



**Request for Clean Water Act  
Section 401 Water Quality Certification  
Washington State Department of Ecology**  
Phone: (360) 407-6076 or E-mail: [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)

AGENCY USE ONLY

Date Received: **9/26/2023**  
Aquatics ID No.: **142888**  
Team: **NWRO**  
Valid Request: **9/26/2023**

This Section 401 Water Quality Certification (WQC) Request form identifies information needed in order to review and process a Section 401 WQC Request. Please see Department of Ecology's (Ecology) [webpage](#) for more information about the Section 401 WQC Request process.

Submit this Section 401 WQC Request form along with a [Joint Aquatic Resources Permit Application](#) (JARPA) and supporting information<sup>1</sup> to [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov) and copy the federal permitting agency.

**A. Federal Permit or License Reference Number, if known:** \_\_\_\_\_

**Department of Ecology (Ecology) Aquatics ID Number, if known:** 142888

**Project Name:** Algona Wetland Preserve Restoration and Interpretive Trail Project

**County:** King

**B. Project Proponent Name:** City of Algona, Russ Avery

**C. Documentation showing that the Pre-Filing Meeting Request was submitted at least 30 days prior to submitting this Section 401 WQC Request. Attach either of the following:**

- ☒ E-mail acknowledgement of receipt from Ecology
- ☒ Copy of previously submitted Pre-Filing Meeting Request Form

**D. A completed, signed, and dated JARPA should be submitted with this form.**

**Did you attach a JARPA?** ☒ Yes ☐ No

**E. The following is a list of documents needed for Ecology's WQC review, along with a brief explanation. Depending on the project, additional information may be requested.**

**Please let us know what information you are submitting with this WQC request form.**

Required for all projects:

1. State Environmental Policy Act (SEPA) determination and/or checklist:
  - ☐ Final SEPA determination attached
  - ☒ SEPA determination pending
  - ☐ Exempt from SEPA (see [SEPA Guidance](#))

<sup>1</sup> To submit documents over 25MB, e-mail [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov) to request a secure link.

To request an ADA accommodation, contact Ecology by phone at (360) 407-6076 or email at [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov), or visit <https://ecology.wa.gov/accessibility>.

For Relay Service or TTY call 711 or 877-833-6341.

Si necesita este formulario en español, por favor, llámenos a (360) 407-6076  
o envíenos un correo electrónico a: [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)

☐ SEPA is not required (e.g., federal agency projects)

2. Project drawings attached:

- ☐ Vicinity map  
☐ Plan view  
☐ Cross-section(s)  
☒ Plan set  
☒ Other: JARPA permit drawings

3. Best management practices and construction methodology, provided in the attached:

- ☒ JARPA  
☒ Water Quality Monitoring and Protection Plan (WQMPP)  
☒ Project drawings, sheets: 5, 10, 11, and 17  
☐ Mitigation Plan pages: \_\_\_\_\_  
☐ Other document(s): \_\_\_\_\_

Notes:

- This is needed for in-water work (below ordinary high water mark), including wetlands.
- Describe best management practices to be implemented to protect water quality.
- Describe construction sequencing and methodology.

4. Water quality monitoring, provided in the attached:

- ☐ Water Quality Monitoring Plan (WQMP).  
☒ Water Quality Monitoring and Protection Plan (WQMPP is similar to WQMP, but includes best management practices).  
☐ Other (please identify location, such as JARPA, Part 8): \_\_\_\_\_

Notes:

- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- A plan is needed when conducting work in a waterbody (e.g., creek, ditch, river, lake, pond, marine, estuarine).
- Include water quality parameters such as turbidity, oil sheen, pH (e.g., poured in-place concrete, concrete demolition), etc.
- See [State Water Quality Standards for Surface Waters](#) (Chapter 173-201A-200 or -210 WAC)
- If needed, templates are available.

Required depending on the project type:

5. Erosion and sediment control for upland work (above ordinary high water mark) that addresses stormwater during construction and long-term:

This information is included in the attached:

- ☒ JARPA  
☒ Project drawings, sheets: Sheet 3 Notes; sheets 5, 10, 11, and 17  
☐ Stormwater Pollution Prevention Plan, pages: \_\_\_\_\_  
☐ Mitigation Plan, pages: \_\_\_\_\_  
☐ Other document(s): \_\_\_\_\_

6. Wetland report, including the attached:

- ☒ Wetland delineation report

- ☒ Delineation data sheets
- ☒ Wetland rating forms

Notes:

- Needed when there is a discharge (dewatering, excavation or fill) to wetlands.
- Report needs to include both a wetland delineation and rating.
- Include delineation data sheets and rating forms.
- For more information see [wetland delineation resources](#) and [hiring a qualified wetland professional](#).
- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.

7. Mitigation, avoidance and minimization

- ☐ Wetland [avoidance and minimization checklist](#)
- ☒ Other aquatic resource avoidance and minimization demonstration
- ☐ Mitigation Plan
- ☒ Other: [See JARPA sections 7a and 8a and JARPA permit drawings sheets 4-7](#) \_\_\_\_\_

Notes:

- Wetland [avoidance and minimization webpage](#).

8. Mitigation plan, provided in the attached:

- ☐ Riparian Planting and Monitoring Plan (Needed when riparian vegetation is removed or modified)
- ☐ Wetland or stream/other aquatic resource Mitigation Plan
- ☐ Wetland Mitigation Bank Use Plan (use when proposing mitigation bank use)
- ☐ In-Lieu Fee (ILF) Use Plan (use when proposing ILF mitigation)
- ☒ Project drawings, sheets: [14 - 16](#) and JARPA permit drawings sheets 4-7 \_\_\_\_\_
- ☒ Other: [JARPA sections 7f and 7g & 8c and 8d](#) \_\_\_\_\_

Notes:

- Needed to offset impacts to wetland, stream, marine, or other aquatic habitat.
- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- For more information, see [wetland compensatory mitigation](#).

9. Dredging

- ☐ Dredging Plan attached
- ☐ Suitability Determination attached

Notes:

- Needed when sediments will be dredged for maintenance, navigation, or other purposes.
- Covers in-water disposal and sediment anti-degradation.
- Dredging Plan should include dredge footprint and depth, dredge type, best management practices, disposal plan, off-loading plan for upland disposal, etc.
- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- For information on suitability determinations, see [Dredged Material Management Office](#).

10. Dewatering

- ☐ Dewatering Plan attached ([see sheet 10 in project drawings](#))

Notes:

- Needed for complex in-water work or management of excavated/dredged material.
- Include language in the plans that allows Ecology to review and approve all substantive changes to a plan prior to implementation.
- May also be required for some excavation projects.

**F. Required Certification Statements:**

The project proponent hereby certifies that all information contained herein is true, accurate, and complete, to the best of my knowledge and belief.

Initial RA

The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

Initial RA

Signature: RA Date: 9/20/23

Print Name: Russ Avery, City of Algona





# WASHINGTON STATE

## Joint Aquatic Resources Permit Application (JARPA) Form<sup>1,2</sup> [\[help\]](#)

USE BLACK OR BLUE INK TO ENTER ANSWERS IN THE WHITE SPACES BELOW.



US Army Corps  
of Engineers®  
Seattle District

AGENCY USE ONLY

Date received: 9/26/2023 edoc  
Rec'd Section 401 Req Form

Agency reference #:

Tax Parcel #(s):

### Part 1—Project Identification

1. Project Name (A name for your project that you create. Examples: Smith's Dock or Seabrook Lane Development) [\[help\]](#)

Algona Wetland Preserve Restoration and Interpretive Trail Project

### Part 2—Applicant

The person and/or organization responsible for the project. [\[help\]](#)

2a. Name (Last, First, Middle)

Russ Avery, Public Works Director

2b. Organization (If applicable)

City of Algona

2c. Mailing Address (Street or PO Box)

200 Washington Blvd.

2d. City, State, Zip

Algona WA 98001

2e. Phone (1)

2f. Phone (2)

2g. Fax

2h. E-mail

253-737-2405

rusa@algonawa.gov

<sup>1</sup>Additional forms may be required for the following permits:

- If your project may qualify for Department of the Army authorization through a Regional General Permit (RGP), contact the U.S. Army Corps of Engineers for application information (206) 764-3495.
- Not all cities and counties accept the JARPA for their local Shoreline permits. If you need a Shoreline permit, contact the appropriate city or county government to make sure they accept the JARPA.

<sup>2</sup>To access an online JARPA form with [\[help\]](#) screens, go to

[http://www.epermitting.wa.gov/site/alias\\_resourcecenter/jarpa\\_jarpa\\_form/9984/jarpa\\_form.aspx](http://www.epermitting.wa.gov/site/alias_resourcecenter/jarpa_jarpa_form/9984/jarpa_form.aspx).

## Part 3—Authorized Agent or Contact

Person authorized to represent the applicant about the project. (Note: Authorized agent(s) must sign 11b of this application.) [\[help\]](#)

<b>3a. Name</b> (Last, First, Middle)			
Torrey Luiting			
<b>3b. Organization</b> (If applicable)			
Natural Systems Design			
<b>3c. Mailing Address</b> (Street or PO Box)			
1900 N. Northlake Way, Suite 211			
<b>3d. City, State, Zip</b>			
Seattle, WA 98103			
<b>3e. Phone (1)</b>	<b>3f. Phone (2)</b>	<b>3g. Fax</b>	<b>3h. E-mail</b>
206-462-1246	206-330-6794		torrey@naturaldes.com

## Part 4—Property Owner(s)

Contact information for people or organizations owning the property(ies) where the project will occur. Consider both **upland and aquatic** ownership because the upland owners may not own the adjacent aquatic land. [\[help\]](#)

- ☒ Same as applicant. (Skip to Part 5.)
- ☐ Repair or maintenance activities on existing rights-of-way or easements. (Skip to Part 5.)
- ☐ There are multiple upland property owners. Complete the section below and fill out [JARPA Attachment A](#) for each additional property owner.
- ☐ Your project is on Department of Natural Resources (DNR)-managed aquatic lands. If you don't know, contact the DNR at (360) 902-1100 to determine aquatic land ownership. If yes, complete [JARPA Attachment E](#) to apply for the Aquatic Use Authorization.

<b>4a. Name</b> (Last, First, Middle)			
<b>4b. Organization</b> (If applicable)			
<b>4c. Mailing Address</b> (Street or PO Box)			
<b>4d. City, State, Zip</b>			
<b>4e. Phone (1)</b>	<b>4f. Phone (2)</b>	<b>4g. Fax</b>	<b>4h. E-mail</b>

## Part 5–Project Location(s)

Identifying information about the property or properties where the project will occur. [\[help\]](#)

- ☐ There are multiple project locations (e.g. linear projects). Complete the section below and use [JARPA Attachment B](#) for each additional project location.

<b>5a.</b> Indicate the type of ownership of the property. (Check all that apply.) <a href="#">[help]</a>			
<input type="checkbox"/> Private			
<input type="checkbox"/> Federal			
<input checked="" type="checkbox"/> Publicly owned (state, county, city, special districts like schools, ports, etc.)			
<input type="checkbox"/> Tribal			
<input type="checkbox"/> Department of Natural Resources (DNR) – managed aquatic lands (Complete <a href="#">JARPA Attachment E</a> )			
<b>5b.</b> Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) <a href="#">[help]</a>			
SW corner of Ellingson Rd. and Pacific Ave. N.			
<b>5c.</b> City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) <a href="#">[help]</a>			
Algona WA 98001			
<b>5d.</b> County <a href="#">[help]</a>			
King County			
<b>5e.</b> Provide the section, township, and range for the project location. <a href="#">[help]</a>			
<b>¼ Section</b>	<b>Section</b>	<b>Township</b>	<b>Range</b>
NW ¼ of Section 36	S 36	T 21N	R 04E
<b>5f.</b> Provide the latitude and longitude of the project location. <a href="#">[help]</a>			
<ul style="list-style-type: none"><li>Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)</li></ul>			
47.27135 latitude, -122.24068 longitude			
<b>5g.</b> List the tax parcel number(s) for the project location. <a href="#">[help]</a>			
<ul style="list-style-type: none"><li>The local county assessor's office can provide this information.</li></ul>			
Parcel number: 3621049002			
<b>5h.</b> Contact information for all adjoining property owners. (If you need more space, use <a href="#">JARPA Attachment C.</a> ) <a href="#">[help]</a>			
<b>Name</b>	<b>Mailing Address</b>	<b>Tax Parcel # (if known)</b>	
SCOTT, JEFFERY RONALD	27342 198TH PL SE KENT WA 98042	3621049003	
ALBERTSON SNIDER, IAN W	430 PALO VERDE DR SUNNYVALE CA 94086	2911000170	
CITY OF PACIFIC	100 3 <sup>rd</sup> Avenue SE Pacific WA 98047	stormwater easement along ditched stream	

**5i.** List all wetlands on or adjacent to the project location. [\[help\]](#)

Wetland A encompasses the majority of the project site. Wetland A extends on both sides of the ditched unnamed stream that flows east to west across the southern portion of the project site. Sidecast berms are present along both the northern and southern sides of the stream channel. A more pronounced upland berm is present along the southern edge of the ditched stream between the OHWM of the stream and the delineated boundary of the wetland. The berm along the northern edge is less pronounced and still meets wetland criteria. Wetland A continues outside the project site to the west and south and is estimated to encompass approximately 13.9 acres, of which approximately 8.8 acres lie within the project site. Wetland A is characterized as a palustrine mixed deciduous and coniferous forested (PFO1/4), palustrine deciduous scrub-shrub (PSS1), and palustrine emergent persistent (PEM1) wetland.

Forested wetlands also occur north of the project site but are separated from the project site by Ellingson Road. The project site wetland is now a remnant of the large complex of wetlands and small creek habitats that once characterized this portion of the Green, Stuck, and White River floodplains.

**5j.** List all waterbodies (other than wetlands) on or adjacent to the project location. [\[help\]](#)

A ditched unnamed stream crosses the southern portion of the project site, flowing from east to west to another ditched waterbody colloquially referred to as the Government or Boeing Ditch, which drains south for approximately 1 mile and joins the right bank of the White River just south of County Line Road SE and Butte Ave SE, in Pacific, WA. The ditched unnamed stream is identified per King County iMap as *Stream (1990 SAO) Classification U*.

**5k.** Is any part of the project area within a 100-year floodplain? [\[help\]](#)

☐ Yes ☒ No ☐ Don't know

**5l.** Briefly describe the vegetation and habitat conditions on the property. [\[help\]](#)

Wetland A is characterized by palustrine mixed deciduous and coniferous forested (PFO1/4), palustrine deciduous scrub-shrub (PSS1), and palustrine emergent persistent (PEM1) vegetation classes.

**Palustrine Forested Wetland (PF01/4):** The forested vegetation class is located south of the upland berm and primarily outside of the project site. This portion of the wetland is dominated by Sitka spruce (*Picea sitchensis*), western red cedar (*Thuja plicata*), Pacific willow (*Salix lucida* ssp. *lasianдра*) and red alder (*Alnus rubra*) trees. Forest understory species include vine maple (*Acer circinatum*), salmonberry (*Rubus spectabilis*), red osier dogwood (*Cornus sericea*; syn *Cornus alba*), Douglas spirea (*Spiraea douglasii*), red elderberry (*Sambucus racemose*), slough sedge (*Carex obnupta*), American mannagrass (*Glyceria grandis*), and skunk cabbage (*Lysichiton americanus*).

**Palustrine Scrub Shrub Wetland (PSS1):** The scrub-shrub vegetation class characterizes much of the wetland within the project site, including along the north side of the ditched stream. The scrub-shrub vegetation class is dominated by salmonberry, willow species (*Salix* spp.), red osier dogwood, red elderberry, vine maple, Himalayan blackberry (*Rubus armeniacus*), slough sedge, American mannagrass, and reed canarygrass (*Phalaris arundinacea*).

**Palustrine Emergent Wetland (PEM1):** The emergent vegetation community characterizes the northeast corner of the wetland and the majority of the proposed project site. It is dominated by invasive reed canarygrass with small patches of Douglas spirea (*Spiraea douglasii*).

**Wetland Water Quality, Hydrologic and Habitat Functions:** Wetland A's site potential to provide water quality functions rated high and its potential to provide hydrologic functions rated moderate on the Washington State Rating Form because of the wetland's urbanized location, depressional HGM class, dense vegetation, relatively shallow depth of ponding, and highly constricted outlet/connection to the adjacent ditched unnamed stream (which occurs due to beaver activity in the western portion of the wetland [outside the project area] and only during seasonal high water periods). Its water quality improvement landscape potential rated moderate given pollution generating surfaces within 150-feet of the wetland. Its hydrologic landscape potential rated high due to the intensity of human land use in its contributing basin and proximity of pollution-generating stormwater surfaces (i.e., the adjacent roadways).

