City of Tacoma
Planning and Development Services Department
747 Market St, Room 345
Tacoma, WA 98402

PUBLIC NOTICE

Date of Notification: 12/13/2013
Application Received: 12/6/2013
Application Complete: 12/6/2013

Applicant: Soundview Consultants LLC

Location: 55 S Oregon Ave & 1811 S Shirley Street

Application No: CAP2013-40000214152

Proposal:

A Wetland Development Permit to fill an on-site wetland and provide compensatory mitigation off-site on Metro Park's property at China Lake.

Comments Due: 1/13/2014

For further information regarding the proposal, **log onto the website at http://tacomapermits.org and select "Message Board"**. The case file may be viewed in Planning and Development Services, 747 Market Street, Room 345.

Documents to Evaluate the Proposal:

Comprehensive Plan and Tacoma Municipal Code

Studies Requested:

Wetland Delineation Report and Compensatory Mitigation Plan

Other Required Permits:

Grade and Fill permit

Applicable Regulations of the Tacoma Municipal Code:

TMC13.05 Land Use Procedures, TMC13.11 Critical Areas Preservation

Public Meeting: A public meeting may be requested by the area neighborhood council, a qualified neighborhood group, or by written request of the owners of five or more properties who receive this notice.

A final decision on the proposal will be made following the comment period. A summary of the final decision will be sent to those parties who receive this notice. A complete copy of the final decision will be mailed to those parties who request a copy or to those who have commented on the project. Appeal provisions will be included with both the summary and the complete copy of the final decision.

Staff Contact: Misty Blair, Environmental Specialist, 747 Market St, Room 345, (253) 591-5482, mblair@cityoftacoma.org

Environmental Review: Per SEPA, WAC 197-11-340, the Lead Agency has issued an environmental determination for the project. For further information regarding SEPA, please contact the project applicant.

To request this information in an alternative format or a reasonable accommodation, please call 253-591-5030 (voice). TTY or STS users please dial 711 to connect to Washington Relay Services.

City of Tacoma
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747 Market St, Room 345
Tacoma, WA 98402

NOTICE OF LAND USE APPLICATION

City of Tacoma Planning and Development Services

APPLICATION FOR CRITICAL AREAS PERMIT

Before submitting this form, review the instruction sheet for the type of permit for which you are applying. Ask staff for the appropriate instruction sheet. Be advised that application materials must be submitted in electronic format (PDF) on a disc.

Property Information			
Site Address: *(nearest intersection if no address)*	55-61 South Oregon Avenue, Tacoma, WA 98409		
Parcel Number(s):	5270002451, 5270002460, 5270002470		
Contact Information			
Contact Person:	Hannah Blackstock		
Business Name(s):	Soundview Consultants LLC		
Mailing Address:	2907 Harborview Drive, Gig Harbor, WA 98335		
Phone Number:	(253) 514-8952	E-Mail:	hannah@soundviewconsultants.com
Property Owner:	Titus-Will Enterprises, Inc.		
Mailing Address:	3606 South Sprague Avenue, Tacoma, WA 98409		
Phone Number:	(253) 620-8913	E-Mail:	jody@tituswill.com

Type of Permit

- ☒ Development
- ☐ Minor Development
- ☐ Delineation Verification
- ☐ Activities Allowed with Staff Review
- ☐ Programmatic

For Office Use Only

Project Name:

Project Description:

Permit Type	Fee	Permit #
424 WET Major Development		
425 WET Minor Development		
427 WET Delineation Verification		
428 WET Staff Review		
432 SIT Site Approval		
Other		
NO FEE		

Route to:

Proposal

Please describe your proposal. To help you write your description, review the requirements and criteria for the permit for which you are applying. ***Please address the permit requirements and criteria in your description below, or if more appropriate, in the maps and attachments you provide.***

Titus-Will Enterprises, Inc. proposes expansion of their existing auto dealership at 3606 South Sprague Avenue in Tacoma, Washington. The proposed expansion will occur on a one-acre site composed of three tax parcels located immediately west of the dealership within the City of Tacoma, Washington (Pierce County Tax Parcel Numbers: 5270002451, 5270002460, 5270002470). The proposed project includes removal of two (2) duplexes and associated infrastructure, fill of one highly-disturbed and low-functional isolated wetland (Wetland A), and expansion of the existing Titus-Will Ford facility adjacent to the east. Construction of a new shop building and associated site expansion and development has been a 10 year vision of Titus-Will Enterprises and the next step forward in their business growth plan. Their primary business operations are sales and service/maintenance of passenger car and trucks and service/maintenance of commercial trucks, buses, and large vehicles. Construction of the new building and related site work allows for Titus-Will to expand current maintenance and service to larger commercial size vehicles and increase business as well as provide better service to local businesses in the surrounding area. Full site utilization will be necessary in order to fit expanded services, thus precluding any onsite mitigation. In order to compensate for filling two thousand eighty-seven (2,087) square feet of isolated Category IV wetlands (Wetland A), offsite mitigation will be provided at China Lake Park using innovative mitigation per City of Tacoma Municipal Code, TMC 13.11.270.L.

Critical Areas

Describe the critical area(s) and/or buffers and FWHCA management areas, including specific Best Management Practices and methods used to avoid and minimize impacts. Please include recommended access to the interior of site and any safety issues such as fencing, dogs, hazardous materials.

Jeremy Downs, Principal Scientist, of Soundview Consultants LLC met onsite with City of Tacoma staff on October 18, 2013, at which time a small potential wetland was identified. On several dates between October 19 and November 13, 2013, the onsite wetland was inspected, delineated, and assessed by Jeremy Downs, a qualified wetland scientist. The wetland determination was made using observable vegetation, hydrology, soils, local precipitation data and various orthophotographic and digital photographic resources.

During the assessment, Soundview Consultants LLC identified one wetland (Wetland A) within the proposed project area. Wetland A is a Palustrine Emergent Seasonally-Flooded/Saturated wetland (PEME) approximately two thousand eighty-seven (2,087) square feet (0.048 acres) in total area. The wetland is located at the base of a hill that slopes down from Oregon Avenue and the adjacent Costco parking lot. The wetland is a Category IV isolated, depressional wetland with no outlet and is surrounded by upland development over fill.

The wetland is highly-disturbed, small, and of low function. The wetland may also be of anthropogenic origin as indicated by the prior grading activity and poorly developed soil profiles. The wetland has little habitat value due to the disturbance to vegetation, predominance of invasive species, isolated condition, and lack of a tree and shrub strata. The wetland provides minimal water quality functions. Although the surrounding land use suggests the opportunity to treat water quality and quantity, this urbanized area is likely well-equipped with controlled and treated stormwater design facilities. The wetland may provide some limited hydrologic functions, such as stormwater capture and infiltration because of its position near upland development. However, the wetland area is small and storage capacity is extremely low, so hydrologic function is limited to minor reductions of surface flows during storm events.

The project proposes fill of Wetland A to facilitate expansion of the existing adjacent auto dealership. Impacts to and fill of the wetland cannot be avoided due to the proximity of the wetland in relation to existing facilities. The small size of the project area precludes any alterations in layout or reductions in size that would further avoid or minimize impacts. Full site utilization will be necessary in order to fit expanded services, thus precluding any onsite mitigation; therefore, compensatory mitigation for wetland impacts will be provided through offsite mitigation actions. Titus-Will has reached an agreement with Tacoma Metro Parks to help establish a more appropriate compensatory wetland mitigation action in China Lake Park. Titus-Will will contribute to a large-scale wetland restoration project that will more than compensate for the fill of the 2,087 square-foot, low functional Category IV wetland onsite. Titus-Will's contribution to the restoration project will include the wetland delineation and assessment, preliminary mitigation planning, site survey, and creation of a Conceptual Restoration Plan.

Attachments

Please review the instruction sheet to determine what attachments* must be submitted with your application.
All applications require:

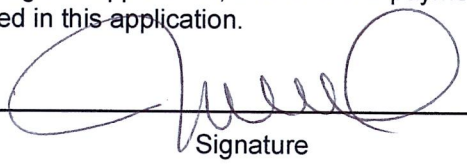
☒ Site plans, depicting the location of the critical area, FWHCA management area and/or buffer and the area where the activity will occur.

Types of attachments that may be required are:

☒ Joint Aquatic Resource Permit Application (JARPA)
☒ Surveyed site plan
☒ Critical Areas report
☐ Hydrology report or narrative
☐ Programmatic development plan
☒ Compensatory mitigation plan
☐ Other _____

*All application materials must be provided electronically in PDF format.

I hereby state that I am the applicant listed above and that the foregoing statements and answers herein made, all information and evidence herein made, and all information and evidence herewith submitted are, in all respects and to the best of my knowledge and belief, true and complete. I understand that the filing fee accompanying this application is not refundable, is only for the purpose of partially defraying the normal administrative expenses of processing the application, and that the payment of said fee does not result in automatic issuance of the permit requested in this application.



Signature

12-5-13

Date

Received, Planning and Development Services

Date

WASHINGTON STATE
Joint Aquatic Resources Permit Application (JARPA) Form[1,2]

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:

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]
Titus-Will Ford – 2013 Western Annex

Part 2–Applicant

The person and/or organization responsible for the project. [help]

2a. Name (Last, First, Middle)			
Jody Fetters			
2b. Organization (If applicable)			
Titus-Will Enterprises			
2c. Mailing Address (Street or PO Box)			
3606 South Sprague Avenue			
2d. City, State, Zip			
Tacoma, WA 98409			
2e. Phone (1)	**2f.** Phone (2)	**2g.** Fax	**2h.** E-mail
(253) 475-4151	( )	( )	jody@tituswill.com

[1] 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.
- If your project might affect species listed under the Endangered Species Act, you will need to fill out a Specific Project Information Form (SPIF) or prepare a Biological Evaluation. Forms can be found at http://www.nws.usace.army.mil/Missions/CivilWorks/Regulatory/PermitGuidebook/EndangeredSpecies.aspx.
- 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.

[2] 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.

For other help, contact the Governor's Office of Regulatory Assistance at 1-800-917-0043 or help@ora.wa.gov.

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]

3a. Name (Last, First, Middle)			
Jeremy Downs			
3b. Organization (If applicable)			
Soundview Consultants			
3c. Mailing Address (Street or PO Box)			
2907 Harborview Drive			
3d. City, State, Zip			
Gig Harbor, WA 98355			
3e. Phone (1)	**3f.** Phone (2)	**3g.** Fax	**3h.** E-mail
(253) 514 - 8952	( )	(253) 514 - 8954	jeremy@soundviewconsultants.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.

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

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.

5a. Indicate the type of ownership of the property. (Check all that apply.) [help]

☒ Private
☐ Federal
☐ Publicly owned (state, county, city, special districts like schools, ports, etc.)
☐ Tribal
☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)

5b. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 5p.) [help]

55-61 South Oregon Avenue

5c. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]

Tacoma, Washington 98409

5d. County [help]

Pierce County

5e. Provide the section, township, and range for the project location. [help]

¼ Section	Section	Township	Range
NE	18	20	03

5f. Provide the latitude and longitude of the project location. [help]

- Example: 47.03922 N lat. / -122.89142 W long. (Use decimal degrees - NAD 83)

47.226318 N lat./ -122.465920 W long.

5g. List the tax parcel number(s) for the project location. [help]

- The local county assessor's office can provide this information.

5270002451, 5270002460, 5270002470

5h. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]

Name	Mailing Address	Tax Parcel # (if known)
Costco Wholesale Corporation	999 Lake Drive Issaquah, WA 98027-8990	5270001753
Kanz Lincoln Heights 2 LLC	7527 South 19th Street Tacoma, WA 98466-3612	5270001810
See JARPA Attachment C for property owners adjacent to China Lake Park		

5i. List all wetlands on or adjacent to the project location. [help]

Wetland A

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

N/A

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]

The site is covered primarily with mowed vegetation and landscaped areas with the exception of a small patch of young black cottonwood (Populus balsamifera) north of the wetland. The upland areas surrounding the wetland are dominated by assorted grasses, Himalayan blackberry, a few scattered black cottonwood, and landscaped areas. The wetland is dominated by common spike-rush and crab grass with many areas lacking vegetation.

5m. Describe how the property is currently used. [help]

The property contains two duplexes and associated infrastructure.

5n. Describe how the adjacent properties are currently used. [help]

The subject property is bounded by residential lots to the northeast, Titus-Will facilities to the west and northwest, and Costco to the south and east. The surrounding areas are highly developed.

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

The three parcels (Pierce County Tax Parcels 5270002451, 5270002460, 5270002470) contain two duplex residences and landscaped yards, one associated driveways, and several pathways. Current condition of the two residences is low to fair.

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

To access the subject property from downtown Tacoma, via Interstate 5 southbound, Take exit 132A for Washington-16 West/South 38th Street toward Gig Harbor/Bremerton/Tacoma Mall. In 1.1 miles, take a slight right onto South 38th Street. After 0.2 mile, turn right onto South Steele Street and proceed 0.3 mile. Turn right onto South Colorado Avenue and proceed0.1 mile. Take a slight right onto South Oregon Street and proceed 0.1 mile. The site will be on the left.

Part 6–Project Description

6a. Briefly summarize the overall project. You can provide more detail in 6b. [help]

The proposed project includes removal of two (2) duplex/multi-family housing units and associated infrastructure, fill of one highly-disturbed and low-functional wetland (Wetland A), and expansion of the existing Titus-Will Ford facility adjacent to the east. Expansion of the existing facility includes construction of a new shop building and associated site development and infrastructure. Full site utilization will be necessary in order to fit expanded services and will require filling the two thousand eighty-seven (2,087) square feet of onsite wetland (Wetland A). Offsite compensatory mitigation will be provided at China Lake Park.

