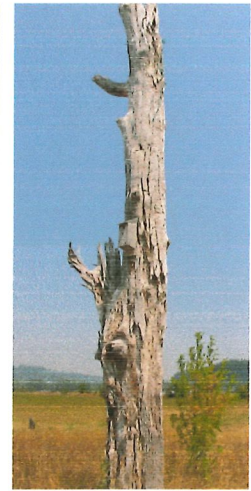




City of Chehalis
OCT 12 2020
Community Development

HABITAT ASSESSMENT & RIPARIAN BUFFER ENHANCEMENT PLAN

September 17, 2020



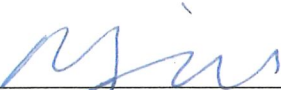
Jesus Name Pentecostal Church
Lewis County, Washington

Prepared for
Shannon Burgess
1582 Bishop Road
Chehalis, WA 98532
(360) 748-4977

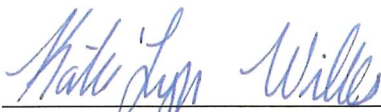
Prepared by
Ecological Land Services
1157 3rd Avenue, Suite 220A • Longview, WA 98632
(360) 578-1371 • Project Number 3091.01

SIGNATURE

The information and data in this report were compiled and prepared under the supervision and direction of the undersigned.



Megan Mill
Biologist



Kate'Lyn Wills
Biologist/Environmental Scientist

TABLE OF CONTENTS

INTRODUCTION..... 1
PROJECT DESCRIPTION 1
SITE CONDITIONS..... 1
METHODS..... 2
LISTED SPECIES AND HABITATS IN THE PROJECT VICINITY..... 2
IMPACT AVOIDANCE & MINIMIZATION MEASURES 3
POTENTIAL EFFECTS OF THE PROJECT ON LISTED SPECIES AND HABITAT 3
RIPARIAN BUFFER ENHANCEMENT PLAN..... 4
LIMITATIONS..... 5

Figures

Figure 1 Vicinity Map
Figure 2 Existing Conditions Site Map
Figure 3 Proposed Conditions Site Map
Photoplates 1 and 2

INTRODUCTION

Ecological Land Services, Inc. (ELS) has completed this Habitat Assessment on behalf of the property owner, Shannon Burgess, for the construction of additional parking at the Jesus Name Pentecostal Church. ELS biologists conducted a site visit on November 15, 2019 to inventory site conditions and delineate the ordinary high water mark (OHWM) of Dillenbaugh Creek onsite. This report documents ELS' findings and associated research, which has been prepared in accordance with *Chehalis Municipal Code (CMC) Chapter 17.21; Critical Areas (2020)*.

PROJECT DESCRIPTION

Project Location

The approximately 1.63-acre Lewis County Parcel (Number WE0606055), is located at 1592 Bishop Road in Chehalis, Washington within Section 9, Township 13 North, and Range 2 West of the Willamette Meridian (Figure 1).

Construction Activities

Construction activities will consist of the addition of approximately 660 cubic yards of gravel over top of the existing fill pad to create an additional parking area for church services and activities. The existing northern riparian buffer of Dillenbaugh Creek will be enhanced via removal of garbage and state and county-listed noxious weeds to allow the native vegetation to become denser to create better protection of the stream and riparian functions.

SITE CONDITIONS

The subject property is bordered on the southwest by Interstate 5 (I-5) and on the northeast by Bishop Road. The church and pastor's personal residence is located northwest of the site just beyond an unimproved City right-of-way (ROW). Dillenbaugh Creek forms the southeastern boundary of the property. The majority of the site was filled and levelled in 2006 with only the northernmost portion sloping from the northeastern corner towards the City ROW. In 2009, approximately 13,500 square feet of the site was further filled with gravel which was placed from the existing driveway along Bishop Road to the City ROW.

Vegetation found on the filled portion of the property consisted of Queen Anne's lace (*Daucus carota*), hairy cat's ear (*Hypochaeris radicata*), Canada thistle (*Cirsium arvense*), Himalayan blackberry (*Rubus armeniacus*), bluegrass species (*Poa. sp.*), common horsetail (*Equisetum arvense*), oxeye daisy (*Leucanthemum vulgare*), reed canarygrass (*Phalaris arundinacea*) and tufted hairgrass (*Deschampsia cespitosa*), with moss covering portions of the fill.

