

**SCJ ALLIANCE**  
CONSULTING SERVICES

## SCOPE OF WORK AND FEE ESTIMATE

### DANIEL JUSTMAN SR507 PARCELS – YELM, WA FINAL PROPOSAL

**Prepared for:** Daniel L. Justman  
5122 Homedale Road  
Klamath Falls, OR 97603

**Prepared by:** Lisa Palazzi, CPSS, PWS  
SCJ Alliance (SCJ)

**Date prepared:** September 7, 2017  
**Project #:** P2610.01

#### Overview

SCJ is pleased to provide an updated scope of work and budget to provide professional consulting services to assess wetland and stream conditions for properties located near the intersection of SR 507 SE and Grove Road SE in Yelm, Washington. Specifically, the project site includes the following parcels (within Section 29, Township 17N, Range 2E):

64303400601	5.26 ac
64303200600	9.32 ac
<u>22729320100</u>	<u>0.22 ac</u>
	14.8 ac

*The Estimate below is minimal, and does not include time that may be needed if there are unexpected conditions or occurrences, or if any additional, out of scope work is requested by the client. All work will be done on a T&M basis and carried out with Client authorization.*

***Because SCJ Alliance has no past billing history with the client, we respectfully request a 20% retainer of \$1,200, which will be applied to the final project billing.***



### **Phase 1 – Pre-Site Visit Research**

*Task 1 – Desktop research to review existing site maps, past reports and current regulations, as needed to determine expected site conditions that will affect site assessment decisions.*

*Task 2 – Prepare maps for site work in Phase 2*

**TOTAL PHASE 1 ESTIMATE: \$500**

#### **Phase 1 Understanding and Assumptions**

- Research will be used to identify what is already known about the site from available aerial photos and topography maps, and to find optimal aerial photo or LiDAR base maps to aid in Phase 2 site work.

### **Phase 2 – Onsite Critical Areas Evaluation and Delineation**

*Task 1 – Complete field work including: flagging on-site wetland boundaries<sup>1</sup>, collect test plot data, photographs of site features.*

*Task 2 – Fill out ACOE Field Data Forms in paired plots to document technical wetland boundary justification*

*Task 3 – Collect data needed for Wetland Rating Forms*

**TOTAL PHASE 2 ESTIMATE: \$2,000**

#### **Phase 2 Understanding and Assumptions**

- Onsite work by a single professional staff person over a period of 1.5 days, including travel time to and from the site, will be sufficient to collect necessary site information
- Wetland flagging will be surveyed by a professional land surveyor and electronic copies made available to SCJ

#### **Phase 2 Deliverables**

- No deliverables, but in preparation for report – critical field notes; field data forms; photographs will be collected

### **Phase 3 – Critical Areas Report**

*Task 1 – Two Tech-Memo level summary wetland reports – one for Parcel 64303400601 (single parcel north of Highway 507), and one for the other parcels (64303200600 and 22729320100, located south of Highway 507). The report will not include Field Data Forms and Wetland Rating Forms, but will include a map with a surveyed wetlands boundary and standard wetland buffers.*

*Task 2 – Preparation of 8-12 Draft Figures (not provided in final form with the report), as needed to carry out the Wetland Rating process*

*Task 3 – Preparation of site maps, adapted from professional survey maps provided by surveyor*

**TOTAL PHASE 3 ESTIMATE: \$3,000**

#### **Phase 3 Understanding and Assumptions**

- These reports will not meet City of Yelm reporting requirements for purposes of permitting, but will suffice to show locations of wetlands and standard wetland buffers, adequate for assessing development potential.

#### **Phase 3 Deliverables**

- Two Tech Memo wetland reports describing onsite wetlands and their standard buffers.

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<sup>1</sup> To save time, only the wetland boundary will be flagged; as the wetland buffer is typically more restrictive than the stream buffer.



## **Phase 4 – Project Administration, Communications and Meetings**

*Task 1 – Client meeting at beginning of Project (meeting already completed)*

*Task 2 – Miscellaneous emails, conference calls and phone communications will be billed in 0.25-hour increments.*

*Task 3 – Project management*

**TOTAL PHASE 4 ESTIMATE: \$500**

### **Phase 4 Understanding and Assumptions**

- The SOW covers a single initial client meeting, one hour in duration. Additional meetings will be billed on a T&M basis
- Other email and phone communications with the client, their representatives, project subcontractors and regulatory staff will be billed in 0.25-hour increments on a T&M basis.

### **Phase 4 Deliverables**

- No deliverables

### **Expenses**

Additional project-related expenses will be charged on a time and material basis and include items such as mileage, plan reproduction, copies, etc.

### **Budget Summary**

**Total Fee Estimate**

**Estimate**


**\$6,000**

This estimate is based on our current understanding of the project. If over time, the scope and overall objectives of the project change, this estimate may need to be adjusted to reflect the modified circumstances. The above scope and estimate will expire six months from the date of this letter. Additional services requested, but not identified in the scope of work, will be considered “extra services” and will be charged on a time-and-materials basis in accordance with the attached billing rate schedule.

### **Acceptance of Proposal**

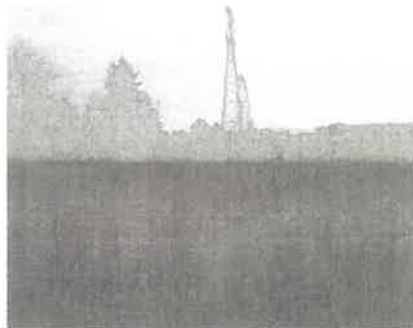
We appreciate the opportunity to provide these professional services and look forward to getting started. If this scope of work and fee estimate proposal is acceptable, please let us know and we will prepare an amendment to the contract. If you have any questions or comments, please feel free to call us at 360-352-1465.

Respectfully,  
SCJ Alliance

  
Lisa M. Palazzi, CPSS, PWS  
Wetland and Soil Scientist

# Wetland Delineation and Rating Report

Yelm, WA  
Justman Family LLC



December 2017



**SCJ ALLIANCE**  
CONSULTING SERVICES

# Wetland Delineation and Rating Report

## Project Information

Project: **Wetland Delineation and Rating Report**

Prepared for: **Justman Family LLC  
Attn: Dan Justman  
5122 Homedale Road  
Klamath Falls, OR 98603  
541-281-7942**

## Reviewing Agency

Jurisdiction: **City of Yelm  
105 W Yelm Ave.  
Yelm, WA 98597**

## Project Representative

Prepared by: **SCJ Alliance  
8730 Tallon Lane NE, Suite 200  
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Contact: **Lisa Palazzi, CPSS, PWS**

Project Reference: **SCJ #2479.01**

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## 1. INTRODUCTION

### 1.1 PROJECT OVERVIEW

This report describes results of a wetland delineation and rating process carried out to describe wetland conditions on two parcels, located in eastern Yelm, WA (Figure 1). Parcel 1 (TPN 64303400601) is 5.26 acres, and is located north of State Highway 507, west of Grove Road SE. Parcel 2 (TPN 64303200600) is 9.32 acres located on the south side of Highway 507, south of Parcel 1. A third parcel (TPN 22729320100, 0.22 acres) fronts on Bald Hills Road SE at the southwestern corner of Parcel 2. However, that parcel is entirely wetland, and thus does not require assessment, and has little functional value. Therefore, it is not discussed further below.

The purpose of this work is to describe wetland and buffer conditions that would affect development potential of the two primary lots. SCJ Alliance staff (Lisa Palazzi, CPSS, PWs and David Cuffeld, Field Technician) evaluated the wetlands onsite on October 19, 2017. The weather on the day of the field visit was about 60°F, overcast and slightly rainy. Hydrology was not yet fully developed, as it was early in the winter season; however, conditions for assessing wetland conditions were acceptable.

The wetlands were rated in the office applying the 2014 Ecology *Washington State Wetland Rating System for Western Washington* (2014 WRSWW) protocol (effective as of January 1, 2015). The Yelm Critical Area Ordinance (Chapter 18.21) online version is not yet formally updated to reflect this change; however, the City has provided guidance for assigning standard buffers to the wetland, using results from the updated 2014 rating system.



**Figure 1. Site location map, showing project site parcels (outlined in red) on either side of Highway 507 in Yelm, WA.**



## 2. METHODS AND MATERIAL

### 2.1 WETLAND DELINEATION REGULATIONS (FEDERAL AND STATE)

Under the Washington Administrative Code (WAC) section 173-22-035, the Washington State Department of Ecology (Ecology) requires wetland identification and delineation be completed following the approved federal wetland delineation manual and applicable regional supplements, including but not limited to the 1987 Corps of Engineers Wetland Delineation Manual and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (U.S. Army Corps of Engineers 2010).

### 2.2 WETLAND RATING, CLASSIFICATION, AND BUFFERS

The City of Yelm Municipal Code defines Wetland Protection Standards in Chapter 18.21.060, which includes requirements for rating the wetland and making buffer width determinations based on rating score results. Current City code indicates that wetlands are rated according to the 2004 WRSWW (Ecology Publication #04-06-025). However, Ecology published an update to the 2004 rating system in 2014, which went into effect on January 1, 2015. For any wetlands with a permitting process that may require review by Ecology, the 2014 WRSWW (Ecology Publication #14-06-029, replacing #04-06-025) should be applied. Both the 2004 and the 2014 systems score wetlands based on the functions of water quality, hydrology, and habitat. But the old system scoring was based on a maximum score of 100 points, while the new rating system maximum score is 27 points. Therefore, a conversion table for assigning wetland buffers widths is needed.

Using standard buffer conversion protocols provided by Ecology, information documented in Table 1 (below) was used to convert City of Yelm standard buffers to the new 2014 WRSWW scoring protocol. This conversion is based on Buffer Alternative 3 described in Section 8C.2.3 and Section 8C-3 from Ecology's Appendix 8-C<sup>1</sup>. Because these wetlands were Category III systems, the Category III table with high intensity development buffers was applied, as the zoning indicates high intensity development.

Wetlands identified as part of this project were classified according to the USFWS Cowardin classification system (Cowardin et al. 1979) and the USACE Hydrogeomorphic (HGM) classification system (Brinson 1993).

Compensatory mitigation refers to the restoration, establishment, enhancement, or in certain circumstances preservation of wetlands, streams or other aquatic resources for the purpose of offsetting unavoidable adverse impacts.

<sup>1</sup> Appendix 8-C: Guidance on Widths of Buffers and Ratios for Compensatory Mitigation for Use with the Western Washington Wetland Rating System – Modified to use with the 2014 Washington State Rating System

for Western Washington

	(2004)		Use	
Natural Heritage Wetlands	250 ft	Wetlands with High Conservation Value	Low - 125 ft Moderate – 190 ft High – 250 ft	No additional surface discharges to wetland or its tributaries No septic systems within 300 ft of wetland Restore degraded parts of buffer
Bogs	250 ft	Bogs	Low - 125 ft Moderate – 190 ft High – 250 ft	No additional surface discharges to wetland or its tributaries Restore degraded parts of buffer
High level of function for habitat (score of 29-36 pts.)	300 ft	High level of function for habitat (score for habitat 8-9 pts.)	Low – 150 ft Moderate – 225 ft High – 300 ft	Maintain connections to other habitat areas Restore degraded parts of buffer
Moderate level of function for habitat (score of 20-28 pts.)	150 ft	Moderate level of function for habitat (score for habitat 5-7 pts.)	Low – 75 ft Moderate – 110 ft High – 150 ft	No recommendations
High level of function for water quality improvement (24-32 pts.) and low for habitat (< 20 pts.)	100 ft	High level of function for water quality improvement (8-9 pts.) and low for habitat (<5 pts.)	Low – 50 ft Moderate – 75 ft High – 100 ft	No recommendations
Not meeting any other characteristics	100 ft	Not meeting any other characteristics	Low – 50 ft Moderate – 75 ft High – 100 ft	No recommendations

**Category II Wetlands:**

2004 WWRWS	Buffer width (2004)	2014 WWRWS	Buffer widths by proposed Land Use	Other Measures Recommended for Protection
High level of function for habitat (score of 29-36 pts.)	300 ft	High level of function for habitat (score for habitat 8-9 pts.)	Low - 150 ft Moderate – 225 ft High – 300 ft	Maintain connections to other habitat areas
Moderate level of function for habitat (score of 20-28 pts.)	150 ft	Moderate level of function for habitat (score for habitat 5-7 pts.)	Low - 75 ft Moderate – 110 ft High – 150 ft	No recommendations
High level of function for water quality improvement and low for	100 ft	High level of function for water quality improvement and low for habitat	Low - 50 ft Moderate – 75 ft High – 100 ft	No additional surface discharges of untreated runoff

habitat (score for water quality 24-32 pts. and habitat <20 pts.)		(score for water quality 8-9 pts.; habitat < 5 pts.)		
Not meeting any other characteristics	100 ft	Not meeting any other characteristics	Low - 50 ft Moderate - 75 ft High - 100 ft	No recommendations