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

Construction of a new shop building and associated site expansion and development has been a 10 year vision of Titus-Will Enterprises and the next step forward in their business growth plan. Their primary business operations are sales and service/maintenance of passenger car and trucks and service/maintenance of commercial trucks, buses, and large vehicles. Construction of the new building and related site work allows for Titus-Will to expand current maintenance and service to larger commercial size vehicles and increase business as well as provide better service to local businesses in the surrounding area.

The proposed building is centrally located within the Titus-Will properties; locating the new facility on this site is central to business operations. Site development along the west side of the new building is essential to the project in that it provides the necessary vehicle access and adjacent staging area to the building's commercial service bays.

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]

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

☒ Other: Wetland fill

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.

The proposed project will include removal of (2) duplexes and associated infrastructure, fill of one highly-disturbed and isolated, low-functional wetland (Wetland A), and expansion of the existing Titus-Will Ford facility adjacent to the east. Construction of a new shop building and associated site expansion and development has been a 10 year vision of Titus-Will Enterprises and the next step forward in their business growth plan. Their primary business operations are sales and service/maintenance of passenger car and trucks and service/maintenance of commercial trucks, buses, and large vehicles. Construction of the new building and related site work allows for Titus-Will to expand current maintenance and service to larger commercial size vehicles and increase business as well as provide better service to local businesses in the surrounding area. Construction of temporary erosion and sediment control (TESC) measures including a construction entrance and silt fencing will be installed and the entire site will be cleaned of debris and graded. The wetland fill, utility infrastructure, building site, and permanent stormwater facilities will be installed immediately following installation of TESC measures, and all grading and road improvements. As no work windows are expected to limit the construction schedule, this schedule is flexible, and site work will likely commence as soon as permits are issued and the site is able to support heavy equipment.

Equipment used will be typical for demolition and minor land-clearing and grading activities and will be kept in good working order free of leaks. The area will be kept free of spills and/or hazardous materials using a Spill Prevention, Control, and Countermeasure Plan prepared and implemented by the contractor. All clean fill material and road surfacing will be sourced from upland areas onsite or from approved suppliers, and will be free of pollutants and hazardous materials.

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: January 15, 2014 End date: July 15, 2014 ☐ See JARPA Attachment D

6g. Fair market value of the project, including materials, labor, machine rentals, etc. [help]

Approximately 1.2 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

The impact cannot be avoided as the site layout and business model require the full utilization of the site, resulting in unavoidable fill of Wetland A. Construction of a new shop building and associated site expansion and development has been a 10 year vision of Titus-Will Enterprises and the next step forward in their business growth plan. The proposed project allows for Titus-Will to expand current maintenance and service to larger commercial size vehicles and increase business as well as provide better service to local businesses in the surrounding area. The proposed building is centrally located within the Titus-Will properties; locating the new facility on this site is central to business operation. Site development along the west side of the new building is essential to the project in that it provides the necessary vehicle access and adjacent staging area to the building's commercial service bays, allowing vehicles to enter from one side of building and exit to the opposite side. The small size of the project area precludes any alterations in layout or reductions in size that would avoid impacts to the onsite wetland.

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 ☐ Not applicable

Titus-Will Ford – 2013 Western Annex – Wetland Delineation and Assessment, by Soundview Consultants LLC, 2013

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

The proposed mitigation plan examined potential compensatory wetland mitigation actions in the context of mitigation sequencing and watershed-level processes. The small size of the project area precludes any alterations in layout or reductions in size that would further avoid or minimize impacts to the Wetland A. In addition, full site utilization by Titus-Will will be necessary in order to fit expanded services, thus precluding any onsite mitigation. In order to compensate for filling two thousand eighty-seven (2,087) square feet of isolated Category IV wetlands (Wetland A), offsite mitigation will be provided at China Lake Park using innovative mitigation per City of Tacoma Municipal Code, TMC 13.11.270.L. The area surrounding Wetland A is fully urbanized and developed with no water available to maintain the anticipated hydrogeomorphic class of wetland when restored; any attempted mitigation actions onsite or in the general region would have a low likelihood of success. China Lake Park and the Titus-Will site both drain to Commencement Bay, and the proposed restoration project will result in the restoration of a much larger system of wetlands and provide greater overall benefits to the watershed.

As part of the offsite mitigation action, Titus-Will has agreed to provide a full wetland delineation and assessment of China Lake Park. Titus-Will will also provide a Conceptual Restoration Plan that identifies various potential restorative actions within the park. Preliminary mitigation planning will be provided sufficient to identify areas of wetland rehabilitation, enhancement, and preservation, of which a suitable portion will be used for this project in accordance with TMC 13.11.340. Mitigation and monitoring actions will subsequently be provided by Tacoma Metro Parks. Details of the proposed offsite mitigation actions are unknown at this time, but the park is understood to have opportunity to provide compensatory wetland mitigation actions well in excess of what is required for impacts associated with Titus-Will's project. The Conceptual Restoration Plan with wetland delineation of China Lake Park provided by Titus-Will will be submitted to the City of Tacoma within six months of development approval, and the compensatory mitigation actions identified for this project will be implemented by Tacoma Metro Parks within one year of Conceptual Restoration Plan approval.

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[1]	Wetland type and rating category[2]	Impact area (sq. ft. or Acres)	Duration of impact[3]	Proposed mitigation type[4]	Wetland mitigation area (sq. ft. or acres)
Fill	Wetland A	IV	2,087 sq ft	Permanent	*C, R, E	*8,500 sq ft

*To be verified at a later date

[1] 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.
[2] Ecology wetland category based on current Western Washington or Eastern Washington Wetland Rating System. Provide the wetland rating forms with the JARPA package.
[3] Indicate the days, months or years the wetland will be measurably impacted by the activity. Enter "permanent" if applicable.
[4] 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: 4

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 clean fill material and road surfacing will be sourced from upland areas onsite or from approved suppliers, and will be free of pollutants and hazardous materials. Equipment used for placement of fill will be typical for land-clearing and grading activities and will be kept in good working order free of leaks.

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]

Not applicable; no excavation of wetlands or waterbodies are proposed or necessary, please see the engineered site plans for further details.

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

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 ☒ Not applicable

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]

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

Activity (clear, dredge, fill, pile drive, etc.)	Waterbody name[1]	Impact location[2]	Duration of impact[3]	Amount of material (cubic yards) to be placed in or removed from waterbody	Area (sq. ft. or linear ft.) of waterbody directly affected

[1] 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.
[2] 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.
[3] 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]

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]

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
City of Tacoma	Misty Blair	(253) 591-5482	12/05/2013

9b. 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? [help]

- **If Yes,** list the parameter(s) below.
- If you don't know, use Washington Department of Ecology's Water Quality Assessment tools at: http://www.ecy.wa.gov/programs/wq/303d/.

☐ Yes ☒ No

9c. What U.S. Geological Survey Hydrological Unit Code (HUC) is the project in? [help]

- Go to http://cfpub.epa.gov/surf/locate/index.cfm to help identify the HUC.

HUC 17110019

9d. What Water Resource Inventory Area Number (WRIA #) is the project in? [help]

- Go to http://www.ecy.wa.gov/services/gis/maps/wria/wria.htm to find the WRIA #.

On the border between WRIA 10 and 12

9e. Will the in-water construction work comply with the State of Washington water quality standards for turbidity? [help]

- Go to http://www.ecy.wa.gov/programs/wq/swqs/criteria.html for the standards.

☒ Yes ☐ No ☐ Not applicable

9f. If the project is within the jurisdiction of the Shoreline Management Act, what is the local shoreline environment designation? [help]

- If you don't know, contact the local planning department.
- For more information, go to: http://www.ecy.wa.gov/programs/sea/sma/laws_rules/173-26/211_designations.html.

☐ Rural ☐ Urban ☐ Natural ☐ Aquatic ☐ Conservancy ☒ Other N/A

9g. What is the Washington Department of Natural Resources Water Type? [help]

- Go to http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_watertyping.aspx for the Forest Practices Water Typing System.

☐ Shoreline ☐ Fish ☐ Non-Fish Perennial ☐ Non-Fish Seasonal

9h. Will this project be designed to meet the Washington Department of Ecology's most current stormwater manual? [help]

- **If No**, provide the name of the manual your project is designed to meet.

☐ Yes ☒ No

Name of manual: City of Tacoma 2012 Stormwater Management Manual.

9i. Does the project site have known contaminated sediment? [help]

- **If Yes**, please describe below.

☐ Yes ☒ No

Not Applicable

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

The two duplexes were constructed in 1943. Prior use of the property is unknown.

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

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

☐ Yes ☒ No

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]

No sensitive plant or wildlife species appearing on the Federal or State endangered or threatened species list are likely to be present in the vicinity of the proposed project, nor will be impacted by the project.

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]

Washington Department of Fish and Wildlife's (WDFW) Priority Habitats and Species (PHS) maps and data identify occurrence of Pacific pond turtle and communal roost sites for big brown bat in the vicinity. No Pacific pond turtle habitat was identified onsite during the site visit, and any big brown bat roost habitat is likely outside 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.ecy.wa.gov/opas/.
- Governor's Office of Regulatory Assistance at (800) 917-0043 or help@ora.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 www.ecy.wa.gov/programs/sea/sepa/e-review.html.

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

☐ A SEPA determination is pending with _____ (lead agency). The expected decision date is ____.

☐ 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

Effective July 10, 2012, you must submit a check for $150 to Washington Department of Fish and Wildlife, unless your project qualifies for an exemption or alternative payment method below. **Do not send cash.**

Check the appropriate boxes:

☐ $150 check enclosed. (Check #_____)
Attach check made payable to Washington Department of Fish and Wildlife.

☐ Charge to billing account under agreement with WDFW. (Agreement #_____)

☐ My project is exempt from the application fee. (Check appropriate exemption)

- ☐ HPA processing is conducted by applicant-funded WDFW staff. (Agreement #_____)
- ☐ Mineral prospecting and mining.
- ☐ Project occurs on farm and agricultural land. (Attach a copy of current land use classification recorded with the county auditor, or other proof of current land use.)
- ☐ Project is a modification of an existing HPA originally applied for, prior to July 10, 2012. (HPA #_____)

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

FEDERAL GOVERNMENT

United States Department of the Army permits (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 permits:

☐ Private Aids to Navigation (for non-bridge projects)

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. JF (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. JF (initial)

Jody Fellers for Titus Will		12-5-13
Applicant Printed Name	Applicant Signature	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.

Hannah Blackstock	H R Blackstock	12/05/13
Authorized Agent Printed Name	Authorized Agent Signature	Date

11c. Property Owner Signature (if not applicant). [help]
Not required if project is on existing rights-of-way or easements.

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.

Jody Fellers JF for		
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 of Regulatory Assistance (ORA) 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.
ORA publication number: ENV-019-09 rev. 06-12

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): _____

_____

Attachment B:
For additional project location(s) [help]

Use this attachment only if you have more than one project location.

Use a separate form for **each** additional location.

TO BE COMPLETED BY APPLICANT [help]

Project Name: Titus-Will Ford

Location Name (if applicable): China Lake Park

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

1. Indicate the type of ownership of the property. (Check all that apply.) [help]

- ☐ Private
- ☐ Federal
- ☒ Publicly owned (state, county, city, special districts like schools, ports, etc.)
- ☐ Tribal
- ☐ Department of Natural Resources (DNR) – managed aquatic lands (Complete JARPA Attachment E)

2. Street Address (Cannot be a PO Box. If there is no address, provide other location information in 16) [help]

1811 South Shirley Street

3. City, State, Zip (If the project is not in a city or town, provide the name of the nearest city or town.) [help]

Tacoma, WA 98465

4. County [help]

Pierce

5. Provide the section, township, and range for the project location. [help]

¼ Section	Section	Township	Range
44	02	20	02

6. Provide the latitude and longitude of the project location. [help]

- Example: 47.03922 N lat. / -122.89142 W long (Use decimal degrees - NAD 83)

47.244982 N lat. / -122.508877

7. List the tax parcel number(s) for the project location. [help]

- The local county assessor's office can provide this information.

4475000791

8. Contact information for all adjoining property owners. (If you need more space, use JARPA Attachment C.) [help]

Name	Mailing Address	Tax Parcel # (if known)
See JARPA Attachement C for all adjacent property owners		

9. List all wetlands on or adjacent to the project location. [help]

To be determined

10. List all waterbodies (other than wetlands) on or adjacent to the project location. [help]

To be determined

11. Is any part of the project area within a 100-year flood plain? [help]

☒ Yes ☐ No ☐ Don't know

12. Briefly describe the vegetation and habitat conditions on the property. [help]

Critical areas, vegetation, and habitat conditions will be assessed on this property at a later date as part of the compensatory mitigation actions by Titus-Will.

13. Describe how the property is currently used. [help]

The property is currently used as a city park and is maintained by Tacoma Metro Parks.

14. Describe how the adjacent properties are currently used. [help]

The adjacent properties to the west and south are primarily residential areas. The northeastern border is bounded by State Route-16.

15. Describe the structures (above and below ground) on the property, including their purpose(s). [help]

No structures currently exist on the property.

16. Provide driving directions from the closest highway to the project location, and attach a map. [help]

To access the subject property from the Federal Way area, via Interstate 5 southbound, Take exit 132A for Washington-16 West/South 38th Street toward Gig Harbor/Bremerton/Tacoma Mall. Continue on Washington-16 for 2.4 miles then take exit 2B for North Orchard Street toward South 19th Street West. Turn right onto South Orchard Street. After 0.2 mile, turn right onto South 19th Street and proceed 0.3 mile. Turn right onto South Shirley Street and proceed approximately 92 feet. The site will be on the right.

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: Titus-Will Ford

Location Name (if applicable): China Lake Park

Attachment C:
Contact information for adjoining property owners. [help]

Use this attachment only if you have more than four adjoining property owners.