The area southeast of the existing fill slopes moderately for approximately 45 feet down to Dillenbaugh Creek, a fish-bearing perennial stream with a defined channel greater than 10 feet which according to CMC 17.25.020(A)(2), makes it a Type F-A Water. The streambed substrate was composed of rocky rubble containing pebbles to small boulders. The creek has a defined bed and steep banks with overhanging vegetation. Garbage piles are present within the riparian buffer onsite due to transient activity.

Vegetation found within the riparian buffer onsite consisted of; Douglas fir (*Pseudotsuga menziesii*), Oregon ash (*Fraxinus latifolia*), red alder (*Alnus rubra*), Pacific crabapple (*Malus*

fusca), common snowberry (*Symphoricarpus albus*), baldhip rose (*Rosa gymnocarpa*), and Himalayan blackberry (*Rubus armeniacus*).

According to CMC 17.25.030(B)(2), Type F-A streams have a standard designated 150-foot buffer. The CMC also recognizes that buffers shall not extend across “hardened surfaces” due to these areas being functionally and effectively disconnected from the stream in 17.24.030(C). In this case, the existing fill area onsite extends to the top of the slope, effectively functionally isolating the buffer. The existing functionally isolated buffer averages approximately 45 feet from the OHWM.

Table 1. Summary of Critical Areas.

Critical Area	Water Type ¹	Standard Buffer Width ²
Dillenbaugh Creek	Type F-A	150

¹CMC 17.25.020(A)(2)

²CMC 17.25.030(B)(2)

METHODS

ELS conducted a site visit on November 15, 2019 to collect measurements and photographs, observe site conditions, and determine the western OHWM of the unnamed stream onsite. The northern OHWM of Dillenbaugh Creek located in proximity to the construction area was determined using standard methodology as described in the Washington State Department of Ecology (Ecology) manual: *Determining the Ordinary High Water Mark on Streams in Washington State* (Olson and Stockdale 2010). The main indicators used to determine the OHWM was the water stain along the culverts located under Bishop Road and I-5.

LISTED SPECIES AND HABITATS IN THE PROJECT VICINITY

The potential presence of listed species that have a primary association with the habitat on or adjacent to the project area was evaluated by a site visit, aerial photographs, the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) website (WDFW 2020), Salmonscape Mapping Tool (WDFW 2020a), the U.S. Fish and Wildlife Service (USFWS) (2020) website (IPaC 2020), and the USFWS *Listed and Proposed Endangered in Lewis County* (USFWS 2019). ELS fieldwork did not occur during an official botanical survey window for listed plant species; however, no sensitive, threatened, or endangered plant species were observed during the site visit and none are mapped in or adjacent to the study area by local, state, or federal databases. Table 2 below details state and federally listed plant and animal species that have regional presence in habitats like those found in and adjacent to the study area.

According to CMC, the critical areas habitat assessment will address the species and habitats within 300 feet of the project area. The following table shows state priority habitats and federally or state-listed species, as well as state candidate species, that have the potential to exist within 300 feet of the project. The list was compiled using the most recent state and federal species maps and online listings (WDFW 2018a, 2018b, NMFS 2018a and 2018b, USFWS 2018).

Table 2. Endangered, Threatened, and Candidate Species, that have the Potential to Exist within 300 feet of Proposed Activity.

Species, ESU ¹ or DPS ²	State Status ³	Federal Status ³	Critical Habitat ⁴ in Project Vicinity
<i>Fish</i>			
Coho Salmon (<i>Oncorhynchus kisutch</i>)	N/A	N/A	No
Bull Trout (<i>Salvelinus confluentus</i>)	Candidate	Threatened	No
<i>Birds</i>			
Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	N/A	Threatened	No
Marbled murrelet (<i>Brachyramphus marmoratus</i>)	Candidate	Threatened	No
Streaked Horned Lark (<i>Eremophila alpestris strigata</i>)	Candidate	Threatened	No
<i>Plants</i>			
Kincaid's lupine (<i>Lupinus sulphureus ssp. kincaidii</i>)	N/A	Threatened	No
Nelson's Checker-mallow (<i>Sidalcea nesloniana</i>)	N/A	N/A	No
Golden Paintbrush (<i>Castilleja levisecta</i>)	N/A	Threatened	No

Species

None of the listed species will be affected by the proposed project due to an absence of preferred habitat and no known occurrences within the vicinity. The project was designed to avoid all potential impacts by locating the gravel parking area on the existing fill area onsite.

