

**FW: NEXT First Open Record Submittal (App DR 21-03; V 21-05 and CU 21-04) Email 1**

Stephenson, Garrett H. <GStephenson@SCHWABE.com>

Wed 1/26/2022 4:49 PM

To: Jacyn Normine <Jacyn.Normine@columbiacountyor.gov>

Cc: ePermits - Planning <planning@columbiacountyor.gov>

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you are expecting this email and/or know the content is safe.



Jacyn:

Please see the submittal below. Thanks!

**Garrett H. Stephenson**

Shareholder

Direct: 503-796-2893

Mobile: 503-320-3715

[gstephenson@schwabe.com](mailto:gstephenson@schwabe.com)

**Schwabe Williamson & Wyatt**

[Please visit our COVID-19 Resource page](#)

**From:** Stephenson, Garrett H.

**Sent:** Wednesday, January 26, 2022 4:41 PM

**To:** 'planning@columbiacountyor.gov' <planning@columbiacountyor.gov>

**Cc:** Jesse Winterowd <jesse@winterbrookplanning.com>; 'Robin McIntyre'

<Robin.McIntyre@columbiacountyor.gov>; Robert Wheeldon <Robert.Wheeldon@columbiacountyor.gov>;

'Christopher Efirid' <chris@nextrenewables.com>; Brian Varricchione (BVarricchione@mcknze.com)

<BVarricchione@mcknze.com>; Gene Cotten <gene@nextrenewables.com>; Laurie Parry

<Laurie@stewardshipsolutionsinc.com>

**Subject:** NEXT First Open Record Submittal (App DR 21-03; V 21-05 and CU 21-04) Email 1

To Whom it may Concern:

Please find attached NEXT's first open record submittal, which includes additional factual testimony. This is the first of a few emails, given the size of some of the files. Please confirm that you have received this, include this in the official record, and place it before the Board.

Thank you,

**Garrett H. Stephenson**

Shareholder

Direct: 503-796-2893

Mobile: 503-320-3715

[gstephenson@schwabe.com](mailto:gstephenson@schwabe.com)

**[Schwabe Williamson & Wyatt](#)**

[Please visit our COVID-19 Resource page](#)

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# MACKENZIE.

January 26, 2022

Columbia County Board of Commissioners  
County Courthouse, Room 338  
230 Strand Street  
St. Helens, OR 97051

Re: **NEXT Renewable Fuels Design Review, Variance, and Conditional Use Permit (DR 21-03, V 21-05, & CU 21-04)**  
*Response to January 18, 2022 DLCD Comments Regarding Farm Impacts Test*  
Project Number 2200315.00

Dear Chair Heimuller, Vice Chair Garrett, and Commissioner Magruder:

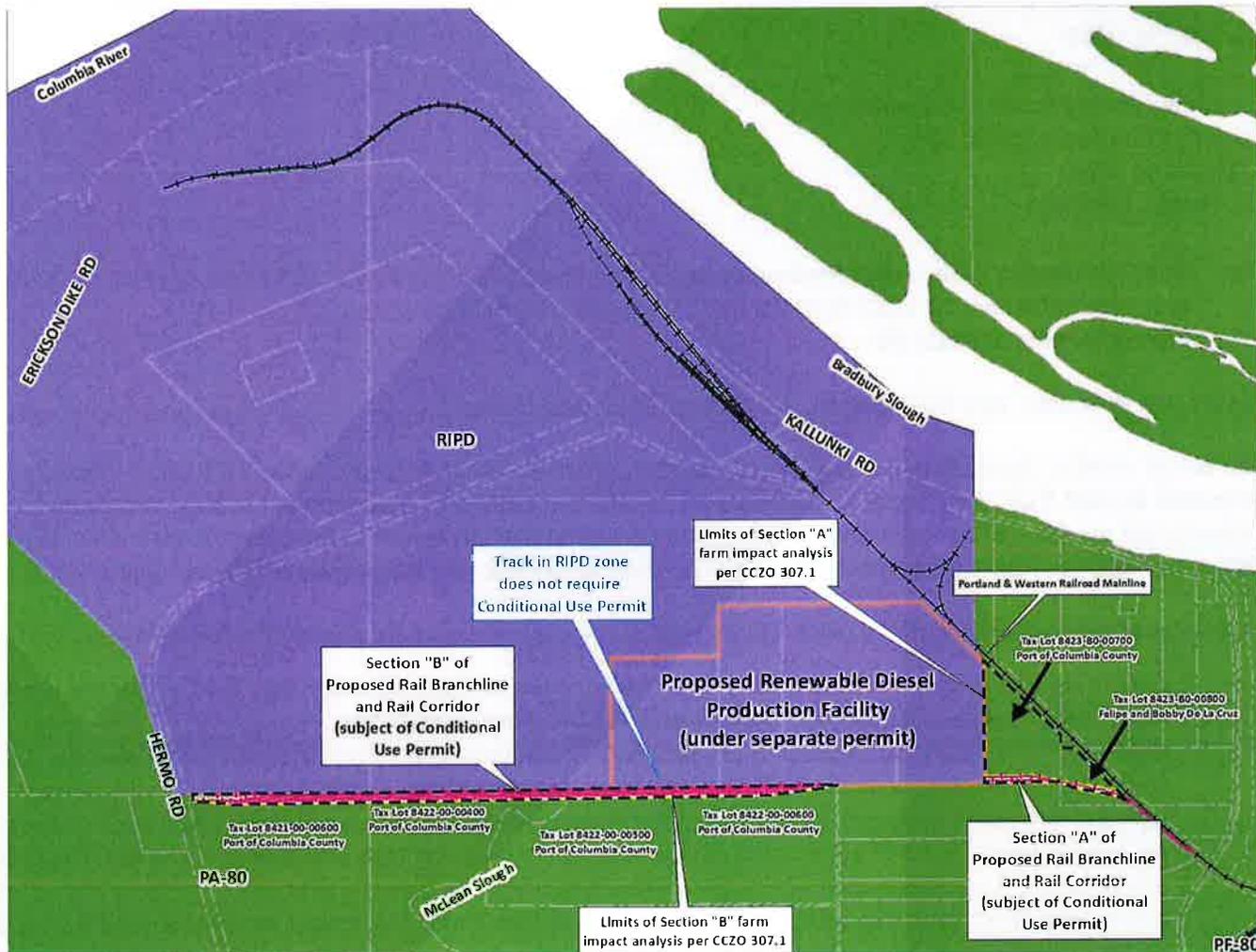
On behalf of NEXT Renewable Fuels, please accept this letter in response to the January 18, 2022 written comments provided by staff from the Oregon Department of Land Conservation and Development (DLCD) pertaining to the farm impacts test. As some of the topic areas overlap with concerns raised by others at the County level and during the public notice period associated with wetland fill-removal permits, we are also enclosing copies of related supplemental materials.

Issues raised by DLCD are identified below in italicized text, while responses are provided in standard text.

1. *DLCD's statement that the discussion of agricultural impacts required under ORS 215.296 for the proposed rail branchline is inadequate and does not address the cumulative impacts test.*

**Response:** The applicant submitted an updated Conditional Use Permit narrative to Columbia County on December 14, 2021. In response to Columbia County Zoning Ordinance CCZO Section 307.1, the revised narrative included additional evidence regarding the farm impacts analysis to assess whether construction of the proposed rail branchline would force a significant change in accepted farm practices or significantly increase the cost of farm practices. The findings provided a farm-by-farm analysis of the area directly affected by the branchline itself, which is relatively small since the affected area is limited to two areas: the impact area associated with Branchline Section A (which extends from the Portland and Western Railroad mainline to the proposed renewable diesel production facility) and the impact area associated with Branchline Section B (which begins at the southern boundary of the proposed renewable diesel production facility and extends westward toward Hermo Road), as illustrated in the following graphic from the Conditional Use Permit narrative.





Section A of the proposed rail branchline, at 1.6 acres, equates to 10.1% of the area of the affected tax lots (15.9 acres), while Section B of the proposed rail branchline, at 10.7 acres, equates to 5.7% of the area of the affected tax lots (186.7 acres).

The applicant’s proposal to transport raw materials and finished product by rail and by water will minimize truck traffic on area roadways. Furthermore, the applicant has made provisions to construct an agricultural crossing at Section A and no farm crossing is needed at Section B (see Conditional Use Permit Exhibit 3, Sheets C1.17 and C1.18); Condition of Approval #3 proposed in the January 11, 2022 staff report<sup>1</sup> requires the applicant to develop a rail management plan in cooperation with the County.

During a typical week, the applicant estimates rail usage consisting of approximately 310-315 rail cars to the facility, anticipated to be in three (3) trains. The proposed rail branchline has been designed to accommodate the

<sup>1</sup> Staff’s recommended Condition of Approval #3: Applicant shall prepare a management plan for the rail crossing providing clear timeframes for unobstructed use of the rail crossing consistent with farm activity requirements and a means to resolve conflicts.

proposed rail traffic without blocking the existing Portland and Western rail line. While a train is being delivered or departing, it will temporarily occupy Section A of the proposed branchline for an estimated one hour per train.<sup>2</sup>

As discussed in the Conditional Use Permit narrative, the anticipated changes to farm practices in the two (2) impact areas are minor (e.g., alterations to access routes and increased time to access those fields owned and operated by the same owners who have granted easements to the applicant), so the cumulative effect does not require farm operators to significantly change their practices and does not significantly increase the cost of farm practices in the impact areas.

2. *Questions about potential impacts of the proposed relocation of drainage ditches.*

**Response:** As depicted on the site plans and discussed in the Conditional Use Permit narrative, culverts are proposed where existing ditches will be crossed by the rail infrastructure, and ditches will be relocated around the branchline as needed to accommodate flows. The proposed culverts will be designed and sized as part of final engineering drawings during the permitting phase of the project, as will the proposed ditch relocation. Utilizing standard engineering practice, the design engineer will ensure that the cross-section and slope of the culverts and the relocated ditches provide adequate hydraulic capacity to convey water flows from their upstream contributing areas to their existing downstream channels. Condition of Approval #8 proposed in the January 11, 2022 staff report<sup>3</sup> provides a mechanism to verify compliance by ensuring that final stormwater design will be reviewed by County staff prior to construction.

Existing ditches within the footprint of the proposed renewable diesel production facility<sup>4</sup> do not convey flow through the site but rather collect runoff from the site, so these ditches are proposed to be filled since site runoff will be managed by the proposed stormwater collection system described in Site Development Review Exhibit 13, Conditional Use Permit Exhibit 13, and Attachment A to the enclosed November 15, 2021 letter to the Oregon Department of Environmental Quality.

In summary, the drainage alterations associated with the proposed renewable diesel production facility (e.g., filling ditches) and with the proposed rail branchline (e.g., relocating ditches and installing culverts) are not proposed to limit flow capacity. Furthermore, County staff would not authorize reduced hydraulic capacity during the permit review phase.

3. *Questions about potential impacts to the water table associated with crossing and relocating existing drainage infrastructure ditches and filling wetlands.*

**Response:** Crossing existing drainage infrastructure with the rail branchline will be achieved via construction of culverts where needed to accommodate flows. The existing east-west ditch along the southern edge of the industrially zoned property is proposed to be relocated south of the proposed rail branchline (approximately 100 feet south of its present location), as illustrated on Sheets C1.15 and C1.16 in Conditional Use Permit Exhibit 3. As the culverts and ditches will continue to convey water in nearly the same locations as today, then the impact on the water table will presumably be negligible.

Construction of the proposed rail branchline would result in filling approximately 12 acres of wetlands. As discussed in the Conditional Use Permit narrative, since the wetlands do not meet the County's regulatory

<sup>2</sup> By contrast, if Section B of the branchline were smaller than proposed, the total time utilizing Section A would likely increase.

<sup>3</sup> Staff's recommended Condition of Approval #8: *The applicant shall prepare a Final Stormwater Plan including specific swale design plan and profile details; a Building Permit will not be issued until the plan is approved by the county.*

<sup>4</sup> Construction within the RIPD zone is subject to Site Design Review and not Conditional Use Permit approval standards.

definition of “significant wetland,” the proposed wetland impacts are allowed by County zoning at this location. However, the proposed wetland alterations are still subject to permitting requirements of the Oregon Department of State Lands (DSL) and the U.S. Army Corps of Engineers, which only issue permits after a thorough review of the proposed wetland activities and their anticipated impacts. Accordingly, water table impacts will be assessed before any construction begins.

As described in Attachment E to the enclosed November 15, 2021 Stewardship Solutions, Inc. letter to the Oregon Department of Environmental Quality (namely, the November 12, 2021 memorandum from GSI Water Solutions, Inc., regarding Groundwater Protectiveness Measures at the NEXT Renewable Fuels Facility, Port Westward, Oregon), the proposed renewable diesel production facility will obtain applicable DEQ permits to protect groundwater quality during construction and operation. Furthermore, the facility will implement best management practices to protect groundwater quality in accordance with DEQ standards.

4. *Questions about spill containment or potential hazards of spills of raw material or processed fuel on surrounding agricultural crops.*

**Response:** There are multiple regulatory programs that require water quality preservation systems such as spill containment plans, erosion control measures, and treatment of process water and stormwater. Therefore, the December 14, 2021 narratives acknowledge that the applicant will need to obtain Federal, State, and Local permits that are not land use approvals. As noted in the enclosed December 3, 2021 Stewardship Solutions, Inc. letter to DSL, “NEXT will develop a Facility Response Plan, a DEQ approved Oil Spill Contingency Plan (OSCP), and an EPA approved Spill Prevention Control and Countermeasure Plan. NEXT will operate the facility utilizing Best Management Practices (BMP) outlined in the above plans to prevent spills and be prepared with onsite equipment for a quick response in the event of a spill.” This letter further details specific spill containment measures that will be implemented as required by other agencies.

To graphically illustrate spill containment measures at the proposed facility, Mackenzie engineers have annotated the facility drainage plan (Sheet C1.30, attached) to depict the proposed spill containment berms around tanks, the equipment pads with spill containment areas, and the proposed stormwater swales. The equipment pads will be fully paved and graded to isolate runoff in areas where stormwater could come in contact with fuel products. All runoff from the facility will be conveyed to a centralized treatment facility designed to remove potential contamination from the stormwater before it is discharged from the site.

Railroad operators are further required by Federal and state law to prepare oil spill response plans and to utilize rail cars meeting the latest safety standards to minimize the potential for impacts on nearby lands.

5. *Questions about participation in the drainage district and about maintenance of drainage facilities.*

**Response:** As noted in the enclosed December 3, 2021 Stewardship Solutions, Inc. letter to DSL, all landowners in the Beaver Drainage District are assessed an annual fee, and NEXT Renewable Fuels will pay the assessment as required. The applicant will maintain its own private stormwater maintenance facilities and will provide access to the Beaver Drainage Improvement Company to maintain their facilities in accordance with their access rights conveyed under existing easements.

The proposed stormwater management system for the facility will convey runoff to a centralized stormwater treatment facility, which will discharge treated water to the Port’s outfall within their existing NPDES<sup>5</sup> permit for

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<sup>5</sup> National Pollutant Discharge Elimination System

discharge to the Columbia River. In this way, the system will divert a substantial portion of the facility's stormwater away from the Drainage District's system.

6. *Questions about relocating the rail branchline onto industrial-zoned property or delaying rail branchline construction until the pending zone change<sup>6</sup> becomes effective.*

**Response:** Section A of the proposed rail branchline is not possible to be constructed on RIPD-zoned property since there is intervening PA-80 property between the existing rail mainline and the long east-west dimension of the proposed site; furthermore, PGE's electrical transmission towers and guy wires provide only a narrow corridor in which the branchline can be located. The applicant examined alternative designs for Section B of the proposed rail branchline, but no viable alignment was found when coordinating with Portland & Western Railroad to meet the railroad operator's standards.

Due to the uncertainty associated with the timing of the effective date of the pending zone change, the applicant is requesting approval of the rail branchline based on current zoning.

Thank you for the opportunity to submit this information for the Board's consideration.

Sincerely,



Brian Varricchione  
Land Use Planning

Enclosures: Attachment A: Oregon Department of State Lands Wetland Delineation Concurrence Letter WD#2020-0663, September 21, 2021  
Attachment B: NEXT Renewable Fuels Oregon Post-Construction Stormwater Management Plan, Mackenzie, Revised October 15, 2021  
Attachment C: Groundwater Protectiveness Measures at the NEXT Renewable Fuels Facility, Port Westward, Oregon, GSI Water Solutions, Inc., January 25, 2022  
Attachment D: Sheet C1.30 with spill containment annotation, Mackenzie  
Attachment E: DSL 63077 – RF Permit Application, Response to Public Review Comments, Stewardship Solutions, Inc., December 3, 2021

c: Christopher Efird, Gene Cotten – NEXT Renewable Fuels  
Garrett Stephenson – Schwabe, Williamson & Wyatt

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<sup>6</sup> Columbia County file PA 13-02 and ZC 13-01.





# Oregon

Kate Brown, Governor

## Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

[www.oregon.gov/dsl](http://www.oregon.gov/dsl)

**State Land Board**

September 21, 2021

NEXT Renewable Fuels Oregon, LLC  
 Attn: Chris Efird  
 11767 Katy Freeway, Suite 705  
 Houston, TX 77079

Kate Brown  
 Governor

Shemia Fagan  
 Secretary of State

Re: **WD # 2020-0663 Approved**  
 Wetland Delineation Report for NEXT Renewable Fuels Oregon  
 Columbia County; T8N R4W S15, S16, S21, S22, and S23; Multiple  
 Tax Maps and Tax Lots, See Attached Table A-1; APP # 63077

Tobias Read  
 State Treasurer

Dear Chris Efird:

The Department of State Lands has reviewed the wetland delineation report prepared by Anderson Perry & Associates, Inc. for the site referenced above. Please note that the 2 study areas include only a portion of the tax lots described above (see the attached table and maps). Based upon the information presented in the report, and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in Figure 6, 6A through 6W of the report. Please replace all copies of the preliminary wetland maps with these final Department-approved maps.

Within the 2 study areas, 6 wetlands (Wetland 1 through 6, totaling approximately 141.04 acres) and 2 waterways (McLean Slough and Ditch 1 Network) were identified. They are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high-water line (OHWL) of the waterway (or the 2-year recurrence interval flood elevation if OHWL cannot be determined).

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The U.S. Army Corps of Engineers will determine jurisdiction under the Clean Water Act, which may require submittal of a complete Wetland Delineation Report.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. If you have any questions, please contact the Jurisdiction Coordinator for Columbia County, Daniel Evans, PWS, at (503) 986-5271.

Sincerely,



Peter Ryan, SPWS  
Aquatic Resource Specialist

Enclosures

ec: Sue Brady, Anderson Perry & Associates  
Columbia County Planning Department  
Caila Heintz, Corps of Engineers  
Dan Cary, SPWS, DSL  
Melanie Olson, Business Oregon

Fully completed and signed report cover forms and applicable fees are required before report review timelines are initiated by the Department of State Lands. Make checks payable to the Oregon Department of State Lands. To pay fees by credit card, go online at: <https://apps.oregon.gov/DSL/EPS/program?key=4>.

Attach this completed and signed form to the front of an unbound report or include a hard copy with a digital version (single PDF file of the report cover form and report, minimum 300 dpi resolution) and submit to: Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279. A single PDF of the completed cover form and report may be e-mailed to: [Wetland\\_Delineation@dsl.state.or.us](mailto:Wetland_Delineation@dsl.state.or.us). For submittal of PDF files larger than 10 MB, e-mail DSL instructions on how to access the file from your ftp or other file sharing website.