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

1. Contact information for all adjoining property owners. [help]

Name	Mailing Address	Tax Parcel # (if known)
CITY OF TACOMA PUBLIC WORKS DEPT	747 MARKET ST # 444 TACOMA WA 98402-3701	4475000100
MONEY JAMES E	1301 S WINNIFRED ST TACOMA WA 98465-2224	4475000261
CHARLES HAROLD L	1307 S WINNIFRED ST TACOMA WA 98465-2224	4475000263
SPUCK MICHAEL P & MARY B	1630 S WINNIFRED ST TACOMA WA 98465-2230	4475000265
EBERHARDT VIRGINIA R	1317 S WINNIFRED ST TACOMA WA 98465-2224	4475000267
STEPHENSON MICHAEL D & JENNIFER A	1321 S WINNIFRED ST TACOMA WA 98465-2224	4475000268
JOHNSTON DOUGLAS B	1325 S WINNIFRED ST TACOMA WA 98465-2224	4475000269
THANH-PHAN MAN & KHANH & NGUYEN THU-THAO	1329 S WINNIFRED ST TACOMA WA 98465-2224	4475000475
IH2 PROPERTY WASHINGTON LP	ALTUS GROUP US INC 21001 N TATUM BLVD STE 1630-630 PHOENIX AZ 85050	4475000476
LODGE MARIE L	1337 S WINNIFRED ST TACOMA WA 98465-2224	4475000483

LEWIS MARK D & GEORGIA A	1345 S WINNIFRED ST TACOMA WA 98465-2224	4475000485
LEWIS MARK D & GEORGIA A	1345 S WINNIFRED ST TACOMA WA 98465-2224	4475000487
NEYMAN MARGARET N TTEE	1351 S WINNIFRED ST TACOMA WA 98465-2224	4475000488
OMERO NELSON T & HELGA P	1501 S WINNIFRED ST TACOMA WA 98465-2227	4475000831
LEWIS PHILIP W & TOSHIKO	1507 S WINNIFRED ST TACOMA WA 98465-2227	4475000833
FOTE JOSEPH E	1511 S WINNIFRED ST TACOMA WA 98465-2227	4475000834
SAXTON GAIL M	1515 S WINNIFRED ST TACOMA WA 98465-2227	4475000841
REDA ERNEST W	1521 S WINNIFRED ST TACOMA WA 98465-2227	4475000842
GLAUM HELEN N	8603 IDLEWOOD DR SW TACOMA WA 98498-3623	4475001201
NELSON DIANA C	1605 S WINNIFRED ST TACOMA WA 98465-2229	4475001202
DEACON WILLIAM J & MICHELLE V	1609 S WINNIFRED ST TACOMA WA 98465-2229	4475001205
SCHALK ABIGAIL & MARLER ZAFIRA	1613 S WINNIFRED ST TACOMA WA 98465-2229	4475001206
DAROCHA PETER E & DIANE	1617 S WINNIFRED ST TACOMA WA 98465-2229	4475001207
CURRAN CRAIG J	3416 N 36TH ST TACOMA WA 98407-6105	4475001204
HUGHES KENNETH W & FRANCES M	1625 S WINNIFRED ST TACOMA WA 98465-2229	4475001611
CROSBY DANNY W & DEBORA K	3514 TAHOMA PL W UNIVERSITY PLACE WA 98466-2141	4475001612
CONGER ALEX D & SUSANNE L	1641 S WINNIFRED ST TACOMA WA 98465-2229	4475001613
STONE BRUCE C	1647 S WINNIFRED ST TACOMA WA 98465-2229	4475001614
TORGERSON K G JR & V L MOULTON	7011 N 13TH ST TACOMA WA 98406-1815	4475001615
WINDH JOHN & BARBARA	1812 S SHIRLEY ST TACOMA WA 98465-2223	4475001600

WINDH BARBARA L	1812 S SHIRLEY ST TACOMA WA 98465-2223	4475001950
FALK EUGENE G	STEVEN FALK 5515 95TH AVCT W UNIVERSITY PL WA 98467	4475001960
REDMON WILLIAM C JR & CATHERINE S	102 ELDORADO AVE FIRCREST WA 98466-7211	7160001750
SODON MICHAEL J JR & TERESA E	101 ELDORADO AVE FIRCREST WA 98466-7210	7160002290
SCHULTZ BRADFORD L & CAROLYN W	508 COLUMBIA AVE FIRCREST WA 98466-7202	7160002300
BROWN JOSHUA D & REGINA	502 COLUMBIA AVE FIRCREST WA 98466-7202	7160002310
WALZ THOMAS J	416 COLUMBIA AVE FIRCREST WA 98466-7406	7160003100
STEWART ANTHONY T & MARIA C JONKER-	412 COLUMBIA AVE FIRCREST WA 98466-7406	7160003110
NAM KOONG HOON	1825 S BENNETT ST TACOMA WA 98465-2253	4475001902
DAVIS CHARLES	104 SUMMIT AVE FIRCREST WA 98466-7421	7160003120
POSADAS VANESSA B	231 COLUMBIA AVE FIRCREST WA 98466-7403	7160004141
NGUYEN ANTHONY H & ANH N	219 COLUMBIA AVE FIRCREST WA 98466-7403	7160004152
CHAMBERS XAVIER D	1318 N HAWTHORNE ST TACOMA WA 98406-1820	7160004153
VIERECK DARLENE F	PO BOX 298 KALAMA WA 98625-0300	7160004171
WEST FAMILY PROPERTIES LLC	4801 S 19TH ST TACOMA WA 98405-1166	0220013043
PORTER DONALD F	4842 S 18TH ST TACOMA WA 98405-1104	3885000120
18TH JACKSON LLC	C/O LYNDA K JACKSON 11806 CLOVER CREEK DR SW LAKEWOOD WA 98499-1218	3885000110
FROHMADER VILMA E & FREDERICK W	1666 HUSON DR TACOMA WA 98405-1154	3885000100

SANBORN JOHN M & DOROTHY C	1660 HUSON DR TACOMA WA 98405-1154	3885000090
STATE OF WASHINGTON	C/O DEPT OF TRANSPORTATION 11211 41ST AVE SW LAKEWOOD WA 98499-4653	0220013044
HANSON FRANCIS L	1282 HUSON DR TACOMA WA 98405-1152	6100000010
UNITARIAN ASSN OF TACOMA	1115 S 56TH ST TACOMA WA 98408-3405	4475000733
UNITARIAN ASSOC OF TACOMA	1115 S 56TH ST TACOMA WA 98408-3405	4475000390
CITY OF TACOMA PUBLIC WORKS	747 MARKET ST RM 444 TACOMA WA 98402-3701	4475000402
CITY OF TACOMA-PUBLIC WORKS	747 MARKET ST # 444 TACOMA WA 98402-3701	4475000200

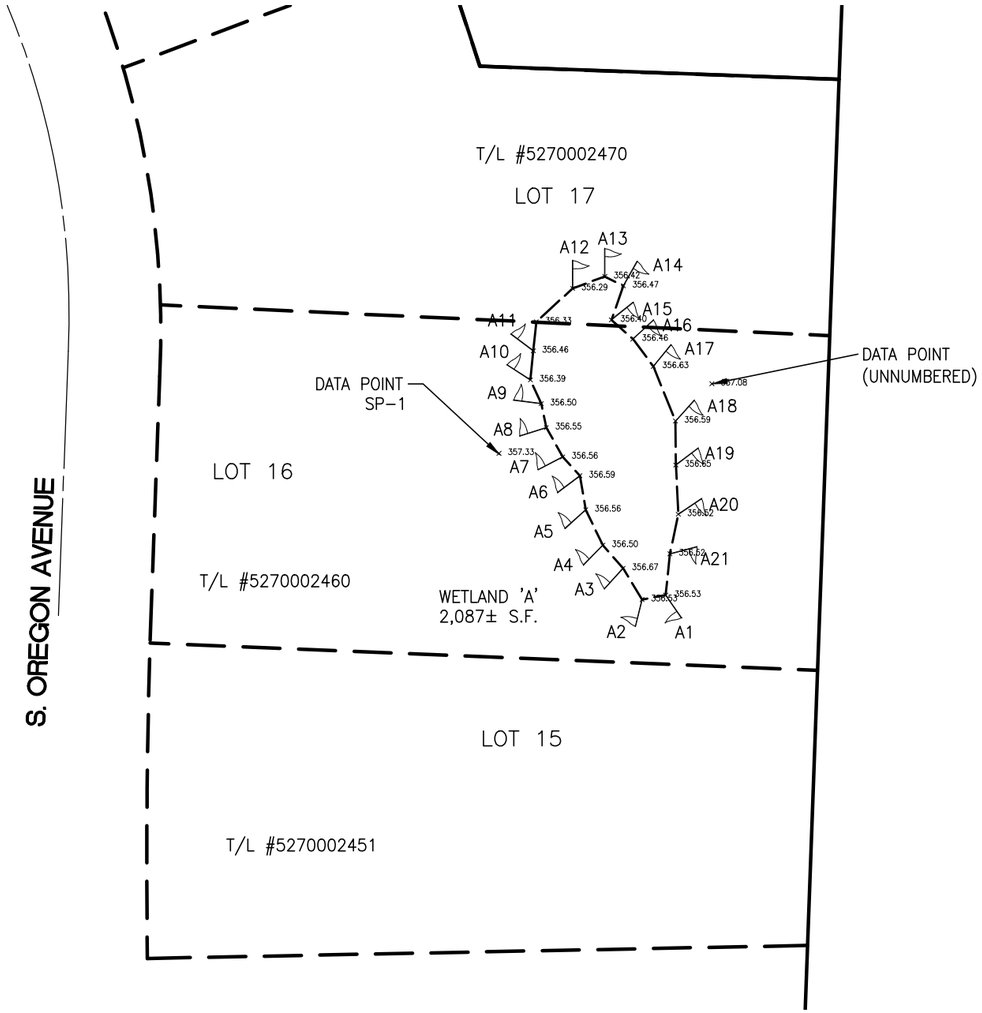
If you require this document in another format, contact the Governor's Office for Regulatory Innovation and Assistance (ORIA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORIA publication number: ENV-022-09 rev. 08/2013

WETLAND FLAG EXHIBIT

A PORTION OF THE NE¼ AND THE SE¼ OF THE NE¼
OF SEC. 18, TWP. 20 NORTH, RGE. 3 EAST, W.M.
CITY OF TACOMA, PIERCE COUNTY WASHINGTON

0 20 40 80

SCALE 1" = 40'



No.	Date	By	Ckd.	Appr.	Revision

Title: WETLAND FLAG EXHIBIT

For: TITUS WILL FORD

Scale: Horizontal 1"=40' Vertical

Designed ____ Drawn PCW Checked ____ Approved ____ Date 11/20/13

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 16589

Sheet 1 of 1

Soundview Consultants LLC

Environmental, Natural Resource, and Land Use Consulting
Comprehensive Assessment, Planning, and Permitting Services

2907 Harborview Drive
Gig Harbor, WA 98335
Phone: 253.514.8952
Fax: 253.514.8954

Technical Memorandum

To: **Titus-Will Enterprises, Inc.** File Number: **1207.0002**

From: **Jeremy Downs, Soundview Consultants LLC** Date: **December 4, 2013**

Re: **Titus-Will Ford – 2013 Western Annex – Wetland Delineation and Assessment**

Dear Titus-Will Enterprises, Inc.,

Soundview Consultants LLC has been retained by Titus-Will Enterprises, Inc. (Client) to conduct a wetland delineation and assessment for the proposed expansion of their existing auto dealership at 3606 South Sprague Avenue in Tacoma, Washington. The proposed expansion will occur on a one-acre site composed of three tax parcels located immediately west of the dealership within the City of Tacoma, Washington (Pierce County Tax Parcel Numbers: 5270002451, 5270002460, 5270002470). The subject parcels are located at 55-61 South Oregon Avenue within the City of Tacoma, Washington in the Northeast ¼ of the Northeast ¼ of Section 18, Township 20, Range 03, W.M.

The proposed project includes removal of two (2) duplex and associated infrastructure, fill of one highly-disturbed and low-functional wetland (Wetland A), and expansion of the existing Titus-Will Ford facility adjacent to the east. Construction of a new shop building and associated site expansion and development has been a 10 year vision of Titus-Will Enterprises and the next step forward in their business growth plan. Their primary business operations are sales and service/maintenance of passenger car and trucks and service/maintenance of commercial trucks, buses, and large vehicles. Construction of the new building and related site work allows for Titus-Will to expand current maintenance and service to larger commercial size vehicles and increase business as well as provide better service to local businesses in the surrounding area. Full site utilization will be necessary in order to fit expanded services, thus precluding any onsite mitigation. In order to compensate for filling two thousand eighty-seven (2,087) square feet of isolated Category IV wetlands (Wetland A), offsite mitigation will be provided at China Lake Park using innovative mitigation per City of Tacoma Municipal Code, TMC 13.11.270.L.

This Technical Memorandum has been prepared in order to present the results of the wetland delineation and assessment effort and to satisfy current regulatory review requirements under Tacoma Municipal Code (TMC) 13.11 – Critical Areas Preservation. A summary of the assessment efforts, results, and management recommendations are presented within.

1.0 BACKGROUND

1.1 Methods

Jeremy Downs, Principal Scientist, of Soundview Consultants LLC met onsite with City of Tacoma staff on October 18, 2013, at which time a small potential wetland was identified. On several dates between October 19 and November 13, 2013, the onsite wetland was inspected, delineated, and assessed by Jeremy Downs, a qualified wetland scientist. The wetland determination was made using observable vegetation, hydrology, soils, local precipitation data and various orthophotographic and digital photographic resources. Appendix A contains details for the methods used in this report.