The proposed project seeks to maintain these functions, including inclusion of a highly constricted outlet/seasonal high water connection between the NE corner of the wetland and the stream.

Wetland A's site potential to provide habitat rated moderate because the wetland provides vegetative structural diversity through three Cowardian vegetation classes (emergent, scrub-shrub and forested), as well as three hydroperiods (saturated, seasonally flooded, and perennial flowing stream through the wetland).

Wetland A contains a moderate richness of plant species and a moderate degree of habitat interspersion, largely in the areas outside the project site. Three special habitat features are present within the wetland: large woody debris, standing snags, and signs of recent beaver activity in the form of a small dam in the ditched stream downstream/west of the City's parcel.

Wetland A is separated from neighboring wetlands to the north by Ellingson Road. Landscape potential to provide habitat functions is limited given the significant presence of high intensity land use such as roads, residences, and industrial development within a 1-kilometer radius area surrounding the wetland.

The societal value of the water quality, hydrologic, and habitat functions provided by this wetland rated as high because of the flooding which occurs in the basin and its proximity to the stream and to 3 or more WDFW priority habitats (i.e., instream habitat in the unnamed stream, riparian habitat along the stream, and adjacent areas with priority snags and logs).

**Unnamed Stream:** A ditched, unnamed stream flows east to west through the southern portion of the City's wetland preserve parcel. The stream enters the parcel through an approximately 36-inch concrete arch culvert with associated wing-walls which conveys flow offsite from the east under Pacific Avenue North. Although no surface channel is present east of Pacific Avenue North, this stream appears to be the ditched remnant of one or more historic small drainages that crossed the valley as illustrated in the 1860's GLO maps. Aerial photo evidence indicates the stream was ditched prior to the 1928 survey related to the construction of Ellingson Road. The stream flows approximately 650 feet west, leaving the City's parcel and continuing another approximately 320 feet at which point it flows through a trash rack and into an approximately 325-foot-long series of culverts and open channel within two industrially developed parcels (Foundation Building Materials and Accu Duct Manufacturing) and then another approximately 350 feet west at which point it joins Government Canal (also sometimes referred to as the Boeing Ditch). Government Canal conveys water approximately 1 mile south to the White River.

**Upland Berm:** An approximately 0.36-acre earthen berm lies parallel to the south side of the stream, likely side-cast fill from historic straightening of the stream channel which occurred prior to 1928. The earthen berm does not display wetland indicators and was classified as 'adjacent upland' during the project's 2021 wetland delineation completed by NSD.

The City of Pacific periodically mows the top of the berm to maintain access along the berm to the stream and the culvert at its nexus with Government Canal. The City of Pacific holds a stormwater easement along berm and stream. The top of the berm is generally dominated by upland grasses interspersed with reed canarygrass and patches of invasive Himalayan blackberry along its southern edge. The lowest elevations along the streamside slope are dominated by reed canarygrass. Native trees and shrubs are present along its southern, wetland edge, interspersed with areas of invasive blackberry.

**Upland Road Edge:** along the northern and eastern edges of Wetland A, the landscape quickly transitions from wetland to upland, where the side slopes lead from the wetland depression up to Ellingson Rd. and Pacific Ave. N., respectively.

**5m.** Describe how the property is currently used. [\[help\]](#)

The property is owned and managed as public open space by the City of Algona for the purpose of preserving wetlands and providing public open space. The local community can currently view the wetland while passing by from the adjacent roadways and may seasonally walk along the upland berm along the stream if it has been recently mowed.

**5n.** Describe how the adjacent properties are currently used. [\[help\]](#)

Adjacent properties to the west and south are undeveloped and privately owned. The wetland on the City's property extends throughout both the western and southern neighboring properties.

**5o.** Describe the structures (above and below ground) on the property, including their purpose(s) and current condition. [\[help\]](#)

One approximately 36-inch concrete culvert and associated concrete wing-walls is present near the southeastern corner of the project area where the ditched unnamed stream is conveyed under Pacific Avenue North. No other structures are present within the property.

**5p.** Provide driving directions from the closest highway to the project location, and attach a map. [\[help\]](#)

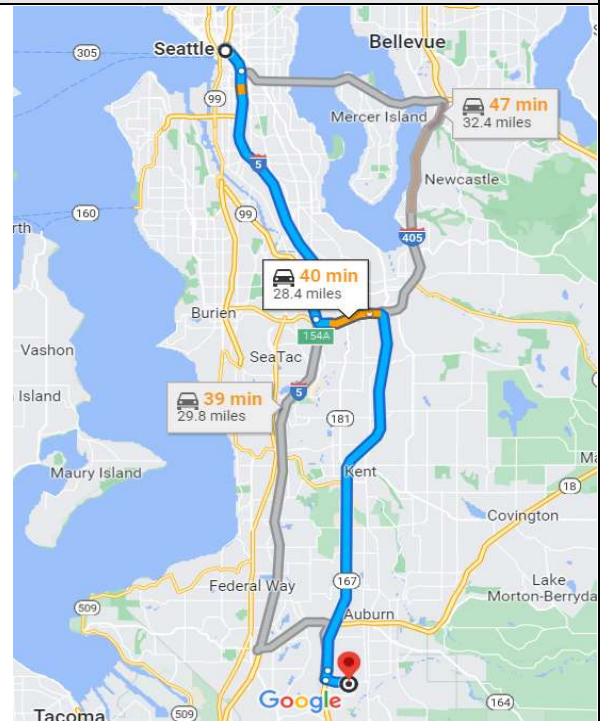
Take I-5 to S. 188<sup>th</sup> St in SeaTac. Take Exit 152 from I-5 S  
Get on WA-167 S in Kent from Orillia Rd S, S. 212<sup>th</sup> St. and WA-181 S

Follow WA-167 S to Ellingson Rd. Take the Ellingson Rd. exit from WA-167 S

Follow Ellingson Rd east to the intersection with Pacific Ave N. in Algonia, WA. Turn south onto Pacific Ave N.

Project site is the SW corner of Pacific Ave N and Ellingson Road.

The road shoulder of Pacific Ave N can be utilized for parking.



## Part 6—Project Description

**6a.** Briefly summarize the overall project. You can provide more detail in 6b. [\[help\]](#)

The project proposes to rehabilitate and enhance approximately 2.2 acres of Algonia Wetland Preserve, construct a low-impact, elevated interpretive trail within the area disturbed by restoration actions, and provide a high-flow/seasonal connection between the wetland and an adjacent, unnamed ditched stream. The proposed rehabilitation and enhancement actions improve a critical link in the remaining fragmented network of wetland habitats that are scattered across the now urbanized Green-Duwamish and White River valleys.

The proposed project seeks to rehabilitate and enhance the degraded northeastern portion of the wetland, within an emergent area currently dominated by invasive reed canarygrass and Himalayan blackberry. Rehabilitation would occur through excavation to remove reed canarygrass and to remove a portion of the berm along the northern edge of the stream, thereby restoring a limited seasonal connection between the wetland and the stream channel. Enhancement would occur through clearing and grubbing of blackberry from within the degraded portion of a scrub-shrub community adjacent to the rehabilitation area.

Following these actions, the proposed project would construct a low-impact, woodchip interpretive trail along the upland berm and a wooden boardwalk and viewing platforms only within the formerly degraded portion of



the wetland. Dense replanting with native wetland plant communities consistent with reference conditions would then occur to complete the rehabilitation and enhancement actions.

**6b.** Describe the purpose of the project and why you want or need to perform it. [\[help\]](#)

The purpose of the project is to rehabilitate and enhance the degraded portion of the Algona Wetland Preserve and to then construct a low-impact, environmentally sensitive outdoor interpretive opportunity for residents to connect with the stream and wetland preserved within its boundaries.

Rehabilitation and enhancement are needed because the NE corner of the wetland has been disturbed and then colonized by reed canarygrass and Himalayan blackberry, both of which have degraded the native plant communities present and altered the habitat functions of the wetland. Excavation to remove reed canarygrass and to remove a portion of the berm along the northern edge of the creek will lower the ground surface and hydraulically rehabilitate the wetland by restoring a seasonal, high-flow connection with the stream. The grading has been specifically designed to restore the diversity of hydroperiods and native vegetation communities which would have been present in floodplain wetlands under reference conditions.

The project actions have been designed to maintain the water quality and hydrologic functions of the wetland through the careful selection of emergent and scrub-shrub species for the NE portion of the wetland once the reed canarygrass is excavated out. The proposed interpretive trail elements will result in less than 5,000 SF of non-pollution generating surface which will be subject only to foot traffic and not generate new sources of pollution into the wetland.

Clearing and grubbing of Himalayan blackberry from within the degraded portion of the wetland's scrub-shrub community will support the restoration of a native shrub and understory community and support reestablishment of native trees and shrubs within this portion of the wetland over time.

The Algona Wetland Preserve is near Alpac Elementary, the Interurban Trail, Algona City Hall, and other civic spaces accessible to the residents of Algona and Pacific. The City has long had a vision that the Preserve could serve as a key outdoor education and passive recreation amenity for the Algona community, where community access to nature and open space is needed and unique wetland open spaces are highly valued but in short supply. The Preserve provides safe access to an exceptionally diverse native plant community and the remnants of a historic stream channel and offers a rare glimpse of a landscape that has nearly vanished—the forested floodplain of the Green River and White River valleys. To meet the community's need for safe, accessible, low-impact outdoor recreation, the City proposes to construct an interpretive trail along the upland berm and within the currently degraded northeastern portion of the wetland. This element of the project will meet the need for community access to protected open space while intentionally preserving the ecological functions and wildlife habitats within the main body of the wetland which will not be disturbed by the proposed project.

The project will feature an elevated, all abilities-accessible wooden boardwalk and two wooden observation platforms which will provide year-round access, creating educational opportunities not limited by season or mobility. Coupled with the boardwalk trail and observation platforms, an at-grade trail along the upland berm will enable residents, visitors, and school children the opportunity to interact with nature within their urban surroundings and afford outdoor education and community building opportunities. Educational exhibits/signage will highlight these hidden worlds and explain the City's preservation and restoration of the wetland, the use of wetland plants for food and medicine by ancestral and contemporary peoples, and the functions and values of wetlands for improving water quality, reducing flooding, and nurturing fish and wildlife.

The proposed wooden boardwalk and overlooks would be elevated on the type of Diamond Pier foundation system frequently used in similar wetland settings which has been specifically chosen to minimize wetland impacts from construction. The location and configuration of the proposed trail has been specifically chosen to minimize operational impacts associated with public access by extending only within the area which currently has limited wildlife functions and would already be disturbed for the rehabilitation actions. In this manner, the proposed project will meet the City's dual responsibilities to preserve the ecological functions and wildlife

habitats within the main body of the wetland and to provide sensitive and meaningful access to its public lands. Both elements of the project also support the City's goals to foster increased appreciation for and stewardship of the creek and wetland by supporting outdoor educational access opportunities for local Alpac Elementary classes, as well as stewardship and passive recreation opportunities for local community groups.

**6c.** Indicate the project category. (Check all that apply) [\[help\]](#)

- ☐ Commercial
 ☐ Residential
 ☐ Institutional
 ☐ Transportation
 ☒ Recreational  
☐ Maintenance
 ☒ Environmental Enhancement

**6d.** Indicate the major elements of your project. (Check all that apply) [\[help\]](#)

- |  |  |  |   |
|--|--|--|---|
| <input type="checkbox"/> Aquaculture<br><input type="checkbox"/> Bank Stabilization<br><input type="checkbox"/> Boat House<br><input type="checkbox"/> Boat Launch<br><input type="checkbox"/> Boat Lift<br><input type="checkbox"/> Bridge<br><input type="checkbox"/> Bulkhead<br><input type="checkbox"/> Buoy<br><input type="checkbox"/> Channel Modification | <input type="checkbox"/> Culvert<br><input type="checkbox"/> Dam / Weir<br><input type="checkbox"/> Dike / Levee / Jetty<br><input type="checkbox"/> Ditch<br><input type="checkbox"/> Dock / Pier<br><input type="checkbox"/> Dredging<br><input type="checkbox"/> Fence<br><input type="checkbox"/> Ferry Terminal<br><input type="checkbox"/> Fishway | <input type="checkbox"/> Float<br><input type="checkbox"/> Floating Home<br><input type="checkbox"/> Geotechnical Survey<br><input type="checkbox"/> Land Clearing<br><input type="checkbox"/> Marina / Moorage<br><input type="checkbox"/> Mining<br><input type="checkbox"/> Outfall Structure<br><input type="checkbox"/> Piling/Dolphin<br><input type="checkbox"/> Raft | <input type="checkbox"/> Retaining Wall (upland)<br><input type="checkbox"/> Road<br><input type="checkbox"/> Scientific Measurement Device<br><input type="checkbox"/> Stairs<br><input type="checkbox"/> Stormwater facility<br><input type="checkbox"/> Swimming Pool<br><input type="checkbox"/> Utility Line |
|--|--|--|---|

- ☒ Other: Excavation for Wetland Enhancement and Hydraulic Rehabilitation; construction of Wooden Boardwalk Trail, Wooden Overlooks, Wood Chip Trail, and placement of Interpretive Signs/Kiosk, Benches, Waste Receptacles.



**6e.** Describe how you plan to construct each project element checked in 6d. Include specific construction methods and equipment to be used. [\[help\]](#)

- Identify where each element will occur in relation to the nearest waterbody.
- Indicate which activities are within the 100-year floodplain.

No project elements are within the 100-year floodplain.

The following project elements would occur within Wetland A, unless otherwise noted, and proximate to the ditched unnamed stream flowing from east to west through the southern portion of the project site.

**Invasive Species Removal and Site Grading:** Approximately 1.3 AC of blackberry will be cleared and grubbed using machines in areas without dense native trees and shrubs and by hand within the vicinity of mature trees and shrubs. Excavators will then be used to remove approximately 0.9 AC of reed canarygrass, lowering the grade of the NE corner of the site variously by approximately 1 to 2 feet in the process. The excavated material will be hauled off-site for disposal at an approved upland facility. After reed canarygrass removal is completed, grading will occur to restore diverse hydroperiods and plant communities, while maintaining wetland elevations. Subject to any conditions imposed by the City of Algona's clear and grade permit or the project's HPA, excavation for invasive species removal and site grading within the wetland but outside the OHWM of the stream may occur at any time during the construction sequence; no in-water work or impacts would occur in the stream unless within the designated in-water work window.

Excavators will remove approximately 25 linear feet of an earthen berm along the north side of the stream channel within the in-water work window to restore the connection between the wetland and the ditched stream at elevation 76 ft NAVD88, which is the approximate elevation at which ordinary seasonally high stream flows will engage the rehabilitated wetland area.

To support emergent habitat development and reduce the potential for sediment movement into the stream during the initial post-grading plant establishment period, the design includes a series of coir log hummocks, totaling approximately 160 FT long, within the reed canarygrass excavation and rehabilitation grading area. No excavation or fill would occur to place these hummocks, nor would they create upland/non-wetland conditions. The coir logs will naturally degrade over time concurrent with the establishment and spread of the wetland plantings.

**Habitat Complexity Elements:** The proposed design includes the addition of 4 approximately 20-foot-tall standing snags and approximately 12 habitat logs placed on the surface of the wetland within the rehabilitation area to increase wildlife habitat complexity as the rehabilitation area regains its functions. The excavation associated with installation of the snags is included within reed canarygrass excavation and rehabilitation grading area and volume. No excavation or fill would occur to place the habitat logs.

**Elevated Overlooks, Wooden Boardwalk Trails, Safe Access Feature, Woodchip Trail, and Interpretive Signs:** The elevated overlooks, boardwalk trails, and woodchip trail will all be composed of wood and installed by hand and machine crews following the rehabilitation and enhancement work, but prior to plant installation. Overlook and boardwalk trail foundations will be comprised of a Diamond Pier foundation system with pin pile technology which requires minimal disturbance to install. This foundation system allows the overlook and boardwalks to be elevated above the wetland surface, thus maintaining wetland soils and hydrology, and minimizing impacts to wetland vegetation. A total of 90 foundations are expected to be used for the boardwalk and 25 for the overlook footings, for a total of 115 foundations.

Overlook and boardwalk guard rail materials will be comprised of wood and steel. Crushed gravel will be placed from the existing curb cut near the bus stop north to the low overlook to provide safe access to the low overlook. A short section of concrete and then crushed gravel will be placed in upland north to meet the existing sidewalk that rounds Ellingson Avenue. The woodchip trail will be shredded wood and soil.