**Category III Wetlands:**

2004 WWWRs	Buffer width (2004)	2014 WWWRs	Buffer widths by proposed Land Use	Other Measures Recommended for Protection
Moderate level of function for habitat (score of 20-28 pts.)	150 ft	Moderate level of function for habitat (score for habitat 5-7 pts.)	Low - 75 ft Moderate - 110 ft High - 150 ft	No recommendations
Not meeting any other characteristics	80 ft	Not meeting any other characteristics	Low - 40 ft Moderate - 60 ft High - 80 ft	No recommendations

**Category IV Wetlands:**

2004 WWWRs	Buffer width (2004)	2014 WWWRs	Buffer widths by proposed Land Use	Other Measures Recommended for Protection
Score for all three basic functions < 30 pts.	50 ft	Score for all 3 basic functions is < 15 pts.	Low - 25 ft Moderate - 40 ft High - 50 ft	No recommendations

**Table 8C-3. Types of proposed land use that can result in high, moderate, and low levels of impacts to adjacent wetlands.**

Level of Impact from Proposed Change in Land Use	Types of Land Use Based on Common Zoning Designations *
High	<ul style="list-style-type: none"> <li>• Commercial</li> <li>• Urban</li> <li>• Industrial</li> <li>• Institutional</li> <li>• Retail sales</li> <li>• Residential (more than 1 unit/acre)</li> <li>• Conversion to high-intensity agriculture (dairies, nurseries, greenhouses, growing and harvesting crops requiring annual tilling and raising and maintaining animals, etc.)</li> <li>• High-intensity recreation (golf courses, ball fields, etc.)</li> <li>• Hobby farms</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>• Residential (1 unit/acre or less)</li> <li>• Moderate-intensity open space (parks with biking, jogging, etc.)</li> <li>• Conversion to moderate-intensity agriculture (orchards, hay fields, etc.)</li> <li>• Paved trails</li> <li>• Building of logging roads</li> <li>• Utility corridor or right-of-way shared by several utilities and including access/maintenance road</li> </ul>

Low	<ul style="list-style-type: none"> <li>• Forestry (cutting of trees only)</li> <li>• Low-intensity open space (hiking, bird-watching, preservation of natural resources, etc.)</li> <li>• Unpaved trails</li> <li>• Utility corridor without a maintenance road and little or no vegetation</li> <li>• management.</li> </ul>
<p>*Local governments are encouraged to create land-use designations for zoning that are consistent with these examples.</p>	

## 2.3 BACKGROUND MATERIALS

To help determine the site conditions that might affect delineation and rating results, SCJ Alliance staff reviewed the following information to provide site information:

- Thurston County GeoData mapping system (Thurston County 2017).
- US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) map (USFWS 2017).
- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey Geographic database online Web Soil Service. (WEBS Soil Survey 2017).
- Precipitation data (US Climate Data 2017).
- Washington State Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) Database (WDFW PHS 2017).
- Washington State Department of Natural Resources (DNR) FPARS stream mapping system (DNR 2017).
- Google Earth historic timeline aerial photos of the project area.

### 3. RESULTS AND DISCUSSION

#### 3.1 PROJECT AND SITE DESCRIPTION OVERVIEW

The project goal is to delineate and rate wetlands on two separate parcels. The Yelm Creek wetland system runs along the western edge of both Parcels. Parcel 1 (5.56 acres) is located north of Highway 507, and Parcel 2 (9.37 acres) is located south of Highway 507 (Figure 2). Parcel 1 is zoned C-3 (Large Lot Commercial<sup>2</sup>); Parcel 2 is zoned C-2 (Heavy Commercial<sup>3</sup>). Parcel 1 is crossed with a 250-ft. wide powerline easement from southwest to northeast, which affects most of the parcel. Both zonings recognize the parcel locations are in or adjacent to a densely developed business district in Yelm, with direct access to Highway 507. There is no current site development proposal for either parcel. However, it is our understanding that there are wells with water rights on one or both of the parcels.



**Figure 2. Project Parcels 1 and 2, showing approximate wetland boundaries along eastern edge of Yelm Creek system.**

Both Parcel 1 and Parcel 2 wetlands are directly associated with Yelm Creek and share hydrology. However, the wetlands are separated by a bridge constriction at Highway 507 which causes water to back up south of the bridge during winter months, and water flows only one direction, to the north. Therefore, the southern wetland on Parcel 2 has a slightly different hydrology from the wetland on Parcel 1, and thus, they are rated separately. However, conditions that affect rating results in the two Wetland Rating Units

<sup>2</sup> Large Lot Commercial: **Chapter 18.38.010 Intent:** It is the intent of this chapter to provide for the location of facilities and services needed by the traveling public and which depend more heavily on convenient vehicular access than pedestrian access. Limit location to sites having safe and efficient access to major transportation routes and identify the types of commercial uses appropriate or acceptable in the large lot commercial zone.

<sup>3</sup> Heavy Commercial Zoning: **Chapter 18.37.010 Intent:** It is the intent of this chapter to permit commercial uses and activities which depend more heavily on convenient vehicular access or which may be inappropriate in other commercial districts and to limit location of heavy commercial areas to sites having safe and efficient access to major transportation routes.

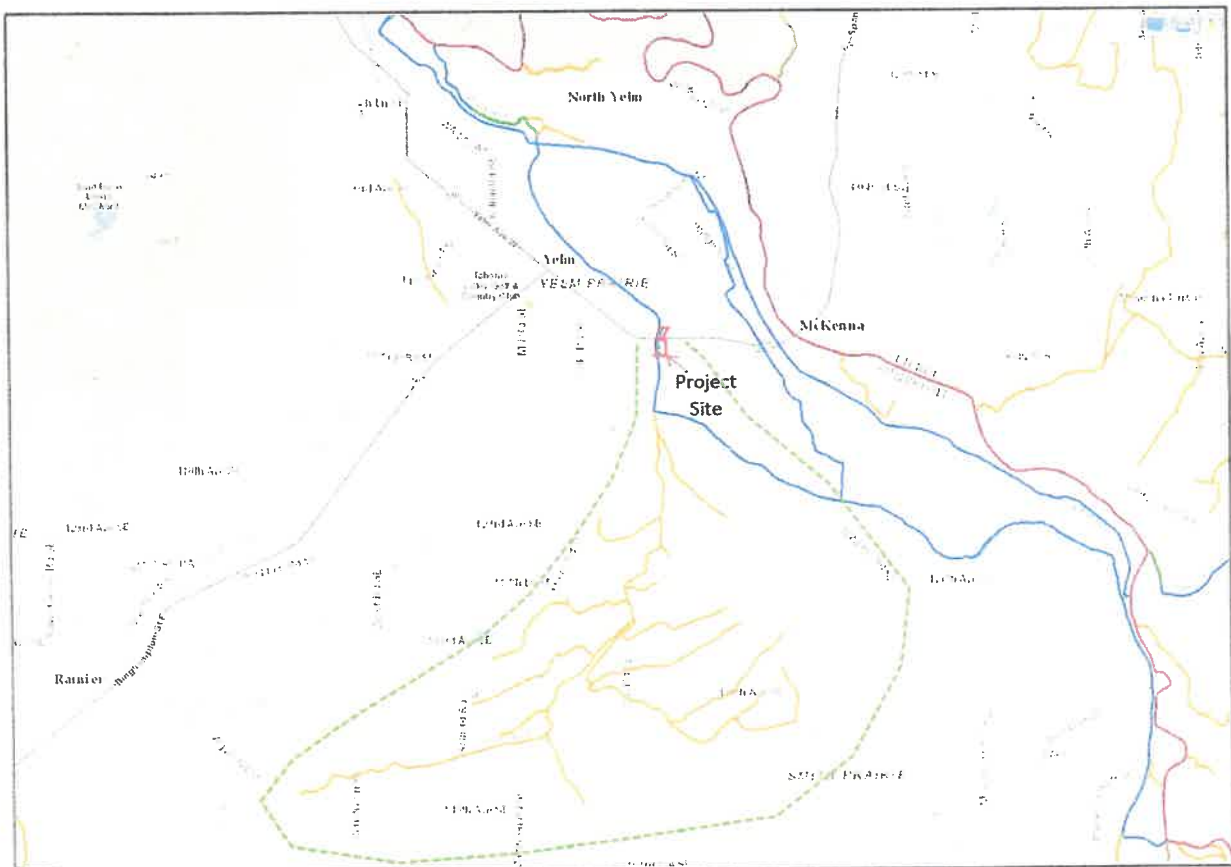


(WRUs) are otherwise very similar. *Hydrology = the branch of science concerned with the properties of the earth's water especially its movement in relation to la.*

The boundaries of a wetland rating unit (WRU) are defined by sharing common hydrology, per guidance provided in the 2014 WRSWW. The WRU for Parcel 1 is bounded to the south by the bridged crossing at Highway 507, and to the north by the crossing at 103<sup>rd</sup> Avenue. The WRU for Parcel 2 is bounded to the north by the bridge at Highway 507 and to the south by the bridge crossing at Bald Hills Road. Both WRUs are predominately Palustrine Emergent (PEM) systems, with vegetation dominated by pasture grasses and cattails. There are occasional trees and shrubs in both systems, with enough shrub cover to qualify for a Palustrine Scrub-Shrub vegetation class in both wetlands. Therefore, these systems are classified as PEM/PSS under the Cowardin System, and as Depressional/Riverine under the Hydrogeomorphic classification system.

### 3.2 WETLAND CHARACTERIZATION

The contributing basin for the onsite wetland is quite large, a combination of Yelm Creek and diverted irrigation water from the Nisqually River. Headwaters of Yelm Creek emanate from an area near 148<sup>th</sup> Avenue, about 5 miles southwest of the Project Site. An irrigation canal from the Nisqually River, from a diversion starting about 5 miles to the southeast, brings additional flow through the site. Yelm Creek at the Project Site was historically ditched and straightened, and therefore does not meander naturally, but does tend to flood during winter storms. The system is stormwater fed, so is larger in winter



**Figure 3. Project Site contributing basin**





**Figure 4. Showing Yelm Creek at the bridge crossing – a barely visible linear depression in tall reed canarygrass vegetation, but with flowing water.**

months. In some years, Yelm Creek may have minimal surface flow in late summer months, but hydrology was present and flowing in the stream during the October 2017 field visit.

The WRU has both Riverine and Depressional characteristics (Hydrogeomorphic [HGM] Classification System), but is dominated by Depressional functions, and thus was rated as a Depressional system.

Under the 2014 Western Washington Wetland Rating System (WWRS) and applying current Thurston County Critical Area regulatory guidance on standard buffer widths, the WRU is a Category III wetland with a Habitat score of 5 points, and thus, the standard buffer is 150 feet.

### 3.2.1 Wetland Hydrology

Portions of the wetland are ponded seasonally, but the ponded area is very narrow and shallow on average. Yelm Creek provides throughflow functions. The wetland receives surface and groundwater from surrounding uplands, but most hydrology appears to come from the stream. Seasonal precipitation feeds the system, and therefore, once winter rains stop, the hydrology will slowly drain through a combination of natural infiltration into the local gravelly outwash soils and plant uptake and transpiration. The wetland system onsite will be driest by mid to late summer, and wettest in mid to late winter in most years.

### 3.2.2 Wetland Plants

The Cowardin vegetation classes in the Wetland Rating Unit (WRU) are Palustrine Emergent (PEM – the dominant condition) and Palustrine Scrub-Shrub (PSS). The WRU could almost be classified entirely as PEM, but there is enough shrub cover to qualify for both PEM and PSS vegetation classes.

Emergent vegetation in the wetlands was dominated by reed canarygrass (*Phalaris arundinacea*) and cattail (*Typha latifolia*) – both somewhat weedy species. Other emergent species observed onsite were: horsetail (*Equisetum arvense*), common ladyfern (*Athyrium filix-femina*), thistle (*Circeum arvense*),

Queen Anne’s lace (*Daucus carota*), curly dock (*Rumex crispus*) and creeping buttercup (*Ranunculus repens*).

Shrubby wetlands vegetation was dominated by willows, including Pacific willow (*Salix Lasianдра*), Sitka willow (*Salix sitchensis*) -- also black cottonwood (*Populus trichocarpa*) and buckthorn (*Frangula purshiana*).

Surrounding uplands on the 2 project sites were mostly pasture, and therefore were dominated by pasture grasses.