Wetland boundaries were determined using the routine approach described in the Washington State Wetlands Identification and Delineation Manual (Ecology, 1997) and U.S. Army Corps of Engineers' Wetlands Delineation Manual (USACE, 1987) and modified according to the guidelines established in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, Version 2.0 (USACE, 2010). Wetland data forms used in the assessment are provided in Appendix D. The locations of all data plots were recorded by GPS at the time of the site visit.

Wetland boundaries were surveyed October 21, 2013. To mark the boundary between wetlands and uplands, orange surveyor's flagging was alpha-numerically labeled and tied to wood lath along the wetland boundary. To mark the points where data was collected, pink surveyor's flagging was alpha-numerically labeled and tied to lath at each sampling location. The location of each wetland boundary flag and data plot was surveyed by Barghausen Consulting Engineers, Inc. using typical professional land survey techniques.

Wetlands were classified using both the hydrogeomorphic (Brinson, 1993) and Cowardin (Cowardin, 1979) classification systems and assessed using the Wetland Functions Characterization Tool for Linear Projects (WSDOT, 2000). Following classification and assessment, all wetlands were rated and categorized using the Washington State Wetlands Rating System for Western Washington – Revised (Hruby, 2004) and guidelines established in the City of Tacoma Municipal Code (TMC) Chapter 13.11.310. Wetland ratings forms used in this assessment are provided in Appendix E.

1.2 Background Research

Background data was obtained from various Federal, State, and local resources prior to conducting the site investigation. Data collected and reviewed prior to the site investigation included, but was not limited to, national and local wetland and other critical areas inventory maps, site topography and drainage basin data, soils data, and Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) database (Appendix B). A preliminary inventory of potential critical areas was made during review of the background documents and research.

The U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) map does not identify any wetlands within the project area. Appendix B1 contains the USFWS NWI map.

The Natural Resources Conservation Services (NRCS) Soil Survey map of Pierce County does not contain data for this location.

The WDFW PHS database does not identify any priority habitats or species on or near the site. WDFW interactive data maps (SalmonScape) also do not identify any salmonids or fish bearing streams on or near the site.

The Pierce County GovME map does not identify any potential wetland areas in the project area.

2.0 RESULTS

2.1 Wetlands

During the assessment, Soundview Consultants LLC identified one wetland (Wetland A) within the proposed project area. Wetland A is a Palustrine Emergent Seasonally-Flooded/Saturated wetland (PEME) approximately two thousand eighty-seven (2,087) square feet (0.048 acres) in total area. Appendix C contains a site map. The wetland is located at the base of hill that slopes down from Oregon Avenue and the adjacent Costco parking lot. The wetland is a Category IV isolated, depressional wetland with no outlet and is surrounded by upland development over fill. This development and fill has likely impeded drainage and caused the area to develop wetland conditions over time. In addition, the wetland area may have been excavated at some point in the past in association with upland development as indicated by the problematic soils that exhibited little weathering and appeared to consist of subsoil materials.

The site is covered primarily with mowed vegetation and landscaped areas with the exception of a small patch of young black cottonwood (*Populus balsamifera*) north of the wetland. The upland areas surrounding the wetland are dominated by assorted grasses, Himalayan blackberry, a few scattered black cottonwood, and landscaped areas. The wetland is dominated by common spike-rush and crab grass with many areas lacking vegetation. However, as the site was mowed, vegetation lacked inflorescence, and the identification of various grasses was difficult. Though final grass species identification may be variable, it does not affect the wetland determinations.

Soils onsite were problematic, possibly due to past excavation associated with adjacent development. Upland soil profiles appeared inconsistent with landscape setting and appeared to have been stripped of the top soil, leaving only subsoils with groundwater-induced mottling near the surface in all areas including clearly upland areas. Weathered topsoils were lacking or poorly developed throughout the area of concern.

Photograph 1. Wetland A as observed from the south looking north.

Table 1. Wetlands Within the Project Area.

Wetland	Predominant Wetland Classification / Rating				Wetland Size (sf)
	Cowardin[A]	HGM[B]	Ecology[C]	City of Tacoma[D]	
A	PEME	Depressional	IV	Category IV	2,087

Notes:
A. Cowardin et al. (1979) or National Wetland Inventory (NWI) Class based on vegetation: PEM = Palustrine Emergent; PSS = Palustrine Scrub-Shrub; PFO = Palustrine Forested; Modifiers (-C, -E, -H, -x, et cetera) = Water Regime or Special Situations
B. Brinson, M. M. (1993).
C. Ecology rating according to Washington State wetland rating system for Western Washington – Revised Hruby (2004).
D. City of Tacoma Municipal Code (TMC); Chapter 13.11.310

2.2 Wetland Functions

The wetland is highly-disturbed, small, and of low function. The wetland may also be of anthropogenic origin as indicated by the prior grading activity and poorly developed soil profiles. The wetland has little habitat value due to the disturbance to vegetation, predominance of invasive species, isolated conditions, and lack of a tree and shrub strata. The wetland provides minimal water quality functions. Although the surrounding land use suggests the opportunity to treat water quality and quantity, this urbanized area is likely well-equipped with controlled and treated stormwater design facilities. The wetland may provide some limited hydrologic functions, such as stormwater capture and infiltration because of its position near upland development. However, the wetland area is small and storage capacity is extremely low, so hydrologic function is limited to minor reductions of surface flows during storm events.

3.0 IMPACT ANALYSIS AND MITIGATION CONCEPT

The project proposes fill of Wetland A to facilitate expansion of the existing adjacent auto dealership. Impacts to and fill of the wetland cannot be avoided due to the proximity of the wetland in relation to existing facilities. The small size of the project area precludes any alterations in layout or reductions in size that would further avoid or minimize impacts. To rectify these unavoidable impacts, offsite compensatory wetland mitigation is proposed as no onsite mitigation actions are feasible.

3.1 Wetland Impacts

The proposed project requires full site development, which will therefore result in the loss of 2,087 square feet (0.048 acres) of PEME wetlands dominated by sparse common spike-rush and crab grass in an urbanized area that eventually drains to Commencement Bay. This action will result in the loss of 2,087 square feet (0.048 acres) of isolated Category IV wetlands within the watershed.

3.2 Mitigation Concept

Compensatory mitigation is required for the fill of Wetland A; however, onsite mitigation is not feasible due to spatial limitations and a lack of suitable opportunities. Therefore, offsite mitigation will be provided for the approximately 2,087 square feet (0.048 acres) of Category IV wetland loss. Titus-Will has reached an agreement with Tacoma Metro Parks to help establish a more appropriate compensatory wetland mitigation action in China Lake Park. Tacoma Metro Parks has provided a support/approval letter with commitment to provide compensatory wetland mitigation actions at a later date, to be conducted within a year and a half of project completion, as verification of the agreement with Titus-Will.

As part of the offsite mitigation action, Titus-Will has agreed to provide a full wetland delineation and assessment of China Lake Park. Titus-Will will also provide a Conceptual Restoration Plan to be included that identifies various potential restorative actions within the park. Preliminary mitigation planning will be provided sufficient to identify areas of wetland rehabilitation, enhancement, and preservation, of which a suitable portion will be used for this project in accordance with TMC 13.11.340. Mitigation and monitoring actions will subsequently be provided by Tacoma Metro Parks. Details of the proposed offsite mitigation actions are unknown at this time, but the park is understood to have opportunity to provide compensatory wetland mitigation actions well in excess of what is required for impacts associated with Titus-Will's project. Because Wetland A is a Category IV wetland, the following mitigation ratios, as described by TMC 13.11.340.D, will be applied:

Category and Type of Wetland	Re-establishment or Creation	Rehabilitation	Re-establishment or Creation (R/C) and Enhancement (E)	Enhancement only
All Category IV	1.5 : 1	3 : 1	1:1 (R/C) and 2:1 (E)	6 : 1

The Conceptual Restoration Plan will provide at least a basic set of goals, objectives, and performance standards along with maintenance and monitoring procedures sufficient to ensure the compensatory mitigation for Titus-Will will be successful. Monitoring will be provided for five years by Tacoma Metro Parks with annual monitoring reports to be submitted to the City of Tacoma. In addition, a surety will be provided by Titus-Will in an amount of $45,000 for their proposed contribution to the restoration project, including the wetland delineation and assessment, site survey, preliminary mitigation planning, and creation of the Conceptual Restoration Plan.

The Conceptual Restoration Plan with wetland delineation of China Lake Park provided by Titus-Will will be submitted to the City of Tacoma within six months of development approval, and the compensatory mitigation actions identified for this project will be implemented by Tacoma Metro Parks within one year of Conceptual Restoration Plan approval.

4.0 RELEVANT CODE ANALYSIS

4.1 Legal Test

This project meets the legal tests required by the City of Tacoma and is allowed under TMC 13.11.240.A – No Practicable Alternative. Code citation and discussion follow:

A. No Practicable Alternatives. An alternative is considered practicable if the site is available and the project is capable of being done after taking into consideration cost, existing technology, infrastructure, and logistics in light of overall project purposes. No practicable alternatives need be considered if the applicant can demonstrate all of the following:

1. The project cannot be reasonably accomplished using one or more other sites in the general region that would avoid or result in less adverse impacts to the wetland or stream or fish and wildlife habitat conservation area (FWHCA);

The proposed project site is an expansion of the existing Titus-Will facilities with minimal remaining vacant land available. The proposed building is centrally located within the Titus-Will properties; locating the new facility on this site is central to business operations. Construction of the new building and related site work allows for Titus-Will to expand current maintenance and service to larger commercial size vehicles and increase business as well as provide better service to local

businesses in the surrounding area. Site development along the west side of the new building is essential to the project in that it provides the necessary vehicle access and adjacent staging area to the building's commercial service bays.

In addition, in accordance with 13.11.270.G, there are no reasonable onsite or in subdrainage basin opportunities. The area surrounding Wetland A is fully urbanized and developed with no water available to maintain the anticipated hydrogeomorphic class of wetland when restored; any attempted mitigation actions onsite or in the general region would have a low likelihood of success. China Lake Park and the Titus-Will site both drain to Commencement Bay, and the proposed restoration project will result in the restoration of a much larger system of wetlands and provide greater overall benefits to the watershed.

In summary, the site layout and business model require the full utilization of the site, resulting in unavoidable fill of Wetland A. In addition to the necessity of having the new facility centrally located, the extensive development of surrounding areas precludes moving the project to another site in the general region that would avoid or result in less adverse impacts to wetlands.

2. *The goals of the project cannot be accomplished by a reduction in the size, scope, configuration or density as proposed, or by changing the design of the project in a way that would avoid or result in fewer adverse effects on the wetland or stream or FWHCA; and*

As discussed above, the goal of the project is to provide an extension of the existing Titus-Will facility within the confines of the space and the site utilization to fulfill the needs of operation. The small size of the project area precludes any alterations in layout or reductions in size, scope, or configuration that would avoid or result in fewer adverse effects on the wetland.

3. *In cases where the applicant has rejected alternatives to the project as proposed, due to constraints on the site such as inadequate zoning, infrastructure or parcel size, the applicant has attempted to remove or accommodate such constraints, unless the applicant can demonstrate that such attempt would be futile.*

The applicant has not rejected alternatives as no practicable alternatives exist. Due to the situation of existing facility, limited available area for expansion, and proximity of the wetland, the project cannot be redesigned or relocated in a way to reduce impacts to the onsite wetland.

4.2 Mitigation Sequencing

Mitigation measures will be implemented in a manner consistent with TMC 13.11.270.E – Mitigation Sequencing. Code citation and discussion to follow:

E. Mitigation Sequencing. When an alteration to a critical area or its buffer is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference.

1. *Avoiding the impact altogether by not taking a certain action or parts of an action.*

The impact cannot be avoided as the site layout and business model requires direct building expansion and full utilization of the site, resulting in unavoidable fill of Wetland A. Construction of a new shop building and associated site expansion and development has been a 10 year vision of Titus-Will Enterprises and the next step forward in their business growth plan. The proposed project allows for Titus-Will to expand current maintenance and service to larger commercial size vehicles and increase business as well as provide better service to local businesses in the surrounding area. The proposed building is centrally located within the Titus-Will properties; locating the new facility on this site is central to business operation. Site development along the west side of the new building is essential to the project in that it provides the necessary vehicle access and adjacent staging area to the building's commercial service bays, allowing vehicles to enter from one side of

building and exit to the opposite side. The small size of the project area precludes any alterations in layout or reductions in size that would avoid impacts to the onsite wetland.

2. *Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.*

As described above, the proposed project is essential to business operations, and the small size of the project area and the proximity of the wetland in relation to existing facilities preclude any alterations in layout or reductions in size that would minimize impacts.

3. *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.*

Due to reasons previously discussed, impacts to the wetland are necessarily permanent and, therefore, cannot be rectified by repairing, rehabilitating, or restoring the onsite environment. As a result, impacts to the wetland will be compensated for through offsite mitigation actions.

4. *Reducing or eliminating the impact over time by preservation and maintenance operations.*

Due to reasons previously discussed, impacts to the wetland are necessarily permanent and, therefore, cannot be reduced or eliminated over time. As a result, impacts to the wetland will be compensated for through offsite mitigation actions.

5. *Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.*

Compensatory mitigation for wetland impacts will be provided through offsite mitigation actions. Titus-Will has reached an agreement with Tacoma Metro Parks to help establish a more appropriate compensatory wetland mitigation action in China Lake Park. Titus-Will will contribute to a large-scale wetland restoration project that will more than compensate for the fill of the 2,087 square-foot, low-functional Category IV wetland onsite. Titus-Will's contribution to the restoration project will include the wetland delineation and assessment, site survey, preliminary mitigation planning, and creation of a Conceptual Restoration Plan. Details of the compensatory mitigation to be provided by Titus-Will are described in Section 3.3.

