

HABITAT MANAGEMENT PLAN

SR 410 TRAFFIC AVENUE INTERCHANGE PROJECT
CITY OF SUMNER, PIERCE COUNTY, WASHINGTON

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Executive Summary

The City of Sumner is proposing to add general purpose lanes and non-motorized facilities on Traffic Avenue between the five lanes, E. Main Street Bridge, over the Puyallup River and the five-lane section of Traffic Avenue extending north towards downtown Sumner. The most significant section of work will include adding a lane in each direction to the existing two lanes bridge crossing over SR410. This would be done by building a separate parallel structure to carry new general purpose lanes and non-motorized facilities. The project will reconfigure intersections at each end of the existing SR410 overpass that connect to the SR 410 access ramps and Thompson Street. The south end of the project will connect to Puyallup's Riverwalk Trail, the Sumner Link Trail, and Pierce County's Foothills Trail system. Non-motorized facilities will be installed through the length of the project to provide an ADA accessible pathway connecting to the Sound Transit Sounder Rail Station. The proposed project area is located within Section 25 of Range 04E and Township 20N.

This habitat management plan has been prepared to assess potential project effects on fish and wildlife habitat and describe the implementation of permanent mitigation and restoration measures as required by the City of Sumner Municipal Code (SMC) Chapter 16.56.080.

The project will not result in any impacts to wetlands or waterbodies. The project will require minor impacts to the 200-foot buffer for the Puyallup River for sidewalk construction. The area provides little buffer function as it has been highly disturbed by existing development and the existing interchange. Vegetation in the area is dominated by invasive Himalayan blackberries. No trees to be removed are within the shoreline jurisdiction. It is anticipated that 9 conifers will be removed, all of which are adjacent to SR 410 and Traffic Avenue which isolates them from any potential wildlife habitat. They provide no function to the Puyallup River buffer due to their isolation by surrounding development and lack of large woody debris recruitment potential.

To mitigate for the 10 trees removed, an area within 200 feet of the river will be planted with 30 Douglas fir trees in addition to other trees and shrubs found in the area. This will replace the removed trees at a 3:1 ratio and increase the percentage of conifers planted to maximize year-round shading. This area will provide much higher habitat value than the existing conditions. All trees removed during this project will be salvaged for use as large woody debris on the White River or Salmon Creek. The enhancements to onsite buffer will provide increased capacity for filtering runoff, trapping pollutants such as heavy metals and retain excess nutrients before entering the Puyallup River. The buffer will provide habitat for songbirds, birds-of-prey, and an array of mammals.

The proposed plantings will be monitored for up to five years to demonstrate the provision of intended functions. A site visit will be made the summer after planting and survival rates of plantings will be assessed. Formal monitoring procedures will be performed in years one, three, and five. Successful mitigation will be measured by attainment of the performance criteria described in this mitigation plan document.

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Introduction

The purpose of this habitat management plan is to assess potential project effects on fish and wildlife habitat and describe the implementation of permanent mitigation and restoration measures as required by the City of Sumner Municipal Code (SMC) Chapter 16.56.080.

Project location

The project is located on Traffic Avenue at the interchange with SR 410 within the City of Sumner. It is located along the north/south borders of Section 25 of Township 20N, Range 4E. See Figure 1.

The project area is located within the existing right-of-way in areas previously disturbed by the existing interchange. The area is mostly a mowed grass field with an area of conifers. The land surrounding the site is mixed use development and (Sumner 2016a).

Project Description

The City of Sumner is proposing to add general purpose lanes and non-motorized facilities on Traffic Avenue between the five lanes, E. Main Street Bridge, over the Puyallup River and the five-lane section of Traffic Avenue extending north towards downtown Sumner. The most significant section of work will include adding a lane in each direction to the existing two lanes bridge crossing over SR410. This would be done by building a separate parallel structure to carry new general purpose lanes and non-motorized facilities. The project will reconfigure intersections at each end of the existing SR410 overpass that connect to the SR 410 access ramps and Thompson Street. The south end of the project will connect to Puyallup's Riverwalk Trail, the Sumner Link Trail, and Pierce County's Foothills Trail system. Non-motorized facilities will be installed through the length of the project to provide an ADA accessible pathway connecting to the Sound Transit Sounder Rail Station.