IMPACT AVOIDANCE & MINIMIZATION MEASURES

Impacts will be avoided completely by limiting the parking footprint to existing fill area onsite. All native vegetation within the riparian buffer onsite will be retained. Additionally, the existing western riparian buffer of Dillenbaugh Creek will be enhanced via removal of garbage and invasive species to allow the native vegetation to become more dense to create better protection of the stream and riparian functions than currently exists.

POTENTIAL EFFECTS OF THE PROJECT ON LISTED SPECIES AND HABITAT

Direct Effects

There will be no direct effects from the proposed project as construction activities will not occur within the riparian buffer area.

Indirect Effects

Potential indirect effects from the increase in runoff due to new impervious surface are not likely as construction activities will only occur within the existing fill area. The roadside ditch between the site and Bishop Road as well as the large swale between the site and the northbound on ramp of I-5 have effectively conveyed runoff towards Dillenbaugh Creek from the existing fill and gravel onsite since 2006 and 2009, respectively.

RIPARIAN BUFFER ENHANCEMENT PLAN

Enhancement Goal:

The goal of the enhancement plan is to create an increase in ecological function of the riparian buffer onsite. The northern riparian buffer is functionally isolated by the existing compacted fill (hardened surface) and only extends for approximately 45 feet from the OHWM of Dillenbaugh Creek. The remaining 0.17 acres of buffer will be enhanced via removal of garbage and state and county-listed noxious weeds. The removal of state and county-listed noxious weeds will reduce inter-species competition and allow the native vegetation to become more dense to create better protection of the stream and riparian functions.

Enhancement Objectives

Key objectives for the riparian enhancement area include:

- Controlling any state and county-listed noxious weeds including, but not limited to, evergreen (*Rubus laciniatus*) or Himalayan blackberry, English ivy (*Hedera helix*), bittersweet nightshade (*Solanum dulcamara*), and Scot's broom (*Cytisus scoparius*), by spraying, by hand, or by other approved means.
- Removing garbage.

Performance Standards

1. No more than 10 percent cover of state and county-listed noxious weeds will be present in the riparian enhancement area for the duration of the calendar year following project completion.
2. Garbage will be removed within the riparian enhancement area. If new garbage is found it will be removed for the duration of the calendar year following project completion.

Implementation and Maintenance Plan

1. The removal of state and county-listed noxious weeds within the northern riparian buffer area will occur a minimum of three times during the calendar year following project completion. Plant waste will be disposed of at an appropriate green waste facility.
2. The removal of garbage from the stream and riparian buffer area will occur at the same time as or immediately following project completion. If new garbage is found during the removal of state and county-listed noxious weeds, it will be removed at the same time. Garbage will be disposed of at an appropriate local waste facility.

Contingency Plan

If the performance criteria are not met, steps will be taken to correct the situation in a timely manner. The following steps will be implemented when an area is identified as failing or potentially failing:

- Identify the cause(s) of the failure or potential failure.
- Identify the extent of the failure or potential failure.

- Implement corrective actions such as increasing the number of times clean-ups will occur throughout the year.
- Document the activities and include this data with dated photos.

The riparian buffer enhancement area will be owned, maintained, and managed by the applicant, unless otherwise assigned.

LIMITATIONS

ELS bases this report's determinations on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our determinations. However, the information contained in this report should be considered preliminary and used at your own risk until it has been approved in writing by the appropriate regulatory agencies. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report.