6. *Monitoring the required mitigation and taking remedial action where necessary.*

The Conceptual Restoration Plan will provide at least a basic set of goals, objectives, and performance standards along with maintenance and monitoring procedures sufficient to ensure the compensatory mitigation for Titus-Will will be successful. Monitoring will be provided for five years by Tacoma Metro Parks with annual monitoring reports to be submitted to the City of Tacoma. Contingency measures will be outlined in the Conceptual Restoration Plan and remedial action will be provided by Tacoma Metro Parks where necessary. Titus-Will will additionally provide surety for their contribution to the overall restoration project.

4.3 Innovative Mitigation

Mitigation actions will be provided under TMC 13.11.270.L – Innovative Mitigation. Code citation and discussion follow:

L. *Innovative Mitigation. The Director may approve innovative mitigation projects that are based on best available science including but not limited to activities such as advance mitigation and preferred environmental alternatives. Innovative mitigation proposals must offer an equivalent or better level of protection of critical area functions and values than would be provided by the strict application of this chapter. Such mitigation proposals must demonstrate special consideration for conservation and protection measures for anadromous fisheries. The Director shall consider the following for approval of an innovative mitigation proposal:*

1. *Creation or enhancement of a larger system of natural areas and open space is preferable to the preservation of many individual habitat areas;*

Mitigation in China Lake Park provides opportunities for wetland creation or enhancement of a larger system of natural areas and open space than could be found within the immediate project vicinity in a highly developed commercial area. Due to the small size and low-functionality of the onsite wetland, an individual offsite mitigation effort in the area would have little benefit to the overall functionality of the watershed. The mitigation measures proposed by the agreement between Titus-Will and Metro Parks will result in the restoration of a much larger system of wetlands and provide greater overall benefits to the watershed than would be provided in a more conventional form of offsite wetland mitigation. The area surrounding Wetland A is fully urbanized and developed with no water available to maintain the anticipated hydrogeomorphic class of wetland when restored; any attempted mitigation actions onsite or in the general region would have a low likelihood of success. Whereas, China Lake Park provides a large geographic area of relatively undisturbed habitat and presents a greater likelihood of providing equal or improved critical area functions and habitat connectivity, as also required by TMC 13.11.270.G.

2. *The applicant demonstrates that long-term protection and management of the habitat area will be provided;*

The support/approval letter from Tacoma Metro Parks demonstrates their commitment to providing compensatory wetland mitigation actions at a later date and serves as verification of the agreement with Titus-Will. The Conceptual Restoration Plan provided by Titus-Will will provide the basic set of goals, objectives, and performance standards along with maintenance and monitoring procedures sufficient to ensure the compensatory mitigation for Titus-Will will be successful. Monitoring will be provided for five years by Tacoma Metro Parks with annual monitoring reports to be submitted to the City of Tacoma. In addition, a performance bond or alternative surety will be provided by Titus-Will for their proposed contribution to the restoration project, including the wetland delineation and assessment, site survey, preliminary mitigation planning, and creation of the Conceptual Restoration Plan.

3. *There is clear potential for success of the proposed mitigation at the proposed mitigation site;*

Metro Parks is dedicated to restoring China Lake Park and the partnership with Titus-Will provides opportunities for better assessments and restoration planning than would otherwise be possible given the park's limited operating budget; therefore, this mitigation action, while unique, will provide for improved management and ongoing success of any restoration actions in a larger system of natural areas and open space than could be found within the immediate project vicinity in a highly developed commercial area. The mitigation measures proposed by the agreement between Titus Will and Metro Parks will result in the restoration of a much larger system of wetlands and provide greater overall benefits to the watershed than would be provided in a more conventional form of direct offsite wetland mitigation actions.

4. *Mitigation according to TMC 13.11.270.E is not feasible due to site constraints such as parcel size, stream type, wetland category, or excessive costs;*

Mitigation according to TMC 13.11.270.E will be provided as outlined in Section 4.2. However, the timeline of the project does not allow completion of Titus-Will's portion of the restoration project prior to the start of their site development actions. The Conceptual Restoration Plan with wetland delineation of China Lake Park provided by Titus-Will will be submitted to the City of Tacoma within six months of development approval, and the compensatory mitigation will be implemented by Tacoma Metro Parks within one year of Conceptual Restoration Plan approval. Under TMC 13.11.270.J, it is preferred that compensatory mitigation actions are completed prior to activities that

will disturb the onsite critical areas. However, due to the size of the proposed restoration area (China Lake Park), the wetland assessment and documentation and planning efforts will require an approximate six month timeline to complete, and the proposed mitigation actions will require another twelve months following plan approval for completion. Titus-Will must begin site development prior to the completion of this eighteen month timeline.

5. *A wetland of a different type is justified based on regional needs or functions and values;*

China Lake Park is an 11 acre park, largely undeveloped and contains one of the largest lakes within city limits. The first parcel for this park was acquired in 1943. Residents have previously and appear to currently conduct volunteer efforts to help keep this property clean and protect native plants. In addition, work is planned for 2013 to make water quality and wetland improvements as compensatory mitigation within the drainage basins surrounding State Route-16. Funding is a $100,000 grant from the State Department of Transportation accepted by the Park board on resolution C21-06 Feb. 27, 2006. The location of this park is only a few miles away from the project site and the local efforts to restore and/or maintain healthy environment at China Lake Park would be a much greater benefit to the community and the watershed alike.

6. *The replacement ratios are not reduced or eliminated; unless the reduction results in a preferred environmental alternative; and*

Replacement ratios used in the compensatory mitigation measures will not be reduced and will be in accordance with TMC 13.11.340.D.

7. *Public entity cooperative preservation agreements such as conservation easements are applied.*

China Lake Park is a Metro Parks property and will not be developed or placed into other land use type. In addition, the property enjoys cooperative agreements with various entities such as WSDOT (see answer number 5).

If you have any further questions, please contact me at your earliest convenience prescribed.

Sincerely,

Jeremy Downs
Senior Scientist / Environmental Planner
Soundview Consultants LLC
jeremy@soundviewconsultants.com

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Appendix A — Methods and Tools

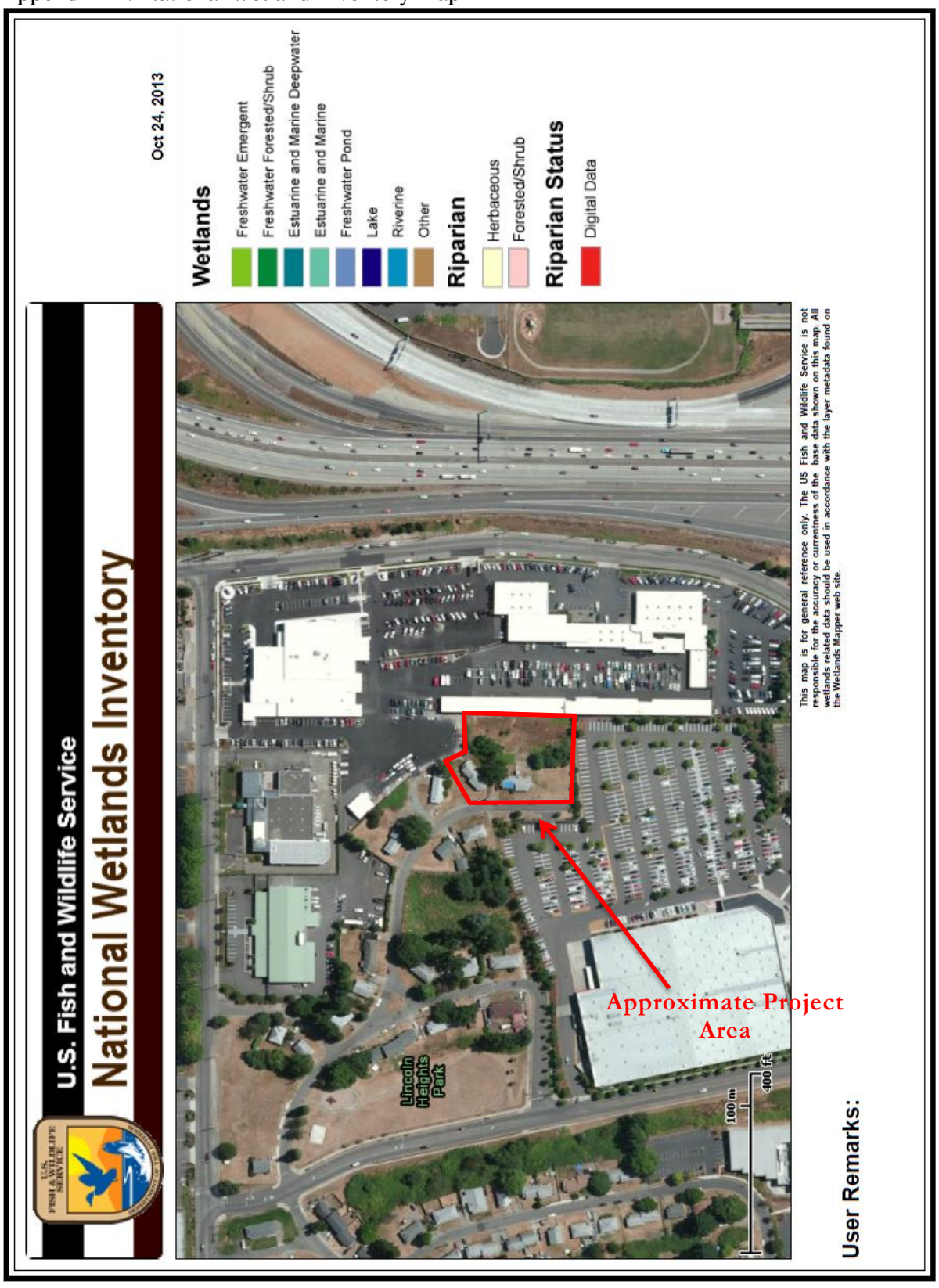
Table A1. Methods and tools used to prepare the report.

Parameter	Method or Tool	Website	Reference
Wetland Delineation	USACE 1987 Wetland Delineation Manual	http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf	**Environmental Laboratory.** 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
	Western Mountains, Valleys, and Coast Region Regional Supplement	http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/west_mt_finalsupp.pdf	**U.S. Army Corps of Engineers.** 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
Wetland Classification	USFWS / Cowardin Classification System	http://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States.pdf	**Cowardin**, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. Government Printing Office, Washington, D.C.
	Hydrogeomorphic Classification (HGM) System	http://el.erdc.usace.army.mil/wetlands/pdfs/wrpde4.pdf	**Brinson**, M. M. (1993). "A hydrogeomorphic classification for wetlands," Technical Report WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.
Wetland Rating	Washington State Wetland Rating System	http://www.ecy.wa.gov/biblio/0406025.html	**Hruby**. 2004. Washington State wetland rating system for western Washington –Revised. Publication # 04-06-025.
	Bremerton Municipal Code	http://www.codepublishing.com/wa/Bremerton.html	Uses State Rating System under Bremerton Municipal Code Title 20.14.320
Wetland Indicator Status	National list of plant species that occur in wetlands	http://www.fws.gov/pacific/ecoservices/habcon/pdf/National%20List%20of%20Plant%20Species%201988.pdf	Robert W. Lichvar and John T. Kartesz 2009. North American Digital Flora: National WeUand Plant List, version 2.4.0 (https:l/weUand_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC.
Plant Names	USDA Plant Database	http://plants.usda.gov/	Website (see Appendix A)
Threatened and Endangered Species	Washington Natural Heritage Program	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	**Washington Natural Heritage Program** (Data published 10/15/08). Endangered, threatened, and sensitive plants of Washington. Washington State Department of Natural Resources, Washington Natural Heritage Program, Olympia, WA
	Washington Priority Habitats and Species	http://wdfw.wa.gov/hab/phspage.htm	**Priority Habitats and Species (PHS) Program** (Data produced 02/07/11). Map of priority habitats and species in project vicinity. Washington Department of Fish and Wildlife (WDFW).
	NOAA fisheries species list and maps	http://www.nwr.noaa.gov/ESA-Salmon-Listings/Salmon-Populations/Index.cfm and http://www.nmfs.noaa.gov/pr/species/	Website
	USFWS species lists by County	http://www.fws.gov/endangered/?s8fid=112761032793&s8fid=112762573903&countyName=Kitsap%2C+wa	Website
Species of Local Importance	WDFW GIS Data	http://wdfw.wa.gov/mapping/salmonscape/	Website

