

Critical Areas Report for XXXX Exhibitor Road Chehalis, Washington

Prepared for:
Fuller Designs
1101 Kresky Avenue
Centralia, WA 98531

Project # 187.15

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SIGNATURE PAGE

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned:

A handwritten signature in blue ink, appearing to read "Timothy J. Haderly". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Timothy J. Haderly, Principal Scientist/Owner
Loowit Consulting Group, LLC

INTRODUCTION

Purpose and Need

Loowit Consulting Group, LLC (LCG) was retained by Fuller Designs (Applicant) to complete a critical areas investigation and report at XXXX Exhibitor Road (Subject Site) on the northern edge of the city of Chehalis, Washington (Figure 1 & 2). The Applicant has proposed the construction of an RV park served by publicly owned utilities (Figure 3). Mapped critical areas within the subject site prompted the City of Chehalis to request an evaluation of critical areas according to Chehalis Municipal Code (CMC) Chapter 17.21 – Critical Areas.

Site Description

The subject site consists of a single parcel totaling approximately 4.20 acres of commercial property. Site specifics include:

Site Address: XXXX Exhibitor Road
Chehalis, WA

Current Owner: Hicks, Kevin & Melody

Tax Parcel Number: 005605080007

Legal Description: Section 17, Township 14 North, Range 2 West, W.M.

Property Size: Approximately 4.20 acres

Jurisdiction: City of Chehalis

The subject site is located north of Exhibitor Road, east of Gold Street, west of Kresky Avenue, and south of Scott Johnson Road in the northern portion of Chehalis, Washington (Figure 1). The subject site consists of a flat, mowed grass field with a strip of mixed shrubs and a few trees along the northern property boundary, and a mix of shrubs and trees in the riparian area along Salzer Creek (Photograph 1). Salzer Creek flows from north to south in the south east corner of the subject site (Photograph 2) and exits the site beneath a bridge on Exhibitor Road (Photograph 3). The main site access is via Exhibitor Road to the south (Photograph 4), but there is also an access from Scott Johnson Road to the north.



Photograph 1: Subject site taken from Exhibitor Road looking north. Salzer Creek riparian area to the right.



Photograph 2: Salzer Creek in the southwest corner of the subject site Photo taken from bridge on Exhibitor Road, looking upstream to the northeast. Subject site to the left.



Photograph 3: Exhibitor Road bridge over Salzer Creek, looking east. Subject site to the left.



Photograph 4: Looking west on Exhibitor Road from the bridge over Salzer Creek. Southern site access on right.

Land uses adjacent to the subject site include:

- To the South – Commercial retail
- To the North – Commercial retail & Health Services
- To the West – Bank, vacant land, and Lewis County Fairgrounds
- To the East – Commercial retail and vacant land

METHODS

Desktop Review

Prior to visiting the subject site, LCG conducted a desktop review of readily available mapping resources and other pertinent information including:

- Lewis County Web Map (<http://ims.lewiscountywa.gov/webmaps/composite2/viewer.htm>). This source provided parcel information, aerial photographs, physical attributes, and other information from the Lewis County Assessor.
- US Fish and Wildlife Service National Wetlands Inventory Wetlands Mapper (<https://www.fws.gov/wetlands/data/mapper.html>). This mapping source depicts wetlands and streams throughout the United States.
- US Department of Agriculture Natural Resources Conservation Service Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>). This source depicts mapped soils including hydric soils throughout the United States.
- Washington Department of Natural Resources Forest Practices Application Mapping Tool (<https://fpamt.dnr.wa.gov/default.aspx>). This mapping source depicts streams and wetlands in Washington State.
- Washington Department of Fish and Wildlife Salmonscape (<http://apps.wdfw.wa.gov/salmonscape/map.html>). This mapping source depicts streams and fish distribution in Washington State.
- Washington Department of Fish and Wildlife Priority Habitat and Species (<http://apps.wdfw.wa.gov/phsontheweb/>). This mapping source depicts priority habitats and species throughout Washington State.

State Regulations

Wetlands are regulated by Washington Department of Ecology (Ecology) under the Water Pollution Control Act and the Shoreline Management Act. The State Environmental Policy Act (SEPA) process is also used to identify potential wetland-related concerns early in the permitting process. All proposed direct and identified indirect impacts to wetlands are reviewed and approved/denied by Ecology using the regulations previously listed.

Streams are regulated by Washington Department of Fish and Wildlife under the State Hydraulic Code, Chapter 77.55 Revised Code of Washington. Projects involving activities within, over, or beneath jurisdictional streams are subject to the Hydraulic Project Approval (HPA) permitting process administered by WDFW.

Federal Regulations

Wetlands and streams are regulated as “waters of the United States” under Section 404 of the Clean Water Act. Section 404 regulations are administered by the US Army Corps of Engineers (USACE).

Local Regulations

Wetlands, streams, and other critical areas are regulated by the Chehalis Municipal Code (CMC) Chapter 17.21 – Critical Areas.