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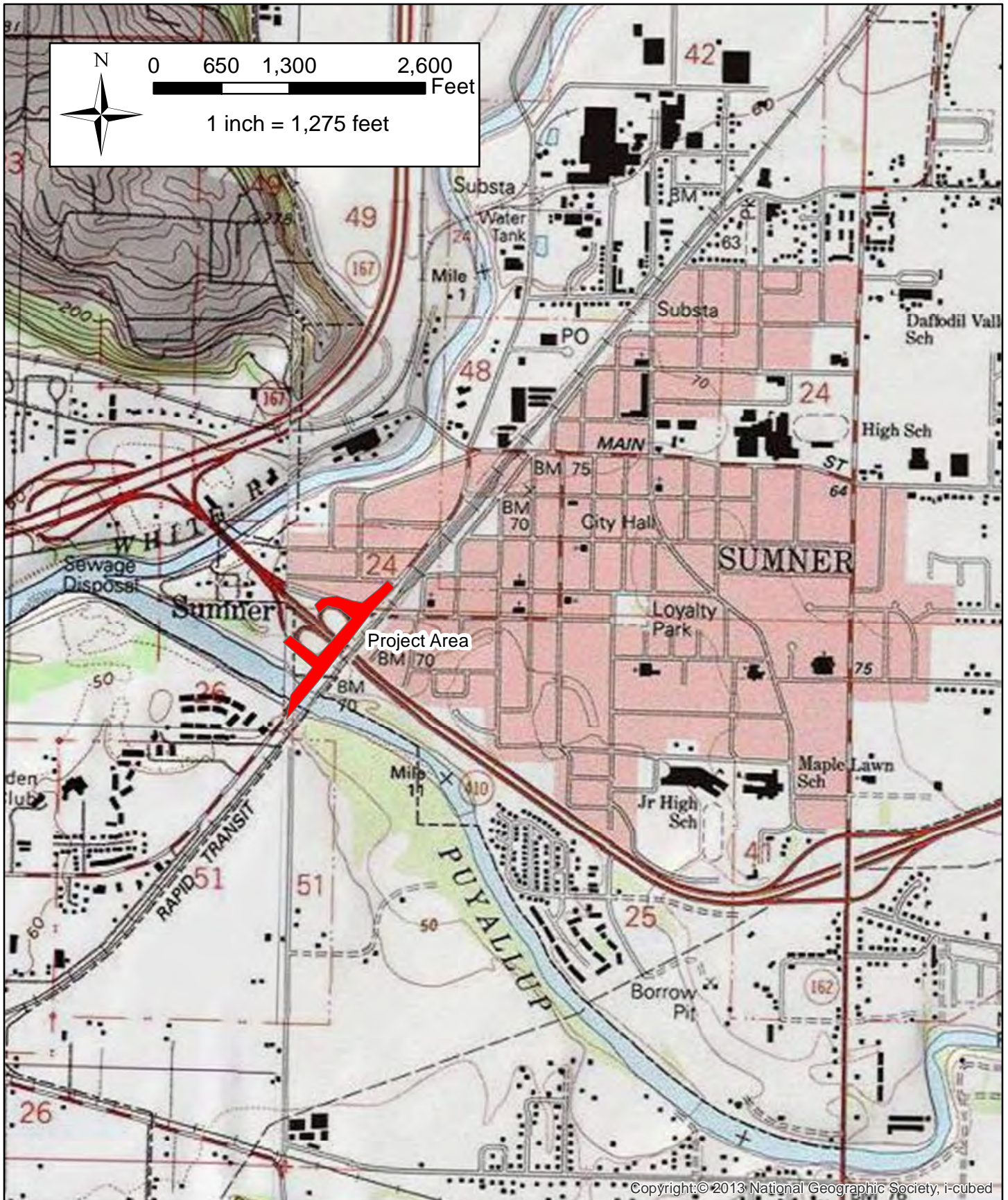


Figure 1: Vicinity Map

SR 410 Traffic Avenue Interchange

City of Sumner

December 23, 2016

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Existing Conditions

Vegetation

The project area is a disturbed area around the existing SR 410 interchange with Traffic Avenue. The roadways are surrounded by grass slopes which are mowed and small stands of fir trees. The slope adjacent to the SR 410 eastbound ramps is dominated by invasive Himalayan blackberries.