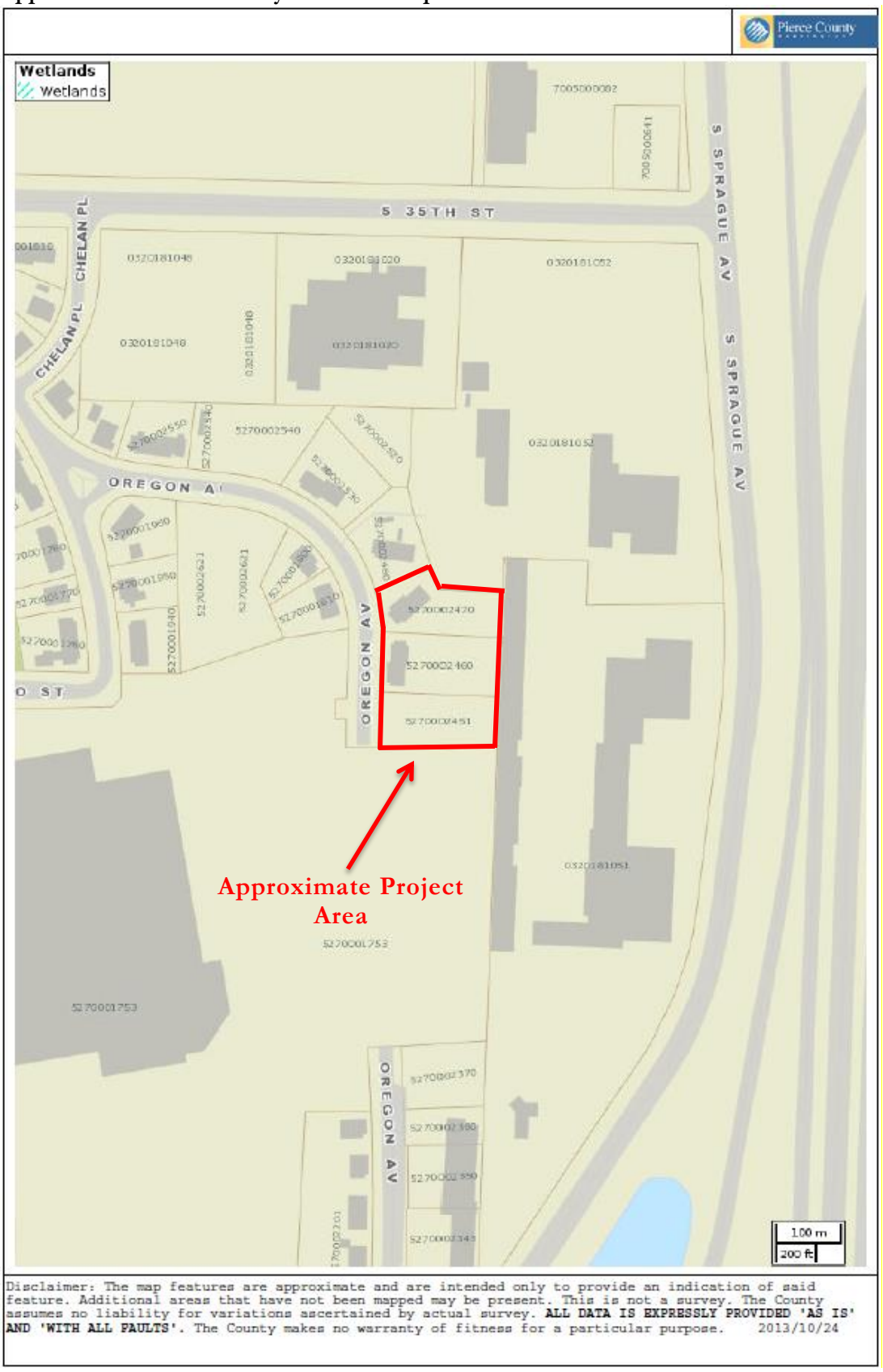
Appendix B — Background Information

This Appendix includes a National Wetland Inventory map (B1), Pierce County Wetlands Map (B2), City of Tacoma GovME Wetlands Map (B3).

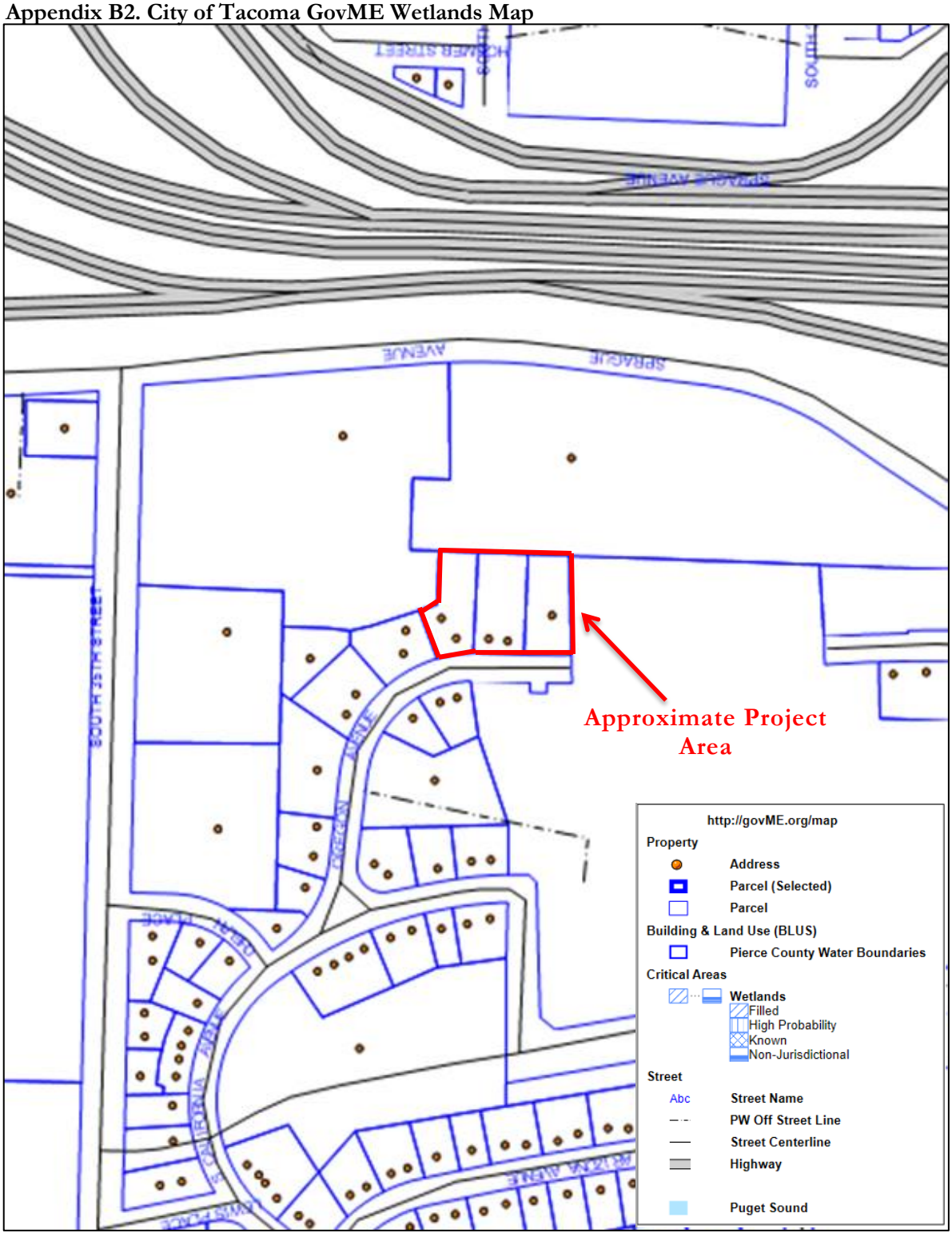
Appendix B1. National Wetland Inventory Map



Appendix B2. Pierce County Wetlands Map



Appendix B2. City of Tacoma GovME Wetlands Map



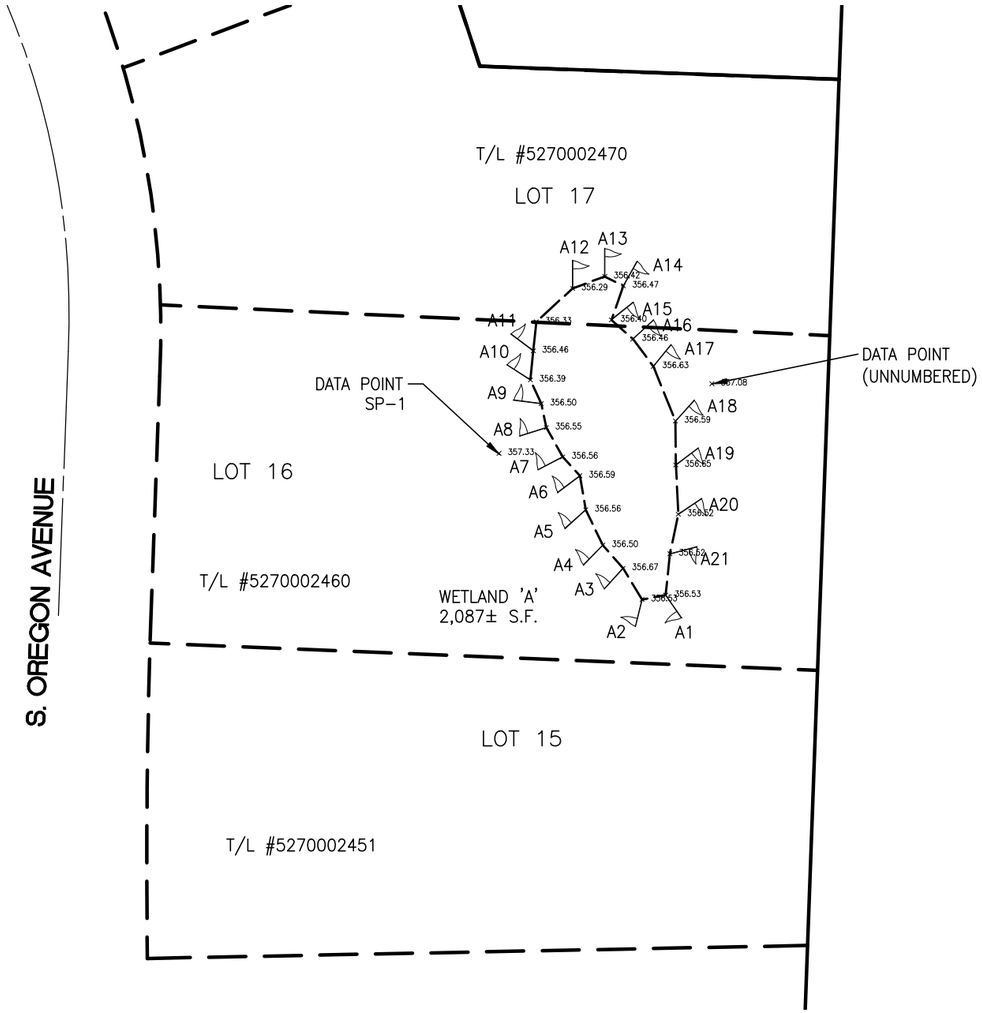
Appendix C — Site Map

WETLAND FLAG EXHIBIT

A PORTION OF THE NE¼ AND THE SE¼ OF THE NE¼
OF SEC. 18, TWP. 20 NORTH, RGE. 3 EAST, W.M.
CITY OF TACOMA, PIERCE COUNTY WASHINGTON

0 20 40 80

SCALE 1" = 40'



No.	Date	By	Ckd.	Appr.	Revision

Title: WETLAND FLAG EXHIBIT

For: TITUS WILL FORD

Scale: Horizontal 1"=40' Vertical

Designed ____ Drawn PCW Checked ____ Approved ____ Date 11/20/13

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING, SURVEYING, ENVIRONMENTAL SERVICES

Job Number 16589

Sheet 1 of 1

Appendix D — Wetland Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Titus-Will Ford - 2013 Western Annex City/County: Tacoma/Pierce Sampling Date: 10/19/2013

Applicant/Owner: Titus-Will Enterprises, Inc State: WA Sampling Point: SP-1U

Investigator(s): Jeremy Downs, Soundview Consultants LLC Section, Township, Range: Sec. 18, T20N, R03E, W.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 10

Subregion (LRR): A Lat: 47.226340 Long: 122.465997 Datum: WGS 84

Soil Map Unit Name: NA - Urban Tacoma NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampling Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: **Hydric soils indicators (depleted matrix and redox features) are spurious. The site appears to lack weathered or developed topsoils, and signs of prior grading are present. These soil conditions are more consistent with exposed subsoils (i.e. shallow groundwater table indicators) from prior excavation actions. Hydrophytic vegetation is limited to non-wetland specific grasses typical of disturbed sites. Sample area is clearly not a wetland.**

VEGETATION – Use scientific names of plants

Tree Stratum (Plot Size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. ____	____	____	____
2. ____	____	____	____
3. ____	____	____	____
4. ____	____	____	____
50% = ____, 20% = ____	0	= Total Cover	
Sapling/Shrub Stratum (Plot Size: ____)			
1. *Rubus armeniacus*	25	yes	FACU
2. *Populus balsamifera*	<5	no	FAC
3. ____	____	____	____
4. ____	____	____	____
5. ____	____	____	____
50% = 15, 20% = 5	30	= Total Cover	
Herb Stratum (Plot Size: ____)			
1. *Cirsium vuglare*	<5	no	FACU
2. *Rumex crispus*	<5	no	FAC
3. *Ipomea lacunosa*	<2	no	NL (UPL)
4. *Vicea sativa**	<2	no	UPL
5. *Holcus lanatus*	20	yes	FAC
6. *Poa pratensis**	20	yes	FAC
7. *Festuca idahoensis**	20	yes	FACU
8. *Agrostis capillaris**	20	yes	FAC
9. *Phalaris arundinacea*	<10	no	FACW
10. ____	____	____	____
11. ____	____	____	____
50% = 102, 20% = 20.8	104	= Total Cover	
Woody Vine Stratum (Plot Size: ____)			
1. ____	____	____	____
2. ____	____	____	____
50% = ____, 20% = ____	____	= Total Cover	
% Bare Ground in Herb Stratum ____			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	60	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	____	x1 =	____
FACW species	<10	x2 =	20
FAC species	70	x3 =	210
FACU species	50	x4 =	200
UPL species	<2	x5 =	10
Column Totals:	132 (A)		440 (B)

Prevalence Index = B/A = 3.3

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Wetland Non-Vascular Plants[1]

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: * Plant was previously mowed and lacking infloresence - final species determination is estimated to best professional judgement in the field

Project Site: Titus-Will Ford - 2013 Western Annex

SOIL Sampling Point: SP-1U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 4/3	100	NA	-	-	-	SSL	Sandy Silt Loam
6-24+	10 YR 4/2	60	10 YR 4/6	40	C	M	SGS	Sandy Gravelly Loam

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (Inches): _____

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Area appears to have been previously disturbed. Soil profile appears inconsistant with landscape setting and has likely been stripped of topsoil leaving mottled subsoils now present near the surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	N/A
Water Table Present?	Yes	☐	No	☒	Depth (inches):	N/A
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	N/A

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrologic indicators present

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Titus-Will Ford - 2013 Western Annex City/County: Tacoma/Pierce Sampling Date: 10/19/2013

Applicant/Owner: Titus-Will Enterprises, Inc State: WA Sampling Point: SP-2W

Investigator(s): Jeremy Downs, Soundview Consultants LLC Section, Township, Range: Sec. 18, T20N, R03E, W.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): A Lat: 47.226337 Long: -122.465883 Datum: WGS 84

Soil Map Unit Name: NA - Urban Tacoma NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐				
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampling Area within a Wetland?**	**Yes**	☒	**No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐				

Remarks: Sample plot located in small excavated depression with clear indicators of wetland hydrology and hyydrophytic vegetation that contrast distinctly with adjacent upland areas.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot Size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
50% = ____, 20% = ____		= Total Cover	
Sapling/Shrub Stratum (Plot Size: ____)			
1. *Populus balsamifera*	<5	yes	FAC
2.			
3.			
4.			
5.			
50% = 2.5, 20% = 1	5	= Total Cover	
Herb Stratum (Plot Size: ____)			
1. *Rumex crispus*	<2	no	FAC
2. *Digitaria sanguinalis**	10	no	NL (UPL)
3. *Eleocharis palustris**	60	yes	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 37, 20% = 14.4	72	= Total Cover	
Woody Vine Stratum (Plot Size: ____)			
1.			
2.			
50% = ____, 20% = ____		= Total Cover	
% Bare Ground in Herb Stratum ____			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:	
OBL species	60	x1 =	60
FACW species		x2 =	
FAC species	7	x3 =	21
FACU species		x4 =	
UPL species	10	x5 =	50
Column Totals:	77 (A)		131 (B)

Prevalence Index = B/A = 1.7

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☒ Prevalence Index is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Wetland Non-Vascular Plants[1]

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: *Plant was previously mowed and lacking inflorescence - final species determination is estimated to best professional judgement in the field.