### 3.2.3 Onsite Wetland and Upland Soils

The Thurston County Soil Survey (Figure 5, Table 2 below) indicates that the wetland area is mapped as McKenna gravelly ashy loam (SMU 65); Spanaway gravelly sandy loam (0.3% and 3-15% slopes, SMU 110, 111); and Spanaway stony sandy loam (0-3% slopes, SMU 112). The McKenna follows the Yelm Creek floodplain, and the Spanaway soils are mapped over the adjacent uplands to the east and west of the creek. These soils are essentially old gravel bar remnants of what was once a huge glacial outwash river that covered this area as the Vashon glaciers were receding from this area about 10,000 years ago.

Of these soils, the McKenna is expected to have shallow winter water tables at or near the soil surface, and is expected to support wetland conditions. The other soils are excessively drained, and those map units are not expected to have wetlands.

Soil Map Unit Symbol	Soil Map Unit Name	Description
65	McKenna gravelly ashy loam	Moderately deep to dense till, poorly drained soils formed in glacial drift in depressions and drainageways. A perched water table is at or near the surface during the November to March rainy season.
110, 111	Spanaway gravelly sandy loam, 0-3% and 3-15% slopes	Very deep, somewhat excessively drained soils that formed in glacial outwash on terraces and plains. No water table expected within 6 feet of the surface. Gravel dominated.
112	Spanaway stony sandy loam, 0-3% slopes	Very deep, somewhat excessively drained soils that formed in glacial outwash on terraces and plains. No water table expected within 6 feet of the surface. Stone dominated.



Figure 5. Thurston County Soil Survey of Project Sites

### 3.3 WETLAND RATING RESULTS AND STANDARD BUFFER

As discussed previously, per guidance provided in the 2014 WRSWW, there are two wetland rating units (WRUs) – one north of Highway 507 and one south of Highway 507. They are separated by a bridge constriction at the Highway, which affects hydrology of the southern wetlands, by causing water to back up along the south side of the highway. Flow direction is always to the north, and therefore, the two systems do not share water back and forth.

The two WRUs are Riverine systems, but have enough Depressional characteristics that they were both rated as Depressional systems, as directed by guidance in the 2014 WRSWW.

The score for Water Quality functions is Moderate to High (7 out of 9 possible points); Moderate to High Hydrologic functions (flood control, 7 out of 9 possible points); and Moderate to Low for Habitat



functions (5 out of 9 possible points). The total score was 19 points out of a possible 27 – a Category III rating result.

According to the buffer tables provided above in Section 2, a Category III wetland with a Habitat Score of 5 in a high intensity development area would be assigned a standard buffer of 150 feet. However, City Code (18.21.030.F.6.b) states that “mowed areas will not be considered buffers”, and the pasture area east of the northern WRU and most of the southern WRU is mowed. Therefore, it is possible that wetland buffers may not apply in those areas if the pasture area is considered by City staff to be “mowed” per this code language.

In that case, Section 18.21.110 (Fish and Wildlife Habitat Conservation Areas) still applies. Yelm Creek is assigned a riparian habitat width of 150 feet, as measured from the Ordinary High Water Mark, which may be defined as either the flagged wetland edge or the edge of the 100-year flood plain for these systems – whichever is greater (i.e., more protective).

A riparian habitat edge can be averaged as long as the width reduction will not reduce stream habitat or functions and will not degrade fish habitat.

Alternately, Section 18.21.080 (Frequently Flooded Areas) will also apply. In this case, base flood elevation rules will be used to define location and elevation of adjacent structures. That discussion falls outside of the scope of this report, and should be addressed by others.

Figures 6 and 7 show the approximate effect of a 150-foot setback from the Wetland edge.



Figure 6. Showing approximate 150 ft buffer at Project Site 1, north of Highway 507.

can we move riparian edge? see above

This could change buffer line to add useable land where BPA lines are not and put more buffer where BPA lines are?

what is a riparian Buffer?  
An area of vegetation that is maintained along the shore of a water body to protect stream channel and bank

A



Figure 7. Showing approximate 150 ft. buffer at Project Site 2, south of Highway 507.

#### 4. SUMMARY

There are two wetland rating units associated with Yelm Creek – one is north of Highway 507 and the other is south. This work is limited to delineating the wetland edge and assessing buffer impacts along the eastern side of the wetland system associated with the Creek.

The wetlands were rated, and scoring results indicate they are Category III systems with a Habitat score of 5 points. Both parcels are zoned for high intensity development, therefore the high intensity buffer is assigned – 150 feet.

It is possible that the wetland buffer will not be applied, as the pasture area to the east is mowed. However, the stream also has a 150-foot setback, which is typically measured from the edge of the Ordinary High Water Mark of the stream – which on these sites is approximately the same as the wetland boundary. Thus, the effect is essentially same.

*High water mark same as the wetland boundary*

The Creek will also be regulated as a Frequently Flooded Area (floodplain), which will define the distance and elevation of buildings adjacent to the Creek. Defining those setbacks is not within the scope of work for this report, and will need to be defined by others.



## 5. REFERENCES

Brinson, M., Final Report: *A Hydrogeomorphic Classification for Wetlands*. Wetlands Research Program Technical Report. WRP-DE-4. East Carolina University, Biology Department. Greenville, North Carolina. Prepared for US Army Corps of Engineers, August 1993.

Cowardin, Lewis M. et al, *Classification of Wetlands and Deepwater Habitats of the United States*, US Fish and Wildlife Service, 1979.

Hruby, T., *Washington State Wetland Rating System for Western Washington – Revised*. Publication Number 14-06029. Washington State Department of Ecology, 2014.

Thurston County Critical Areas Ordinance, Chapter 24.30.070

[http://www.co.thurston.wa.us/planning/critical\\_areas/adopted-ordinance/cao-attachment-b-chapter-24-30-wetlands.pdf](http://www.co.thurston.wa.us/planning/critical_areas/adopted-ordinance/cao-attachment-b-chapter-24-30-wetlands.pdf)

Thurston County GeoData System (GIS) 2017

United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, 2014 <http://websoilsurvey.nrcs.usda.gov/app/newfeatures.2.3.htm>.

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United States Army Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, Mississippi. March 1987.

USDA Natural Resources Conservation Service Plants Database, 2017 (for hydrophytic plant classification): <http://plants.usda.gov/>.

US Fish and Wildlife Service National Wetlands Inventory Mapper, 2017 (for NWI wetland mapping): <http://www.fws.gov/wetlands/Data/Mapper.html>.

Washington Department of Fish and Wildlife Priority Habitats and Species Maps 2017

<http://wdfw.wa.gov/mapping/phs/>.

Washington State Department of Natural Resources FPARS mapping system, 2017 (for stream typing):

<http://fortress.wa.gov/dnr/app1/fpars/viewer.htm>.

# APPENDIX A

## WETLAND FIGURES FOR RATING PROTOCOL

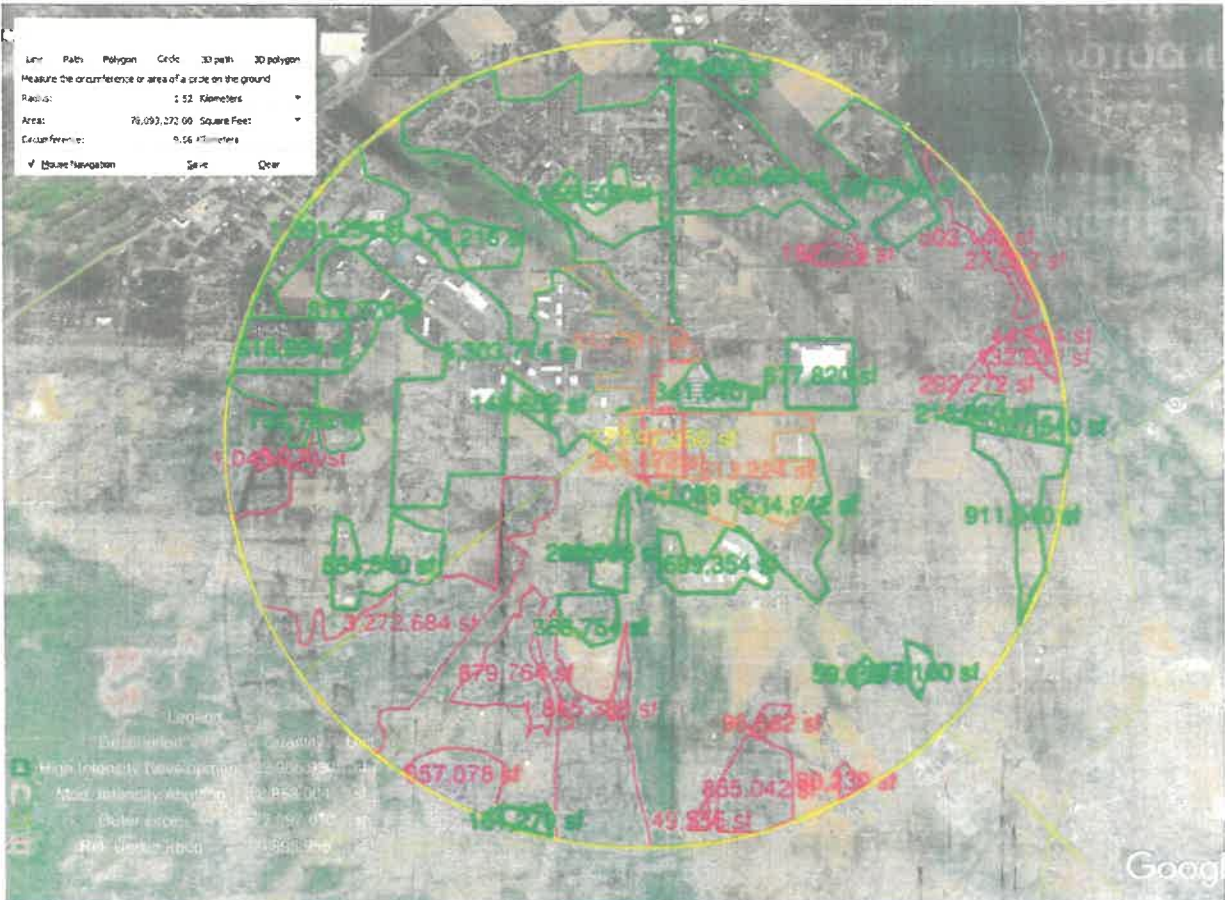
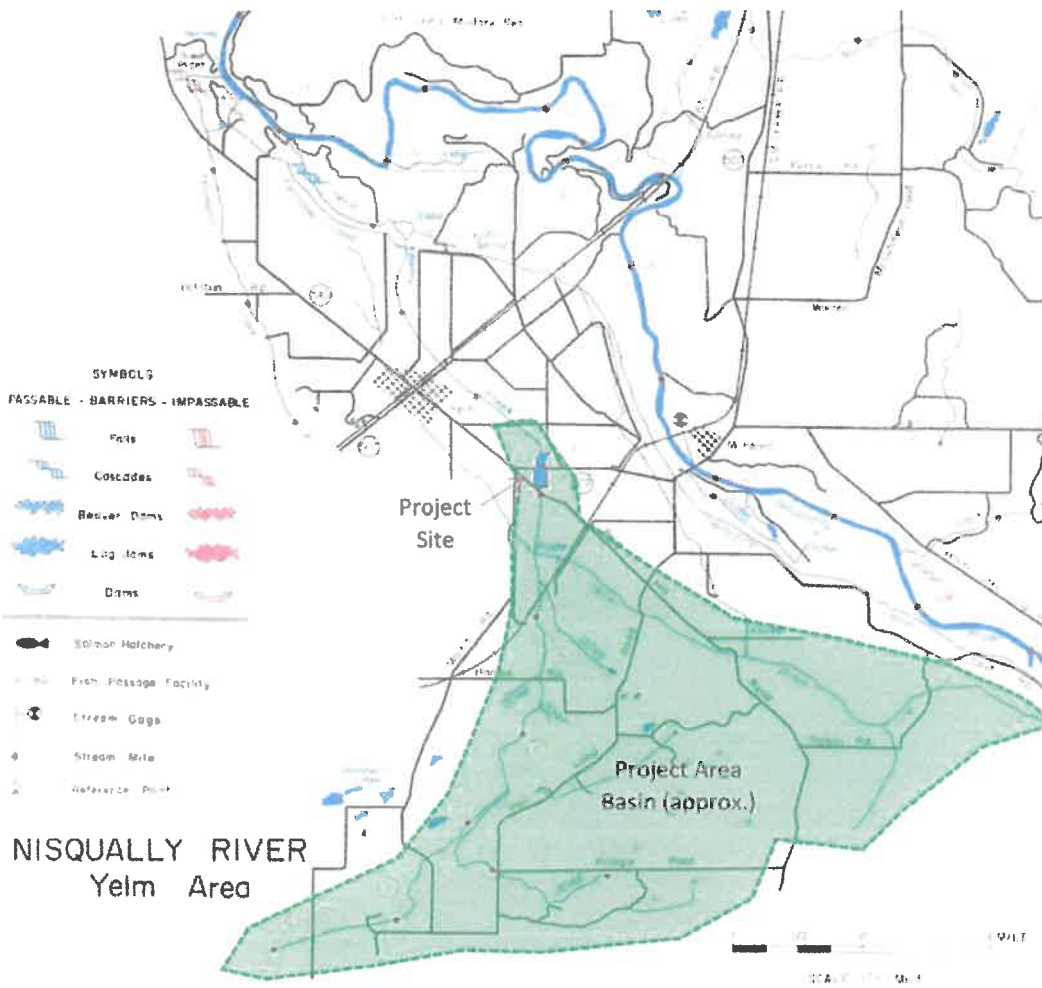
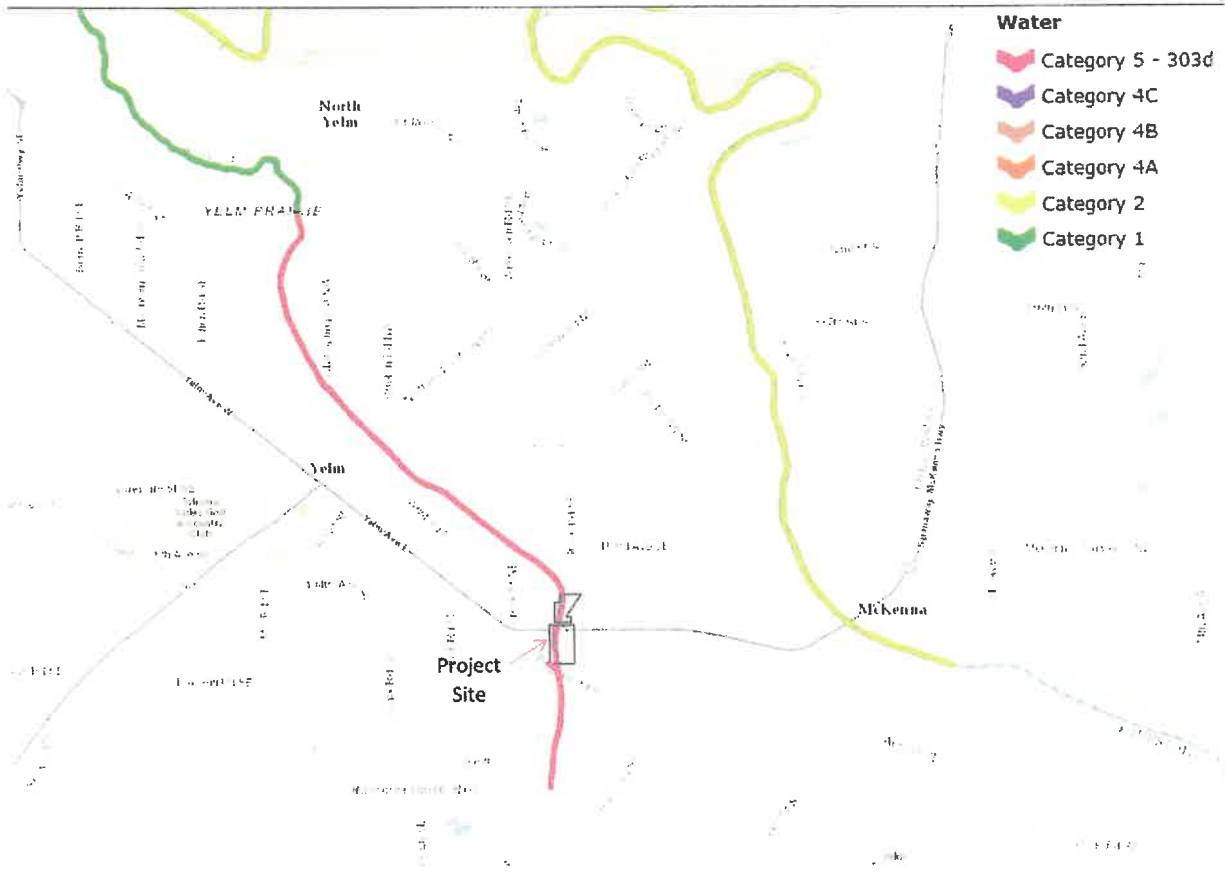