Puyallup River

The Puyallup River is classified as a type 'S' or Shoreline of the State. The river flows to the west just south of the project area. The Puyallup River drains directly into Puget Sound at the Port of Tacoma, WA. The City of Sumner Shoreline Master Program designation is Urban Conservancy with a buffer width of 200 feet in the vicinity of the project (City of Sumner 2012). Also included within the shoreline jurisdiction are areas within 200 feet of the floodway which are also within the limits of the floodplain. See Figure 2.

Proposed, Threatened, and Endangered Species

There is no suitable habitat or documented occurrences of streaked horned lark, marbled murrelet, or northern spotted owl within the action area. The area has been highly disturbed by the existing interchange. As no suitable habitat exists for these species, they will not be discussed further in this report. There is also no designated critical habitat for any species within the project area.

No work will occur within the Puyallup River and all construction will be at least 150 feet from the river. Below are species which are expected to use the habitat provided by the Puyallup River.

Bull Trout (Coastal/Puget Sound DPS)

Bull trout are documented as present in the Puyallup River (WDFW 2016).

Steelhead Trout (Puget Sound DPS)

Steelhead trout are documented as present in the Puyallup River (WDFW 2016).

Chinook Salmon (Puget Sound ESU)

WDFW has documented fall chinook salmon rearing habitat in the Puyallup River (WDFW 2016).

Other fish species present include fall chum, Coho, and pink salmon (WDFW 2016).