- **Elevated Overlook:** A part of making this space feel safe and welcoming is creating an elevated wooden overlook gathering space for views of the wetland and creek. The overlook starts with a 40 FT by 25 FT lower deck at the Pacific Ave. N. road elevation and proceeds up a 20 FT wide wooden staircase to a higher 30 FT x 20 FT overlook deck raised 6 FT above the road elevation. The height above ground surface of the 6-foot high elevated overlook will ensure native wetland shrub and emergent species can continue to thrive beneath the overlook. All wood used for the overlook will be untreated.

- **Safe Access Feature:** Approximately 859 SF of crushed gravel fill will be placed in the wetland between the existing road shoulder and the lower overlook deck to support accessible and safe movement of students and visitors from the road shoulder to the lower deck. The rest of the crushed gravel trail and the short 240 SF section of concrete sidewalk will be located outside of the wetland.
- **Boardwalk Trails:** A 324 FT long by 6 FT wide 'low wooden boardwalk trail' departs the lower overlook deck to the north. This boardwalk will be less than 30" above the ground wherever possible to reduce the need for a railing. Should site grading exceed 30" below the boardwalk trail, a guardrail will be installed to meet ADA code standards. The low boardwalk trail will take visitors from Pacific Avenue North to Ellingson Road through the enhanced and rehabilitated portion of Wetland A. A second 'high wooden boardwalk trail' will begin at the top deck of the high overlook, about 6 to 9 FT above the ground and will arc about 220 FT to the northeast, eventually meeting the low boardwalk trail. The high boardwalk trail will include a guardrail on both sides and will be 6 FT wide with a level, 5 FT wide ADA landing every 30 FT. The high boardwalk will not exceed acceptable ADA slope of 12:1 or 8.3%. The height of the high boardwalk trail will ensure native wetland shrub and emergent species can continue to thrive beneath the trail. All wood used for the boardwalks will be untreated.
- **Woodchip Trail:** A low-impact, pervious woodchip trail would be installed on the existing upland berm to provide seasonally accessible views along the creek. Subject to any conditions imposed by the City of Algona's clear and grade permit or the project's HPA, woodchip trail installation may occur at any time during construction sequence; no in-water work or impacts would occur during installation.

**Wetland Enhancement and Rehabilitation Planting:** All areas with invasive species removal and/or grading, as well as disturbed portions of the upland buffer will be replanted with a dense planting of entirely native species after invasive species removal, site grading, and boardwalk trail/overlook construction. Plant community layout has been specifically designed based on anticipated sun exposure and relative depth to ground or surface water, as shown in the plans. The design has also intentionally preserved native trees and patches of spirea and willows. Planting will be completed by hand, using shovels and similar hand tools to install native tree, shrub, ground, and emergent species. Plants and associated tools will be delivered to the site using pick-up trucks and small delivery trucks on existing roadways. Planting will occur following summer 2024 construction activities, into the early spring of 2025. Some degree of the initial planting may be accomplished by volunteers and led by City public works representative. While the plant communities are designed to be self-sustaining, the City will be responsible for maintenance and monitoring of the plantings during their initial establishment period.

**Outdoor Education and Passive Recreation Support Elements:** Educational interpretive signs will be installed using a single post and sign. Locations and placeholder themes for each sign have been included in the design plans. Interpretive signage would be installed along the woodchip trail on the upland berm and periodically along the sides and railings of the overlooks and boardwalk. A kiosk may be installed at the trailhead along Pacific Ave. N., near either the beginning of the upland berm trail or on the low overlook deck. No wetland fill would occur for the signposts or kiosk. Waste bins and welcoming trail heads and trail layouts have been provided in response to a request for increased sense of safety by Alpac Elementary students. No wetland fill will occur for any of these elements.

#### **Temporary Access and Staging:**

- Access into the site will be from existing adjacent roadways. A temporary access route will be constructed to allow equipment to access the locations where clearing, grubbing and grading are to occur.
- A staging area will be established in upland along a portion of the eastern edge of the project area, along Pacific Ave N. The temporary staging area has been located where disturbance to existing vegetation would be avoided. A location free of woody vegetation has been chosen for necessary construction materials and equipment storage, office and equipment trailer(s), contractor parking, portable toilets, refuse and recycling, Baker Tanks, and equipment fueling and maintenance.
- The stabilized construction access route into the site will be approximately 20-feet wide and will be selectively located to utilize existing roads, utilize the staging area, and to minimize impacts to existing vegetation and sensitive aquatic resources (i.e., wetlands).
- Work mats will be used as needed to minimize soil compression within wetlands.

### Construction Sequence

- Prepare stabilized construction entrance and access from existing road access off Pacific Ave N.
- Set up fencing/flagging as appropriate to restrict driving equipment in areas outside of designated access; set up staging areas.
- Flag trees to be protected and install tree-protection devices.
- Install erosion, sediment, and pollutant control construction best management practices (BMPs).
- Mobilize equipment to site.
- Identify and flag any trees or large wood to be salvaged and re-used onsite
- Flag extent of machine work including around existing trees where hand work will occur instead.
- Clear and grub blackberries and remove from site.
- Remove reed canarygrass and haul offsite.
- Grading as necessary to proposed condition/restored wetland surface.
- Install sandbag coffer dam in the unnamed ditched channel during in-water work window. Set up pump system, Baker Tanks, and flow dissipation mats.
- Install sediment control coir-logs as shown in the plans.
- Remove earthen berm along the north side of the creek channel to restore the connection between the wetland and the ditched stream, within in-water work window.
- Remove cofferdam only after suspended solids have settled, within in-water work window.
- Begin deliveries of construction materials (e.g., boardwalk wood, pin piles).
- Install elevated overlooks, boardwalk trails, Safe Access connector (gravel and concrete), and woodchip trail.
- Remove stabilized construction entrance.
- Install temporary seeding on all disturbed areas.
- Install riparian and wetland plantings in fall/winter or early spring following construction.
- Remove any remaining temporary erosion and sediment control BMP's.
- Remove staging area.
- One year following initial plantings, install supplemental plantings if needed.

#### **6f.** What are the anticipated start and end dates for project construction? (Month/Year) [\[help\]](#)

- If the project will be constructed in phases or stages, use [JARPA Attachment D](#) to list the start and end dates of each phase or stage.

Start Date: ~June 2024; connection to stream only between June 15 and September 30, the anticipated in water work window per WDFW (8/18/23 pre-application meeting)	End Date: December 2024 <input type="checkbox"/> See JARPA Attachment D with early fall plantings installed after construction
---	--

#### **6g.** Fair market value of the project, including materials, labor, machine rentals, etc. [\[help\]](#)

\$1.5 million

**6h.** Will any portion of the project receive federal funding? [\[help\]](#)

- If **yes**, list each agency providing funds.

☐ Yes    ☒ No    ☐ Don't know

## Part 7–Wetlands: Impacts and Mitigation

☒ Check here if there are wetlands or wetland buffers on or adjacent to the project area.

(If there are none, skip to Part 8.) [\[help\]](#)

**7a.** Describe how the project has been designed to avoid and minimize adverse impacts to wetlands. [\[help\]](#)

☐ Not applicable

All elements of the project design have intentionally avoided the interior of the wetland preserve and have instead concentrated work within only the degraded northeastern corner of the wetland and along the upland side-cast berm south of the stream. The project will have no more than minimal adverse environmental effects. No impacts would occur in the high quality forested and scrub-shrub portions of the wetland. A staging area will be established on the paved surface along Pacific Avenue North. Machine access will be limited to one location.

The purposes of the project are wetland rehabilitation and enhancement, floodplain reconnection, and environmentally sensitive passive recreation. Because the project area is almost entirely wetland, wetland impacts cannot be entirely avoided. Most work will be constructed from wetland locations using low-ground pressure tracked hydraulic equipment. A stabilized construction entrance over a geotextile will be installed off of Pacific Ave N. Construction mats will be used wherever necessary to minimize wetland soil compression. Work will be sequenced to minimize impacts on final wetland surfaces. Clearing and grubbing of blackberry will precede removal of reed canarygrass to reduce impacts to wetland soils and avoid impacting the proposed final grade in the reed canarygrass/rehabilitated portion of the site. Silt fences, a coffer dam, pumps, and Baker tanks are anticipated minimization measures and will be used as necessary.

Temporary impacts associated with grading required to create the hydraulic rehabilitation of the northeastern degraded emergent area will be rectified through replanting of native wetland communities. Rehabilitation requires excavation to remove the root mass of the reed canarygrass, grading in the wetland to create a complex topography, and excavation to remove the berm separating the wetland from the northern edge of the stream. Similarly, grubbing to remove blackberry canes and roots is required to support enhancement plantings in the wetland's currently degraded scrub shrub community. These temporary impacts will be rectified as native understory and overstory communities are reestablished.

Wetland impacts have also been intentionally minimized in the layout, design, and materials selected for the elevated overlooks, boardwalk trails, and safe access elements. The at-grade woodchip trail has been located on the upland berm and would not require construction in the wetland. The overlooks, wooden boardwalks, and safe access features have been located only in the portion of the wetland which would already be disturbed during the rehabilitation earthwork.

The impact of the overlooks and boardwalk trails have been further minimized through the design's avoidance of paved features and selection of a Diamond Pier foundation system with pin pile technology which requires minimal disturbance to install and allows the surface of the overlook and boardwalks to be elevated above the wetland surface. This design choice intentionally maintains wetland soils and hydrology and minimizes impacts to wetland vegetation. The wetland surface at the very center of the low boardwalk and low overlook deck may not support vegetation, but the outer edges will continue to support emergent and scrub-shrub wetland vegetation and the planting plan includes emergent and scrub-shrub species planted to the edge of these features. The high overlook, stairs, and high boardwalk will be elevated such that both emergent vegetation, as well as typical native wetland shrubs (e.g., spirea, salmonberry, dogwood, and the smaller

stature willows) can be planted and establish beneath these features. No conversion of forested wetland to any other Cowardin class would occur from shading or is proposed in any portion of the wetland. All wetland impacts would occur within the area currently degraded by the monoculture of invasive reed canarygrass.

The gravel safe access feature has a minimal footprint and is confined to the very outer edge of the wetland. It is located in an area that is currently infested with reed canarygrass and would be disturbed during excavation for the rehabilitation actions. It is necessary to provide safe, all-abilities pedestrian access onto the low overlook and boardwalk.

**7b.** Will the project impact wetlands? [\[help\]](#)

☒ Yes ☐ No ☐ Don't know

**7c.** Will the project impact wetland buffers? [\[help\]](#)

☒ Yes ☐ No ☐ Don't know

**7d.** Has a wetland delineation report been prepared? [\[help\]](#)

- **If Yes**, submit the report, including data sheets, with the JARPA package.

☒ Yes ☐ No

**7e.** Have the wetlands been rated using the Western Washington or Eastern Washington Wetland Rating System? [\[help\]](#)

- **If Yes**, submit the wetland rating forms and figures with the JARPA package.

☒ Yes ☐ No ☐ Don't know

**7f.** Have you prepared a mitigation plan to compensate for any adverse impacts to wetlands? [\[help\]](#)

- **If Yes**, submit the plan with the JARPA package and answer 7g.
- **If No, or Not applicable**, explain below why a mitigation plan should not be required.

☐ Yes ☒ No ☐ Don't know

Compensatory mitigation is not proposed. The enhancement and rehabilitation of Wetland A will result in a net increase in aquatic resource functions and services as a result of the proposed hydraulic rehabilitation and enhancement actions. The impacts associated with the recreational aspects of the project will not result in a loss of wetland function and will not have more than minimal adverse environmental effects.

Impacts have been minimized to result in permanent impacts of only 0.117 AC (5,096 SF), the majority of which is ascribed to the assumption that both the high and low overlooks and boardwalks will result in complete shading of the wetland surface beneath them, an assumption that is expansive as the high overlook, stairs, and high boardwalk will very likely support emergent and scrub-shrub wetland vegetation along their outer extents with only the very center of these features creating shade such that wetland vegetation may not reestablish. Wetland soils and wetland hydrology will persist unchanged after the recreational features are constructed. No conversion of forested wetland to any other Cowardin class would occur from shading or is proposed in any portion of the wetland. All wetland impacts would occur within the area currently degraded by the monoculture of invasive reed canarygrass.

Of the total permanent impacts, only 0.007 AC (305 SF, 7.7 CY) of fill are the result of the features necessary to provide safe access to the low overlook and the Diamond Pier foundations to support the overlooks, stairs, and boardwalks.

The project actions have been designed to maintain the water quality and hydrologic functions of the wetland through the careful selection of emergent and scrub-shrub species for the NE portion of the wetland once the reed canarygrass is excavated out. The proposed interpretive trail elements will result in less than 5,000 SF of non-pollution generating surface which will be subject only to foot traffic and not generate new sources of pollution into the wetland.

Project maintenance and monitoring will be conducted by the City or its designee and will be focused on verifying that project actions are successful in restoring native wetland community to the wetland rehabilitation and enhancement areas and meet permit requirements. An as-built report/post restoration report will be completed and submitted to applicable regulatory agencies, if requested, documenting the outcome of

construction and the as-built condition. These documents will act as reference materials during project maintenance and monitoring activities. The City will continue to monitor and maintain the project area in accordance with project permits and goals. The expectation is that project actions will be self-maintaining. If a primary goal has not been adequately achieved within the project area, the City will develop a contingency plan to address the cause of the issue.

**7g.** Summarize what the mitigation plan is meant to accomplish and describe how a watershed approach was used to design the plan. [\[help\]](#)

Compensatory mitigation is not proposed because the project will not result in a loss of wetland function and the minimal loss of wetland area (305 SF) from the safe access feature and footings to support the overlooks, stairs, and boardwalk features will be more than offset by the increase in wetland functions and services resulting from the project. The rehabilitation and enhancement aspects of the project will total 2.2 acres, offsetting the 0.117 AC of permanent impacts to wetlands at nearly 19 to 1 and in excess of standard compensatory mitigation ratios for impacts to Category II wetlands. The 0.117 AC of impact also presumes both the high and low overlooks and boardwalks will result in complete shading of the wetland surface beneath them, an assumption that is expansive as the high overlook, stairs, and high boardwalk will very likely support emergent and scrub-shrub wetland vegetation along their outer extents with only the very center of these features creating shade such that wetland vegetation may not reestablish.

The rehabilitation and enhancement actions will have only temporary impacts. The proposed project will restore connection between Wetland A and the stream, allowing the seasonal exchange of organic material and nutrients and restoring the potential for juvenile fish, amphibians, and wildlife to find off-channel high flow refuge habitat within the rehabilitated portion of the wetland.

To restore floodplain wetlands to the degraded northeastern portion of the wetland preserve and prevent a loss of critical area functions and values, all temporarily impacted wetland and overlapping wetland/stream buffer areas will be planted with a mixture of native wetland and riparian species, including emergent, forested understory, and coniferous tree species characteristic of the reference condition for low elevation floodplain wetlands in the greater Green/Duwamish and White River valleys.

Project maintenance and monitoring will be conducted by the City or its designee as described in 7f and will be focused on verifying that project actions are successful in restoring native wetland community to the wetland rehabilitation and enhancement areas and meet permit requirements.

**7h.** Use the table below to list the type and rating of each wetland impacted, the extent and duration of the impact, and the type and amount of mitigation proposed. Or if you are submitting a mitigation plan with a similar table, you can state (below) where we can find this information in the plan. [\[help\]](#)

Activity (fill, drain, excavate, flood, etc.)	Wetland Name <sup>1</sup>	Wetland type and rating category <sup>2</sup>	Impact area (sq. ft. or Acres)	Duration of impact <sup>3</sup>	Proposed mitigation type <sup>4</sup>	Wetland mitigation area (sq. ft. or acres)
Excavation and grading to remove RCG and rehabilitation connection	Wetland A	Category II	0.9 AC	Temporary 3-months	None	0.9 AC replanted and rehabilitated
Clear and grub invasive blackberry	Wetland A	Category II	1.3 AC	Temporary 3-months	None	1.3 AC replanted
Fill from Diamond Pier foundations for boardwalk and related safe access features	Wetland A	Category II	0.007 AC	Permanent	Rehabilitation and Enhancement	2.2 AC combined rehabilitation and enhancement
Shading from low boardwalk and overlook	Wetland A	Category II	0.06 AC	Permanent	Rehabilitation and Enhancement	2.2 AC combined rehabilitation and enhancement
Shading from high boardwalk and overlook	Wetland A	Category II	0.05 AC	Permanent	Rehabilitation and Enhancement	2.2 AC combined rehabilitation and enhancement
Total Permanent Impacts			0.117 AC			



<sup>1</sup> If no official name for the wetland exists, create a unique name (such as "Wetland 1"). The name should be consistent with other project documents, such as a wetland delineation report.