Contact and Authorization Information		
<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address: NEXT Renewable Fuels Oregon, LLC 11787 Katy Freeway, Suite 705 Houston, TX 77079	Business phone # (503) 867-8100 Mobile phone # (optional) (281) 541-7311 E-mail: <a href="mailto:chris@nextrenewables.com">chris@nextrenewables.com</a>	
<input type="checkbox"/> Authorized Legal Agent, Name and Address (if different):	Business phone # Mobile phone # (optional) E-mail:	
I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification, to the primary contact.		
Typed/Printed Name: <u>Christopher Efrid</u> Signature:		
Date: <u>11/16/2020</u> Special instructions regarding site access: _____		
Project and Site Information		
Project Name: NEXT Renewable Fuels Oregon	Latitude: 46.165670 Longitude: -123.161744 decimal degree - centroid of site or start & end points of linear project	
Proposed Use: Construct a renewable diesel facility at Port Westward	Tax Map # Tax Lot(s) See attached. Tax Map # Tax Lot(s)	
Project Street Address (or other descriptive location):	Township Range Section QQ Use separate sheet for additional tax and location information	
City: Clatskanie County: Columbia	Waterway: Unnamed ditches River Mile: N/A	
Wetland Delineation Information		
Wetland Consultant Name, Firm and Address: Sue Brady, Biologist Anderson Perry & Associates, Inc. 1901 N. Fir Street La Grande, Oregon 97850	Phone # (541) 963-8309 Mobile phone # (if applicable) E-mail: <a href="mailto:sbrady@andersonperry.com">sbrady@andersonperry.com</a>	
The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.		
Consultant Signature:  Date: <u>11/16/20</u>		
Primary Contact for report review and site access is <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Applicant/Owner <input type="checkbox"/> Authorized Agent		
Wetland/Waters Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Study Area size: 186.54 Total Wetland Acreage: 141.04		
Check Applicable Boxes Below		
<input type="checkbox"/> R-F permit application submitted <input type="checkbox"/> Mitigation bank site <input type="checkbox"/> EFSC/ODOE Proj. Mgr. _____ <input type="checkbox"/> Wetland restoration/enhancement project (not mitigation) <input type="checkbox"/> Previous delineation/application on parcel If known, previous DSL # _____	<input checked="" type="checkbox"/> Fee payment submitted \$ <u>466</u> <input type="checkbox"/> Resubmittal of rejected report (\$100) <input type="checkbox"/> Request for Reissuance. See eligibility criteria. (no fee) DSL # _____ Expiration date _____ <input checked="" type="checkbox"/> LWI shows wetlands or waters on parcel Wetland ID code <u>PEM, PSS, PFO</u>	
For Office Use Only		
DSL Reviewer: <u>DE</u>	Fee Paid Date: ____ / ____ / ____	DSL WD # <u>2020-0663</u>
Date Delineation Received: <u>11 / 30 / 20</u>	Scanned: <input type="checkbox"/> Electronic: <input checked="" type="checkbox"/>	DSL App.# _____

RECEIVED

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DEPARTMENT OF STATE LANDS

466.00

# 28758

## WD202-0663 Tax Lot Table

**TABLE A-1  
TAX LOTS WITHIN THE STUDY AREAS**

Township	Range	Section	Tax Map	Tax Lot
8 North	4 West	15	08041500	100*, 300*, 400*
		16	08041600	200*, 300*
		21	08042100	600*, 700*, ROAD (Hermo Road)*
		22	08042200	100*, 200, 300, 400*, 500*, 600*, 1100*
		23	080423BO	700*, 800*, RAILROAD*
			08042300	800*

*\*Indicates the study areas only includes a portion of the tax lot.*

## WD2020-0663 Wetlands and Waters Table

**TABLE E-1  
WETLANDS DELINEATED WITHIN THE STUDY AREAS**

Study Area	Wetland	HGM Class <sup>1</sup>	Cowardin Class <sup>2</sup>	USACE Category and Basis	Sample Plot No.	Acres in Study Area
A	1	Flats	PEM/PSS	Cat. 7 - Adjacent to Columbia River	1 through 22 <sup>3</sup> , 24, 28 through 39, 43, 44, 48 through 54	136.78
	2	Flats	PEM	Cat. 7 - Adjacent to Columbia River	40, 45	1.02
	3	Flats	PEM	Cat. 7 - Adjacent to Columbia River	25, 26, 41, 42	1.98
	4	Flats	PEM/PFO	Cat. 7 - Adjacent to Columbia River	27	0.31
B	5	Flats	PEM	Cat. 7 - Adjacent to Columbia River	46	0.07
	6	Flats	PEM	Cat. 7 - Adjacent to Columbia River	47	0.88
					<b>Total</b>	<b>141.04</b>

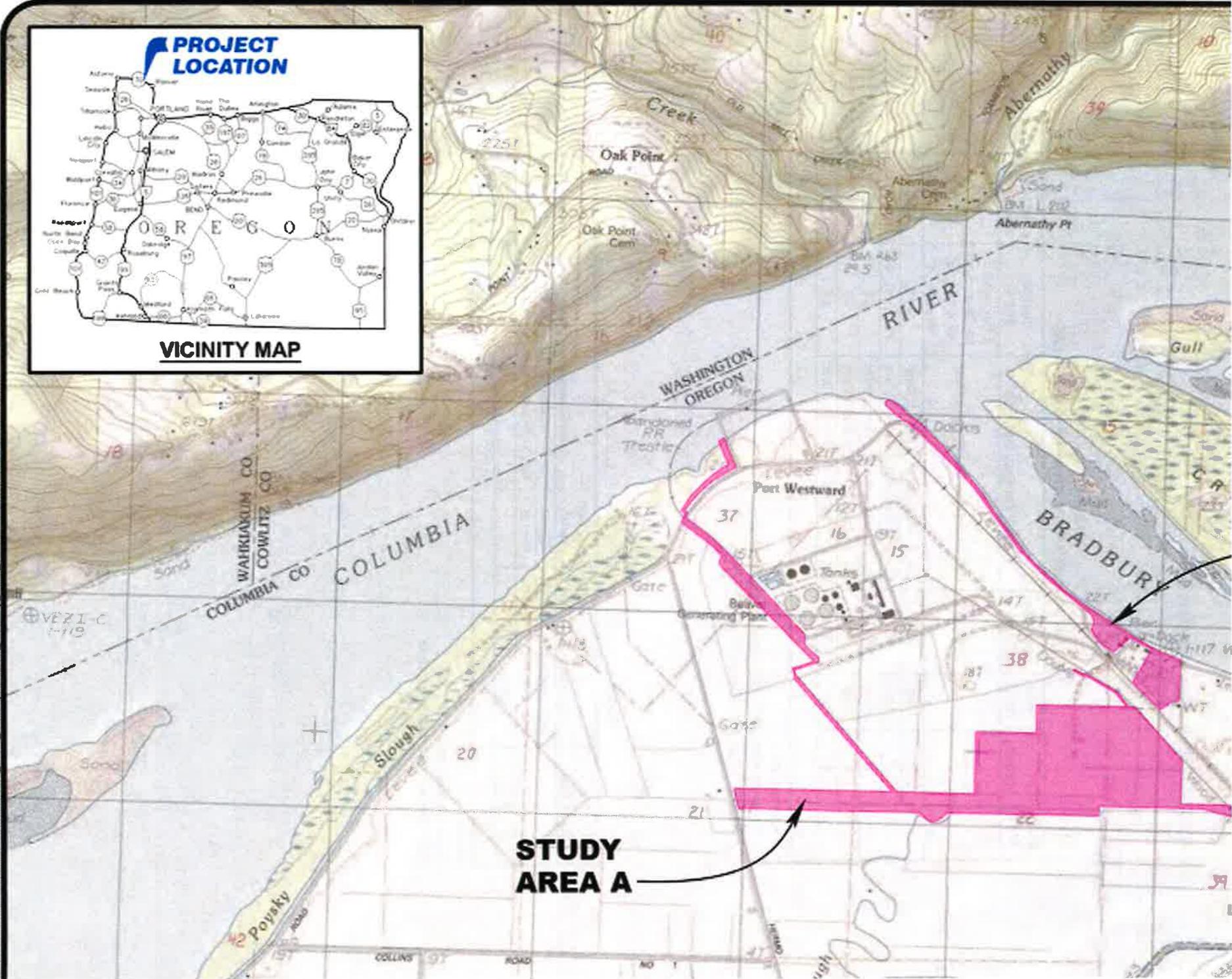
<sup>1</sup>Adamus, 2001<sup>2</sup>Cowardin et al., 1979: PSS = Palustrine scrub-shrub<sup>3</sup>Sample Plot 23 was removed from Study Area A

**TABLE E-2  
WATERWAYS DELINEATED WITHIN THE STUDY AREAS**

Study Area	Waterway	HGM Class <sup>1</sup>	Cowardin Class <sup>2</sup>	USACE Category and Basis	Linear feet in Study Areas	
A	McLean Slough	Riverine	R5UB	Cat. 5 - Tributary to Columbia River	760	
	Ditch 1 network	Riverine	R5UB	Cat. 5 - Tributary to Columbia River	9,335	
B	None					
					<b>Total</b>	<b>10,095</b>

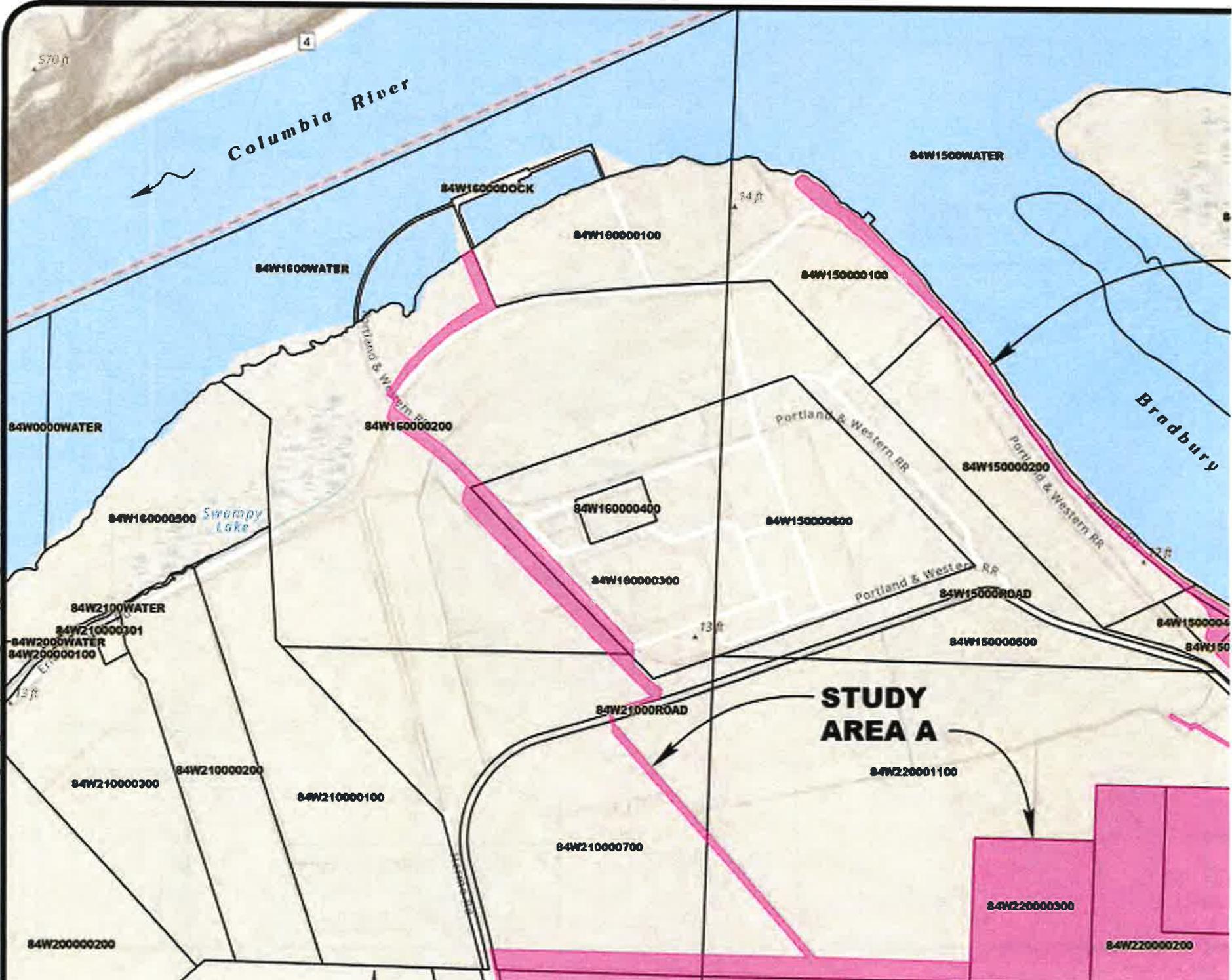
<sup>1</sup>Adamus, 2001<sup>2</sup>Cowardin et al., 1979

RUB = Riverine unconsolidated bottom

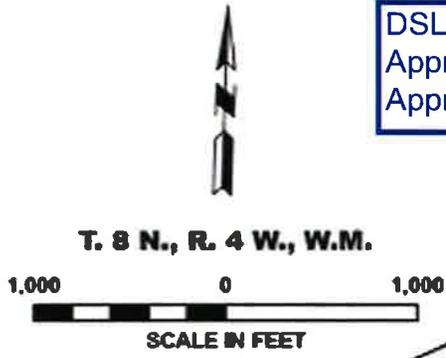


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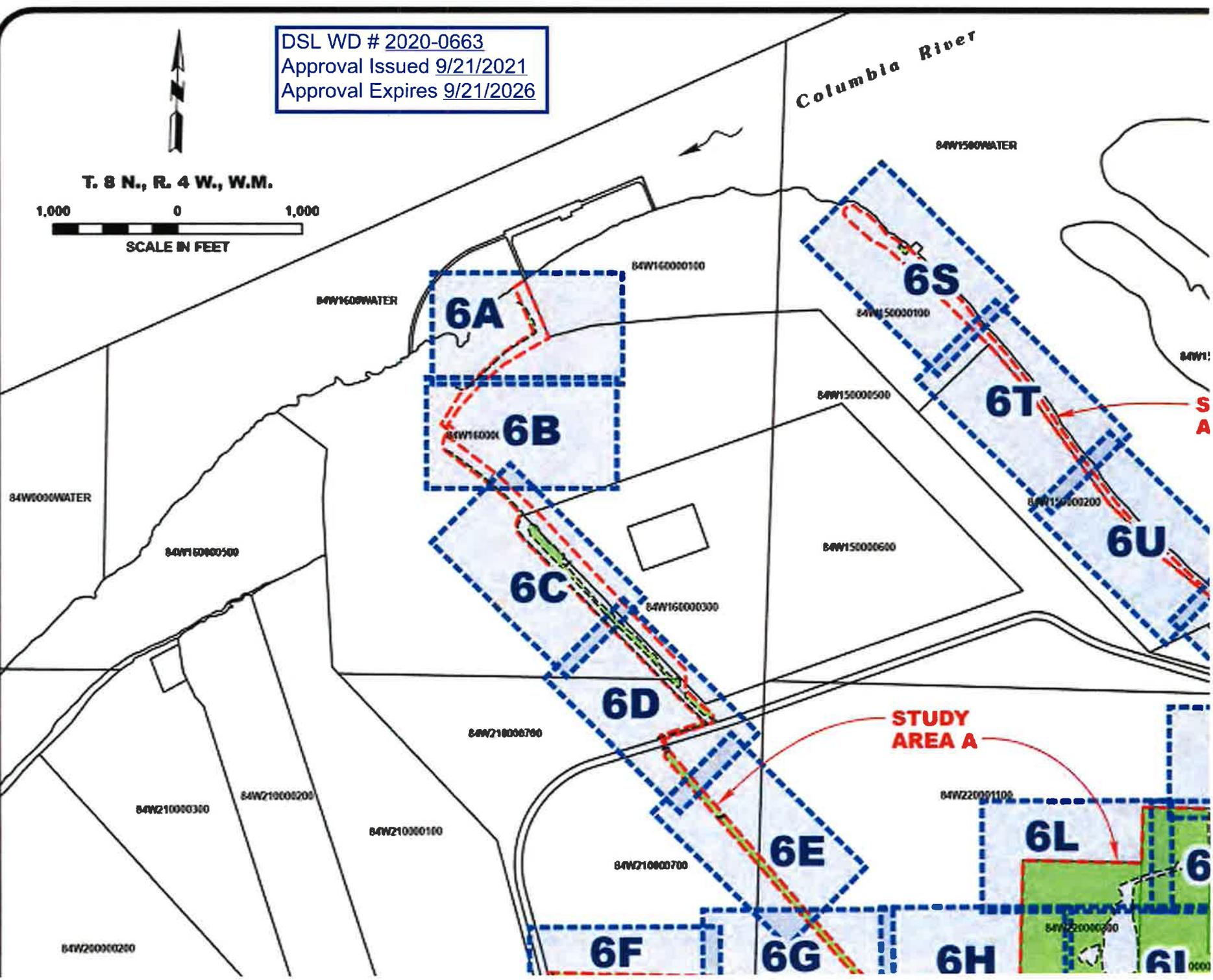
DSL WD # 2020-0663  
Approval Issued 9/21/2021  
Approval Expires 9/21/2026



