the applicable master program except as authorized under a variance granted as the original permit or a part thereof;

Applicant's Response

Setbacks: All improvement are outside the setback from the OHWM.

Lot coverage: Other than the UV channel, all proposed improvements are within the existing treatment plant footprint. The existing developed site (pervious area) is 46,000 sf. The update to the existing WWTP will increase the total site improvement area within the Shoreline jurisdiction by 185 sq. ft. The proposed improvements will capture rain water and thus decrease stormwater runoff from the site.

Height: No improvement is higher than 35 feet, the maximum height under the Stevenson Shoreline Master Program.

This criterion is met.

(d) Additional or revised landscaping is consistent with any conditions attached to the original permit and with the applicable master program;

Applicant's Response

Ecological Land Services (ELS) prepared a Critical Area Report dated November 2020. The ELS report contained a mitigation and landscaping plan, a portion of which is below.

In accordance with SMC 18.13.095(D)(3) the riparian buffer of Rock Creek to the east (adjacent to the Rock Creek Pump Station), and to the west (adjacent to the WWTP) are reduced by functionally isolating features in the form of existing roads, structures, and sparsely vegetated gravel. Both of the remaining reduced buffer areas are less than 50 percent of the base buffer width and consist of a mix of native and invasive trees, shrubs, and herbaceous species. In accordance with 18.13.095(D)(3)(a), both of the reduced buffer areas, totaling 0.14 acres, will be enhanced through invasive species removal, native plantings, and seed mix application.

Buffer enhancement will be provided in the form of invasive species removal, planting of native Sitka willow (Salix sitchensis) and black cottonwood (Populus balsamifera) stakes and applying a riparian buffer seed mix to bare areas where necessary (Table 6). Planting within the buffer will increase the water quality and habitat functions of the existing degraded buffer by improving soil stabilization and filtration, adding to a diversified vegetation strata, providing more opportunities for shading of the adjacent stream channel, and by providing screening from the pump station and WWTP facilities. The proposed enhancement will provide a functional lift over the existing onsite conditions.

The existing reduced buffer on the west bank of Rock Creek, adjacent to the WWTP varies from approximately 10 feet to 35 feet wide and consists of several mature tree species, herbaceous grasses, and moss growing in and around existing rip-rap with patches of bare ground. As both of the existing buffer areas are less than 50 percent of the base buffer width (150 feet) and are degraded by the presence of invasive species or lack of woody vegetation all together, both of the remaining reduced buffers that

exist waterward of their respective functionally isolating features will be enhanced in accordance with 18.13.095 (D)(5) at 1:1 ratios.

GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS

The goal of this buffer enhancement plan is to increase the functions of the remaining riparian buffer adjacent to the existing WWTP and Rock Creek pump station.



The ELS landscape mitigation and landscape plan approved in the original SSDP are currently being implemented as proposed. This criterion is met.

(e) The use authorized pursuant to the original permit is not changed; and

Applicant's Response

The Rock Creek PS and force main are classified as utilities. The WWTP is also classified as a utility. This criterion is met.

(f) No adverse environmental impact will be caused by the project revision.

Applicant's Response

All work will occur outside of the OHWM and setback for Rock Creek. Ecological Land Services (ELS) prepared a Critical Area Report dated November 2020. The ELS report evaluated the Rock Creek force main and pump station, Cascade and Kanaka pump stations, and the WWTP. The WWTP study area consists of existing structures and



Photo 4 Was taken east of the WWTP, facing north. The OHWM of Rock Creek was determined in this area by wrack and sediment deposits and changes in vegetation. Rock Creek Park Drive is visible in the top left of the frame and serves to functionally isolate the riparian buffer of Rock Creek from the WWTP. Photo taken in January 2020.

facilities and is primarily paved. There are small, interspersed areas of grass and small shrubs as well as mature trees near the entrance of the plant to the north from Rock Creek Drive and to the west along the rock outcrop.

Following are excerpts from the ELS report relating to the WWTP:

Rock Creek runs from north to south approximately 65-feet east of the WWTP. The OHWM on the west bank of Rock Creek was mapped based on wrack deposits, scour lines, and sediment deposits to discern the extent of the 150-foot riparian habitat buffer and 200-foot shoreline jurisdiction boundary within the WWTP study area. Where the riparian buffer of Rock Creek intersects the existing Rock Creek Park Road, it is functionally isolated and does not overlap with the WWTP. The majority of the WWTP study area, save the small westernmost area, is within shoreline jurisdiction.

In accordance with SMC 18.13.100 (D)(5)(a) and 18.13.095(D)(3), portions of the 150-foot riparian buffer of Rock Creek and the Columbia River, and the 80-foot buffer of Wetland A, are fully or partially functionally isolated where they intersect the existing impervious surfaces and don't extend into the proposed work areas along the WWTP.

The proposed improvements to the WWTP do not include any overwater construction. Other than the new UV channel, all work will occur within the existing impervious area footprint of the WWTP facility. The future blower building and headworks are outside of the 200-foot shoreline jurisdiction. 991 sq. ft. of aeration basin #2 is within the 200-foot shoreline jurisdiction. The UV channel is within the 200-foot shoreline jurisdiction.

The NET increase in stormwater runoff to Rock Creek will be significantly decreased because the rain fall will be captured in the open basins which will treat and discharge the rain water. The result will be a significant reduction in rain fall hitting impervious surfaces and discharging without treatment.

Consequently, improvements to the WWTP will not generate any adverse environmental impact. This criterion is met.

CONCLUSIONS

The amendment to the approved Rock Creek Pump Station and Force Main SSDP is consistent with the amendment approval criteria in WAC 173027-100. The project does not involve any over water work, new ground area coverage equals 185 sq. ft. which is less than the ground area coverage of the approved Rock Creek pump station, no structure will exceed 35 feet height, the approved landscaping plan is being implemented, the original use, utility, is unchanged, and the improvements will not increase adverse environmental impacts.

For these reasons and more we ask the City of Stevenson to approve the WWTP Amendment to the Rock Creek Pump station and Force Main Shoreline Substantial Development Permit.

NEW EXHIBITS

Figure 1 Existing Conditions Plan





Figure 2. WWTP Proposed Improvements Within Shoreline Jurisdiction (highlighted areas)