<sup>2</sup> Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.

<sup>3</sup> Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.

<sup>4</sup> Creation (C), Re-establishment/Rehabilitation (R), Enhancement (E), Preservation (P), Mitigation Bank/In-lieu fee (B)

Page number(s) for similar information in the mitigation plan, if available: see JARPA figures 4-7

**7i.** For all filling activities identified in 7h, describe the source and nature of the fill material, the amount in cubic yards that will be used, and how and where it will be placed into the wetland. [\[help\]](#)

All proposed fill is associated with the boardwalk and overlook features. The Diamond Pier foundations and the safe access gravel fill combined total approximately 7.7 CY of fill in wetlands.

Diamond Pier foundations are comprised of concrete. They are 13" square at their widest point and sunk about 7" deep into the soil surface. Each foundation 'pier' uses galvanized pipes extending into the wetland soil to support the structures on the foundations. The pier foundations will be spaced about 5' apart to support posts for the boardwalk trails and overlook. Each pier impacts approximately 1.17 SF and creates approximately 0.025 CY of fill. A total of 115 piers will be required to support the boardwalk trails and overlook. The pier foundations will be placed after the wetland rehabilitation grading has been completed. Approximately 859 SF of crushed gravel fill will be placed in the wetland between the existing road shoulder and the lower overlook deck to support accessible and safe movement of students and visitors from the road shoulder to the lower deck.

**7j.** For all excavating activities identified in 7h, describe the excavation method, type and amount of material in cubic yards you will remove, and where the material will be disposed. [\[help\]](#)

All excavation in wetlands is associated with the wetland rehabilitation and enhancement elements of the project. The existing reed canarygrass rootmass throughout the approximately 0.9 AC rehabilitation area will be excavated by machines to an average depth of 18". The upper 12" of rootmass sod will be hauled offsite and disposed of at an approved upland facility. The remaining excavated material will be reused on site to balance cut and fill by creating topographic complexity in the design with higher and lower elevation wetland areas planted with different native wetland plant communities. The excavation will rehabilitate the wetland by lowering the grade and through contouring to create a broad swale connected to the northern edge of the stream channel. Approximately 1,381 CY will be excavated for wetland rehabilitation.

Grubbing to remove the blackberry canes and roots will occur across the approximately 1.3 AC wetland enhancement area, including in and around existing native trees. Wetland enhancement will result in approximately 1,091 CY of native soil being disturbed during grubbing to approximately 6 inches to remove the roots. The canes, roots, and associated soil will be hauled offsite and disposed of at an approved upland facility.

## Part 8–Waterbodies (other than wetlands): Impacts and Mitigation

In Part 8, “waterbodies” refers to non-wetland waterbodies. (See Part 7 for information related to wetlands.) [\[help\]](#)

☒ Check here if there are waterbodies on or adjacent to the project area. (If there are none, skip to Part 9.)

**8a.** Describe how the project is designed to avoid and minimize adverse impacts to the aquatic environment. [\[help\]](#)

☐ Not applicable

As part of the project’s purpose is the rehabilitation of a floodplain connection with the channel, temporary impacts to the stream cannot be entirely avoided. Work within the unnamed stream has been intentionally minimized to include only minimal grading to remove the side cast berm along the northern edge of the stream and installation of associated site isolation measures necessary to accomplish the hydraulic rehabilitation and improve habitat conditions.

To reconnect the wetland with the stream, excavation and removal of the side cast berm has been limited to 25 linear feet. Excavation of 6 cubic yards of material below OHWM will be required to re-establish the connection. Berm removal will be timed to occur during the drier summer months when water surface elevations are at their lowest. To inhibit sediment-laden runoff from entering the channel, a coffer dam consisting of sandbags and a visqueen liner will be installed in the unnamed ditched channel prior to berm removal. To meet discharge requirements, it’s anticipated that turbid waters resulting from wetland grading and berm removal will be pumped to Baker Tanks located in the staging area for settling. If weather creates conditions where removal of the berm could cause sedimentation into the ditched stream, that work will cease until weather conditions improve. Turbid conditions will be created but limited to the work area isolated within the coffer dam. Turbid water will be monitored and pumped to Baker Tanks to ensure that sediment-laden water does not over-top the coffer dam and enter the waterway. After the berm is removed, and prior to the removal of the coffer dam sandbags, suspended solids will be allowed to settle in place. The cofferdam will not be removed until water quality within the isolated area returns to allowable standards.

Coir logs will be installed immediately upon removal of the berm to control sediment mobilization to offsite.

When it has been determined that waters within the Baker Tanks have cleared and meet water quality standards, the clean water will be pumped to the portion of Wetland A south of the upland berm (south of the channel) where it will not be able to re-enter the worksite. A flow-dissipation device will be used at the discharge point to reduce the chance for erosion and sedimentation.

**8b.** Will your project impact a waterbody or the area around a waterbody? [\[help\]](#)

☒ Yes ☐ No

**8c.** Have you prepared a mitigation plan to compensate for the project’s adverse impacts to non-wetland waterbodies? [\[help\]](#)

- **If Yes**, submit the plan with the JARPA package and answer 8d.
- **If No, or Not applicable**, explain below why a mitigation plan should not be required.

☐ Yes ☒ No ☐ Don’t know

Compensatory mitigation is not proposed. Waterbody impacts have been minimized to result in only excavation along approximately 25 linear feet of the streambank and removal of approximately 6 CY of berm below the OHWM of the stream. These impacts are necessary to hydraulically rehabilitate Wetland A by restoring its floodplain connection to the stream. No more than minimal environmental effects will occur. The proposed project will result in a net increase in aquatic resource functions and services as a result of the rehabilitation and enhancement actions in the wetland, and reconnection of the wet floodplain with the stream channel.

Project maintenance and monitoring will be conducted by the City or its designee and will be focused on verifying that project actions are successful in restoring native wetland community to the wetland rehabilitation



and enhancement areas and meet permit requirements. An as-built report/post restoration report will be completed and submitted to applicable regulatory agencies, if requested, documenting the outcome of construction and the as-built condition. These documents will act as reference materials during project maintenance and monitoring activities. The City will continue to monitor and maintain the project area in accordance with project permits and goals. The expectation is that project actions will be self-maintaining. If a primary goal has not been adequately achieved within the project area, the City will develop a contingency plan to address the cause of the issue.

**8d.** Summarize what the mitigation plan is meant to accomplish. Describe how a watershed approach was used to design the plan.

- If you already completed 7g you do not need to restate your answer here. [\[help\]](#)

Compensatory mitigation is not proposed because the project will not result in any loss of aquatic habitat function and the temporary minor impacts below the OHWM of the stream will be more than offset by the permanent increase in wetland and aquatic resources functions and services resulting from the project. The temporarily impacted area below OHWM would remain a non-wetland waterbody (i.e., the unnamed stream). The proposed project will restore connection between Wetland A and the stream, allowing the seasonal exchange of organic material and nutrients and restoring the potential for juvenile fish, amphibians, and wildlife to find off-channel high flow refuge habitat within the rehabilitated portion of the wetland.

All temporarily impacted areas will be revegetated with a mixture of native wetland and riparian species, including riparian emergent and tree species characteristic of the reference condition for low elevation streams and their associated floodplain wetlands in the greater Green/Duwamish and White River valleys.

Project maintenance and monitoring will be conducted by the City or its designee as described in 8c and will be focused on verifying that project actions are successful in restoring native wetland community to the wetland rehabilitation and enhancement areas and meet permit requirements.

**8e.** Summarize impact(s) to each waterbody in the table below. [\[help\]](#)

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name <sup>1</sup>	Impact location <sup>2</sup>	Duration of impact <sup>3</sup>	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected
Excavation to reconnect wetland to ditched unnamed stream	Ditched unnamed stream	In waterbody	Temporary July 15 to September 30 in-water work window	6 CY removed	25 linear feet of northern berm along the stream bank
Install and remove sandbag coffer dam	Ditched unnamed stream	In waterbody	Temporary July 15 to September 30 in-water work window	12 CY as sandbags, placed and removed	50 linear feet

<sup>1</sup> If no official name for the waterbody exists, create a unique name (such as "Stream 1") The name should be consistent with other documents provided.

<sup>2</sup> Indicate whether the impact will occur in or adjacent to the waterbody. If adjacent, provide the distance between the impact and the waterbody and indicate whether the impact will occur within the 100-year flood plain.

<sup>3</sup> Indicate the days, months or years the waterbody will be measurably impacted by the work. Enter "permanent" if applicable.

**8f.** For all activities identified in 8e, describe the source and nature of the fill material, amount (in cubic yards) you will use, and how and where it will be placed into the waterbody. [\[help\]](#)

Approximately 350 sandbags will be needed to temporarily isolate the work area where the wetland and stream connection is to be restored. Sandbags will be installed and removed by hand. This quantity assumes the coffer dam is 50 sandbags in length (~50') and 9 sandbags in height (~6'). Sandbags will be made of standard woven plastic material filled with commercially available clean sand or gravel and lined with visqueen. This temporary fill totals approximately 12 CY and will be removed after the work is completed.

**8g.** For all excavating or dredging activities identified in 8e, describe the method for excavating or dredging, type and amount of material you will remove, and where the material will be disposed. [\[help\]](#)

Approximately 25 linear feet of the northern berm along the stream will be excavated by machines and used on-site within the project's design to create micro-topography at wetland elevations. No offsite disposal is proposed. Approximately 6 CY of native soils will be excavated.

**8h.** Have you prepared a Water Quality Monitoring Plan (WQMP) for all in-water work (below ordinary high water), over water work or discharges to waters of the state?

☐ Yes ☒ No

If NO describe the monitoring that you will be conducting including parameters, equipment and locations, or explain why monitoring will not be necessary. [\[help\]](#)

The City anticipates the contractor will be required to monitor for turbidity, as well as grease/oil sheens in the ditched stream during installation of TESC measures, during excavation to remove the 25 linear feet of berm along the northern stream bank, and during removal of TESC measures. Monitoring is anticipated during the installation and removal of the sandbags used to isolate the work area in the stream. Instrument turbidity monitoring would be conducted upstream of the construction area to determine background conditions and then downstream within the estimated 100-foot allowed mixing zone based on the stream flow at the time of construction, which is anticipated to be less than 10 cfs (per WAC 173-201A-200.1(e(i) through e(iv)).

The City can prepare a WQMP if required. Construction funding has recently been secured and should be available to support consultant preparation of such a plan in ~late October 2023.

## Part 9—Additional Information

Any additional information you can provide helps the reviewer(s) understand your project. Complete as much of this section as you can. It is ok if you cannot answer a question.

**9a.** If you have already worked with any government agencies on this project, list them below. [\[help\]](#)

Agency Name	Contact Name	Phone	Most Recent Date of Contact
U.S. Army Corps of Engineers	Daniel Krenz, Regulatory PM Sarah Albright, Regulatory Assistant PM	<a href="mailto:daniel.a.krenz@usace.army.mil">daniel.a.krenz@usace.army.mil</a> (206) 764-3153 <a href="mailto:sarah.l.albright@usace.army.mil">sarah.l.albright@usace.army.mil</a> (206) 764-6665	August 18, 2023
Washington Department of Fish and Wildlife	Julian Douglas, area habitat biologist	<a href="mailto:Julian.Douglas@dfw.wa.gov">Julian.Douglas@dfw.wa.gov</a> (206) 584-9808	August 18, 2023
Washington Department of Ecology	Loree Randall, 401 water quality certification	<a href="mailto:lora461@ECY.WA.GOV">lora461@ECY.WA.GOV</a>	August 18, 2023
Washington Department of Ecology	Leah Beckett, wetland biologist	<a href="mailto:leah.beckett@ecy.wa.gov">leah.beckett@ecy.wa.gov</a>	August 18, 2023
City of Algona - planning	Caitlyn Hepworth, ATWELL LLC, contracted to City of Algona	<a href="mailto:chepworth@atwell-group.com">chepworth@atwell-group.com</a> (425) 251-7288 Desk	September 19, 2023

<p><b>9b.</b> Are any of the wetlands or waterbodies identified in Part 7 or Part 8 of this JARPA on the Washington Department of Ecology's 303(d) List? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• If <b>Yes</b>, list the parameter(s) below.</li> <li>• If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: <a href="https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d">https://ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d</a>.</li> </ul>
<p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</p>
<p>Neither the wetland nor the unnamed stream is a 303(d)-listed water body. Government Canal/Boeing Ditch is 303(d) listed for temperature and three chemicals, but the designation does not extend into the unnamed stream or any portion of the project site.</p>
<p><b>9c.</b> What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="http://cfpub.epa.gov/surf/locate/index.cfm">http://cfpub.epa.gov/surf/locate/index.cfm</a> to help identify the HUC.</li> </ul>
<p>White River HUC 171100140404</p>
<p><b>9d.</b> What Water Resource Inventory Area Number (WRIA #) is the project in? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up">https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed-look-up</a> to find the WRIA #.</li> </ul>
<p>WRIA 10</p>
<p><b>9e.</b> Will the in-water construction work comply with the State of Washington water quality standards for turbidity? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="https://ecology.wa.gov/Water-Shorelines/Water-quality/Freshwater/Surface-water-quality-standards/Criteria">https://ecology.wa.gov/Water-Shorelines/Water-quality/Freshwater/Surface-water-quality-standards/Criteria</a> for the standards.</li> </ul>
<p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> Not applicable</p>
<p><b>9f.</b> If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• If you don't know, contact the local planning department.</li> <li>• For more information, go to: <a href="https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases">https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Shoreline-coastal-planning/Shoreline-laws-rules-and-cases</a>.</li> </ul>
<p><input type="checkbox"/> Urban    <input type="checkbox"/> Natural    <input type="checkbox"/> Aquatic    <input type="checkbox"/> Conservancy    <input type="checkbox"/> Other: <b>Not in Algona SMA Jurisdiction</b></p>
<p><b>9g.</b> What is the Washington Department of Natural Resources Water Type? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• Go to <a href="http://www.dnr.wa.gov/forest-practices-water-typing">http://www.dnr.wa.gov/forest-practices-water-typing</a> for the Forest Practices Water Typing System.</li> </ul>
<p><input type="checkbox"/> Shoreline    <input type="checkbox"/> Fish    <input type="checkbox"/> Non-Fish Perennial    <input type="checkbox"/> Non-Fish Seasonal    <b>Unclassified by WDNR</b></p>
<p><b>9h.</b> Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• If <b>No</b>, provide the name of the manual your project is designed to meet.</li> </ul>
<p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No</p>
<p>Name of manual: 2019 Western Washington Stormwater Management Manual, <b>water quality monitoring during construction is proposed; finished project will have &lt;5,000 SF of non-pollution generating impervious surface</b></p>
<p><b>9i.</b> Does the project site have known contaminated sediment? <a href="#">[help]</a></p> <ul style="list-style-type: none"> <li>• If <b>Yes</b>, please describe below.</li> </ul>
<p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</p>

No historic land uses suggest the potential for contaminated sediment. The parcel has been undeveloped since the late 1970's.

**9j.** If you know what the property was used for in the past, describe below. [\[help\]](#)

A 1928 survey conducted for the alignment of Ellingson Road indicates the City's parcel was undeveloped and the unnamed stream was ditched. The parcel was owned by Elizabeth H Cox.

A house and associated small outbuildings are present at the extreme northeastern corner of the parcel the 1936 aerial photo accessible on King County parcel-viewer. At that time, Ellingson Road was a narrow road that reached a dead end just past the northeastern corner of the parcel and the roadway that would become Pacific Avenue North was further east than its current alignment.

Publicly available aerial photos indicate the buildings were gone and the parcel has been undeveloped since the late 1970's; no structures are evident and Ellingson Road and Pacific Avenue North were both completed by the time of a 1980 aerial photo accessed online (historicalaerials.com).

**9k.** Has a cultural resource (archaeological) survey been performed on the project area? [\[help\]](#)

- **If Yes**, attach it to your JARPA package.

☒ Yes   ☐ No   **Project submitted into WISAARD 8/31/23 by Kelly Yeates, ICF #2023-08-05308**

**9l.** Name each species listed under the federal Endangered Species Act that occurs in the vicinity of the project area or might be affected by the proposed work. [\[help\]](#)

The US Fish and Wildlife Service IPaC (Information for Planning and Consultation) database queried for the vicinity of the project area and unnamed creek (including Government Canal and the White River) indicated that the following ESA-listed species under the jurisdiction of USFWS may be potentially affected by project activities: North American Wolverine- Proposed Threatened, Marbled Murrelet-Threatened, Streaked Horned Lark-Threatened, Yellow-billed Cuckoo-Threatened, Coastal/Puget Sound Bull Trout-Threatened, Monarch Butterfly-Candidate, and Taylor's Checkerspot butterfly-Endangered. The White River, downstream of the project area is designated critical habitat for bull trout; no other designated critical habitats were identified in this query.