T. 8 N., R. 4 W., W.M.

Columbia River

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STUDY AREA A

84W1: S A

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84W1600WATER

84W16000DOCK

84W1600WATER

**Columbia River**



84W1600WATER

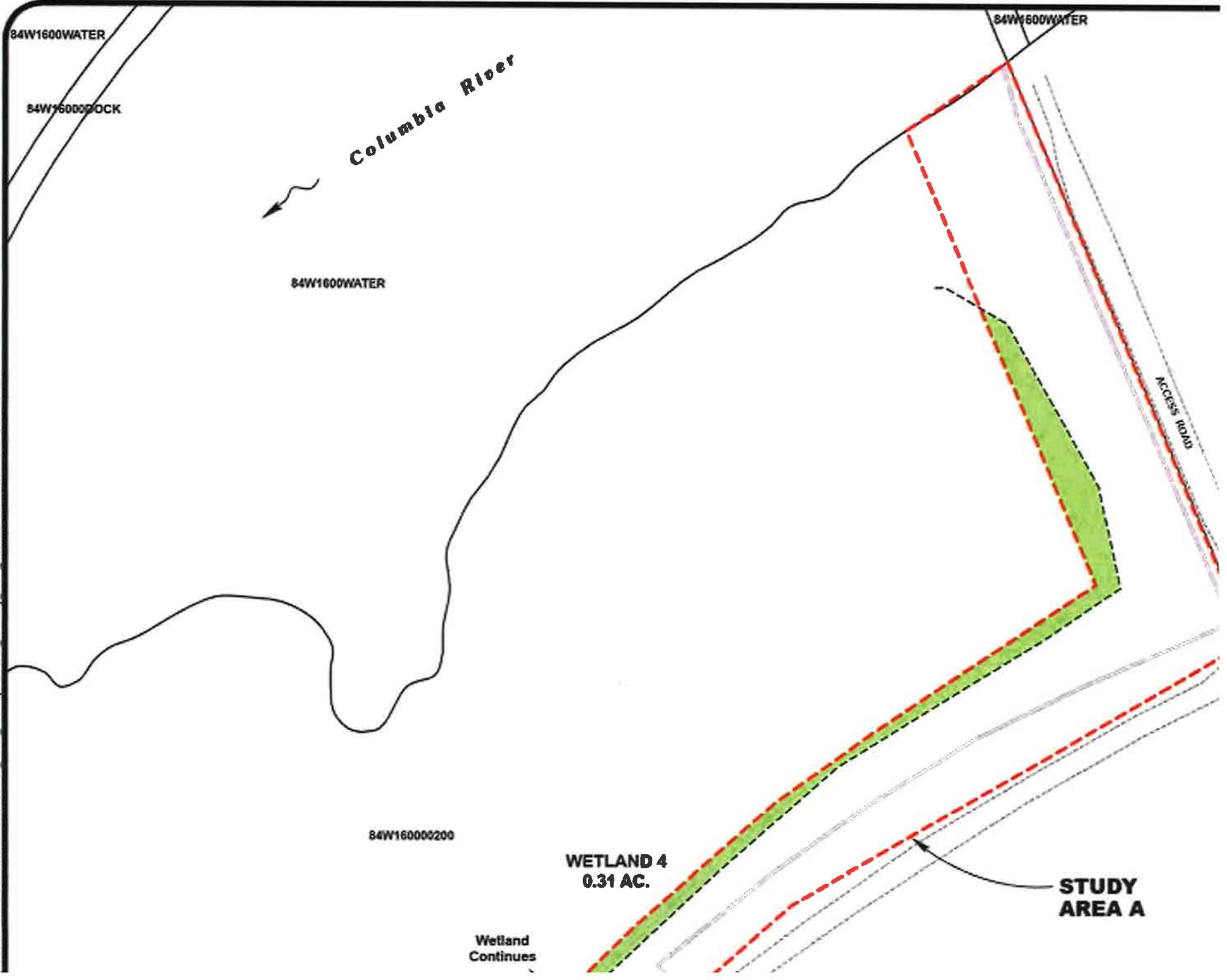
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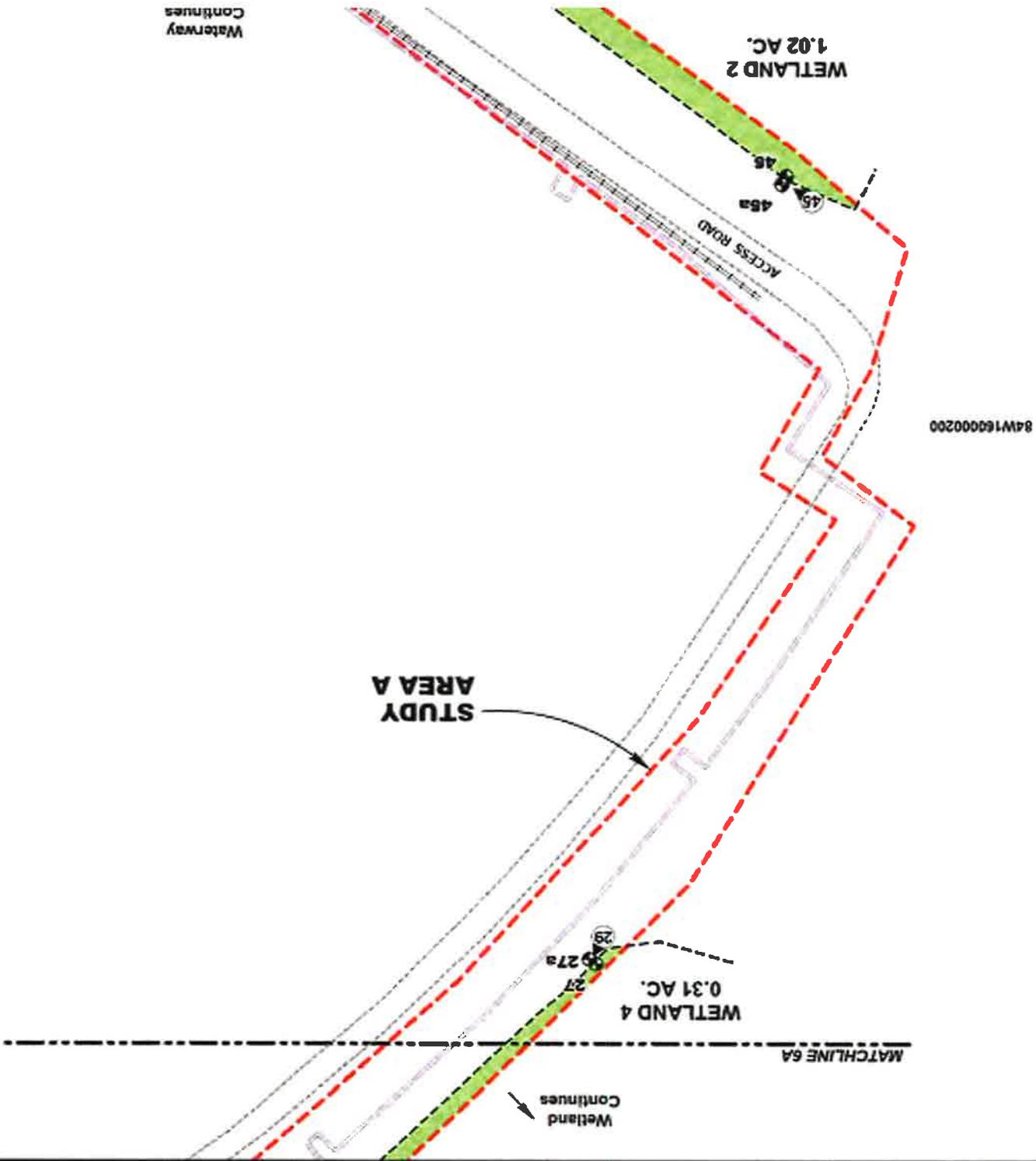
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**WETLAND 4  
0.31 AC.**

Wetland  
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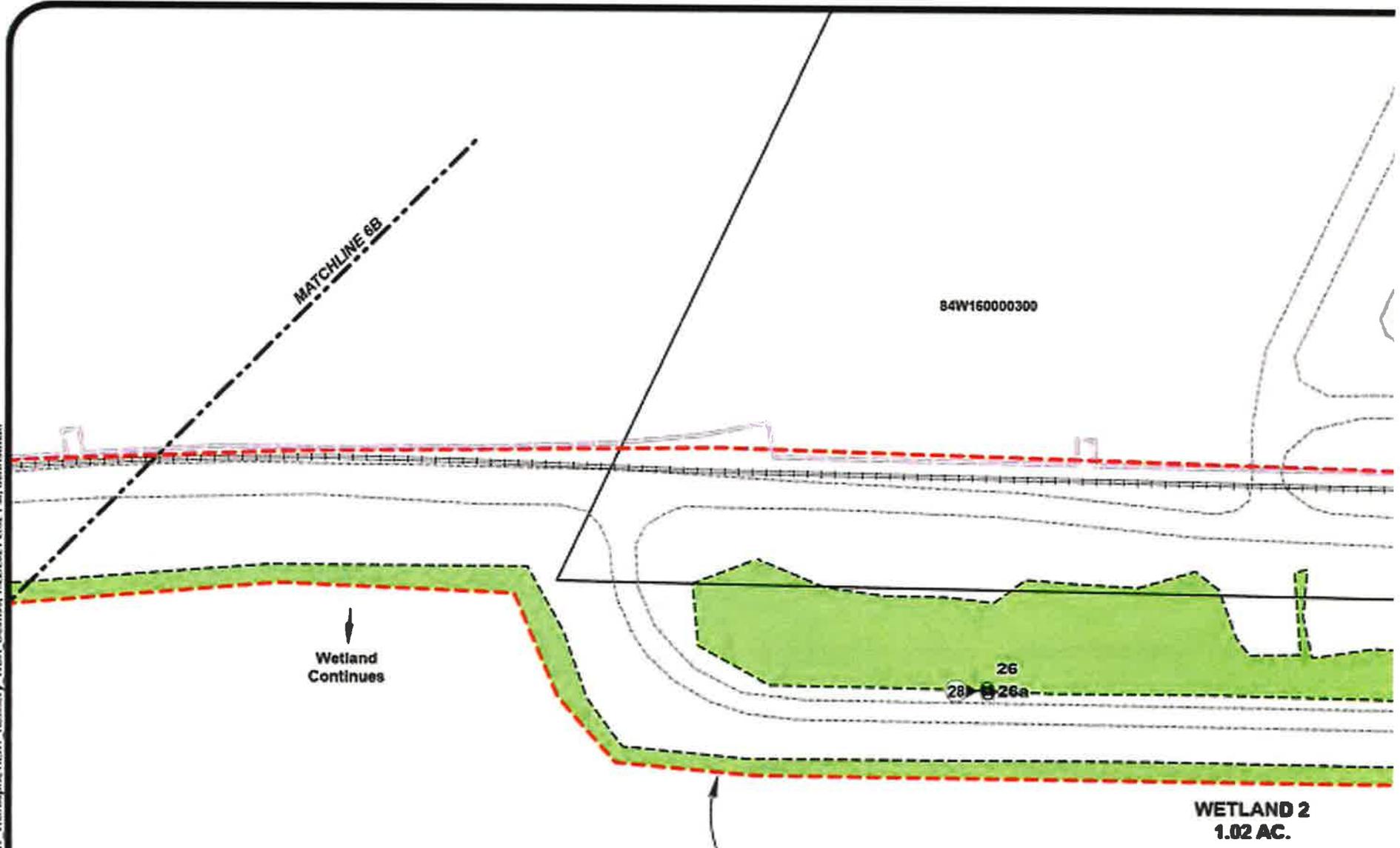
**STUDY  
AREA A**



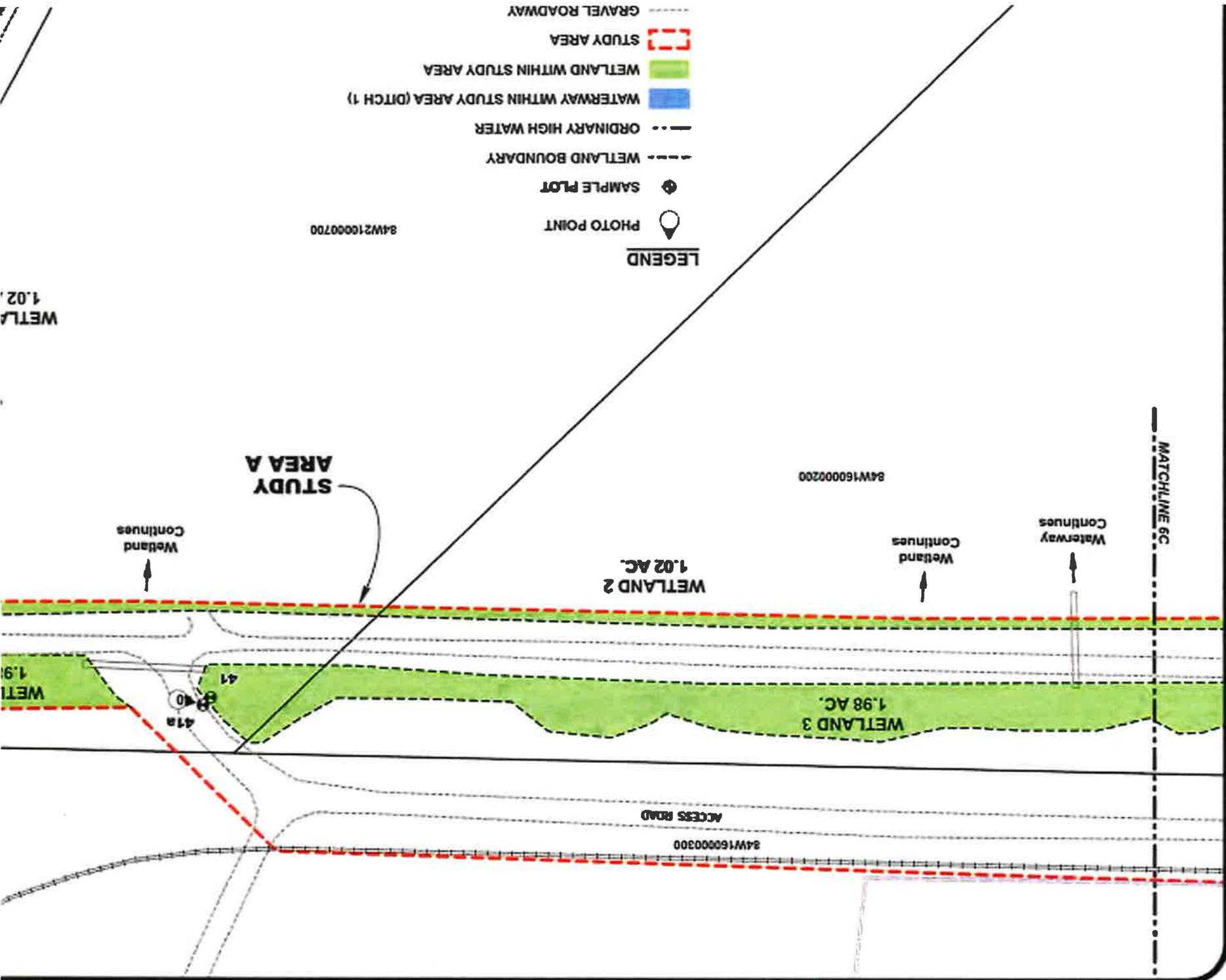


Waterway  
Continues

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- LEGEND**
- PHOTO POINT
  - ⊕ SAMPLE PLOT
  - - - WETLAND BOUNDARY
  - WETLAND WITHIN STUDY AREA
  - ▭ STUDY AREA
  - - - GRAVEL ROADWAY



84W210000700

84W160000200

WETLAND 2  
1.02 AC.

WETLAND 3  
1.98 AC.

ACCESS ROAD

84W160000300

MATCHLINE 6C

LEGEND

- PHOTO POINT
- SAMPLE PLOT
- WETLAND BOUNDARY
- ORDINARY HIGH WATER
- WATERWAY WITHIN STUDY AREA (DITCH 1)
- WETLAND WITHIN STUDY AREA
- STUDY AREA
- GRAVEL ROADWAY

WETLA  
1.02

STUDY  
AREA A

Wetland  
Continues

Wetland  
Continues

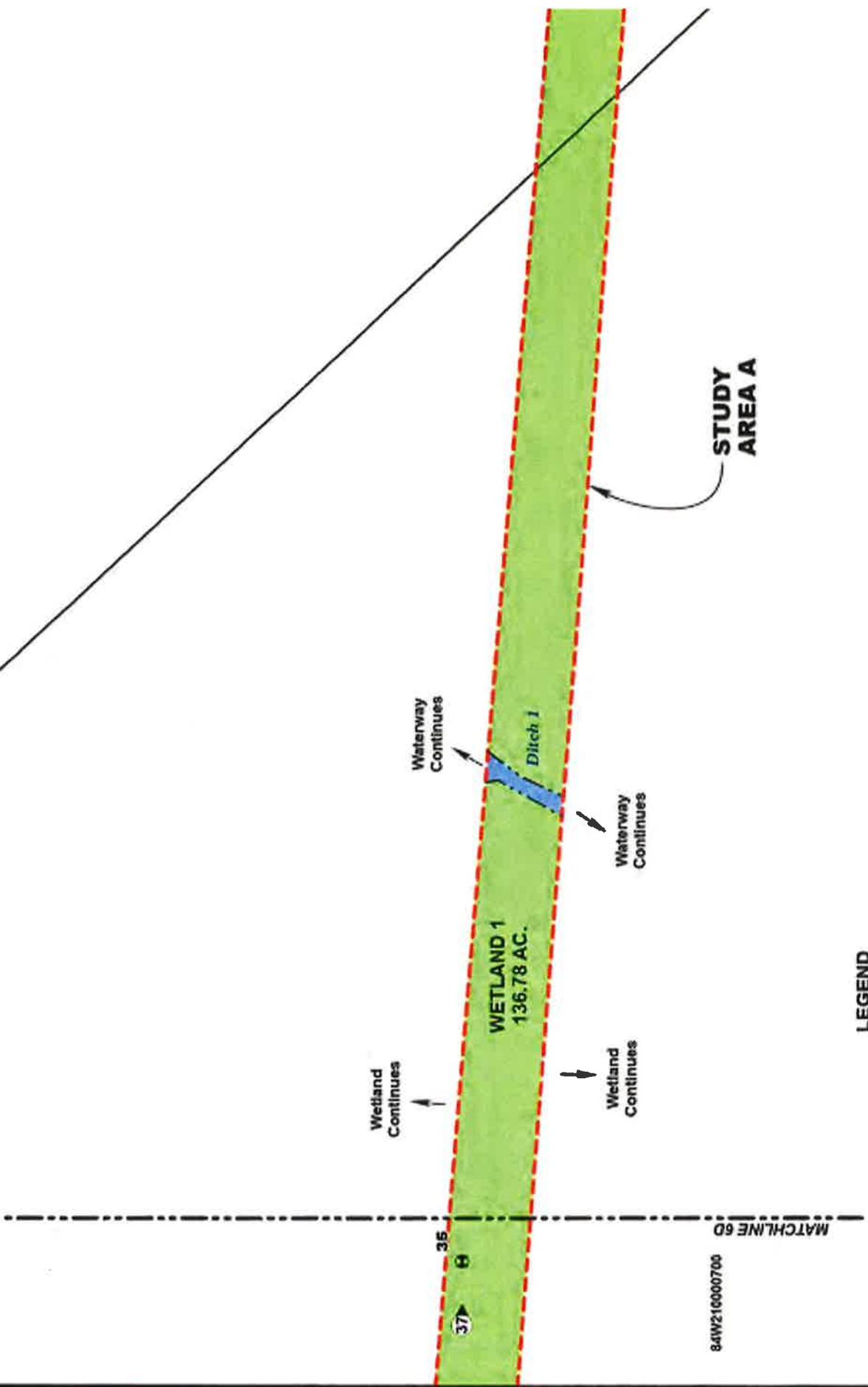
Waterway  
Continues

WETLA  
1.9

41a

41

40



STUDY AREA A

**LEGEND**

- PHOTO POINT
- ⊕ SAMPLE PLOT
- - - ORDINARY HIGH WATER

PortWestwardD:\esd\Refine\WDR\1109.727\_NEXI\_WDR.aprx, NEXI Refinery WDR, Date: 6/17/22, 2:33 PM, dchristman

**LEGEND**

-  PHOTO POINT
-  SAMPLE PLOT
-  WETLAND BOUNDARY
-  ORDINARY HIGH WATER
-  WATERWAY WITHIN STUDY AREA (DITCH 1)
-  WETLAND WITHIN STUDY AREA
-  STUDY AREA
-  GRAVEL ROADWAY
-  TAXLOT BOUNDARY