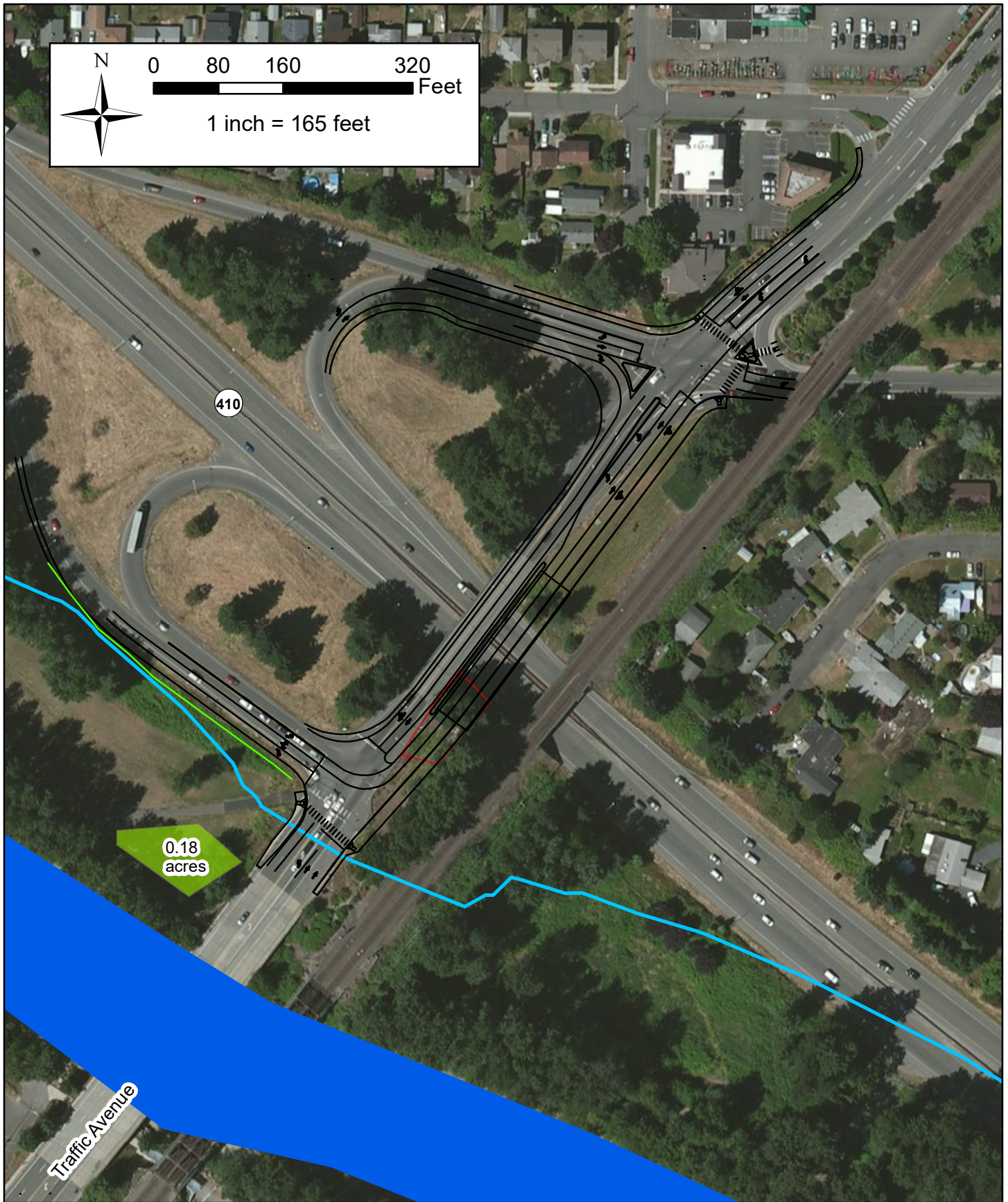
Impacts of the Proposed Project

Puyallup River Buffer Impacts

A small amount of sidewalk will be constructed within 200 feet of the Puyallup River. Approximately 60 feet of sidewalk will be constructed. No trees will be removed as part of this sidewalk construction. This construction is within existing disturbance from roadway shoulders and will not impact existing habitat. The project will also include adjustments to channelization on the Puyallup River Bridge but no impacts will occur due to this work.

In order to construct the new bridge over SR 410 and grade the SR 410 eastbound on and off ramps, approximately 9 Douglas fir trees will be removed. See Figure 2 for areas where trees will be removed and proposed planting area. None of these trees are within the shoreline jurisdiction or floodplain of the Puyallup River. All of the trees are located adjacent to SR 410 between Traffic Avenue and the railroad tracks where they provide no habitat function. They provide no shade function for the river and due to the surrounding disturbance are inaccessible for wildlife use.

Fill for grading of the SR 410 eastbound on and off ramps will be needed to widen the roadway. In order to avoid all fill within the Puyallup River floodplain and floodway, a retaining wall will be constructed adjacent to the sidewalk. See Figure 3 for floodplain location.



- Approximate Wall Location
- Shoreline Jurisdiction
- Approx OHW
- Mitigation Planting
- Tree Removal Area

Figure 2: Tree Removal and Buffer Planting Proposal
SR 410 Traffic Avenue Interchange