REFERENCES

- Chehalis Municipal Code (CMC) Chapter 17.21; Critical Areas* (2020).
- U.S. Department of Agriculture (USDA). 2010. *Introduction to Kincaid's Lupine* https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmstn9821.pdf. September 2020.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1998. *Recovery Plan for the Threatened Nelson's Checker-mallow (Sidalcea nelsoniana)*. Portland, Oregon.
- U.S. Fish and Wildlife Service (USFWS). 2020. *Information for Planning and Consultation (IPaC)*. USFWS Western Washington Fish and Wildlife Office. <https://ecos.fws.gov/ipac/location/index>. September 2020.
- U.S. Fish and Wildlife Service (USFWS). 2019. *Listed and Proposed Endangered and Threatened Species and Critical Habitat; Candidate Species; and Species of Concern in Lewis County*. USFWS Western Washington Fish and Wildlife Office. <https://www.fws.gov/wafwo/speciesmap/LewisCounty042413.pdf>. Accessed January 2020.
- U.S. Fish and Wildlife Service (USFWS). 1997. *Recovery Plan for the Threatened Marbled Murrelet (Brachyramphus marmoratus) in Washington, Oregon, and California*. Portland, Oregon. 203 pp. Accessed September 2020. <https://www.fws.gov/wafwo/species/Fact%20sheets/USFWS%20Recovery%20Plan%201997.pdf>.
- Washington State Department of Ecology (Ecology) 2016. *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State*. October 2016. Publication No. 16-06-029.
- Washington Department of Fish and Wildlife (WDFW). 2015. *Priority Habitats and Species (PHS) on the Web*. <http://apps.wdfw.wa.gov/phsontheweb>. Accessed September 2020.
- Washington Department of Fish and Wildlife (WDFW). 2020. *SalmonScape*. <http://www.wdfw.wa.gov/mapping/salmonscape.index.html>. Accessed September 2020.
- Washington State Department of Natural Resources (WSDNR). 2020. *Forest Practices Application Mapping Tool*. <https://fpamt.dnr.wa.gov/default.aspx>. Accessed September 2020.

FIGURES & PHOTOPLATES

9/17/2020 10:35 AM C:\Users\Emilio\Box\EL\SWALLewis\Chehalis\3091.01-JNCP-Habitat Assessment\3091.01-Figures\3091.01 DL.dwg Emilio

WASHINGTON



Latitude 46.6264°
Longitude -122.9278°

LOCATION MAP

R 2 W

	6			1
T				
13				
N				
	31			38

NOTE:
USGS topographic quadrangle map reproduced using MAPTECH Inc., Terrain Navigator Pro software.