Project Site: Titus-Will Ford - 2013 Western Annex

SOIL

Sampling Point: SP-2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	5 YR 4/1	100	-	-	-	-	SS	Sandy Silt
4-16	5 YR 5/1	80	10 YR 4/6	20	C	M&PL	RSCS	Rocky Sandy Clay Silt

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ____

Depth (Inches): ____

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Point of resistance (compacted cobble) at 16 inches

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☒ Inundation Visible on Aerial Imagery (B7)
- ☒ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☒ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☒	No	☐	Depth (inches):	0.5
Water Table Present?	Yes	☒	No	☐	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	0

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Titus-Will Ford - 2013 Western Annex City/County: Tacoma/Pierce Sampling Date: 10/19/2013

Applicant/Owner: Titus-Will Enterprises, Inc State: WA Sampling Point: SP-3U

Investigator(s): Jeremy Downs, Soundview Consultants LLC Section, Township, Range: Sec. 18, T20N, R03E, W.M.

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): A Lat: 47.226355 Long: -122.465709 Datum: WGS 84

Soil Map Unit Name: NA - Urban Tacoma NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, Or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampling Area within a Wetland?** **Yes** ☐ **No** ☒
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: Hydric soils indicators (depleted matrix and redox features) are spurious. The site appears to lack weathered or developed topsoils, and signs of prior grading are present. These soil conditions are more consistent with exposed subsoils (i.e. shallow groundwater table indicators) from prior excavation actions. Hydrophytic vegetation is limited to non-wetland specific grasses typical of disturbed sites. Sample area is clearly not a wetland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot Size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
50% = ____, 20% = ____		= Total Cover	
Sapling/Shrub Stratum (Plot Size: ____)			
1. *Populus balsamifera*	<5	yes	FAC
2. *Rubus armeniacus*	<5	yes	FACU
3. *Quercus garyana*	<1	no	NL (UPL)
4.			
5.			
50% = 5.5, 20% = 2.2	11	= Total Cover	
Herb Stratum (Plot Size: ____)			
1. *Hypochaeris radicata*	5	no	FACU
2. *Rumex acetosella*	5	no	FACU
3. *Plantago lanceolata*	<2	no	FAC
4. *Rumex crispus*	<5	no	FAC
5. *Vicea sativa**	10	no	UPL
6. *Holcus lanatus*	10	no	FAC
7. *Poa pratensis**	15	yes	FAC
8. *Agrostis capillaris**	15	yes	FAC
9. *Festuca idahoensis*	15	yes	FACU
10.			
11.			
50% = 41, 20% = 16.4	82	= Total Cover	
Woody Vine Stratum (Plot Size: ____)			
1.			
2.			
50% = ____, 20% = ____		= Total Cover	
% Bare Ground in Herb Stratum ____			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	5	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	60	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	52	x3 =	156
FACU species	30	x4 =	120
UPL species	11	x5 =	55
Column Totals:	93 (A)		331 (B)

Prevalence Index = B/A = 3.6

Hydrophytic Vegetation Indicators:

☒ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Wetland Non-Vascular Plants[1]

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: * Plant was previously mowed and lacking infloresence - final species determination is estimated to best professional judgement in the field

Project Site: Titus-Will Ford - 2013 Western Annex

SOIL Sampling Point: SP-3U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (Moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 4/3	100	-	-	-	-	SSL	Sandy Silt Loam
4-24	10 YR 4/2	60	10 YR 4/6	40	C	M	SGS	Sandy Gravelly Silt

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☒ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ____

Depth (Inches): ____

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Area appears to have been previously disturbed. Soil profile appears inconsistant with landscape setting and has likely been stripped of topsoil leaving mottled subsoils now present near the surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	____
Water Table Present?	Yes	☐	No	☒	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrologic indicators present

Appendix E — Wetland Rating Forms

Wetland name or number A

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users
Updated Oct. 2008 with the new WDFW definitions for priority habitats

Name of wetland (if known): Titus-Will Ford Wetland A Date of site visit: 10/19/2013

Rated by: Jeremy Downs, Soundview Consultants Trained by Ecology? Yes X No Date of training: 2006

SEC: 18 TWNSHP: 20 North RNGE: 03 East Is S/T/R in Appendix D? Yes No X

Map of wetland unit: Figure Appendix C **Estimated size 993 square feet**

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland: I II III IV X

Category I =	Score > 70
Category II =	Score 51 - 69
Category III =	Score 30 – 50
Category IV =	Score < 30

Score for Water Quality Functions	6
Score for Hydrologic Functions	7
Score for Habitat Functions	4
TOTAL Score for Functions	17

Category based on SPECIAL CHARACTERISTCS of Wetland I II Does not apply X

Final Category (choose the "highest" category from above") IV

Summary of basic information about the wetland unit.

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		**Depressional**	**X**
Natural Heritage Wetland		**Riverine**	
Bog		**Lake-fringe**	
Mature Forest		**Slope**	
Old Growth Forest		**Flats**	
Coastal Lagoon		**Freshwater Tidal**	
Interdunal			
None of the above		Check if unit has multiple HGM classes present	

Does the wetland being rated meet any of the criteria below? If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands that Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. *Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered **animal or plant** species (T/E species)?* For the purposes of this rating system, "documented" means the wetland is on the appropriate state or federal database.		X
SP2. *Has the wetland unit been documented as habitat for any State listed Threatened or Endangered **animal** species?* For the purposes of this rating system, "documented" means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category 1 Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. *Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?*		X
SP4. *Does the wetland unit have a local significance in addition to its functions?* For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands in to those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

Wetland name or number A

Classification of Vegetated Wetlands for Western Washington

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides (i.e. except during floods)?
   NO – go to 2 **YES** – the wetland class is **Tidal Fringe**
   If yes, is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?
   YES – Freshwater Tidal Fringe **NO – Saltwater Tidal Fringe (Estuarine)**
   *If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is a Saltwater Tidal Fringe it is rated as an **Estuarine** wetland.* Wetlands that were call estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term "Estuarine" wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p. _____).

2. The entire wetland unit is flat and precipitation is only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.
   NO – go to 3 **YES** – The wetland class is **Flats**
   If your wetland can be classified as a "Flats" wetland, use the form for **Depressional** wetlands.

3. Does the entire wetland meet both of the following criteria?
   _____ The vegetated part of the wetland is on the shores of a body of permanent open water (without any vegetation on the surface) where at least 20 acres (8ha) in size;
   _____ At least 30% of the open water area is deeper than 6.6 (2 m)?
   NO – go to 4 **YES** – The wetland class is **Lake-fringe (Lacustrine Fringe)**

4. Does the entire wetland meet all of the following criteria?
   _____ The wetland is on a slope *(slope can be very gradual)*.
   _____ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
   _____ The water leaves the wetland **without being impounded**?
   NOTE: *Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 foot deep).*
   NO – go to 5 **YES** – The wetland class is **Slope**

5. Does the entire wetland meet all of the following criteria?
   _____ The unit is in a valley or stream channel where it gets inundated by overbank flooding from that stream or river.
   _____ The overbank flooding occurs at least once every two years.
   NOTE: *The riverine unit can contain depressions that are filled with water when the river is not flooding..*
   NO – go to 6 **YES** – The wetland class is **Riverine**

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time of the year. This means that any outlet, if present is higher than the interior of the wetland.
   NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland located in a very flat area with no obvious depression and no overbank flooding. The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.
   No – go to 8 YES – The wetland class is Depressional

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within your wetland. NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

HGM Classes within the wetland unit being rated	*HGM Class to Use in Rating*
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

If you are unable still to determine which of the above criteria apply to your wetland, or you have more than 2 HGM classes within a wetland boundary, classify the wetland as **Depressional** for the rating.

Wetland name or number A

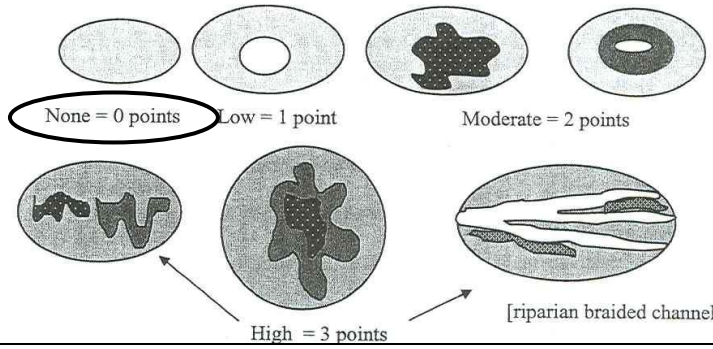
D	Depressional and Flat Wetlands	Points
	WATER QUALITY FUNCTIONS – Indicators that wetland functions to improve water quality.	(only 1 score per box)
D 1	**Does the wetland have the potential to improve water quality?**	*(see p.38)*
	D 1.1 Characteristics of surface water flows out of the wetland: • Unit is a depression with no surface water leaving it (no outlet) ... points = 3 • Unit has an intermittently flowing, OR highly constricted, permanently flowing outlet ... points = 2 • Unit has an unconstricted, or slightly constricted, surface outlet (*permanently flowing*) ... points = 1 • Unit is a "flat" depression (Q.7 on key), or in the Flats class, with permanent surface outflow **and no obvious natural outlet** and/or outlet is a man-made ditch ... points = 1 *(If ditch is not permanently flowing treat unit as "intermittently flowing")* **Provide photo or drawing**	**Figure ___** 3
	D 1.2 The soil 2 inches below the surface (or duff layer) is clay or ~~organic (use NRCS definitions~~) **YES** points = 4 **NO** points = 0	0
	D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class): • Wetland has persistent, ungrazed vegetation > = 95% of area ... points = 5 • Wetland has persistent, ungrazed vegetation > = 1/2 of area ... points = 3 • Wetland has persistent, ungrazed vegetation > = 1/10 of area ... points = 1 • Wetland has persistent, ungrazed vegetation < 1/10 of area Area is mowed ... points = 0 **Map of Cowardin vegetation classes**	**Figure ___** 0
	D 1.4 Characteristics of seasonal ponding or inundation: *This is the area of the wetland that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 years.* • Area seasonally ponded is > 1/2 total area of wetland ... points = 4 • Area seasonally ponded is > 1/4 total area of wetland ... points = 2 • Area seasonally ponded is < 1/4 total area of wetland Area is occasionally inundated ... points = 0 **Map of Hydroperiods**	**Figure ___** 0
	Total for D 1 *Add the points in the boxes above*	3
D 2	**Does the wetland have the opportunity to improve water quality?**	*(see p. 44)*
	Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland? *Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.* ___ Grazing in the wetland or within 150 ft ___ Untreated stormwater discharges to wetland ___ Tilled fields or orchards within 150 ft. of wetland ___ A stream or culvert discharges into wetland that drains developed areas, residential areas, farmed fields, roads, or clear-cut logging X Residential, urban areas, golf courses are within 150 ft. of wetland ___ Wetland is fed by groundwater high in phosphorus or nitrogen ___ Other _____ **YES** multiplier is 2 **NO** multiplier is 1	Multiplier 2
◆	**TOTAL – Water Quality Functions** Multiply the score from D1 by D2; then ***add score to table on p. 1***	6
	HYDROLOGIC FUNCTIONS – Indicators that wetland unit functions to reduce flooding and stream degradation.	
D 3	**Does the wetland have the potential to reduce flooding and erosion?**	*(see p.46)*
	D 3.1 Characteristics of surface water flows out of the wetland unit • Unit is a depression with no surface water leaving it (no outlet) ... points = 4 • Unit has an intermittently flowing, OR highly constricted permanently flowing outlet ... points = 2 • Unit is a "flat" depression (Q.7 on key) or in the Flats class, with permanent surface outflow **and no obvious natural outlet** and/or outlet is a man-made ditch ... points = 1 *(If ditch is not permanently flowing treat unit as "intermittently flowing")* • Unit has an unconstricted, or slightly constricted, surface outlet *(permanently flowing)* ... points = 0	4
	D 3.2 Depth of storage during wet periods. *Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).* • Marks of ponding are 3 ft. or more above the surface or bottom of the outlet ... points = 7 • The wetland is a "headwater" wetland ... points = 5 • Marks of ponding between 2 ft. to < 3 ft. from surface or bottom of outlet ... points = 5 • Marks are at least 0.5 ft. to < 2 ft. from surface or bottom of outlet ... points = 3 • Wetland is flat (yes to Q.2 or Q.7 on key)but has small depressions on the surface that trap water points = 1 • Marks of ponding less than 0.5 ft Depth of occasionally inundated area was <4" ... points = 0	0
	D 3.3 Contribution of wetland unit to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.* • The area of the basin is less than 10 times the area of unit ... points = 5 • The area of the basin is 10 to 100 times the area of the unit >1.0ac basin / <.02ac wetland ... points = 3 • The area of the basin is more than 100 times the area of the unit ... points = 0 • Entire unit is in the FLATS class ... points = 5	3
	Total for D 3 *Add the points in the boxes above*	7