Field Investigations

On October 2, 2021, LCG visited the subject site to collect site information, and flag the Ordinary High Water Mark (OHWM) on the Salzer Creek in the southeast corner of the subject site. Conditions at the site were considered normal because vegetation was intact, no recent soil grading was observed, and no recent ditching was observed. Weather conditions at the time of the site investigation consisted of overcast skies with a high of 70°F and 0.0 inches of rain the previous 24 hours. Recorded climatological history from the Chehalis Airport two weeks prior to visiting the site was characterized with high temperatures ranging from 59.3 to 80.4°F and low temperatures ranging from 42.8 to 53.5°F. Total recorded precipitation two weeks prior to the site visit (September 18 – October 1) was recorded at 3.36 inches (Table 1, Appendix A).

Table 1: Weather Data at Chehalis Airport, Washington.

Date	Minimum Temp (Deg F)	Maximum Temp (Deg F)	Total Precipitation (in)
9/18/2021	53.5	62.2	1.75
9/19/2021	47.8	65.0	0.08
9/20/2021	44.8	71.4	0.00
9/21/2021	42.8	80.4	0.00
9/22/2021	49.5	67.6	0.05
9/23/2021	52.5	70.4	0.00
9/24/2021	50.9	78.7	0.00
9/25/2021	46.6	79.9	0.00
9/26/2021	50.7	68.3	0.08
9/27/2021	50.3	61.8	0.41
9/28/2021	49.8	62.8	0.29
9/29/2021	49.9	59.3	0.25
9/30/2021	48.9	59.7	0.45
10/1/2021	44.3	65.1	0.00
		Total:	3.36
10/2/2021	40.4	70.8	0.00

Data from Agweathernet

Site investigation work tasks included:

- Documentation of current site conditions
- Documentation of adjacent land uses
- Delineating and flagging of wetlands and streams

- Documentation of wetland/upland conditions with Test Plots

Wetlands were evaluated according to methods outlined in the 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)*.

Vegetation

Vegetation at the site is a mix of pasture grasses and weedy forbs with a few native trees and shrubs along Salzer Creek. Table 2 summarizes vegetation observed at the subject site.

Table 2: Vegetation Observed

Scientific Name	Common Name	Wetland Indicator Code
<i>Cirsium arvense</i>	Canada Thistle	FAC
<i>Cirsium vulgare</i>	Bull Thistle	FACU
<i>Crataegus douglasii</i>	Black Hawthorn	FAC
<i>Daucus carota</i>	Queen Anne's Lace	FACU
<i>Fraxinus latifolia</i>	Oregon Ash	FACW
<i>Hypochaeris radicata</i>	Hairy Cat's Ear	FACU
<i>Phalaris arundinacea</i>	Reed Canary Grass	FACW
<i>Physocarpus capitatus</i>	Pacific Ninebark	FACW
<i>Rhamnus purshiana</i>	Cascara	FAC
<i>Rubus armeniacus</i>	Himalayan Blackberry	FAC
<i>Schedonorus arundinaceus</i>	Tall Fescue	FAC
<i>Symphoricarpos albus</i>	Snowberry	FACU
<i>Taraxacum officinale</i>	Common Dandelion	FACU
<i>Trifolium pratense</i>	Red Clover	FACU

Wetland Indicator Code

OBL = Obligate (>99% found in wetlands)

FACW = Facultative Wetland (>67% to 99% found in wetlands)

FAC = Facultative (33% to 67% found in wetlands)

FACU = Facultative Upland (1% to <33% found in wetlands)

UPL = Obligate Upland (<1% found in wetlands)

Soils

According to the US Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey for Lewis County, soils at the site are mapped as Reed silty clay loam, a soil typical of flood plains and terraces. The Reed silty clay loam comprises the majority of the site. The narrow access spur at the northern end of the subject site, which connects the subject site to Scott Johnson Road, is on non-native fill. On-site soils are summarized in Table 3 and Figure 4.

Table 3: Soil Summary.

Soil #	Soil Name	Slope %	Hydric %
172	Reed silty clay loam	0-3	96
247	Xerorthents, spoils	0-20	0

Historic land disturbance activities including fill placement, agricultural activities, timber harvest, and general grading may have altered natural soil conditions at the site resulting in soils that may be somewhat different than those mapped by NRCS.

Hydrology

The subject site generally slopes gently to the southeast towards Salzer Creek, a Type F (Shoreline) stream, which enters the site from the east and leaves the site in the southeast corner where it flows under Exhibitor Road (Figure 6). Salzer Creek is a tributary of the Chehalis River which is approximately 1.4 river miles from the where Salzer Creek exits the subject site.

The National Wetlands Inventory depicts Salzer Creek flowing into a freshwater emergent wetland in the southeast corner of the site along Exhibitor Road (Figure 6), but this is in error as the mapped wetland area is actually part of the Salzer Creek.