84W210000700

84W216000700

WELSH ROAD

84W210000100

Wetland  
Continues

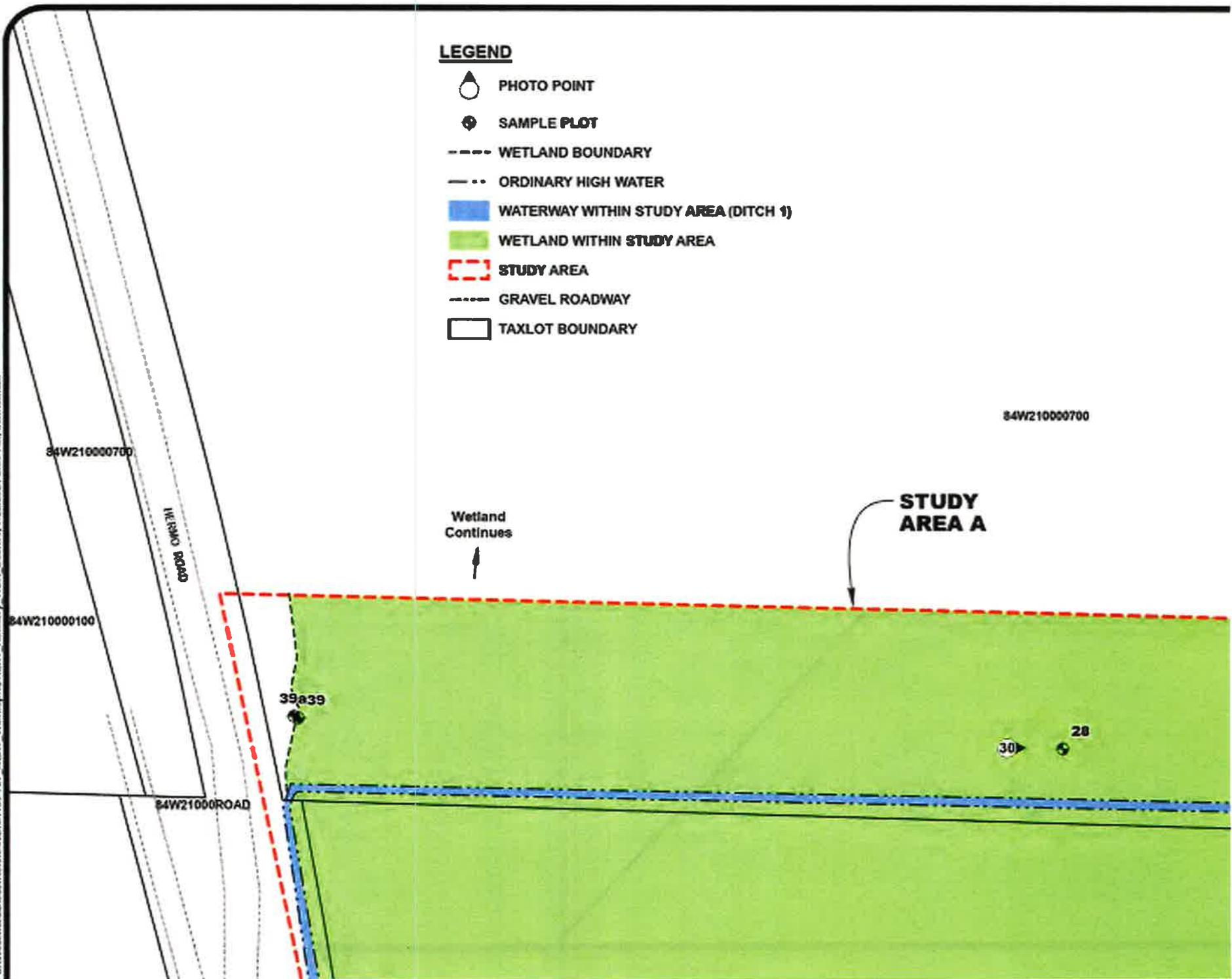
STUDY  
AREA A

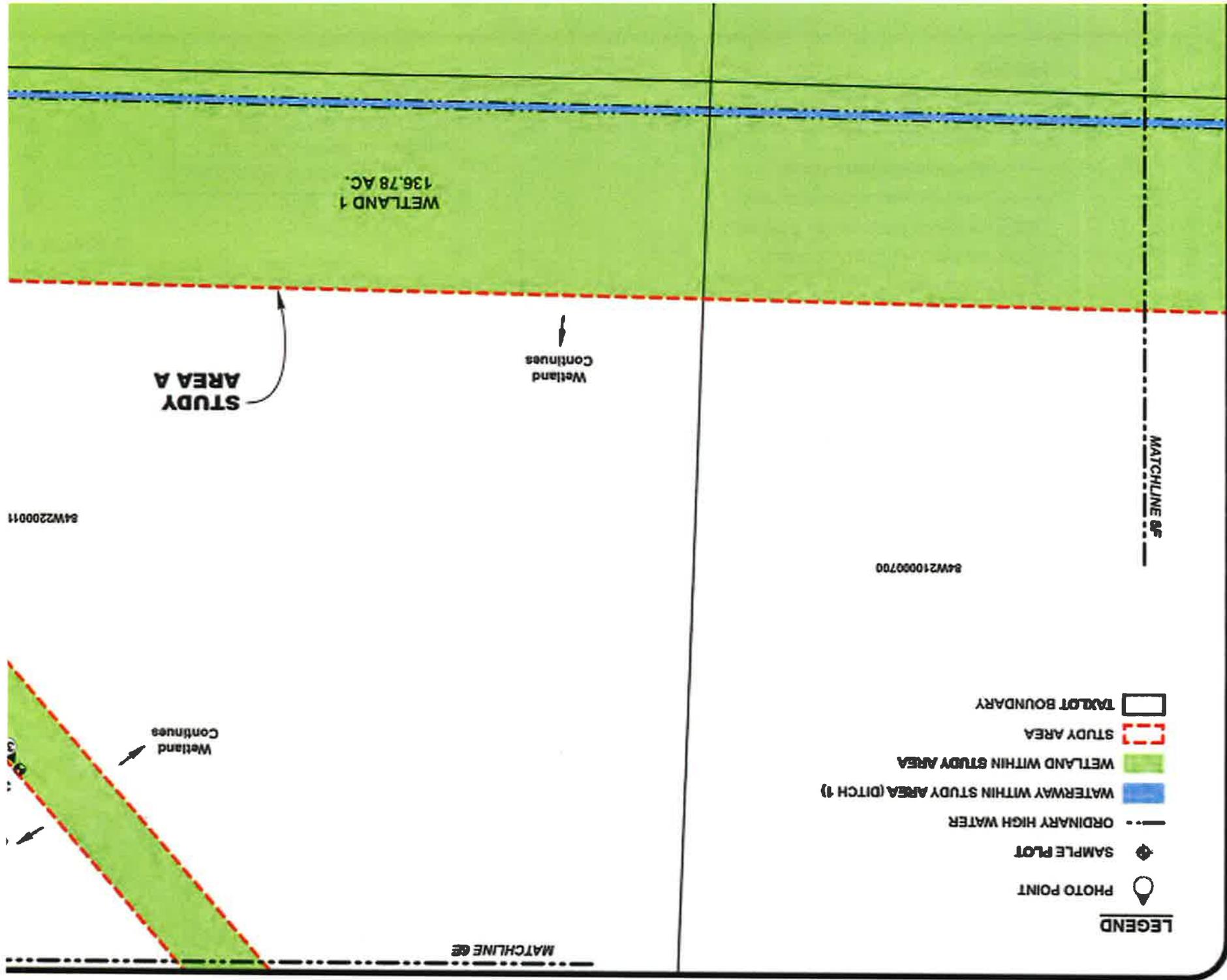
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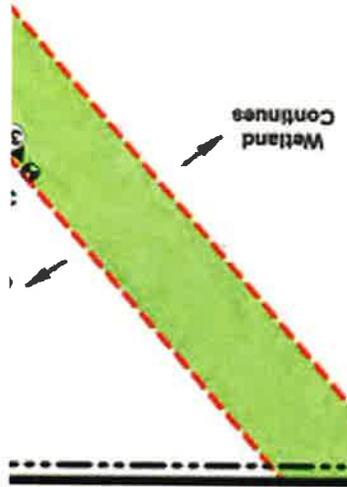
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**LEGEND**

- PHOTO POINT
- SAMPLE PLOT
- ORDINARY HIGH WATER
- WATERWAY WITHIN STUDY AREA (DITCH 1)
- WETLAND WITHIN STUDY AREA
- STUDY AREA
- TAXLOT BOUNDARY



**LEGEND**

-  PHOTO POINT
-  SAMPLE PLOT
-  ORDINARY HIGH WATER (GPS)
-  ORDINARY HIGH WATER (DIGITIZED)
-  WATERWAY WITHIN STUDY AREA (DITCH 1)
-  WETLAND WITHIN STUDY AREA
-  STUDY AREA
-  TAXLOT BOUNDARY

DSL WD # 2020-0663  
Approval Issued 9/21/2021  
Approval Expires 9/21/2026

T. 8 N., R. 4 1



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SCALE IN F

NOTE: SAMPLE PLOT LOCATIONS, PHOTO POINT LOCATIONS, AND WETLAND BOUNDARIES WERE MAPPED USING RESOURCE-GRADE GPS TO SUB-METER STANDARDS. OHWE WAS MAPPED TO SUB-METER STANDARDS USING RESOURCE-GRADE GPS OR DIGITIZATION FROM AERIAL PHOTOGRAPHY. THE STUDY AREA BOUNDARY WAS CREATED USING ARCGIS AND FIELD VERIFIED USING RESOURCE-GRADE GPS TO SUBMETER STANDARDS.

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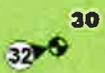
Wetland  
Continues



STUDY  
AREA A



30  
32



WETLAND 1  
136.78 AC.

Ditch 1

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MATCHLINE 6H

MATCHLINE 6L

MATCHLINE 6M

T. 8 N., R. 4 W., W.M.



WETLAND 1  
136.78 AC.

DSL WD # 2020  
Approval Issued  
Approval Expires

Point Westward Ditch (Refine) WDR1109.227, NEXT WDR2.aprx, NEXT Refinery WDR, Dskint0, 0/22/2021 2:35 PM, akchris@nrcan

MATCHLINE 6I

MATCHLINE 6M

MATCHLINE

3  
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84W220000200

WETLAND 1  
136.78 AC.

Ditch 1

Ditch 1

T. 8 N., R. 4 W.,



LEGEND

- PHOTO POINT
- SAMPLE PLOT
- ORDINARY HIGH WATER
- WATERWAY WITHIN
- WETLAND WITHIN
- STUDY AREA
- TAXLOT BOUNDARY

84W23B000500



T. 8 N., R. 4 W., W.M.

100 0 100

SCALE IN FEET

Wetland Continues

84W220000100

84W23B000700

STUDY AREA A

Wetland Continues

Waterway Continues

WETLAND 1  
136.78 AC.

Waterway Continues

Ditch 1

Wetland Continues

MATCHLINE 6J

44

44

43

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43

42

Waterway Continues

LEGEND

▲ PHOTO POINT

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SCALE IN FEET

NOTE: SAMPLE PLOT LOCATIONS, PHOTO POINT LOCATIONS, WETLAND BOUNDARIES, AND OHWE WERE MAPPED USING RESOURCE-GRADE GPS TO SUB-METER STANDARDS. THE STUDY AREA BOUNDARY WAS CREATED USING ARCOMS AND FIELD VERIFIED USING RESOURCE-GRADE GPS TO SUBMETER STANDARDS.

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Wetland Continues



Wetland Continues



LEGEND

PHOTO POINT

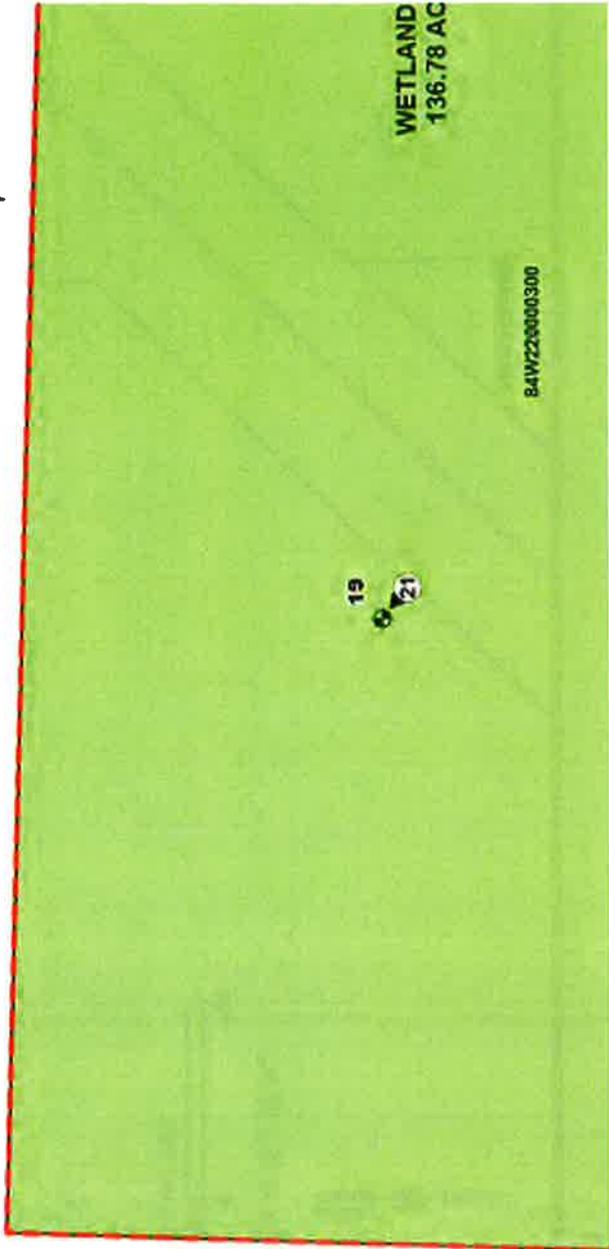
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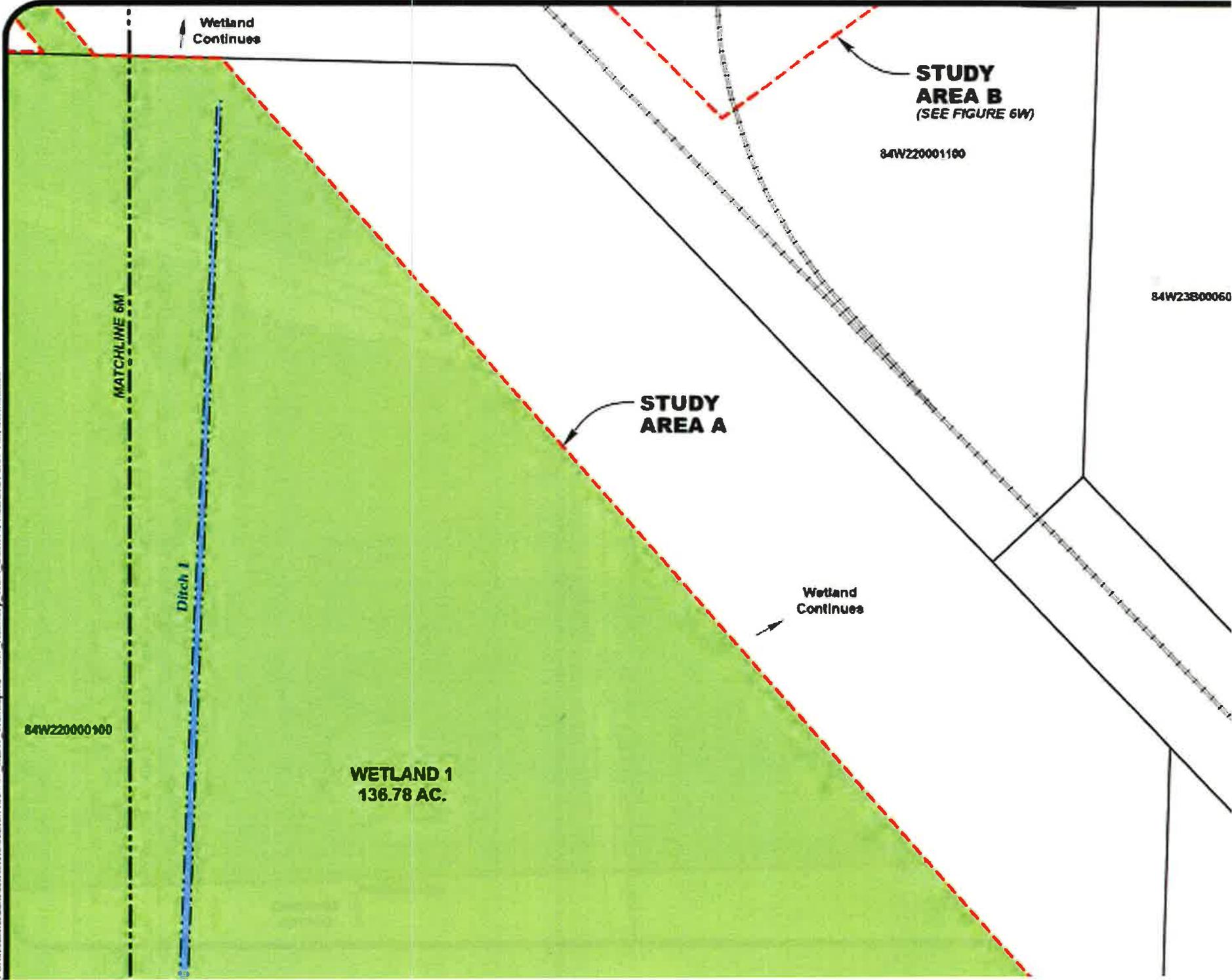
WETLAND  
136.78 AC

84W220000300





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84W220000100

MATCHLINE 6M

Ditch 1

**WETLAND 1**  
136.78 AC.

**STUDY AREA A**

**STUDY AREA B**  
(SEE FIGURE 6W)

84W220000100

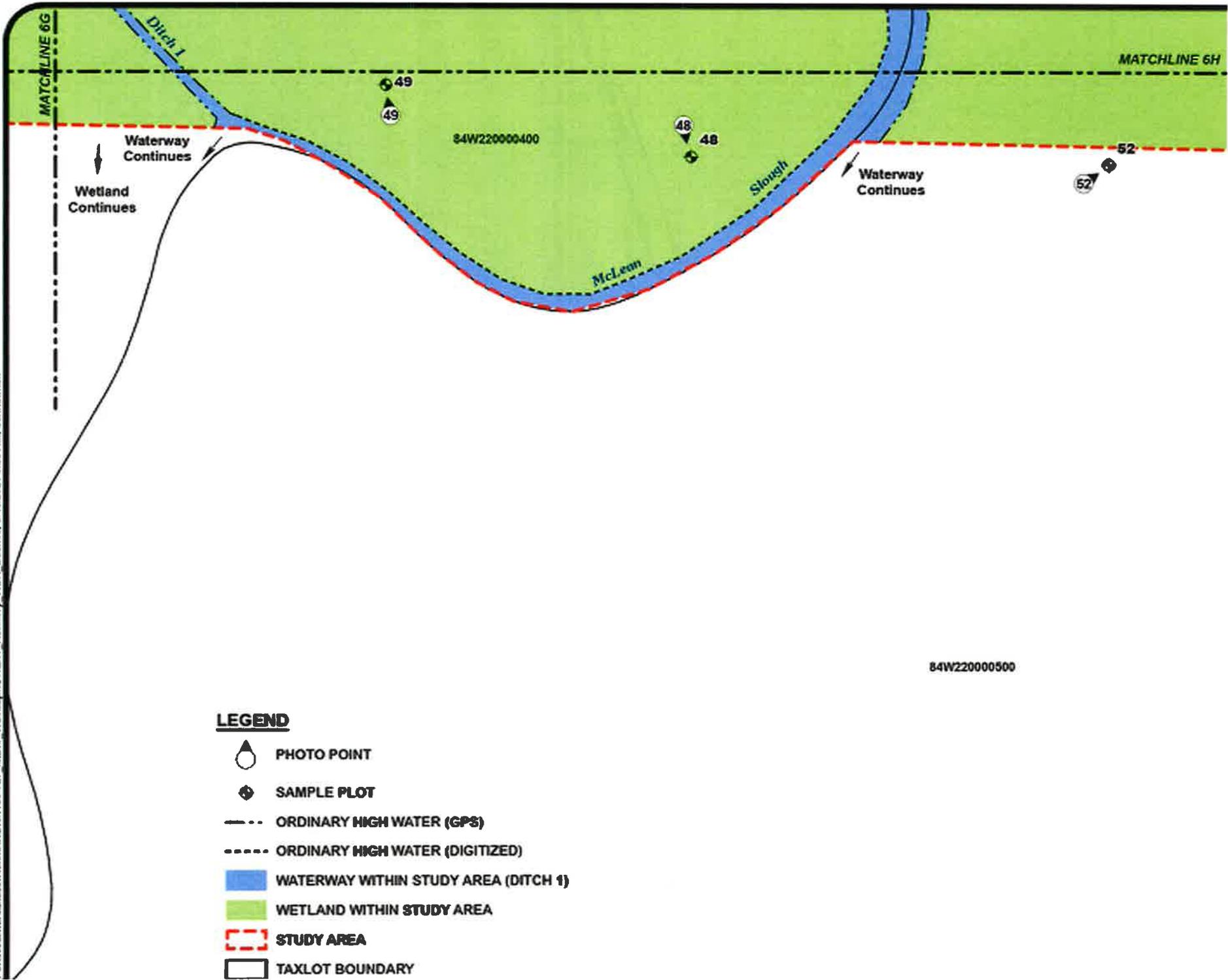
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Wetland Continues