PROJECT VICINITY MAP

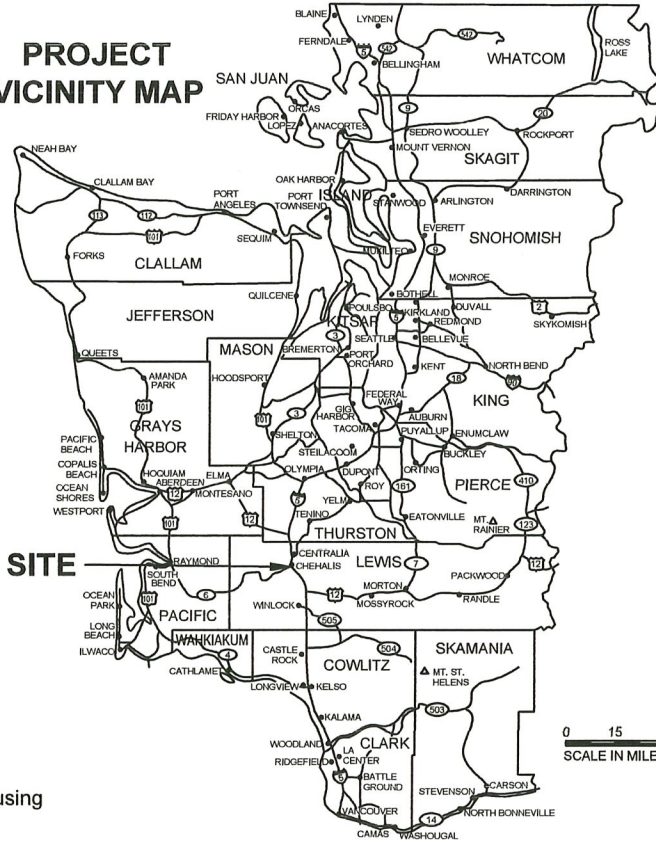
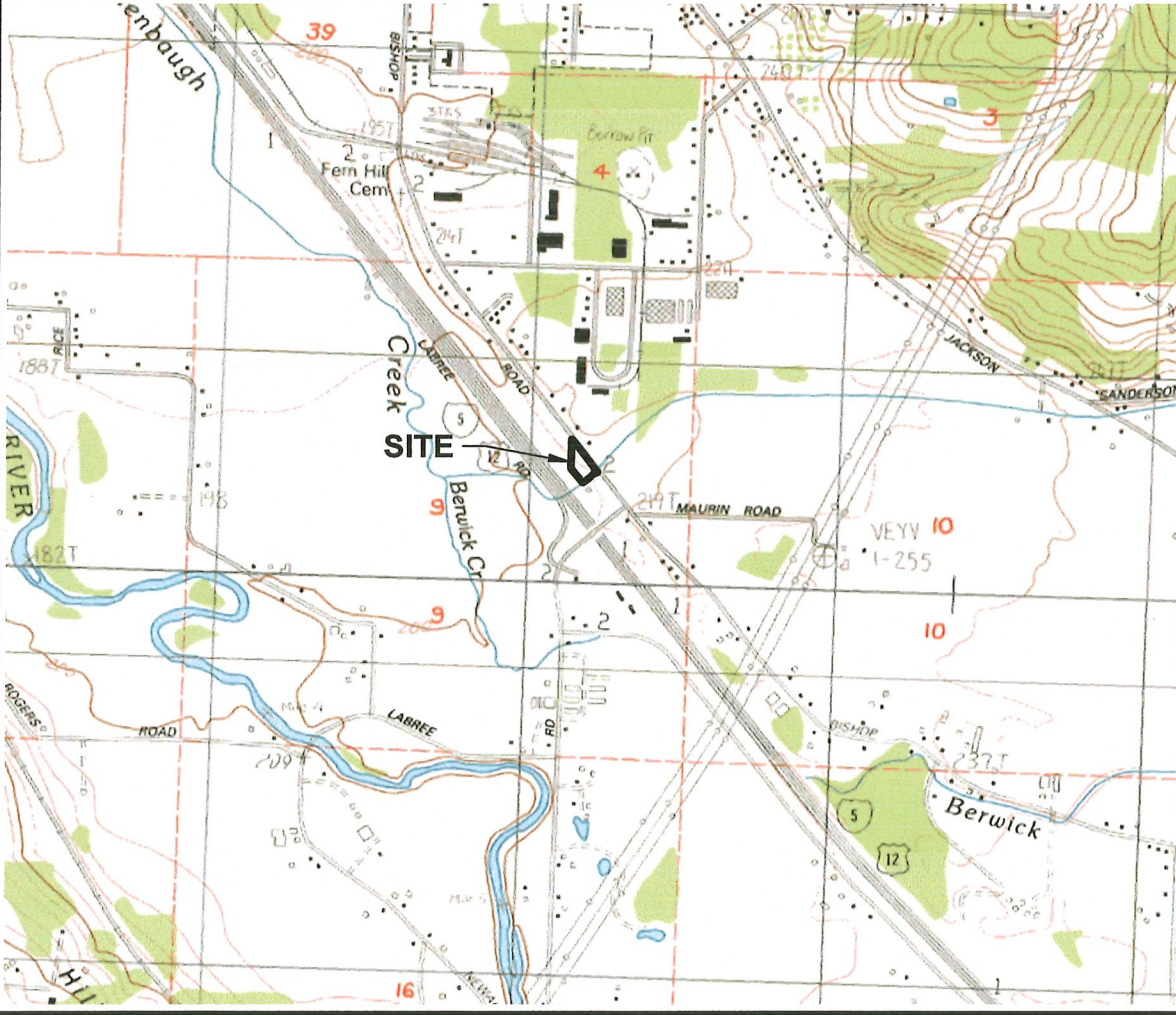