Mapping

Stream OHWM flagging, roads, property boundaries, topography, and other site features were derived from public mapping sources with additional site features surveyed by Goodman Land Surveying, Inc.

RESULTS and DISCUSSION

Wetlands

There are no wetlands on the subject site. There are a few shrub and species along Salzer Creek (Oregon ash, red osier dogwood, etc.) that prefer wetland conditions but they are all located waterward of the OHWM and considered part of the stream system.

Streams

Salzer Creek, a Type S (Shoreline) stream, is located along the eastern and southeastern property boundaries of the subject site (Figure 3 & Photograph 5). Salzer Creek is a perennially flowing stream providing habitat for anadromous and residential fish and other aquatic species.



Photograph 5: Salzer Creek Ordinary High Water Mark looking upstream from the bridge on Exhibitor Road, looking northeast. Subject site to the left.

Stream Buffers

According to Chehalis Municipal Code (CMC) Chapter 17.25.030.B, the City of Chehalis requires buffers on all jurisdictional streams including Salzer Creek. Salzer Creek is a Type S stream requiring a minimum 150 foot wide buffers measured from the demarcated Ordinary High Water Mark (OHWM) (Table 4).

Table 4: Stream Summary.

Stream ID	Type^A	Buffer^C (feet)
Salzer Creek	S - Shorelines	150

^A WAC 222-16-030 and CMC 17.25.020

^C CMC 17.25.030.B

CONCLUSIONS

A single jurisdictional stream, Salzer Creek, was located along the eastern and southeastern property boundaries (Figure 3). Salzer Creek (Type S – Shoreline) requires a minimum 150 foot wide buffer measured landward of the ordinary high water mark (OHWM). The City of Chehalis allows buffer width averaging and buffer width reduction under provisions in CMC 17.25.031 and the Shoreline Master Program.

It appears that development of the subject site into an RV Park can be accomplished with no direct impact to Salzer Creek or its associated buffer.

LIMITATIONS

The findings and conclusions contained in this document were based on information and data available at the time this document was prepared and evaluated using standard Best Professional Judgment. LCG assumes no responsibility for the accuracy of information and data generated by others. Local, State, and Federal regulatory agencies may or may not agree with the findings and conclusions contained in this document.

REFERENCES

Anderson, P., Meyer, S., Olson, P., Stockdale, E. 2016. Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State. Shorelands and Environmental Assistance Program Washington State Department of Ecology Olympia, Washington. Publication no. 16-06-029. October 2016 Final Review.

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US Fish and Wildlife Service National Wetlands Inventory Wetlands Mapper (<https://www.fws.gov/wetlands/data/mapper.html>).

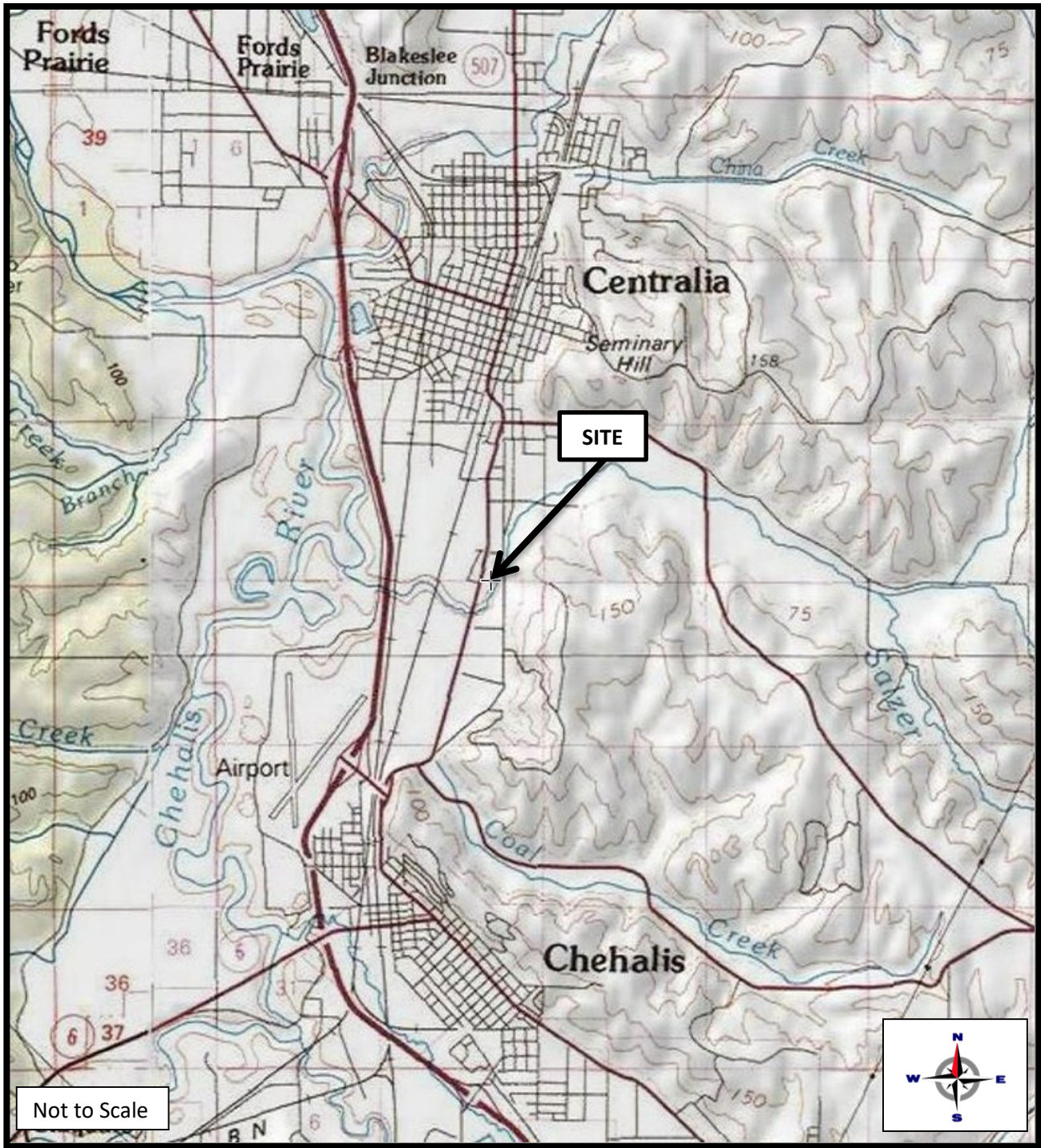
Washington Department of Natural Resources Forest Practices Application Mapping Tool (<https://fpamt.dnr.wa.gov/default.aspx>).