Section 7 ESA consultation documents have been prepared and recommend a determination of *No Effect* for the North American Wolverine, Marbled Murrelet, Streaked Horned Lark, Yellow-billed Cuckoo, and Taylor's Checkerspot butterfly due to lack of documented occurrence in the vicinity of the project area and lack of appropriate habitat for these species within the project area. A determination for Monarch Butterfly has not been made as it is currently a candidate-only species.

WDFW Salmonscape identified the following ESA-listed aquatic species under the jurisdiction of NMFS potentially present within the ditched unnamed stream via this connection to the White River: Puget Sound Chinook Salmon – Threatened; Puget Sound Steelhead – Threatened. Puget Sound / Strait of Georgia Coho Salmon is a Species of Concern.

Section 7 ESA consultation documents have been prepared and recommend a determination of *Not Likely to Adversely Affect* for Bull Trout and designated critical habitat, Puget Sound Steelhead, and Puget Sound Chinook.

**9m.** Name each species or habitat on the Washington Department of Fish and Wildlife's Priority Habitats and Species List that might be affected by the proposed work. [\[help\]](#)

The project location is about ½ mile from the White River as the crow flies. The ditched unnamed stream in the project area is aquatically connected to the White River via a 1.25 mile reach of waterbody colloquially referred to as the Government Canal or Boeing Ditch. WDFW Salmonscape identified the following salmonid species potentially present within the ditched unnamed stream via this connection to the White River: Coho Salmon, Pink Odd Year, Winter Steelhead, Fall Chinook, Fall Chum.

A review of WDFW priority habitats and species (PHS) database produced the following list of species present in the vicinity of the project area and unnamed creek (including Government Canal and the White River): White River Spring Chinook Salmon, Fall Chinook Salmon, Puyallup Odd-year Pink Salmon, White River Winter Steelhead Salmon, Puyallup Coastal Cutthroat, White River Coho Salmon, Fall Chum Salmon, White River Bull Trout, Resident Coastal Cutthroat, Sockeye Salmon, and Waterfowl Concentrations (non-agricultural). The following habitats were also identified: Lower White River agricultural and non-agricultural wetlands associated with White River drainage including some riverine, some emergent marsh and scrub-shrub, and few forested wetlands.

The USFWS IPaC system listed the following potentially affected migratory birds: Bald Eagle, Evening Grosbeak, California Gull, Lesser Yellowlegs, Olive-sided Flycatcher, Rufous Hummingbird, Short-billed Dowitcher. Of these species, bald eagle, evening grosbeak, olive-sided flycatcher, and rufous hummingbird likely occur in the urbanized forested habitats in and around the project area.

## Part 10–SEPA Compliance and Permits

Use the resources and checklist below to identify the permits you are applying for.

- Online Project Questionnaire at <http://apps.oria.wa.gov/opas/>.
- Governor's Office for Regulatory Innovation and Assistance at (800) 917-0043 or [help@oria.wa.gov](mailto:help@oria.wa.gov).
- For a list of addresses to send your JARPA to, click on [agency addresses for completed JARPA](#).

### 10a. Compliance with the State Environmental Policy Act (SEPA). (Check all that apply.) [\[help\]](#)

- For more information about SEPA, go to <https://ecology.wa.gov/regulations-permits/SEPA-environmental-review>.

☐ A copy of the SEPA determination or letter of exemption is included with this application.

☒ A SEPA determination is pending with City of Algona (lead agency). The expected decision date is ~late October to early November 2023.

☐ I am applying for a Fish Habitat Enhancement Exemption. (Check the box below in 10b.) [\[help\]](#)

☐ This project is exempt (choose type of exemption below).

☐ Categorical Exemption. Under what section of the SEPA administrative code (WAC) is it exempt?

☐ Other: \_\_\_\_\_

☐ SEPA is pre-empted by federal law.

### 10b. Indicate the permits you are applying for. (Check all that apply.) [\[help\]](#)

#### LOCAL GOVERNMENT

##### Local Government Shoreline permits:

☐ Substantial Development    ☐ Conditional Use    ☐ Variance

☐ Shoreline Exemption Type (explain): \_\_\_\_\_

##### Other City/County permits:

☐ Floodplain Development Permit    ☒ Critical Areas Ordinance

#### STATE GOVERNMENT

##### Washington Department of Fish and Wildlife:

☒ Hydraulic Project Approval (HPA)    ☐ Fish Habitat Enhancement Exemption – [Attach Exemption Form](#)

##### Washington Department of Natural Resources:

☐ Aquatic Use Authorization

Complete [JARPA Attachment E](#) and submit a check for \$25 payable to the Washington Department of Natural Resources.

**Do not send cash.**

##### Washington Department of Ecology:

☒ Section 401 Water Quality Certification

☐ Authorization to impact waters of the state, including wetlands (Check this box if the proposed impacts are to waters not subject to the federal Clean Water Act)

#### FEDERAL AND TRIBAL GOVERNMENT

##### United States Department of the Army (U.S. Army Corps of Engineers):

☒ Section 404 (discharges into waters of the U.S.)    ☐ Section 10 (work in navigable waters)

**United States Coast Guard:**

For projects or bridges over waters of the United States, contact the U.S. Coast Guard at:

- ☐ Bridge Permit: [D13-SMB-D13-BRIDGES@uscg.mil](mailto:D13-SMB-D13-BRIDGES@uscg.mil)
- ☐ Private Aids to Navigation (or other non-bridge permits): [D13-SMB-D13-PATON@uscg.mil](mailto:D13-SMB-D13-PATON@uscg.mil)

**United States Environmental Protection Agency:**

- ☐ Section 401 Water Quality Certification (discharges into waters of the U.S.) on tribal lands where tribes do not have treatment as a state (TAS)

**Tribal Permits:** (Check with the tribe to see if there are other tribal permits, e.g., Tribal Environmental Protection Act, Shoreline Permits, Hydraulic Project Permits, or other in addition to CWA Section 401 WQC)

- ☐ Section 401 Water Quality Certification (discharges into waters of the U.S.) where the tribe has treatment as a state (TAS).



## Part 11—Authorizing Signatures

Signatures are required before submitting the JARPA package. The JARPA package includes the JARPA form, project plans, photos, etc. [\[help\]](#)


### 11a. Applicant Signature (required) [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities, and I agree to start work only after I have received all necessary permits.

I hereby authorize the agent named in Part 3 of this application to act on my behalf in matters related to this application. RA (initial)

By initialing here, I state that I have the authority to grant access to the property. I also give my consent to the permitting agencies entering the property where the project is located to inspect the project site or any work related to the project. RA (initial)

Russ Avery, City of Algona  
Applicant Printed Name

  
Applicant Signature

9/20/2023  
Date

### 11b. Authorized Agent Signature [\[help\]](#)

I certify that to the best of my knowledge and belief, the information provided in this application is true, complete, and accurate. I also certify that I have the authority to carry out the proposed activities and I agree to start work only after all necessary permits have been issued.

Torrey Luiting, Natural Systems Design  
Authorized Agent Printed Name

  
Authorized Agent Signature

9/21/2023  
Date

### 11c. Property Owner Signature (if not applicant) [\[help\]](#)

Not required if project is on existing rights-of-way or easements (provide copy of easement with JARPA).

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Property Owner Printed Name

Property Owner Signature

Date

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-011 rev. 09/2018





**WASHINGTON STATE**  
**Joint Aquatic Resources Permit**  
**Application (JARPA)** [\[help\]](#)



US Army Corps  
of Engineers®  
Seattle District

AGENCY USE ONLY

Date received: \_\_\_\_\_

Agency reference #: \_\_\_\_\_

Tax Parcel #(s): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

TO BE COMPLETED BY APPLICANT [\[help\]](#)

Project Name: \_\_\_\_\_

Location Name (if applicable): \_\_\_\_\_

\_\_\_\_\_

**Attachment A:**  
**For additional property owner(s)** [\[help\]](#)

Use this attachment only if you have more than one property owner.  
Complete one attachment for each additional property owner  
impacted by the project.

Signatures of property owners are not needed for repair or maintenance activities on existing rights-of-way or easements.

Use black or blue ink to enter answers in white spaces below.

**1. Name (Last, First, Middle) and Organization (if applicable)**

Rick Gehrke, Public Works Director

**2. Mailing Address (Street or PO Box)**

103 3<sup>rd</sup> Ave SE

**3. City, State, Zip**

Pacific, WA 98047

**4. Phone (1)**

253-929-1113

**5. Phone (2)**

253-929-1100

**6. Fax**

**7. E-mail**

rgehrke@ci.pacific.wa.us

Address or tax parcel number of property you own:

Pacific stormwater easement along ditched creek within City of Algona owned parcel # 3621049002

Signature of Property Owner

I consent to the permitting agencies entering the property where the project is located to inspect the project site or any work. These inspections shall occur at reasonable times and, if practical, with prior notice to the landowner.

Rick Gehrke

9/25/2023

Printed Name

Signature

If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ORIA-16-012 rev. 10/2016

# ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

CITY OF ALGONA



## CONTACT INFORMATION

**ENGINEER:** NATURAL SYSTEMS DESIGN, INC

1900 N NORTHLAKE WAY, SUITE 211  
SEATTLE, WA 98103  
(206) 834-0175

**CONTRACTING**

**AGENCY:** CITY OF ALGONA

C/O RUSS AVERY  
200 WASHINGTON BLVD  
ALGONA, WA 98001

## PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

REFERENCE #:  
APPLICANT: CITY OF ALGONA

HORIZONTAL DATUM: NAD 83 (FT)  
VERTICAL DATUM: NAVD 88 (FT)

LATITUDE: 47.27135  
LONGITUDE: -122.24068

ADJACENT PROPERTY OWNERS:  
SCOTT, JEFFERY RONALD  
ALBERTSON SNIDER, IAN W

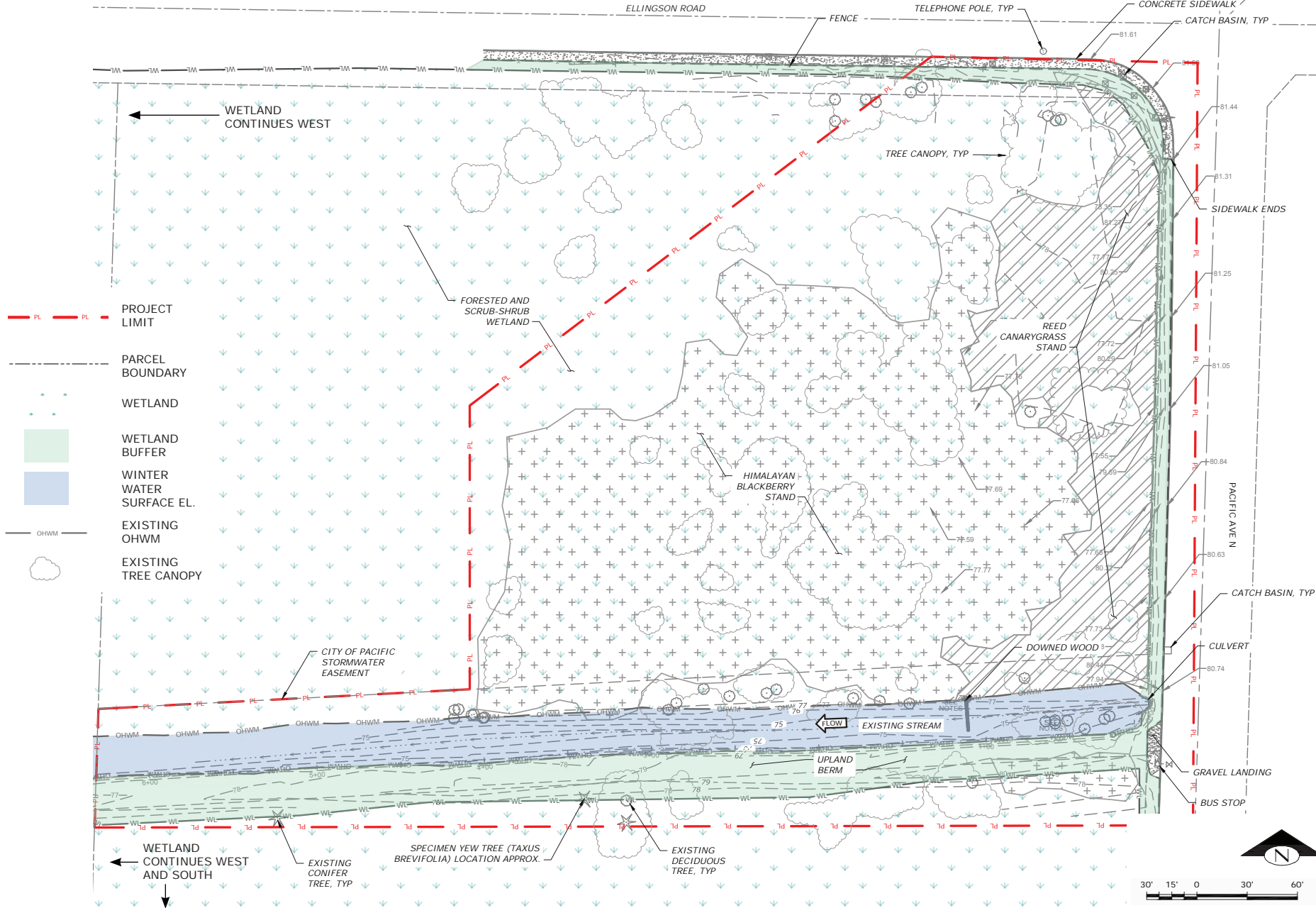
IN: CITY OF ALGONA  
NEAR/AT: SW CORNER OF ELLINGSON RD.  
AND PACIFIC AVE. N. IN ALGONA, WA.

COUNTY: KING  
STATE: WASHINGTON

## VICINTY MAP

DATE: JUNE 2023

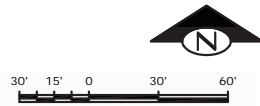
SHEET: 1 OF 12



PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT			EXISTING CONDITIONS
REFERENCE #: APPLICANT: CITY OF ALGONA	HORIZONTAL DATUM: NAD 83 (FT) VERTICAL DATUM: NAVD 88 (FT)	LATITUDE: 47.27135 LONGITUDE: -122.24068	
ADJACENT PROPERTY OWNERS: SCOTT, JEFFERY RONALD ALBERTSON SNIDER, IAN W	IN: CITY OF ALGONA NEAR/AT: SW CORNER OF ELLINGSON RD. AND PACIFIC AVE. N. IN ALGONA, WA.	COUNTY: KING STATE: WASHINGTON	
DATE: JUNE 2023			SHEET: 2 OF 12

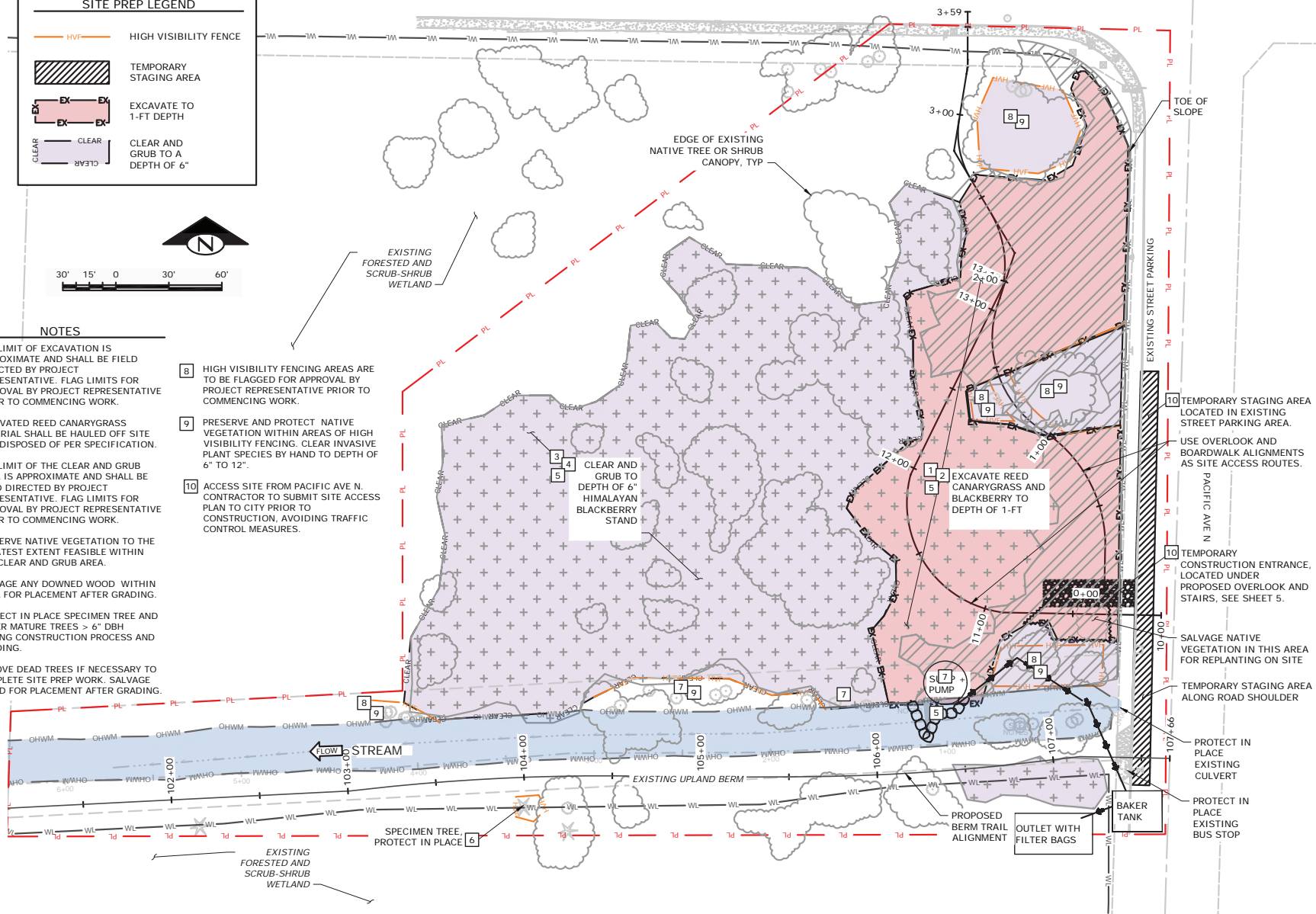
## SITE PREP LEGEND

- HVF — HIGH VISIBILITY FENCE
- TEMPORARY STAGING AREA
- EXCAVATE TO 1-FT DEPTH
- CLEAR AND GRUB TO A DEPTH OF 6"



## NOTES

- 1 THE LIMIT OF EXCAVATION IS APPROXIMATE AND SHALL BE FIELD DIRECTED BY PROJECT REPRESENTATIVE. FLAG LIMITS FOR APPROVAL BY PROJECT REPRESENTATIVE PRIOR TO COMMENCING WORK.
- 2 EXCAVATED REED CANARYGRASS MATERIAL SHALL BE HAULED OFF SITE AND DISPOSED OF PER SPECIFICATION.
- 3 THE LIMIT OF THE CLEAR AND GRUB AREA IS APPROXIMATE AND SHALL BE FIELD DIRECTED BY PROJECT REPRESENTATIVE. FLAG LIMITS FOR APPROVAL BY PROJECT REPRESENTATIVE PRIOR TO COMMENCING WORK.
- 4 PRESERVE NATIVE VEGETATION TO THE GREATEST EXTENT FEASIBLE WITHIN THE CLEAR AND GRUB AREA.
- 5 SALVAGE ANY DOWNED WOOD WITHIN AREA FOR PLACEMENT AFTER GRADING.
- 6 PROTECT IN PLACE SPECIMEN TREE AND OTHER MATURE TREES > 6" DBH DURING CONSTRUCTION PROCESS AND GRADING.
- 7 REMOVE DEAD TREES IF NECESSARY TO COMPLETE SITE PREP WORK. SALVAGE WOOD FOR PLACEMENT AFTER GRADING.
- 8 HIGH VISIBILITY FENCING AREAS ARE TO BE FLAGGED FOR APPROVAL BY PROJECT REPRESENTATIVE PRIOR TO COMMENCING WORK.
- 9 PRESERVE AND PROTECT NATIVE VEGETATION WITHIN AREAS OF HIGH VISIBILITY FENCING. CLEAR INVASIVE PLANT SPECIES BY HAND TO DEPTH OF 6" TO 12".
- 10 ACCESS SITE FROM PACIFIC AVE N. CONTRACTOR TO SUBMIT SITE ACCESS PLAN TO CITY PRIOR TO CONSTRUCTION, AVOIDING TRAFFIC CONTROL MEASURES.



## PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

REFERENCE #:  
APPLICANT: CITY OF ALGONA

HORIZONTAL DATUM: NAD 83 (FT)  
VERTICAL DATUM: NAVD 88 (FT)

LATITUDE: 47.27135  
LONGITUDE: -122.24068

ADJACENT PROPERTY OWNERS:  
SCOTT, JEFFERY RONALD  
ALBERTSON SNIDER, IAN W

IN: CITY OF ALGONA  
NEAR/AT: SW CORNER OF ELLINGSON RD.  
AND PACIFIC AVE. N. IN ALGONA, WA.

COUNTY: KING  
STATE: WASHINGTON

## SITE PREP AND STAGING

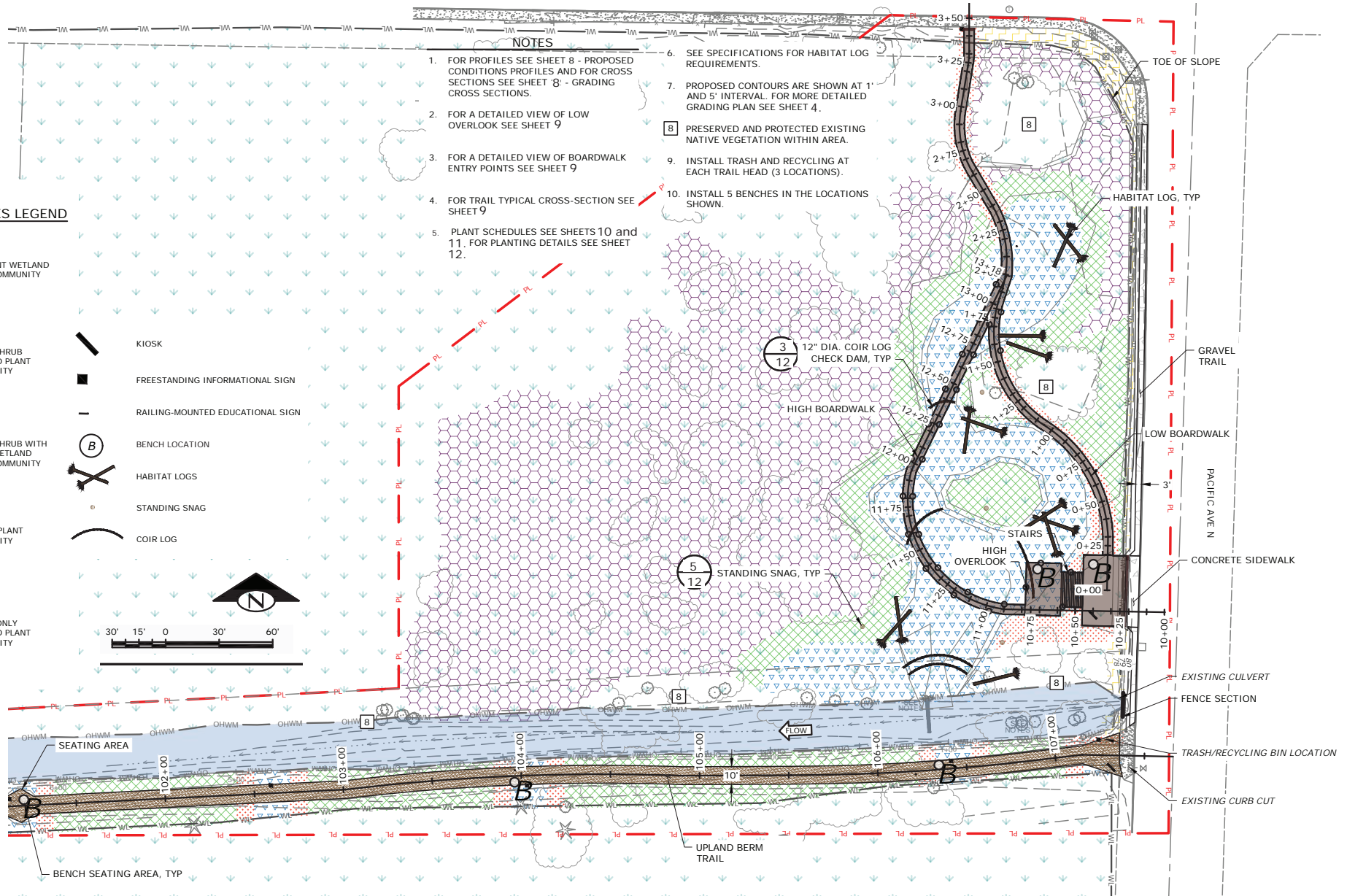
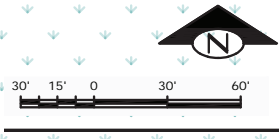
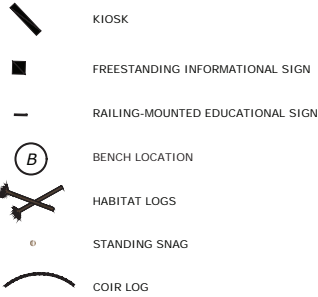
DATE: JUNE 2023

SHEET: 3 OF 12

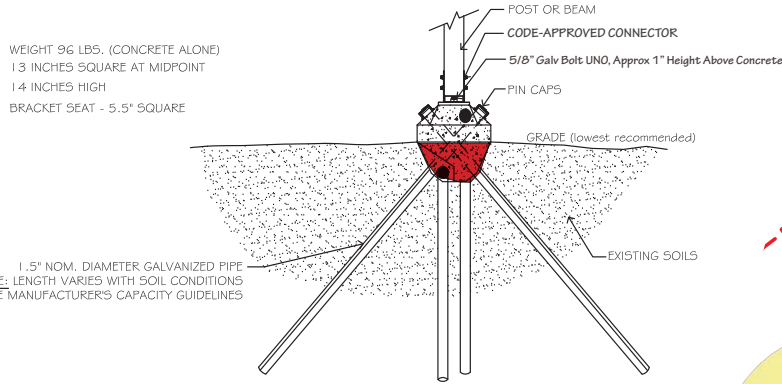




## PLANT COMMUNITIES LEGEND

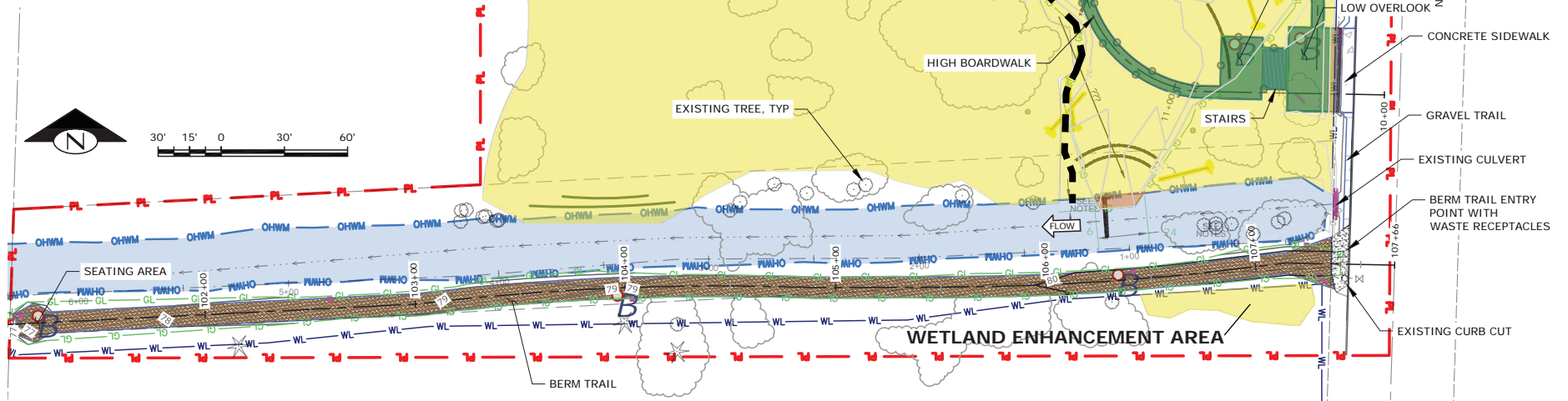


- TEMPORARY WETLAND IMPACT
- TEMPORARY WATERBODY IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT SHADING IMPACT



### DIAMOND PIER FOUNDATION SYSTEM DETAIL

PERMANENT WETLAND IMPACT (1.17 SF, 0.025 CY FILL, EA., 115 FOUNDATIONS)



### PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

REFERENCE #:  
APPLICANT: CITY OF ALGONA

HORIZONTAL DATUM: NAD 83 (FT)  
VERTICAL DATUM: NAVD 88 (FT)

LATITUDE: 47.27135  
LONGITUDE: -122.24068

ADJACENT PROPERTY OWNERS:  
SCOTT, JEFFERY RONALD  
ALBERTSON SNIDER, IAN W

IN: CITY OF ALGONA  
NEAR/AT: SW CORNER OF ELLINGSON RD.  
AND PACIFIC AVE. N. IN ALGONA, WA.

COUNTY: KING  
STATE: WASHINGTON

### PROJECT IMPACTS

DATE: JUNE 2023

SHEET: 6 OF 12

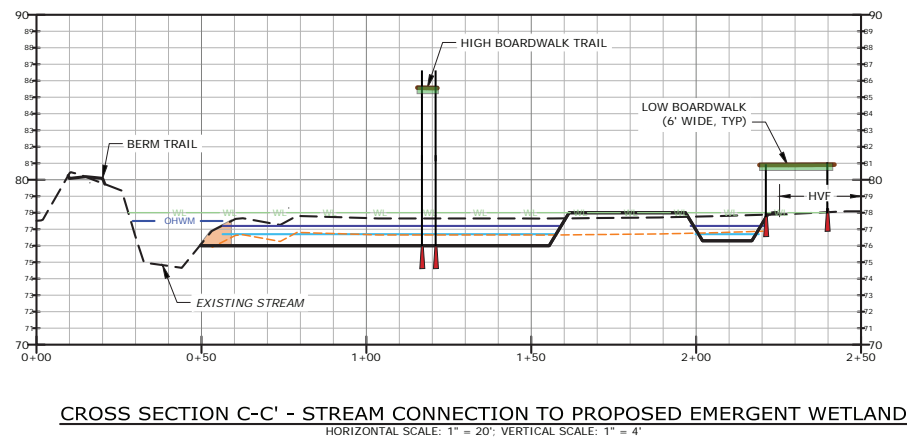
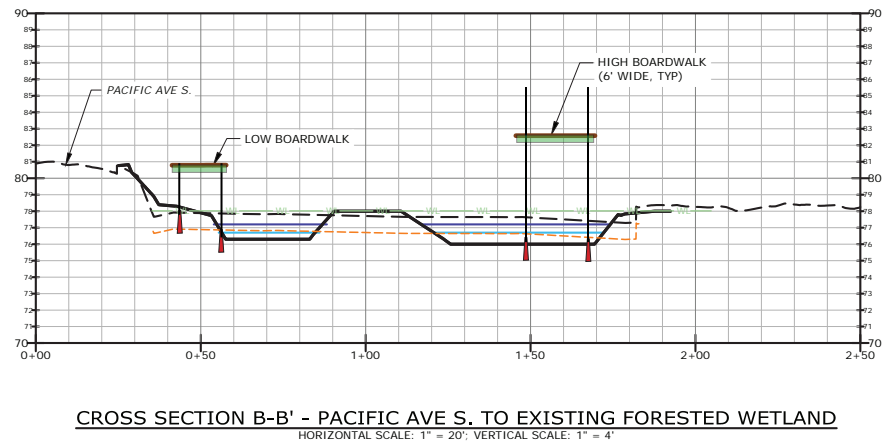
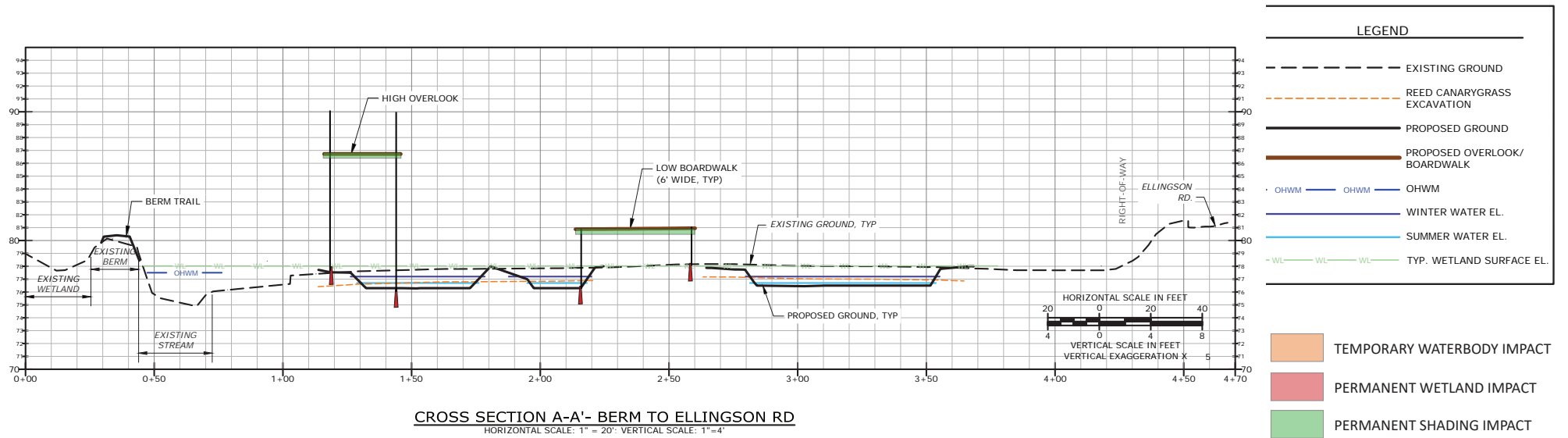


ACTIVITY	IMPACTED WETLAND OR WATER	TOTAL AREA OF IMPACT	TOTAL VOLUME OF EXCAVATION (CY)	DURATION OF IMPACT	PROPOSED MITIGATION TYPE	WETLAND MITIGATION AREA/PROJECT BENEFITS
<b>Aquatic Habitat Restoration Actions</b>						
Wetland Rehabilitation (excavation and grading)	Wetland A	0.9 AC	1381 CY	Temporary – Completed within ~3 months; plant reestablishment within one growing season	None	
Wetland Enhancement (clear and grub invasives)	Wetland A	1.3 AC	1091 CY	Temporary – Completed within ~3 months; plant reestablishment within one growing season	None	
Wetland Rehabilitation (waterbody excavation to reconnect stream and wetland)	Ditched Unnamed Stream	25 linear feet	6 cy excavation 12 cy temp. fill (cofferdam)	Temporary – One month July 16 to Aug 15 in-water work window	None	
<b>TOTAL TEMPORARY IMPACTS</b>		<b>2.2 AC</b>	<b>2490 CY</b>			
<b>Interpretive Trail Construction Actions</b>						
Boardwalk and Overlooks diamond pier foundations and related safe access fill	Wetland A	0.007 AC	7.7 CY	Permanent	Enhancement Wetland Enhanced Through Invasive Removal And Replanting	1.3 AC
Low (3') boardwalk and overlook shading	Wetland A	0.06 AC	Not applicable	Permanent shading	Rehabilitation – Wetland Rehabilitated Through Grading And Reconnection With Stream	0.9 AC
High (6') boardwalk, overlook, and stairs shading	Wetland A	0.05 AC	Not applicable	Permanent shading will limit tree establishment beneath these structures	Wetland Rehabilitated Through Grading And Reconnection With Stream	
<b>TOTAL PERMANENT IMPACTS</b>		<b>(5,096 SF) 0.117 AC</b>	<b>7.7 CY</b>			<b>2.2 AC rehabilitated / enhanced</b>

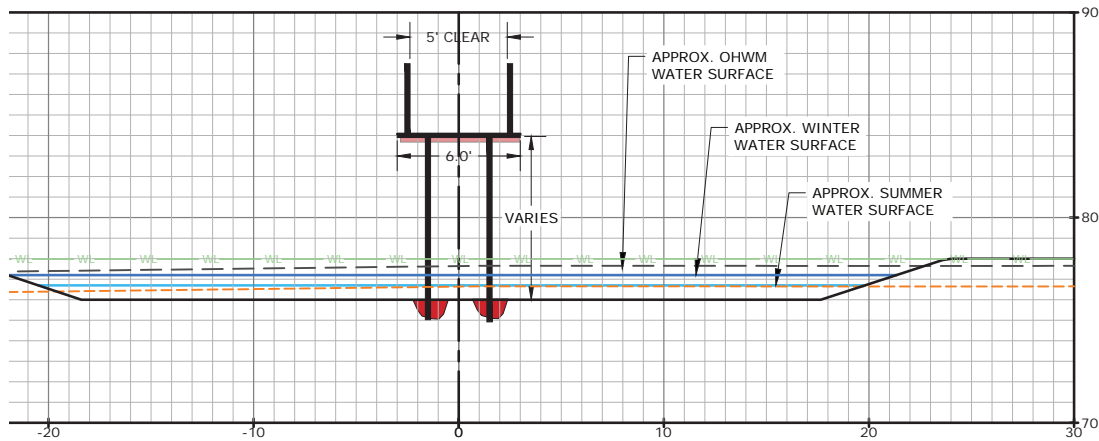
Note: See sheet 6 for color coding legend.

PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT			<b>PROJECT IMPACTS TABLES</b>  DATE: JUNE 2023      SHEET: 7 OF 12
REFERENCE #: APPLICANT: CITY OF ALGONA	HORIZONTAL DATUM: NAD 83 (FT) VERTICAL DATUM: NAVD 88 (FT)	LATITUDE: 47.27135 LONGITUDE: -122.24068	
ADJACENT PROPERTY OWNERS: SCOTT, JEFFERY RONALD ALBERTSON SNIDER, IAN W	IN: CITY OF ALGONA NEAR/AT: SW CORNER OF ELLINGSON RD. AND PACIFIC AVE. N. IN ALGONA, WA.	COUNTY: KING STATE: WASHINGTON	

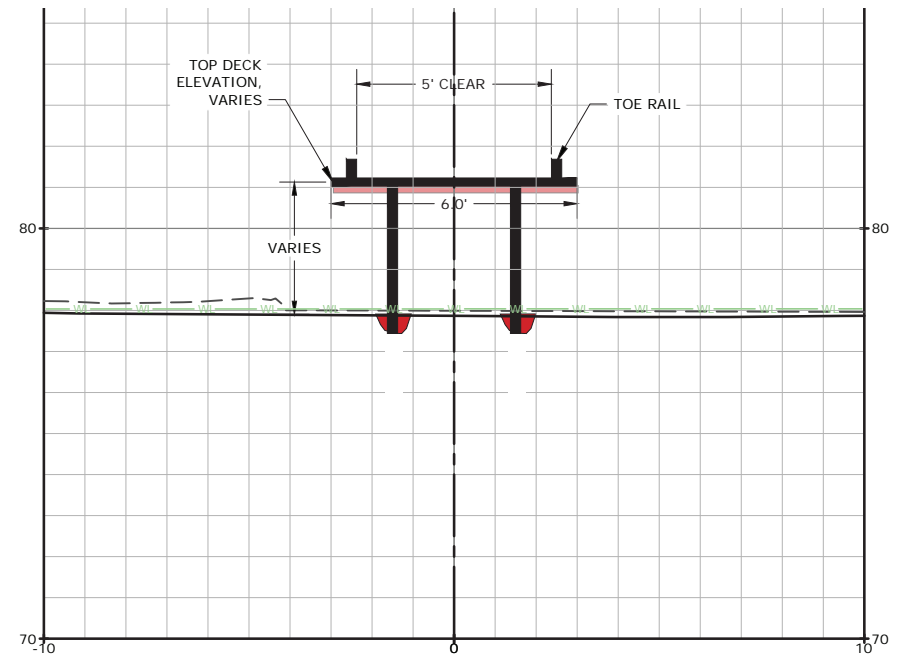
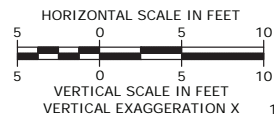




PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT			SITE SECTION VIEWS
REFERENCE #: APPLICANT: CITY OF ALGONA	HORIZONTAL DATUM: NAD 83 (FT) VERTICAL DATUM: NAVD 88 (FT)	LATITUDE: 47.27135 LONGITUDE: -122.24068	
ADJACENT PROPERTY OWNERS: SCOTT, JEFFERY RONALD ALBERTSON SNIDER, IAN W	IN: CITY OF ALGONA NEAR/AT: SW CORNER OF ELLINGSON RD. AND PACIFIC AVE. N. IN ALGONA, WA.	COUNTY: KING STATE: WASHINGTON	
DATE: JUNE 2023			SHEET: 8 OF 12



**TYPICAL HIGH BOARDWALK CROSS SECTION**  
HORIZONTAL SCALE: 1" = 4'; VERTICAL SCALE: 1" = 4'

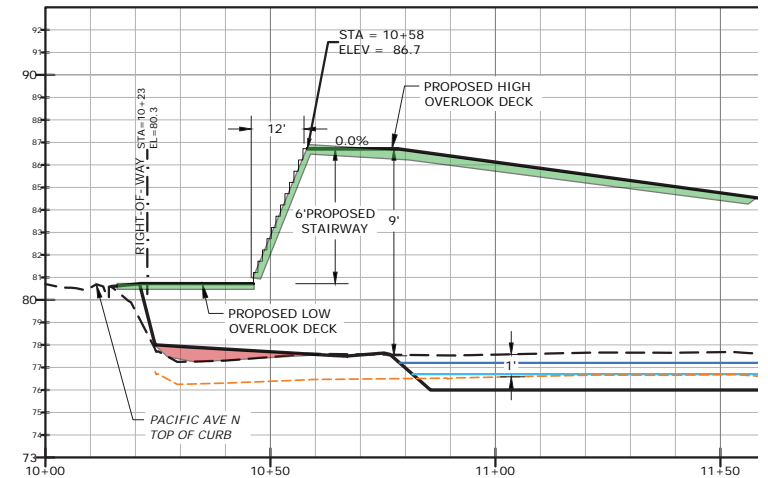


**TYPICAL LOW BOARDWALK CROSS SECTION**  
HORIZONTAL SCALE: 1" = 2'; VERTICAL SCALE: 1" = 2'



#### NOTES

- (LEFT) PHOTO EXAMPLES OF BOARDWALK FOUNDATION AND SUPPORT SYSTEM WITH SIMILAR TYPE AND STYLE.



**LOW TO HIGH OVERLOOK PROFILE VIEW**

**BOARDWALK DETAIL**

1  
9

#### PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

REFERENCE #:  
APPLICANT: CITY OF ALGONA

HORIZONTAL DATUM: NAD 83 (FT)  
VERTICAL DATUM: NAVD 88 (FT)

LATITUDE: 47.27135  
LONGITUDE: -122.24068

ADJACENT PROPERTY OWNERS:  
SCOTT, JEFFERY RONALD  
ALBERTSON SNIDER, IAN W

IN: CITY OF ALGONA  
NEAR/AT: SW CORNER OF ELLINGSON RD.  
AND PACIFIC AVE. N. IN ALGONA, WA.

COUNTY: KING  
STATE: WASHINGTON

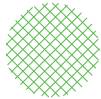
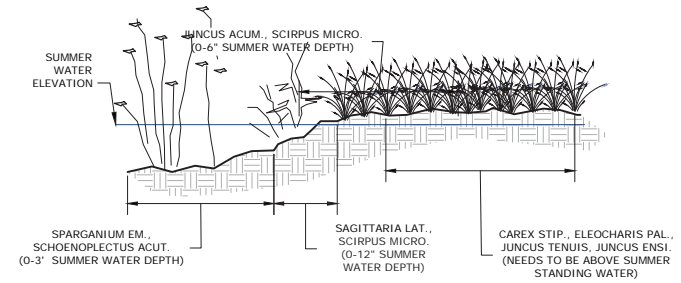
#### ELEVATED OVERLOOK AND BOARDWALK TRAIL DETAILS

DATE: JUNE 2023

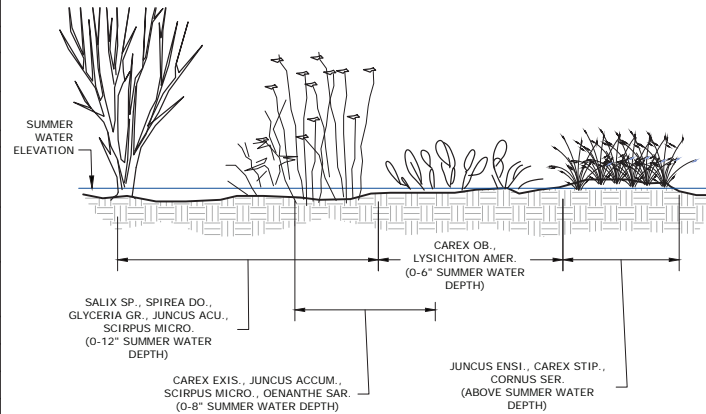
SHEET: 9 OF 12



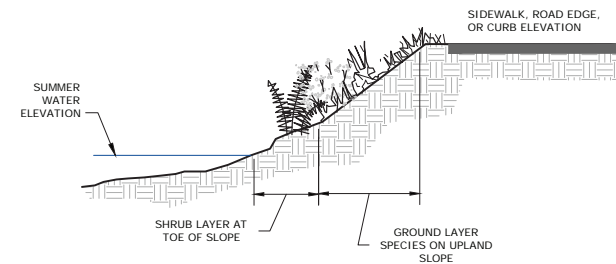
PLANT COMMUNITY	LAYER	SPECIES	COMMON NAME	MATERIAL TYPE AND SIZE	AVG. SPACING (ON-CENTER, FT)	QTY.	NOTES
EMERGENT WETLAND	GROUND	CAREX STIPATA	SAWBEAK SEDGE	BAREROOT SEEDLING	1.25	1,374	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
AREA (SQ FT) 21,467		ELEOCHARIS PALUSTRIS	COMMON SPIKERUSH	BAREROOT SEEDLING	1.25	412	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
AREA (ACRES) 0.5		JUNCUS ACUMINATUS	TAPERTIP RUSH	BAREROOT SEEDLING	1.25	2,748	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		JUNCUS ENSIFOLIUS	SWORDLEAF RUSH	BAREROOT SEEDLING	1.25	687	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		JUNCUS TENUIS	POVERTY RUSH	BAREROOT SEEDLING	1.25	275	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		SAGITTARIA LATIFOLIA	WAPATO	TUBER	1.25	1,374	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		SCHONOPLECTUS ACUTUS	HARDSTEM BULRUSH	BAREROOT SEEDLING	1.25	2,061	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		SCIRPUS MICROCARPUS	SMALL-FRUITED BULRUSH	BAREROOT SEEDLING	1.25	3,435	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		SPARGANIUM EMERSUM	SIMPLESTEM BUR-REED	BAREROOT SEEDLING	1.25	1,374	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
						TOTAL 13,740	



PLANT COMMUNITY	LAYER	SPECIES	COMMON NAME	MATERIAL TYPE AND SIZE	AVG. SPACING (ON-CENTER, FT)	QTY.	NOTES
SCRUB-SHRUB WETLAND	SHRUB	CORNUS SERICEA	REDOSIER DOGWOOD	CONTAINER 40 CUBIC INCHES	4	351	PLANT IN SWATHS OF 15-20+ PLANTS
AREA (SQ FT) 18,741		SALIX LASIANDRA	PACIFIC WILLOW	LIVE STAKE DIAMETER 0.75"	4	234	PLANT IN SWATHS OF 15-20+ PLANTS, >10' DISTANT FROM BOARDWALKS, TRAILS, OVERLOOK
AREA (ACRES) 0.4		SALIX SITCHENSIS	SITKA WILLOW	LIVE STAKE DIAMETER 0.75"	4	234	PLANT IN SWATHS OF 15-20+ PLANTS, >10' DISTANT FROM BOARDWALKS, TRAILS, OVERLOOK
		SPIRAEA DOUGLASII	HARDHACK	1 GAL CONTAINER	3	625	PLANT IN SWATHS OF 15-20+ PLANTS
						SUBTOTAL 1,444	
	GROUND	CAREX EXSICCATA	WESTERN INFLATED SEDGE	BAREROOT SEEDLING	1.25	240	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		CAREX OBNUPTA	SLOUGH SEDGE	BAREROOT SEEDLING	1.25	2,999	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		CAREX STIPATA	SAWBEAK SEDGE	BAREROOT SEEDLING	1.25	360	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		GLYCERIA GRANDIS	AMERICAN MANNAGRASS	BAREROOT SEEDLING	1.25	1,799	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		JUNCUS ACUMINATUS	TAPERTIP RUSH	BAREROOT SEEDLING	1.25	360	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		JUNCUS ENSIFOLIUS	SWORDLEAF RUSH	BAREROOT SEEDLING	1.25	360	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		LYSICHTON AMERICANUS	YELLOW SKUNK CABBAGE	PLUG	1.25	2,399	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		OENANTHE SARMENTOSA	WATER PARSLEY	BAREROOT SEEDLING	1.25	2,039	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
		SCIRPUS MICROCARPUS	SMALL-FRUITED BULRUSH	BAREROOT SEEDLING	1.25	1,439	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
						SUBTOTAL 11,995	
						TOTAL 13,439	



PLANT COMMUNITY	LAYER	SPECIES	COMMON NAME	MATERIAL TYPE AND SIZE	AVG. SPACING (ON-CENTER, FT)	QTY.	NOTES
UPLAND	SHRUB	ROSA NUTKANA	NOOTKA ROSE	1 GAL CONTAINER	3	37	PLANT DENSELY MIXED W/SNOWBERRY ALONG LOWER 12" OF SLOPE INCL TOE
AREA (SQ FT) 2,347		RUBUS PARVIFLORUS	THIMBLEBERRY	1 GAL CONTAINER	3	13	PLANT IN CLUSTERS OF 3-5+ ALONG LOWER 12" OF SLOPE INCL TOE
AREA (ACRES) 0.05		SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL CONTAINER	3	37	PLANT DENSELY MIXED W/ROSE ALONG LOWER 12" OF SLOPE INCL TOE
						SUBTOTAL 87	
	GROUND	ACHILLEA MILLEFOLIUM	COMMON YARROW	BAREROOT SEEDLING	1	305	PLANT IN SWATHS OF 15-20+ PLANTS
		ANAPHALIS MARGARITACEA	WESTERN PEARLY EVERLASTING	BAREROOT SEEDLING	1	235	PLANT IN SWATHS OF 15-20+ PLANTS
		BROMUS SITCHENSIS	ALASKA BROME	BAREROOT SEEDLING	1	164	PLANT IN SWATHS OF 15-20+ PLANTS
		CHAMAENERION ANGUSTIFOLIUM	NARROWLEAF FIREWEED	BAREROOT SEEDLING	1	235	PLANT IN SWATHS OF 15-20+ PLANTS
		ELYMUS GLAUCUS	BLUE WILDRYE	BAREROOT SEEDLING	1	235	PLANT IN SWATHS OF 15-20+ PLANTS
		ERIOPHYLLUM LANATUM	OREGON SUNSHINE	BAREROOT SEEDLING	1	164	PLANT IN SWATHS OF 15-20+ PLANTS
		LUPINUS POLYCARPUS	SMALL-FLOWERED LUPINE	BAREROOT SEEDLING	1	235	PLANT IN SWATHS OF 15-20+ PLANTS
						SUBTOTAL 1,573	
						TOTAL 1,660	



PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

REFERENCE #:  
APPLICANT: CITY OF ALGONA

HORIZONTAL DATUM: NAD 83 (FT)  
VERTICAL DATUM: NAVD 88 (FT)

LATITUDE: 47.27135  
LONGITUDE: -122.24068

PLANT SCHEDULES 1

ADJACENT PROPERTY OWNERS:  
SCOTT, JEFFERY RONALD  
ALBERTSON SNIDER, IAN W

IN: CITY OF ALGONA  
NEAR/AT: SW CORNER OF ELLINGSON RD.  
AND PACIFIC AVE. N. IN ALGONA, WA.

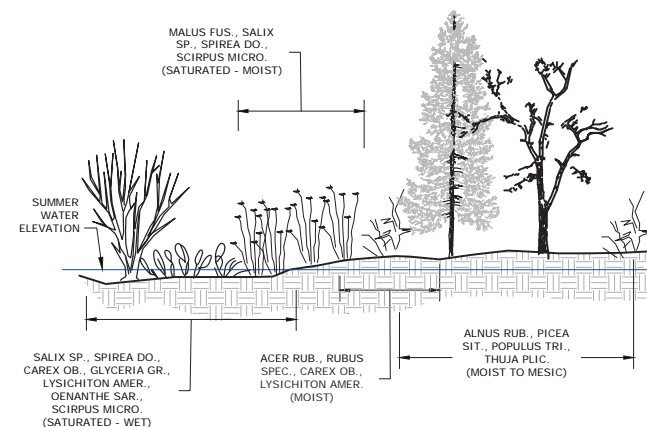
COUNTY: KING  
STATE: WASHINGTON

DATE: JUNE 2023

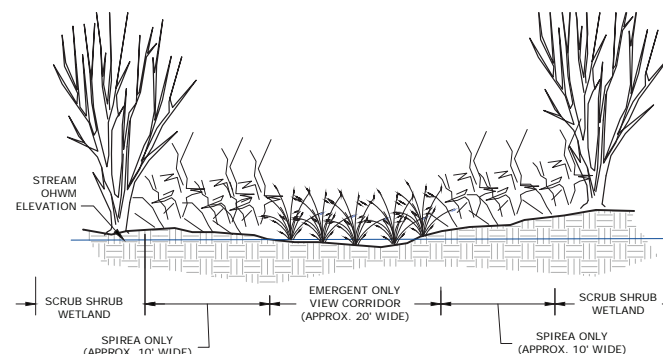
SHEET: 10 OF 12



PLANT COMMUNITY	LAYER	SPECIES	COMMON NAME	MATERIAL TYPE AND SIZE	AVG. SPACING (ON-CENTER, FT)	QTY.	NOTES	
SCRUB-SHRUB W/TREES WETLAND AREA (SQ FT) 55,595 AREA (ACRES) 1.3	TREE	ALNUS RUBRA	RED ALDER	CONTAINER 40 CUBIC INCHES	6	31	PLANT ON HIGHER GROUND OUT OF STANDING WATER	
		PICEA SITCHENSIS	SITKA SPRUCE	CONTAINER 40 CUBIC INCHES	10	17	PLANT ON HIGHER GROUND OUT OF STANDING WATER	
		POPULUS BALSAMIFERA	BLACK COTTONWOOD	LIVE STAKE DIAMETER 1"	8	43	PLANT ON HIGHER GROUND OUT OF STANDING WATER	
		THUJA PLICATA	WESTERN RED CEDAR	CONTAINER 40 CUBIC INCHES	10	11	PLANT ON HIGHER GROUND OUT OF STANDING WATER	
SUBTOTALS						102		
	SHRUB	ACER CIRCINATUM	VINE MAPLE	BAREROOT 18-24"	6	77	PLANT IN GROUPS OF 5-7+ ON HIGHER GROUND W/ SOME SHADE	
		CORNUS SERICEA	REDOSIER DOGWOOD	CONTAINER 40 CUBIC INCHES	4	521	PLANT IN SWATHS OF 15-20+ PLANTS	
		MALUS FUSCA	PACIFIC CRABAPPLE	BAREROOT 18-24"	6	232	PLANT IN SWATHS OF 15-20+ PLANTS	
		RUBUS SPECTABILIS	SALMONBERRY	BAREROOT 18-24"	4	174	PLANT IN GROUPS OF 5-7+ ON HIGHER GROUND W/ SOME SHADE	
		SALIX LASIANDRA	PACIFIC WILLOW	LIVE STAKE DIAMETER 1"	4	695	PLANT IN SWATHS OF 15-20+ PLANTS	
		SALIX SITCHENSIS	SITKA WILLOW	LIVE STAKE DIAMETER 1"	4	347	PLANT IN SWATHS OF 15-20+ PLANTS	
		SPIRAEA DOUGLASII	HARDHACK	BAREROOT 18-24"	3	1,235	PLANT IN SWATHS OF 15-20+ PLANTS	
		SUBTOTALS					3,281	
		GROUND	CAREX OBNUPTA	SLOUGH SEDGE	BAREROOT SEEDLING	1.25	7,116	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
			GLYCERIA GRANDIS	AMERICAN MANNAGRASS	BAREROOT SEEDLING	1.25	3,558	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE
LYSICHITON AMERICANUS	YELLOW SKUNK CABBAGE		PLUG	1.25	5,337	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE		
OENANTHE SARMENTOSA	WATER PARSLEY		BAREROOT SEEDLING	1.25	1,779	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE		
SCIRPUS MICROCARPUS	SMALL-FRUITED BULRUSH		BAREROOT SEEDLING	1.25	3,558	PLANT IN SWATHS OF 15-20+ PLANTS W/IN INDICATED HYDROLOGIC ZONE		
SUBTOTALS					21,348			
TOTAL						24,731		



PLANT COMMUNITY	LAYER	SPECIES	COMMON NAME	MATERIAL TYPE AND SIZE	AVG. SPACING (ON-CENTER, FT)	QTY.	NOTES
<b>SPIRAEA ONLY WETLAND</b>	SHRUB	<i>SPIRAEA DOUGLASII</i>	HARDHACK	1 GAL CONTAINER	3	434	PLANT IN SWATHS OF 15-20+ PLANTS
AREA (SQ FT) 3,907						SUBTOTALS	434
AREA (ACRES) 0.09						<b>TOTAL</b>	<b>434</b>



## PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

REFERENCE #:  
APPLICANT: CITY OF ALGONA

HORIZONTAL DATUM: NAD 83 (FT)  
VERTICAL DATUM: NAVD 88 (FT)

LATITUDE: 47.27135  
LONGITUDE: -122.24068

ADJACENT PROPERTY OWNERS:  
SCOTT, JEFFERY RONALD  
ALBERTSON SNIDER, IAN W

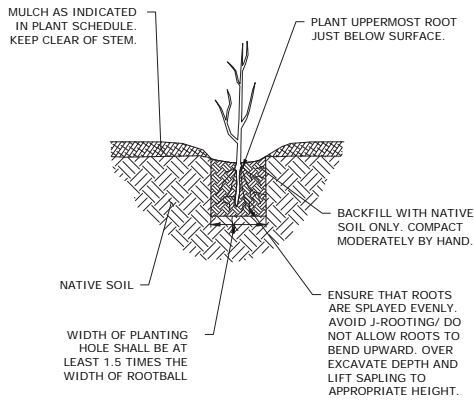
IN: CITY OF ALGONA  
NEAR/AT: SW CORNER OF ELLINGSON RD.  
AND PACIFIC AVE. N. IN ALGONA, WA.

COUNTY: KING  
STATE: WASHINGTON

## PLANT SCHEDULES 2

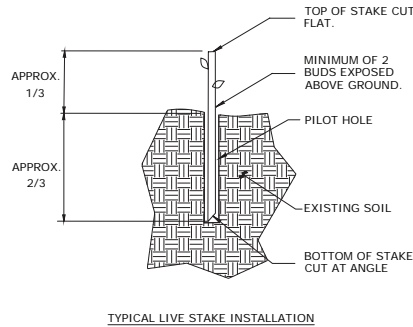
DATE: JUNE 2023

SHEET: 11 OF 12



CONTAINER AND BARE ROOT PLANT MATERIAL DETAIL

1  
12

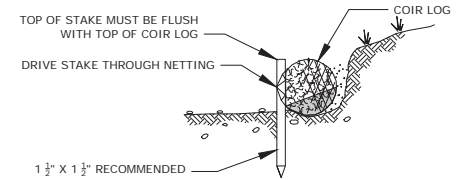


TYPICAL LIVE STAKE INSTALLATION

LIVE STAKE PLANT MATERIAL DETAIL

SCALE: 1" = 5'

- NOTES**
1. SEE PLANT MATERIAL LIST FOR SIZE AND TYPE OF PLANT.
  2. DO NOT USE AXE OR SLEDGE FOR DRIVING STAKES.
  3. IN HARD GROUND USE AN IRON BAR, STAR DRILL OR SIMILAR TO PREPARE THE HOLES FOR THE STAKE.
  4. AVOID STRIPPING BARK OR BRUISING STAKES DURING INSTALLATION.
  5. FILL VOID AROUND CUTTING WITH SOIL, USING MUD SLURRY IF NEEDED
  6. INSTALL STAKE WITH BUDS POINTING UP.



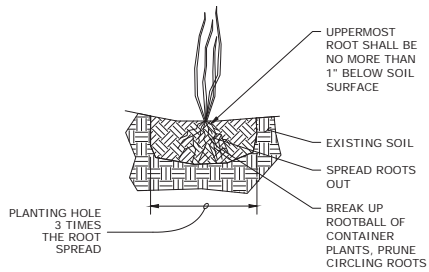
COIR LOG INSTALLATION NOTES

1. PLACE COIR LOG AS SHOWN ON PLANS ALONG A HORIZONTAL CONTOUR.
2. STAKES TO BE INSTALLED EVERY 12" ALONG LENGTH OF COIR LOG.
3. OVERLAP COIR LOG ENDS BY 12 INCHES TO PREVENT WATER FROM MOVING BETWEEN LOGS.
4. RECESS 1/2 OF LOG INTO FINISHED GRADE EXCLUSIVE OF SOIL AMENDMENTS.

COIR LOG DETAIL

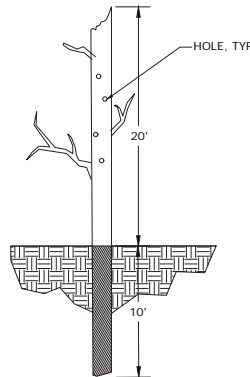
SCALE: 1" = 5'

3  
12



NOTES

1. EMERGENT BARE ROOT SEEDLINGS ARE TO BE PLANTED IN GROUPS OF 4 AVERAGE.
2. ON CENTER SPACING IN PLANT SCHEDULE REPRESENTS SPACING BETWEEN CLUSTERS OF 4 SEEDLINGS AND NOT SPACING BETWEEN INDIVIDUAL SEEDLINGS.

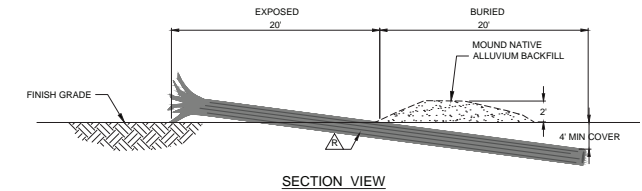


NOTES

1. SNAGS SHALL BE 12" DIAMETER MINIMUM, WITH 50% OF SNAGS >15" DIAMETER.
2. HEIGHTS SHALL VARY.
3. CUT TOPS AT AN ANGLE AND ROUGHEN.
4. ANGLE TO VARY AMONG SNAGS. SNAGS SHALL LEAN NO MORE THAN 10 DEGREES.
5. SNAGS SHALL CONTAIN THREE OR MORE BRANCHES IN THE TOP 10 FT. BRANCHES SHALL BE MINIMUM 2 IN. DIAMETER AT TRUNK.
6. INSTALL 4 (FOUR), 3 IN. DIAMETER HOLES, DRILLED 2 IN. DEEP (TYP) WITH 8 IN. MIN SPACING BETWEEN HOLES AND AT LEAST 6 IN. BELOW TOP.
7. NO MORE THAN 50% OF SNAGS SHALL BE OF DECIDUOUS SPECIES.

STANDING SNAG DETAIL

SCALE: 1" = 5'



NOTES

1. TRENCH TO INSTALL LOG TO DEPTHS SHOWN.
2. PLACE LOG IN TRENCH. REPLACE BACKFILL ON TOP OF LOG IN 12"-18" LIFTS AND BUCKET COMPACT TO ~85% MAX DENSITY, IN 6" LIFTS.
3. MOUND REMAINING SOILS OVER LOG AS SHOWN.

HABITAT LOG DETAIL

6  
12

PROPOSED PROJECT: ALGONA WETLAND PRESERVE RESTORATION AND INTERPRETIVE TRAIL PROJECT

REFERENCE #:  
APPLICANT: CITY OF ALGONA

HORIZONTAL DATUM: NAD 83 (FT)  
VERTICAL DATUM: NAVD 88 (FT)

LATITUDE: 47.27135  
LONGITUDE: -122.24068

ADJACENT PROPERTY OWNERS:  
SCOTT, JEFFERY RONALD  
ALBERTSON SNIDER, IAN W

IN: CITY OF ALGONA  
NEAR/AT: SW CORNER OF ELLINGSON RD.  
AND PACIFIC AVE. N. IN ALGONA, WA.

COUNTY: KING  
STATE: WASHINGTON

SITE RESTORATION DETAILS

DATE: JUNE 2023

SHEET: 12 OF 12