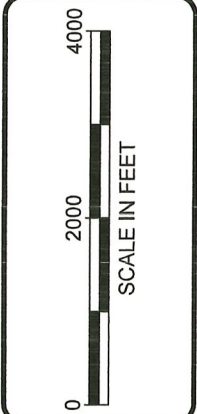
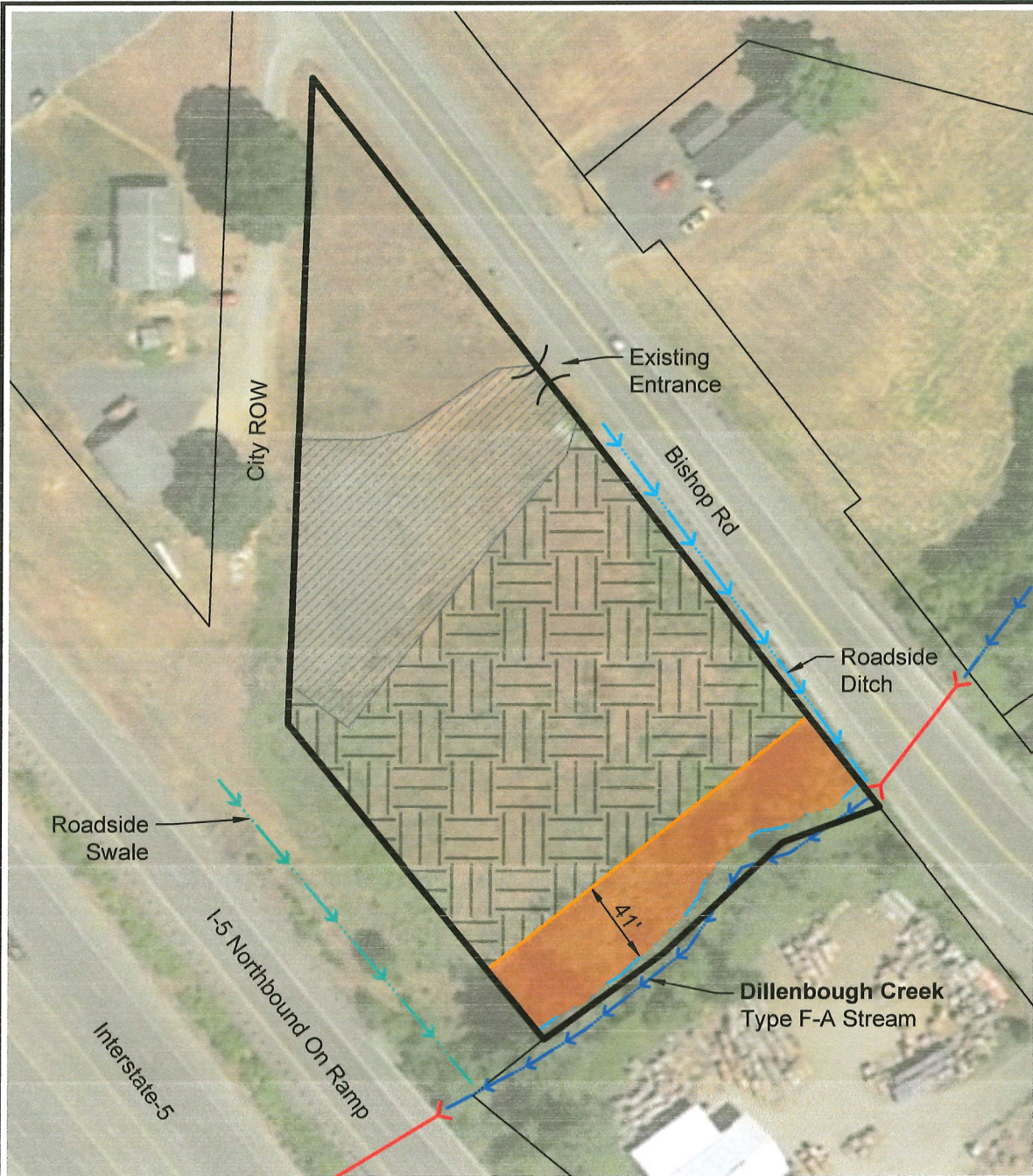


Figure 1
VICINITY MAP
JNCP Habitat Assessment
Shannon Burgess
Chehalis, Lewis County, Washington
Section 9, Township 13N, Range 2W, W.M.

DATE: 9/17/20
DWN: EF
REQ. BY: MM
PRJ. MGR: KT
CHK: KT
PROJECT NO.: 3091.01

1157 3rd Ave., Suite 220A
Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305
www.eco-land.com





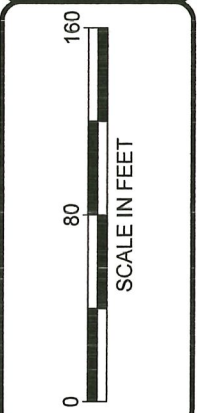
- LEGEND:**
- Site Boundary
 - Parcel Boundary
 - OHWM
 - Stream with Flow Direction
 - Swale with Flow Direction
 - Roadside Ditch with Flow Direction
 - Existing Fill
 - Existing Gravel Surface
 - Edge of Fill
 - Riparian Buffer
 - Culvert

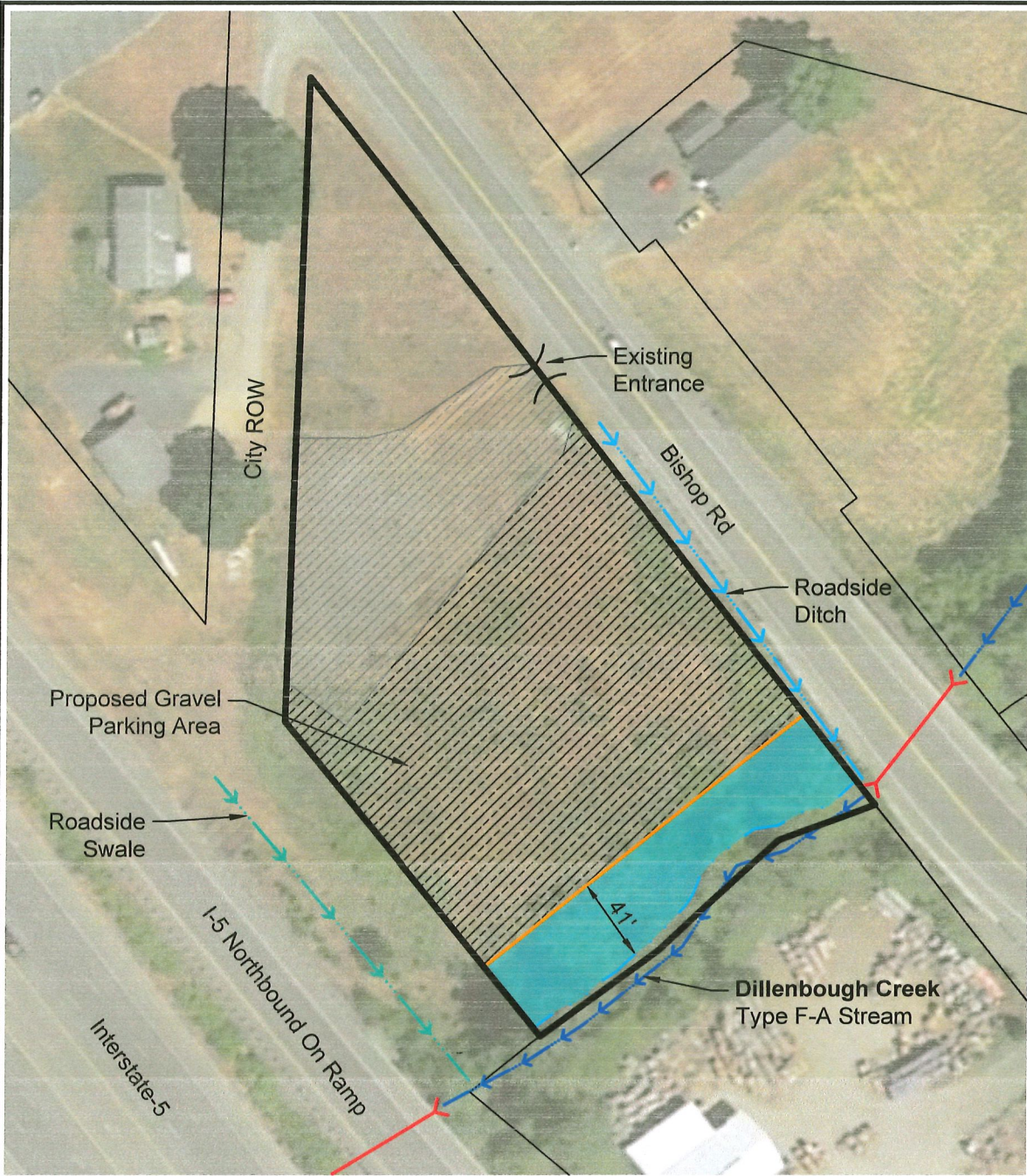
- NOTE(S):**
1. Aerial from Google Earth™.
 2. OHWM was mapped by an ELS Biologist using a hand-held GPS unit with submeter accuracy.

Figure 2
EXISTING CONDITIONS MAP
 JNPC Habitat Assessment
 Shannon Burgess
 Chehalis, Lewis County, Washington
 Section 9, Township 13N, Range 2W, W.M.

DATE: 9/17/20
 DWN: EF
 REQ. BY: MM
 PRJ. MGR: KT
 CHK: KT
 PROJECT NO:
 3091.01

1157 3rd Ave., Suite 220A
 Longview, WA 98632
 Phone: (360) 578-1371
 Fax: (360) 414-9305
 www.eco-land.com





- LEGEND:**
- Site Boundary
 - Parcel Boundary
 - OHWM
 - Stream with Flow Direction
 - Swale with Flow Direction
 - Roadside Ditch with Flow Direction
 - Existing Gravel Surface
 - Edge of Fill
 - Riparian Buffer Enhancement Area (0.17 ac.)
 - Proposed Gravel Parking Area
 - Culvert

- NOTE(S):**
1. Aerial from Google Earth™.
 2. OHWM was mapped by an ELS Biologist using a hand-held GPS unit with submeter accuracy.

Figure 3
PROPOSED CONDITIONS MAP
 JNPC Habitat Assessment
 Shannon Burgess
 Chehalis, Lewis County, Washington
 Section 9, Township 13N, Range 2W, W.M.

DATE: 9/17/20
 DWN: EF
 REQ. BY: MM
 PRJ. MGR: KT
 CHK: KT
 PROJECT NO:
 3091.01

1157 3rd Ave., Suite 220A
 Longview, WA 98632
 Phone: (360) 578-1371
 Fax: (360) 414-9305
 www.eco-land.com

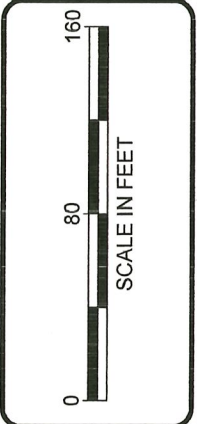




Photo 1

Photo taken from the existing gravel pad in the central portion of site facing south towards Dillenbaugh Creek. I-5 can be seen in the right of the frame.



Photo 2

Photo taken from approximately same location as Photo 1, facing southeast. Bishop Road can be seen in the left of the frame.



Photo 3

Photo taken from the easternmost point on the site facing northeast through the box culvert under Bishop Road. The OHWM can be seen along the culvert walls in the form of water staining. The red arrow denotes the OHWM.



1157 3rd Ave., Suite 220A
Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305

DATE: 9/21/20
DWN: KT
PRJ. MGR: KT
PROJ.#: 3091.01

Photoplate 1
Site Photos
Habitat Assessment
JNPC
Chehalis, Washington



Photo 4

Photo taken from the approximately same location as Photo 3 facing across Dillenbaugh Creek. Note the presence of garbage and Himalayan Blackberry.



Photo 5

Photo taken from the southernmost point on the site facing upstream along Dillenbaugh Creek. Note the presence of garbage and reed canarygrass.



1157 3rd Ave., Suite 220A
Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305

DATE: 9/21/20
DWN: KT
PRJ. MGR: KT
PROJ.#: 3091.01

Photoplate 2
Site Photos
Habitat Assessment
JNPC
Chehalis, Washington