Washington Department of Fish and Wildlife Salmonscape
(<http://apps.wdfw.wa.gov/salmonscape/map.html>).

Washington Department of Fish and Wildlife Priority Habitat and Species
(<http://apps.wdfw.wa.gov/phsontheweb/>).

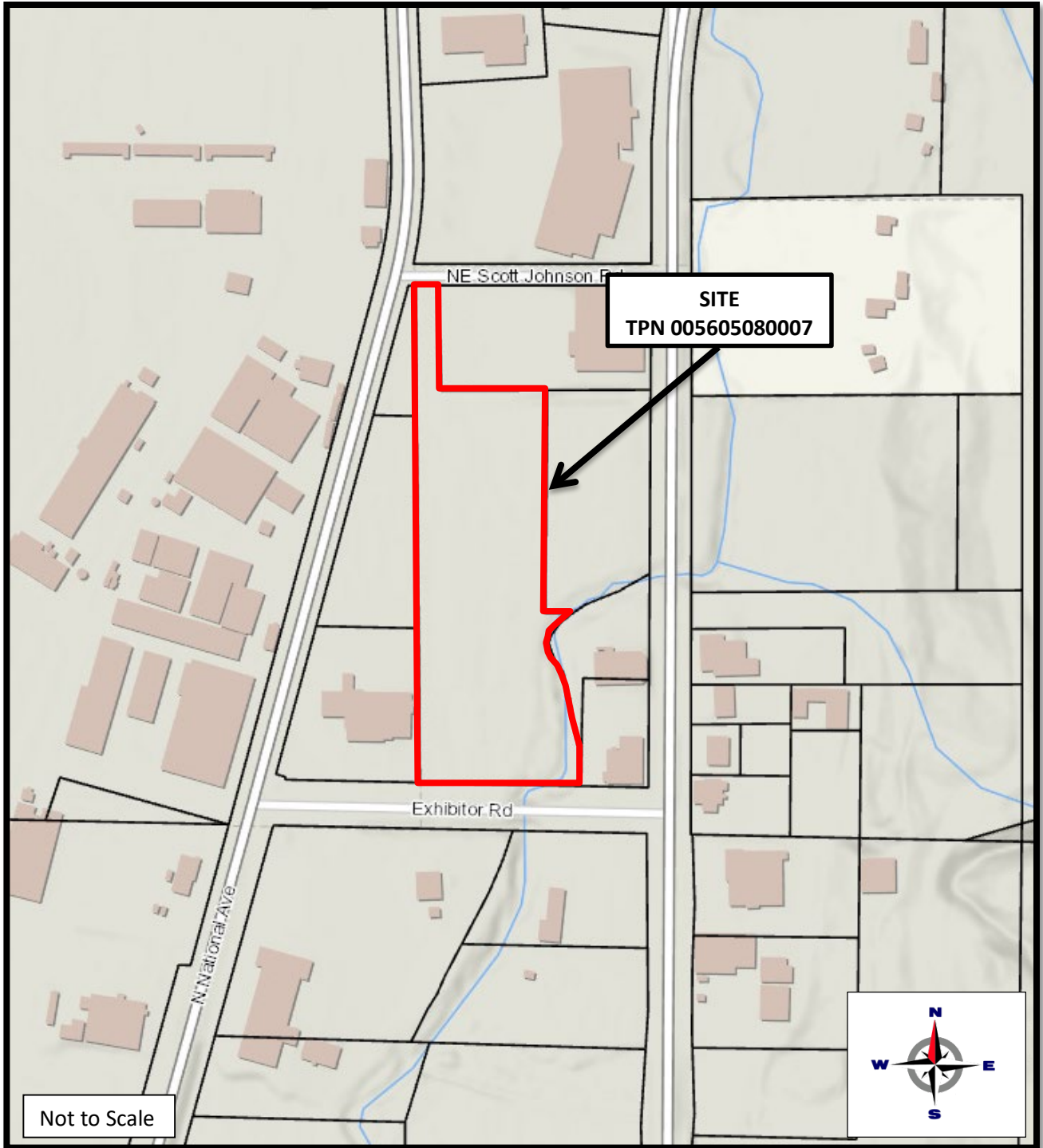
FIGURES

- Figure 1 – Site Location Map
- Figure 2 – Parcel Map