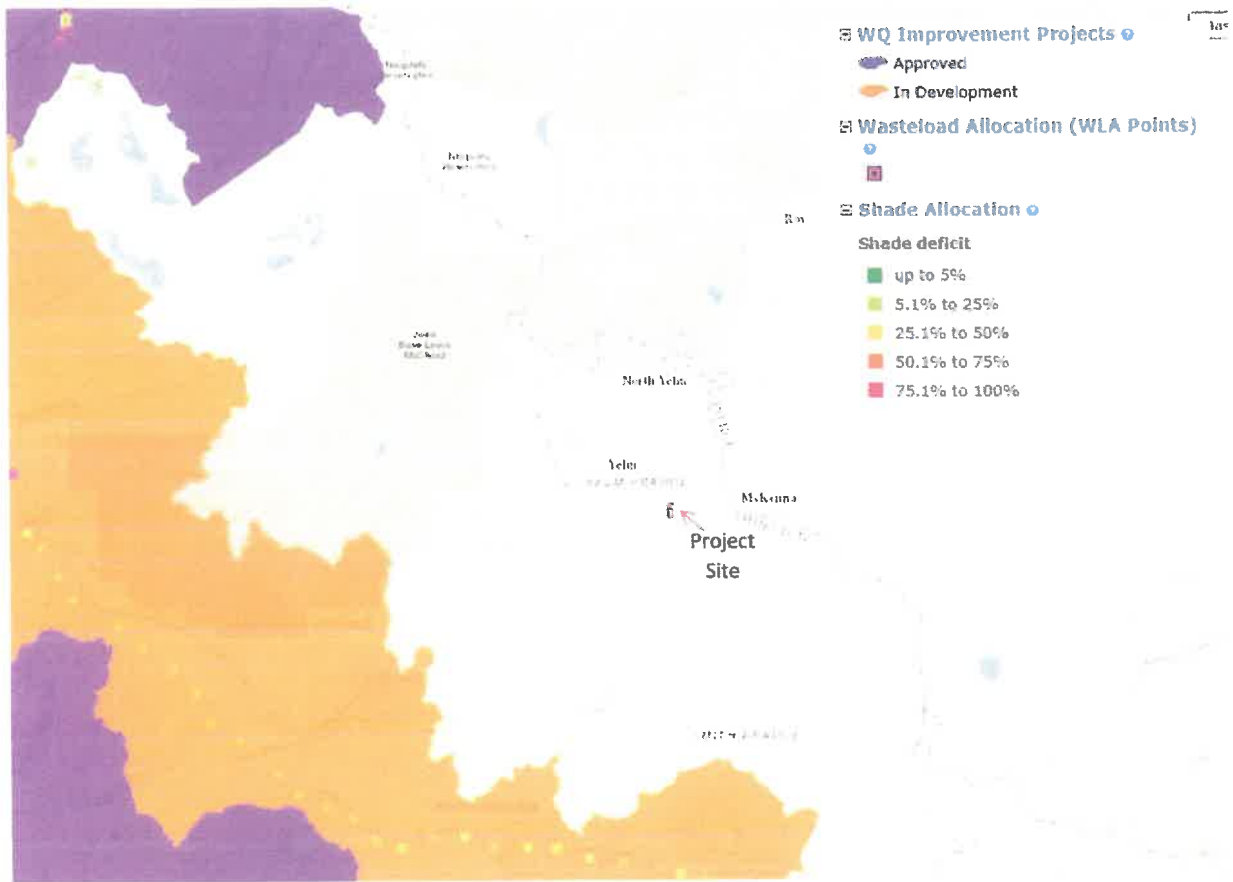
Figure A-8. Showing habitat conditions within 1 km of the project WRU. The yellow outline represents the 1km circle perimeter area; The red outline represents relatively undeveloped lands (forested) within the circle; The orange outline represents moderately developed land (pasture) adjacent to the WRU; The green polygons are high intensity development. The remaining area that is not outlined represents other moderate intensity developed land within the 1 km radius circle.



**Figure A-10. Map of contributing drainage basin**



**Figure A-9. Showing site location in relation to 303D waters**



**Figure A-11. There are no Total Maximum Daily Load (TMDL) projects for WRIA in which WRUs are found.**



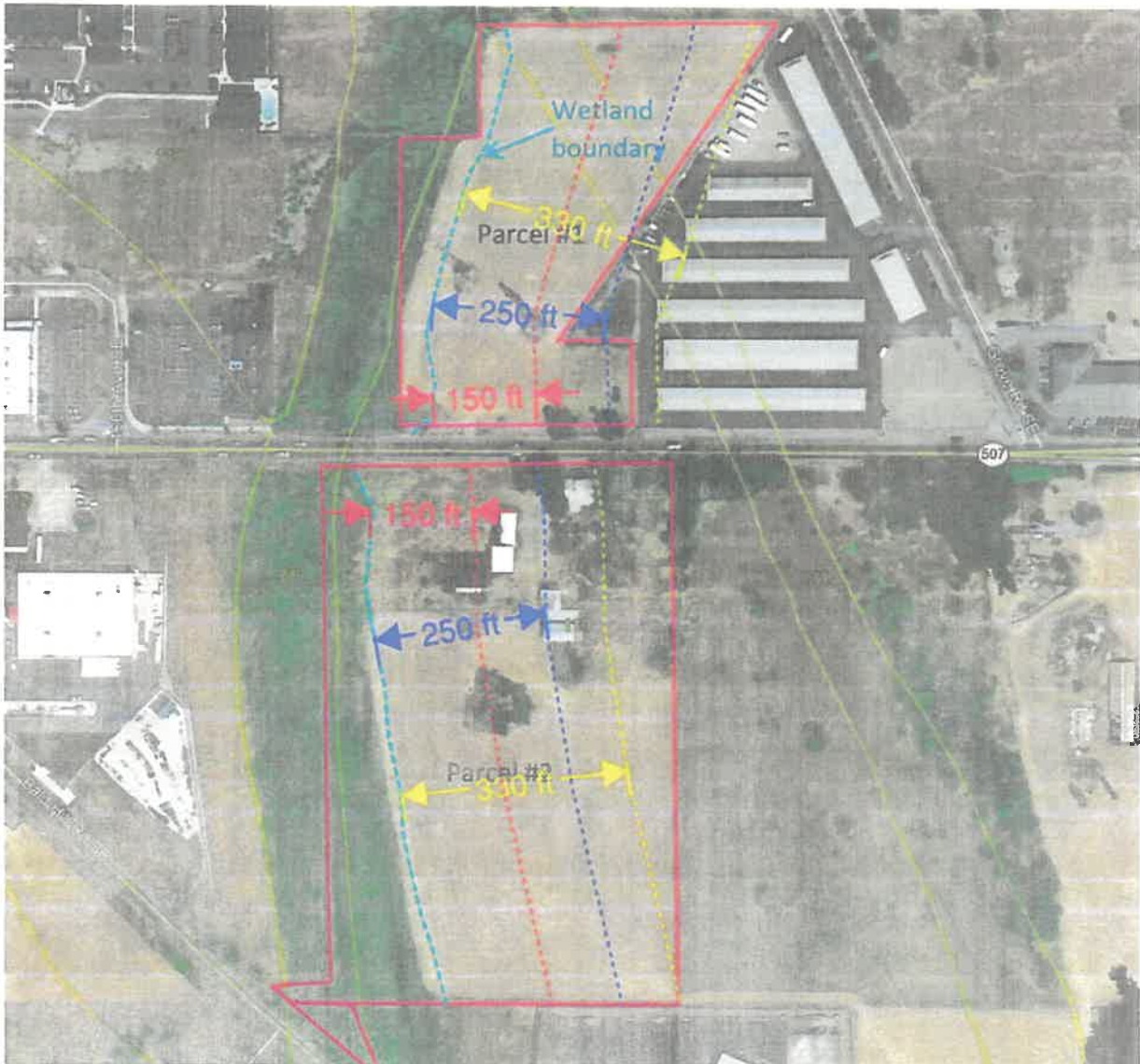


Figure A-12. Showing surface conditions within 150, 250 and 330 ft of the subject wetlands.