Wetland Continues



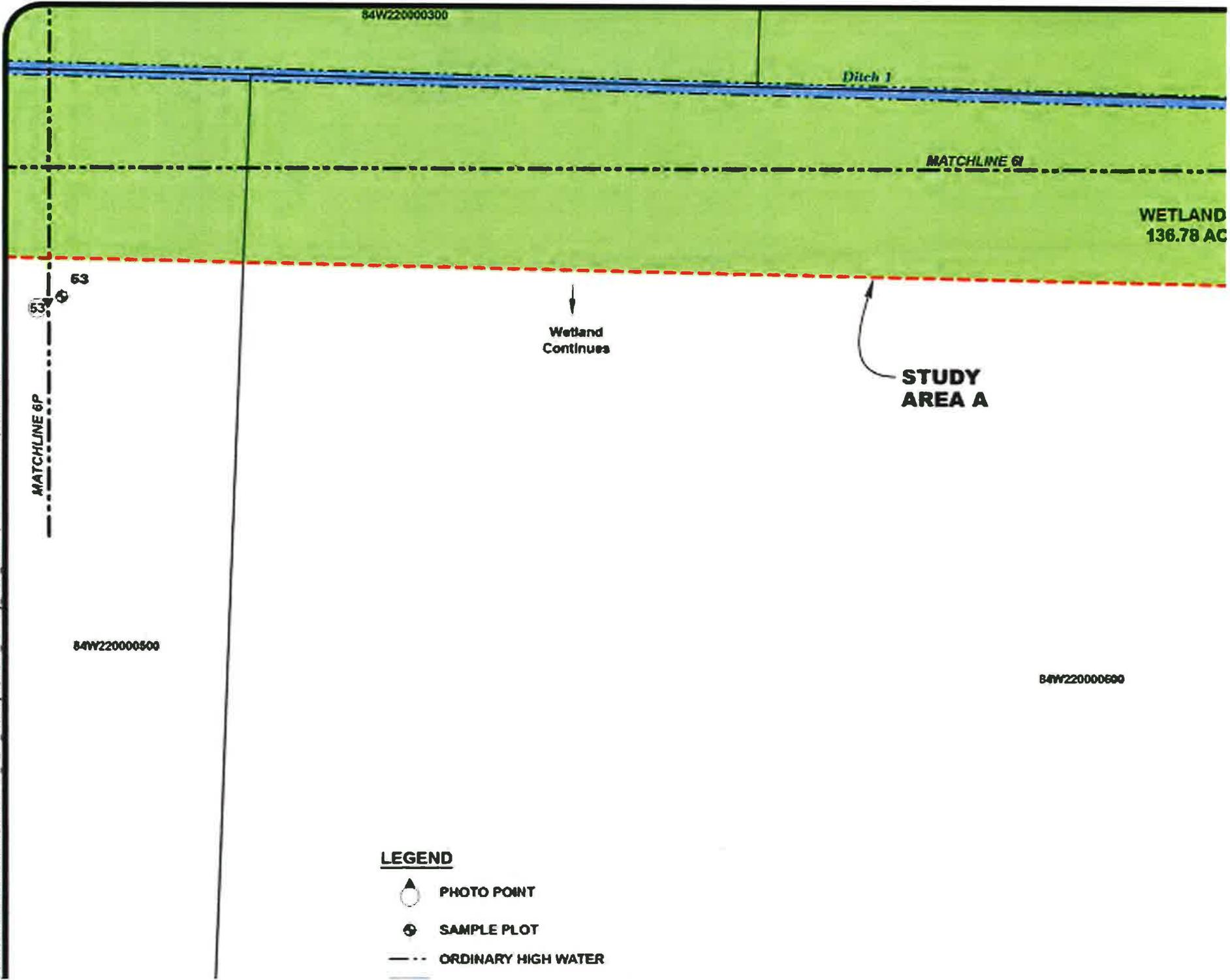
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-  PHOTO POINT
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-  ORDINARY HIGH WATER (DIGITIZED)
-  WATERWAY WITHIN STUDY AREA (DITCH 1)
-  WETLAND WITHIN STUDY AREA
-  STUDY AREA
-  TAXLOT BOUNDARY

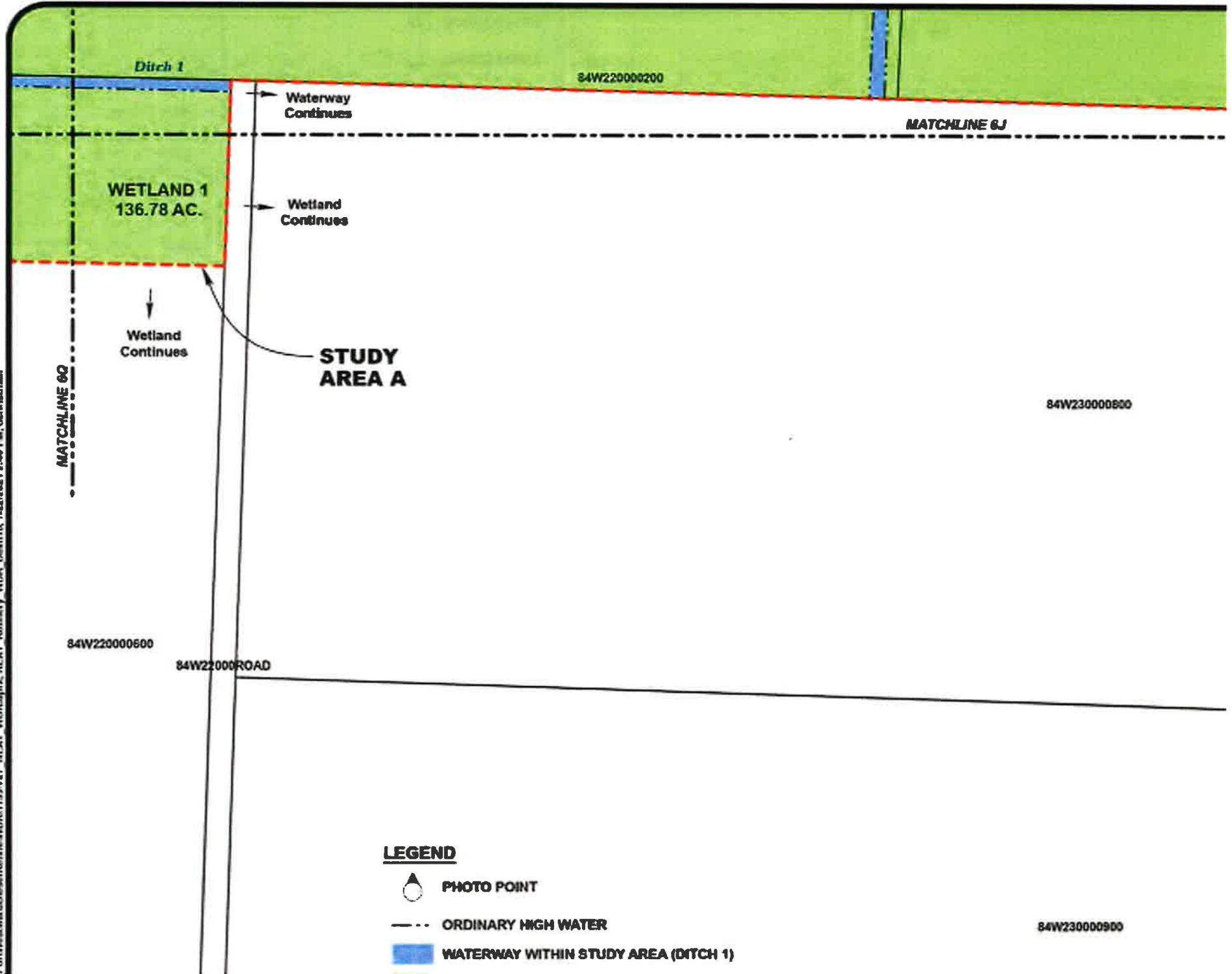
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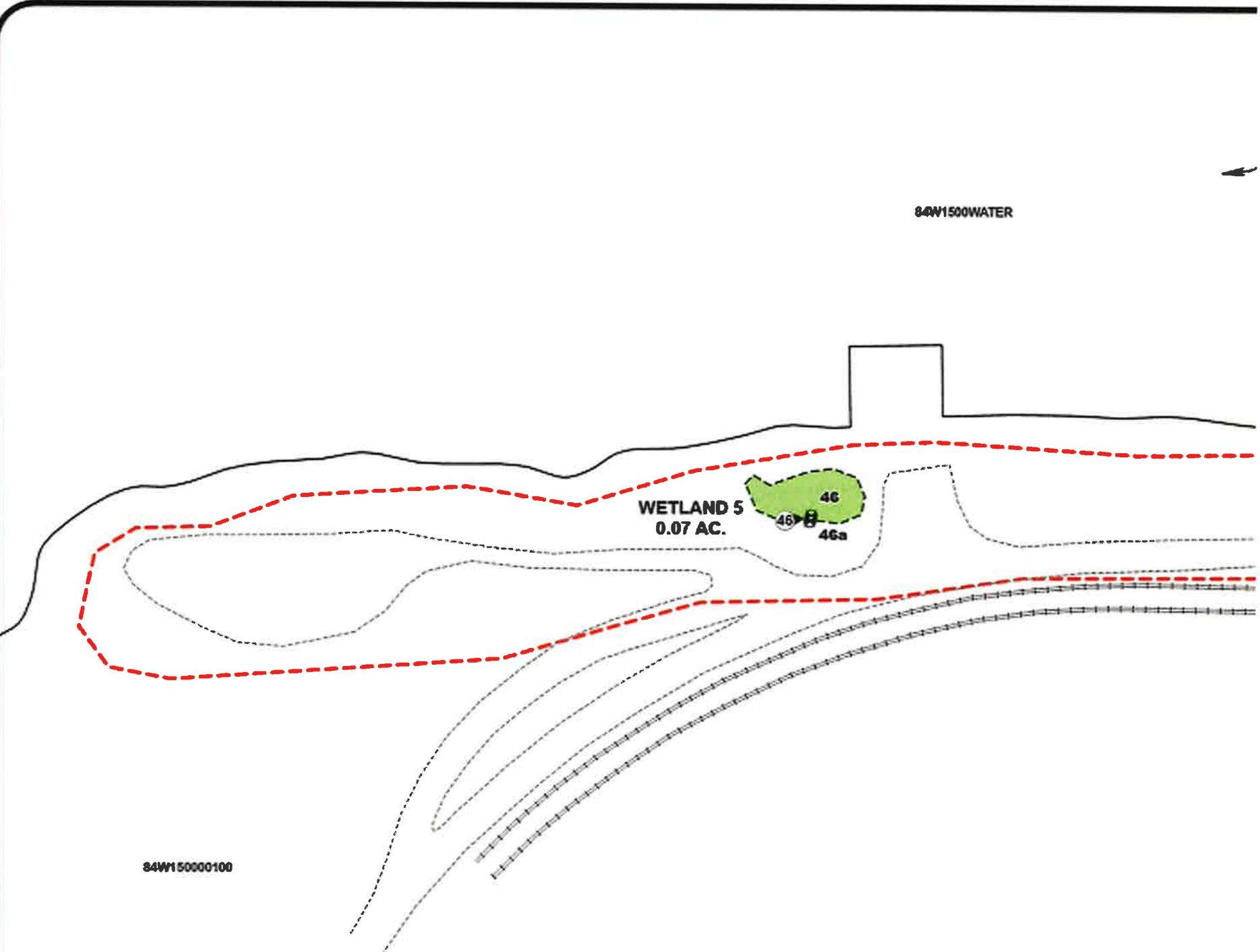
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**LEGEND**

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-  WATERWAY WITHIN STUDY AREA (DITCH 1)

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**LEGEND**

-  STUDY AREA
-  GRAVEL ROADWAY
-  PAVED ROADWAY

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MATCHLINE 6T



**Bradbury Slough**

84W1500WATER

**STUD AREA**

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**LEGEND**

 **STUDY AREA**

**LEGEND**

-  PHOTO POINT
-  SAMPLE PLOT
-  WETLAND WITHIN STUDY AREA
-  STUDY AREA
-  GRAVEL ROADWAY
-  PAVED ROADWAY
-  RAILROAD
-  TAXLOT BOUNDARY

NOTE: SAMPLE PLOT LOCATIONS, PHOTO POINT LOCATIONS, WETLAND BOUNDARIES, AND OHWE WERE MAPPED USING RESOURCE-GRADE GPS TO SUB-METER STANDARDS. THE STUDY AREA BOUNDARY WAS CREATED USING ARCGIS AND FIELD VERIFIED USING RESOURCE-GRADE GPS TO SUBMETER STANDARDS.



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MATCHLINE 6U

Bradbury Slough

84W15000WATER

STUDY AREA B

84W150000100

84W150000400

84W150000200

WETLAND 6  
0.88 AC.

47 47a

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84W2200WATER



**Bradbury Slough**

84W23B000600

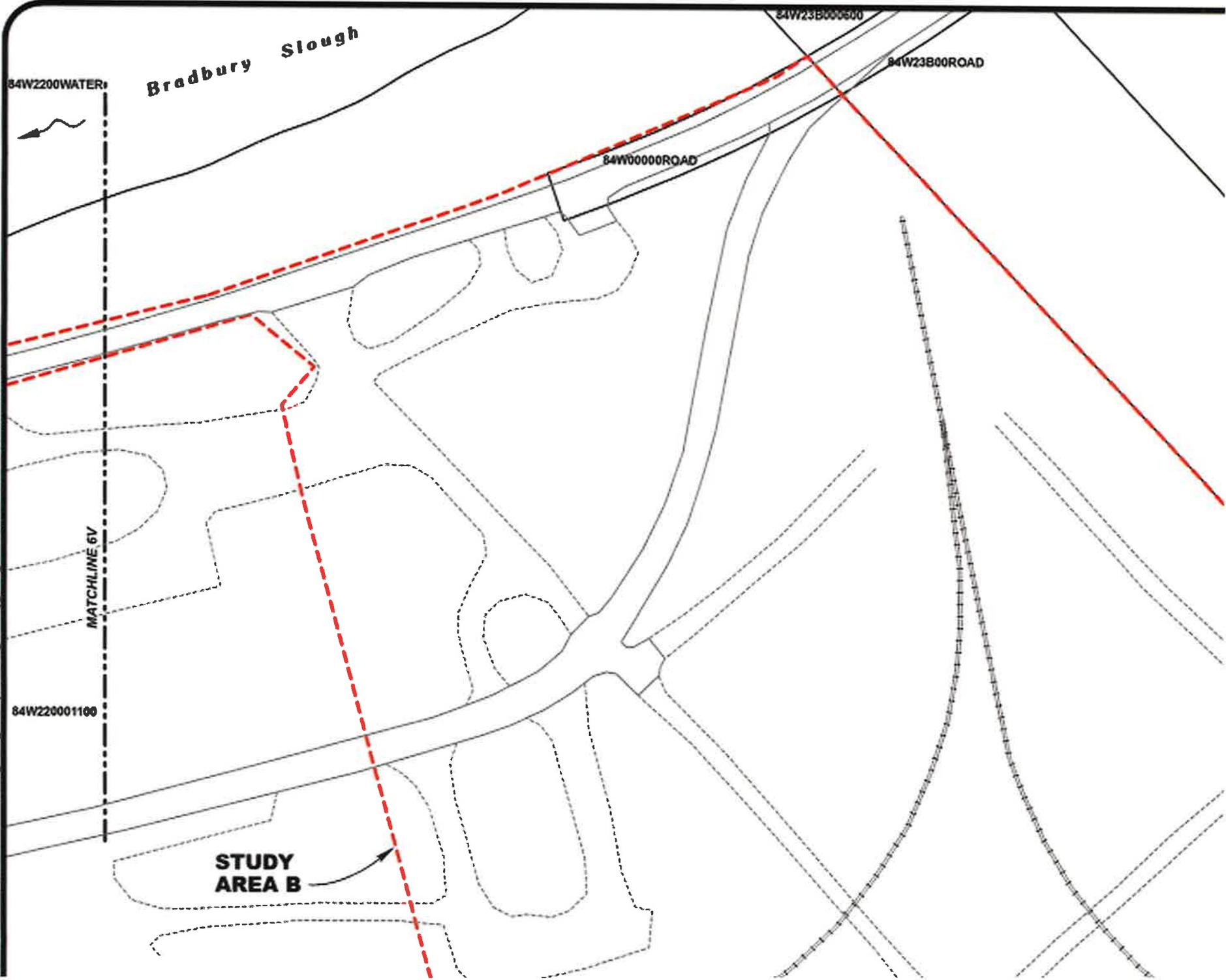
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MATCHLINE 6V

84W220001100

**STUDY AREA B**





## MEMORANDUM

### Groundwater Protectiveness Measures at the NEXT Renewable Fuels Facility, Port Westward, Oregon

**To:** Jeffrey Brittain / Oregon Department of Environmental Quality

**From:** Matt Kohlbecker, RG / GSI Water Solutions, Inc.

**CC:** Gene Cotten / NEXT Renewable Fuels, Inc.  
Laurie Parry / Stewardship Solutions  
Chas Hutchins, PE / Anderson Perry, Inc.  
Brien Flanagan / Schwabe Williamson & Wyatt

**Date:** January 25, 2022



#### Executive Summary

NEXT Renewable Fuels, LLC (NEXT) plans to construct a renewable diesel facility in Port Westward, Oregon (Figure 1). Renewable diesel is sourced from cellulosic biomass materials (for example, crop residues, animal tallow) using a process that creates fewer overall emissions relative to production of conventional hydrocarbon fuels (U.S. Department of Energy, 2021). The Oregon Department of Environmental Quality (DEQ), which is one of the public agencies permitting the project, requested that NEXT develop a memorandum summarizing the practices that will be implemented to protect groundwater quality during facility construction and operation. This memorandum meets DEQ's request by: (1) summarizing background information about facility operations and permitting, (2) providing an overview of DEQ's groundwater protection rules, and (3) discussing the permits that NEXT will obtain and DEQ rules that NEXT will operate in compliance with to meet the overall goal of DEQ's groundwater protection rules. As requested by DEQ, the memo also summarizes an evaluation of potential groundwater quality and flow impacts from installing concrete piling using Soilcrete, which is a soil treatment method that will be used to strengthen site soils and mitigate against liquefaction under large structures due to ground motion caused by seismic events. In summary, through compliance with DEQ permits and rule sets, the NEXT facility will be using the best practicable methods to protect groundwater quality during construction and operations, in compliance with DEQ's rules covering protection of shallow groundwater.

#### 1. Background

The NEXT renewable diesel facility is designed to produce about 50,000 barrels per day (BPD) of renewable diesel from a range of sustainable feedstocks, including soybean oil, corn oil, used cooking oil, and animal fats. The produced diesel will be a drop-in fuel, meaning that it is a synthetic and completely interchangeable substitute for conventional petroleum-derived hydrocarbons (NEXT, 2021a). As shown in Figure 1, the facility will be located on a floodplain of the Columbia River in a topographically level area. The shallow soils at the site are fine-grained alluvium deposited by the Columbia River (i.e., overbank deposits) and are host to a shallow groundwater system (Squier Associates, 2001).

In January 2021, NEXT submitted a Joint Permit Application (JPA) for the project to the U.S. Army Corps of Engineers, Oregon Department of State Lands, and DEQ's 401 Certification Program (NEXT, 2021b). As part application review, DEQ requested that NEXT demonstrate that construction and operation of the facility would be protective of shallow groundwater quality.

The purpose of this memorandum is to demonstrate protection of groundwater at NEXT by describing the groundwater protection elements of: (1) the DEQ permits that NEXT will obtain and (2) DEQ rules that NEXT will operate in compliance with, thereby protecting shallow groundwater in accordance with DEQ rules<sup>1</sup>. The objectives of this memorandum are:

- Summarize the DEQ permits that NEXT will obtain for the facility (i.e., the 1200-C general permit for stormwater management during facility construction and the 1200-Z general permit for stormwater management during facility operation) and the conditions in the permits that directly or indirectly protect shallow groundwater quality (e.g., spill prevention and response plans, BMPs, etc.).
- Summarize the Oregon spill rules, which will apply during the construction phase and operational phase of the facility, and provide requirements for spill reporting, response, and cleanup.
- Provide an overview of the Soilcrete method that will be used to stabilize site soils, in the context of potential groundwater impairment.

The following sections of this memorandum provide an overview of DEQ's groundwater protection rules that protect groundwater quality in Oregon (Section 2) and the permits and rules that NEXT will implement to meet DEQ's groundwater protection rules and, therefore, protect shallow groundwater quality (Section 3). An overview of the Soilcrete method to install pilings and strengthen site soils and its potential groundwater impacts is discussed in Section 4.

## 2. DEQ's Groundwater Protection Rules (OAR 340-040)

DEQ's groundwater protection rules describe Oregon's policies that aim to protect groundwater from pollution that could impair its beneficial use<sup>2</sup>. The rules are designed to minimize or eliminate groundwater quality degradation by requiring point sources to employ the best practicable methods to prevent the movement of pollutants to groundwater<sup>3</sup> and employ strategies for prevention, abatement, and control of point and nonpoint sources of groundwater pollution<sup>4</sup>. DEQ implements the groundwater protection rules by requiring appropriate water quality permits for development projects and adopting rules that govern commercial and industrial activities in Oregon (e.g., the Oregon spill rules)<sup>5</sup>.

Typically, DEQ uses Water Pollution Control Facility (WPCF) permits, which are required for discharges to ground, to implement the groundwater protection rules<sup>6</sup>. However, no WPCF permits will be issued to the NEXT facility because the facility will not discharge wastewater or stormwater to the ground. Instead, the DEQ permits that regulate construction of the NEXT facility (i.e. the 1200-C general permit) and operation of the NEXT facility (i.e., the 1200-Z general permit and Port Westward's discharge permit) are stormwater or wastewater permits issued under the National Pollution Discharge Elimination System (NPDES), which is a framework for discharges to surface water. The NPDES permits also protect groundwater quality, either directly by stipulating requirements to prevent uncontrolled discharges of wastewater and stormwater, or indirectly by requiring that the permittee adopt BMPs and technologies that eliminate or reduce pollutants

<sup>1</sup> The format of this demonstration was developed during meetings between DEQ and the NEXT on May 28 and July 1, 2021.

<sup>2</sup> Oregon Administrative Rules (OAR) 340-040-0020(3).

<sup>3</sup> OAR 340-040-0020(11)

<sup>4</sup> OAR 340-040-0020(6)

<sup>5</sup> OAR 340-040-0020(12)

<sup>6</sup> The WPCF rules are found in OAR 340-045

that could impact groundwater. Therefore, DEQ's groundwater protection rules are implemented through the 1200-C and 1200-Z permits, both indirectly and directly.

In summary, through compliance with DEQ permits and, including the implementation of operational controls and related BMPs, the NEXT facility will meet DEQ's groundwater protection rules and be protective of groundwater quality.

### 3. Groundwater Protection at the NEXT Facility

The NEXT facility will meet DEQ's groundwater protection rules through compliance with multiple DEQ permits and DEQ rule sets. Section 3.1 summarizes groundwater protectiveness measures during construction, and Section 3.2 summarizes groundwater protectiveness measures during operation.

#### 3.1 Protectiveness Measures During Facility Construction

During construction, shallow groundwater quality will be protected through compliance with DEQ's 1200-C general stormwater permit (Section 3.1.1) and compliance with Oregon's spill rules (Section 3.1.2).

##### 3.1.1 Compliance with DEQ Permits (1200-C permit for facility construction)

DEQ requires that any construction project disturbing more than one acre register for coverage under the 1200-C construction stormwater general permit. NEXT will require coverage under the 1200-C permit to construct the project. The 1200-C permit mandates controls of construction process and sediment and erosion controls that protect waters. These controls and permit conditions directly and indirectly protect shallow groundwater, including:

- The permit prohibits discharges of construction stormwater to underground injection control (UIC) systems, which are devices that infiltrate stormwater beneath the ground surface<sup>7</sup>. Using UICs to manage stormwater during the construction phase may not be protective due to the shallow groundwater at the site.
- The permit requires that if contamination of any type is encountered (including groundwater contamination) during construction phase, NEXT must develop an Environmental Management Plan (EMP) before proceeding with construction to ensure that appropriate pollution prevention and/or treatment BMPs are implemented to properly manage the contamination<sup>8</sup>.
- The permit contains requirements for concrete washout to ensure that shallow groundwater is not adversely affected<sup>9</sup>. For example, permit conditions specifically require that concrete washout activities will occur in a designated area, and wash water shall be directed to an impermeable-lined pit or leak-proof container that is adequately sized to prevent overflows. The permit explicitly prohibits discharge of concrete wash water to the ground or ditches, where it may seep into shallow groundwater.
- The permit also contains requirements for disposal and treatment of dewatering water that are protective of groundwater. For example, the permit specifies disposal sites to the extent feasible (i.e., vegetated, upland areas to infiltrate the water generated during construction and utilize the natural filtering/treatment capacity of unsaturated soils) and treatment devices (i.e., oil-water separators, cartridge filters) to remove oil or grease if dewatering water is found to contain these materials<sup>10</sup>.
- The permit requires that the registrant: (1) implement pollution prevention controls to prevent the discharge of pollutants to stormwater and to prevent spills and leaks, (2) develop a spill prevention

<sup>7</sup> See Section 1.0, second paragraph, of the 1200-C General Permit

<sup>8</sup> See Section 1.2.9 of the 1200-C General Permit

<sup>9</sup> See Section 2.2.14, item (a) and item (b) of the 1200-C General Permit

<sup>10</sup> See Section 2.4, item (a) and item (d) of the 1200-C General Permit

and response plan, and (3) train employees on the plan<sup>11</sup>. Collectively, these plans and BMPs help protect shallow groundwater at the site.

NEXT's current spill prevention and response measures, which may be modified during the permit application process, have been documented in the Project Design Basis report (NEXT 2021a). As discussed in the report, all construction equipment will be maintained in good working order to minimize the risk of fuel and fluid leaks or spills, spill containment materials will be on-site prior to and during construction, and spill prevention measures and fuel containment systems designed to completely contain a potential spill will be implemented. Select elements of spill prevention and response will be carried forward to the operational phase of the project (see section 3.2).

In summary, the NEXT facility will protect shallow groundwater quality during construction, both directly and indirectly, through compliance with the conditions of DEQ's 1200-C permit (BMPs, non-use of UICs, and adoption of a spill prevention and response plan).

### 3.1.2 Compliance with DEQ's Spill Rules

Oregon's spill rules (called the Oil and Hazardous Materials Emergency Response Requirements) are codified in OAR 340-142, and were developed to identify emergency response actions, reporting obligations, and follow-up actions in response to a spill or release of oil or hazardous materials. During construction, contractors at the NEXT facility will be required to adhere to the reporting and response actions in these rules should a spill occur. Spill notifications are forwarded to DEQ, which has oversight authority to ensure the cleanup of certain spills is completed in a way that ensures the environment is protected. A fact sheet summarizing the spill rules is provided in Attachment A.

In summary, potential spills that occur during construction of the facility will be responded to and cleaned up in accordance with the Oregon Spill Rules, which will protect shallow groundwater quality.

## 3.2 Protectiveness Measures During Facility Operation

During facility operation, shallow groundwater quality will be protected through compliance with DEQ's 1200-Z general stormwater permit and compliance with Oregon's spill rules. Because Oregon's spill rules have already been discussed (see Section 3.1.2), this section focuses on the elements of the 1200-Z permit that directly and indirectly protect shallow groundwater.

The site is currently comprised of agricultural and open land, and precipitation infiltrates into subsurface soils or runs off into surface water drainage features. Upon completion, the NEXT facility will be comprised of roadways, equipment pads, rail spurs, storage tanks, and employee parking to support the renewable diesel production systems, as shown in Figure 2 (Mackenzie, 2021). Because groundwater at the site is shallow, the strategy for stormwater management at the Site is implementation of pollution elimination and reduction control measures and discharge to surface water as opposed to infiltration (Mackenzie, 2021), and the facility will apply for coverage under DEQ's 1200-Z general stormwater permit (DEQ, 2021). The 1200-Z permit contains several conditions that either directly or indirectly protect shallow groundwater, including requirements for:

- A Stormwater Pollution Control Plan (SWPCP) for the facility that contains control measures and BMPs for managing stormwater,
- Spill prevention and response measures<sup>12</sup>,
- Preventative maintenance procedures including equipment inspection, cleaning, and repair<sup>13</sup>,

<sup>11</sup> See Section 2.3 of the 1200-C General Permit

<sup>12</sup> Schedule A, condition 1.h

<sup>13</sup> Schedule A, condition 1.i

- An employee education program on the SWPCP for the facility, which includes spill response, good housekeeping, inspection requirements, etc.<sup>14</sup>

Note that several of the preventative maintenance procedures have been documented in the Preliminary Storm Report for the NEXT facility (e.g., periodic inspections, vegetation pruning and replanting, regrading of channelized areas, debris and sediment removal, etc.) (Mackenzie, 2021). The following sections discuss the specific stormwater management strategy at the facility that will protect surface water and shallow groundwater resources using the best practicable methods within the different stormwater basins at the site.

### 3.2.1 Main Facility Access Road, Maintenance Road, and Rail Spurs

Stormwater runoff will be treated using several best management practices that are generally consistent with DEQ's *Industrial Stormwater Best Management Practices Manual* (Jurries and Ratliff, 2013).

- Stormwater runoff from the paved main facility access road will be routed to a vegetated swale that provides water quality treatment prior to discharge to existing channels and ultimately McLean Slough. Swales provide treatment for sediment, metals, polycyclic aromatic hydrocarbons (PAHs), hydrocarbons, biological oxygen demand (BOD), and phosphorus (Jurries and Ratliff, 2013).
- Stormwater runoff from the pipeline maintenance road and rail spur, which are gravel-surfaced roadways, will be collected and routed through filter strips that run the length of the roadways/spurs for treatment and then to an existing drainage ditch. Filter strips are typically used to treat for sediment, metals, PAHs, BOD, hydrocarbons, and phosphorus (Jurries and Ratliff, 2013).

Some stormwater infiltration may occur in the course of using these BMPs for stormwater treatment. However, this infiltration is not expected to adversely affect shallow groundwater quality because it is expected to be minor in terms of quantity due to the low permeability site soils (Columbia River overbank deposits) and hydrology (Mackenzie, 2021; Squier Associates, 2001). In addition, pollutants in stormwater runoff from areas that experience vehicular traffic (e.g., copper and zinc from wear of brake pads) are characterized by low concentrations, will be treated by the BMPs described in the bullets above, and are generally not mobile in subsurface soils based on research work completed by Oregon's DEQ (see DEQ, 2017).

### 3.2.2 Renewable Diesel Facility Footprint

Stormwater within the footprint of the renewable diesel facility will be managed to protect both surface water and shallow groundwater quality:

- Stormwater within some areas of the facility may accumulate oils in the runoff due to contact with oil-handling equipment. In these areas, stormwater will be collected and routed to a wastewater treatment plant to remove oils, suspended solids, and to cool the water prior to discharge to Port Westward's conveyance system, which discharges to the Columbia River [see Appendix E of Mackenzie (2021) for a detailed discussion of wastewater treatment system].
- In areas of the facility where stormwater is not expected to accumulate oils (e.g., building roofs, parking areas, laydown yards, roadways, etc.), stormwater will be collected and routed to a stormwater treatment facility that consists of a surge storage tank, filtration system, and pump station and then discharged to Port Westward's conveyance system, which discharges to the Columbia River (Mackenzie, 2021).

In summary, the NEXT facility will protect shallow groundwater quality during operation, both directly and indirectly, through compliance with the conditions of DEQ's 1200-Z permit (BMPs, non-use of UICs, and adoption of a spill prevention and response plan) and the Oregon spill rules.

<sup>14</sup> Schedule A, condition 1.j

#### 4. Potential Impacts of Soilcrete on Groundwater

To protect the facility against the potential of seismic activity, NEXT is required to install piles beneath the building foundations and large above ground storage tanks. NEXT contractors will use the Soilcrete method to install concrete piles, which is common in the Pacific Northwest and involves mechanically mixing wet soils with a dry cement binder using a drill that is equipped with a mixing tool. Neat cement will be used as the binder (Pers. Comm., 2021). Using neat cement to stabilize the soils at the site is not anticipated to adversely affect shallow groundwater quality because neat cement has no additives to modify its setting time or rheological properties (Schlumberger, 2021) and is comprised only of Portland Cement (calcium silicates, aluminates and aluminoferrites<sup>15</sup>) (Britannica, 2021). Note that the Oregon Water Resources Department (OWRD) approves neat cement use for decommissioning and sealing of water wells in saturated soils (see OAR 690-210). Although the concrete pilings are impermeable, they are not anticipated to significantly affect groundwater flow because areas with pilings are separated by areas with undisturbed native soils. Groundwater levels will rise slightly around the pilings, which will have the effect of diverting groundwater flow horizontally around the pilings through the areas of undisturbed native soils. Therefore, effects of Soilcrete pilings on groundwater flow will be localized.

#### 5. Conclusions

The proposed NEXT facility in Port Westward will be regulated under multiple DEQ permits and rule sets during facility construction and facility operation. These permits and rule sets meet DEQ's groundwater protection rules, either directly or indirectly, by requiring multiple BMPs, including development of spill prevention and response procedures, methods for managing waste (e.g., concrete washout), capture and treatment of stormwater and wastewater, preventative maintenance of facility equipment, and employee education. Through compliance with these permits, the NEXT facility will be protective of shallow groundwater quality at the site using the best practicable methods. In addition to these permits and rule sets, review of the Soilcrete soil stabilization method for installing pilings are consistent with the materials other agencies have approved for similar subsurface emplacements (i.e., well abandonments and well sealing). In summary, through compliance with DEQ permits and rule sets, and implementation of BMPs, the NEXT facility will be using the best practicable methods to protect groundwater quality, in compliance with DEQ's rules covering protection of shallow groundwater.

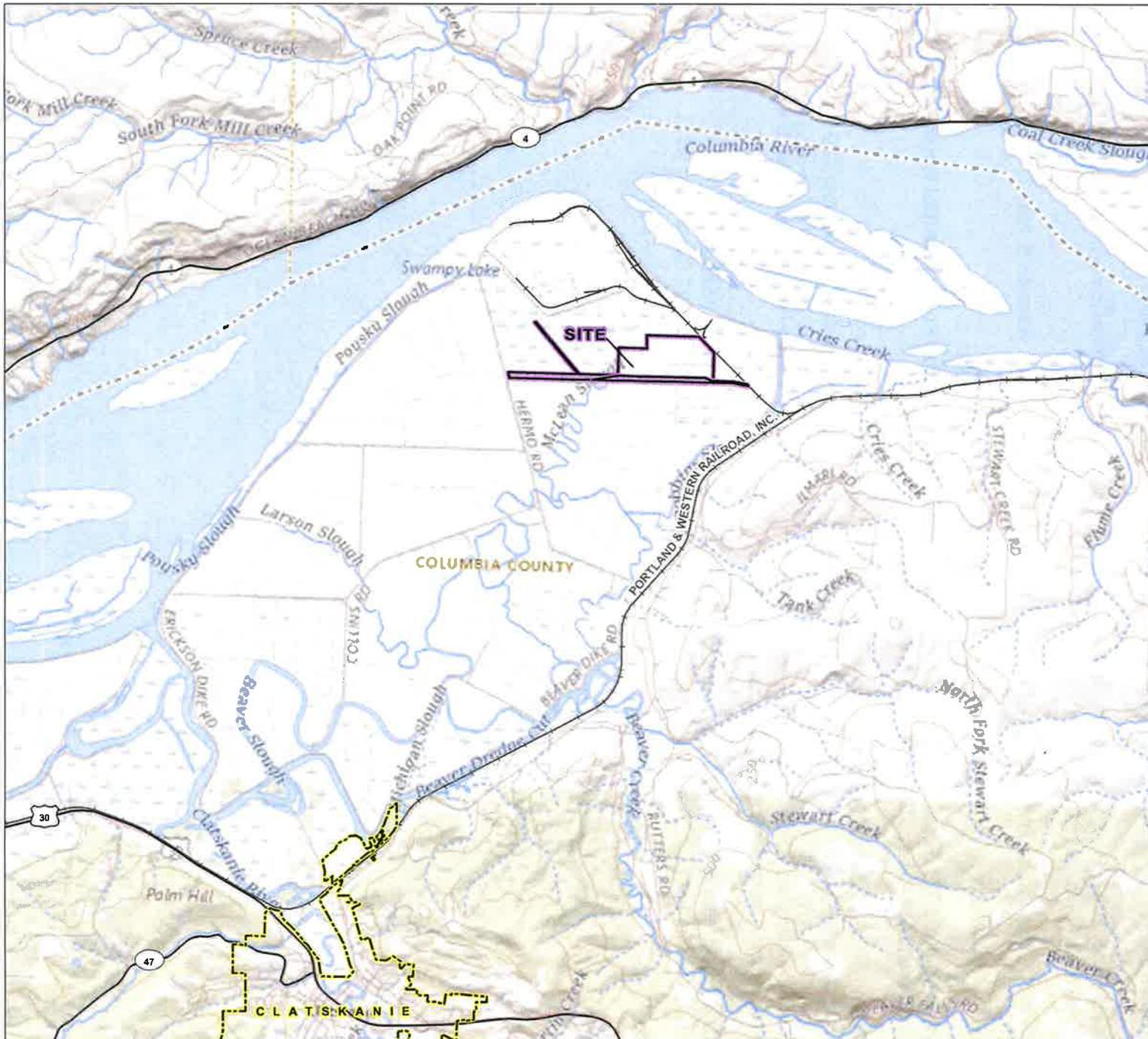
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<sup>15</sup>  $3\text{CaO}\cdot\text{SiO}_2$ ,  $2\text{CaO}\cdot\text{SiO}_2$ ,  $3\text{CaO}\cdot\text{Al}_2\text{O}_3$ ,  $4\text{CaO}\cdot\text{Al}_2\text{O}_3\cdot\text{Fe}_2\text{O}_3$

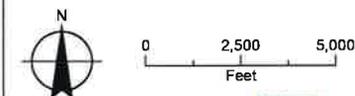
## 6. References

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**FIGURE 1**  
**NEXT Renewable Fuels**  
**Facility Site Location Map**  
**Groundwater Protectiveness**  
**Measures**



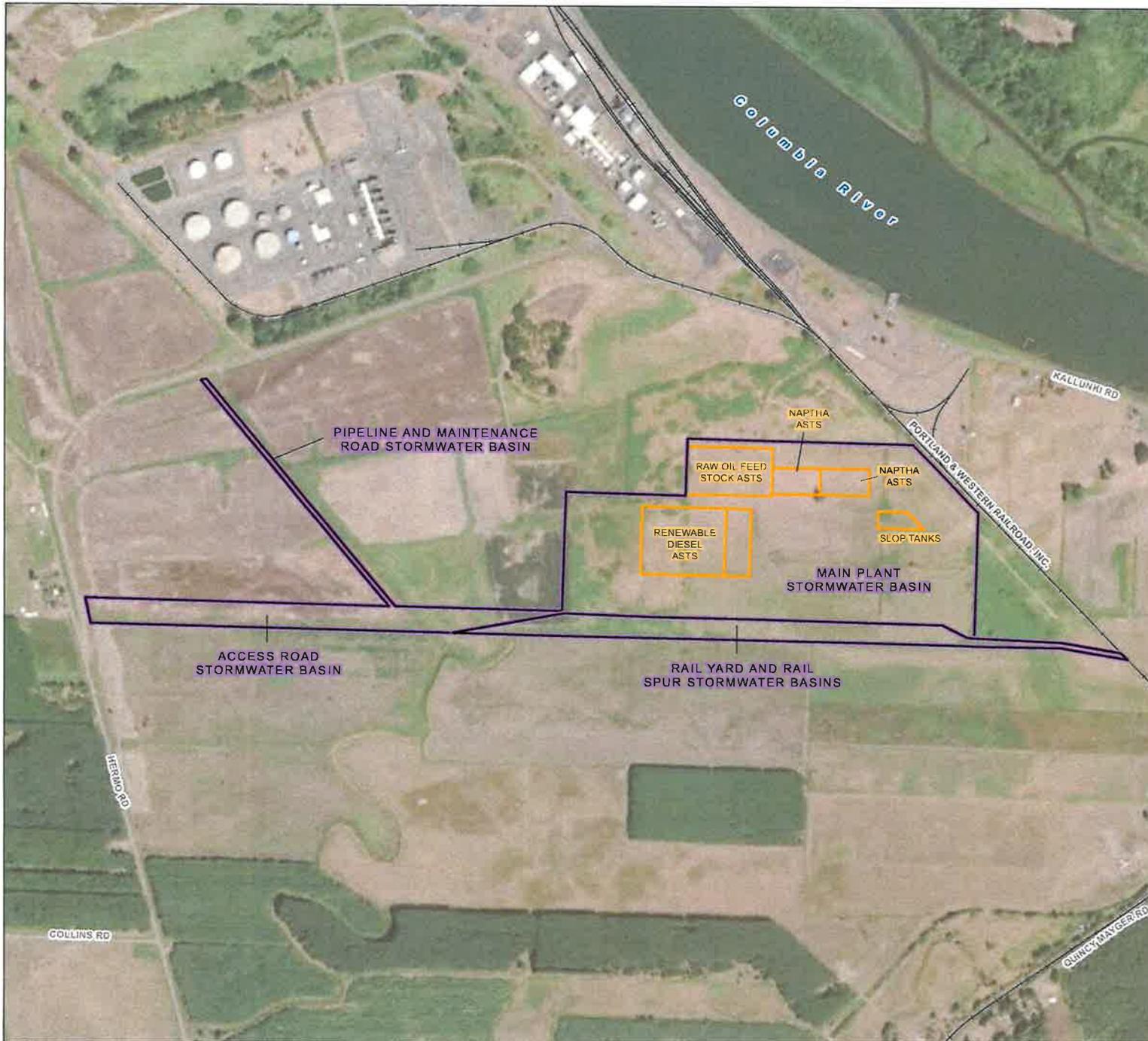
- LEGEND**
-  Site Location
  -  City Boundary
  -  Railroad
  -  Major Road



Date: September 27, 2021  
 Data Sources: BLM, ESRI, ODOT,  
 USGS



**FIGURE 2**  
**NEXT Renewable Fuels Site**  
**Plan**  
 Groundwater Protectiveness  
 Measures

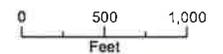


**LEGEND**

-  Containment Berm
-  Site Location
-  City Boundary
-  Railroad

**NOTE**

Stormwater Basins and Site Boundary are from Mackenzie (2021).



Date: September 27, 2021  
 Data Sources: BLM, ESRI, ODOT,  
 USGS, Mackenzie (2021),  
 Maxar imagery (2017)



**ATTACHMENT A**

Oregon Department of Environmental Quality Spill Response  
Fact Sheet

## What to do when you've had a spill

### Contact local emergency services

Call 911 for medical emergency and public safety assistance from the local fire, police and medical services.

### Report the spill immediately

Immediately report the spill or threatened spill to the Oregon Emergency Response System, 1-800-452-0311, when the spill or threat of a spill includes:

- Any amount of oil to waters of the state;
- Oil spills on land in excess of 42 gallons;
- Hazardous materials and reportable quantities that are equal to the Code of Federal Regulations, [40 CFR Part 302](#).

### Provide information

When you report the spill to OERS, you will need to provide basic spill information:

- Contact names and phone numbers
- Type of oil or hazardous material
- Estimated quantity
- Location descriptions (land or water)

### U.S. Environmental Protection Agency Notification

Some oil or hazardous material spills will require a separate notification to the National Response Center, 1-800-424-8802. Visit [EPA's Emergency Response](#) website for information necessary to determine if you need to report to the federal system.

### Other actions to take

- Move away or upwind from the spill if you detect an odor and are unsure if it is safe.
- Avoid contact with liquids or fumes.
- Keep non-emergency people out of the area.
- Control and contain the spill.
- Clean up what you can immediately.
- Remove cleanup materials to an approved facility (such as a solid or hazardous waste landfill or recycling facility.) Save your receipts for documentation.
- Continue with long-term cleanup measures.
- File a completed [Spill Release Report Form](#) with DEQ

### Your role

You are responsible for the immediate cleanup of your spill, regardless of the quantity involved.

The responsibility lies with the person who spills the product, as well as the person owning or having authority over the oil or hazardous material. You may need to hire a qualified

contractor or properly trained and equipped personnel to respond immediately to the spill. If you fail to clean up your spill, DEQ may clean it up for you and, as allowed by law, fine you up to three times the cost of the cleanup, in addition to the actual cost of the cleanup ([Oregon Administrative Rules 340-142](#)).



*Contractors can work to control, contain and mitigate difficult spills like this truck crash on the North Umpqua Highway that caused diesel to leak into the river.*

### DEQ's role

DEQ is responsible for ensuring that the cleanup is completed in a way that protects human health and the environment. Oregon law also requires DEQ to recover its costs in carrying out this responsibility.

Depending on the type and quantity of material spilled, and the potential threat to people or the environment, DEQ may choose to oversee the cleanup. This oversight may take the form of DEQ staff at the scene, phone contact, document review or a combination of these actions. You are responsible for these oversight costs and will normally be billed within 45 days.

### For more information

Regional Emergency Response coordinators are listed in the margin. You may also visit the [DEQ Emergency Response webpage](#).

### Alternative formats

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email [deqinfo@deq.state.or.us](mailto:deqinfo@deq.state.or.us).



**State of Oregon**  
**Department of**  
**Environmental**  
**Quality**

**Emergency Response**  
700 NE Multnomah  
Portland, OR 97292  
Phone: 503-229-6931  
Fax: 503-229-5408  
Contact: Mike Zollitsch  
[zollitsch.michael@deq.state.or.us](mailto:zollitsch.michael@deq.state.or.us)

**Contact the State On-Scene Coordinator in your area:**

**Northwest Region**  
*Portland-Metro and North Coast*  
Michael Greenburg  
503-229-5153  
[greenburg.michael@deq.state.or.us](mailto:greenburg.michael@deq.state.or.us)

**Western Region**  
*Willamette Valley, Cascades, Central and South Coast*  
Geoff Brown  
541-686-7819  
[brown.geoff@deq.state.or.us](mailto:brown.geoff@deq.state.or.us)

**Eastern Region**  
*East of Cascades*  
Jamie Collins  
541-633-2010  
[collins.jamie@deq.state.or.us](mailto:collins.jamie@deq.state.or.us)



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Engineering  
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**MACKENZIE**

Client:  
**NEXT RENEWABLE FUELS OREGON**

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SUITE 705  
HOUSTON, TX 77078

Project:  
**NEXT RENEWABLE FUELS, INC. PORT WESTWARD COLUMBIA COUNTY, OR**



EXPIRES: 12/31/22

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NO. OF SHEETS	1
SHEET NO.	1
TITLE	DRAINAGE PLAN

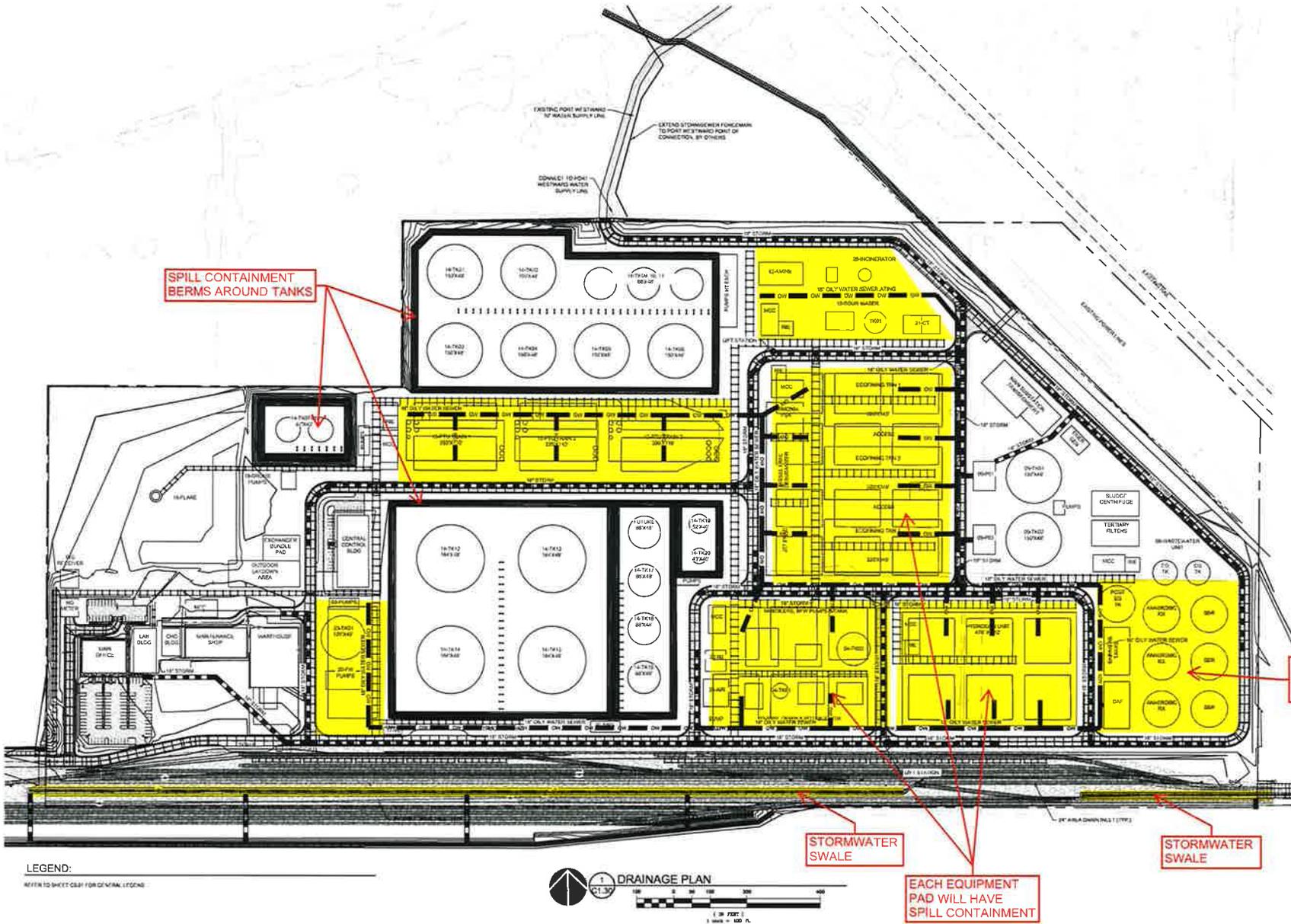
SHEET TITLE  
**DRAINAGE PLAN**

DESIGNED BY: GAV  
CHECKED BY: GAV  
DATE: 11/11/21

**C1.30**

JOB NO. **2200315.01**

COMPLETENESS SUBMITTAL SET - 7/8/2021



SPILL CONTAINMENT  
BERMS AROUND TANKS

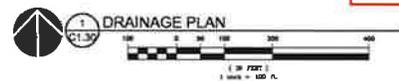
WASTEWATER  
TREATMENT  
PLANT

STORMWATER  
SWALE

STORMWATER  
SWALE

EACH EQUIPMENT  
PAD WILL HAVE  
SPILL CONTAINMENT

LEGEND:  
REFER TO SHEET C041 FOR GENERAL LEGEND





December 3, 2021

Dan Cary, Senior Aquatic Resource Coordinator  
Oregon Department of State Lands  
775 Summer Street NE, Suite 100  
Salem, OR 97301-1279

RE: DSL 63077 – RF Permit Application, Response to Public Review  
Comments

Dear Dan,

NEXT Renewable Fuels Oregon appreciates the opportunity to respond to the comments received by DSL during the Public Review Period for the above reference permit application. NEXT hopes that the responses provided below will offer a better understanding of the project and provide you with informed pathways in the decision-making process.

As we discussed in our meeting on Thursday, November 4, 2021, the comments will be in a narrative form and will be addressed in three sections: Beaver Drainage Improvement Company Concerns, Neighboring Landowner Concerns, and General Concerns. Direct quotes from the person providing the comment are used to provide context.

### Beaver Drainage Improvement Company Concerns

The proposed NEXT Renewable Fuels Oregon Facility and Mitigation site are located within the boundaries of the Beaver Drainage Improvement Company (BDIC). BDIC was organized to provide drainage and flood control to its members, who are the landowners located in the district boundaries. BDIC also delivers sub-irrigation and sprinkler irrigation to a portion of the lands within the district. Halverson Norwest Law Group, P.C. represents BDIC. It submitted a comment letter to DSL on September 24, 2021 (hereafter "BDIC Letter"). The letter's focus is on the proposed Compensatory Wetland Mitigation (CWM) site and its perceived potential impacts to BDIC's operations.

NEXT began meeting with BDIC in January of 2021. Since September of 2021, the NEXT team has had constructive meetings and conversations with the BDIC Board of Directors. NEXT has gathered needed information to help design a successful mitigation site, provided additional information to



alleviate concerns, and where needed design solutions to address BDIC's concerns.

**Concern: Easements and Management Rights:**

BDIC Letter, page 3, paragraphs 2 and 3: *"Currently, the Drainage Company actively maintains and operates an extensive system of drainage ditches, as well as the surrounding dikes. A cursory review of title records concerning lands affected by the Mitigation Plan reveals no fewer than three easements...for flood control, drainage, and irrigation benefits of affected lands. In 1976, the District entered into arrangements with the Army Corps of Engineers ("Corps") for the construction of comprehensive improvements to District-owned levees. In connection therewith landowners...granted to the District and its assigns...the following exclusive real property access and use rights:*

*The exclusive right, privilege and easement to go upon, maintain, and keep in repair the levee and a private road situated thereon for the benefit of the landowners of said district. The district or its authorized agents shall have a perpetual right to go upon said land to maintain, inspect, construct, rebuild and operate dikes, levees, or other flood control, drainage, or irrigation works...."*

Exhibit A to the 1976 Easement includes several, legally described permanent easement areas subject to the above, exclusive access and use rights in favor of the Drainage Company, including, apparently, at least two easement areas within portions of Section 34, recently acquired by NEXT Fuels for Mitigation Site purposes. Additionally, the 1976 Easement confirmed, *"The district has the right to regulate any activity on the easement which may interfere with the Districts "Right of Use"."*

**Response:** A thorough (not cursory) review of each of the easements that burden the proposed CWM site, confirm that the easements granted to the BDIC are constrained by the location, purpose and terms of each easement. The first of the easements referenced in the BDIC Letter were made in August of 1937 and are recorded in Book 61, pages 155 and 196 of the Columbia County Records. These two easements contain identical granting language which conveyed to BDIC an "easement and right-of-way to construct, operate and maintain a diversion ditch, levees and control works, for the purpose of carrying and diverting the waters of Tank Creek, the same to be of the width



designated upon the plat, and to be constructed pursuant to and in conformity with the plans thereof made by the United States Engineers under the Flood Control Act of 1936." These easements are limited to a specific project regarding a particular drainage design with limited width and location. The referenced plat must be reviewed to ascertain the precise confines of these easements, but it is clear that they do not grant unlimited rights to drainage works on the property.

The second set of easements were made in November of 1937 and are recorded in Book 61, pages 533 and 536 of the Columbia County Records. These two easements also contain identical granting language which conveyed to the District the "right to build, construct, reconstruct, and repair the levees, embankments, revetments, canals, ditches and other incidental works appurtenant to the said Beaver Drainage District, on, over, and across the [property], and as shown on maps and plans of said Beaver Drainage District, prepared by the Corps of Engineers, United States Army, which maps and plans bearing date of September 14th, 1937, are on file with the County Court of Columbia County, State of Oregon." The easements are again limited to a particular design as set forth in referenced maps and plans. The face of these easements also identifies a limited width of 20 feet and approximate location along the bank of certain sloughs. Further, while these two easements did grant broader access rights across the properties, such access is limited, so far as practicable, to the use of private roads and driveways.

The final recorded easement dated July 7, 1976, and recorded in Book 209, page 279 of the Columbia County Records, recites that its purpose is verification and extension of the various easements executed by landowners to the District (those easements referenced above) pursuant to an agreement with the United States Army Corps of Engineers. This context is important to understanding the relocation right granted in this easement which allows relocation of "present structures" with the property owners' cooperation and at the expense and responsibility of the District. The relocation right appears to have been made for present structures only in case the existing drainage structures built under the 1937 easements needed adjusted to connect to the extended drainage plan authorized here. While other existing structures may also have been the object of relocation, the term "present structures" indicates an intention to relocate only as needed to complete the updated and extended drainage plan.

It also appears that this easement may be the basis of the District's



claim to broad authorization, but this instrument includes numerous constraints. First, the location of the easement is limited to those specific areas identified in the Exhibit A attached thereto. Second, the purpose of the easement is limited to the “right, privilege and easement to go upon, maintain and keep in repair the levee and a Private road situated thereon.” The District was also granted a perpetual right to go upon the burdened lands to “maintain, inspect, construct, rebuild and operate dikes, levee or other flow control, drainage, or irrigation works but such power over said lands shall be limited to the above.” This final grant of rights incorporates both of the limitations identified above, being the limited lands described in Exhibit A and the limited purpose related to a certain levee and private road.

All of the easements granted to BDIC and located with the CWM area have clear limitations as to their location and purpose. The language on the face of each easement also limits the District’s rights under these easements. It is incorrect to read the easements as blanket authorizations for the District to construct drainage works at any time and any place or to move existing drainage works as it sees fit. Furthermore, to the extent that the levee is the subject of the 1976 easement, that levee does not touch or lie within the proposed CWM site.