- Figure 3 - Site Map
- Figure 4 – Soils Map
- Figure 5 - National Wetlands inventory Map
- Figure 6 – Stream Map



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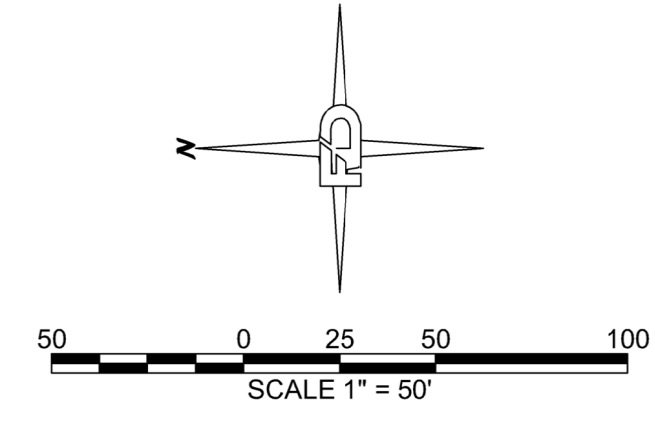
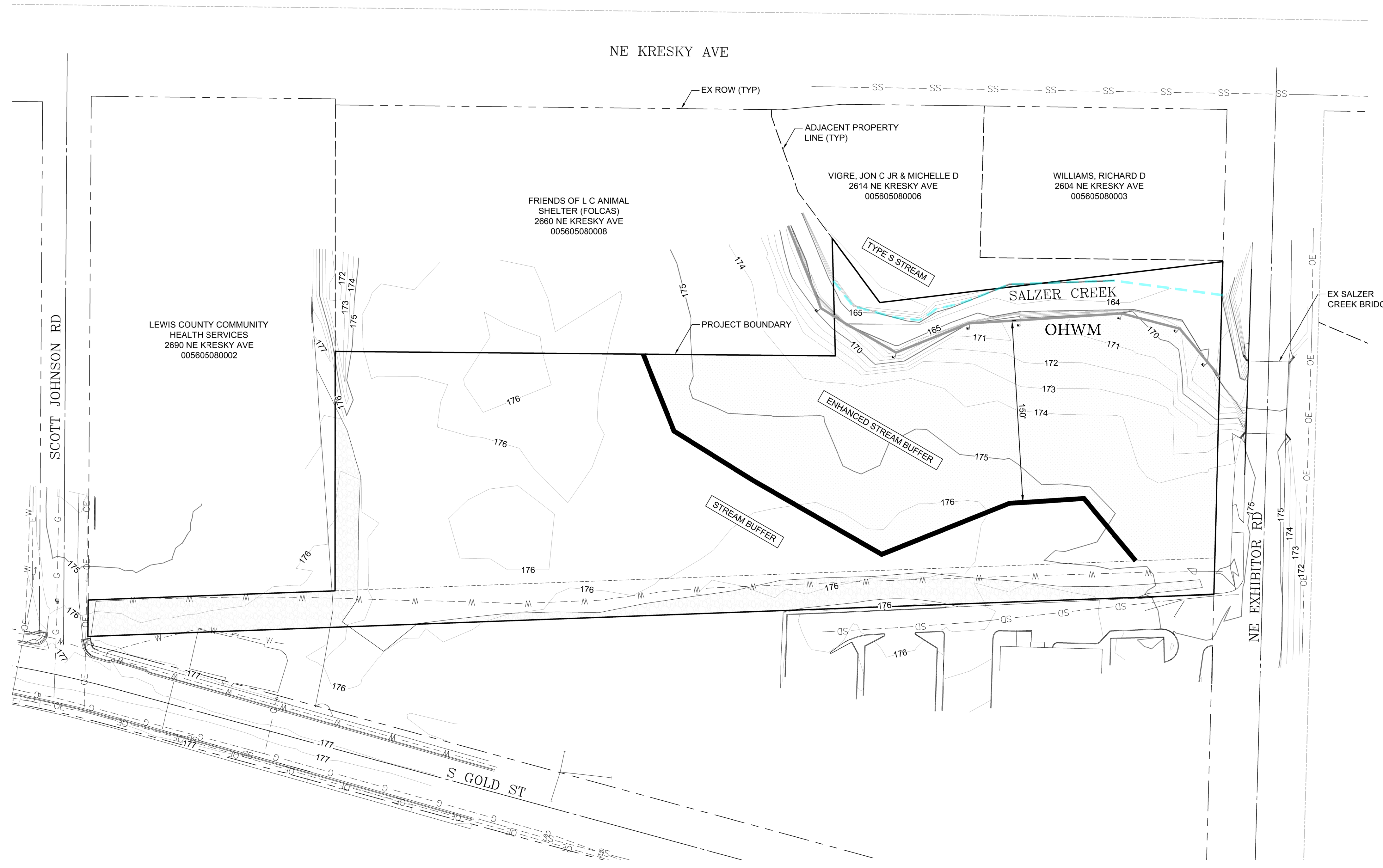
Figure 1
Site Location Map
Exhibitor Road RV Park