City of Sumner
 January 12, 2017

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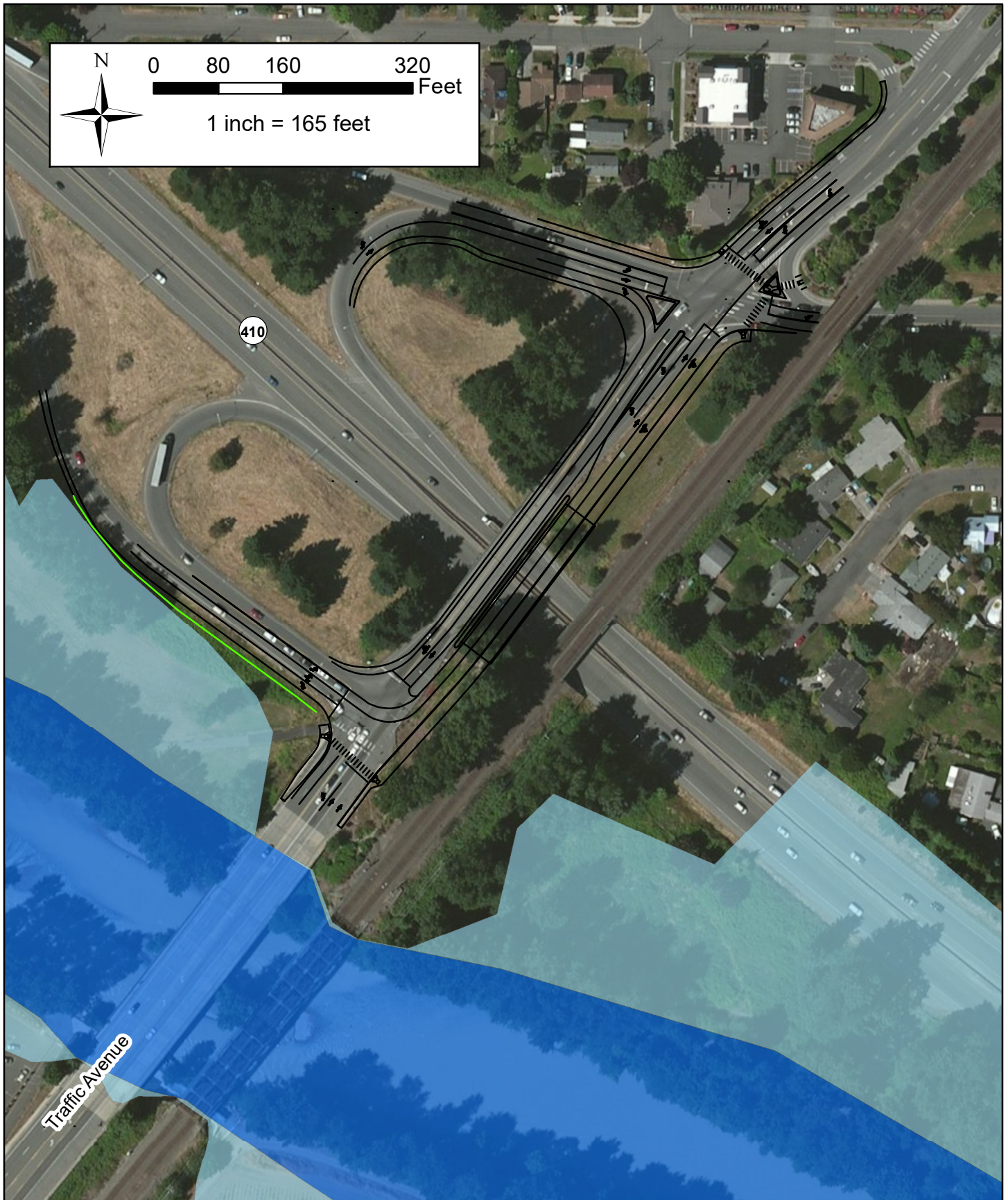


Figure 3: Puyallup River Floodplain

SR 410 Traffic Avenue Interchange

City of Sumner

January 12, 2017

- Approximate Wall Location
- 100-year Floodplain
- Floodway

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Mitigation

Impact Avoidance and Minimization Measures

The project has been designed to avoid impacting vegetation within the 200-foot buffer of the Puyallup River. Vegetation removal will be kept to a minimum. Approximately ten fir trees along the existing roadway will be removed. These trees are outside the Puyallup River shoreline and floodplain and provide no habitat value. A retaining wall will be built to avoid any fill within the floodplain

Best management practices (BMPs) and minimization measures will be used during construction of the project in order to avoid potential impacts including:

- Clearing limits will be staked in the field prior to the start of construction.
- Any temporarily disturbed areas will be replanted with native species
- Erosion Control BMPs such as silt fence and straw bales (certified weed free), as outlined in the Temporary Erosion Sediment Control Plan for the project will be used at all times.
- No work will occur below ordinary high water.
- All equipment will be checked daily for leaks and any necessary repairs made prior to commencement of work.
- A Spill Prevention Control and Countermeasures Plan will be prepared by the contractor and approved the City prior to the initiation of construction.

Replacement Ratios

The proposed project would permanently displace approximately ten fir trees at the interchange, none of which are within the Puyallup River shoreline. Mitigation measures for construction are proposed in accordance with City of Sumner Municipal Code Chapter 16.56 (City of Sumner 2016b). It was determined that the most accurate way to address the impacts from the project was to mitigate for all trees greater than 3" DBH removed due to the existing disturbance. An area of approximately 8,100 square feet will have supplemental planting of Douglas fir trees in order to provide approximately 30 trees, a replacement of trees at a 3:1 ratio. The proposed mitigation will provide much higher habitat function than the current conditions. Any temporarily disturbed areas will be replanted with native species.

Site Location and Ownership

The proposed planting area is located on a portion of parcel 4250001300 which is owned by the City of Sumner. Refer to Figure 2. The mitigation area is an open field, which has been recently planted with shrubs and sparsely with trees. An existing trail is along the shoreline in this area.

General Goals

The City of Sumner is proposing to supplement plantings within the shoreline at a 3:1 ratio resulting in the planting of 30 Douglas Fir trees within 200 feet of the Puyallup River.

Species will be selected based on common stock at local native plant nurseries and appropriate species for site conditions. Any changes to the species composition or proportions due to lack of availability would be made at the discretion of the biologist implementing the plan.

Trees will be randomly spaced on average of 10-foot centers. Shrubs will be placed on average of 4-foot centers. No irrigation is anticipated for the site. Bark mulch rings 3" deep will be placed in 3' diameter circles around trees in the buffer planting. Plantings will be monitored for damage from animals with protective devices installed as necessary.

Weed control will occur throughout the monitoring period. The entire wetland mitigation site will be reviewed annually during the growing season for noxious weeds and other undesirable weed growth. Any areas not meeting the success standards set for the site will receive treatment via mechanical means (hand pulling). If limited chemical application is deemed necessary, weeds will be sprayed with an approved chemical by a licensed applicator.

Plant Establishment and Maintenance

Plant establishment throughout the monitoring period is essential to plant community development and the success of the overall site. The establishment period for this project is five years. During this time, the site will be monitored for plant survival, health and growth, weeds, and vandalism.

During the first and second year, the contractor is responsible for maintaining 100% plant survival. The third through five year plant establishment will be managed by the City of Sumner, with the goal of meeting all applicable standards of success. Plant establishment activities include, but are not limited to, plant replacement, adjustment of the planting layout to reflect specific site conditions, weed control, litter pickup, installations and adjustment of tree protection devices and repair of any vandalism.

Regulatory Compliance

Goals

The goal of the proposed mitigation is to enhance riparian buffer functions near the proposed project. The proposed mitigation is intended to enhance 0.18 acres of buffer with additional conifers along the Puyallup River. Trees removed during the project will be placed within the White River or Salmon Creek for large woody debris.

Functions and Values

The following is an itemized list of functions and values that will be provided by the proposed mitigation.

Fish Habitat

The enhanced riparian buffer will provide: shaded cover, controlling the water temperature; leaf litter which is a food source for fish and invertebrates; and woody debris recruitment for cover and aquatic habitat structure.

Sediment Removal

The increase in vegetation along the enhanced forested riparian buffer will trap excess sediments during high flows and retain excess nutrients which are a threat to water quality during high flows.

General Wildlife Habitat

The enhanced forested riparian buffer will be planted with native trees providing habitat for songbirds, birds-of-prey, and an array of mammals.

'As Built' Report

Upon project completion, an 'As Built' report will be submitted to the City of Sumner documenting the final locations of the plantings. This report will include both the proposed planting plan and the 'as built' planting plan showing densities, sizes, and locations of planted vegetation; as well as information about which nurseries plants were acquired from; the time of plantings; locations of reference points established as photo points, sampling and monitoring sites; and provide an analysis of any changes to the mitigation plan that occurred during construction.

Monitoring Plan

All plants will be monitored for a period of five years to ensure 80 percent of the trees and shrubs have survived. A site visit will be made the summer after planting and survival rates of plantings will be assessed. Formal monitoring procedures will be performed in years one, two, three, and five after initial acceptance of the mitigation construction.

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