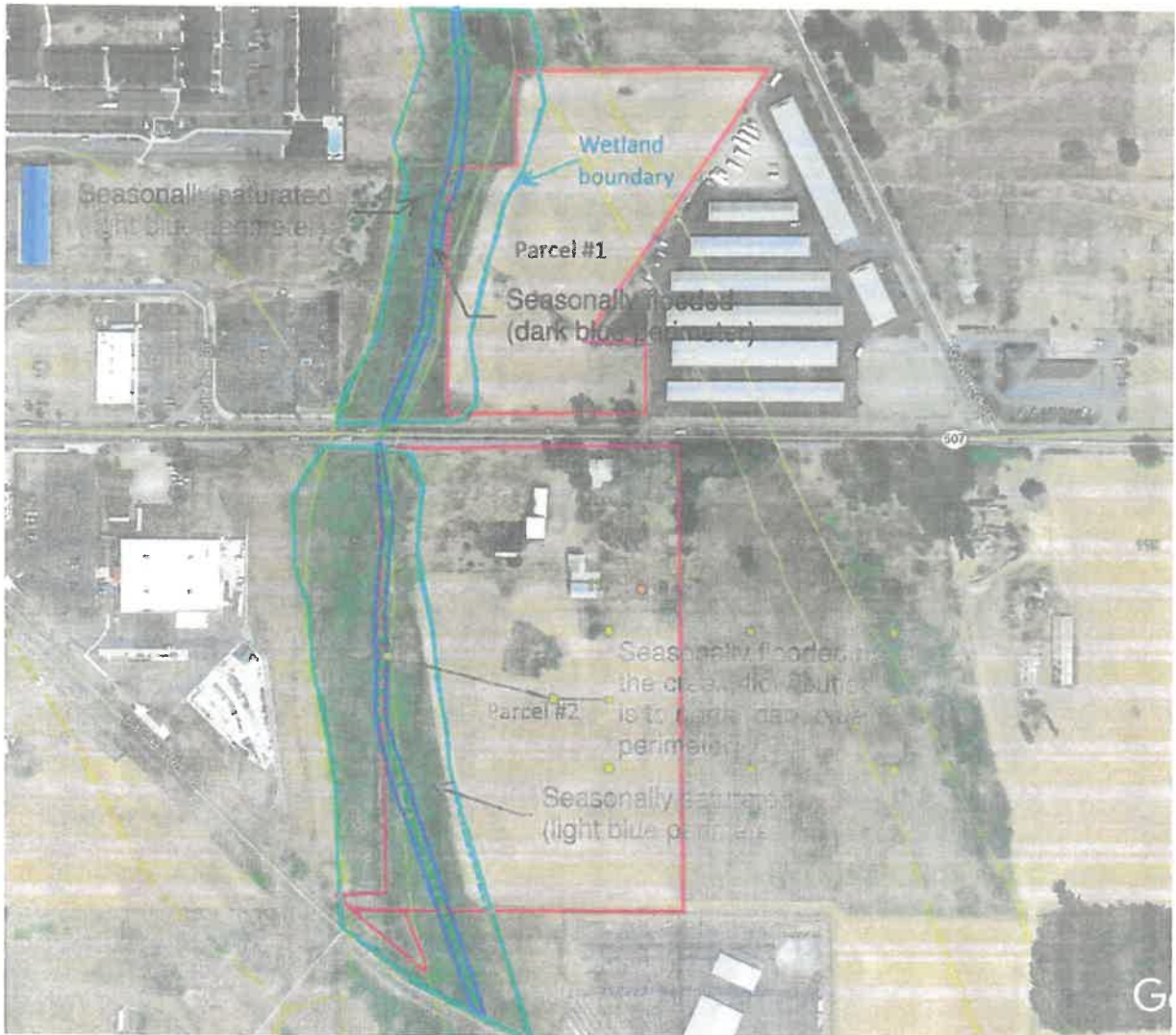


Figure A-13. Hydroperiods of the WRUs.

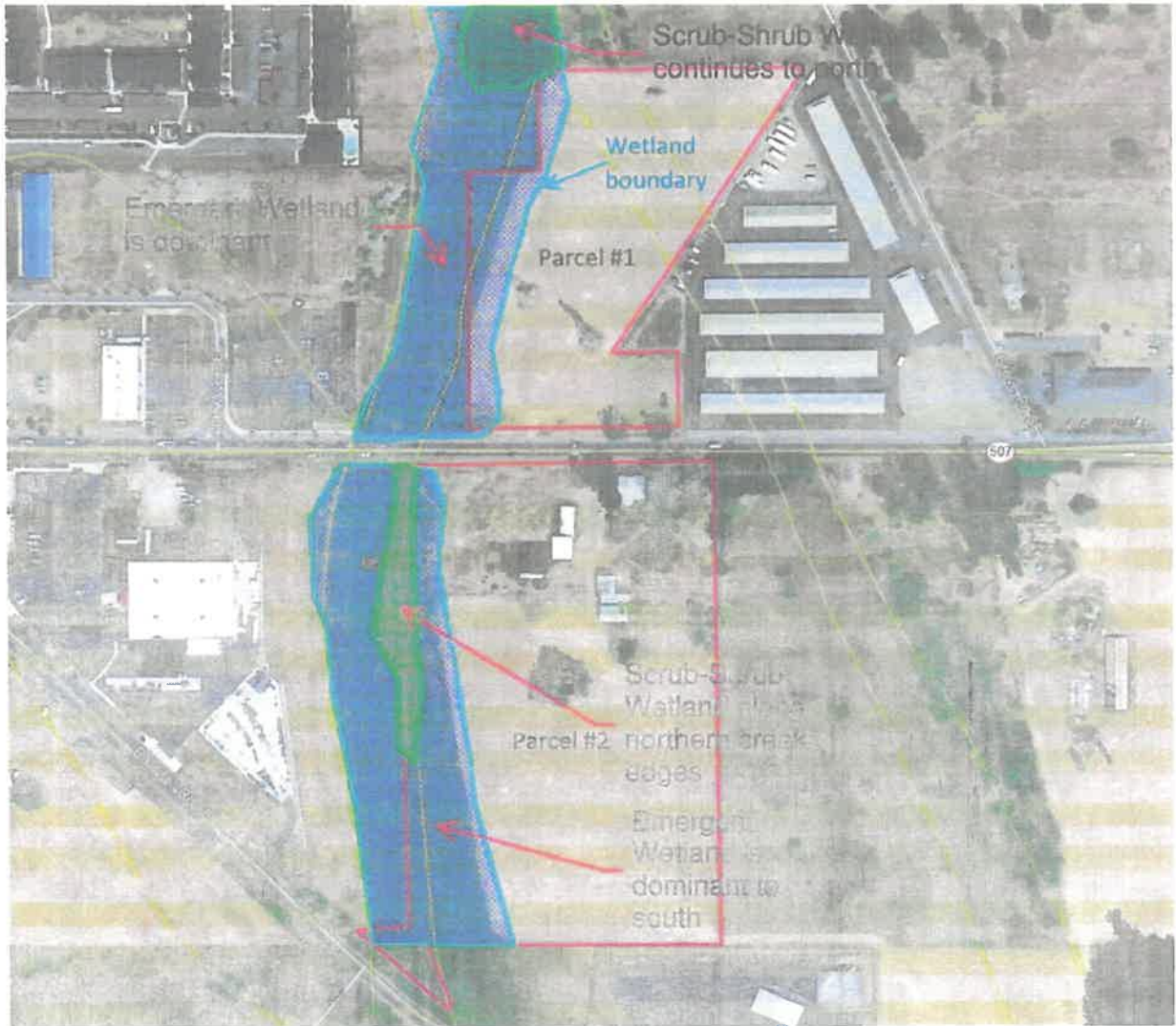


Figure A-14. Cowardin Vegetation Classes in the two WRUs.

WRU = wetland Report Units ?

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**APPENDIX B**  
**WETLAND RATING FORMS**

---

Wetland name or number Justman Parcel 1 and 2

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Justman Wetlands, Parcels 1 & 2 Date of site visit: 10/19/2017  
 Rated by Lisa Palazzi, PWS, CPSS Trained by Ecology?  Yes  No Date of training 2005/2015  
 HGM Class used for rating Depressional Wetland has multiple HGM classes? xx Y  N

**NOTE: Form is not complete without the figures requested (figures can be combined).**  
 Source of base aerial photo/map Google Earth/ Thursaton GeoData

**OVERALL WETLAND CATEGORY II** (based on functions  or special characteristics )

### 1. Category of wetland based on FUNCTIONS

- Category I – Total score = 23 - 27
- Category II – Total score = 20 - 22
- xx Category III – Total score = 16 - 19
- Category IV – Total score = 9 - 15

**Score for each function based on three ratings (order of ratings is not important)**

9 = H,H,H  
 8 = H,H,M  
 7 = H,H,L  
 7 = H,M,M  
 6 = H,M,L  
 6 = M,M,M  
 5 = H,L,L  
 5 = M,M,L  
 4 = M,L,L  
 3 = L,L,L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H <input type="checkbox"/> M <input type="checkbox"/> L <input checked="" type="checkbox"/>	H <input type="checkbox"/> M <input checked="" type="checkbox"/> L <input type="checkbox"/>	H <input type="checkbox"/> M <input type="checkbox"/> L <input checked="" type="checkbox"/>	
Landscape Potential	H <input checked="" type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/>	H <input checked="" type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/>	H <input type="checkbox"/> M <input checked="" type="checkbox"/> L <input type="checkbox"/>	
Value	H <input checked="" type="checkbox"/> M <input type="checkbox"/> L <input type="checkbox"/>	H <input type="checkbox"/> M <input checked="" type="checkbox"/> L <input type="checkbox"/>	H <input type="checkbox"/> M <input checked="" type="checkbox"/> L <input type="checkbox"/>	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>19</b>

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I    II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I    II
Interdunal	I II III IV
None of the above	xx



Wetland name or number \_\_\_\_\_

## Maps and figures required to answer questions correctly for Western Washington

### Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	Fig. A-14
Hydroperiods	D 1.4, H 1.2	Fig. A-13
Location of outlet ( <i>can be added to map of hydroperiods</i> )	D 1.1, D 4.1	Fig. A-13
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	D 2.2, D 5.2	Fig. A-12
Map of the contributing basin	D 4.3, D 5.3	Fig. A-10
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	Fig. A-8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	Fig. A-9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	Fig. A-11

### Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream ( <i>can be added to another figure</i> )	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

### Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

### Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of <b>dense</b> trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of <b>dense, rigid</b> trees, shrubs, and herbaceous plants ( <i>can be added to figure above</i> )	S 4.1	
Boundary of 150 ft buffer ( <i>can be added to another figure</i> )	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

## HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

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 except during floods?

NO - go to 2

YES - the wetland class is **Tidal Fringe** - go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - **Saltwater Tidal Fringe (Estuarine)**

YES - **Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the 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 unit **meet all** of the following criteria?

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;

At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO - go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **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**.

NO - go to 5

YES - The wetland class is **Slope**

**NOTE:** Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **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 2 years.



Wetland name or number \_\_\_\_\_

NO – go to 6

YES – The wetland class is **Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during 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 unit 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**

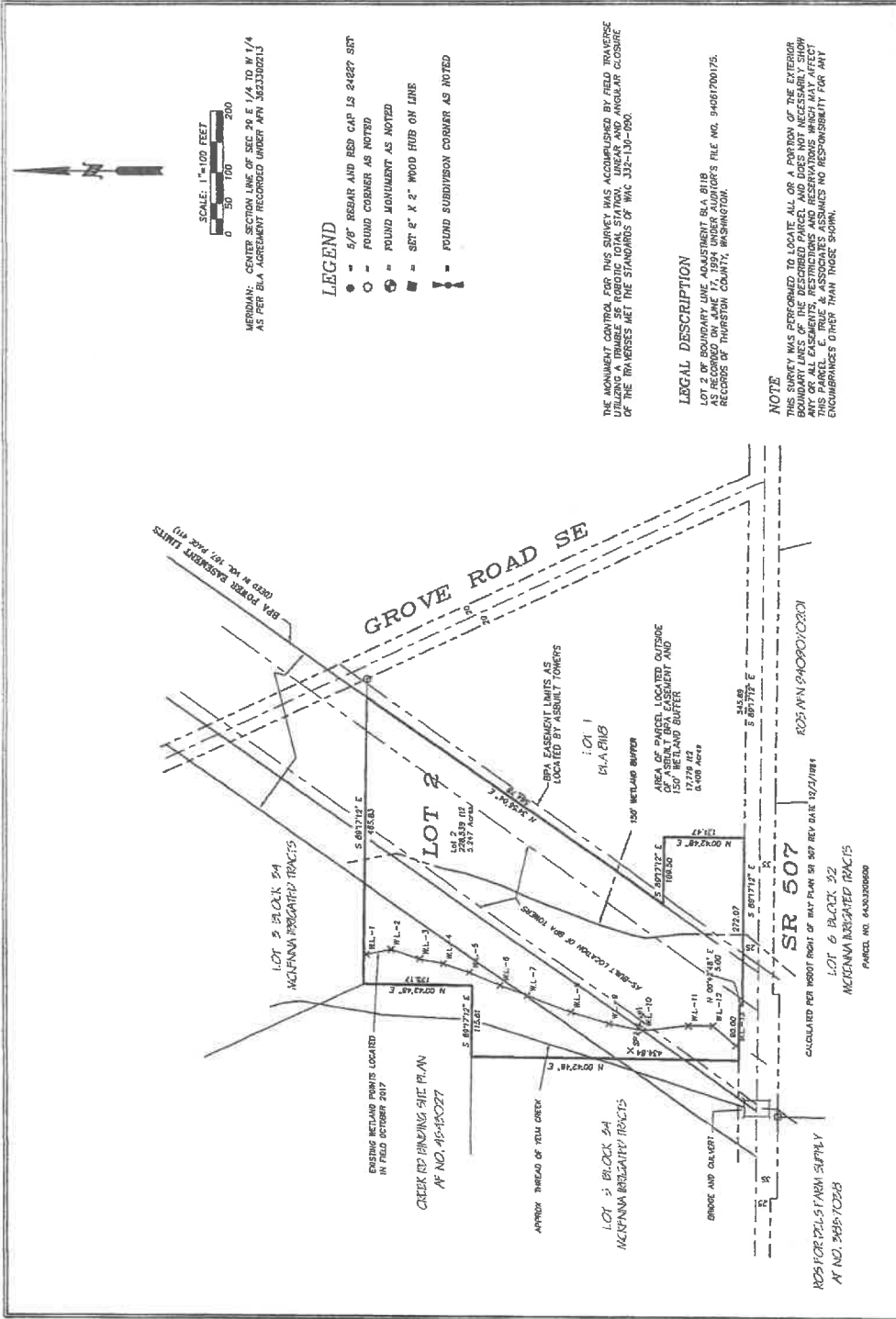
8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. **GO BACK AND IDENTIFY WHICH 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 the wetland unit being scored.

**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 HGM 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 of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

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

FILE NO.



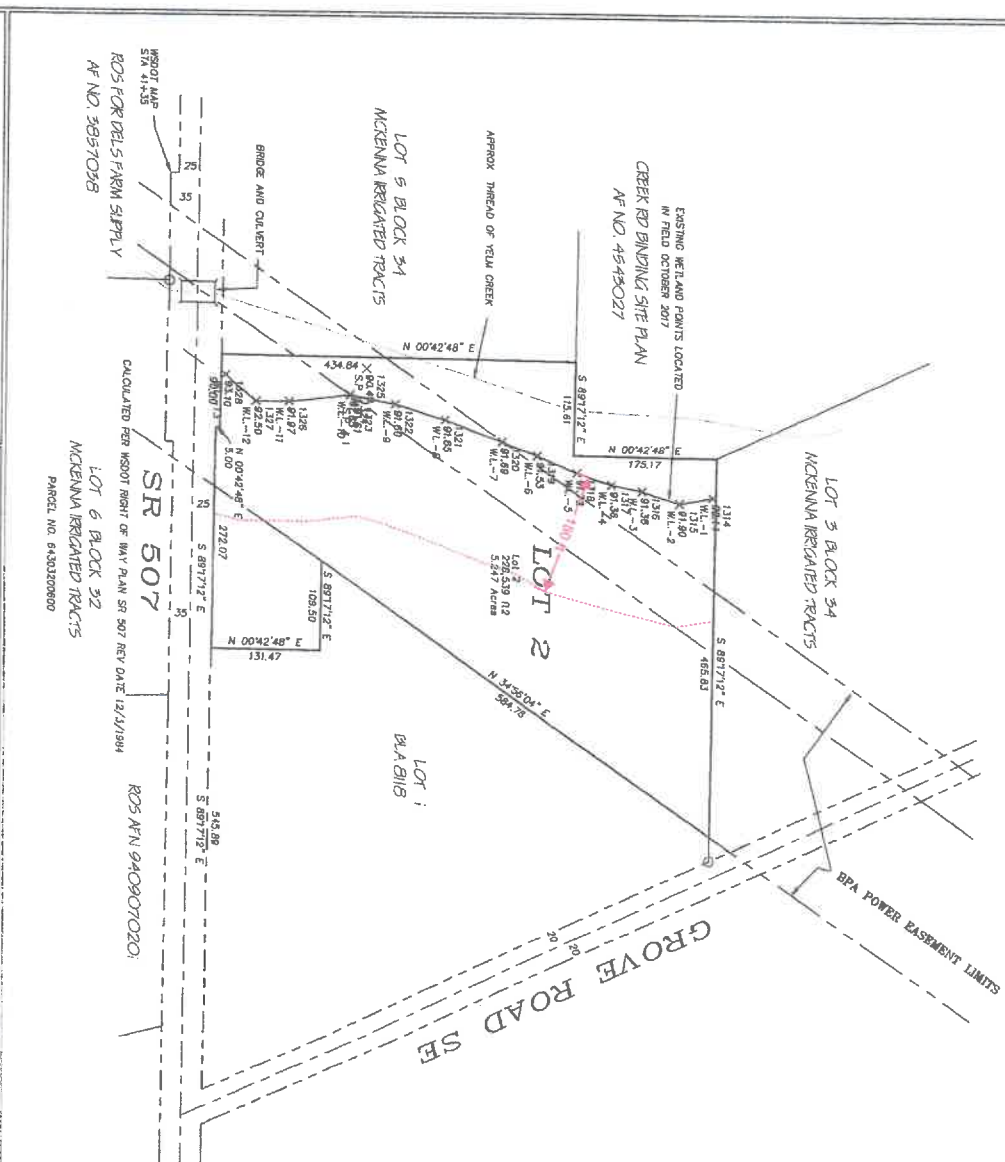
<b>AUDITOR'S CERTIFICATE</b> FILED FOR RECORD THIS _____ DAY OF _____, 2017 AT _____ M. AUDITOR'S FILE NO. _____ AT THE REQUEST OF JUSTMAN FAMILY LLC		<b>SURVEYOR'S CERTIFICATE</b> THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE SURVEYING ACT FOR JUSTMAN FAMILY LLC IN _____ SEEL 8011 REGISTERED PROFESSIONAL LAND SURVEYOR LICENSE NUMBER 24227	
THURSTON COUNTY AUDITOR _____ BY _____ DEPUTY		DATE: _____	
<b>BOUNDARY SURVEY FOR JUSTMAN FAMILY LLC</b> ME/A OF PVA 14 SECTION 14 TOWNSHIP 16 NORTH RANGE 1E		<b>E. TRUE &amp; ASSOC.</b> PROFESSIONAL LAND SURVEYORS P.O. BOX 908 YELM, WASHINGTON 98597 (360) 458-2894 1726ROS	





SCALE: 1"=100 FEET  
 AEROMAN. CURVE SECTION LINE OF SEC. 29 E 1/4 TO W 1/4 AS PER B/LA AGREEMENT RECORDED UNDER APRN 362330023

- LEGEND**
- = 5/8" REBAR AND RED CAP IS 24227 SET
  - = FOUND CORNER AS NOTED
  - ⊕ = FOUND MONUMENT AS NOTED
  - = SET 2" X 2" WOOD HUB ON LINE
  - ⚡ = FOUND SUBDIVISION CORNER AS NOTED



**LEGAL DESCRIPTION**  
 LOT 2 OF BOUNDARY LINE ADJUSTMENT B/LA 8118 AS RECORDED ON JUNE 17, 1994 UNDER AUDITOR'S FILE NO. 94081700175. RECORDS OF THURSTON COUNTY, WASHINGTON.

**NOTE**  
 THIS SURVEY WAS PERFORMED TO LOCATE ALL OR A PORTION OF THE EXTENDED BOUNDARY LINES OF THE DESCRIBED PARCEL, AND DOES NOT NECESSARILY SHOW ANY OR ALL EASEMENTS, RESTRICTIONS AND RESERVATIONS WHICH MAY AFFECT THIS PARCEL. E, TRUE & ASSOCIATES ASSUMES NO RESPONSIBILITY FOR ANY ENCUMBRANCES OTHER THAN THOSE SHOWN.

**AUDITOR'S CERTIFICATE**

FILED FOR RECORD THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2017  
 AT \_\_\_\_\_ M. AUDITOR'S FILE NO. \_\_\_\_\_  
 AT THE REQUEST OF JUSTIMAN FAMILY LLC  
 THURSTON COUNTY AUDITOR BY \_\_\_\_\_ DEPUTY

**SURVEYOR'S CERTIFICATE**

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE SURVEY RECORDING ACT FOR JUSTIMAN FAMILY LLC IN SRPT 8017  
 REGISTERED PROFESSIONAL LAND SURVEYOR DATE: \_\_\_\_\_  
 LICENSE NUMBER 24227



**BOUNDARY SURVEY**

FOR JUSTIMAN FAMILY LLC  
 SECTION 14  
 TOWNSHIP 16 NORTH  
 RANGE 1E

**E. TRUE & ASSOC.**

PROFESSIONAL LAND SURVEYORS  
 P.O. BOX 908  
 YELM, WASHINGTON 98597  
 (360) 458-2894  
 17226ROS



5" OR THE PORTS AND T-SQUARES, W/ 4" GRID WIRE  
FENCE W/ 2 STRANDS GAMB WIRE FOR TOP

SR 507

CALCULATED PER MONOT RIGHT OF WAY PLAIN SR 507 REV DATE 1/2/1994

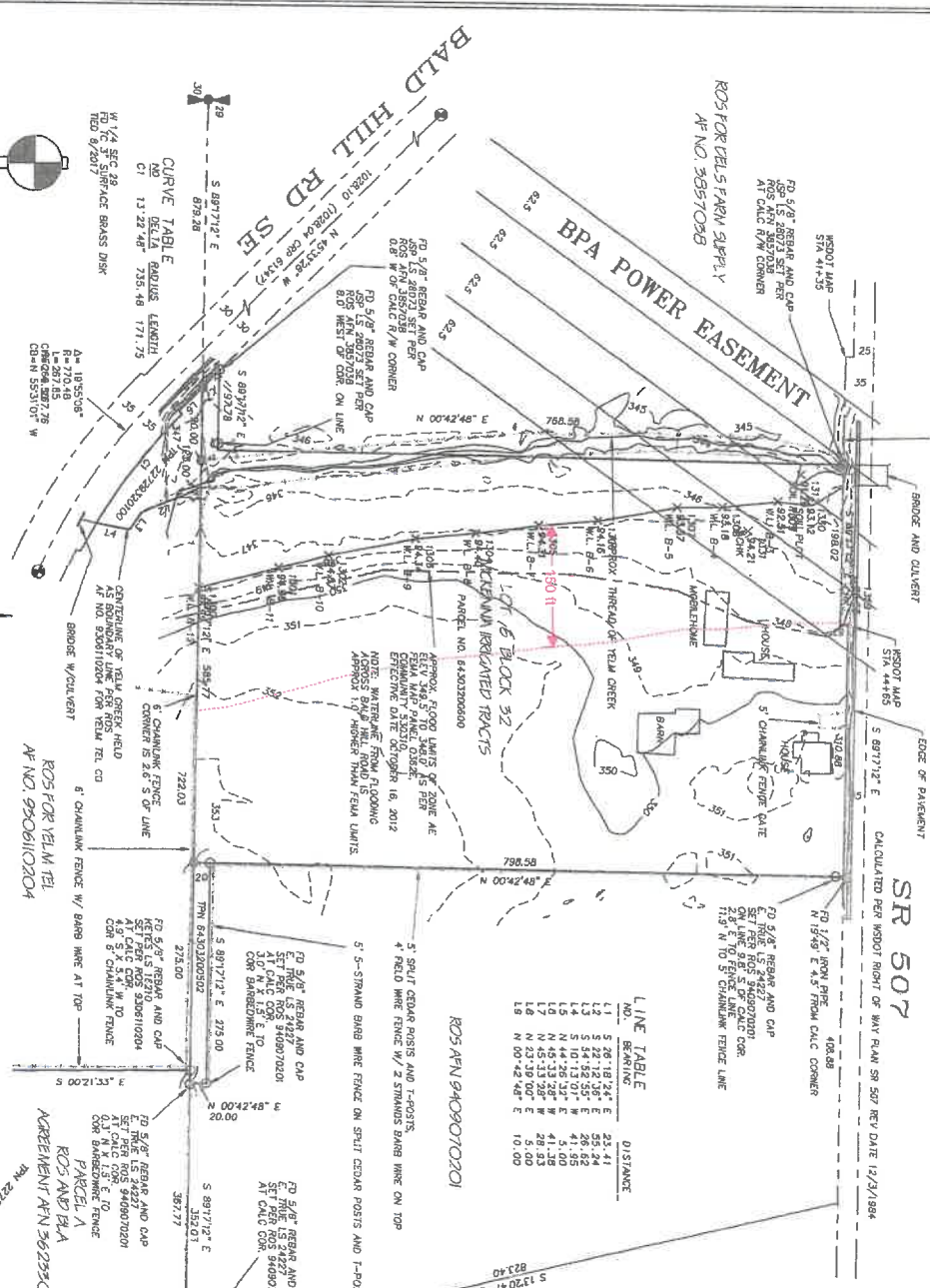
LEGAL DESCRIPTION

PARCEL NO. 6403000902 (QUIT CLAIM DEED A/N 870340028)  
PART OF SECTION 29 OF TOWNSHIP 17 NORTH RANGE 28 EAST OF MERIDIAN 140E, S.W. 1/4 OF SECTION 29, TOWNSHIP 17 NORTH, RANGE 28 EAST, COUNTY OF THURSTON, WASHINGTON. THE WEST LINE OF SAID LOT 5 A DISTANCE OF 20 FEET, THE EAST LINE AND PART OF THE SOUTH LINE OF SAID LOT 5 A DISTANCE OF 275 FEET, DISTANCE OF 20 FEET, TRANCE WESTERN ALONG THE SOUTH LINE OF SAID LOT 5 A DISTANCE OF 275 FEET TO THE POINT OF BEGINNING A LINE CONTAINING 13 ACRES

PAGE NO. 6403000600  
LOT 5, BLOCK 32, MCKENNA RECORDED TRACTS AS RECORDED IN VOLUME 9 OF PLATS PAGE 43, RECORDS OF THURSTON COUNTY, WASHINGTON. EXCEPT THAT PORTION CONVEYED TO THE STATE OF WASHINGTON BY INSTRUMENT RECORDED UNDER ADDRES'S FILE NO. 850415050. AREA = 408.164 SF. 8.244 ACRES

LINE TABLE

NO.	BEARING	DISTANCE
L1	S 26°18'24" E	23.41
L2	S 22°12'25" E	25.44
L3	S 22°12'25" E	25.44
L4	S 10°13'01" W	41.95
L5	N 44°25'24" E	41.95
L6	N 44°25'24" E	41.95
L7	N 45°13'28" E	28.33
L8	N 23°19'00" E	5.00
L9	N 00°42'48" E	10.00

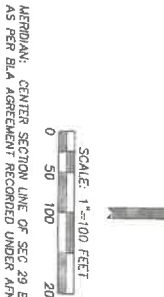


CURVE TABLE

NO.	BEARING	RADIUS	LENGTH
C1	S 89°12' E	735.48	1771.75

VERTICAL DATUM  
MAD 88 DATUM  
BLVD AND 4TH ST. C.  
BLVD AND 1ST ST. C.  
TOWNSHIP PT NO. 7894  
ELEV = 380.25

- LEGEND
- 5/8" REBAR AND RED CAP IS 24227 SET
  - FOUND CORNER AS NOTED
  - FOUND THURSTON COUNTY SURFACE
  - BRASS DISK AS SET PER CRP NO. 61347
  - FOUND SUBDIVISION CORNER AS NOTED



TOPOGRAPHIC SURVEY  
OF LOT 6 FOR  
IUSTMAN FAMILY LLC

SECTION 29  
TOWNSHIP 17 NORTH  
RANGE 28

E. TRUE & ASSOC.  
PROFESSIONAL LAND SURVEYORS  
P.O. BOX 906  
YELM, WASHINGTON 90387  
(360) 458-2894  
1725WETL

THE MONUMENT CONTROL FOR THIS SURVEY WAS ACCOMPLISHED BY FIELD TRAVERSE UTILIZING A TRIMBLE S6 ROBOTIC TOTAL STATION. LINEAR AND ANGULAR CLOSURE OF THE TRAVERSERS MET THE STANDARDS OF WAC 332-130-050.

R05 FOR YELM TEL  
AF NO. 9506110204

R05 A/N 9409070201

R05 AND B/LA  
PARCEL A  
AGREEMENT A/N 26225500  
R/N 2728210400



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**Justman Project.**

Lisa Palazzi &lt;lisa.palazzi@scjalliance.com&gt;

Fri, Dec 29, 2017 at 4:05 PM

To: Daniel Justman &lt;danjustman@yahoo.com&gt;, Benjamin Justman &lt;justben412@gmail.com&gt;

Hello Dan,

I wanted to get this to you before the end of year. I did not hear back from Eddie. However, I did add an approximate 150 foot setback to his two survey maps (Lot 1 and 2 survey above), so you can see that effect. His line will be more precise, but this one will be pretty close. The report includes maps with approximate buffers in the Figures, which is usually OK with the jurisdiction as long as they sooner or later have a copy of the survey map in the package. Please review the report and let me know if you have any questions.

Because we spent unanticipated time with back and forth on the survey and needing to create other figures, and because the City had no guidance on the buffers, so I had to do some additional research, we have exceeded the budget. This is another reason I wanted to get this to you without any more waiting. Unfortunately, we don't have any more budget to work on the project. I am sorry, I did not realize how much time we spent spinning our wheels.

Respectfully,

Lisa Palazzi, CPSS, PWS

**SCJ Alliance***Certified Professional Soil Scientist**Certified Professional Wetland Scientist*

o. 360.352.1465

[www.scjalliance.com](http://www.scjalliance.com)

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**3 attachments** **2017 1229 COMBINED Justman Yelm Wetland Report.pdf**  
5329K **LMP Lot 1 Survey 1725WETL.pdf**  
421K **LMP Lot 2 Survey 1726WETL.pdf**  
241K

Co-Manager, Justman Family LLC

[Quoted text hidden]

Justman Family LLC.

[Quoted text hidden]

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Lisa Palazzi <lisa.palazzi@scjalliance.com>

Fri, Jan 5, 2018 at 9:05 AM

To: Daniel Justman <danzjustman@yahoo.com>, Benjamin Justman <justben412@gmail.com>, Steven Guidinger <stevenguidinger@msn.com>

Hi Dan,

I am glad to hear that it sounds like this will work.

As for the other site, it is pretty difficult if not impossible to get a Forest Practices moratorium lifted if the person asking for it is the same person who did the logging. So if that is of concern, you might want to make sure that you stay at least 300 feet from the wetland and 200-250 feet away from any streams. If you do that, you would most likely meet the Critical Area regulation requirements, which might make it possible to lift the moratorium. I just wanted to be sure that you have this information in advance.

Best wishes,

**Lisa Palazzi, CPSS, PWS**

**SCJ Alliance**

*Certified Professional Soil Scientist*

*Certified Professional Wetland Scientist*

o. [360.352.1465](tel:360.352.1465)

[www.scjalliance.com](http://www.scjalliance.com)

**From:** Daniel Justman [mailto:[danzjustman@yahoo.com](mailto:danzjustman@yahoo.com)]

**Sent:** Wednesday, January 3, 2018 7:51 PM

**To:** Benjamin Justman <[justben412@gmail.com](mailto:justben412@gmail.com)>; Lisa Palazzi <[lisa.palazzi@scjalliance.com](mailto:lisa.palazzi@scjalliance.com)>; Steven Guidinger <[stevenguidinger@msn.com](mailto:stevenguidinger@msn.com)>

**Subject:** Re: RE: RE: Justman Project.

[Quoted text hidden]

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**Benjamin Justman** <[justben412@gmail.com](mailto:justben412@gmail.com)>

Fri, Jan 5, 2018 at 11:02 AM

To: Lisa Palazzi <[lisa.palazzi@scjalliance.com](mailto:lisa.palazzi@scjalliance.com)>

Cc: Daniel Justman <[danzjustman@yahoo.com](mailto:danzjustman@yahoo.com)>, Steven Guidinger <[stevenguidinger@msn.com](mailto:stevenguidinger@msn.com)>

Lisa, on page 11 of the Wetland Delineation and Rating Report, it says "mowed areas will not be considered buffer zones according to city code 18.21.030.F.6.b."

Then the next paragraph says, "Fish and Wildlife Habitat Conservation Areas still applies. Yelm Creek is assigned a riparian habitat width of 150 feet." My question is in regard to the next paragraph concerning the riparian habitat edge being "averaged."

Could you explain the phrase "can be averaged" in regard to this parcel of land? Does this mean since the land from the wetland boundary to the East 150 feet is mowed, does not reduce stream habitat or functions, will not degrade fish habitat, and does not have riparian vegetation on it, that it can be built on and used for commercial or industrial use?

Thank you for your time in responding to my question.

Ben Justman

o. 360.352.1465

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**3 attachments**

 **2017 1229 COMBINED Justman Yelm Wetland Report.pdf**  
5329K

 **LMP Lot 1 Survey 1725WETL.pdf**  
421K

 **LMP Lot 2 Survey 1726WETL.pdf**  
241K

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**Lisa Palazzi** <lisa.palazzi@scjalliance.com>

Wed, Jan 3, 2018 at 11:32 AM

To: Daniel Justman <danjustman@yahoo.com>, Benjamin Justman <justben412@gmail.com>

Hello Dan – I have not heard anything back from you, and wanted to make sure that you received the report and have what you need for this project. I also wanted to make sure that there are no plans to proceed with anything for the other property over off of Morris Road? I seem to recall that one was shelved almost indefinitely, but I did not want to ignore it if you had other plans. Just let me know.

Best wishes,

**Lisa Palazzi, CPSS, PWS**

**SCJ Alliance**

*Certified Professional Soil Scientist*

*Certified Professional Wetland Scientist*

o. 360.352.1465

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**Daniel Justman** <danjustman@yahoo.com>

Wed, Jan 3, 2018 at 7:50 PM

To: Benjamin Justman <justben412@gmail.com>, Lisa Palazzi <lisa.palazzi@scjalliance.com>, Steven Guidinger <stevenguidinger@msn.com>

Lisa

I haven't been able to digest all the information yet, Ben and I are going through the information you sent. I am sure we will have questions, I have several things to deal with the first part of this month, so Ben will be looking at the study now and I will a little later in the month or as time permits. I just skimmed through it and it looks like what we needed. I also sent it to Steven Guidinger, our Realtor.

We will be needing your services again on the Morris rd properties in the near future. I want the logger to be finished and out of the property before I have you working on that project. He should be finished around the end of the month, however I have heard that from him for two months now, so am not sure on the finish date yet.

What we will need, is help going to the county, to try to get the moratorium lifted on building on the property. We plan on planting trees as soon as possible, hopefully this month. The back parcel has a small wetland, approximately 3 or 4 acres. At this time we don't want to do a wetland study.

I will be in touch with you as soon as we are ready.

Thanks for your good work.

Daniel Justman



Lisa Palazzi <lisa.palazzi@scjalliance.com>

To: Daniel Justman <danjungman@yahoo.com>, Benjamin Justman <justben412@gmail.com>

Tue, Dec 26, 2017 at 10:01 AM

Thanks Dan,

I hope you had a nice Christmas. I'll check in with Eddie and see what we can do to get this finalized before the EOY.

Best wishes,

**Lisa Palazzi, CPSS, PWS**

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**From:** Daniel Justman [mailto:[danjustman@yahoo.com](mailto:danjungman@yahoo.com)]

**Sent:** Friday, December 22, 2017 9:41 PM

**To:** Benjamin Justman <[justben412@gmail.com](mailto:justben412@gmail.com)>; Lisa Palazzi <[lisa.palazzi@scjalliance.com](mailto:lisa.palazzi@scjalliance.com)>

**Subject:** Re: RE: Justman Project:

[Quoted text hidden]

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Lisa Palazzi <lisa.palazzi@scjalliance.com>

To: Daniel Justman <danjungman@yahoo.com>, Benjamin Justman <justben412@gmail.com>

Fri, Dec 29, 2017 at 4:05 PM

Hello Dan,

I wanted to get this to you before the end of year. I did not hear back from Eddie. However, I did add an approximate 150 foot setback to his two survey maps (Lot 1 and 2 survey above), so you can see that effect. His line will be more precise, but this one will be pretty close. The report includes maps with approximate buffers in the Figures, which is usually OK with the jurisdiction as long as they sooner or later have a copy of the survey map in the package. Please review the report and let me know if you have any questions.

Because we spent unanticipated time with back and forth on the survey and needing to create other figures, and because the City had no guidance on the buffers, so I had to do some additional research, we have exceeded the budget. This is another reason I wanted to get this to you without any more waiting. Unfortunately, we don't have any more budget to work on the project. I am sorry, I did not realize how much time we spent spinning our wheels.

Respectfully,

**Lisa Palazzi, CPSS, PWS**

**SCJ Alliance**

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*Certified Professional Wetland Scientist*

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**Justman Project.**

9 messages

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**Daniel Justman** <danjustman@yahoo.com> Wed, Dec 20, 2017 at 9:46 PM  
To: Lisa Palazzi <lisa.palazzi@scjalliance.com>, Benjamin Justman <justben412@gmail.com>

Lisa  
Hope your Christmas season is going good.  
How is the project going? We are anxious to see how much property is usable so we can set a price on it and get it on the market.  
Could you give me a call to update us on the project?  
Thanks Dan J  
[541-891-0654](tel:541-891-0654) any time.

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**Lisa Palazzi** <lisa.palazzi@scjalliance.com> Fri, Dec 22, 2017 at 10:56 AM  
To: Daniel Justman <danjustman@yahoo.com>, Benjamin Justman <justben412@gmail.com>

Hi Dan,

I am back in the office today. Perhaps I should just go ahead and finish up the report without needing Eddie to provide the buffers added on the survey map. I can add the approximate buffer on my Figures, and will note that a survey level map can be provided on request. If this sounds OK, I can get that to you early next week at the latest.

Thanks,

**Lisa Palazzi, CPSS, PWS**

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*Certified Professional Wetland Scientist*

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[www.scjalliance.com](http://www.scjalliance.com)

**From:** Daniel Justman [mailto:[danjustman@yahoo.com](mailto:danjustman@yahoo.com)]  
**Sent:** Wednesday, December 20, 2017 9:47 PM  
**To:** Lisa Palazzi <[lisa.palazzi@scjalliance.com](mailto:lisa.palazzi@scjalliance.com)>; Benjamin Justman <[justben412@gmail.com](mailto:justben412@gmail.com)>  
**Subject:** Justman Project.

[Quoted text hidden]

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**Daniel Justman** <danjustman@yahoo.com> Fri, Dec 22, 2017 at 9:40 PM  
To: Benjamin Justman <justben412@gmail.com>, Lisa Palazzi <lisa.palazzi@scjalliance.com>

Liza

I talked with Eddie on Thursday morning, he was planning on sending the info to you today. I hope he did but am not holding my breath. He said it was all finished just had to E mail it out.

[Quoted text hidden]

Wetland name or number \_\_\_\_\_

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Wetland name or number \_\_\_\_\_

### CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <p><input type="checkbox"/> The dominant water regime is tidal,  <input type="checkbox"/> Vegetated, and  <input type="checkbox"/> With a salinity greater than 0.5 ppt      <input type="checkbox"/> Yes --Go to <b>SC 1.1</b>   <input type="checkbox"/> No= <b>Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland 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?</p> <p style="text-align: right;"><input type="checkbox"/> Yes = <b>Category I</b>   <input type="checkbox"/> No - Go to <b>SC 1.2</b></p>	Cat. I <input type="checkbox"/>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <p><input type="checkbox"/> The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i>, see page 25)</p> <p><input type="checkbox"/> At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</p> <p><input type="checkbox"/> The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</p> <p style="text-align: right;"><input type="checkbox"/> Yes = <b>Category I</b>   <input type="checkbox"/> No = <b>Category II</b></p>	Cat. I <input type="checkbox"/>  Cat. II <input type="checkbox"/>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value?      <input type="checkbox"/> Yes – Go to <b>SC 2.2</b>   <input type="checkbox"/> No – Go to <b>SC 2.3</b></p> <p>SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?      <input type="checkbox"/> Yes = <b>Category I</b>   <input type="checkbox"/> No = <b>Not a WHCV</b></p> <p>SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?  <a href="http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwtlands.pdf">http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwtlands.pdf</a>  <input type="checkbox"/> Yes – <b>Contact WNHP/WDNR and go to SC 2.4</b>   <input type="checkbox"/> No = <b>Not a WHCV</b></p> <p>SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website?      <input type="checkbox"/> Yes = <b>Category I</b>   <input type="checkbox"/> No = <b>Not a WHCV</b></p>	Cat. I <input type="checkbox"/>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile?      <input type="checkbox"/> Yes – Go to <b>SC 3.3</b>   <input type="checkbox"/> No – Go to <b>SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?      <input type="checkbox"/> Yes – Go to <b>SC 3.3</b>   <input type="checkbox"/> No = <b>Is not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?      <input type="checkbox"/> Yes = <b>Is a Category I bog</b>   <input type="checkbox"/> No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> 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 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?      <input type="checkbox"/> Yes = <b>Is a Category I bog</b>   <input type="checkbox"/> No = <b>Is not a bog</b></p>	Cat. I <input type="checkbox"/>

Wetland name or number \_\_\_\_\_

## WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf> or access the list from here: <http://wdfw.wa.gov/conservation/phs/list/>)

Count how many of the following priority habitats are **within 330 ft (100 m) of the wetland unit**: **NOTE: This question is independent of the land use between the wetland unit and the priority habitat.**

- Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- 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).
- 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 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; 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; 80-200 years old west of the Cascade crest.
- Oregon White Oak:** Woodland 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 – see web link above).
- 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 – see web link above).
- 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 – see web link on previous page).
- 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 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), 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 > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

**Note:** All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number Justman Parcel 1 and 2

<p><b>H 1.5. Special habitat features:</b>          Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i></p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in diameter and 6 ft long).  <input type="checkbox"/> Standing snags (dbh &gt; 4 in) within the wetland  <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)  <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>)  <input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)  <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)</p>		1
Total for H 1	Add the points in the boxes above	6

**Rating of Site Potential** If score is:  15-18 = H  7-14 = M  0-6 = L *Record the rating on the first page*

<p><b>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</b></p>		
<p><b>H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).</b>  <i>Calculate:</i> % undisturbed habitat<sup>0</sup> + [(% moderate and low intensity land uses)/2]<sup>2</sup> = 2 %          If total accessible habitat is:          &gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span>          20-33% of 1 km Polygon <span style="float: right;">points = 2</span>          10-19% of 1 km Polygon <span style="float: right;">points = 1</span>          &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		0
<p><b>H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.</b>  <i>Calculate:</i> % undisturbed habitat<sup>13</sup> + [(% moderate and low intensity land uses)/2]<sup>35</sup> = 48 %          Undisturbed habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span>          Undisturbed habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span>          Undisturbed habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span>          Undisturbed habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p><b>H 2.3. Land use intensity in 1 km Polygon: If</b>          &gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span>          ≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		0
Total for H 2	Add the points in the boxes above	1

**Rating of Landscape Potential** If score is:  4-6 = H  1-3 = M  < 1 = L *Record the rating on the first page*

<p><b>H 3.0. Is the habitat provided by the site valuable to society?</b></p>		
<p><b>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated.</b></p> <p>Site meets ANY of the following criteria: <input type="checkbox"/> points = 2</p> <p><input type="checkbox"/> It has 3 or more priority habitats within 100 m (see next page)  <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)  <input type="checkbox"/> It is mapped as a location for an individual WDFW priority species  <input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources  <input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan  <input checked="" type="checkbox"/> Site has 1 or 2 priority habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span>  <input type="checkbox"/> Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		1
<p><b>Rating of Value</b> If score is: <input type="checkbox"/> 2 = H <input checked="" type="checkbox"/> 1 = M <input type="checkbox"/> 0 = L</p>		<i>Record the rating on the first page</i>

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS - Indicators that site functions to provide important habitat**

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

- Aquatic bed
- Emergent
- 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

- 4 structures or more: points = 4
- 3 structures: points = 2
- 2 structures: points = 1
- 1 structure: points = 0

1

**H 1.2. Hydroperiods**

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

- Permanently flooded or inundated
- Seasonally flooded or inundated
- Occasionally flooded or inundated
- Saturated only
- Permanently flowing stream or river in, or adjacent to, the wetland
- Seasonally flowing stream in, or adjacent to, the wetland
- Lake Fringe wetland
- Freshwater tidal wetland

- 4 or more types present: points = 3
- 3 types present: points = 2
- 2 types present: points = 1
- 1 type present: points = 0

2

2 points  
2 points

**H 1.3. Richness of plant species**

Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>.

*Different patches of the same species can be combined to meet the size threshold and 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
  - < 5 species  points = 0

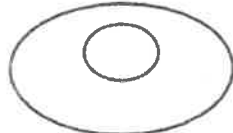
1

**H 1.4. Interspersion of habitats**

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



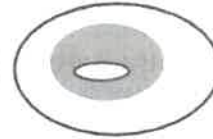
None = 0 points



Low = 1 point

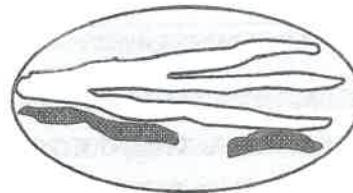
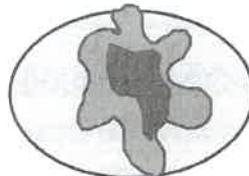
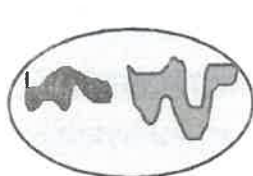


Moderate = 2 points



1

All three diagrams in this row are HIGH = 3points





<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</b>		
<b>D 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
<b>D 4.1. Characteristics of surface water outflows from the wetland:</b>		
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	2
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
<b>D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.</b>		
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	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	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
<b>D 4.3. Contribution of the wetland 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.</b>		
The area of the basin is less than 10 times the area of the unit	points = 5	0
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	
<b>Total for D 4</b>	<b>Add the points in the boxes above</b>	<b>7</b>
<b>Rating of Site Potential</b> If score is: <input type="checkbox"/> 12-16 = H <input checked="" type="checkbox"/> 6-11 = M <input type="checkbox"/> 0-5 = L <span style="float: right;"><i>Record the rating on the first page</i></span>		
<b>D 5.0. Does the landscape have the potential to support hydrologic functions of the site?</b>		
<b>D 5.1. Does the wetland receive stormwater discharges?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>D 5.2. Is &gt;10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at &gt;1 residence/ac, urban, commercial, agriculture, etc.)?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>Total for D 5</b>	<b>Add the points in the boxes above</b>	<b>3</b>
<b>Rating of Landscape Potential</b> If score is: <input checked="" type="checkbox"/> 3 = H <input type="checkbox"/> 1 or 2 = M <input type="checkbox"/> 0 = L <span style="float: right;"><i>Record the rating on the first page</i></span>		
<b>D 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
<b>D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.</b>		
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):		1
• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> _____	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	
<b>D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</b>		
Yes = 2 No = 0		0
<b>Total for D 6</b>	<b>Add the points in the boxes above</b>	<b>1</b>
<b>Rating of Value</b> If score is: <input type="checkbox"/> 2-4 = H <input checked="" type="checkbox"/> 1 = M <input type="checkbox"/> 0 = L <span style="float: right;"><i>Record the rating on the first page</i></span>		



Wetland name or number \_\_\_\_\_ Justman Parcel 1 and 2

**DEPRESSIONAL AND FLATS WETLANDS**  
**Water Quality Functions - Indicators that the site functions to improve water quality**

<b>D 1.0. Does the site have the potential to improve water quality?</b>		
<b>D 1.1. Characteristics of surface water outflows from the wetland:</b>		
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3		2
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2		
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1		
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1		
<b>D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0</b>		0
<b>D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):</b>		
Wetland has persistent, ungrazed, plants > 95% of area points = 5		3
Wetland has persistent, ungrazed, plants > 1/2 of area points = 3		
Wetland has persistent, ungrazed plants > 1/10 of area points = 1		
Wetland has persistent, ungrazed plants < 1/10 of area points = 0		
<b>D 1.4. Characteristics of seasonal ponding or inundation:</b>		
<i>This is the area that is ponded for at least 2 months. See description in manual.</i>		
Area seasonally ponded is > 1/2 total area of wetland points = 4		0
Area seasonally ponded is > 1/4 total area of wetland points = 2		
Area seasonally ponded is < 1/4 total area of wetland points = 0		
<b>Total for D 1</b>	<b>Add the points in the boxes above</b>	<b>5</b>

**Rating of Site Potential** If score is:  12-16 = H  6-11 = M  0-5 = L Record the rating on the first page

<b>D 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
<b>D 2.1. Does the wetland unit receive stormwater discharges?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>D 2.2. Is &gt; 10% of the area within 150 ft of the wetland in land uses that generate pollutants?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>D 2.3. Are there septic systems within 250 ft of the wetland?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3?</b>		
Source _____	<input type="checkbox"/> Yes = 1 No = 0 <input checked="" type="checkbox"/>	0
<b>Total for D 2</b>	<b>Add the points in the boxes above</b>	<b>3</b>

**Rating of Landscape Potential** If score is:  3 or 4 = H  1 or 2 = M  0 = L Record the rating on the first page

<b>D 3.0. Is the water quality improvement provided by the site valuable to society?</b>		
<b>D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?</b>	<input checked="" type="checkbox"/> Yes = 1 No = 0 <input type="checkbox"/>	1
<b>D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)?</b>	<input type="checkbox"/> Yes = 2 No = 0 <input checked="" type="checkbox"/>	0
<b>Total for D 3</b>	<b>Add the points in the boxes above</b>	<b>2</b>

**Rating of Value** If score is:  2-4 = H  1 = M  0 = L Record the rating on the first page