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Figure 2
Parcel Map
Exhibitor Road RV Park

SECTION 17 TOWNSHIP 14N RANGE 02W



LEGEND

LINETYPES	PROPOSED	DESC.
---	---	BUILDING FOOTPRINT
---	---	CENTERLINE
---XX---	---XX---	CONTOUR LINE (MAJOR)
---XX---	---XX---	CONTOUR LINE (MINOR)
---	---	CULVERT
---	---	EASEMENT
---	---	EDGE OF PAVEMENT
---	---	EDGE OF GRAVEL
-X-X-	-X-X-	FENCE
---	---	LOT LINE
---	---	PROJECT BOUNDARY
---	---	RIGHT-OF-WAY
---	---	ROAD CENTERLINE
---	---	SIDEWALK
---	-SF-SF-	SILT FENCE
---	---	WETLAND BOUNDARY LINE
---	---	STREAM
---	---	ENHANCED BUFFER BOUNDARY LINE

HATCH	PROPOSED	DESC.
---	---	AC PAVEMENT
---	---	GRAVEL
---	---	CONCRETE
---	---	ENHANCED BUFFER

TOTAL AREA OF ENHANCED BUFFER = 67100 SF = 1.54 ACRES

FIGURE 3 - Site Map

APPROVED FOR CONSTRUCTION
 BY _____ DATE _____
 PUBLIC WORKS DEPARTMENT OR
 DESIGNATED CONSULTANT
 APPROVAL EXPIRES: _____

DRAWING TITLE: OVERALL & TESC PLAN			
SCALE: 1:50	DATE: 1/6/22	DRAWN: SD	CHECKED: MF
PROJECT NAME: HICKS RV PARK			

FULLER DESIGNS
 1101 KRESKY AVE
 CENTRALIA, WA 98531
 (360) 807-4420

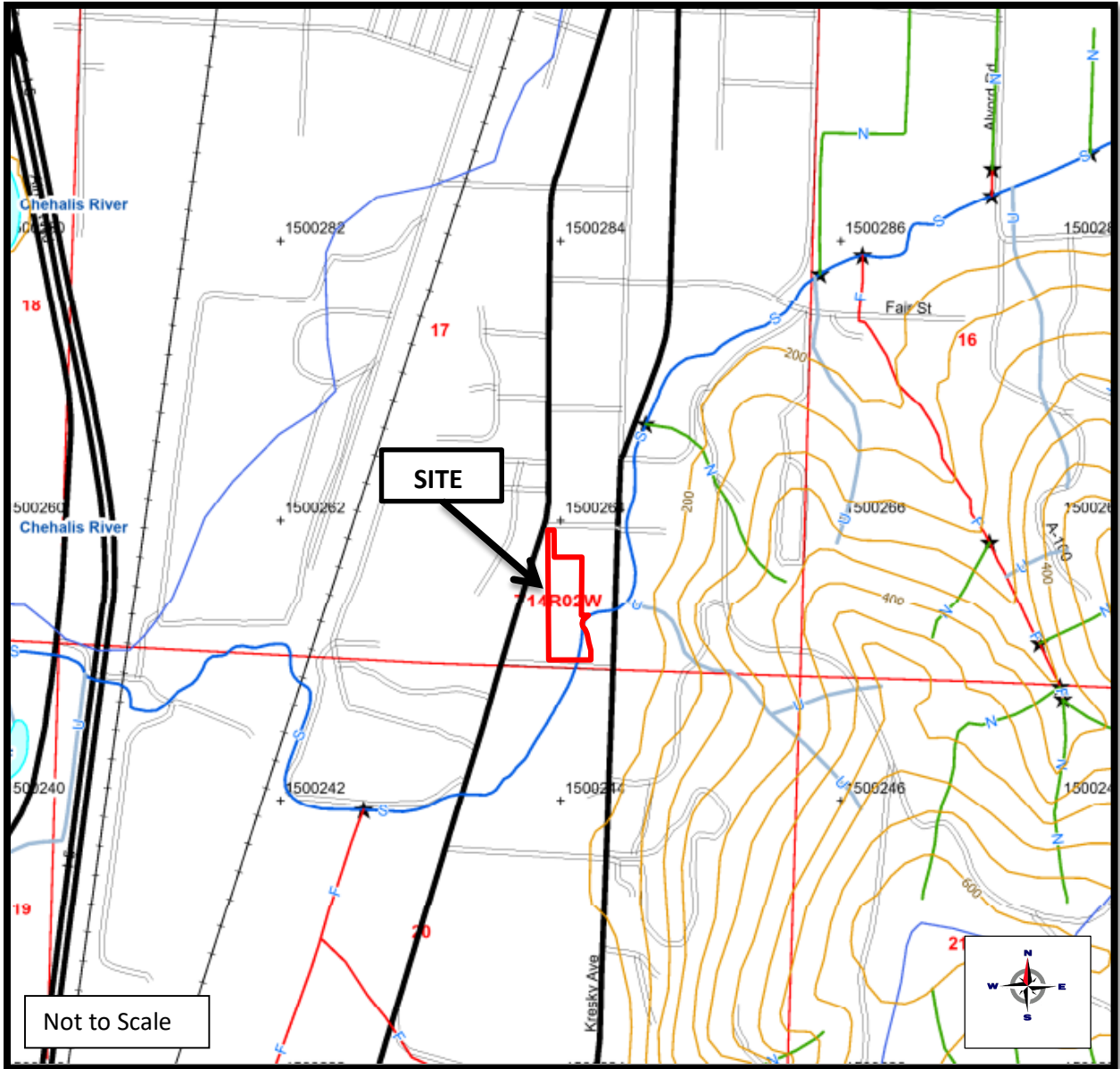
REV.	DESCRIPTION:	DATE:
1	ISSUED FOR CONSTRUCTION	1/6/22



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
172	Reed silty clay loam	4.2	97.0%
247	Xerorthents, spoils	0.1	3.0%
Totals for Area of Interest		4.4	100.0%


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Figure 4
Soils Map
Exhibitor Road RV Park



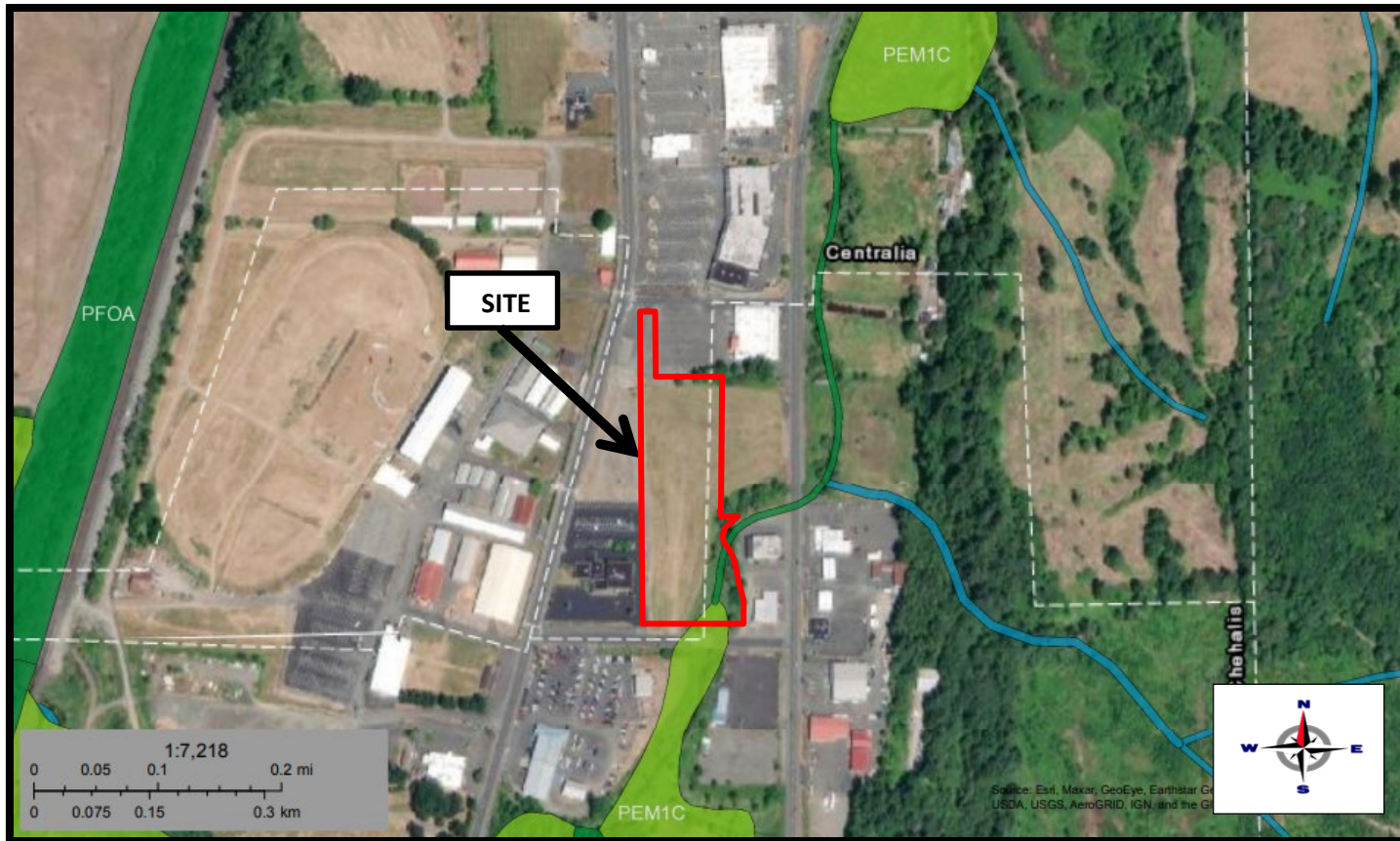
- Type S
- Type F
- Type N, Np, Ns
- U, unknown
- - - X, non-typed per WAC 222-16

Watershed Analysis





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Figure 5
Stream Map
Exhibitor Road RV Park



Wetlands

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland

-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond

-  Lake
-  Other
-  Riverine

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Figure 6
National Wetlands Inventory Map
Exhibitor Road RV Park

APPENDIX A – CLIMATOLOGICAL SUMMARY

Daily Data | AgWeatherNet at Washington State University

Date	Date	Min°F	Avg°F	Max°F	Avg1.5m DP°F	Avg1.5m RH%	Avg1.5m LWu.	AvgDir	Avg Speedmph	2m MaxGustmph	2 in. °F	Min°F	Avg°F	AvgSoilVWC%	TotPrecin	TotalSolarRadMJ/m²	EToin	EI
2021/09/18	18	53.5	56.9	62.2	53.9	89.6	0.10	S	5.4	15.0	63.2	64.4	64.9	33.0	1.75	7.26	0.06	0.0
2021/09/19	19	47.8	55.8	65.0	51.3	85.5	0.06	S	4.6	16.0	62.8	63.4	64.1	37.7	0.08	10.91	0.07	0.0
2021/09/20	20	44.8	56.1	71.4	48.9	80.8	0.08	W	2.5	8.5	63.6	62.8	63.9	36.4	0.00	16.62	0.10	0.0
2021/09/21	21	42.8	58.1	80.4	50.1	79.3	0.07	NW	1.8	9.6	64.0	63.0	64.3	35.5	0.00	16.83	0.10	0.0
2021/09/22	22	49.5	57.9	67.6	53.8	86.8	0.07	SW	3.0	10.7	63.4	63.7	64.5	34.9	0.05	6.96	0.06	0.0
2021/09/23	23	52.5	59.5	70.4	53.3	81.5	0.01	N	3.1	13.2	65.5	64.2	64.7	34.6	0.00	12.83	0.09	0.0
2021/09/24	24	50.9	61.5	78.7	52.5	75.1	0.05	N	2.8	13.5	64.9	63.5	64.6	34.2	0.00	15.94	0.11	0.0
2021/09/25	25	46.6	60.4	79.9	50.9	75.1	0.06	SW	2.8	9.6	65.2	63.7	65.0	34.0	0.00	16.19	0.11	0.0
2021/09/26	26	50.7	59.0	68.3	52.0	78.8	0.03	S	6.3	21.8	63.2	64.3	64.8	33.8	0.08	6.61	0.08	0.0
2021/09/27	27	50.3	56.2	61.8	52.2	86.6	0.07	S	5.1	18.5	61.5	63.2	63.6	37.1	0.41	5.24	0.05	0.0
2021/09/28	28	49.8	53.9	62.8	49.8	86.5	0.07	S	4.8	16.7	60.9	61.6	62.3	39.8	0.29	9.35	0.07	0.0
2021/09/29	29	49.9	54.4	59.3	49.0	82.2	0.01	S	6.7	19.2	59.5	61.2	61.7	40.1	0.25	5.68	0.06	0.0
2021/09/30	30	48.9	55.2	59.7	52.4	90.5	0.08	S	4.1	17.8	59.5	60.7	60.8	42.4	0.45	4.50	0.03	0.0
2021/10/01	1	44.3	53.5	65.1	48.6	85.4	0.08	N	2.7	14.6	60.0	60.1	60.6	41.3	0.00	10.68	0.06	0.0
2021/10/02	2	40.4	51.5	70.8	44.9	81.7	0.06	SW	1.9	9.6	59.1	59.3	60.3	40.5	0.00	13.57	0.07	0.0