Wetland name or number A

D 4	**Does the wetland have the <u>opportunity</u> to reduce flooding and erosion?** Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur. *Note which of the following indicators of opportunity apply.* ____ Wetland is in a headwater of a river or stream that has flooding problems. ____ Wetland drains to a river or stream that has flooding problems ____ Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems ____ Other _____ **YES** multiplier is 2 **NO** multiplier is 1	*(see p. 49)* Multiplier 1
◆	**<u>TOTAL</u> – Hydrologic Functions** Multiply the score from D3 by D4; then ***add score to table on p. 1***	7

Comments: **Wetland is located at top of hill in excavated depression and is isolated from all drainages.**

Wetland name or number A

These questions apply to wetlands of all HGM classes.		**Points** (only 1 score per box)
	HABITAT FUNCTIONS – Indicators that wetland functions to provide important habitat.	
H 1	**Does the wetland have the <u>potential</u> to provide habitat for many species?**	
	H 1.1 <u>Vegetation structure</u> *(see P. 72)*: *Check the types of vegetation classes present (as defined by Cowardin) – Size threshold for each class is 1/4 acre or more than 10% of the area if unit is smaller than 2.5 acres.* ___ Aquatic Bed X Emergent plants ___ Scrub/shrub (areas where shrubs have > 30% cover) ___ Forested (areas where trees have > 30% cover) *If the unit has a forested class check if:* ___ The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon. *Add the number of vegetation types that qualify. If you have:* **Map of Cowardin vegetation classes** 4 structures or more ..... points = 4 — 3 structures ..... points = 2 2 structures ..... points = 1 — 1 structure ..... points = 0	**Figure ___** 0
	H 1.2 <u>Hydroperiods</u> *(see p.73)*: *Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or 1/4 acre to count (see text for descriptions of hydroperiods).* ___ Permanently flooded or inundated — 4 or more types present points = 3 ___ Seasonally flooded or inundated — 3 or more types present ..... points = 2 X Occasionally flooded or inundated — 2 types present ..... points = 1 ___ Saturated only — 1 type present ..... points = 0 ___ Permanently flowing stream or river in, or adjacent to, the wetland ___ Seasonally flowing stream in, or adjacent to, the wetland ___ **Lake-fringe wetland ..... = 2 points** ___ **Freshwater tidal wetland ..... = 2 points** **Map of hydroperiods**	**Figure ___** 0
	H 1.3 <u>Richness of Plant Species</u> *(see p. 75)*: Count the number of plant species in the wetland that cover at least 10 ft^2 *(different patches of the same species can be combined to meet the size threshold)* *You do not have to name the species. Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle.* If you counted: > 19 species ..... points = 2 5 – 19 species ..... points = 1 List species below if you want to: < 5 species ..... points = 0 _____ _____ _____ _____	0
	H 1.4 Interspersion of Habitats *(see p. 76)*: Decided from the diagrams below whether interspersion between Cowardin vegetation (described in H1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.  Note: If you have 4 or more classes or 3 vegetation classes and open water, the rating is always "high". **Use map of Cowardin classes.**	**Figure ___** 0
	H 1.5 <u>Special Habitat Features</u> *(see p. 77)*: *Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.* ___ Large, downed, woody debris within the wetland (> 4 in. diameter and 6 ft. long) ___ Standing snags (diameter at the bottom > 4 inches) in the wetland ___ Undercut banks are present for at least 6.6 ft. (2m) and/or overhanging vegetation extends at least 3.3 ft. (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft. (10m) ___ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet turned grey/brown)* ___ At least 1/4 acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* X Invasive plants cover less than 25% of the wetland area in each stratum of plants *NOTE: The 20% stated in early printings of the manual on page 78 is an error.*	1
	H 1 TOTAL Score – potential for providing habitat *Add the points in the column above*	1

Wetland name or number A

H 2	**Does the wetland have the <u>opportunity</u> to provide habitat for many species?**	(only 1 score per box)
	H 2.1 <u>Buffers</u> *(see P. 80)*: *Choose the description that best represents condition of buffer of wetland unit. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed".* ____ 100m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 95% of circumference. No structures are within the undisturbed part of buffer (relatively undisturbed also means no grazing, no landscaping, no daily human use)..... **points = 5** ____ 100m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference ..... **points = 4** ____ 50m (170 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 95% circumference ..... **points = 4** ____ 100m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% circumference ..... **points = 3** ____ 50m (170 ft) of relatively undisturbed vegetated areas, rocky areas, or open water for > 50% circumference ..... **points = 3** **If buffer does not meet any of the criteria above:** ____ No paved areas (except paved trails) or buildings within 25m (80 ft) of wetland > 95% circumference. Light to moderate grazing or lawns are OK ..... **points = 2** ____ No paved areas of buildings within 50m of wetland for > 50% circumference. Light to moderate grazing or lawns are OK..... **points = 2** ____ Heavy grazing in buffer ..... **points = 1** ____ Vegetated buffers are < 2m wide (6.6 ft) for more than 95% circumference (e.g. tilled fields, paving, basalt bedrock extend to edge of wetland) ..... **points = 0** X Buffer does not meet any of the criteria above ..... **points = 1** **Arial photo showing buffers**	**Figure ___** **1**
	H 2.2 <u>Corridors and Connections</u> *(see p. 81)* H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft. wide, has at least a 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? *(Dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor).* **YES** = **4 points** (go to H 2.3) **NO** = go to H 2.2.2 H. 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50 ft. wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? **OR a Lake-fringe** wetland, if it does not have an undisturbed corridor as in the question above? **YES** = **2 points** (go to H 2.3) **NO** = go to H 2.2.3 H. 2.2.3 Is the wetland: • Within 5 mi (8km) of a brackish or salt water estuary OR • Within 3 miles of a large field or pasture (> 40 acres) OR **YES** = 1 point • Within 1 mile of a lake greater than 20 acres? **NO** = 0 points	1

Comments:

H 2.3 Near or adjacent to other priority habitats listed by WDFW (see p. 82): *(see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report http://wdfw.wa.gov/hab/phslist.htm)*
Which of the following priority habitats are within 330 ft. (100m) of the wetland unit?
NOTE: the connections do not have to be relatively undisturbed.

____ **Aspen Stands:** Pure or mixed stands of aspen greater than 0.4 ha (1 acre).
____ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report p. 152*).
____ **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
____ **Old-growth/Mature forests:** (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. **(**Mature forests) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.
____ **Oregon white Oak:** Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158*).
____ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
____ **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161*). 0
____ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
____ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report: pp. 167-169 and glossary in Appendix A).*
____ **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
____ **Cliffs:** Greater than 7.6 m (25 ft) high and occurring below 5000 ft.
____ **Talus:** Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
____ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.

If wetland has **3 or more** priority habitats **= 4 points**
If wetland has **2** priority habitats = **3 points**
If wetland has **1** priority habitat **= 1 point** No habitats = 0 points

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)

H 2.4 Wetland Landscape: *Choose the **one** description of the landscape around the wetland that best fits (see p. 84)*

- There are at least 3 other wetlands within 1/2 mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development .....points = 5
- The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within 1/2 mile .....points = 5
- There are at least 3 other wetlands within 1/2 mile, BUT the connections between them are disturbed. .....points = 3 0
- The wetland fringe on a lake **with** disturbance and there are 3 other lake-fringe wetlands within 1/2 mile .....points = 3
- There is at least 1 wetland within 1/2 mile .....points = 2
- There are no wetlands within 1/2 mile Site located in center of highly developed urban area .....points = 0

	H 2 TOTAL Score – opportunity for providing habitat *Add the scores from H2.1, H2.2, H2.3, H2.4*	1
	TOTAL for H 1 from page 8	2
◆	**Total Score for Habitat Functions** Add the points for H 1 and H 2; then ***record the result on p. 1***	3

Comments:

Wetland name or number A

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate answers and Category.

	Wetland Type – *Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.*	
SC1	**Estuarine wetlands?** *(see p.86)* Does the wetland unit meet the following criteria for Estuarine wetlands? ____ The dominant water regime is tidal, ____ Vegetated, and ____ With a salinity greater than 0.5 ppt. **YES** = Go to SC 1.1 **NO** X	
	SC 1.1 Is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? **YES** = Category I **NO** = go to SC 1.2	**Cat. 1**
	SC 1.2 Is the wetland at least 1 acre in size and meets at least two of the following conditions? **YES** = Category I **NO** = Category II ____ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native *Spartina* spp,. are only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II). The area of Spartina would be rated a Category II while the relatively undisturbed upper marsh with native species would be a Category 1. Do not, however, exclude the area of Spartina in determining the size threshold of 1 acre. ____ At least 3/4 of the landward edge of the wetland has a 100 ft. buffer of shrub, forest, or un-grazed or un-mowed grassland ____ The wetland has at least 2 of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.	**Cat. I** **Cat. II** **Dual Rating I/II**
SC2	**Natural Heritage Wetlands** *(see p. 87)* Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species. SC 2.1 Is the wetland being rated in a Section/Township/Range that contains a natural heritage wetland? *(This question is used to screen out most sites before you need to contact WNHP/DNR.)* S/T/R information from Appendix D _____ or accessed from WNHP/DNR web site X **YES** _____ Contact WNHP/DNR (see p. 79) and go to SC 2.2 **NO** X SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as a site with state threatened or endangered plant species? **YES** = Category 1 **NO** _____ not a Heritage Wetland	**Cat I**
SC3	**Bogs** *(see p. 87)* Does the wetland **(or any part of the unit)** meet both the criteria for soils and vegetation in bogs? Use the key below to identify if the wetland is a bog. ***If you answer yes you will still need to rate the wetland based on its function.*** 1. Does the unit have organic soil horizons (i.e. layers of organic soil), either peats or mucks, that compose 16 inches or more of the first 32 inches of soil profile? (See Appendix B for a field key to identify organic soils)? **YES** = go to question 3 **NO** = go to question 2 2. Does the wetland have organic soils, either peats or mucks that are less than 16 inches deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on a lake or pond? **YES** = go to question 3 **NO** = is not a bog for purpose of rating 3. Does the unit have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the "bog" species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists of species in Table 3)? **YES** = Is a bog for purpose of rating **NO** = go to question 4 NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16" deep. If the pH is less than 5.0 and the "bog" plant species in Table 3 are present, the wetland is a bog. 4. Is the unit forested (> 30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine. WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover *(> 30% coverage of the total shrub/herbaceous cover*)? **YES** = Category I **NO** = Is not a bog for purpose of rating	**Cat. I**

Wetland name or number A

SC4	**Forested Wetlands** *(see p. 90)* Does the wetland have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? *If you answer yes you will still need to rate the wetland based on its function.* ____ **Old-growth forests**: (west of Cascade Crest) Stands of at least two three species forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm or more). NOTE: The criterion for dbh is based on measurements for upland forests. Two-hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter. ____ **Mature forests**: (west of the Cascade Crest) Stands where the largest trees are 80 – 200 years old OR have an average diameters (dbh) exceeding 21 inches (53 cm); crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth. **YES** = Category I **NO** = X not a forested wetland with special characteristics	**Cat. I**
SC5	**Wetlands in Coastal Lagoons** *(see p. 91)* Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? ____ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks. ____ The lagoon in which the wetland is located contains surface water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom.)* **YES** = Go to SC 5.1 **NO** X not a wetland in a coastal lagoon SC 5.1 Does the wetland meet all of the following three conditions? ____ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing) and has less than 20% cover of invasive plant species (see list of invasive species on p. 74). ____ At least 3/4 of the landward edge of the wetland has a 100 ft. buffer of shrub, forest, or un-grazed or un-mowed grassland. ____ The wetland is larger than 1/10 acre (4350 square ft.) **YES** = Category I **NO** = Category II	**Cat. I** **Cat. II**
SC6	**Interdunal Wetlands** *(see p. 93)* Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? **YES** = Go to SC 6.1 **NO** X not an interdunal wetland for rating ***If you answer yes you will still need to rate the wetland based on its functions.*** In practical terms that means the following geographic areas: • Long Beach Peninsula -- lands west of SR 103 • Grayland-Westport -- lands west of SR 105 • Ocean Shores-Copalis – lands west of SR 115 and SR 109 SC 6.1 Is the wetland one acre or larger, or is it in a mosaic of wetlands that is one acre or larger? **YES** = Category II **NO** = go to SC 6.2 SC 6.2 Is the wetland between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre? **YES** = Category III	**Cat. II** **Cat. III**
◆	**Category of wetland based on Special Characteristics** *Choose the "highest" rating if wetland falls into several categories, and record on p. 1.* If you answered **NO** for all types enter "Not Applicable" on p. 1	N/A

Comments: