RORATED 18
1 Change
*Napavine

**Notice of Public Hearing** Hearing Date: 6:00 PM on August 29, 2022 Location: City of Napavine Council Chambers, 407 Birch Ave, Napavine, WA 98565

407 Birch Ave, Napavine, WA 98565					
Applicant:	Jerry Nixon – Nixon Construction PMB #99, 1310 NW State Ave Chehalis, WA 98532 360-304-8797				
Project Name:	Nixon Industrial Building Development				
File Number(s):					
Proposal:	The City Planning Commission will hold a Public Hearing on the application of Nixon Industrial Building development for a project will consist of a 5,000 SF industrial building. Site improvements include new parking lot, stormwater pond, wetland buffer mitigation, landscaping, and grading.				
Project Location:	665 Forest Napavine Road, Napavine, WA 98565 Parcel # 018145002000				
Public Hearing:	The Public Hearing has been scheduled for 6:00 p.m. Monday, August 29, 2022.				
<b>Required Permits:</b>					
Environmental Review:	The proposal is subject to review under the State Environmental Policy Act (RCW 43.21C) and the City of Napavine SEPA Guidelines. Existing environmental documents that evaluate the proposed project include; SEPA Checklist by Applicant dated December 07 <sup>th</sup> , 2021; Revised Critical Area Review by Loowit Consulting Group and prepared for RB Engineering dated April 25 <sup>th</sup> , 2022; Wetland Buffer Mitigation Plan by Loowit Consulting Group and prepared for Jerry Nixon dated July 5 <sup>th</sup> , 2022. Said document(s) are available for review.				
Required Studies:	No Additional studies have been requested at this time.				
Public Comments:	Anyone wishing to testify during the public hearing may reach out to Rachelle Denham, Clerk, at (360)262-3547. Written comments received by the City on or before August 29, 2022, will be considered by the City Planning Commission.				
Staff Contact:	Bryan Morris, Public Works Director, at (360) 262-3547				
Final Decision:	A Final Decision on the proposal is made by the Napavine City Council. A Notice of Final Decision will be sent to the Parties of Record (those who have commented on the project).				
Appeal Procedure:	The Final Decision is appealable pursuant to Napavine Municipal Code 17.88.100				

**JACKSONCIVIL** 

#### **Katie Williams**

From:	Flannery Publications <flanneryads@yahoo.com></flanneryads@yahoo.com>
Sent:	Friday, August 19, 2022 9:10 AM
То:	Katie Williams
Subject:	Re: City of Napavine - Nixon Public Hearing Advertisement

#### **CAUTION:** External Email

Hi there, it's booked and ready to run 08.24.22, uploaded to FB and Karen will post it on our website. Thanks, Alisa

On Thursday, August 18, 2022 at 10:47:37 AM GMT-8, Katie Williams <kwilliams@cityofnapavine.com> wrote:

Alisa,

Can you please run this public hearing advertisement in the next edition of the newspaper and online/fb asap?

Thank you,

Katie Williams

**Community Development/Public Works** 

**Executive Assistant** 

**City of Napavine** 

(360) 262-9344

(360) 262-9199-fax

Disclaimer: Public documents and records are available to the public as provided under the Washington State Public Records Act (RCW 42.56). This e-mail may be considered subject to the Public Records Act and may be disclosed to a third-party requestor.

407 Birch Ave SW, P. O. Box 810 Napavine, WA 98565 Phone: (360) 262-3547 Fax: (360) 262-9199

www.cityofnapavine.com



Shawn O'Neill, Mayor Rachelle Denham, City Clerk Michelle Whitten, City Treasurer Bryan Morris, Public Works & Community Development Director

## **Public Hearing Notification**

## Affidavit of Posting.

Project No. <u>Nixon Industrial Building Development</u> – <u>665 Forest Napavine W. Chehalis, WA</u> <u>98532, Parcel #018145002000 – Land Use, Variance</u> Date of Planning Commission Meeting: <u>August 29, 2022</u>

I, <u>Katie Williams</u>, hereby certify that I have posted the Public Hearing Notification at City Hall on August 18, 2022. I also emailed the newspaper of record, Lewis County News, to publish the notice in the next available print of Lewis County news (Thursday, August 18, 2022), and also on the Lewis County News website/Facebook immediately.

The Public Hearing Notice was also mailed to the property owners within 300 ft. of the project on Thursday, August 18, 2022.

I further certify that this affidavit was filed with the City of Napavine, Clerks Office within the ten (10) days prior to subject hearing, in accordance with the City of Napavine Municipal Code section 17.88.070(A).

Executed this the August 18, 2022

Signature:

8/25/2022

Date:

Signature:

Villiam Katic Print Name:

STATE OF WASHINGTON, COUNTY OF LEWIS, BEFORE ME, a Notary Public, on this  $25^{\pm 4}$  day of 40 gust, 2022, personally appeared katic williams (print name) the above signed, who, under oath, state the following: "I hereby certify that I am the poster, for the purposes of this application; that all information submitted herein is true and correct."

SUBSCRIBED AND SWORN TO before me, this the  $25^{44}$  day of August, 2022.



The City of Napavine is an equal opportunity employer and provider. Incorporated November 21, 1913 407 Birch Ave SW, P. O. Box 810 Napavine, WA 98565 Phone: (360) 262-3547 Fax: (360) 262-9199

www.cityofnapavine.com



Shawn O'Neill, Mayor Rachelle Denham, City Clerk Michelle Whitten, City Treasurer Bryan Morris, Public Works & Community Development Director

## **Public Hearing Notification**

## Affidavit of Posting.

Project No. <u>Nixon Industrial Building Development – 665 Forest Napavine W. Chehalis, WA</u> <u>98532, Parcel #018145002000 – Land Use, Variance</u> Date of Planning Commission Meeting: <u>August 29, 2022</u>

I, <u>Bryan Morris</u>, hereby certify that I have posted or caused to be posted Public Hearing Notification sign(s) on the property subjected to Project Name/Number: <u>Nixon Industrial</u> <u>Building Development</u> of <u>665 Forest Napavine W. Chehalis, WA 98532, Parcel</u> <u>#018145002000.</u>

Posting of said sign(s) was accomplished on <u>August 18, 2022</u>. Said sign(s) have been posted in a manner which provides an unobstructed view at <u>Nixon Industrial Building Development – 665</u> Forest Napavine W. Chehalis, WA 98532, Parcel #018145002000, Frank's Mini Mart and Plaza Jalisco within the City of Napavine.

I further certify that this affidavit was filed with the City of Napavine, Clerks Office within the ten (10) days prior to subject hearing, in accordance with the City of Napavine Municipal Code section 17.88.070(A).

Executed this the August 18, 2022

Signature:

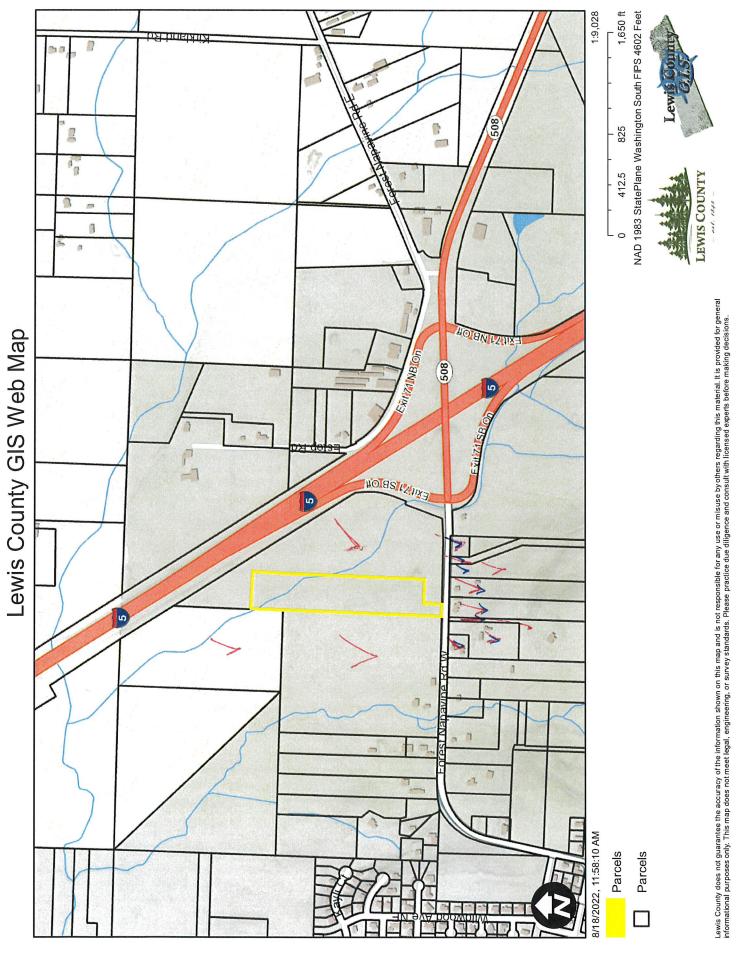
Date:

Print Name:

STATE OF WASHINGT	ON, COUNTY OF LEWIS, BEF	FORE ME, a Not	ary Public, on this
day of	, 2022, personally appeared		(print
name) the above signed,	who, under oath, state the followi	ing: "I hereby ce	rtify that I am the
poster, for the purposes o	f this application; that all informa	ation submitted h	nerein is true and
correct."			
SUBSCRIBED AND SW	ORN TO before me, this the	day of	, 2022.

## **Surrounding Parcels**

PARCEL NO.	ADDRESS	PROPERTY OWNER
018173003000	652 Forest Napavine RD W	
018145003000		Nancy Anderson
018139000000	0 Forest Napavine Rd	Amarjit & Gurjit Singh Rai
018142000000	643 Forest Napavine Rd	643 Forest LLC
018172006002	682 W Forest Napavine	Sukhbindar Kaur Living Trust
018172001000	672 Forest Napavine Rd	Elizabeth Moir
018172002000	668 W Forest Napavine	Neal Amos
018173005000	662 W Forest Napavine	Jon & Krystal Vasilauskas
018173004000	656 W Forest Napavine	Reece Prehm & Kiersten Milton
018172006001	0 Forest Napavine Rd	City of Napavine
018172000000	676 Forest Napavine Rd W	Freece Ventures LLC



C Lewis County GIS



## Community Development

407 Birch Ave SW, P. O. Box 810 Napavine, WA 98565 Phone: (360) 262-9344 Fax: (360) 262-9199 www.napavine.wa.gov

# Industrial - Commercial Site Plan and Environmental Review Staff Report

Project Name:	Nixon Industrial Building Development
Meeting Date:	August 29 <sup>th</sup> , 2022
Proposal:	The applicant is proposing a 5,000 SF industrial building. Site improvements include new parking lot, stormwater pond, wetland buffer mitigation, landscaping, and grading.
Location:	665 Forest Napavine Road; Parcel # 018145002000
Owner:	Jerry D. Nixon
Applicant:	Jerry Nixon – PMB #99
Engineer:	Robert W. Balmelli – RB engineering
Staff:	Brian Morris - City of Napavine Public Works Director Katie Williams - City of Napavine Administrative Assistant Devin Jackson, City Engineer (Consultant, Jackson Civil) Jim Buzzard, City Attorney (Consultant, Buzzard O'Rourke) Marissa Jay, City Attorney (Consultant, Buzzard O'Rourke)

**Recommendation: Approved subject to Conditions** 

City of Napavine Public Works Director's initials: <u>B.M</u> Date issued: 8-10-2022

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DECISION

EXHIBIT LIST

#### I. BACKGROUND

A. General Site Information

Parcel Zone:	C-1
Size of Site:	10.01 ac
Existing Vegetation:	Grass, shrubs, ferns, forbs, and trees.
Existing Structures:	No structures exist on site.
Adjacent Land Uses:	To the north and east is undeveloped land. To the south is developed single-family residential. To the west is single-family residential and commercial.
Adjacent Zoning:	To the north and east is an undeveloped parcel zoned commercial/Industrial. To the south is a developed parcel zoned commercial/industrial and Residential 3. To the west is a developed parcel zoned commercial and Residential 3.
Topography:	The subject site consists of a relatively flat property, gradually sloping from South to North.
Wetlands:	A single depressional wetland is located in the east-central portion of the subject site beginning at Forest Napavine Road and extending north- northwest where it terminates at Rush Road.
Flood Plain:	Due to natural topography the project site contains no flood plains.
Access Roads:	Forest Napavine Road

#### B. Land Use Processing

Application Submitted:	28	Day	Counter	Complete
	Dete	erminat	tion	
Project Completion Review	120	Day fo	r Review	

#### Figure 1. Location



Parcel Number: 018145002000 Situs Address: 665 FOREST NAPAVINE RD W Owner: NIXON, JERRY D Assessor's Use Description: 91 Residential Land -Undivided Property Type: COM Land Use: undeveloped/vacant Land Value: 95,100 Improvement Value: 0 Total Value: 95,100 Total Acres: 10.01 Mail Address: 1310 NW STATE AVE PMB 99 City: CHEHALIS State: WA Zip: 98532-1833 View on parcels website

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#### II. DOCUMENTS REVIEWED

The documents reviewed and considered in connection with this staff report include the following:

- A. Narrative
- B. Environmental SEPA checklist
- C. Comments received from WSDOE
- D. Engineering submittal
- E. Traffic impact analysis report
- F. Stormwater technical information report
- G. Critical area report
- H. General documents (i.e., permit application documents, Commission minutes and variance application etc.)

#### III. PROCEDURAL REQUIREMENTS

Authority for this review is include in the Napavine Municipal Code (NMC), and Napavine Public Work Standard. Including, Title 12 NMC "Streets, Sidewalk and Public Places"; Title 13 NMC "Public Service"; Title 15 NMC "Building and Construction"; Title 18 NMC "Environment"; the 2017 City of Napavine Comprehensive Growth Management Plan 2003-2023 (as updated), and City of Napavine Public Work Standard. The public hearing will be conducted in accordance with rules of procedure adopted by NMC 17.88.070 and NMC 17.88.100. The final decision on the Applications will be made by the Napavine City Council.

#### IV. APPLICABLE REGULATIONS/ANALYSIS

A. Napavine Municipal Code

#### Title 12 - STREETS, SIDEWALKS AND PUBLIC PLACES

#### 12.04 - PUBLIC WORKS CONSTRUCTION STANDARDS

12.04.040 - Design standards

There are adopted design standards for the construction of streets and sidewalks as follows in Sections 12.04.050 and 12.04.060.

#### 12.04.050 - Streets, alleys, cul-de-sacs, side slopes, base, and roadway grade

Arterial streets, collector streets, access streets, residential streets, feeder streets, alleys, cul-desacs, side slopes, base, and roadway grades shall be, and the same hereby are, defined as set forth in the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction for said improvements as adopted and posted from time to time by the Public Works Director of the City of Napavine, Washington. Copies of said specifications and standards are on file with the city and may be reviewed at any time during normal city business hours. **FINDING:** The proposal shows one access driveway onto W Forest Napavine Road. NMC 12.04 applies.

CONDITION OF APPROVAL: Prior to engineering approval, the access driveway design shall meet the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction requirements.

#### 12.14 STREET TREES

12.14.050 - Planting size Street trees shall be two-to-three-inch caliper, measured six inches above the base.

#### 12.14.060 - Planting location

- A. Street trees shall be located at least four feet behind the backside of the curb.
- B. Street trees shall be spaced thirty-five feet on center starting fifteen feet from property line.
- *C.* Street tree spacing may be adjusted slightly to allow a ten-foot clean zone on either side of a driveway.
- D. Street trees will be planted at least fifteen feet from utility lines.

#### 12.14.110 - Permit to trim

It is unlawful for any person, firm or corporation; to in any manner, remove, destroy, or cut any tree or shrub now or hereafter planted within the limits of any street or alley in the city of Napavine without having first obtained a permit so to do with the compliance of a standard reference guide.

#### 12.14.130 - Hearing by city council

If the conditions described in said notice have not been corrected prior to the time specified therein, a resolution shall be presented to the city council on the date designated in the notice therefor, which resolution shall provide that the department of the city of Napavine named therein shall, after the date set therein, forth with cause the removal or destruction of the vegetation, or any part thereof, as specified or complained of in said notice. Upon introduction of the resolution, the owner shall cause, if any, why the vegetation or such part thereof should not be removed or destroyed. The finding of the city council determining that the vegetation described in the notice is or is not a nuisance shall be conclusive. If the city council finds that the same is a nuisance and the owner has appeared at the hearing thereon the owner may, in the discretion of the council, be given such additional time as may be specified by the council to abate the nuisance.

**FINDING:** The applicant has submitted a landscaping plan and planting information to the city for review and comment. Specific comments may be addressed during final civil engineering review.

#### *Title 13 - PUBLIC SERVICES*

#### 13.02 - PUBLIC WATER SYSTEM

#### 13.02.020 - Application for connection

- A. All new connections, whether inside or outside the city limits shall be metered.
  - Commercial. One meter may serve more than one business if in the same building, if separate buildings, separate meters are required.

- 2. Residential. Separate meters shall be required for all single-family residences. All motels, hotels, recreational vehicle parks, multi-dwellings, condominiums, planned unit developments, and apartments may be served by one meter.
- B. Applicants for service within the corporate limits of the city may be required to obtain a building or plumbing permit for the premises where water service is being requested.
- C. Applicants for service outside the corporate limits of the city shall provide required information, comply with city annexation agreement requirements, and sign an agreement stating that they will not oppose annexation of the area including the premises for which service is being applied.
- D. If no public sewer service is available to any premises for which application for water service is made, approval of the application shall be conditioned upon the applicant obtaining a septic tank permit from the Lewis County health district, and no connection shall be made if such septic tank permit is not issued.

#### 13.02.070 - Water services meter location

All water service connections shall be made by, or under the control of the city. Meters shall be placed as follows:

- A. Within the corporation limits of the city, meters shall be placed within two feet of the edge of the sidewalk or proposed sidewalk on the curb side in existing plats and within two feet of the sidewalk on the property side in new plats.
- *B.* Within the county, meters shall be placed within the county right-of-way and within two feet of the property line nearest the customer's premises.
- *C.* In instances other than contained herein, or where the public works director determines that unusual or conflicting conditions exist, the location of meters shall be determined by the public works director.

#### 13.02.100 - Service connection—Location of service pipe

Water service pipe shall not be laid or maintained parallel with and within ten feet horizontally of any sanitary sewer, electrical conduit, gas pipe, or communications cable, septic tank, or drain field. When additional water pipe extensions or replacements are to be made beneath the surface of the ground within the premises and connected with existing water service pipes between the meter and the premises, an application therefor shall be made to the city for inspection and approval prior to backfilling the trenches.

#### 13.02.290 - Fire protection

A. Any customer using city water for all purposes shall be entitled to a separate standby fire protection service. Such standby fire protection service shall be provided through a separate water connection. The water connection fee for such standby fire protection service shall be as provided in city ordinance. Standby fire protection lines shall be used for no other purpose than for standby fire protection service and all other uses thereof shall be prohibited. The monthly charge for such standby fire protection service shall be as provided in city ordinance. Such standby fire protection service shall be as provided in city ordinance. Such standby fire protection service shall be as provided in city ordinance. Such standby fire protection fees and standby fire protection service charges shall be based upon the size of the customer's line at its connection to the main, and shall not be based on any specific pressure or volume of water furnished to the customer. The city does not, by the connection of a standby fire protection service, and shall not, by agreement or otherwise, warrant or guarantee a minimum water pressure or water volume for such service.

B. Where standby fire protection service is provided, no charge shall be made for water used in extinguishing fires of incendiary or accidental origin if the customer at the location where the fire occurs gives written notice to the city within ten days from the time of such fire that a fire has occurred. Otherwise, a charge for all water used shall be made at the rate for use of fire protection facilities provided in NMC 13.04.020(A).

#### 13.02.370 - Construction standards

All persons, firms, corporations, and governmental agencies, and/or their contractors, repairing, replacing, installing, extending, or performing other work on water system lines, facilities, service lines, connections, and/or appurtenances thereto, or performing other work that may interfere, conflict, affect, or endanger the water system of the city shall follow and comply with the provisions of the engineering development code of the city as adopted by the city. Where the engineering development code of the city are silent on any construction standards issue, the current version of the Washington State Department of Transportation/Washington State Chapter of the American Public Works Association Standard Specifications for Road, Bridge, and Municipal Construction shall apply.

#### 13.02.410 - Water main extension request

When a person desires to extend a city water main, that person must make a written request to the city and state on that request the location where the extension is desired, the purpose for extension, and give details and extent of any development they are considering, as well as any other factors as may be pertinent. The public works director shall evaluate all requests for main extensions, taking into consideration the availability of water in the existing mains, reservoir capacity, pressures in the area, and other local conditions. If the proposal is acceptable, specific conditions and requirements will be determined by the public works director.

#### 13.02.420 - Water main extension design

The proposed main extension shall be designed by a licensed engineer and be approved by the public works director and appropriate governmental authorities. The design shall be in conformance with city standards as contained in the engineering development code of the city, and shall be designed by the use of a hydraulic analysis, considering pipe size, restrictions, peak demand, length of run, elevation differences, and other factors that may be pertinent.

**FINDING:** The narrative indicates that the industrial building project will not be providing any restrooms or other public services in the storage building. Therefore, no onsite septic or water system is proposed. This standard does not apply.

CONDITION OF APPROVAL: This storage building shall not have any full-time employees and commercial visitors.

#### 13.05 - CROSS-CONNECTIONS AND BACKFLOW PREVENTION

**FINDING:** The site plan does not include water system; therefore, cross-connections and backflow prevention are not required for this development project. The standard does not apply.

13.20 - LATECOMER AGREEMENTS

**FINDING:** The proposal does not include a proposed latecomer agreement; therefore, NMC 13.20 does not apply.

#### 13.30 - STORM WATER SYSTEM

#### 13.30.010 - Storm water standards

The city council adopts the Washington State Department of Ecology "Basic Storm Water Protection Standards" for use in the storm water management within the city of Napavine.

#### 13.30.020 - Use in development review

The city council requires the use of the basic storm water protection standards for all building and development review of storm water drainage and authorizes the public works superintendent to attach storm water quantity and quality conditions to meet the basic storm water program standards.

#### 13.30.040 - Standards of practice

The city council sets the city standard of performance for storm drainage as in all utilities as that of "best engineering practices" for all construction within city.

#### 13.30.060 – Permits

- A. No building permit shall be issued nor excavation begun upon private land on which a driveway will be installed or constructed, unless or until a culvert permit is issued under this chapter. No driveway may be installed without an approved culvert and no culvert may be installed unless or until a culvert permit is issued under this chapter.
- B. A culvert permit may be issued only upon approval of an application for such a permit. Installation of the culvert under the permit must be done pursuant to the specifications in the permit. Permits may be issued per culvert.

#### 13.30.090 - Existing driveways and culverts

- A. Prior existing culverts which were in existence before the passage of this chapter are exempt from the requirement to procure a permit prior to installation. Prior existing driveways that do not have an existing or operable culvert must be upgraded and must include a culvert upon notification by the city. When the city becomes aware of a prior existing driveway without a culvert or without an operable culvert, it may provide written notice to the owner thereof by mailing, postage prepaid, a notice to the owner's last known address or by posting the notice at or near the driveway in a conspicuous location. Upon mailing or posting, the owner shall have ninety days to apply for a permit and properly install a working culvert. This provision does not limit the city's ability to repair or remove the danger driveway or culvert as provided in this chapter.
- B. Any modifications or upgrades to a prior existing driveway or culvert must conform to this chapter and are not exempt from the permitting requirement.

**FINDING:** The proposal includes a preliminary drainage plan, and a stormwater preliminary technical information report satisfying adopted standards. This standard is met.

Title 14 – MISCELLANEOUS PROVISIONS

#### 14.10 - NAPAVINE CRITICAL AREAS ORDINANCE (NCAO)

#### 14.10.100 – DEVELOPMENT STANDARDS

- A. Authorization Required. Within critical areas, the city shall prohibit soil excavation, grading, removal of native vegetation species, draining, intentional burning, planting of invasive or nuisance vegetation, placement of structures and new construction on critical areas unless otherwise authorized in this chapter.
  - 1. These development standards apply to uses on critical areas and within buffers unless otherwise exempted in this title.
  - 2. In order to approve application for development on lands subject to this chapter, the administrator shall find that the following standards have been met:
    - i. All reasonable alternatives for locating the development activity in such a way so as to avoid critical areas have been considered and the development activity will be located in the least environmentally sensitive area as practicable and the purpose of this chapter, as described in NDC 4.010.010, is fulfilled. If avoidance is not practicable, as determined by the city, development shall minimize adverse impacts to critical areas and buffers consistent with the mitigation sequencing measures and mitigation and enhancement measures prescribed in the chapter.
    - *ii.* The city has approved the vegetation removal methods and the removal of native plants has been avoided.
    - *iii.* All adverse impacts to all affected critical areas and buffers are either avoided or fully mitigated.
    - iv. The plan minimizes cuts and fills.
    - v. Soils are not exposed during the rainy season (November 1 through April 30) and construction activity is limited to the dry season (May 1 through October 31).
    - vi. The administrator has reviewed and approved an erosion control plan, grading plan, and vegetation removal and replanting plan prior to construction activity.
    - vii. All activities have received applicable state and federal permits, and comply with SEPA requirements if the lead agency makes a threshold determination of significance (DS), or mitigated determination of non-significance (MDNS).
    - viii. Hydraulic permits are required for any activity occurring within the ordinary high-water mark of any state regulated class I or class II stream.
    - *ix.* Compliance with this chapter does not constitute compliance with state and federal environmental standards. The applicant shall be responsible for demonstrating such compliance.
- B. Review Process.
  - 1. The review process shall be the type specified in the NDC for each particular land use action unless otherwise specified in this chapter.
  - 2. Applications to develop on critical areas or their buffers shall be subject to review if, within a one-year period, the cumulative impact on critical areas is:
    - a. Disturbance of more than twenty-five cubic feet of soil;
    - b. An activity, the fair market cost of which is more than five hundred dollars; or
    - c. The activity involves more than one thousand square feet of critical areas.

- 3. Standard Requirements. All applications requiring review under this section shall have the following minimum conditions applied:
  - a. Critical Area and Buffer Marking During Construction. The location of the outer extent of the critical area and its buffer, if any, shall be marked in the field and such markings shall be maintained throughout the duration of the permit.
  - b. Permanent Marking of Critical Area and Buffer. A permanent and perpetual physical demarcation along the upland boundary of the critical area and buffer shall be installed and thereafter maintained. Such demarcation may consist of logs, a tree or hedgerow, wood or wood like fencing, or other prominent physical marking approved by the administrator. In addition, signs measuring (minimum size one foot by one foot and posted 3.5 feet above grade) shall be posted at an interval of one per lot or every one hundred feet, whichever is less, and perpetually maintained at locations along the outer perimeter of the critical area and buffer approved by the Administrator worded substantially as follows: "CRITICAL AREA AND BUFFER—PLEASE RETAIN IN A NATURAL STATE."
  - c. A conservation covenant shall be recorded in a form approved by the city attorney as adequate to incorporate the other restrictions of this section and to give notice of the requirement to obtain a permit prior to engaging in regulated activities within a habitat area or its buffer.
- C. Record of Notice. Prior to issuance of any development or building permit on lands subject to this chapter, the property owner shall record a record of notice of critical areas, on a form provided by the city, on all properties affected by critical areas and buffers and shall provide the city clerk with a copy of the recorded notice.
- D. SEPA Review. On a case-by-case basis, the responsible official may issue a determination of non-significance (DNS) if:
  - 1. The application for development review contains all requested information, including reports, maps and other documents relevant to the proposed activity;
  - 2. The proposed activity complies with all applicable development review and performance standards; and
  - 3. Compliance with all applicable development standards and performance standards is made a binding condition of land use approval.

**FINDING:** Based on Lewis County GIS data, an area of marked wetlands is in the north section of parcel #018145002000. The applicant provides a wetland buffer mitigation plan for City and Ecology to review and comment. The existing rock pad and associated parking area impacted approximately 37,500 sq ft of wetland buffer, and mitigation of impacts to buffers is required using a 1:1 mitigation ratio. The standard is met.

#### Title 15 - BUILDINGS AND CONSTRUCTION

#### 15.04 - CONSTRUCTION CODES

#### 15.04.020 - Codes adopted

Pursuant to the state Building Code Act, RCW 19.27A.010 et seq., the city adopts by reference the following:

A. The International Building Code, 2009 edition, as published by the International Code Council, be and is hereby adopted as the building code of the city of Napavine;

- B. Uniform Mechanical Code, 1982 Edition, including Chapter 22, Fuel Gas Piping, Appendix B, published by the International Conference of Building Officials;
- C. The Uniform Fire Code and Uniform Fire Code Standards, 1982 Edition, published by the International Conference of Building Officials and the Western Fire Chiefs Association; provided that, notwithstanding any wording in this code, participants in religious ceremonies shall not be precluded from carrying hand-held candles;
- D. The Uniform Plumbing Code and Uniform Plumbing Code Standards, 1982 Edition, published by the International Association of Plumbing and Mechanical Officials; provided, that Chapters 11 and 12 of such code are not adopted;
- E. The rules and regulations adopted by the council establishing standards for making buildings accessible to and usable by the physically handicapped or elderly persons as provided for in RCW 70.92.100 through 70.92.160; and
- F. The Washington State Energy Code, June 30, 1980 Edition, adopted by the state Building Code Advisory Council and amendments to the code adopted prior to January 1, 1985, the revisions to the state energy code adopted pursuant to RCW 19.27.075, and subsequent amendments adopted by the council under RCW Chapter 34.05.
- *G.* The International Residential Code, 2009 edition, as published by the International Code Council, be and is hereby adopted as the residential code of the city of Napavine.

In case of conflict among the codes enumerated in subsections A through G of this section, the first named code shall govern over those following.

#### 15.08 - ENERGY CODE

#### 15.08.010 – Adopted

WAC Chapter 51-12 as the same now appears or hereafter may be amended, shall be, and is adopted by this reference as the energy code of the city.

FINDING: The proposal does not include an architectural plan; therefore, the standard is not met.

CONDITION OF APPROVAL: Prior to building construction, the applicant shall submit all necessary drawings compliant with the more current of NMC title 15 or state standards for City review and approval.

#### 15.12 - FLOOD DAMAGE PREVENTION

**FINDING:** The project location does not lie within a 100-year floodplain area; therefore, this section does not apply.

#### 15.16 - GRADING, EXCAVATION AND LAND FILLING

#### 15.16.020 - Permit required

A grading/fill permit application is required for grading, excavation or filling of land except as exempted under Section 15.16.030 of this chapter. There is no fee for fill application less than 500 cubic yards.

#### 15.16.060 – Standards

The following standards must be met to the satisfaction of the community development director or designee prior to permit issuance:

- A. Cut slopes shall be no steeper than is safe for the intended use and shall not be steeper than two horizontal to one vertical, or as recommended by a soils engineer.
- B. Fills that are intended for building sites shall be constructed in conformance with the requirements of the latest edition of the IBC (International Building Code) as adopted by the city.
- C. Except as permitted by the city, no material other than earth material shall be buried or placed in fills. Placement of other than earth material is regulated by state statutes or federal laws and additional permits may be required.
- D. Fills shall be constructed using earth materials (consisting of dirt/soil, large rock twelve inches or greater, pit run four to twelve inches, fines less than four inches, concrete over twelve inches and concrete less than twelve inches), compaction methods and construction techniques, so that stable fills are created.
- E. The following fill material shall be prohibited: Asphalt, asphalt grindings, asphalt shingles, base/tar paper and any hazardous materials, petroleum based products and household items.
- *F. Grading, filling, or clearing in or within the vicinity of a wetland shall comply with NMC Chapter 14.*
- G. Grading, filling or clearing in an area of special flood hazard shall be done in accordance with the latest version of the city of Napavine floodplain management ordinance (NMC Chapter 15.12) or this chapter, whichever has the more stringent development regulations.
- H. Grading, filling or clearing of archaeological sites shall be done in accordance with WAC Chapter 25-48, as now adopted or as may be amended, or other applicable state or federal law.

**FINDING:** The permit application for clearing, filling or grading shows the estimated fill amount is 50 to 4,000 cubic yards.

#### CONDITION OF APPROVAL: The applicants shall obtain all necessary permits.

Title 17 – ZONING

#### 17.12 - ZONING MAP AND ZONING CHART

- 17.12.020 General land use zones
- A. The city is divided into general land use zoning districts, referred to in this title as "zones." Such zones shall be shown on the map and the intent of each zone and limitations and requirements of use of land therein shall be shown on the chart. No structure or land shall hereafter be used or occupied and no building shall be reconstructed, moved or structurally altered except in conformity with all the regulations set forth in the chart and other sections of this title.
- B. For the purposes of this title, the city is divided and classified into the following regular zones:
  - 1. R-1 Single-family residential;
  - 2. R-2 Multiple residential, low density;
  - 3. R-3 Multiple residential, high density;
  - 4. C-1 Commercial;
  - 5. H-C Highway commercial;

#### 6. I-1 Industrial, light.

#### 17.12.030 - Special land use zones

Each parcel of land in the city shall be covered by one of the preceding regular zones. In addition, where consistent with the intent of zones as expressed in the chart, land may be classified as a special zone. Such special zone must overlay a regular zone and all uses and structures in a special zone shall conform to the regulations of both the special and regular zones, except where regulations of the regular zone are specifically modified in the chart. Special zones are:

- A. CS Community Service;
- B. PUD Planned unit development;
- C. FP Flood plain;
- D. AS Aerospace.

#### 17.28 - C AND C-1 DISTRICTS

#### 17.28.020 - Permitted uses and structures

Permitted uses and structures in the C-1 zone are as follows: all commercial uses conducted within an enclosed building; professional offices for attorneys, dentists, doctors, engineers, accountants, real estate brokers, automobile service stations, restaurants, cafes and other eating establishments, and uses of similar and compatible nature. Motels, hotels, apartments and recreational vehicle parks are permitted in this zone as planned unit developments. Facilities for managers, caregivers, and uses of similar and compatible nature allowed, subject to planning commissioner's review and council approval. It is specifically provided for in this section that the property, commonly known as tax parcels 17875-7-3, 17875-7-4 and 17875-5 (which are within a C-1 district) shall be allowed to have uses permitted in the building to the standards of singlefamily residential, multifamily residential and mobile home parks."

#### 17.28.030 - Permitted accessory uses and structures

Permitted accessory uses and structures in the C-1 zone are as follows

- A. Any use or structure customarily accessory to permitted uses shall be permissible.
- B. On-site hazardous waste treatment and storage facilities that are directly associated with principal uses; provided, that such facilities comply with the state siting criteria contained in RCW 70.105.210 and WAC 173-303-282, or their successors.

#### 17.28.040 - Conditional uses

After hearing and attachment of conditions, the following uses are permitted: production of items sold on the premises, including small scale production, sewn or woven articles, quilting, ceramics, and similar small scale craft items, garden supply stores, boarding houses, horticultural nurseries, kennels, stables, and pet shops, and other uses later deemed to be conditional by the board of adjustment. Industrial uses of nonnoxious industry are permitted in this zone as a planned unit development subject to approval by the planning commission. Such industries do not produce noise, odor, smoke, fumes, or other nuisances. Examples include any research, experimental, testing, assembling, manufacturing, compounding, or other activity which is conducted inside a completely enclosed building, except for parking and loading, which creates absolutely no nuisance or pollution which has any effect beyond the confines of the building.

17.28.045 - Conditional use conditions

The planning commission shall review the following in identifying appropriate conditions for the proposed use:

- A. Napavine comprehensive plan and zoning requirements review for applicable requirements for signage, light and glare, landscape buffering, parking circulation, critical areas and aquifer protection;
- B. Public facilities impact such as water, sewer and drainage requirements;
- C. Prior department comments, after inspection, for fire safety requirements and fire flow concerns, if any; and
- D. City police department comments for nuisance, health and safety concerns.

#### 17.28.050 - Permitted dimensions

Permitted dimensions in the C-1 zone are as follows:

- A. Minimum lot size, five thousand square feet;
- B. Minimum lot front, thirty feet;
- C. Maximum lot cover, one hundred percent, including parking and buffer zones;
- D. Minimum front yard depth, none;
- E. Minimum side yard depth, none, except a fifteen-foot buffer where adjacent to a residential district;
- F. Minimum rear yard depth, none, except a twenty-five-foot buffer where adjacent to a residential district;
- *G.* Maximum building height, fifty feet, or thirty-five feet when lot adjacent to any residential district.

**FINDING:** The proposal indicates the current zoning of the proposed development site is C1; therefore, this standard is applied. The development lot size is 10.01 acres (min. 5000 square feet), and front lot line is approximately 100 feet (min. 30 feet). However, the applicant does not provide lot cover percentage or building height. The NMC 17.28.050 is not met.

## CONDITION OF APPROVAL: Prior to engineering approval, architectural and site design plans satisfying NMC 17.28 shall be submitted for review and approval by the City.

#### 17.48 – FLOODPLAIN

**FINDING:** The project location does not lie within a 100-year floodplain area; therefore, this section does not apply.

#### 17.60 - MISCELLANEOUS REGULATIONS

17.60.010 - Visibility at intersections in residential zones

- A. Fences, walls or hedges up to a maximum height of six feet may be installed except:
  - 1. Within the existing or zone stipulated, whichever is less, front and street side yard setback;
  - 2. Within the area between two main structures with less than five feet of continuous horizontal clearance on each side of the fence, wall or hedge;
  - 3. Within a twenty-foot vision clearance triangle formed by the intersection of two street rights-of-way;

- 4. Within a ten-foot vision clearance triangle formed by the intersection of an alley and street right-of-way.
- B. Within the areas identified in subsections (A)(1) and (2), fences, walls and hedges up to a maximum height of four feet may be installed.
- C. Within the areas identified in subsections (A)(3) and (4), fences, walls and hedges up to a maximum height of three feet may be installed, except open wire-mesh fences which may be up to a maximum of four feet.

#### 17.60.030 - Street access required

Every building hereafter erected or moved shall be on a lot adjacent to a public street or with access to an approved private street.

#### 17.60.040 - Horizontal dimensions—One-family dwelling

The greatest horizontal dimensions of a one-family dwelling shall not be more than three times its least horizontal dimension. See the appendix for illustration on file in the office of the city clerk-treasurer.

#### 17.60.050 - Parking restrictions—Recreational vehicles and boats

No recreational vehicle, boat, boat trailer or similar equipment shall be parked within the required street or side setbacks of any lot in any residential zone for a period of longer than thirty-six consecutive hours; provided, that one recreational vehicle, boat trailer or similar equipment belonging to visitors to a residence may be parked within such setbacks for a period of up to fourteen days, and provided further, that one such visit shall not be followed by another at the same residence for a period of at least thirty days. Except under circumstances of the preceding provision, a recreational vehicle shall not be used for living, sleeping or housekeeping purposes when parked on a street or any portion of a residential lot.

#### 17.60.060 - Siting criteria—Hazardous waste facilities

On-site and off-site hazardous waste treatment and storage facilities must meet the state siting criteria adopted pursuant to RCW Chapter 70.105.

#### 17.60.070 – Landscaping

Commercial, multifamily or industrial uses shall submit a landscape plan for approval with the application. Approved landscaping shall be completed prior to issuance of a final occupancy permit. The front yard shall be one hundred percent landscaped including lawns, and shrubs, berms or floral planting areas which shall average ten feet wide but no less than five feet wide at any given point except where access is provided. There shall be a five-foot wide side and rear yard landscape setback between uses. Within the landscape area including acceptable trees, shrubs and lawns, one street tree per twenty-five lineal feet of street frontage shall be provided. In any parking lot over fifteen spaces five percent of the interior of the parking area shall consist of landscape islands. Street trees shall be a minimum of one and one-half inch caliper six feet tall of nursery stock or better quality. Any dead or diseased trees within two years of installation shall be replaced.

FINDING: The proposal includes a landscaping plan; therefore, NMC 17.60.070 is met.

17.62 – SIGNS

**FINDING:** According to the engineering plans, no signs are proposed at this time. The standard does not apply.

#### 17.64 - OFF-STREET PARKING AND LOADING

17.64.010 - Requirements for off-street parking

Off-street parking spaces under standards set forth in this chapter shall be provided for new uses in the quantities specified in this section.

- A. Residential Uses
  - 1. One-family dwelling, two spaces;
  - 2. Duplex dwelling, four spaces;
  - 3. Multiple-family dwelling with sixteen or fewer dwelling units, two spaces for each dwelling unit; except in cases of housing dedicated to senior citizen housing one space for each dwelling unit;
  - 4. Multiple-family dwelling with more than sixteen dwelling units, thirty-two spaces, plus one and one-half spaces for each dwelling unit in excess of sixteen; except in cases of housing dedicated to senior citizen housing one space for each dwelling unit;
  - 5. Convalescent homes, homes for the children or aged, and similar residential institutions, one space for each three beds.
- B. Commercial Uses. Commercial uses within the area designated "Parking Exempt" on the map and addenda to the map shall not be subject to the following requirements:
  - 1. Food or drug stores with more than five thousand square feet of gross floor area: one space for each one hundred square feet of gross floor area;
  - 2. Other retail stores with more than five thousand square feet of gross floor area: one space for each one hundred fifty square feet of gross floor area;
  - 3. Retail stores with five thousand or less square feet of gross floor area: one space for each three hundred square feet of gross floor area; provided that at least two spaces shall be provided for any such use;
  - 4. Medical and dental offices: one space for each one hundred square feet of gross floor area;
  - 5. Offices other than medical or dental: one space for each four hundred square feet of gross floor area; provided that at least two spaces shall be provided for any such use;
  - 6. Restaurants: one space for every three seats or stools or for every three persons of legal occupancy, whichever is greater;
  - 7. Bowling alley: four spaces for each alley;
  - 8. Self-service laundry: one space for every three washing or drying machines;
  - 9. Banks: one space for each four hundred square feet of gross floor area;
  - 10. Funeral parlors: one space for each one hundred square feet of chapel or auditorium area;
  - 11. Barber or beauty shops: two spaces for each operator station;
  - 12. Personal service establishments not otherwise listed: one space for each four hundred square feet of gross floor area; provided that at least two spaces shall be provided for any such use;

- 13. Motel: one space for each sleeping unit;
- 14. Motor vehicle or machinery sales: one space for each two thousand square feet of gross floor area;
- 15. Wholesale establishments: one space for each two thousand square feet of gross floor area.
- C. Industrial Uses.
  - 1. Manufacturing: one space for each one thousand square feet of gross floor area, provided that additional parking shall be provided for any retail sales or office space at the ratio required in subsection B(1) through (5);
  - 2. Contractors establishment: one space for each thousand square feet of gross floor area, provided that additional parking shall be provided for any retail sales or office space at the ratio required in subsection B(1) through (5);
  - 3. Warehouses: one space for each two thousand square feet of gross floor area provided that additional parking shall be provided for any retail sales or office space at the ratio required in subsection B(1) through (5).
- D. Institutional Uses.
  - 1. Schools: one space for each eight seats in auditorium, or one space for each two hundred square feet of public assembly area if such does not have fixed seating;
  - 2. Auditoriums, theaters, churches, and community centers: one space for each four seats or for each eight feet of bench seating, or one space for each one hundred square feet of public assembly area if use does not have fixed seating;
  - 3. Libraries, museums: one space for each three hundred square feet of gross floor area;
  - 4. Hospitals: two spaces for each three beds.
- E. Unlisted Uses. A parking requirement for any use not listed in the preceding sections shall be established by the building inspector, based on the requirement for that listed use deemed to be most comparable in terms of parking demand or on standards in the building code.
- F. Fractional Spaces. Whenever the preceding formulas result in a requirement for a fractional number of spaces, the requirement shall be rounded upward to a whole number.
- G. Off-Street Loading Facilities. The building inspector shall require that any new business, industrial or institutional use, provide sufficient off-street truck loading facilities to assure that no loading or unloading occurs within any public right-of-way, provided that uses within the area marked "Parking Exempt" on the map shall not be subject to this requirement.

#### 17.64.020 - Standards for off-street parking

- A. All parking areas, except residential parking for six spaces or less, shall provide for the turning, maneuvering and parking of the required number of vehicles on the lot.
- B. All areas used for parking and maneuvering of vehicles shall be surfaced as specified by the city public works director.
- C. Artificial lighting which may be provided shall be deflected so as to not shine into adjacent dwellings and so as not to create a hazard to the traveling public on any road.
- D. Each required parking space shall be of usable shape and accessible from a public street or alley. Where access drives are necessary, they shall be no less than fifteen feet in width for

nonresidential and multiple family residential developments and no less than nine feet for one family and duplex dwellings.

- E. Commercial or industrial parking area shall be screened from adjacent residential zones by means of sight obscuring landscape, screens, walls or fences, which shall be subject to the following standards:
  - 1. Sight obscuring screening shall be not less than five feet in height;
  - 2. Required screening shall be at least eighty percent opaque when viewed horizontally from between two feet above average grade and the top of the screening;
  - 3. Screen plantings shall be of such size as to provide the required degree of screening within twelve months after installation;
  - 4. Required screening shall be continuously maintained;
  - 5. All areas used for parking, loading and maneuvering of vehicles shall be physically separated from public streets or adjoining property by required setbacks or by bumper rails, or other effective and suitable barriers against the access or egress of unchanneled motor vehicles.
- F. Joint Use of Parking. The building inspector may authorize the joint use of parking facilities under the following conditions:
  - 1. Up to one hundred percent of the parking space required for a church may be supplied by off-street parking provided for other uses, provided that such parking lies within two hundred feet of the site of the church;
  - 2. Up to fifty percent of the parking space required for a theater, auditorium, bowling alley, or community center may be supplied by off-street parking provided for other uses, provided that such parking lies within two hundred feet of the site of subject use;
  - 3. Two or more uses may join to develop a cooperative parking facility: the total amount of parking required under such circumstances shall be ten percent less than the total amount required for the uses separately. In case of uses which operate at totally different times, the total minimum amount is that required for the most intensive use;
  - 4. Under subdivisions 1, 2 or 3 of this subsection, there shall be filed with the building inspector a written agreement between parties involved assuring to the building inspector's satisfaction, the validity and perpetuity of the joint use.
- G. Location of Parking. All required off-street parking other than joint use parking as provided in subsection F shall be located on the same site as the principal use, provided that such parking may be located on another site within two hundred feet of the principal use if a covenant or written agreement is filed with the building inspector assuring to the building inspector's satisfaction the perpetuity of such parking.

**FINDING:** The proposal indicates site improvements include a parking lot. An existing gravel pad will provide approximately 0.75 acres of space for parking. The parking lot is shown on proposed Site Plan. Therefore, the standard is met.

Title 18 – ENVIRONMENT

#### 18.04 - ENVIRONMENTAL PROTECTION ACT PROCEDURES AND POLICIES

18.04.040 - Categorical exemptions and threshold determinations.

A. (WAC 173-806-065). Purpose of this Part and Adoption by Reference. This part contains the rules for deciding whether a proposal has a "probable significant, adverse environmental"

*impact" requiring an environmental impact statement to be prepared. This part also contains rules for evaluating the impacts of proposals not requiring an EIS. The city adopts the following sections by reference, as supplemented in this part:* 

- 1. 197-11-300 Purpose of this part.
- 2. 197-11-305 Categorical exemptions.
- 3. 197-11-310 Threshold determination required.
- 4. 197-11-315 Environmental checklist.
- 5. 197-11-330 Threshold determination process.
- 6. 197-11-335 Additional information.
- 7. 197-11-340 Determination of nonsignificance (DNS).
- 8. 197-11-350 Mitigated DNS.
- 9. 197-11-360 Determination of significance (DS)/Initiation of scoping.
- 10. 197-11-390 Effect of threshold determination.
- B. (WAC 173-806-070). Flexible Thresholds for Categorical Exemptions.
  - 1. The city establishes the following exempt levels for minor new construction under WAC 197-11-800(1)(b) based on local conditions:
    - a.For residential dwelling units in WAC 197-11-800(1)(b)(i), up to twenty dwelling units;
    - b.For agricultural structures in WAC 197-11-800(1)(b)(ii), up to thirty thousand square feet;
    - c. For office, school, commercial, recreational, service or storage buildings in WAC 197-11-800(1)(b)(iii), up to twelve thousand square feet and up to forty
    - \* parking spaces;
    - d.For parking lots in WAC 197-11-800(1)(b)(iv), up to forty parking spaces;
    - e.For landfills and excavations in WAC 197-11-800(1)(b)(v), up to five hundred cubic yards.
  - 2. Whenever the city establishes new exempt levels under this section, it shall send them to the Department of Ecology, Headquarters Office, Olympia, Washington, 98504 under WAC 197-11-800(1)(c).
- C. (WAC 173-806-090). Environmental Checklist.
  - 1. A completed environmental checklist, or a copy, in the form provided in WAC 197-11-960, shall be filed at the same time as an application for a permit, license certificate or other approval not specifically exempted in this chapter; except, a checklist is not needed if the city and applicant agree an EIS is required, SEPA compliance has been completed, or SEPA compliance has been initiated by another agency. The city shall use the environmental checklist to determine the lead agency and, if the city is the lead agency, for determining the responsible official and for making the threshold determination.
  - 2. For private proposals, the city will require the applicant to complete the environmental checklist, providing assistance as necessary. For city proposals, the department initiating the proposal shall complete the environmental checklist for the proposal.

#### 18.04.070 - SEPA and agency decisions

A. (WAC 173-806-155). Purpose of this Part and Adoption by Reference. This part contains rules and policies for SEPA's substantive authority, such as decisions to mitigate or reject proposals

as a result of SEPA. This part also contains procedures for appealing SEPA determinations to agencies or the courts. The city adopts the following sections by reference:

- 1. 197-11-650 Purpose of this part.
- 2. 197-11-655 Implementation.
- 3. 197-11-660 Substantive authority and mitigation.
- 4. 197-11-680 Appeals.
- B. (WAC 173-806-160). Substantive Authority.
  - 1. The policies and goals set forth in this chapter are supplementary to those in the existing authorization of the city.
  - 2. The city may attach conditions to a permit or approval for a proposal so long as:
    - a.Such conditions are necessary to mitigate specific probable adverse environmental impacts identified in environmental documents prepared pursuant to this chapter, and
      - b.Such conditions are in writing, and
      - c. The mitigation measures included in such conditions are reasonable and capable of being accomplished, and
      - d.The city has considered whether other local, state or federal mitigation measures applied to the proposal are sufficient to mitigate the identified impacts, and
      - e.Such conditions are based on one or more policies in subdivision (4) of this subsection and cited in the license or other decision document.
  - 3. The city may deny a permit or approval for a proposal on the basis of SEPA so long as: a.A finding is made that approving the proposal would result in probable significant adverse environmental impacts that are identified in a FEIS or final SEIS prepared pursuant to this chapter; and
    - b.A finding is made that there are no reasonable mitigation measures capable of being accomplished that are sufficient to mitigate the identified impact; and
    - c. The denial is based on one or more policies identified in subdivision (4) of this subsection and identified in writing in the decision document.
  - 4. The city designates and adopts by reference the following policies as the basis for the city's exercise of authority pursuant to this section:
    - a. The city shall use all practical means, consistent with other essential considerations of state policy, to improve and coordinate plans, functions, programs, and resources to the end that the state and its citizens may:
      - *i.* Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
      - *ii.* Assure for all people of the state safe, healthful, productive and aesthetically and culturally pleasing surroundings;
      - *iii.* Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
      - *iv.* Preserve important historic, cultural and natural aspects of our national heritage;
      - v. Maintain, wherever possible, an environment which supports diversity and variety of individual choice;

- vi. Achieve a high balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- vii. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.
- b.The city recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.
- 5. When any proposal or action not requiring a decision of the city council is conditioned or denied on the basis of SEPA by a nonelected official, the decision shall be appealable to the city council. Such appeal may be perfected by the proponent or any aggrieved party by giving notice to the responsible official within ten days of the decision being appealed. Review by the city council shall be on a de novo basis.
- C. (WAC 173-806-173). Notice<197>Statute of Limitations.
  - 1. The city, applicant for, or proponent of an action may publish a notice of action pursuant to RCW 43.21C.080 for any action.
  - 2. The form of the notice shall be substantially in the form provided in WAC 197-11-990. The notice shall be published by the city clerk-treasurer or county auditor, applicant or proponent pursuant to RCW 43.21C.080.

**FINDING:** The proposal includes a SEPA environment checklist; the standard is met.

B. Public Works Standard

CHAPTER2 TRANSPORTATION

#### 2B STREETS

2B.02 Design Standards

The design of streets and roads will depend upon their type and usage. The design elements of city streets will conform to these Standards as set forth herein and current design practices as set forth in Chapter 1.

The layout of streets will provide for the continuation of existing principal street in adjoining subdivisions or of their proper projection when adjoining property i not subdivided. Minor streets, which serve primarily to provide access to abutting property, will be designed to discourage through traffic. See Table I, Minimum Standards.

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DESIGN STANDARD	BOULEVAR D	MAJOR OR MINOR ARTERIAL	COMMERCIA L COLLECTOR	NEIGHBORHOO D COLLECTOR	LOCAL ACCESS	PRIVATE
DESIGN LIMITATIONS	should be lin	ntersections nited. No on- parking.	N/A	N/A	N/A	N/A

Table 1 Minimum Street Standards

MINIMAL STRUCTURAL DESIGN		Si	ee standard Dra	wing Number 2-2		
STANDARD RIGHT-OF- WAY	90'–102'	84'–104'	66'-78'	60′	60'	N/A
STANDARD PAVEMENT WIDTH	48' (may have a 16' median)	48'-60'	40'	28'-40'	36'	20'
PARKING LANE	None Allowed	None Allowed	8' Both Sides	7' One Side	7' One Side	N/A
MINIMUM MAXIMUM GRADE	0.5% - 8.0%	0.5% - 8.0%	0.5% - 10.0%	0.5% - 12.0%	0.5% - 15.0%	0.5% - 15.0%
CURB		Both Sides				
SIDEWALKS	Both Sides 6' (min) 8' – pedestrian corridor 10' – zero lot setback Both Sides 5' 5'			One Side 5′		
CUL-DE-SAC RADIUS (PAVEMENT WIDTH)	N/A	N/A	50' (on industrial street only)	N/A	47' with landscape d and island radius of 17'	Fire departmen t Standards
INTERSECTIO N CURB RADIUS	35'	35′	35'	35′	25'	25′
DESIGN SPEED (MPH)	40	40	30	30	25	N/A
MINIMUM CENTERLINE RADIUS	w/ superelevation * per AASHTO w/o superelevation 600'	w/ superelevation * per AASHTO w/o superelevation 600'	150'	150'	100'	N/A

\* Maximum superelevation – 6%

- A. Alignment of major arterials, minor arterials and collectors will conform as nearly as possible with that shown in the Comprehensive Plan.
- B. Grade. Street grade should conform closely to the natural contour of the land. In some cases the Director of Public Works may require a different grade. The minimum allowable grade will be 0.5 percent. The maximum allowable grade will be 8-15 percent depending on the street classification.
- C. Width. The pavement and right-of-way width will depend on the street classification. Table I, Minimum Street Standards, show the minimum widths allowed.

#### 2B.04 Signing and Striping

Street signs are defined as any regulatory, warning, or guide signs. The developer is responsible for the cost of all street signs. Street sign will comply with the latest edition of the U.S. Department of Transportation Manual on Uniform Traffic Control Devices (MUTCD).

Pavement markings and street signs, including poles and hardware, will be paid for by the developer, but will be designed. furnished and install d by the city or by the developer under the city's direction, to establish and maintain uniformity. The Public Works Department will determine whether pavement markings and street signs will be provided by the city or by the developer. If the work is to be performed by the city, the developer must submit a written request to Public Works and, the developer will then be billed upon completion of the work.

#### 2B.05 Right-of-Way

*Right-of-way is determined by the functional classification of a street, refer to Table 1, Minimum Street Standards.* 

Right-of-way requirements may be increased if additional lanes, pockets, transit lanes, bus loading zones, operational speed, bike lanes, utilities, or other factors are required as determined by the Director of Public Work.

*Right--of-way will be conveyed to the city on a recorded plat or by a right-of- way dedication deed.* 

#### 2B.06 Private Streets

- A. Private streets may be allowed under the following conditions:
  - 1. Permanently established by tract or lot providing legal access to serve not more than 8 dwelling units or businesses on separate parcels, or unlimited dwelling units or businesses situated on a single parcel and sufficient to accommodate required improvements, to include provisions for future use by adjacent property owners when applicable; and
  - 2. Have a minimum 20-foot paved surface, and a sidewalk five (5) feet in width of such a design that prevents parking on the sidewalk; and
  - 3. Accessible at all times for emergency and public service vehicle use; and
  - 4. Will not result in the land-locking of present or future parcels nor obstruct public street circulation; and
  - 5. Covenants have been approved, recorded, and verified with the city that provide for maintenance of the private streets and associated parking areas by the owner or homeowners association or other legal entity.
- B. Acceptance as Public Street. Acceptance of private streets as public streets will be considered only if provision is made for the street(s) to meet all applicable public street standards, including right-of- ay widths.

**FINDING:** The proposal does not include a roadway/street design; therefore, the standard does not apply.

#### 2B.07 Street Frontage Improvements

A. All commercial and residential (including multi-family) development, plats, and short plats will install street frontage improvements at the time of construction as required by the Public Works Department. Such improvements may include curb and gutter; sidewalk; street; storm

drainage; street lighting system; traffic signal modification, relocation or installation; utility relocation; landscaping and irrigation; and street widening per these Standards. Plans will be prepared and signed by a licensed civil engineer registered in the State of Washington.

- B. All frontage improvements will be made across full frontage of property and on all sides that may border a city right-of-way.
- C. Exceptions. See Chapter 1, Section 1.07 "Exceptions".

**FINDING:** The project owner requests a variance from constructing new curb, gutter and road widening along with providing full frontage street lighting design. See variance application and resulting determinations.

#### 2B.11 Intersections

- A. Traffic control will be as specified in the most recent edition, of the MUTCD or as modified by the Director of Public Works as a result of appropriate traffic engineering studies.
- B. Street intersections will be laid out to intersect as nearly as possible at right angles. Sharp angled intersections will be avoided. For reasons of traffic safety, a "T" intersection (three-legged) is preferable to the crossroad (four-legged) intersection for local access streets. For safe design, the following types of intersection features should be avoided:
  - 1. Intersections with more than four intersecting street
  - 2. "Y" type intersections where streets meet at acute angles
  - 3. Intersections adjacent to bridges and other sight obstructions
  - 4. Offset intersections that are not conducive to side traffic flow

In no case will the angle of the intersection be less than 60 degrees nor greater that 120 degrees. The preferred angle is 90 degrees.

C. Spacing between adjacent intersecting streets, whether crossing or "T." should be as follows:

When highest classification involved is:	Minimum centerline offset should be:
Major Arterial	350 feet
Minor Arterial	300 feet
Commercial Collector	200 feet
Neighborhood Collector	200 feet
Local Access	150 feet

When different classes of streets intersect, the higher standard will apply on curb radii. Deviations may be allowed at the discretion of the Director of Public Works.

D. On sloping approaches at an intersection, landings will be provided with a grade not to exceed a one-foot difference in elevation, 1 a distance of 30 feet approaching any arterial, or 20 feet approaching a collector or local access street, measured from the nearest right-of-way line (extended) of intersecting street.

**FINDING:** The centerline spacing between adjacent intersections and the new development roadway is more than 300 feet. The standard is met.

2B.12 Driveways

- A. All abandoned driveway areas on the same frontage will be removed and the curbing and sidewalk or shoulder and ditch section will be properly restored.
- B. All driveways will be constructed of Portland Cement Concrete (CC) or asphalt from the rightof-way line to the edge of the street. The Director of Public Works will make the acceptable driveway material determination. PCC driveways will be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction. Residential PCC driveways will have a nominal concrete thickness of six (6) inches. All other PCC approaches will be eight (8) inches thick.
- C. Joint-use driveways serving two adjacent parcels may be built on their common boundary with a formal written agreement between both property owners and with the approval of the city. The agreement will be a recorded easement for both parcels of and specifying joint usage.
- D. Grade breaks, including the tie to the roadway, will be constructed as smooth vertical curves. The maximum change in driveway grade will be eight (8) percent within any ten (10) feet of distance on a rest and twelve (12) percent within any ten (10) feet of distance in a sag vertical curve.
- E. No commercial driveway will be approved where backing onto the sidewalk or street would occur.
- F. Driveways will be separated by twenty (20) feet of straight curb between each driveway providing access to a parcel or parcel of land under common ownership or occupancy unless otherwise allowed by the Director of Public Works.
- G. No driveway will be built within fifteen (15) feet of the end of any curb return or within five (5) feet of any property line unless otherwise allowed by the Director of Public Works.
- H. Driveway Widths
  - 1. The maximum driveway width for a single driveway onto an arterial or collector will be:

Frontage Width	Residential	Commercial	Industrial
Up to 50-feet	24-feet	24-feet	24-feet
50- to 75-feet	24-feet	30-feet	30-feet
More than 75-feet	30-feet	30-feet	35-feet

2. The maximum driveway width for each of two driveways onto an arterial or collector will be:

Frontage Width	Residential	Commercial	Industrial
Up to 50-feet	not permitted	not permitted	not permitted
50- to 75-feet	20-feet	20-feet	24-feet
More than 75-feet	20-feet	24-feet	24-feet

3. The maximum driveway width for a single driveway onto a local access. street will be; Frontage Width Residential Commercial Industrial Up to 50-feet 24-feet 26-feet not permitted 50- to 75-feet 24-feet 26-feet not permitted *More than* 75*-feet* 24-feet 26-feet not permitted

4. The maximum driveway width for each of two driveways onto a local access street will be:

Frontage Width	Residential	Commercial	Industrial
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Up to 50-feet	not permitted	not permitted	not permitted
50- to 75-feet	20-feet	20-feet	not permitted
More than 75-feet	20-feet	24-feet	not permitted

5.	The maximum	driveway	width for	one-way	driveways	will be:
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Frontage Width	Residential	Commercial	Industrial
Up to 50-feet	14-feet	22-feet	22-feet
50- to 75-feet	14-feet	22-feet	22-feet
More than 75-feet	14-feet	22-feet	22-feet

- 6. A road approach or wider driveway may be approved by the Director of Public Works when a substantial percentage of oversized vehicle traffic exists, when divisional islands desired, or when multiple exit or entrance lanes are needed.
- I. Arterial Street Access
  - 1. No driveway may access an arterial street within seventy-five (75) feet (measured along the arterial) of any other such access to the street: on either side of the travel way but may be allowed at locations directly opposite another point of access.
  - 2. No driveway access will be allowed to an arterial street within 150 feet of the nearest right-of-way line of an intersecting street.
  - 3. Within the limitations set forth above, access to arterial streets within the city will be limited to one driveway for each tract of property separately owned. Properties contiguous to each other and owned by the same person are considered to be one tract.
  - 4. Driveways giving direct access onto arterials may be denied if alternate access is available. The Director of Public Work may permit deviations from this requirement if sufficient justification is provided.
  - 5. Road approaches and/or ingress and egress tapers may be required in industrial and commercially zoned areas as directed by the Director of Public Works. Tapers will be designed, per the most recent edition, "Transportation and Land Development by V.G. Stover and F. Koepke.

**FINDING**: The plan shows a new concrete 24-foot driveway with access from W Forest Napavine Road. This standard is met.

#### 2B.13 Sight Obstruction

The following sight clearance requirements take into account the proportional relationship between speed and stopping distance.

The sight distance area is a clear-view triangle formed on all intersections by extending two lines of specified length (A) and (B) as shown in this section, Uncontrolled Intersection, from the center of the intersecting streets along the centerlines of both streets and connecting those endpoints to form the hypotenuse of the triangle. Refer to Standard Drawing 2-1 at the end of this Chapter. The area within the triangle will be subject to said restrictions to maintain a clear view on the intersection approaches.

Sight Distance Triangle:

A. Stop or Yield Controlled Intersection. Providing adequate sight distance from a street or driveway is one of the most important considerations to ensure safe-street and driveway operation the Intersection Sight Distance criteria given in the following table is based on line 8-1 shown in Figure IX-40 of "A Policy on Geometric Design of Highways and Streets" published by AASHTO. This table applies to all intersections as well as driveways with an ADT greater than 20. For driveways with an ADT of 20 or less, the Stopping Sight Distance in Table 1/1-1 of the MSHTO publication can be used.

SIGHT DISTANCE					
Operating	Speed	Intersection Sight Dista	Intersection Sight Distance		Sight
(MPH)		2 Lanes	4+ Lanes	Distance	
20		210	230	125	
25		255	280	150	
30		310	340	200	
35		355	390	250	
40		410	450	325	

Other factors such as vertical and horizontal curves and roadway grades also need to be taken into account. Such factors can require necessary modification to the intersection sight distance given in the above table.

Sight distance is measured from a point on the minor road or driveway fifteen (15) feet from the edge (extended) of the major road pavement (or nearest traffic lane if parking is permitted) and from a height of 3.50 feet on the minor road to a height of object of 4.25 feet on the major road.

Operating Speed (MARH)	Sight Distance		
Operating Speed (MPH)	Major Street A	Minor Street B	
20	90	90	
25	110	110	
30	130	130	
35	155	155	
40	180	180	

B. Uncontrolled Intersection

- C. Vertical Clearance. The area within the sight distance triangle will be free from obstructions to a motor vehicle operator's view between a height of two and one half (2.5) feet and ten (10) feet above the existing surface of the street.
- D. Exclusions. Sight obstructions that may be excluded from these requirements include; fences in conformance with this chapter, utility poles1 regulatory signs, trees trimmed from the base to a height of ten (10) feet above the street, places where the contour of the ground is such that there can be no cross visibility at the intersection, saplings or plant species open growth habits and not in the form of a hedge that are so planted and trimmed as to leave a clear and unobstructed cross view during all seasons, buildings constructed in conformance with the provisions of appropriate zoning regulations and pre-existing buildings.

**FINDING:** The Trip generation report is included in this application package; however, this report does not include sight obstruction and sight distance triangle information. Therefore, the standard is not met.

## CONDITION OF APPROVAL: Prior to engineering approval, the site plan shall show the sight distance area as a clear-view triangle at both driveways.

#### 2B.14 Surfacing Requirements

The following are the surfacing requirements for each application listed.

A. Asphalt Pavements. The minimum pavement sections listed in Standard Drawing 2-2 are in lieu of pavement design and are based on a subgrade California Bearing Ratio (CBR) value of three 3). Alternate pavement designs will be accepted based on soil test to determine the actual CSR value and completion of the worksheet on Standard Drawing 2-3 at the end of this chapter. Soil tests an, a completed worksheet for each road classification will accompany plans submitted if other than the structures shown below pavement sections in Standard Drawing 2-2 are used. One sample per each 500 LF of centerline, with a minimum of three (3) per project, representative of the roadway subgrade, will be take to determine a statistical representation of the existing soil conditions

An engineering firm that specializes in soils analysis will perform the soil tests. The report, signed and stamped by a professional engineer licensed by the State of Washington, must be based on actual soils tests and submitted with the plans. All depths indicated are a minimum compacted depth.

Existing pavement restoration: for utility or street widening projects requiring restoration of existing pavement, additional information and design calculations will be required to ensure that the pavement ill need minimal maintenance for five to seven years. The information required may include:

- 1. Pavement cores representative of typical pavement sections; and
- 2. statement of existing pavement condition and discussion of how 1 it will "match up" to the new pavement section
- B. Sidewalks

Surfacing: four (4) inches Commercial Concrete.

Base: two (2) inches Crushed Surfacing Top Course or well graded sand.

Asphalt sidewalks will not be permitted unless otherwise approved by the Director of Public Works.

C. Concrete Driveway

*Surfacing: six (6) inches Commercial Concrete for residential, (8) inches Commercial Concrete for all others.* 

Base: two (2) inches Crushed Surfacing Top Course or well graded sand.

D. Asphalt Driveway

Surfacing: three (3) inches Cass B asphalt concrete for residential, six (6) inches Class B asphalt concrete for all others. Base: four (4) inches ballast.

**FINDING:** The proposal includes a concrete driveway; therefore, this standard applies.

# CONDITION OF APPROVAL: Prior to engineering approval, an engineering plan satisfying NPW 2B.14 shall be submitted for review and approval by the City.

#### 2B.16 Pavement Restoration

**FINDING:** The proposal requests a variance for water and sewer extension. The standard does not apply if approved. See variance application and resulting decision.

#### 2C SIDEWALKS, CURBS AND GUTTERS

**FINDING**: The proposal requests a variance from constructing new curb and gutter. Therefore, the standard does not apply if approved. See variance application and resulting decision.

#### 2D ILLUMINATION

#### 2D.02 Design Standards

A street lighting plan submitted by the applicant and approved by the Director of Public Works will be required for all streetlight installations. Type of installation will be as set forth in the most recent edition of the WSDOT/APWA Standard Specifications, Illumination Standards Table in this chapter, and as directed by the city.

All public streetlight designs will be prepared by an engineering licensed by the State of Washington, and capable of performing such work. All developments will submit the lighting plan on a separate plan sheet. After the system is completed and approved, a set of "as-built" mylars will be submitted to the city as a permanent record.

Streetlights will be located in accordance with the design criteria contained herein, and as approved by the Director of Public Works. In addition, intersections will be illuminated to 1.5 times the highest foot-candle requirement of the streets surrounding the intersection. Exception: In residential and intermediate classes, local and collector streets intersecting other local and collector streets will not be subject to the 1.5 times illumination factor provided a luminaire is placed at the intersection. Energy efficient fixtures will be incorporated into the streetlight system whenever practical. Poles will be opposite across the roadway or on one side of the roadway. Staggered spacing will be allowed if the roadway width is such that adequate light levels cannot be provided with a one-side or opposite/both-sided pattern.

For the purposes of this section, area classes are determined by zoning as follows:

#### Commercial

Multi-family, high density Central business district Freeway commercial General commercial Neighborhood commercial

#### Industrial

Heavy industrial Light industrial

#### Intermediate

Essential public facilities

#### Commercial office/mixed use

#### Residential

Single family, low density. Single family, medium density Multi-family, medium density

As new zones are created the Director of Public Works will classify them. The following criteria will be used to determine streetlight spacing:

AVERAGE MAINTAINED HORIZONTAL ILLUMINATION (FOOT CANDLES)				
	AREA CLASS			
ROAD CLASS	Residential	Intermediate	Industrial	Commercial
Local	0.2	0.6	N/A	N/A
Collector	0.5	0.7	0.8	0.9
Arterial	0.7	1.0	1.2	1.4
Boulevard	0.7	1.0	1.2	1.4

Uniformity ratio: 6:1 average: minimum for local *4:1 average: minimum for collector* 3:1 average: minimum for arterial and boulevard

Dirt Factor: 0.85

Lamp Lumen Depreciation Factor: 0.73 Weak Point Light: 0.2 fc (except local residential street)

Line loss calculations will show no more than a 5 percent voltage drop in any circuit from the source to the most distant luminaire. Branch circuits will serve a minimum of four (4) luminaires.

Pole foundations will be per Standard Drawing 2-16. Luminaire poles will conform to Section 9-29 of the WSDOT Standard Specifications, except as modified herein. Light standards will be tapered aluminum with satin ground finish. The diameter at the base of the pole will not exceed nine (9) inches and the minimum thickness of the pole will be ¼-inch. Mounting height will be 30 feet. Mast arms will be single bracket, taper, minimum ten (10) feet in length. The shaft will heat treated after welding on the based flange to produce T6 temper. The pole and davit arm will be designated to support streetlight luminaries with a minimum weight of 60 pounds and a minim m effective protected area (EPA) of 1.5 square feet. Poles will be designed to withstand a 100mph (AASHTO) wind loading with a 1.3 gust factor with luminaire and mast arm attached, without permanent deformation or failure. Minimum wall thickness will be 0.188 inches. Poles will be equipped with a removable metal ornamental pole cap secured to the shaft with stainless steel screws. Poles will have a minimum 3 ½ by 6-inch hand hole with cover, near the base and will be equipped with a arounding lug. The pole will also be equipped with a 120V, 20 AMP recessed weatherproof power receptacle, that meet II applicable guidelines and standards. The receptacle will be located thirteen (13) feet above the base of the pole.

All luminaries will be a medium cut off. JES Type II distribution and will comply with art standards as established by the Public Utility District No. 1 of Lewis County. Unless otherwise required by PUD #1, luminaries will be: 20-watt, catalog #GEMDCLZOS3A11GMC31.

All streetlight electrical installations including wiring conduits and power connections will be located underground. New street lighting will be designed and installed in such a way as to lend with any utility pole-mounted lighting that may exist along the frontage of 1 adjacent properties, but also to accommodate future integration of conforming streetlights along the roadway. To this end, when streetlight(s) are -required along a property, conduit(s) and junction box(es) will be installed along the entire frontage, as appropriate, to allow for the interconnection of future streetlight installations. This requirement may be waived with approval of the Director of Public Works based on the site-specific conditions of the property in question.

Alternate streetlight designs may be allowed or required by the ci to accommodate the unique characteristics of a particular street or neighborhood. For example, special lighting may be deemed appropriate along a street that is part of a designated Historic District. The use of any alternate street lighting must approved in writing by the Director of Public Works.

**FINDING:** The proposal requests a variance on road widening along with providing full frontage street lighting design. Therefore, the standard does not apply if approved. See variance application and resulting decision.

#### 2G TRAFFIC IMPACT ANALYSIS

#### 2G.02 When Required

The need for a TIA will be based on; the size of the proposed development, existing street and intersection conditions, traffic volumes, accident history, community concerns, and other pertinent factors associated with the proposed project.

- A. TIA will be required if a proposed development meets one or more if the following conditions:
- B. The proposed project generates more than ten (10) vehicles in the peak direction of the peak hour on the adjacent streets and intersections. This includes the summation of all turning movements that affect the peak direction of traffic.
- *C.* The proposed project generates more than 25 percent of the site- generated peak hour traffic through a signalized intersection or "critical" movement at a non-signalized intersection.
- D. The proposed project is within an existing or proposed transportation benefit area. This may include Transportation Benefit Districts (TSO), Local Improvement Districts (LID), or local state transportation improvement areas programmed for development reimbursement.
- E. The proposed project may potentially affect the implementation of the street system outlined in the transportation element of the Comprehensive Plan, the Six-Year Transportation Improvement Program, or any other documented transportation project.
- F. If the original TIA was prepared more than two (2) years before he proposed project completion date.
- G. The increase in traffic volume as measured by ADT, peak hour, or peak hour of the "critical" movement is more than 10 percent.

Even if it is determined that a TIA is not required, the Director of Public Works may require the developer to have a Trip Generation Study (TGS) conducted. TGS's will be used to forecast project generated traffic for an established future horizon.

#### 2G.03 Qualifications For Preparing TIA Documents

The TIA will be prepared by an engineer licensed in the State of Washington and with special training and demonstrated experience in traffic engineering. The applicant will provide the Public

*Works Director with the credentials of the individual(s) selected to perform the TIA for approval prior to initiating the analysis.* 

**FINDING:** The proposal includes a trip generation estimate report and that the site would see about 25 total trips per day. A TIA is not required.

#### CHAPTER 3 STORM DRAINAGE AND EROSION CONTROL

#### 3A STORMWATER MANAGEMENT

#### 3A.01 General

The standards established by this chapter are intended to represent the minimum standards for the design and construction of storm drainage facilities.

The "City of Napavine Stormwater Management Plan" and the most recent version of the "Stormwater Management Manual for the Puget Sound Basin" documents are considered a part of this chapter as well as the City Public Works Standards, except as supplemented herein. The Stormwater Management Plan sets forth the minimum drainage and erosion control requirements as supplemented herein.

#### 3A.02 Design Standards

The design of storm drainage and/or retention/detention systems will depend on their type and local site conditions. The design elements of storm drainage systems will conform to these Standards and follow current design practice as set forth in the City of Napavine Stormwater Management Plan. Properties will not be developed in such a way as to discharge stormwater onto adjacent lots.

Stormwater conveyance and detention systems will be designed in accordance with the following design standards table:

Rational Method SCS-based Hydrograph Method Continuous Simulation Method
SCS-based Hydrograph Method
Continuous Simulation Method
SCS Unit Hydrograph Method with Level Pool
Routing
Continuous Simulation Method

Conveyance

Detention

Capacity to handle: 100-year storm event Prevent peak flow increase: 100-year storm event

Evaluation of erosion control: 2-year storm event and

10-year storm event

Design Storm Duration/Distribution	
Hydrograph Method	6 and 24-hour duration
SCS Unit Hydrograph Method	6 and 24-hour durations
	SCS Type 1A distribution
Rational Method	Time of concentration
	Constant rainfall intensity

#### 3A.03 Conveyance

Pipe: Storm drainpipe within a public right-of-way or. easement will be sized to carry the maximum anticipated runoff from the contributing area. The calculations of anticipated runoff and pipe sizing will be developed by a professional engineer licensed in the State of Washington. The developer will provide the calculations and all associated information to the Public Works Department.

The minimum main size will be twelve (12) inch diameter, smaller pipe sizes will be considered on a case-by-case basis as approved by the Director of Public Works. Lateral lines may be six (6) inch diameter. The city may require the installation of a larger main if it is determined that a larger size is needed to serve adjacent areas or for future service. The installation of a larger main may allow the develop.er to seek partial reimbursement through a Latecomers Agreement. (see Chapter 1 for details)

All pipe used for storm mains will comply with one of the following types:

- A. Plain concrete pipe conforming to the requirements of AASHTO M 86. Class 2.
- B. Reinforced concrete pipe conforming to the requirements of AASHTOM 170.
- C. PVC pipe conforming to ASTM D 3034 SOR 35 or ASTM F 794 or ASTM F679 Type 1 with joints and gaskets conforming to ASTM D 3212 and ASTM F 477.
- D. Ductile iron pipe conforming to the requirements of AWWA C 151, thickness class as shown on the plans.
- *E.* High-density polyethylene smooth interior pipe conforming to AASHTO M252 types or AASHTO M294 type S, with a gasketed bell and spigot joints.
- F. Aluminized steel helical or spiral rib pipe in diameters of thirty (30) inches or greater. with a Mannings" value of 0.020 or less.

Channels: Open vegetated channels may be utilized for stormwater conveyance when deemed appropriate by the Public Works Department. Open channels located in a public right-of-way will be sized to carry the maximum anticipated runoff from the contributing area without exceeding the confines of the channel. In addition, when the end of the "new" conveyance system is within twenty (20) feet of another piped drainage system, the "new" system will be extended through the open portion to complete the closed system. Extensions to complete closed drainage systems will only be required along the property where the "new" system originates, unless deemed necessary by the Director of Public Works. When the flow of an open channel is interrupted by the construction of a drivewc;1y, the entire channel across the property will be enclosed with piped system, unless deemed impractical by the Director of Public Works. However, the culvert under the driveway must be installed to accommodate closure of the ditch in the future. The channel enclosure may necessitate the inclusion manholes and/or catchbasins.

#### 3A.04 Catchbasins

Maximum catchbasin spacing will be 300-feet on all street classifications. No surface water will cross any roadway to private property. Additional manholes and/or catchbasins may be required by the city to accommodate the maintenance needs of the storm system.

**FINDING:** The technical information report indicates all onsite storm conveyance systems will be sized to accommodate the 25-year storm flows. All proposed onsite storm drainpipe will be 12 inches in diameter and the minimum slope shall not be less than 0.5%. Additionally, the site plan shows one type I catchbasin will be installed. The standard is met.

CONDITION OF APPROVAL: Prior to engineering approval, the applicant shall submit a final stormwater plan and TIR complying with NPW 3A and the 2019 SWMMWW for review and approval by the City.

#### **3B EROSION CONTROL**

3B.01 General

All projects requiring Public Works Department approval, as defined by these Standards, will include erosion control plans If any of the following conditions are met:

- A. Proposed land disturbance activities that could cause sediment runoff beyond the project limits.
- B. A Clearing, Filling or Grading Permit is required.
- C. The proposed project could possibly impact a nearby stream, wetland, or body of water.
- D. When deemed necessary by another permitting authority.

Site work will not commence until all erosion control measures have been set in place in accordance with the approved erosion control plans.

*The contractor/applicant must ensure that all erosion control measures are properly maintained in accordance with standard industry procedures.* 

#### 3B.02 Best Management Practices

*Erosion control may include the following:* 

A. Sedimentation Ponds

Sedimentation ponds are utilized to collect runoff generated on a construction site, thereby allowing sediment to be captured before the runoff leaves the site. Sedimentation pond design will include the following considerations:

- 1. computation of the sediment storage volume
- 2. computation of the settling volume
- 3. computation of the pond surface area
  - (surface area, in sf = 1,250 x 1-yr, 24 hour storm rate, in cfs)

Minimum pond dimensions are as follows:

1. 2-foot depth for settling

#### 2. 3-foot depth for sediment storage

#### 3. 3:1 side slope

The contractor will inspect sedimentation ponds immediately after each rain event to ensure the integrity of the facility. The contractor will also remove the majority of the sediment collected in the ponds whenever the storage volume is exceeded or the settling volume is infringed upon. In addition, prior to the final completion of the project, ponds will be cleaned out in their entirety.

The length/width ratio of the pond will be as large as possible. A 5:1 ratio is the preferred minimum, but exceptions will be granted when deemed appropriate by the Director of Public Works. The. pond will be divided into a series of at least two (2) separate chambers. Perforated pipe risers will be used to convey water between the chambers and at the outlet.

#### B. Interceptor Channels

Interceptor channels are used to capture runoff generated on a construction site before it can leave the project limits. The channel is often used in combination with a sedimentation pond. The channel is typically grass lined and runs along the perimeter of the site. The grass must be established prior to the start of construction. Therefore, sod is often used to establish the vegetated surface of the channel. Upon completion of the project, the sod can be removed and re-used if the ditch is filled in and restored with a suitable and stable cover material.

#### C. Sediment Barriers

Sediment barriers are filtering devices that are run along the perimeter of a site to capture sediment while allowing runoff water to continue along its natural path. Silt fencing and hay bales are common examples of sediment barriers.

Regular removal of sediment is required to ensure that the barriers function properly. In addition. the structural integrity of the barriers must be maintained at all times. Barriers will be installed, inspected and repaired, in accordance with the details and requirements included in these Standards.

#### D. Stabilized Construction Entrance

A stabilized construction entrance is a rocked access point to a construction site. The entrance reduces material carried from the site onto the public right-of-way.

Construction entrances must be cleared of mud and debris regularly to ensure that materials are not being tracked from the construction site, onto the right-of-way and beyond. The contractor is responsible for all required maintenance of entrances.

#### E. Detention/Retention Facilities

No retention/detention facility will be located in an area that is used to satisfy an open space requirement unless it enhances a recreational amenity. Use of designated open space areas for stormwater detention/retention and infiltration must satisfy all conditions of the City of Napavine for usability, landscape conformity and ease of access. The city will make the final determination whether or not the proposed stormwater facilities are compatible with and satisfy the intent of an open space.

The primary purpose of a consolidated open space is to provide usable area for recreation activities, buffer zones, and green belt areas. and must be designed for this intent. Any use of this area for stormwater detention/retention must clearly be subordinate to and not detract

from open space uses. The usable open space will be predominantly flat, and in no case. exceed 4:1 where drainage facilities represent. A minimum of 50 percent of the linear slope length will not exceed 7:1.

The Director of Public Works will review the use of commercial. parking lots for stormwater detention on a case-by-case basis. The detention area will be situated away from areas of pedestrian movement. The maximum depth of water in parking lot storage will be limited to twelve (12) inches.

**FINDING:** The proposal includes a construction SWPPP report and erosion control plan. Therefore, NPW 3B is met.

CONDITION OF APPROVAL: Prior to engineering approval, erosion control plan compliant with chapter 3 of the City of Napavine's Public Works Standard shall be submitted for review and approval by the City.

CONDITION OF APPROVAL: Prior to construction, erosion control devices shall be installed and shall remain in place during construction and afterwards until the soil has stabilized.

#### CHAPTER 4 WATER

**FINDING:** A variance application to not install water is provided with the proposed project. This section will not apply if approved. See variance application and resulting determination.

#### CHAPTER 5 SANITARY SEWER

**FINDING:** A variance application to not install sanitary sewer is provided with the proposed project. This section will not apply if approved. See variance application and resulting determination.

#### V. COMMENTS

Variance Requests and City Answers

- 1. Allow no full frontage improvement along Forrest Napavine Road.
  - The city accepted this request.
- 2. Allow no extension of water and sewer main.
  - The city accepted this request.

#### VI. CONDITIONS OF APPROVAL

- A. Prior to Engineering Approval
  - The access driveway design plan shall meet the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction requirements.
  - 2) Architectural and site design plans satisfying NMC 17.28 shall be submitted for review and approval by the City.
  - 3) The site plan shall show the sight distance area as a clear-view triangle at both driveways.

- 4) An engineering plan satisfying NPW 2B.14 shall be submitted for review and approval by the City.
- 5) The applicant shall submit a final stormwater plan and TIR complying with NPW 3A and the 2019 SWMMWW for review and approval by the City.
- 6) Erosion control plan compliant with chapter 3 of the City of Napavine's Public Works Standard shall be submitted for review and approval by the City.
- 7) Erosion control plan compliant with chapter 3 of the City of Napavine's Public Works Standard shall be submitted for review and approval by the City.
- B. Prior to Construction
  - 1) The applicant shall submit all necessary drawings compliant with the more current of NMC title 15 or state standards for City review and approval.
  - 2) Erosion control devices shall be installed and shall remain in place during construction and afterwards until the soil has stabilized.
- C. General
  - 1) The applicants shall obtain all necessary permits.
  - 2) This storage building shall not have any full-time employees and commercial visitors.

#### VII. RECOMMENDATION

Based upon the proposed plan, and the findings and conclusion stated above and within the attached reports and decisions, the City of Napavine Community Development Director hereby recommends **Approval**, **subject to conditions**.

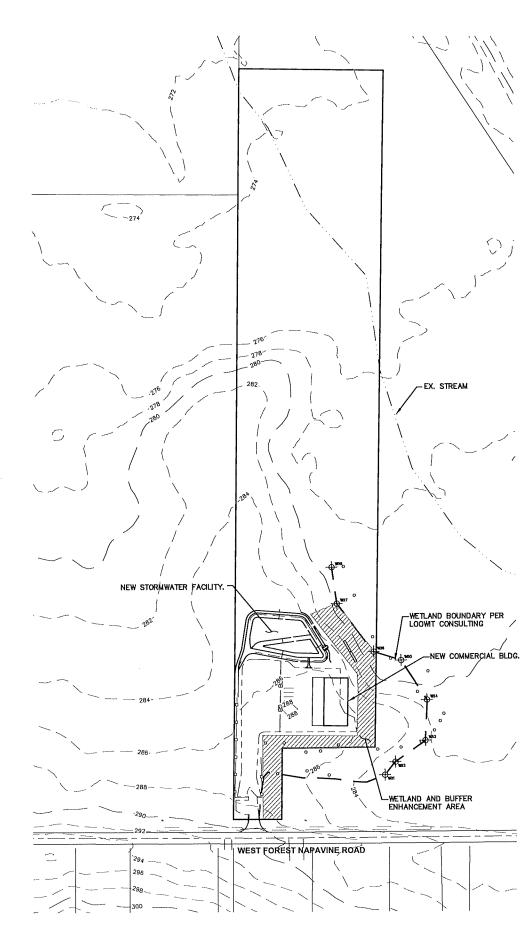
#### VIII. EXHIBIT LIST

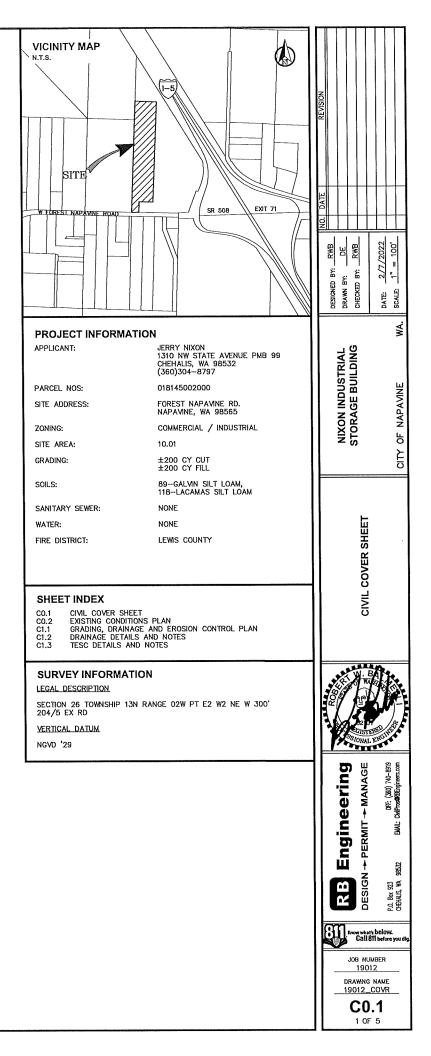
NIXON INDUSTRIAL BUILDING - SITE PLAN				
EXHIBIT #	EXHIBIT # DESCRIPTION			
1	Narrative			
2	Nixon Pass Through Agreement			
3	Pass Through Ordinance No. 341-D			
4	Variance Application			
5	SEPA Checklist			
6	Lewis County Public Health & Social Services – SEPA TP#0181452000			
7	Napavine Planning Commission Minutes			
8 .	Trip Generation Report – RB Engineering			
9	Lewis Forestry – Wetland Report 1			
10	Lewis Forestry – Wetland Report 2			
11	Washington State Department of Ecology – Comments			
12	Loowit Critical Areas Report			
13	Loowit Buffer Mitigation Plan			
14	Loowit Forensic Wetland Evaluation			
15	Nixon Industrial Building – Technical Information Report – RB Engineering			
16	Nixon Industrial Building – Civil Plans – RB Engineering			

LEGEND		
EXISTING	PROPOSED	
W	₩	WATER MAIN
	SS	SANITARY SEWER MAIN
FM	ณ	FORCE MAIN
SD	so	STORM MAIN
RD	RD	ROOF DRAIN
	·······	FOOTING DRAIN
G	G	GAS LINE
UGP	UGP	POWER LINE
· T	T	TELEPHONE LINE
TV	CATV	CABLE TV LINE
		ROADWAY CENTERLINE
		RIGHT-OF-WAY LINE
		EASEMENT LINE
		FRONT/BACK OF CURB
		EDGE OF GRAVEL SHOULDER
EP		EDGE OF PAVEMENT

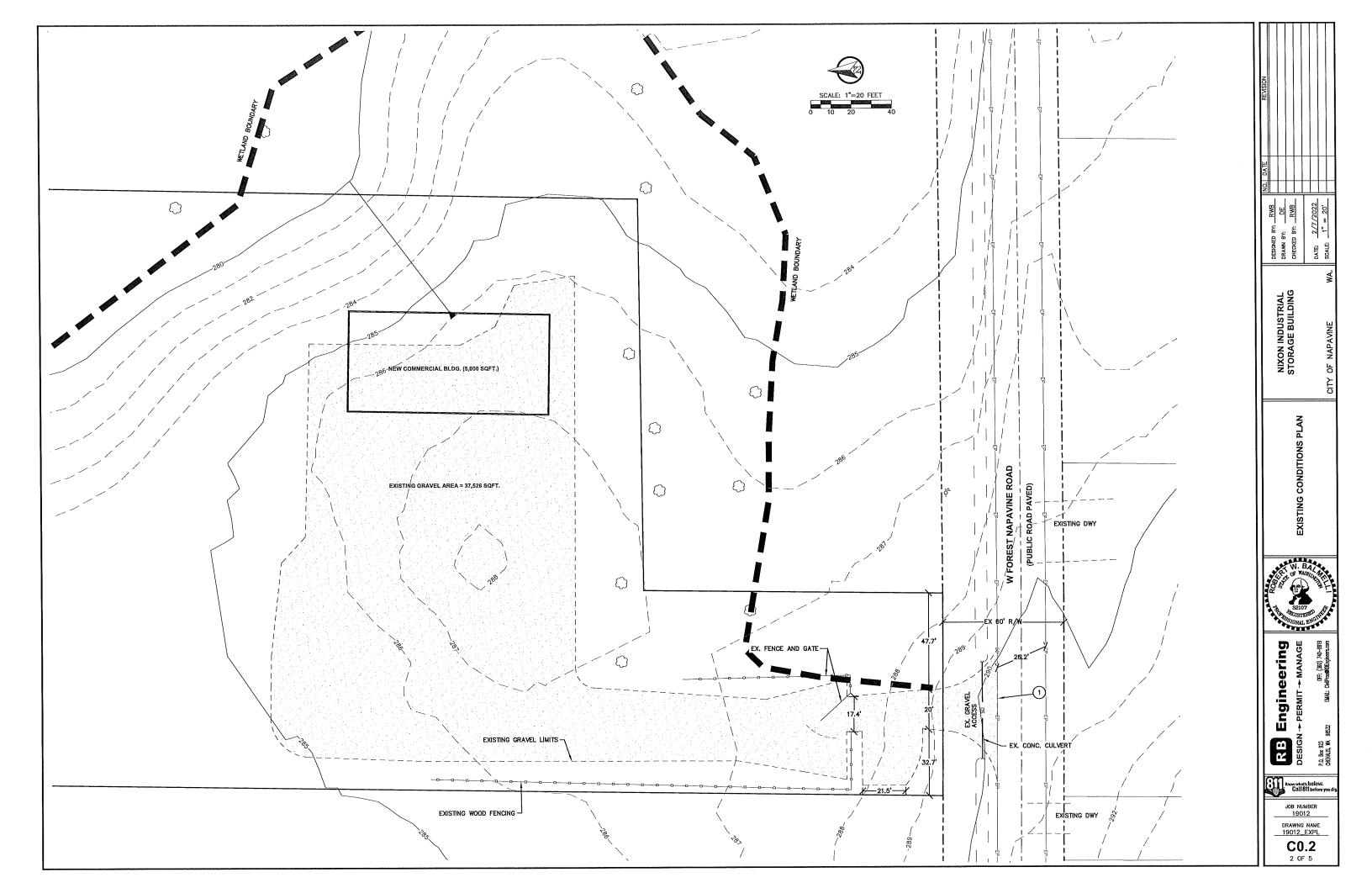
# NIXON INDUSTRIAL STORAGE BUILDING

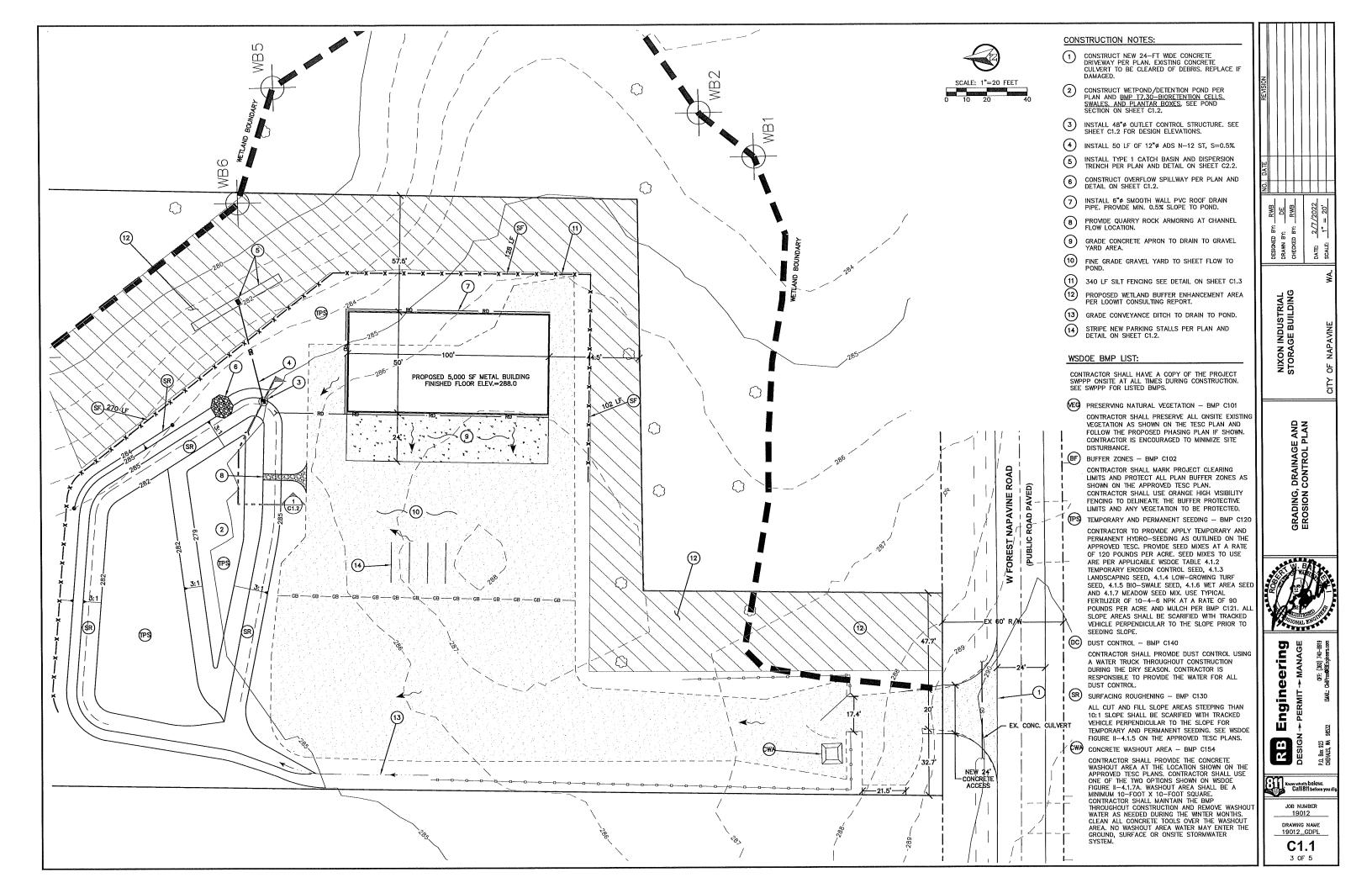
SECTION 26, TOWNSHIP 13 NORTH, RANGE 02 WEST, W.M. LEWIS COUNTY, WASHINGTON

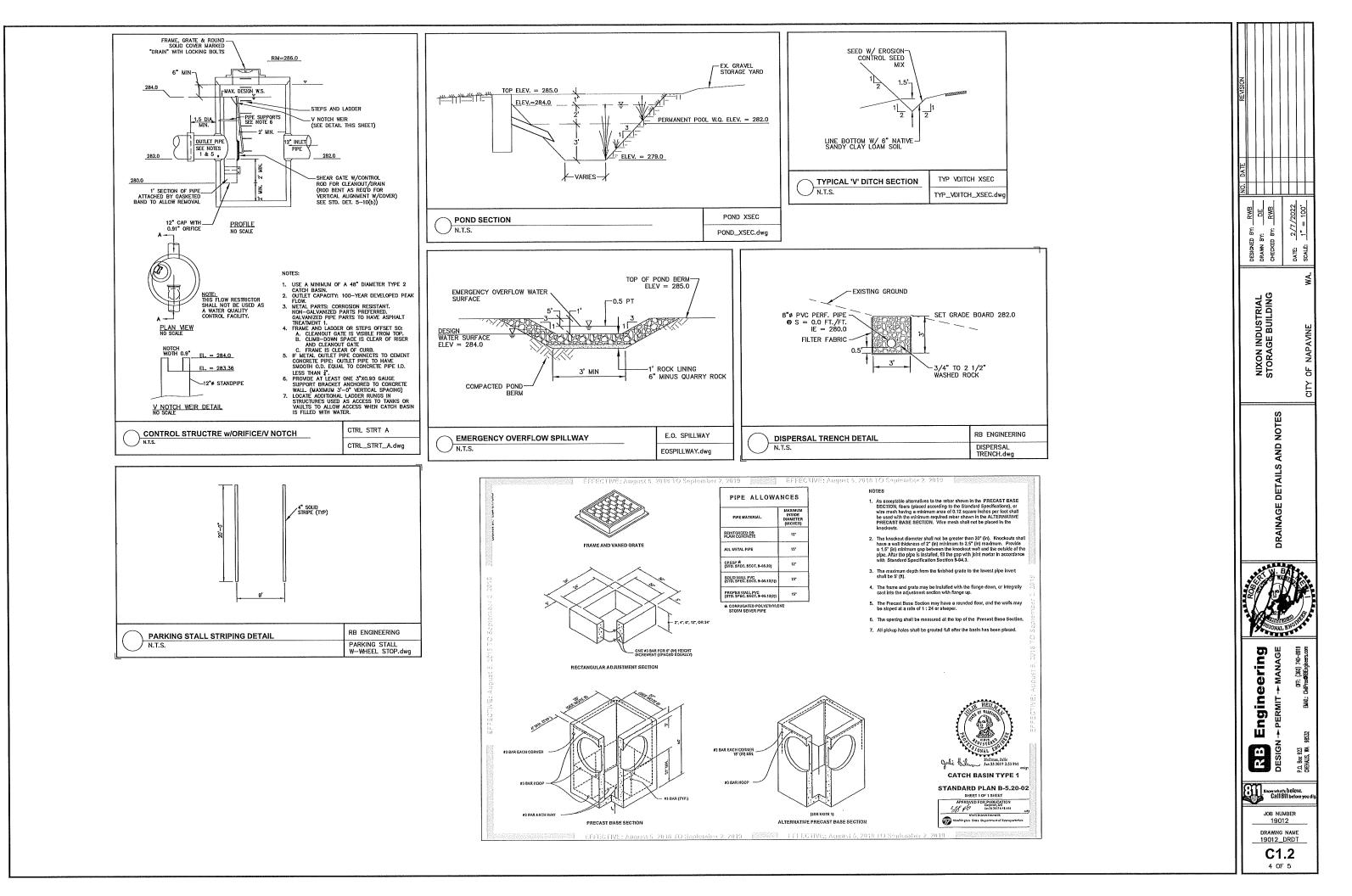


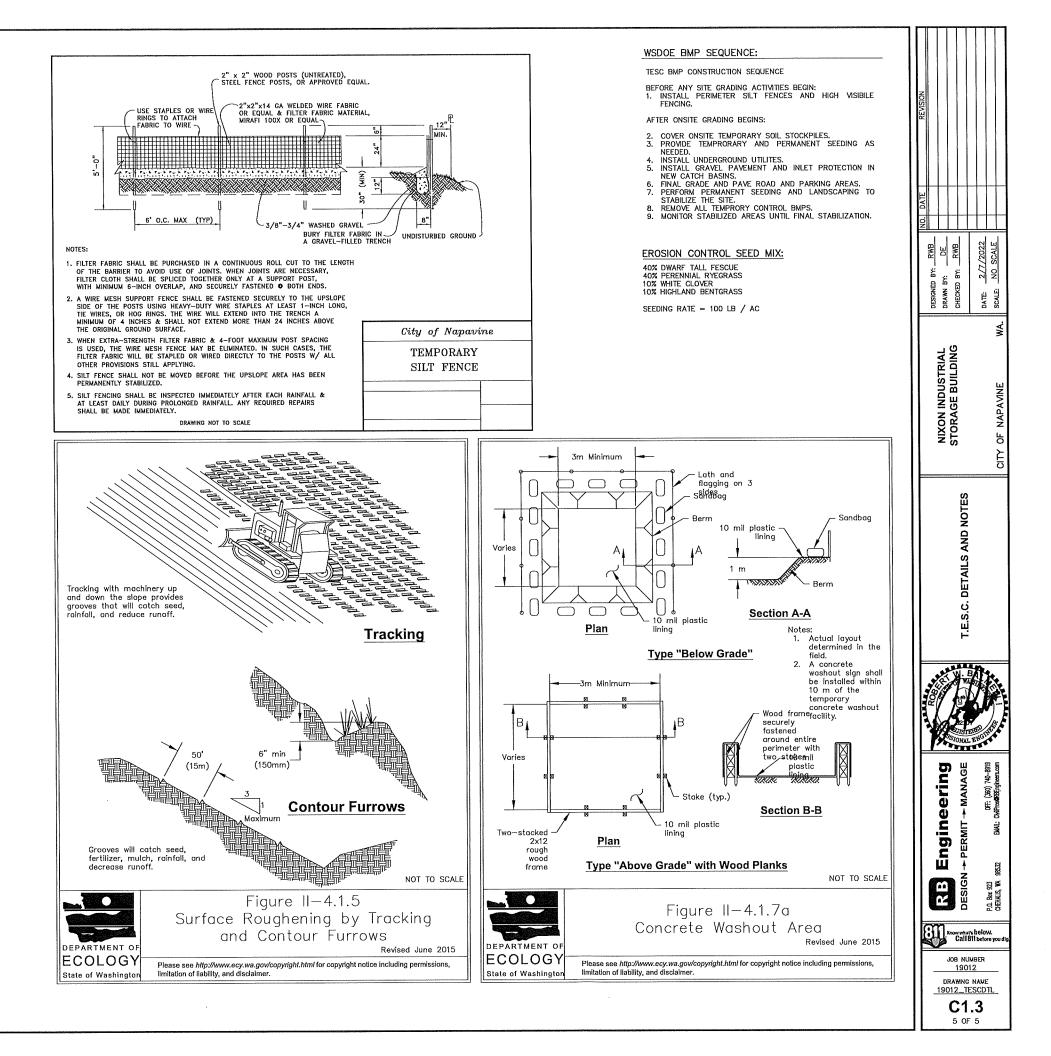


SCALE: 1"=100 FEET









# **CITY OF NAPAVINE**

#### 407 BIRCH AVE SW, P. O. BOX 810, NAPAVINE, WA 98565 (360) 262-9344

#### VARIANCE APPLICATION

#### Fee: \$

File No		Date	
Applicant	Jerry Nixon		
		0 NW State Ave, Chehalis WA 98532	
Location o	of property:0 Forrest Na	pavine Rd, Napavine WA. Parcel No. 018145002000	
Lot	Block	Addition	
A.	The above described prope	erty was acquired on October 19, 2016.	
B.	A certificate of ownership must accompany this appli	and a list of owners of property located within 300 feet of this parcel cation.	
C.		or restrictions concerning type of improvements contemplated exist on If so, attach a copy of said document to this application.	
D.	I HEREBY REQUEST A	VARIANCE AS FOLLOWS:	
widen	ing along with providing f	rom constructing new curb, gutter and road ull frontage street lighting design. Water and Sewer extension of those utilities is included in this	

variance.

Your approval of the requested variance would permit me to use my property in the following manner:

Construct a 5000 sf industrial storage building.

1. Would the strict application of the Zoning Regulations create practical difficulties or unnecessary hardships for you? (please explain)

Yes, extension of the utilities and frontage improvements would greatly exceed the overall cost and land value of the completed building.

2. Are there exceptional circumstances of conditions applicable to this property or to the intended use or development of the property that do not apply generally to other property in the same zone or neighborhood? (Please explain).

Yes, due to the amount of wetland area and on-site stream identified on the parcel restricts the area available for development. This property will eventually be part of a LID that would bring utilities by the site.

3. Will the granting of a variance be significantly detrimental to the public welfare or injurious to the other property or improvements in your zone or neighborhood in which your property is located? (Please explain).

No, the project will not impact adjacent property owners. The parcels on this side of Forrest Napavine Road are zoned Commercial and Industrial/Commercial.

Signature of Applicant

Telephone

1310 NW State au 1.5 Va 98532

Variance Fee: \$

Receipt. No.

Date Paid

STATE OF WASHINGTON )

COUNTY OF LEWIS )

SS

On this 257 day of September, 2020, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared 5284 (Nuclear), being duly sworn, on his oath deposes and says that he prepared and read the foregoing statements and has acknowledged to me that the recitations contained therein are true, and has signed this instrument as his free and voluntary act and deed for the purposes therein mentioned.

2157 day of Suptember, 2020 Subscribed and sworn to before me this unnumumumum ANER My Commission expires: Notary Public in and for the State of Washington Annununun . residing at Chemis XY 10. OF WASHING Date Community Development Director

Mayor

Date

# Critical Areas Report for 665 Forest Napavine Road Napavine, Washington

Prepared for: Jerry Nixon 1310 NW State Avenue, PMB 99 Chehalis, WA 98532

Project # 102.13

Prepared by: Loowit Consulting Group, LLC 312 Gray Road Castle Rock, WA 98611 360.431.5118



Loowit Consulting Group, LLC

November 1, 2021

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# **Table of Contents**

# **SIGNATURE PAGE**

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

Mint ). Hal

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

# **INTRODUCTION**

### **Purpose and Need**

Loowit Consulting Group, LLC (LCG) was retained by Jerry Nixon (Applicant) to complete a critical areas investigation and report at 665 Forest Napavine Road (Subject Site) northeast of Napavine, Washington (Figure 1 & 2). The Applicant has proposed the construction of a 5000-sf industrial storage building (Figure 3) in the southern third of the site (henceforth referred to as the Study Area). Mapped critical areas within the subject site prompted the City of Napavine to request an evaluation of critical areas according to Napavine Critical Areas Ordinance (NCAO) N0 464 - Title 14.010 – Critical Areas Ordinance.

## **Site Description**

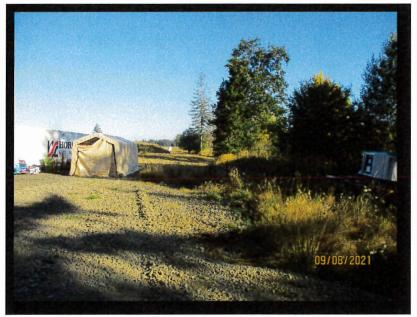
The subject site consists of a single parcel totaling approximately 10 acres of residential property. Site specifics include:

Site Address:	665 Forest Napavine Road Napavine, WA
Current Owner:	Nixon, Jerry D
Tax Parcel Number:	018145002000
Legal Description:	Section 26, Township 13 North, Range 2 West, W.M.
Property Size:	10.010 acres
Jurisdiction:	Lewis County

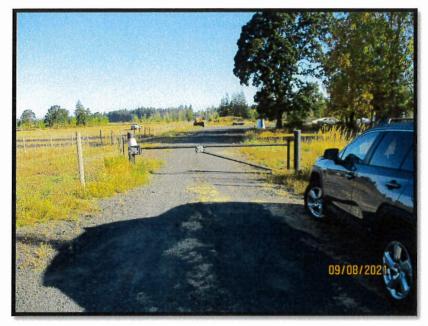
The subject site is located north of Forest Napavine Road which is situated northeast of Napavine, Washington (Figure 1). The subject site consists of a relatively flat property with an existing gravel driveway and elevated gravel pad on the southern third (Study Area) of the subject site (Photograph 1). The northern portion of the subject site, which is outside the study area, is vegetated with immature mixed forest, shrub and pasture lands (Photograph 2). Access to the site is via an all-weather gravel driveway off Forest Napavine Road (Photograph 3).



Photograph 1: Eastern extent of existing gravel pad.



Photograph 2: Looking north. Wetland area to the right.



Photograph 3: Site access road, looking north from Forest Napavine Road. Subject site straight ahead and to right.

Land uses adjacent to the subject site include:

- To the South Rural residential and vacant land
- To the North Vacant land and Interstate 5
- To the West Rural residential
- To the East Vacant land and Interstate 5

# **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 (<u>http://ims.lewiscountywa.gov/webmaps/composite2/viewer.htm</u>). 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 (<u>https://www.fws.gov/wetlands/data/mapper.html</u>). This mapping source depicts wetlands and streams throughout the United States.
- US Department of Agriculture Natural Resources Conservation Service Web Soil Survey (<u>https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx</u>). This source depicts mapped soils including hydric soils throughout the United States.

- Washington Department of Natural Resources Forest Practices Application Mapping Tool (<u>https://fpamt.dnr.wa.gov/default.aspx</u>). This mapping source depicts streams and wetlands in Washington State.
- Washington Department of Fish and Wildlife Salmonscape (<u>http://apps.wdfw.wa.gov/salmonscape/map.html</u>). This mapping source depicts streams and fish distribution in Washington State.
- Washington Department of Fish and Wildlife Priority Habitat and Species (<u>http://apps.wdfw.wa.gov/phsontheweb/</u>). 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 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 and other critical areas are regulated by the City of Napavine Critical Areas Ordinance (NCAO) N0 464 - Title 14.010 – Critical Areas Ordinance.

# **Field Investigations**

On September 8, 2021, LCG visited the subject site to collect site information, delineate jurisdictional wetlands, and collect site data. Weather conditions at the time of the site investigation consisted of clear skies with a high of 83.9°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 65.4 to 85.4°F and low temperatures ranging from 42.4 to 59.5°F. Total recorded precipitation two weeks prior to the site visit (August 25 – September 7) was recorded at 0.01 inches (Table 1, Appendix C).

#### Table 1: Weather Data at Chehalis Airport, Washington.

Date	Minimum Temp (Deg F)	Maximum Temp (Deg F)	Total Precipitation (in)
8/25/2021	44.9	75.4	0

8/26/2021	57.6	71.2	0
8/27/2021	52.4	72.6	0
8/28/2021	46.3	80.0	0
8/29/2021	48.5	82.1	0
8/30/2021	48.0	67.5	0
8/31/2021	44.4	65.4	0.01
9/1/2021	42.6	73.0	0
9/2/2021	42.4	79.3	0
9/3/2021	43.5	81.7	0
9/4/2021	46.4	83.4	0
9/5/2021	59.5	79.4	0
9/6/2021	53.6	78.3	0
9/7/2021	48.6	85.4	0
		Total:	0.01
9/8/2021	58.6	83.9	0

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 delineated 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). Data documenting vegetation, soils, and hydrology were collected and used to determine wetland and uplands at the site. Data collected by Lewis Forestry LLC in October 2018 was evaluated and used to supplement observations made by LCG. A single depressional wetland (Wetland A) is located along the southern and eastern boundaries of the study area, and extends to the north in the northern third of the subject site. Wetland boundaries were delineated using documented test plots and subsequently mapped using handheld portable GPS equipment with an implied horizontal accuracy of  $\pm 11$ -feet.

#### Vegetation

Upland vegetation at the site is a mix of primarily native trees and shrubs with a mix of low growing forbs and ferns. On-site wetland areas are dominated by reed canary grass and spiraea with some Oregon Ash and Quaking Aspen. Table 2 summarizes wetland and upland vegetation observed at the subject site.

Scientific Name	Common Name	Wetland Indicator Code
Anthoxanthum odoratum	Sweet Vernal Grass	FACU
Cirsium vulgare	Bull Thistle	FACU
Fraxinus latifolia	Oregon Ash	FACW
Hypochaeris radicata	Hairy Cat's Ear	FACU
Juncus effusus	Softrush	FACW
Lupinus polyphyllus	Large-Leaved Lupine	FAC
Malus fusca	Pacific Crab Apple	FACW
Phalaris arundinacea	Reed Canary Grass	FACW
Populus tremuloides	Quaking Aspen	FACU
Pseudotsuga menziesii	Douglas Fir	FACU
Pteridium aquilinum	Bracken Fern	FACU
Quercus garryana	Garry Oak	FACU
Rubus ursinus	Trailing Blackberry	FACU
Spiraea douglasii	Spiraea	FACW

#### Table 2: Vegetation Observed

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

The study area sits upon a historic floodplain/alluvial fan. The driveway and part of the developed gravel portion of the subject area are underlain by Lacamas silt loam, a soil common to floodplains and ancient terraces. The Lacamas silt loam comprises the majority of the northern portion of the subject site, outside the study area. The majority of the study area is underlain by Galvin silt loam, a soil common to alluvial fans in the area, originating from the hills south of the site. 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 summarized in Table 3 and Figure 4.

#### Table 3: Soil Summary.

Soil #	Soil Name	Slope %	Hydric %
89	Galvin silt loam	0-8	15
118	Lacamas silt loam	0-3	97

Historic land disturbance activities including fill placement, 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 slopes gently to the northeast into a depressional wetland area with both and Freshwater Forested/Shrub and Freshwater Emergent characteristics. The Freshwater/Forested Shrub wetland area is located in the northern third of the subject site, and is outside the study area. The study area, in the southern third of the subject site, is bounded on both the southern and eastern boundaries by a Freshwater Emergent Wetland which extends to the north (Figure 3 and Figure 5).

Figure 6 depicts Allen Creek, a Type F (Fish) tributary to the Newaukum River, flowing southeast to northwest from approximately the midpoint of the eastern subject site boundary to near the northwest corner of the subject site where it exits the subject site. The stream and its associated boundaries are all outside of the study area.

# Mapping

Wetland boundary flagging, roads, property boundaries, topography, and other site features were derived from public mapping sources with additional points mapped with handheld portable GPS equipment with an implied horizontal accuracy of  $\pm 11$  feet. RB Engineering, Inc. supplied base mapping and site design.

# **RESULTS and DISCUSSION**

# Wetlands

A single depressional wetland (Wetland A) is located in the east-central portion of the subject site beginning at Forrest Napavine Road and extending north-northwest where it terminates at Rush Road (Figure 3). Wetland A is rated a Category II wetland (22 points) with a high water quality score of 8 points, a moderate hydrologic score of 6 points, and a high habitat score of 8 points (Table 4) according to the *Washington State Wetland Rating System for Western Washington, 2014 Update* (Appendix B).

# **Wetland Buffers**

According to NMC 14.010.120 (E), *Table 14.090.E.7.a.3*, the City of Napavine requires buffers on jurisdictional wetlands depending on category, habitat score, and proposed land use intensity. A Category II wetland within a site with an anticipated moderate intensity land use requires a 195-foot wide buffer. Table 4 summarizes wetland buffer requirements at the subject site based on *Table 14.090.E.7.a.3*:

#### Table 4: Wetland Summary.

	HGM <sup>A</sup>	Wetland Rating System <sup>B</sup>					Standard
Wetland ID		Improving Water Quality	Hydrologic	Habitat	Total	Category <sup>B</sup>	Standard Buffer <sup>c</sup> (ft)
Wetland A	Depressional	8	6	8	22		195

<sup>A</sup> Hydrogeomorphic Classification

<sup>B</sup> Washington State Wetland Rating System for Western Washington: 2014 Update

C NMC 14.010.120 (E), Table 14.090.E.7.a.3CC 17.38.270, Table 17.38-3. Moderate Intensity for Category II wetlands.

# Wetland Buffer Reduction and Enhancement

Placing a 195 on the wetland effectively restricts all development at the site including the currently proposed commercial development. Existing site improvements including a site access road and gravel fill pad act as interrupting features that eliminate buffer functions. The existing on-site wetland buffer area is devoid of structure and offers minimal functions and values for the protection of the adjacent wetland area. Current vegetation within the buffer area is a mix of grass and weedy forbs, which are routinely mowed by the landowner. Enhancing a portion of this buffer area will provide a functional lift over current conditions while allowing a reasonable use of the site.

The following buffer enhancement measures are proposed to increase functions and values of the buffer and increase protection of the adjacent wetland area:

- Buffer Enhancement a 6,500 square foot area will be enhanced by the installation of the following native tree and shrubs: Western Red Cedar (*Thuja plicata*) - 25 plants minimum 2' tall on 10' centers, Douglas Fir (*Pseuodtsuga menziesii*) – 25 plants minimum 2' tall on 10'centers, Big Leaf Maple (*Acer macrophyllum*) – 25 plants minimum 2' tall on 3'centers clumped, and Pacific Crabapple (*Malus fusca*) – 25 plants minimum 1.5' tall on 5' centers.
- 2. Lights All outdoor lighting near the wetland buffer will directed away from the buffer, shielded to reduce scattered light.
- Noise Noise will be reduced by implementation of standard daytime hours of operation for the store. Site design focuses most of noise generating activity, vehicle traffic, well away from the wetland buffer area.
- 4. Pets and Human Disturbance Fencing and signage will be used to restrict pedestrian and pet encroachment into the wetland buffer and wetland area.
- 5. Existing Runoff Storm water will be collected and treated via and engineered system.
- 6. Change in Water Regime See Bullet #5.

# CONCLUSIONS

A single Category II depressional wetland (Wetland A) is located in the east-central portion of the subject site beginning at Forrest Napavine Road and extending north-northwest where it terminates at Rush Road (Figure 3). A Category II wetland within a site with an anticipated moderate intensity land use requires a 195-foot wide buffer. Placing a 195 on the wetland effectively restricts all development at the site including the currently proposed commercial development. Existing site improvements including a site access road and gravel fill pad act as interrupting features that eliminate buffer functions. The applicant proposes buffer enhancement to protect the adjacent wetland while allowing reasonable use of the existing site access road and gravel pad.

## 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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Hruby, T. 2014. Washington State Wetland Rating System for Western Washington: 2014 Update. (Publication #14-06-029). Olympia, WA: Washington Department of Ecology.

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U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center. US Department of Agriculture Natural Resources Conservation Service Web Soil Survey (<u>https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx</u>).

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 (<u>https://fpamt.dnr.wa.gov/default.aspx</u>).

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

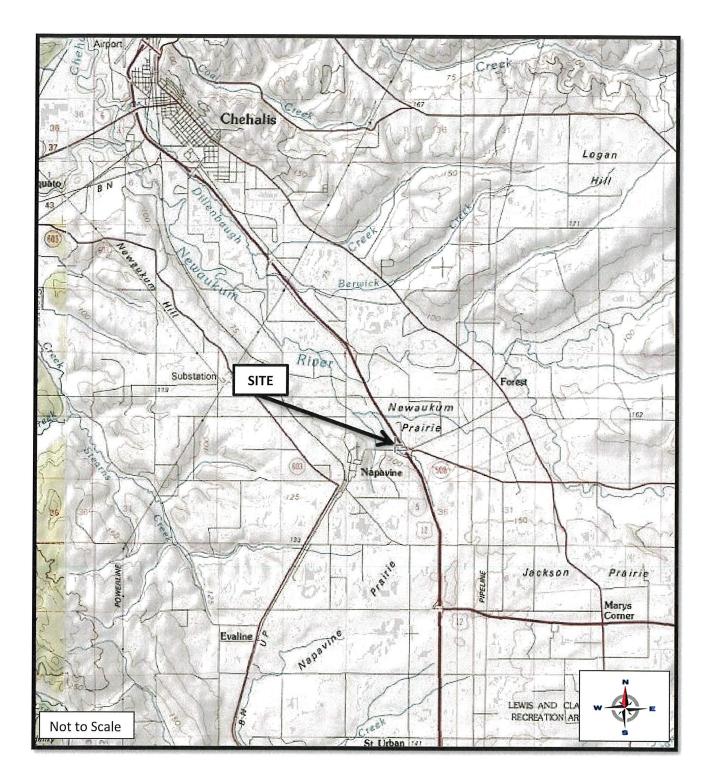
Washington Department of Fish and Wildlife Priority Habitat and Species (<u>http://apps.wdfw.wa.gov/phsontheweb/</u>).

# **FIGURES**

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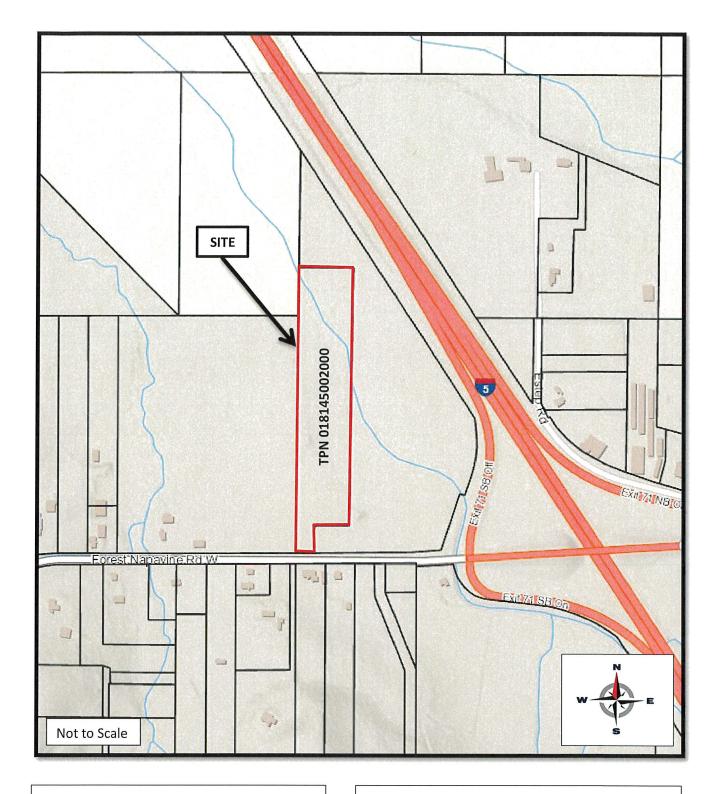
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Figure 1 – Site Location Map Figure 2 – Parcel Map Figure 3 - Site Map Figure 4 – Soils Map Figure 5 - National Wetlands inventory Map Figure 6 – Stream Map



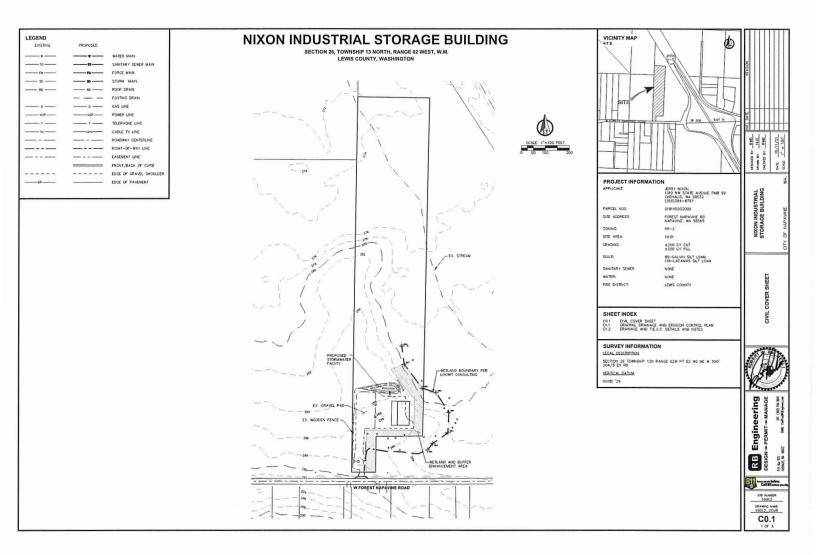
Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118

# Figure 1 Site Location Map Nixon Industrial Project



Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118

Figure 2 Parcel Map Nixon Industrial Project



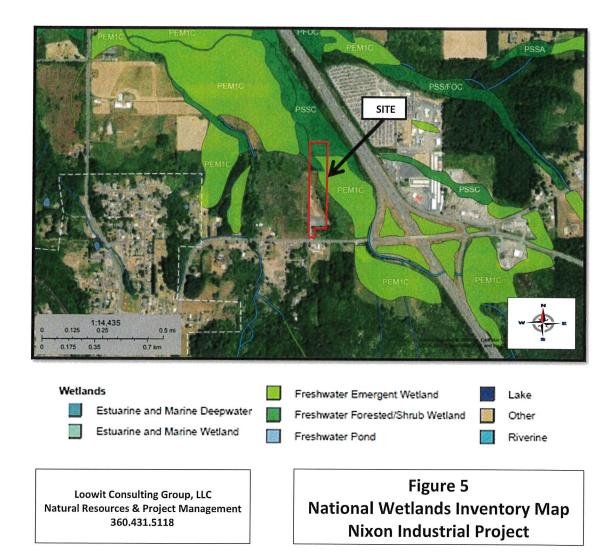
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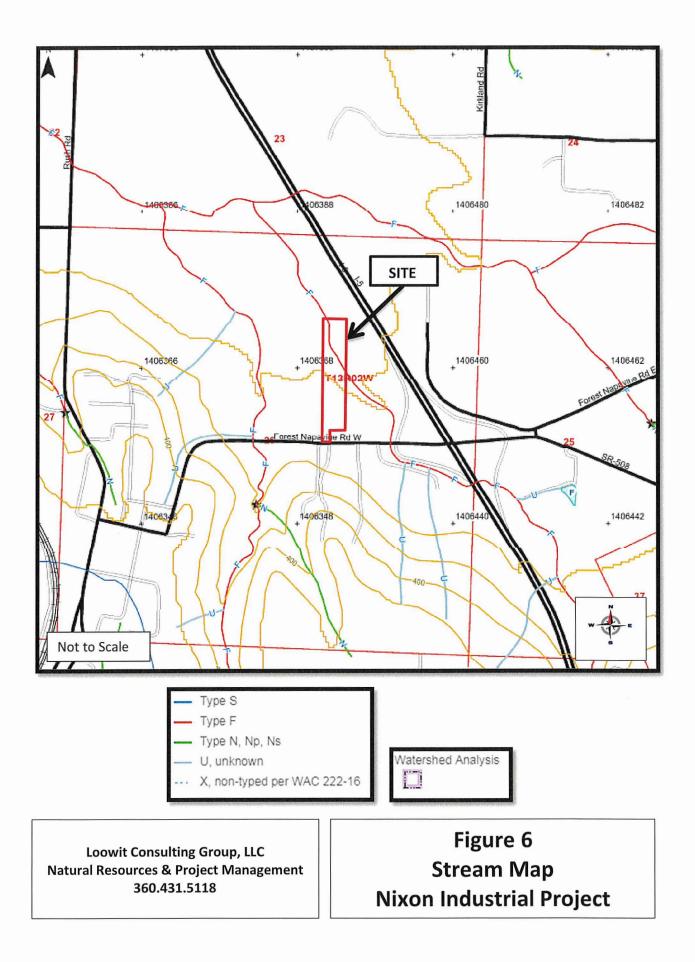
2



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
89	Galvin silt loam, 0 to 8 percent slopes	2.3	23.7%
118	Lacamas silt loam, 0 to 3 percent slopes	7.3	76.3%
Totals for Area of Interest		9.6	100.0%

Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118 Figure 4 Soils Map Nixon Industrial Project





# **APPENDIX A - DATA FORMS**

See data from Lewis Forestry LLC Report (October 2018)

# **APPENDIX B - WETLAND RATING SUMMARY**

# **RATING SUMMARY – Western Washington**

Name of wetland (or	ID #): Wetland "	A"		-		Date of site visit:	7/26/2021
Rated by T. Haderly	1	т	rained by E	cology? 🗹 Yes	s 🗌 No	Date of training	Dec-14
HGM Class used for rating _Depressional & Flats Wetland has multiple HGM classes? ☐ Yes ☑ No NOTE: Form is not complete with out the figures requested (figures can be combined). Source of base aerial photo/map Google Earth							
OVERALL WETLA	ND CATEGORY	II	_(based on	functions ⊡o	or special	characteristics	
1. Category of v	X Category Category	n FUNCTION I - Total score II - Total scor III - Total sco IV - Total sco	e = 23 - 27 e = 20 - 22 re = 16 - 19	)	1	Score for each function based on three ratings forder of ratings	
FUNCTION	Improving Water Quality	Hydrologic			i	is not important )	
	List app	propriate rating	; (H, M, L)				
Site Potential	М	Н	М		9	9 = Н, Н, Н	
Landscape Potential	Н	М	Н			3 = H, H, M	
Value	Н	L	Н	Total		7 = H, H, L	
Score Based on Ratings	8	6	8	22	7	7 = H, M, M 6 = H, M, L	
2. Category bas	ed on SPECIAL (	CHARACTE	RISTICS c	of wetland	5	5 = M, M, M 5 = H, L, L 5 = M, M, L 4 = M, L, L 3 = L, L, L	
CHARACTERISTIC			Category				
Estuarine	Estuarine						
	Wetland of High Conservation Value						
Bog Mature Fo	rost						
	Mature Forest Old Growth Forest						
Coastal Lagoon							

Interdunal

None of the above

Х

# 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	A3
Hydroperiods	D 1.4, H 1.2	A1
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	A1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	A1
Map of the contributing basin	D 4.3, D 5.3	A6
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	A2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	A4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	A5

**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 (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	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	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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 (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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 dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to another figure )		
Boundary of area within 150 ft of the wetland (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
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	

Wetland Rating System for Western WA: 2014 Update Rating Form - Effective January 1, 2015

## HGM Classification of Wetland in Western Washington

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

  - 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)
    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
  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;
  - $\Box$  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?
  - $\Box$  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.
  - 🗹 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.* 

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	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	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.

#### NOTES and FIELD OBSERVATIONS:

DEPRESSIONAL AND FLATS WETLANDS				
Water Quality Functions - Indicators that the site functions to impro	ove water quality			
D 1.0. Does the site have the potential to improve water quality?				
D 1.1. Characteristics of surface water outflows from the wetland:				
Wetland is a depression or flat depression (QUESTION 7 on key)				
with no surface water leaving it (no outlet).	points = 3			
Wetland has an intermittently flowing stream or ditch, OR highly				
constricted permanently flowing outlet.	points = 2	1		
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	• • • •			
that is permanently flowing	points = 1			
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	nainta - 1			
D 1.2. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic	points = 1			
	′es = 4 No = 0	0		
D 1.3. <u>Characteristics and distribution of persistent plants</u> (Emergent, Scrub-shrub				
Forested Cowardin classes):				
Wetland has persistent, ungrazed, plants > 95% of area	points = 5			
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area	points = 3	5		
Wetland has persistent, ungrazed plants $> 1/10$ of area	points = 1			
Wetland has persistent, ungrazed plants $< \frac{1}{10}$ of area	points = 0			
D 1.4. Characteristics of seasonal ponding or inundation:	penne e			
This is the area that is ponded for at least 2 months. See description in n	nanual.			
Area seasonally ponded is > $\frac{1}{2}$ total area of wetland	points = 4	2		
Area seasonally ponded is > $\frac{1}{4}$ total area of wetland	points = 2	_		
Area seasonally ponded is $< \frac{1}{4}$ total area of wetland	points = 0			
Total for D 1 Add the points in t		8		
	cord the rating on	the first page		
D 2.0. Does the landscape have the potential to support the water quality function	of the site?			
	′es = 1 No = 0	1		
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that				
	es = 1 No = 0	1		
D 2.3. Are there septic systems within 250 ft of the wetland? Y	es = 1 No = 0	1		
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?		0		
	es = 1 No = 0			
Total for D 2 Add the points in the points of the points o		3		
Rating of Landscape Potential If score is: $\bigcirc$ 3 or 4 = H $\bigcirc$ 1 or 2 = M $\bigcirc$ 0 = L Re	cord the rating on	the first page		
D 3.0. Is the water quality improvement provided by the site valuable to society?				
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0		
	es = 1 No = 0	U		
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 3	03(d) list?	1		
	es = 1 No = 0	1		
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		2		
	es = 2 No = 0			
Total for D 3 Add the points in the	ne boxes above	3		

DEPRESSIONAL AND FLATS WETLANDS					
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation					
D 4.0. Does the site have the potential to reduce flooding and erosion?					
D 4.1. Characteristics of surface water outflows from the wetland:					
Wetland is a depression or flat depression with no surface water					
leaving it (no outlet) points = 4					
Wetland has an intermittently flowing stream or ditch, OR highly	0				
constricted permanently flowing outlet points = 2	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					
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.					
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7					
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	3				
$\square$ 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					
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.					
$\Box$ The area of the basin is less than 10 times the area of the unit points = 5	3				
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					
Total for D 4 Add the points in the boxes above	8				
Rating of Site Potential If score is: $\Box 12 - 16 = H$ $\forall 6 - 11 = M$ $\Box 0 - 5 = L$ Record the rating on	the first page				
D 5.0. Does the landscape have the potential to support hydrologic function of the site?					
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0				
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	0				
Yes = 1 No = 0	_				
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human	0				
land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0				
	0				
Total for D 5 Add the points in the boxes above	0				
Rating of Landscape Potential If score is: $\Box 3 = H$ $\Box 1 \text{ or } 2 = M$ $\Box 0 = L$ Record the rating on	the first page				
D 6.0. Are the hydrologic functions provided by the site valuable to society?	Stand Street				
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. <u>Choose the highest</u>					
score if more than one condition is met.					
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):					
<ul> <li>Flooding occurs in a sub-basin that is immediately down- gradient of unit.</li> </ul>					
	0				
Surface flooding problems are in a sub-basin farther down- gradient. points = 1					
$\square$ 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. Explain why points = 0					
$\checkmark$ There are no problems with flooding downstream of the wetland. points = 0					
D 6.2. Has the site been identified as important for flood storage or flood	0				
conveyance in a regional flood control plan? Yes = 2 No = 0	0				
Total for D 6 Add the points in the boxes above	0				
Rating of Value If score is:       2 - 4 = H       1 = M       0 = L       Record the rating or Wetland Rating System for Western WA: 2014 Update					

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?	
<ul> <li>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.</li> <li>Aquatic bed 4 structures or more: points = 4 3 structures: points = 2 2 Scrub-shrub (areas where shrubs have &gt; 30% cover) 2 structures: points = 1 1 structure: points = 0 If the unit has a Forested class, check if:</li> </ul>	2
☐ 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         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       4 or more types present: points = 3	
☑ Seasonally flooded or inundated       3 types present: points = 2         ☑ Occasionally flooded or inundated       2 types present: points = 1         ☑ Saturated only       1 types present: points = 0         ☑ Permanently flowing stream or river in, or adjacent to, the wetland       Seasonally flowing stream in, or adjacent to, the wetland         ☑ Lake Fringe wetland       2 points         ☑ Freshwater tidal wetland       2 points	2
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. <b>Do not include Eurasian milfoil, reed canarygrass, purple</b> <b>Noosestrife, Canadian thistle</b>	1
f you counted: > 19 species points = 2 5 - 19 species points = 1	
< 5 species points = 0	
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)         s 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         MI three diagrams	3
n this row are HIGH = 3 points	

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number	
of points.	
✓ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
✓ Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or 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)	4
Stable steep banks of fine material that might be used by beaver or muskrat for denning	
(> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees	
that have not yet weathered where wood is exposed)	
At least 1/4 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> )	
$\Box$ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see	
H 1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	12

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

H 2.0. Does the landscape have the potential to support the habitat function of the site?				
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).				
Calculate:				
10 % undisturbed habitat + ( 25 % moderate & low intensity land uses / 2 ) = 22.5%				
If total accessible habitat is:	2			
$> 1/_3$ (33.3%) of 1 km Polygon points = 3				
20 - 33% of 1 km Polygon points = 2				
10 - 19% of 1 km Polygon points = 1				
< 10 % of 1 km Polygon points = 0				
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.				
Calculate:				
20 % undisturbed habitat + ( <u>30</u> % moderate & low intensity land uses / 2) = 35%				
	2			
Undisturbed habitat > 50% of Polygon points = 3	-			
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2				
Undisturbed habitat 10 - 50% and > 3 patches points = 1				
Undisturbed habitat < 10% of 1 km Polygon points = 0				
H 2.3 Land use intensity in 1 km Polygon: If				
> 50% of 1 km Polygon is high intensity land use points = (-2)	0			
$\leq$ 50% of 1km Polygon is high intensity points = 0				
Total for H 2 Add the points in the boxes above	4			
Pating of Landspane Potential If Saaro is: 24 6 - 4 2 - M 244 - 1 Poperd the retire on	11 51 1			

Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M <br/>C < 1 = L Record the rating on the first page

	H 3.0. Is the habitat provided by the site valuable to society?		a an the set
	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 .		
	Site meets ANY of the following criteria:	points = 2	
	It has 3 or more priority habitats within 100 m (see next page)		
	It provides habitat for Threatened or Endangered species (any plan	nt	
	or animal on the state or federal lists)		
	☐ It is mapped as a location for an individual WDFW priority species		2
	It is a Wetland of High Conservation Value as determined by the		2
	Department of Natural Resources		
	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		
	Site has 1 or 2 priority habitats (listed on next page) with in 100m	points = 1	
	Site does not meet any of the criteria above	points = 0	
	Rating of Value If Score is: 2 = H 1 = M 0 = L Record	the rating on	the first page
,		0	, 0

# WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (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.

<u>http://wdfw.wa.gov/publications/00165/wdfw00165.pdf</u>or access the list from here: <u>http://wdfw.wa.gov/conservation/phs/list/</u>

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: <u>Old-growth west of Cascade crest</u> 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. <u>Mature forests</u> 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.

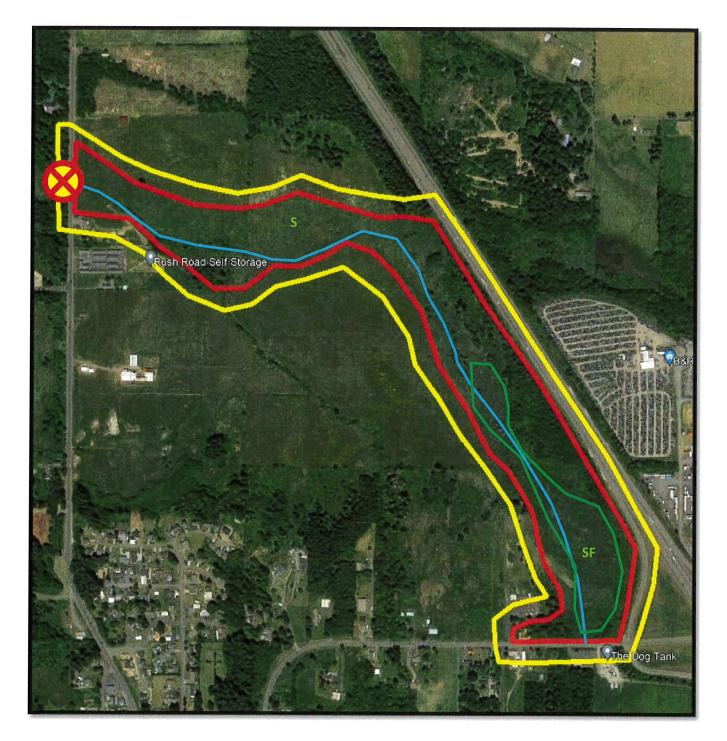
**Note**: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
Charlest	any arithmic that apply to the watland List the enteriory when the appropriate criteria are mat	
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
30 1.0.1	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	Yes - Go to SC 1.1	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	Internet of the operation of the second of the
00	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific	
	Reserve designated under WAC 332-30-151?	
	□ Yes = Category I □ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	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	
	Spartina, see page 25)	
	At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
	□ Yes = Category I □ No = Category II	
	Netlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list	
	of Wetlands of High Conservation Value?	
	□ Yes - Go to SC 2.2	
SC 2.2.		
	□ Yes = Category I □ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	□ Yes - Contact WNHP/WDNR and to SC 2.4 ☑ No = Not WHCV	
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?	
	□ Yes = Category I □ No = Not WHCV	
SC 3.0. I		
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation	
	in bogs? Use the key below. If you answer YES you will still need to rate the	
0004	wetland based on its functions.	
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?	
00000	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
SC 3.2.	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?	
	$\Box \text{ Yes - Go to SC 3.3} \qquad \Box \text{ No = Is not a bog}$	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
50 5.5.	level, AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	<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.	
SC 3.4.	Is an area with peats or mucks forested (> 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?	
	Yes = Is a Category I bog	
Wetland Ra	ating System for Western WA: 2014 Update	

Wetiand name or number: Wetland "A"

SC 4.0. Forested Wetlands         Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.         Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.         Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).         SC 5.0. Wetlands in Coastal Lagoons         Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholiy or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The wetland meet all of the following three conditions?         The wetland is a depression adjacent to diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         SC 5.1. Does the wetland meet all of the following three conditions?         The wetland is larger than $^1_{10}$ ac (4350 ft <sup>2</sup> )         The wetland is larger than $^1_{10}$ ac (4350 ft <sup>2</sup> )         The wetland is larger than $^1_{10}$ ac (4350 ft <sup>2</sup> )         The wetland is larger than $^1_{10}$ ac	0040		
criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.         Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.         Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).         Status for Castal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 pc) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         Wess - Go to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.0. Does the wetland meet all of the following three conditions?       The wetland is lacated age of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland is lacated age of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.       No = Category I         No wetland the tall of the following three conditions?       In practical terms that means the following degraphic areas:	SC 4.0.		
answer YES you will still need to rate the wetland based on its functions.         ○ Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (31 cm) or more.         ○ Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).         ○ Yes = Category I       ○ No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         ○ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         ○ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         ○ The wetland meet all of the following three conditions?         ○ The wetland is a latively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         ○ A tleast ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         ○ The wetland is larger than 1/ <sub>10</sub> ac (4350 ft <sup>2</sup> )         ○ Yes = Category I       No = Category II			
Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.         Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).            Yes = Category I       No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 pt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         SC 5.1. Does the wetland meet all of the following three conditions?         The wetland is relatively undisturbed (has no diking, ditching, filling, cutivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ½ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         Yes = Category I       No = Category II         Yes = Category I       No = Category II		criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you	
Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.         Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).            Yes = Category I       No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 pt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         SC 5.1. Does the wetland meet all of the following three conditions?         The wetland is relatively undisturbed (has no diking, ditching, filling, cutivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ½ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         Yes = Category I       No = Category II         Yes = Category I       No = Category II		answer YES you will still need to rate the wetland based on its functions.	
<pre>forming a multi-layered canopy with occasional small openings; with at least at reselac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).</pre>			
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(dbh) of 32 in (81 cm) or more.         Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).         Yes = Category I       No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 pt) during most of the year in at least a portion of the lagoon ( <i>needs to be measured near the bottom</i> )         Yes - Go to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland meet all of the following three conditions?         The wetland meet all of the following three conditions?       The wetland relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.       The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         SC 6.0. Interdunal Wetlands       Is the wetland subset of SR 103       Grayland-Westport: Lands west of SR 103         Grayland-Westport: La			
Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).			
200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).         □ Yes = Category 1 ○ No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons         □ Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         □ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         □ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 pt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         □ Yes - Go to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         □ At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         □ The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         □ Yes = Category 1       No = Category 1I         SC 6.0. Interdunal Wetlands         Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO?) <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i> In practical terms that means the following geographic areas:         Long Beach Peninsula: Lands west of SR 103 <td></td> <td></td> <td></td>			
exceeding 21 in (53 cm).         □ Yes = Category 1       ○ No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         □ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         □ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured neer the bottom)         □ Yes - Go to SC 5.1       ○ No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       □         □ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         □ At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         □ The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         □ Yes = Category I       ○ No = Category II         SC 6.0. Interdunal Wetlands       Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       □ Long Beach Peninsula: Lands west of SR 103		Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-	
Yes = Category I       No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         Yes = Go to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         Yes = Category I       No = Category II         SC 6.0. Interdunal Wetlands       Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO?) If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       Long Beach Peninsula: Lands west of SR 103         Grayland-Westport: Lands west of SR 115 and SR 109       Yes = Cot os C 6.1         SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat fun		200 years old OR the species that make up the canopy have an average diameter (dbh)	
Yes = Category I       No = Not a forested wetland for this section         SC 5.0. Wetlands in Coastal Lagoons       Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         Yes = Go to SC 5.1       No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         Yes = Category I       No = Category II         SC 6.0. Interdunal Wetlands       Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO?) If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       Long Beach Peninsula: Lands west of SR 103         Grayland-Westport: Lands west of SR 115 and SR 109       Yes = Cot os C 6.1         SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat fun		exceeding 21 in (53 cm).	
SC 5.0. Wetlands in Coastal Lagoons         Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 pt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         Yes - Go to SC 5.1       ⊡ No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland meet all of the following three conditions?         The wetland meet all of the following three conditions?       At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       Long Beach Peninsula: Lands west of SR 103         Grayland-Westport: Lands west of SR 115 and SR 109       Yes = Category I         We se Category I       No - Go to SC 6.2         SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is a tor larger?       Yes = Category II         SC 6.1. Interdunal Wetlands       No e Hot an interdunal wetland for rating SC 6.1. Is the wetland for a larger, or i			
SC 5.0. Wetlands in Coastal Lagoons         Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?         The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 pt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)         Yes - Go to SC 5.1       ⊡ No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       The wetland meet all of the following three conditions?         The wetland meet all of the following three conditions?       At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         The wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       Long Beach Peninsula: Lands west of SR 103         Grayland-Westport: Lands west of SR 115 and SR 109       Yes = Category I         We se Category I       No - Go to SC 6.2         SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is a tor larger?       Yes = Category II         SC 6.1. Interdunal Wetlands       No e Hot an interdunal wetland for rating SC 6.1. Is the wetland for a larger, or i		☐ Yes = Category I ☑ No = Not a forested wetland for this section	
<ul> <li>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</li> <li>The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>Yes - Go to SC 5.1</li> <li>No = Not a wetland in a coastal lagoon</li> <li>SC 5.1. Does the wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>The wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i></li> <li>In practical terms that means the following geographic areas:</li> <li>Long Beach Peninsula: Lands west of SR 115 and SR 109</li> <li>Yes = Category I</li> <li>No - Go to SC 6.2</li> <li>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</li> <li>Yes = Category I</li> <li>No - Go to SC 6.3</li> <li>Sc 6.3. Is the unit that or larger, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</li> <li>Yes = Category II</li> <li>No = Category IV</li> </ul>	SC 5.0.		
<ul> <li>□ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>□ The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>□ Yes - Go to SC 5.1</li> <li>□ No = Not a wetland in a coastal lagoon</li> <li>SC 5.1. Does the wetland meet all of the following three conditions?</li> <li>□ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).</li> <li>□ At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.</li> <li>□ The wetland is larger than <sup>1</sup>/<sub>10</sub> ac (4350 ft<sup>2</sup>)</li> <li>□ Yes = Category I</li> <li>□ No = Category II</li> <li>SC 6.0. Interdunal Wetlands         <ul> <li>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i></li> <li>In practical terms that means the following geographic areas:</li> <li>Long Beach Peninsula: Lands west of SR 103</li> <li>□ Grayland-Westport: Lands west of SR 105</li> <li>□ Ocean Shores-Copalis: Lands west of SR 105</li> <li>□ Ocean Shores-Copalis: Lands west of SR 105</li> <li>□ Category I</li> <li>□ No - Go to SC 6.2</li> </ul> </li> <li>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</li> <ul> <li>□ Yes = Category II</li> <li>□ No - Go to SC 6.2</li> <li>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in</li></ul></ul>		-	
separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks         □       The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon ( <i>needs to be measured near the bottom</i> )         □       The vestion of the year in at least a portion of the lagoon ( <i>needs to be measured near the bottom</i> )         □       The vestion of the year in at least a portion of the lagoon ( <i>needs to be measured near the bottom</i> )         □       The wetland meet all of the following three conditions?         □       The wetland meet all of the following three conditions?         □       The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         □       At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         □       The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         □       Yes = Category I       No = Category II         SC 6.0. Interdunal Wetlands       Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       Long Beach Peninsula: Lands west of SR 103         □       Grayland-Westport: Lands west of SR 115 and SR 10			
rocks         □ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon ( <i>needs to be measured near the bottom</i> )         □ Yes - Go to SC 5.1       ⊡ No = Not a wetland in a coastal lagoon         SC 5.1. Does the wetland meet all of the following three conditions?       □         □ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).         □ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.         □ The wetland is larger than <sup>1</sup> / <sub>10</sub> ac (4350 ft <sup>2</sup> )         □ Yes = Category I       No = Category II         SC 6.0. Interdunal Wetlands       Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i> In practical terms that means the following geographic areas:       □         □ Long Beach Peninsula: Lands west of SR 103       □         □ Grayland-Westport: Lands west of SR 115 and SR 109       □         □ Yes - Go to SC 6.1       ☑ No - Go to SC 6.2         SC 6.1. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?       □         □ Yes = Category I       □ No - Go to SC 6.3         SC 6.2. Is the wetland 1 ac o			
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Yes = Category I       No = Category II         SC 6.0. Interdunal Wetlands       Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.         In practical terms that means the following geographic areas:       Long Beach Peninsula: Lands west of SR 103         Grayland-Westport: Lands west of SR 105       Ocean Shores-Copalis: Lands west of SR 115 and SR 109         Yes = Go to SC 6.1       No = Not an interdunal wetland for rating         SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?       No - Go to SC 6.2         SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?       Yes = Category II       No - Go to SC 6.3         SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?       Yes = Category III       No = Category IV		grazed or un-mowed grassland.	
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<ul> <li>Yes - Go to SC 6.1</li></ul>			
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?       □ Yes = Category I       □ No - Go to SC 6.2         SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?       □ Yes = Category II       □ No - Go to SC 6.3         SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?       □ Yes = Category III       □ No = Category IV         Category of wetland based on Special Characteristics			
(rates H,H,H or H,H,M for the three aspects of function)? □ Yes = Category I □ No - Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? □ Yes = Category II □ No - Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? □ Yes = Category III □ No = Category IV Category of wetland based on Special Characteristics	SC 6.1		
□ Yes = Category I       □ No - Go to SC 6.2         SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?       □ Yes = Category II         □ Yes = Category II       □ No - Go to SC 6.3         SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?       □ Yes = Category III         □ Yes = Category III       □ No = Category IV         Category of wetland based on Special Characteristics			
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II □ No - Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III □ No = Category IV Category of wetland based on Special Characteristics			
□ Yes = Category II       □ No - Go to SC 6.3         SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?       □ Yes = Category III         □ Yes = Category III       □ No = Category IV         Category of wetland based on Special Characteristics	0000		
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV Category of wetland based on Special Characteristics	50 0.2.		
1 ac? Yes = Category III No = Category IV Category of wetland based on Special Characteristics			
□ Yes = Category III       □ No = Category IV         Category of wetland based on Special Characteristics       □	SC 6.3.		
Category of wetland based on Special Characteristics			
		□ Yes = Category III □ No = Category IV	
	Categor	y of wetland based on Special Characteristics	
	-		

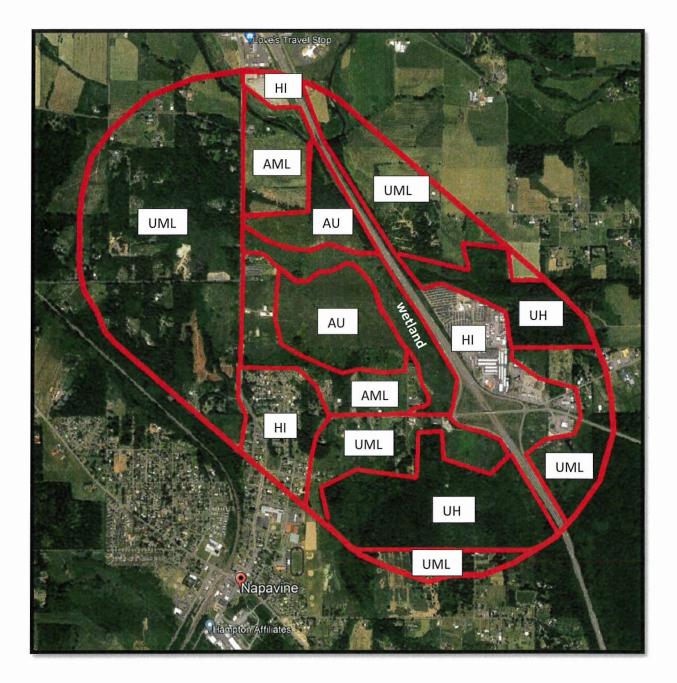


Not to Scale

SF = Seasonally Flooded, S = Saturated Permanently Flowing Stream 150 Foot Perimeter Outlet

> Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118

Figure A1 Hydroperiods Nixon Property



#### Accessible Habitat

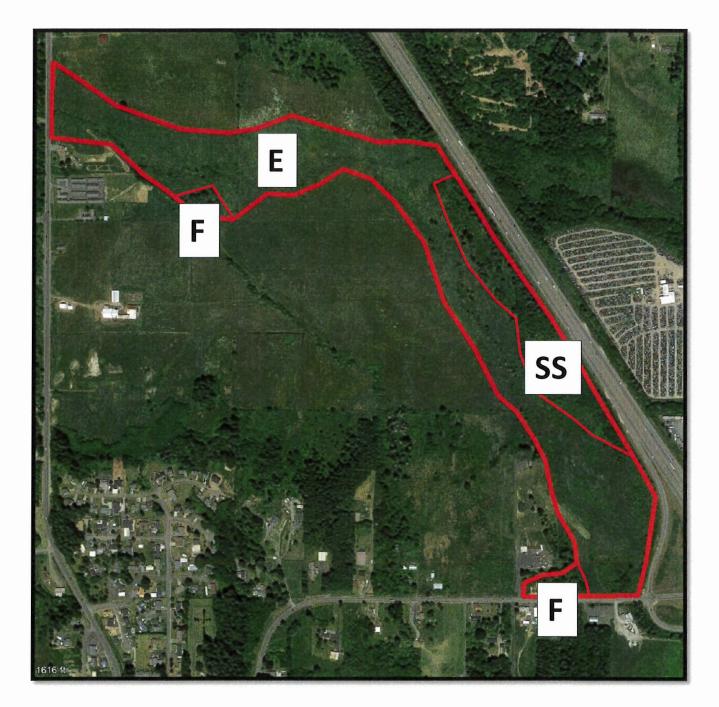
10% Undisturbed (AU)25% Moderate & Low Intensity Land Use/2 = (AML)

#### Undisturbed Habitat

20% Undisturbed (UH)30% Moderate & Low Intensity Land Use/2 = (UML)

High Intensity = HI (15%)

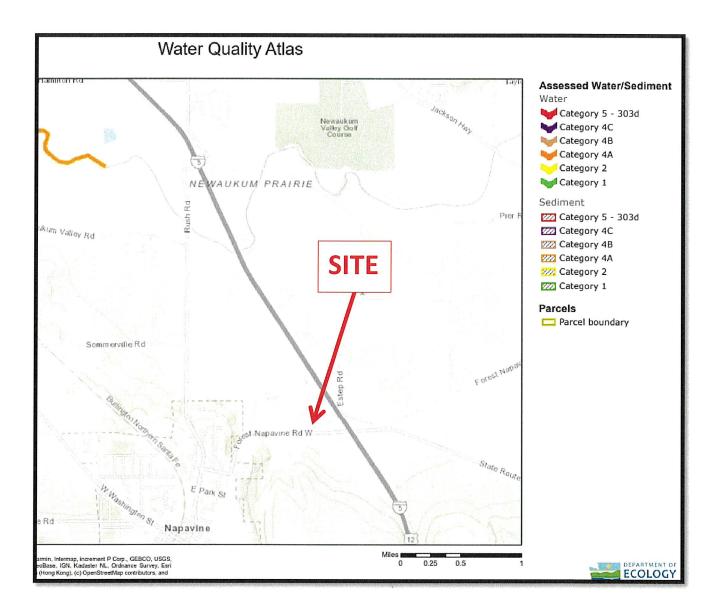
Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118 Figure A2 1km Polygon Nixon Property



F = Forested SS = Scrub Shrub E = Emergent

> Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118

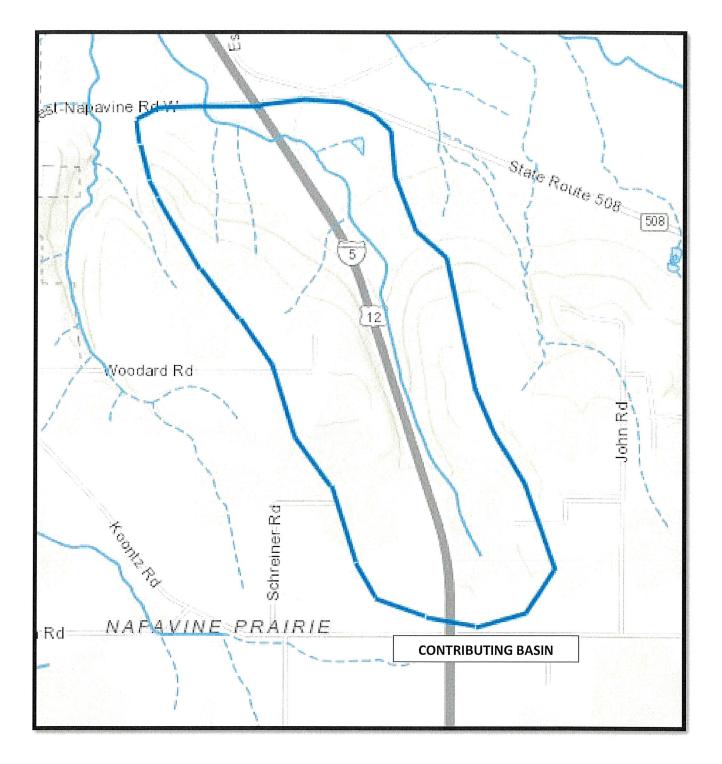
Figure A3 Cowardin Plant Classes Nixon Property



Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118 Figure A4 303(d) Listed Waters Nixon Property

Search Results Waterbody Name	- 3 Matched Listings	WQ Improvement Project
NEWAUKUM RIVER		Upper Chehalis River Basin Temperature TMDL
NEWAUKUW RIVER	23 - Upper Chehalis	
NEWAUKUM RIVER	23 - Upper Chehalis	Upper Chehalis River Basin Dissolved Oxygen TMDL
NEWAUKUM RIVER	23 - Upper Chehalis	Upper Chehalis River Bacteria TMDL
(New Search) (1	Modify Search) (Export)	

Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118 Figure A5 TMDL Nixon Property



Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118 Figure A6 Contributing Basin Nixon Property **APPENDIX C – CLIMATOLOGICAL SUMMARY** 

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# 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	E.
	2021/08/25	25	44.9	59.5	75.4	49.9	73.6	0.04	SW	3.0	13.2	72.9	68.0	69.5	20.8	0.00	17.83	0.13	0.
	2021/08/26	26	57.6	62.8	71.2	54.4	74.4	0.00	SW	4.1	13.9	72.8	69.4	70.0	20.8	0.00	9.91	0.10	0.
	2021/08/27	27	52.4	62.7	72.6	51.8	69.6	0.01	W	3.5	12.1	72.1	68.8	69.6	20.7	0.00	14.70	0.11	0. <sup>.</sup>
	2021/08/28	28	46.3	63.8	80.0	50.2	66.0	0.03	Ν	3.3	14.6	73.7	68.0	69.5	20.7	0.00	21.85	0.15	0.
	2021/08/29	29	48.5	63.7	82. <mark>1</mark>	51.8	69.0	0.04	NW	3.6	14.2	74.9	68.6	70.2	20.8	0.00	21.83	0.16	0.:
	2021/08/30	30	48.0	57.0	67.5	48.3	74.3	0.02	SW	4.0	14.2	70.4	69.0	70.0	20.7	0.00	11.37	0.09	0.'
	2021/08/31	31	44.4	54.5	65.4	47.1	77.9	0.06	SW	3.4	13.2	66.4	67.4	68.3	20.4	0.01	12.60	0.09	0.
	2021/09/01	1	42.6	57.0	73.0	45.1	69.8	0.05	Ν	3.5	17.1	68.9	65.5	66.9	20.3	0.00	20.42	0.13	0.1
	2021/09/02	2	42.4	61.1	79.3	46.6	65.2	0.04	Ν	2.9	15.7	70.8	65.8	67.4	20.4	0.00	21.26	0.15	0.1
	2021/09/03	3	43.5	61.5	81.7	46.5	64.5	0.04	Ν	2.1	9.2	70.4	66.6	68.0	20.4	0.00	17.42	0.13	0.1
	2021/09/04	4	46.4	63.5	83.4	51.7	70.2	0.03	SW	2.7	12.4	72.0	66.8	68.2	20.4	0.00	16.81	0.13	0.1
	2021/09/05	5	59.5	67.0	79.4	57.7	73.5	0.01	SW	3.5	13.5	76.4	68.7	69.7	20.6	0.00	17.21	0.14	0.1
	2021/09/06	6	53.6	64.8	78.3	51.8	64.9	0.00	Ν	3.6	11.0	76.5	69.5	70.8	20.7	0.00	20.55	0.15	0.
	2021/09/07	7	48.6	66.4	85.4	52.0	64.1	0.02	Ν	2.9	14.2	75.0	69.2	70.7	20.7	0.00	19.29	0.15	0.1
_	2021/09/08	8	58.6	69.3	83.9	56.1	64.3	0.00	SW	3.5	12.4	78.0	70.2	71.5	20.8	0.00	18.90	0.15	0.:



April 25, 2022

Mr. Robert Balmelli RB Engineering, Inc. PO Box 923 Chehalis, WA 98532

RE: Forensic Wetland Evaluation Nixon North Property – 665 W. Forest Napavine Road – Napavine, Washington.

Dear Mr. Balmelli,

Loowit Consulting Group, LLC (LCG) has completed a forensic wetland evaluation on an existing 58'x60' gravel pad on the north end of the Nixon Property located at 665 W. Forest Napavine Road east of Napavine, Washington. This evaluation was conducted to determine if the fill pad was constructed within jurisdictional wetland according to the City of Napavine Critical Areas code.

#### **CURRENT SITE CONDITIONS**

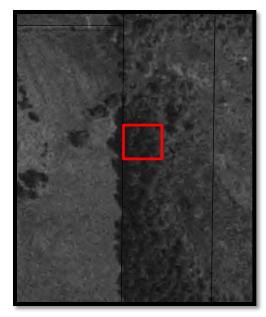
The existing northern pad consists of an 85' x 60' level gravel pad accessed via a single lane gravel topped driveway extending south from Forest Napavine Road along the western property boundary. The pad sits on a slight rise sloping to the north, east, and west into mowed grassy areas. Several mature Douglas fir trees are located north and east of the pad before transitioning into wetland areas. The wetland boundaries as readily identifiable based on slope of the land and change in vegetation.

#### **AERIAL PHOTOGRAPH ANALYSIS**

Several aerial photographs were analyzed to help determine if the area of the northern fill pad could have been jurisdictional wetland prior to construction of the pad.

#### 1996 Photograph

This photograph, from Lewis County GIS, shows the entire are vegetated with mature trees most likely Douglas fir based on the composition of the tree canopy compared to existing Douglas fir trees next to the pad. Based on his photograph, it appears that the area of the northern pad is upland.



1996 (Lewis County GIS)

#### 2003 Photograph

This photograph, from Lewis County GIS, shows the entire are vegetated with mature trees most likely Douglas fir based on the composition of the tree canopy compared to existing Douglas fir trees next to the pad.



2003 (Lewis County GIS)

#### 2006 Photograph

This photograph, from Lewis County GIS, shows most of the Douglas fir trees removed but no other construction evident. There is no observable evidence that the cleared area is or was jurisdictional wetland.



2006 (Lewis County GIS)

#### 2021 Photograph

This photograph, from Google Earth Pro, shows most of the Douglas fir trees and understory vegetation removed and the northern pad constructed. There is no observable evidence that the cleared area is or was jurisdictional wetland.



2021 (Google Earth Pro)

#### **FIELD INVESTIGATIONS**

On April 23, 2022, LCG visited the northern fill pad area to conduct a forensic wetland analysis beneath the gravel pad. Three shallow test holes were excavated with a small excavator to collect data on soil and hydrology (Photographs 1 & 2). Soils within the test pits below the gravel were predominately silt loam with no gravel and no redoximorphic features in the upper profile. There was no evidence of saturation or free water within 24 inches of the ground surface.

#### <u>Test Pit 1</u>

- 1-7 Angular Gravel, no water
- 7-15 Silt loam, color 10YR3/3, no redoximorphic features, no water
- 15-23 Silt loam, 10YR5/2, large/many depletions (10YR4/6), no water

#### Test Pit 2

- 1-8 Angular Gravel, no water
- 8-16 Silt loam, color 10YR3/3, no redoximorphic features, no water
- 16-24 Silt loam, 10YR5/2, large/many depletions (10YR4/6), no water

#### <u>Test Pit 3</u>

1-7 Angular Gravel, no water
7-16 Silt loam, color 10YR3/3, no redoximorphic features, no water
16-24 Silt loam, 10YR5/2, large/many depletions (10YR4/6), no water

In summary, the soils below the gravel are not hydric in the upper profile and have some redoximmorphic features in the lower profile. Due to the fact that the upper sod and soil was removed prior to placing the gravel, it is safe to assume that the original soil profile from ground to 12+ inches did not exhibit hydric soil features.

Vegetation around the perimeter of the pad consists of typical mowed lawn grass, scotch broom, and upland weed species (Photographs 2, 3, 4). No hydrophytic vegetation was located between the pad and the wetland boundary to the north and east.

No saturated soils or shallow groundwater was observed on the three test pits excavated in the pad.



Photograph 1: Existing pad with excavated test holes. Looking northeast with mature Douglas fir in uplands and well-defined wetlands in the background.



Photograph 2: Existing pad with excavated test holes. Looking southwest.



Photograph 3: Existing pad to the left and upland areas to the right and in the background with Douglas fir.



Photograph 4: Existing pad to the left and upland areas to the right and in the background with Douglas fir.

#### **FINDINGS AND CONCLUSIONS**

Based on a review of historic aerial photographs, wetland mapping resources, contour mapping, LIDAR mapping, excavated test pits, and other on-site observations; it is the opinion of LCG that the northern pad was not constructed in current or historic jurisdictional wetlands.

If you have questions you can contact us at 360.431.5118 or thaderly42@gmail.com.

Sincerely,

Timothy J. Haderly Principal Scientist/Owner

#### **Limitations**

The findings and conclusions contained in this document were based on information and data available at the time the 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.

# Wetland Buffer Mitigation Plan for 665 Forest Napavine Road Napavine, Washington

Prepared for: Jerry Nixon 1310 NW State Avenue, PMB99 Chehalis, WA 98532

Project # 112.13

Prepared by: Loowit Consulting Group, LLC 312 Gray Road Castle Rock, WA 98611 360.431.5118 Thaderly42@gmail.com



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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:

Mint ). Hay

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

# **INTRODUCTION**

## **Purpose and Need**

Loowit Consulting Group, LLC (LCG) was retained by Jerry Nixon (Applicant/Owner) to complete a wetland buffer mitigation plan to compensate for a permanent impact to wetland buffers from the construction of a shop building and associated parking area (Figure 1 & 2). LCG investigated impacts to wetland buffers from the parking area and designed a mitigation plan to compensate for the impacts under *Napavine Development Code (NDC) 14.010.120.E*.

# **Site Description**

The subject site consists of a single parcel totaling approximately 10 acres of residential property. Site specifics include:

<u>Site Address</u> :	665 Forest Napavine Road Napavine, WA
Current Owner:	Nixon, Jerry D
Tax Parcel Number:	018145002000
Legal Description:	Section 26, Township 13 North, Range 2 West, W.M.
Property Size:	10.010 acres
Jurisdiction:	City of Napavine

The subject site is located north of Forest Napavine Road which is situated northeast of Napavine, Washington (Figure 1). The subject site consists of a relatively flat property with an existing gravel driveway and elevated gravel pad on the southern third (Study Area) of the subject site (Photograph 1). The northern portion of the subject site, which is outside the study area, is vegetated with immature mixed forest, shrub and pasture lands (Photograph 2). Access to the site is via an all-weather gravel driveway off Forest Napavine Road.

# **MITIGATION PLAN**

#### **Assessment of Impacts**

The existing rock pad and associated parking area impacted approximately 37,500 sq ft of wetland buffer (Figure 3).

Mitigation of impacts buffers is required using a 1:1 mitigation ratio is required for permanent impacts to buffers as summarized in Table 1.

Impact Area	Impact Type	Direct Impact sq ft <sup>A</sup>	Location of Mitigation	Recommended Ratio <sup>B</sup>
Wetland Buffer	Understory Vegetation Removal and Conversion to Rock Pad (existing)	37,500	On-Site	1:1

Table 1: Impact Summary and Mitigation Ratios

<sup>A</sup> Based on site design by RB Engineering.

<sup>B</sup> A minimum 1:1 ratio is required for impacts to buffers

# **Mitigation Approach**

Impacts to wetland buffers will be mitigated by the installation of native plants as summarized in Table 3 and depicted on Figure 3. The proposed buffer mitigation area was selected because the area is devoid of tree/shrub vegetation, is located very close to the impact area, is owned by the applicant, and can be easily accessed for long-term maintenance. The selected mitigation area is approximately 37,500 sq ft in size and is currently a mowed grass maintained area up to the wetland boundary (Table 2).

#### Table 2: Mitigation Summary

Location	Impact Type	Direct Impact sq ft <sup>A</sup>	Proposed Mitigation	Mitigation Size Sq ft
Wetland Buffer	Understory Vegetation Removal and Conversion to Parking Area (existing)	~37,500	Install native trees and shrubs	~37,500

In addition to the installation of native trees and shrubs in the wetland buffer, the following additional mitigation measures will be implemented as much as practicable:

1. Fencing – a wildlife migration friendly fence will be installed along the landward edge of the enhanced buffer adjacent to the existing gravel pad.

- 2. Lights All outdoor lighting near the wetland buffer will directed away from the buffer, shielded to reduce scattered light.
- 3. Noise Noise will be reduced by implementation of standard daytime hours of operation for the store. Site design focuses most of noise generating activity, vehicle traffic, well away from the wetland buffer area.
- 4. Pets and Human Disturbance Fencing and signage will be used to restrict pedestrian and pet encroachment into the wetland buffer and wetland area.
- 5. Existing Runoff Storm water will be collected and treated via and engineered system as required by local regulations.
- 6. Change in Water Regime See Bullet #5.

# **Buffer Signs**

All-weather signs will be placed every 100 linear feet along the outer buffer boundary and anchored a minimum 4 feet above ground elevation on all-weather posts (Figure 3A). Signs will be designed in conformance with design requirements of the City of Napavine.

# **Construction Sequencing**

The following sequencing will be applied during the course of utilizing the area for mitigation:

- 1. Native trees and shrubs installed.
- 2. Buffer signage installed.
- 3. Periodic maintenance as described in the Monitoring and Maintenance Plan section of this report.

# **Planting Specifications**

Plantings will consist of native trees and shrubs similar to those found in the local area within Lewis County (Table 3).

Species	Size	Spacing	Туре	Estimated # of Plants
TREES				
Shore Pine (Pinus contorta)	18-24" high	14 ' oc	Bareroot or container	200
Douglas Fir (Pseudotsuga menziesii)	18-24" high	14' oc	Bareroot or Container	100
Big Leaf Maple (Acer macrophyllum)	18-24" high	14' oc	Bareroot or Container	50
Sitka Willow (Salix sitchensis)	24-36" high	6' oc	Livestake	300
Snowberry (Symphoricarpos albus)	18-24" high	6'ос	Bareroot or Container	100

 Table 3: Enhancement Plantings (Approximately 37,500 sq ft)

Nootka Rose (Rosa nutkana)	18-24" high	6' oc	Bareroot or Container	100
Oceanspray	18-24" high	Class	Bareroot or	100
(Holodiscus discolor)		6'oc	Container	100
Western Hazelnut	18-24" high	6' oc	Bareroot or	100
(Corylus cornuta)		light out	Container	100
Tall Oregon Grape	10.24" bigb	6'oc	Bareroot or	100
(Physocarpus capitatus)	18-24" high		Container	
			Sub Total:	1150

# **Plant Material Specifications**

## **Bare Root Stock**

- 1. 12 to 18+ inch high bare root stock will be purchased from a native plant nursery.
- 2. Stock will be kept cool and moist prior to being planted.
- 3. Stock will have well-developed roots and sturdy stems.
- 4. Unplanted stock will be properly stored at the end of each day.

### **Containers**

- 1. 1 or 2 gallon container stock will be purchased from a native plant nursery.
- 2. Stock will be kept cool and moist prior to being planted.
- 3. Stock will have well-developed roots and sturdy stems.
- 4. Unplanted stock will be properly stored at the end of each day.

### Live Stakes

- 1. Live stakes will be cut from on-site local sources.
- 2. Live stakes will be a minimum of 24 to 36 -inches long minimum 0.5-inch diameter.
- 3. Live stakes will be kept cool and moist prior to being planted.
- 4. Live stakes should be installed within 1 to 2 days of cutting.
- 5. Plant live stakes with a metal bar or push cutting into soft soil so 1/3 of the cutting is in the ground.
- 6. Unplanted live stakes will be properly stored at the end of each planting day.

## Planting Implementation

- 1. Plants will be installed in the fall (October-November) or early spring (March- April) according to specifications listed in Table 3. Spacing of the plants will be somewhat irregular and in groups to create heterogeneity.
- 2. A minimum 2-foot diameter circle at each planting location will be thoroughly grubbed before plant installation to help control completion from weeds.
- 3. Bare root and container stock will be hand planted with a tree shovel or comparable tool.
- 4. Bare root stock will be placed in excavated holes so that their roots are able to extend down entirely and do not bend upward or circle inside the hole (no "J" or "U" roots).

- 5. Root crowns will be at or slightly above the level of the surrounding soil.
- 6. Soil around the planted species will be firmly compacted to eliminate air spaces.

## **Goals, Objectives, and Performance Standards**

The goal of the wetland buffer enhancement will be to increase functions and values over current conditions by the installation of native trees and shrubs by maintaining plants for a minimum 5 years. To accomplish these goals, the following objectives and performance standards are appropriate to ensure the success of the restoration area (Table 4):

<u>Objective 1</u>. Restore native vegetation to wetland buffers devoid of trees and shrubs (Approximately 37,500 sq ft).

<u>Performance Standard 1a</u>: In Year 0, install native plants <u>Performance Standard 1b</u>: In Year 0, install buffer signs

Performance Standard 2a: In Year 1, establish 3 (three) permanent monitoring stations

<u>Performance Standard 2b</u>: In Year 1, installed plantings meet 100% survival <u>Performance Standard 2c</u>: In Year 1, invasive species <10%

Performance Standard 3a: In Year 2, installed plantings meet 100% survival Performance Standard 3b: In Year 2, invasive species <10%

<u>Performance Standard 4a</u>: In Year 3, installed plantings meet 100% survival <u>Performance Standard 4b</u>: In Year 3, invasive species <10%

<u>Performance Standard 5a</u>: In Year 5, installed plantings meet 100% survival <u>Performance Standard 5b</u>: In Year 5, invasive species <10%

Year	Objective	Performance Standard
7oro 1		1a – Install native plants
Zero	T	<ul> <li>1b – Install buffer signs</li> </ul>
		• 2a – Establish three (3) monitoring stations.
One	1	<ul> <li>2b – Plantings meet 100% survival</li> </ul>
		<ul> <li>2c – Invasive species &lt;10%</li> </ul>
Tura	T	<ul> <li>3a – Plantings meet 100% survival</li> </ul>
Two	T	<ul> <li>3b – Invasive species &lt;10%</li> </ul>
Three	1	<ul> <li>4a – Plantings meet 100% survival</li> </ul>
Three 1	T	<ul> <li>4b – Invasive species &lt;10%</li> </ul>
Fine	1	<ul> <li>5a – Plantings meet 100% survival</li> </ul>
Five	Ţ	<ul> <li>5b – Invasive species &lt;10%</li> </ul>

 Table 4: Performance Standard Summary

# **Monitoring and Maintenance Plan**

The revegetated area will be monitored for a 5-year period following project construction, in Years 1, 2, 3, & 5. Monitoring reports will be submitted to City of Napavine by December 31<sup>st</sup> of each monitored year. The as-built report will be submitted to City of Napavine no more than 60 days after complete installation of the restoration project contained in the necessary drawing. The mitigation area will be monitored once a year during the growing season, between March 15 and May 15 (Table 5). Three (3) monitoring and photo stations will be established to document the plant growth over time. Individual plants will be counted and recorded each monitoring year to assess the percentage survival rate; plants will be replaced as-needed.

Description of the monitoring approach and methods. For each performance standard being measured the following information will be provided in the monitoring reports:

- a) Description of the sampling technique (e.g., monitoring point for soil or hydrology, line or point intercept method, ocular estimates in individually placed plots). If you are using a standardized technique, provide a reference for that method.
- b) Size and shape of plots or transects.
- c) Number of sampling locations and how you determined the number of sampling locations to use.
- d) Percent of the mitigation area being sampled.
- e) Locations of sampling (provide a map showing the locations), how locations were determined where to place the sampling locations (e.g., simple random sample), and whether they are permanent or temporary.
- f) Schedule for sampling (how often and when).
- g) Description of how the data was evaluated and analyzed.

Year	Task	Reporting
Zero	<ul> <li>Install plantings</li> </ul>	<ul> <li>Progress letter to City within 60 days of complete installation</li> </ul>
One	<ul> <li>Routine maintenance</li> <li>Replace dead plants</li> <li>Monitor site between March 15 and May 15</li> </ul>	<ul> <li>Year one monitoring report to City by December 31<sup>st</sup></li> <li>As-built drawing to City by December 31<sup>st</sup></li> </ul>
Two	<ul> <li>Routine maintenance</li> <li>Replace dead plants</li> <li>Remove invasive plant species</li> <li>Monitor site between March 15 and May 15</li> </ul>	<ul> <li>Year two monitoring report to City by December 31<sup>st</sup></li> </ul>
Three	<ul> <li>Routine maintenance</li> <li>Replace dead plants</li> <li>Remove invasive plant species</li> <li>Monitor site between March 15 and May 15</li> </ul>	<ul> <li>Year three monitoring report to City by December 31<sup>st</sup></li> </ul>
Four	<ul> <li>Routine maintenance</li> <li>Replace dead plants</li> <li>Remove invasive plant species</li> </ul>	• Year four monitoring report to City by December 31 <sup>st</sup>
Five	<ul> <li>Routine maintenance</li> <li>Replace dead plants</li> <li>Remove invasive plant species</li> <li>Monitor site between March 15 and May 15</li> </ul>	<ul> <li>Year five monitoring report to City by December 31<sup>st</sup></li> </ul>

## Table 5: Maintenance, Monitoring, and Reporting Summary

# As-Built Report Contents

The as-built report will contain at least the following: <u>Background Information</u>

- 1. Project name
- 2. Name and contact information of the person preparing the as-built report. Also, if different from the person preparing the report, include the names of:
  - a. The landowner
  - b. Wetland professional on site during construction of the mitigation site(s)
- 3. Date the report was produced

## Mitigation Project Information

- 1. Brief description of the final mitigation project with any changes from the approved plan made during construction.
- 2. Description of any problems encountered and solutions implemented (with reasons for changes) during construction.
- 3. List of any follow-up actions needed, with a schedule.
- 4. Vicinity map showing the geographic location of the site(s) with landmarks.
- 5. Mitigation site map(s), 8-1/2" x 11" or larger, showing the following:
  - a. Boundary of the site(s).
  - b. Installed planting scheme (quantities, densities, sizes, and approximate locations of plants, as well as the source(s) of plant material).
  - c. Location of permanent photo stations and any other photos taken. Include the month and year when each map was produced or revised. The site map(s) should reflect on-the-ground conditions after the site work is completed
- 6. Photographs taken at permanent photo stations and other photographs, as needed. Photos must be dated and clearly indicate the direction from which each photo was taken. Photo pans are recommended.
- 7. A copy of any deed notifications, conservation easements, or other approved site protection mechanism.

# **Monitoring Report Contents**

The annual monitoring reports will contain at least the following: Background Information

- 1. Project name
- 2. Name and contact information of the person preparing the as-built report. Also, if different from the person preparing the report, include the names of:
  - a. The landowner
  - b. Wetland professional on site during construction of the mitigation site(s)
- 3. Dates the monitoring data were collected
- 4. Date the report was produced

Mitigation Project Information

- 1. Brief description of the mitigation project
- 2. Description of the monitoring approach and methods. For each performance standard being measured provide the following information:
  - Description of the sampling technique (e.g., monitoring point for soil or hydrology, line or point intercept method, ocular estimates in individually placed plots). If you are using a standardized technique, provide a reference for that method
  - b. Size and shape of plots or transects
  - c. Number of sampling locations and how you determined the number of sampling locations to use
  - d. Percent of the mitigation area being sampled

- e. Locations of sampling (provide a map showing the locations), how you determined where to place the sampling locations (e.g., simple random sample), and whether they are permanent or temporary
- f. Schedule for sampling (how often and when)
- g. Description of how the data were evaluated and analyzed
- 3. Summary table(s) comparing performance standards with monitoring results and whether each standard has been met.
- 4. Discussion of how the monitoring data were used to determine whether the site is meeting performance standards.
- 5. Goals and objectives and a discussion of whether the project is progressing toward achieving them.
- 6. Summary, including dates, of management actions implemented at the site (e.g., maintenance and corrective actions).
- 7. Summary of any difficulties or significant events that occurred on the site that may affect the success of the project.
- 8. Specific recommendations for additional maintenance or corrective actions with a timetable.
- 9. Photographs taken at permanent photo stations and other photographs, as needed. Photos must be dated and clearly indicate the direction the camera is facing. Photo pans are recommended.
- 10. Vicinity map showing the geographic location of the site(s) with landmarks.
- 11. Mitigation site map(s), 8-1/2" x 11" or larger, showing the following:
  - a. Boundary of the site.
  - b. Location of permanent photo stations and any other photos taken.
  - c. Data sampling locations, such as points, plots, or transects.
  - d. Approximate locations of any replanted vegetation.
  - e. Changes to site conditions since the last report, such as a change in water regime.

Include the month and year when each map was produced or revised. The site map(s) should reflect on-the-ground conditions during the most recent monitoring year

## **Site Protection**

The mitigation area will be owned, maintained, and managed by the current property owner, unless otherwise assigned. The property owner will be responsible for maintenance and monitoring of the restoration areas for the 10-year period. Signage will be installed along the outer perimeter of the wetland buffers area at 100-foot intervals and will be maintained by the property owner to raise awareness and help limit disturbances.

## **Maintenance Plan**

Maintenance at the mitigation area may involve removing invasive species, re-installing failed plants, as necessary.

If any part of the mitigation plan failing or the performance standards are not met, steps will be taken to rectify the situation in a timely manner. The following steps will be implemented when an area is identified as failing or potentially failing:

- 1. Identify the cause(s) of the failure or potential failure.
- 2. Identify the extent of the failure or potential failure.
- 3. Implement corrective actions by replanting.
- 4. Document the activities and include this data in the annual monitoring and maintenance reports.
- 5. Consult with the appropriate agencies in the event that a routine corrective action will not correct the problem.
- 6. Evaluate recommendations from resource agency staff and implement recommendations in a timely manner.

# **Contingency Plan**

If the performance standards are not met after ten years following project completion, a contingency plan will be developed and implemented. All contingency actions will be undertaken only after consulting and gaining approval from City of Napavine. A contingency plan will include: (1) the causes of failure, (2) proposed corrective actions, (3) a schedule for completing corrective actions, and (4) whether additional maintenance and monitoring are necessary.

## **Surety Agreement**

As required by *NDC 14.010.120.E.12.f*, the applicant will secure a bond or other secure financial guarantee to install the plants, maintain the plants, monitor the plants, and provide annual reports to the City for a five-year period.

Task	Estimated Cost
Plants and install	\$3,000
Five year maintenance	\$2,000
Five year monitoring and reporting	\$2,500
Internal Contingency	\$1,000
Total	<u>\$8,500</u>

## Table 6: Surety Budget Summary

# 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.

City of Napavine Codes

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. U.S. Army Corps of Engineers Waterways Experiment Station. Technical Report Y-87-1. January 1987.

Hruby, T. 2014. Washington State Wetland Rating System for Western Washington: 2014 Update. (Publication #14-06-029). Olympia, WA: Washington Department of Ecology.

U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Army Corps of Engineers. 2007. U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook. 5/30/2007.

US Department of Agriculture Natural Resources Conservation Service Web Soil Survey (<u>https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx</u>).

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

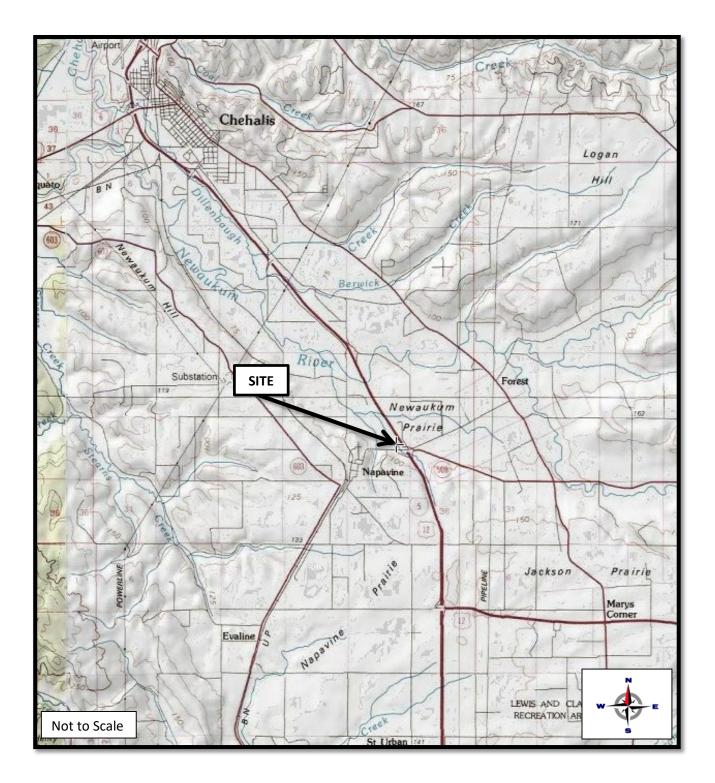
Washington Department of Natural Resources Forest Practices Application Mapping Tool (<u>https://fpamt.dnr.wa.gov/default.aspx</u>).

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

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

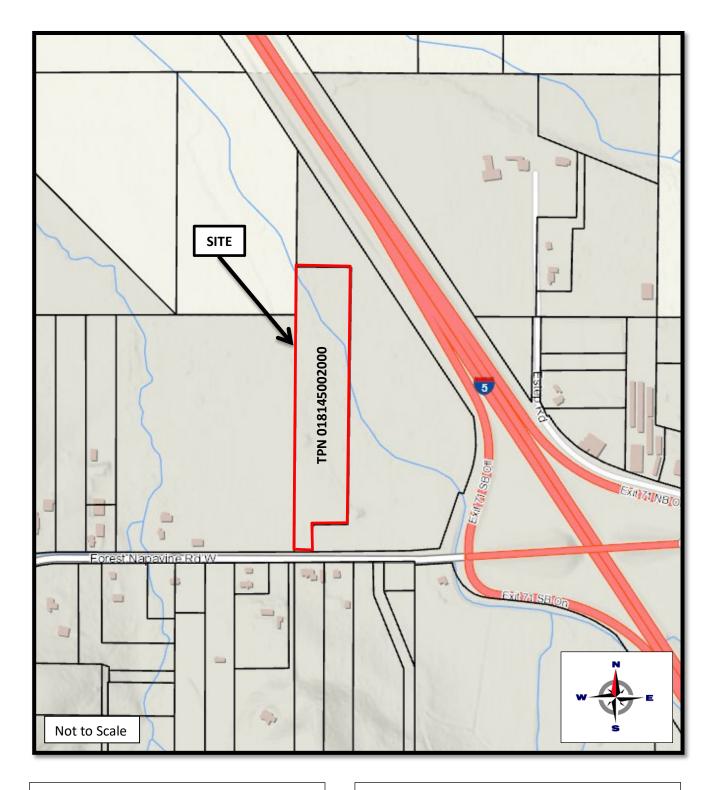
# FIGURES

Figure 1 – Site Location Map Figure 2 – Parcel Map Figure 3 – Site Map



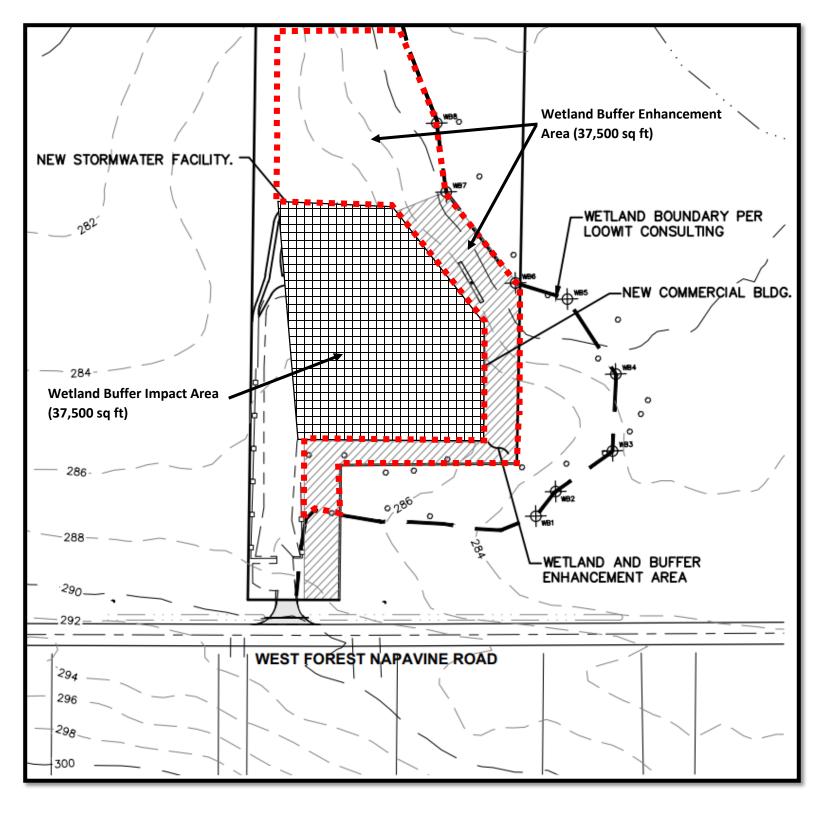
Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118

# Figure 1 Site Location Map Nixon Industrial Project



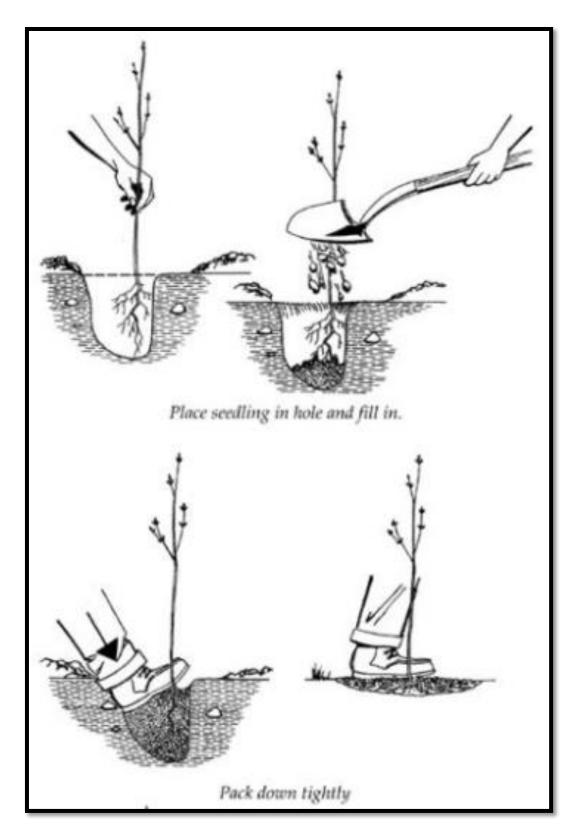
Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118

Figure 2 Parcel Map Nixon Industrial Project

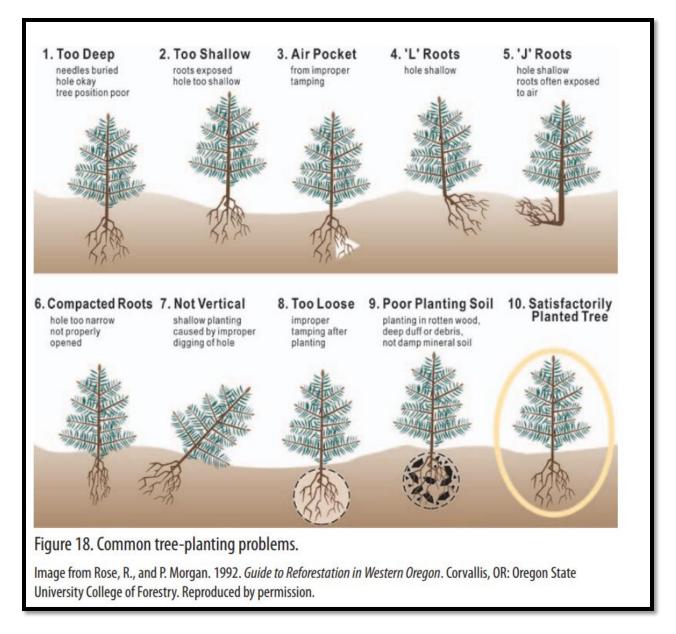


Loowit Consulting Group, LLC Natural Resources & Project Management 360.431.5118 Figure 3 Site Map Nixon Industrial Project

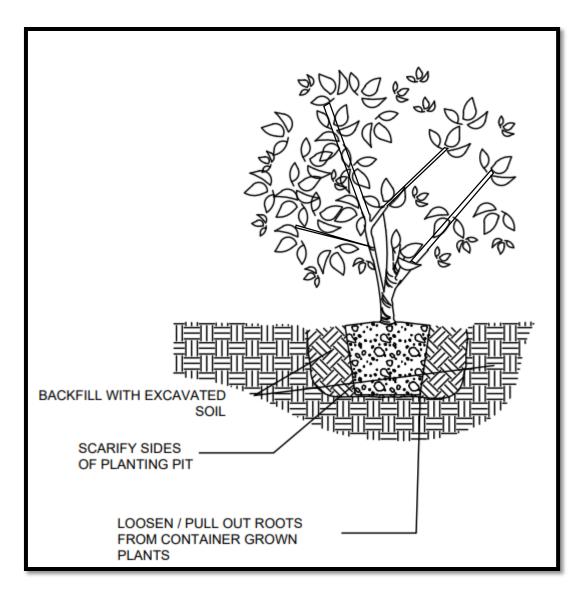
# **ATTACHMENT A - Planting and Signage Details**



**Detail #1 – Bare-root Plant Installation Procedure** 



# **Detail #2 – Common Tree Planting Problems**



**Detail #3 – Container Planting Procedure** 

Neal & Pat Amos 668 Forest Napavine Rd. W. Chehalis, Washington 98532 360.520.9053

August 28, 2022

City of Napavine 407 Birch Ave. SW P.O. Box 810 Napavine, Washington 98565

ATTN: Bryan Morris, Public Works Director

RE: Nixon Industrial Building Development Proposal Jerry Nixon - Nixon Construction Public Hearing August 29, 2022 6:00 p.m.

As we are the closest resident family affected, which is directly across the street from the proposed new location of Nixon Construction, we would like the City Planning Commission to know WE DO NOT HAVE A PROBLEM WITH THIS PROPOSED MOVE. Actually we see the positives of this relocation as an asset. A new building and parking lot, wetland mitigation, landscaping of the location and grading. Mr. Nixon is prepared to meet the reasonable requirements as required. These are all assets to the community and our immediate local area and should be welcomed by the Planning Commission.

In looking into this relocation we have to ask why the Planning Commission would not approve this move. This business is merely moving 1/4 mile west and would definitely be a boost for this business thus the City of Napavine receiving additional business revenue.

We sincerely hope that the Napavine City Planning Commission approve this application.

Sincerely,

Amos Amos

Neal A Amos Patricia C Amos

Neal & Pat Amos 668 Forest Napavine Rd. W. Chehalis, Washington 98532 360.520.9053

August 29, 2022

City of Napavine 407 Birch Ave. SW P.O. Box 810 Napavine, Washington 98565

ATTN: Bryan Morris, Public Works Director

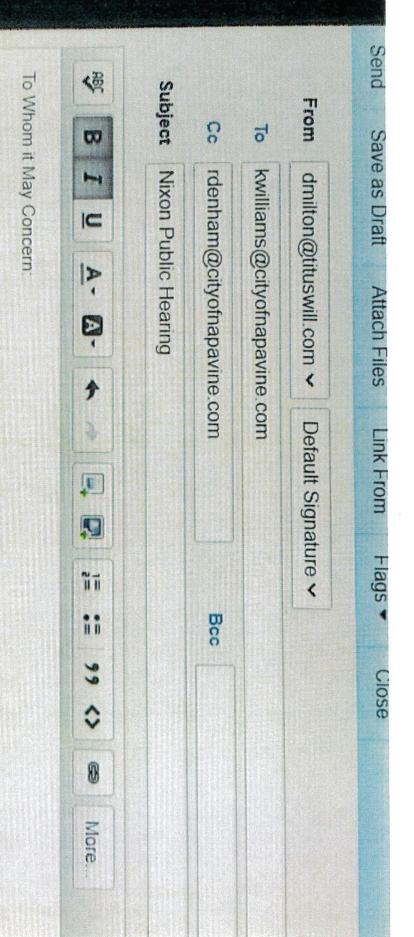
**RE: Nixon Industrial Building Development Proposal** 

It has been brought to our attention that not all residents of Forest Napavine Rd. W. have been notified via letter/mail regarding the Nixon Development to be located at 665 Forest Napavine Rd. W. I have made these phone calls myself. Residents at the following locations have been contacted via message/text and I am waiting to hear back from one of the residents. I have not been able to contact all the residents on Forest Napavine Rd. W. as people are not home. Those listed below are the closest to the proposed development.

Larry and Audrey Hawk 638 Forest Napavine Rd. W. Chehalis, WA		No Letter Received YES ON NIXON DEVELOPMENT.
David and Heather Milton 652 Forest Napavine Rd. W. Chehalis, WA	360.520.9721 Sending email.	Letter Received. Can't make it to the meeting. You may call. YES ON NIXON DEVELOPMENT.
Jon & Krystal Valasquez 662 Forest Napavine Rd. W. Chehalis, WA	<u>Waiting for respon.</u>	se. Update at meeting 8/29/22
Reece & Kiersten Phrehm 656 Forest Napavine Rd. W. Chehalis, WA	Email attached. Email at hearing.	No Letter Received YES ON NIXON DEVELOPMENT.

Sincerely,

Pat Amos



and upgrades to exit 71 area will be very nice to see and I have no issues with Apex Concrete (Nixon Construction) building or upgrading to their property which is adjacent to mine RD W. I live at 652 Forest Napavine RD W and aware of the location of this potential build. Small improvem I will not be to attend tonight's hearing at 6:00 in regards to Apex Concrete building a structure on Forest Nac

Please feel to contact me at the numbers below if you have any further concerns regarding this matter

Dave Milton Wholesale Manager

Titus-Will GM-Hyundai 360-357-5521 360-528-9721 Cell

## **Katie Williams**

From: Sent: To: Subject: kiersten milton <kierstentaylor@live.com> Monday, August 29, 2022 1:36 PM Katie Williams; Rachelle Denham Nixon Public Hearing

### **CAUTION:** External Email

To whom it may concern,

My husband and I are unable to make the public hearing @6pm tonight regarding Apex concrete moving to 665 Forest Napavine Rd W. We are for it and have no concerns. We live at 656 Forest Napavine RD W, and do not have any complaints about Apex Concrete moving in across the street. If there is anything further we can comment on please give us a call (360)964-0259.

Thanks, Kiersten Milton & Reece Prehm

## **Katie Williams**

From: Sent: To: Cc: Subject: Dave Milton <dmilton@tituswill.com> Monday, August 29, 2022 1:56 PM Katie Williams Rachelle Denham Nixon Public Hearing

#### **CAUTION:** External Email

To Whom it May Concern:

I will not be to attend tonight's hearing at 6:00 in regards to Apex Concrete building a structure on Forest Napavine RD W. I live at 652 Forest Napavine RD W and aware of the location of this potential build. Small improvements and upgrades to exit 71 area will be very nice to see and I have no issues with Apex Concrete (Nixon Construction) building or upgrading to their property which is adjacent to mine.

Please feel to contact me at the numbers below if you have any further concerns regarding this matter.

Dave Milton

Wholesale Manager

Titus-Will GM-Hyundai 360-357-5521 360-528-9721 Cell

\*Check out our new website\* https://tituswillwholesale.com

#### **Katie Williams**

From:	Flannery Publications <flanneryads@yahoo.com></flanneryads@yahoo.com>
Sent:	Friday, August 19, 2022 9:10 AM
То:	Katie Williams
Subject:	Re: City of Napavine - Nixon Public Hearing Advertisement

#### **CAUTION:** External Email

Hi there, it's booked and ready to run 08.24.22, uploaded to FB and Karen will post it on our website. Thanks, Alisa

On Thursday, August 18, 2022 at 10:47:37 AM GMT-8, Katie Williams <kwilliams@cityofnapavine.com> wrote:

Alisa,

Can you please run this public hearing advertisement in the next edition of the newspaper and online/fb asap?

Thank you,

Katie Williams

**Community Development/Public Works** 

**Executive Assistant** 

**City of Napavine** 

(360) 262-9344

(360) 262-9199-fax

Disclaimer: Public documents and records are available to the public as provided under the Washington State Public Records Act (RCW 42.56). This e-mail may be considered subject to the Public Records Act and may be disclosed to a third-party requestor.

#### SEPA Environmental Checklist – 2016 Version

#### Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization of compensatory mitigation measure will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

#### Instructions for applicants: [help]

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision making process.

The checklist questions apply to <u>all parts of your proposal</u>, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

#### Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make and adequate threshold determination. Once the threshold determinate is made, the leas agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

#### Use of checklist for non-project proposals: [help]

For non project proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the <u>SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D)</u>. Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site," should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B – Environmental Elements – that do not contribute meaningfully to the analysis of the proposal.

## A. BACKGROUND [help]

1. Name of proposed project, if applicable: [help]

Nixon Industrial Building

RBE Project No. 19012

2. Name of applicant: [help]

Jerry Nixon Nixon Construction

3. Address and phone number of applicant and contact person: [help]

PMB #99, 1310 NW State Ave Chehalis, WA 98532 (360) 304-8797 4. Date checklist prepared:[help]

March 11, 2019

5. Agency requesting checklist: [help]

City of Napavine

6. Proposed timing or schedule (including phasing, if applicable): [help]

The project is scheduled to begin construction end of 2021.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]

No.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]

Wetland Delineation Report performed by Loowit Consulting.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]

No applications pending.

10. List any government approvals or permits that will be needed for your proposal, if known. [help]

This project will include the following permits: SEPA Environmental Review, Fill and Grade Permit, Building Permit.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]

Proposed is the construction of a 5,000 square foot prefabricated metal industrial storage building located on the east side of an existing gravel pad. The existing pad will be fine graded to slope to new stormwater facilities north of the exisitng pad location. A concrete apron will also be constructed in front of the building.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]

Property Address(s) is 0 Forest Napavine Rd, Napavine WA 98565, Parcel No.(s) 018145002000, Section 26, Township 13N, Range 02W, W.M.

#### B. ENVIRONMENTAL ELEMENTS [help]

#### 1. Earth

- a. General description of the site [help] (select one): Sopes, mountainous, other:
- b. What is the steepest slope on the site (approximate percent slope)? [help]

Steepest slope onsite is approximately 8%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long term commercial significance and whether the proposal results in removing any of these soils. [help]

Based on the NRCS Soils Data the following soils are present on the project site: 89 - Galvin Silt Loam, 118 - Lacamas Silt Loam.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]

No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill. [help]

The site will include approximately 200 CY of cut and 200 CY of fill. Material will be from a local DNR approved mining operation for the initial site work associated with the new building construction. Approximately 800 CY of fill was placed without a permit and is being included in this application. The future site filling will be included approximately 2400 CY of gravel or native earth fill.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]

Yes, However a Stormwater Pollution Prevention Plan (SWPPP) will be prepared that outlines approriate Best Management Practices to control and contain any sediment migration within the project limits.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]

Approximately 16 percent of the property will be covered with impervious surfaces once all site filling has been completed.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help]

Best Management Practices will be used to prevent and contain erosion onsite during construction. The projects SWPPP requires that a Certified Erosion and Sediment Control Lead (CESCL) monitoring the site during construction.

#### 2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]

Normal emissions assoicated with construction equipment combustion engine exhaust and possible dust emissions will be generated during the construction phase of the project. Once the project is completed, public and commercial vehicle emmissions will be generated.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]

None.

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]

The project SWPPP will include a BMP to control dust that is appropriate for the size and scope of the project.

#### 3. Water

a. Surface Water: [help]

DNR Stream Classification Mapping Website https://fpamt.dnr.wa.gov/default.aspx

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [help]

Per DNR website, there is an unnamed Type F classified stream that runs across the northern portion of the project site approximately 300 feet away from construction activities. A wetland was also identified along the eastern property line. A copy of the wetland report is provided with this SEPA.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [help]

Yes.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help]

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help]

No.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [help]

No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [help]

No.

b. Ground Water:

 Will ground water be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to ground water? Give general description, purpose, and approximate quantities if known. [help]

#### No well is proposed for the site development.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help]

None. No septic system is proposed for the site development. Site is only a storage building and gravel yard area.

- c. Water runoff (including stormwater):
  - Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]

The project will create new impervious surface that will generate stormwater runoff. The runoff will be conveyed to the stormwater facility. The stormwater facility will discharge runoff to the natural drainage course. Discharged stormwater will eventually reach the unnamed Type F stream 350 feet from the discharge point.

2) Could waste materials enter ground or surface waters? If so, generally describe. [help]

No.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

The project will incorporate a SWPPP and stormwater design that provides water quality and flow control facilities to mitigate the impacts to surface and ground waters.

#### 4. Plants [help]

a. Check or circle types of vegetation found on the site:

⊠deciduous tree: □alder, ⊠maple, □aspen, ⊠other: *Oak* 

 $\boxtimes$  evergreen tree:  $\boxtimes$  fir,  $\square$  cedar,  $\square$  pine,  $\square$  other:

⊠shrubs

⊠grass

pasture

Crop or grain

Orchards, vineyards or other permanent crops

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other:

water plants: water lily, eelgrass, milfoil, other:

Other types of vegetation:

b. What kind and amount of vegetation will be removed or altered? [help]

Approximately 0.15 acres of vegetation will be removed to construct this proposed building. Only field grasses will be removed from the site.

c. List threatened or endangered species known to be on or near the site. [help]

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [help]

Disturbed pervious surfaces will be seeded with native grass mix for stabalization.

e. List all noxious weeds and invasive species known to be on or near the site:

None Known.

#### 5. Animals

Washington Endangered Species Website https://wdfw.wa.gov/conservation/endangered/

a. <u>List</u> any birds and <u>other</u> animals which have been observed on or near the site or are known to be on or near the site: Examples include: [help]

birds: Ahawk, heron, eagle, songbirds, other: mammals: deer, bear, elk, beaver, other: fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site. [help]

None Known.

c. Is the site part of a migration route? If so, explain. [help]

Yes, Pacific Flyway Migration Route.

d. Proposed measures to preserve or enhance wildlife, if any: [help]

None.

e. List any invasive animal species known to be on or near the site:

None.

#### 6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]

Electricity will be used for completed project.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help]

The project building design will utilize the latest IBC and Energy Codes to provide an energy efficient facility.

#### 7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]

No.

1) Describe any known or possible contamination at the site from present or past uses:

None.

2) Describe existing hazardous chemical/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity:

None.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project:

None.

4) Describe special emergency services that might be required.

None.

5) Proposed measures to reduce or control environmental health hazards, if any:

None.

#### b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]

Commercial and passenger vehicular traffic noise from the adjacent public road and Interstate 5.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [help]

Short Term: Construction noise from equipment and building construction. Long Term: Commercial and personal vehicles accessing the completed project.

3) Proposed measures to reduce or control noise impacts, if any: [help]

Construction will be limited to Monday through Friday, 7:30 AM to 4:30 PM

#### 8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]

The site is currently vacant land. Adjacent properties to the east, west and north are vacant land and properties to the south are residential.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to non-farm or non-forest use? [help]

No.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling and harvesting? If so, how:

No.

c. Describe any structures on the site. [help]

None.

d. Will any structures be demolished? If so, what? [help]

No.

e. What is the current zoning classification of the site? [help]

The project site is currently zoned Commercial Industrial.

f. What is the current comprehensive plan designation of the site? [help]

Urban.

g. If applicable, what is the current shoreline master program designation of the site? [help]

Not applicable.

h. Has any part of the site been classified as critical area by the city or county? If so, specify. [help]

Yes, wetlands and hydric soils are present on project site.

i. Approximately how many people would reside or work in the completed project? [help]

None.

- j. Approximately how many people would the completed project displace? [help] None.
- k. Proposed measures to avoid or reduce displacement impacts, if any: [help]

None.

I. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]

Industrial Storage is allowed use at the site and on adjacent parcels. Building is set back behind offsite vegetation that provide some screening.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None.

#### 9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]

#### TO BE COMPLETED BY APPLICANT

#### None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]

None.

c. Proposed measures to reduce or control housing impacts, if any: [help]

None.

#### 10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]

The proposed Industrial building will be approximately 25-feet at the peak.

b. What views in the immediate vicinity would be altered or obstructed? [help]

None.

c. Proposed measures to reduce or control aesthetic impacts, if any: [help]

None.

#### 11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]

None.

b. Could light or glare from the finished project be a safety hazard or interfere with views? [help]

No.

c. What existing off-site sources of light or glare may affect your proposal? [help]

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

#### 12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]

Multiple Napavine community parks are located within a mile and a half of the project site.

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]

No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]

None.

#### 13. Historic and cultural preservation

State Historical Preservation Office (SHPO) WISAARD: https://fortress.wa.gov/dahp/wisaardp3/

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help]

Research of available public resources did not produce any structures over 45 years old.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries, Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]

Research of available public resources did not produce any known registers.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archeological surveys, historic maps, GIS data, etc. [help]

Review of the online search engine WISAARD on the Washington State Department of Historic Preservation website.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

None.

#### 14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]

The projecct site will be accessed via W. Forest Napavine Road.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

No, nearest transit stop is 3.9 miles away.

TO BE COMPLETED BY APPLICANT

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]

The existing gravel pad will provide approximately 0.75 acres of space for storage parking.

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]

No.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]

No.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non- passenger vehicles). What data or transportation models were used to make these estimates? [help]

The project will generate approximately 5 trips per day.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

h. Proposed measures to reduce or control transportation impacts, if any: [help]

No, existing access provides adequate access to the public road.

#### 15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]

None.

b. Proposed measures to reduce or control direct impacts on public services, if any. [help]

None.

#### 16. Utilities

a. Select utilities currently available at the site: [help]

⊠electricity, □natural gas, □water, ⊠refuse service, ⊠telephone, □sanitary sewer, □septic system, □other:

#### TO BE COMPLETED BY APPLICANT

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]

Sewer Service - None proposed Water Service - None proposed Gas Service - Puget Sound Energy Phone Service - Centurylink Cable Service - Directv Power - Lewis County PUD

# C. SIGNATURE [HELP]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Name of signee: ROBEET BALMERLI
Name of signee: RV122KI BALM ELL
2
Position and Agency/Organization:
Date Submitted: 11-3-21