In recent meetings with BDIC Board Members, NEXT learned that BDIC’s main concern regarding the easement is the ability to maintain BDIC ditches. BDIC is concerned that the incumbrances of the CWM site will negate their ability to maintain BDIC drainage ditches and more importantly control where the resulting spoils will be placed. NEXT has agreed to exclude the authorized easements from the mitigation site, allowing BDIC unincumbered access for maintenance. NEXT has also in discussions with BDIC regarding the option to pay for the removal of spoils for maintenance of BDIC ditches within the boundaries of the CWM site. The engineering team is also in discussions with BDIC to determine if routing the ditches around the mitigation site would be a more effective approach to for maintenance and water conveyance.

### **Concern: Water Rights**

***BDIC Letter, page 3, paragraph 4: “Under Certificate 83174 issued to its District predecessor, water is directed southward to Drainage Company lands for use on specified lands lying within Township 8 N., Range 4 W., W.M. Certificate 83174 is an irrigation-only water right;***



*it does not expressly allow "wetland enhancement" or specialized purposes of use for which water rights may be authorized under Oregon law."*

**Response:** Certificate 83174 confirms the right to use waters of the Columbia River for irrigation. The final proof map for Certificate 83174 further confirms the fact that a portion of the irrigation water right, including the part that is appurtenant to the CWM site, is for sub-irrigation (the rest is used for sprinkler irrigation). The definition of "irrigation" in Oregon's water regulations is quite broad and does not distinguish between irrigation of wetland plants and irrigation of crops. Rather, irrigation "means the artificial application of water to crops or plants by controlled means to promote growth or nourish crops or plants...." OAR 690-300-0010. Thus, the legal definition of irrigation does not provide a basis for distinguishing between use of water under Certificate 83174 to irrigate wetland plants as opposed to crops, or between the use of sub-irrigation to create (initial growth of plants) vs maintain wetland plants in perpetuity.

BDIC Letter, page 5, paragraph 4: *"Our unconfirmed understanding at this time is that NEXT Fuels does not intend to make use of the Drainage Company's surface water irrigation right under Certificate 83174, at least on a continuous or extended basis, for wetlands enhancement purposes within the Mitigation Site."*

**Response:** NEXT does intend to use the water rights appurtenant to the CWM site. The water rights are subsurface irrigation water rights (see the Final Proof Survey for Certificate 83174), not sprinkle irrigation water rights. The water rights will be used to provide subsurface irrigation to wetland plants when the CWM site is created, and in perpetuity as it is maintained in accordance with the DSL permit and the CWM plan requirements.

In meetings with BDIC, NEXT has made it clear that they intend to use the subirrigation water right appurtenant to the CWM site in perpetuity. With this understanding, there can be no further concerns regarding the forfeiture of any portion of the irrigation water right evidenced in Certificate 83174.

#### **Concern: Reduction of Ditches**

BDIC Letter, Page 4, Paragraph 2: *"Next fuels proposes to offset permanent wetlands impacts by fundamentally changing Mitigation Site hydrology and function by, among other measures:*



- *Filling approximately 26,800 linear ft. of the existing Mitigation Site drainage ditches operated by the Drainage Company."*

**Response:** McLean Slough, Dobbins Slough, and Beaver Slough are used for drainage and irrigation. Each of these ditches borders or traverses the mitigation site. They will not be negatively impacted by the proposed construction of the CWM site and will therefore remain at the current location, elevation, and capacity unless BDIC requests (and DSL approves) that NEXT relocate these ditches as part of the CWM plan. Additional, exterior ditches capture and convey drainage water and carry irrigation water to properties neighboring the CWM site.

Within the CWM site, NEXT intends to enhance the hydrologic function of the CWM site by replacing the straight interior drainage ditches with dendritic channels. These interior ditches are not subject to BDIC easements, nor are they operated by BDIC. The improvements to the interior drainage ditches would consist of minimal alteration to any BDIC conveyance features and would not reduce their hydraulic capacity. Alterations may include minor grading adjacent to the sloughs and minor grading along the bank where the existing drainage ditches and proposed dendritic channels connect to the sloughs. The dendritic channels are designed to retain water on site longer allowing precipitation to infiltrate into the ground and increase the groundwater elevation on the site. The dendritic channels are also designed to detain water on site to allow precipitation to infiltrate into the ground and create a localized increase of groundwater elevation within the CWM site. All perimeter ditches are to remain to prevent the localized ground water increases from propagating onto neighboring properties. Since the project proposes to excavate a large amount of soil (approximately 6 inches across the CWM site) from within the CWM, the proposed project will result in an increase of storage capacity for rainwater within the CWM site.

In discussion with BDIC and adjacent landowners regarding the function of each ditch, it has been determined that portions of some interior ditches need to remain in place as they are critical to the conveyance of both drainage and irrigation water. As previously stated, the engineering team is working with BDIC to determine if routing the ditches around the CWM site would be mutually beneficial to the BDIC and the CWM site. The drainage and irrigation ability of the BDIC will not be reduced. These ditches will be incorporated into



the final construction drawings and in the CWM plan. The CWM plan will continue to be adjusted as new information about how BDIC operates the district comes to light.

**Concern: Management of Seasonal Water Levels**

*BDIC Letter, Page 7 Paragraph 1: "Historically, the Drainage Company recognizes separate "summer" and "winter" water levels for irrigation and drainage purposes, which differ by several feet. Thus, and depending upon the depth of NEXT Fuels' excavation at various locations within the Mitigation Site, we expect the proposed mitigation "wetlands" could be either completely dry, or completely inundated. In either case, the desired wetlands would fail as a jurisdictional matter and mitigation for Facility impacts would be insufficient."*

**Response:** In order to assess water levels and design the mitigation site for success, NEXT will conduct hydrology monitoring throughout the duration of the final design. This monitoring will be accomplished by installing a minimum of 11 groundwater monitoring wells across the site. The monitoring wells will be equipped with electronic data loggers to provide twice-daily ground water elevation readings. Readings will be collected for a year prior to construction. These observations will allow NEXT to confirm how the seasonal operation of the BDIC's drainage and irrigation operations will impact groundwater level at the mitigation site. Data loggers will also be installed at critical locations in the adjacent sloughs. The data will help confirm how the seasonal operation of the BDIC impacts the water surface levels at the project site. They will also help determine the relationship of the groundwater within the site to the surface water in the sloughs. As discussed in section 4.3 of the CWMP, preliminary analysis shows that the proposed elevations of the CWM site will work with the stated water management practices of the BDD by the BDIC.

The entire CWM site is wetlands that are developed with hydric soils. The wetlands are supported by natural precipitation, groundwater, surface runoff, and/or subsurface irrigation (during the dry months). To improve wetland hydrology, the entire site will be lowered by approximately 6 to 12 inches to help the roots of the wetland plants reach the saturation zone during the appropriate time of the year. The final elevation will be based on the data from the groundwater monitoring, along with operational information from BDIC, and an extensive LiDAR survey that will be conducted once the farmed trees



are removed from the site.

As previously stated, the elevation and capacity of the ditches located around the perimeter of the mitigation will not be impacted. By lowering the surface elevation at the mitigation site and creating dendritic channels this will increase hydraulic connection between the site and perimeter ditches. Therefore, in the summer months the site will be sub-irrigated by water flows in the exterior ditches and through the subsurface connectivity to Beaver Slough. During the winter months, the dendritic channels and shallow ponds will help the site from being inundated in the event of heavy precipitation, provide flood control for the district, and relieve stress on the district's pumps by slowly releasing water into the exterior ditches. The dendritic channels will have a surface connection to the perimeter ditches which will allow water to drain from the site during high water levels.

In our discussion with BDIC, they have stated their concerns about how the operations of the district could potentially impact the mitigation site. The NEXT design team is taking this information into consideration and incorporating it into the final design. NEXT feels that the current operations within the BDIC will continue to provide for conditions that allow for wetlands to thrive and lend itself to a successful mitigation site. The proposed mitigation plan has an abundance of biodiversity; should operating conditions at the site change, the wetlands will naturally adapt.

#### Concern: Decreased Water Control

BDIC and others have expressed concerns that the CWM site will impact the BDIC's ability to control drainage and irrigation water throughout the district.

*BDIC Letter, Page 7 Paragraph 2: "Collectively, the variously proposed "enhancements" under the Mitigation Plan reduce reliability and functionality of drainage systems, water delivery, and water storage capability, which introduce additional risks to capital intensive commercial agricultural operations throughout the Drainage Company service area.....[we] are not confident that irrigation water delivery and drainage services can be maintained at their current level of reliability - particularly on commercial agriculture lands downgradient to the Mitigation Site and impacted directly by the proposed fill and relocation of ditches and potential levee modifications."*

**Response:** NEXT anticipates that the proposed CWM site will have no impact on the BDIC's ability to control drainage and irrigation water conveyance. Additionally, construction of the proposed CWM site is not anticipated to cause adjacent properties to flood or change the groundwater elevations in surrounding property from existing conditions. As explained above, NEXT will not be filling BDIC perimeter drainage and irrigation ditches, but NEXT is willing to relocate the ditches operated by BDIC with BDIC consent (and DSL's approval). Additionally, the engineering team is in discussions with the BDIC to possibly increase the conveyance capacity of perimeter ditches to improve drainage and delivery of irrigation water to neighboring property owners. Because the lowest elevation of the perimeter ditches will be lower than the mitigation site, these ditches will intercept any increase in groundwater elevation that occurs on the CWM site and allow it to drain to McLean Slough (or other surrounding ditch), thus avoiding impacts to an adjacent property.

There is not anticipated to be an increase in the BDIC pumping cost associated with the CWM site since the proposed enhancements are not adding or subtracting water in the BDIC system. The enhancements are designed to work with the volume of water that is present at the site. Further, the CWM site may act as a buffer within the BDIC by slowing the release of water from the site during the wet season.

As also explained previously, the mitigation site improvements would consist of minimal alteration to internal ditches and would not reduce their hydraulic capacity. The levee is not located within the mitigation site and will not be impacted by any of NEXT's mitigation site preparation or maintenance activities.

In discussions with BDIC and adjacent landowners, NEXT has determined that there are internal ditches within the mitigation site that they would like NEXT to maintain to provide conveyance. The main concern is an area located on the southeast edge of the CWM site between Beaver Dike Road and Hermo Road. This area currently drains via a ditch that runs through the southern portion of the CWM site. NEXT is working with the BDIC and the neighboring landowner to relocate this drainage pathway outside of the CWM site to a ditch along the southern edge of Hermo Road. Relocation of the drainage path would include improvements to existing ditches as part of the construction of the CWM site. The improvements would include cleaning, deepening, and widening of the ditches along this conveyance path as needed to restore and provide the capacity to



continue to drain the area on the southeast edge of the mitigation site. Routing this flow around the southeast corner of the CWM site and along the southern edge of Hermo Road will provide conveyance that is easy for the BDIC to access and maintain since it will be adjacent to farm fields and Hermo Road instead of through the middle of the CWM site. It is also anticipated to reduce ditch maintenance associated with beaver activity.

Additionally, NEXT is working with the BDIC regarding improvements to the district that would improve overall water conveyance throughout the district. Improvements may consist of replacement or construction of control structures. Currently, the BDIC utilizes a control structure on McLean Slough at the intersection of Collins Road to control subsurface irrigation during the summer. The BDIC has indicated that improvements may be needed at this control structure. Improvements would be designed to maintain the capacity and operational function of the existing structure but would improve the function and reduce the operation and maintenance for the BDIC.

In conclusion, the proposed CWM site will not affect the BDIC's ability to control water levels on surrounding properties, due to the CWM design which includes presence of these perimeter ditches, no reduction in capacity of McLean Slough or Dobbins Slough, and the design of a conveyance system that will provide drainage to the properties at the southeast corner of the CWM site. This along with the proposed improvements to the district infrastructure should enhance the BDIC's ability to control water within the district.

#### **Concern: Increase Flow from Sand Layers**

**BDIC:** A concern has been expressed by the BDIC (but not in its comment letter) is that a sand lens could be encountered during the construction of the CWM site that would increase flow into the BDIC drainage works, resulting in increased pumping costs to the BDIC.

**Response:** This potential has been evaluated by the NEXT engineering team. The likelihood of uncovering a sand lens during construction is low due to the fact that numerous existing drainage ditches systematically transect the CWM site and have not encountered a sand lens.

That said, if a sand lens is encountered during construction, site grading can be adjusted to avoid it and reduce the possibility of increased inflow into the BDIC.



### **Concern: Reduced Financial Contributions**

BDIC and other district members have raised concerns regarding their inability to make assessments against the land if it is a CWM site.

**Response:** There is a misconception that if the land becomes a mitigation site that it relieves the landowner of the financial burden of paying the BDIC financial assessment that incumbers all landowners or members within the district. Any landowner of the site is a member of the BDIC. All members of the BDIC are assessed an annual fee for the maintenance costs of the district (and can be assessed for other items as authorized by the district's bylaws). NEXT intends to be a productive member of the BDIC which includes paying their assessments. NEXT does not anticipate that the BDIC will suffer any financial loss due to the construction of the CWM site. On the contrary, due to the responsibility of maintaining the CWM site in perpetuity, NEXT has a vested interest in ensuring that the BDIC is well maintained.

### **Neighboring Property Owner Concerns**

Developing a project with no negative impacts to neighboring properties has been a priority for NEXT. As previously stated, the NEXT Renewable Fuels Oregon Facility and Mitigation site is located entirely within the BDIC. There are approximately 30 adjacent properties to the Facility site and 46 properties that are directly adjacent to the proposed mitigation site. NEXT will continue to make protection of neighboring properties a priority as work continues on the final design of the facility and the mitigation site.

During the comment period, DSL received comments and concerns from landowners regarding the proposed project, mostly related to the mitigation site and a few related to the facility. Many concerns are similar to those addressed above. However, to fully understand landowner concerns, NEXT invited each landowner in the BDIC to participate in individual meetings with NEXT staff and engineering team giving landowners the opportunity to directly express their concerns to the team. NEXT met with several landowners, some who provided comment during the comment period. The following is a narrative of the concerns that DSL requested that NEXT respond to and other concerns that were expressed during landowner meetings.

### **Concern: Flooding of Adjacent Farms from Removal of Connecting**



## Ditches

In a letter to DSL from landowner Wayne Horness, it states *“As an adjoining landowner, I have some concerns regarding the NEXT Renewable Wetlands Mitigation Application to allow water to be removed from my property. Water is currently removed from a common ditch (Dobbins Slough) between my property and Greenwood Industries (tree farm) through their culvert and private ditch that empties into McLean Slough. They and their predecessors use a “good neighbor policy” to evacuate water from land belonging to me and my neighbors. There are multiple properties nearby whose surface water feeds into a cross ditch on my property. The cross ditch in turn feeds into the Dobbins Slough. This proposed mitigation plan, with the elimination of the culvert and private ditch now being utilized, will result in my property, as the lowest point, being flooded.”*

**Response:** As previously discussed, construction of the proposed CWM site is not anticipated to cause adjacent properties to flood or change the water table in surrounding property from its existing conditions. This will be accomplished by maintaining the current elevation and capacity of the existing perimeter ditches around the proposed mitigation site. This will allow for water leaving the neighboring properties to be intercepted by the existing ditches and conveyed to the pumps as per current operations. The perimeter ditches will also intercept water leaving the mitigation site and convey that water to the pumps as well. The enhancements at the CWM site are designed to work with the volume of water that is already present at the site. The CWM site may act as a buffer within the BDIC by slowing the release of water from the site during the wet season, but it is not anticipated to increase the volume of water within the BDIC.

In our dialogue with the BDIC and adjacent landowners, there are ditches within the mitigation site that need to be maintained to provide continued conveyance. NEXT met with Mr. Horness who stated that his concerns are with the area located on the southeast edge of the CWM site between Beaver Dike Road and Hermo Road as discussed above. The BDIC currently drains this area via a ditch that runs through the southern portion of the CWM site. NEXT is working with the BDIC to relocate this drainage path from the middle of the CWM site to a ditch along the southern edge of Hermo Road. Relocation of the drainage path would include improvements to these ditches as part of the construction of the mitigation site. The improvements would include cleaning, deepening, and widening of the ditches along this conveyance path as needed to provide the capacity to continue to



drain the areas outside of the mitigation site. Routing this flow around the southeast corner of the CWM site and along the southern edge of Hermo Road will provide conveyance that is easy for the BDIC to access and maintain since it will be adjacent to farm fields and Hermo Road instead of through the middle of the CWM site.

Mr. Horness was also concerned with beaver activity that impedes the conveyance of water in that area. Routing the drainage around the site is anticipated to also reduce ditch maintenance associated with beaver activity. Additionally, NEXT has modified the mitigation plan to move the forested wetlands away from any perimeter ditches to discourage beaver activity within the perimeter ditches.

#### **Concern: Toxic Spills**

During the comment period and in our meetings with landowners, concerns about the potential for toxic spills at the Facility was raised.

**Response:** The NEXT facility is designed to reduce the opportunity for spills and in many cases has multiple protection factors. Prior to operation of the facility, NEXT will develop a Facility Response Plan, a DEQ approved Oil Spill Contingency Plan (OSCP), and an EPA approved Spill Prevention Control and Countermeasure Plan. NEXT will operate the facility utilizing Best Management Practices (BMP) outlined in the above plans to prevent spills and be prepared with onsite equipment for a quick response in the event of a spill. The following protection measures are inherent in the design:

**Within the Facility:** If a spill were to occur within the plant, the plant is designed with secondary containment around the tanks. Tanks are contained within the internal dike system which are designed to hold the capacity of the tanks. If a spill occurs within the plant, it would be contained within the plant and would be conveyed to the existing wastewater – stormwater system. Spill material would be collected into the wastewater – stormwater system and treated before being discharged to the Port's existing system or removed from the Facility and disposed of at an approved facility.

**Outside of the Facility:** A spill outside of the Facility would most likely occur from a pipeline leak or break. The pipelines are equipped with emergency shut off valves to minimize spill volumes. Following this type of spill, a typical spill response would occur including spill booms, vacuum truck, and



excavation if necessary. If the spill were to enter a waterway, control gates would be closed near the site to allow for cleanup. Mitigation efforts include a Leak Detection (“LDAR”) program which requires inspection of pipelines during operation. LDAR is for volatile organic compound leaks. BMPs include that general operator rounds would require routine (daily - shift) surveillance of the pipelines. There will be a Mechanical Integrity program that will require routine monitoring of the pipe thickness etc. for the pipelines.

Terminalling Partner: NEXT is contracting with Cascade Kelly Holdings, LLC (D/B/A CPBR), the operator of the bulk liquid fuels terminal at Port Westward. CPBR will be responsible for receiving feedstocks from marine vessels and loading marine vessels with finished product at the dock at Port Westward. CPBR has oil spill contingency plans with the following entities: (1) U.S. Environmental Protection Agency (EPA) Facility Response Plan; (2) EPA Spill Prevention Controls and Countermeasures Plan; (3) U.S. Coast Guard (USCG) Facility Response Plan; and (4) Oregon Department of Environmental Quality (ODEQ) Oil Spill Contingency Plan. CPBR contracts with Clean Rivers Cooperative (CRC) as their Oil Spill Response Organization (OSRO).

In addition to the above-mentioned plans, CPBR stages over 6,500 feet of containment boom, skimmers, and two deployment vessels at the Port Westward facility. Vessels approaching and leaving Port Westward are also required to have their own Vessel Response Plan. For vessels transiting marine waters, CPBR contracts with Marine Spill Response Corporation as their OSRO. Once vessels enter the Columbia River, a second marine organization, Maritime Fire and Safety Association (MFSA) becomes an additional OSRO. In the event that MFSA and CRC need additional resources, CPBR is covered by the Strategic Northwest Area Contingency Plan.

CPBR is involved in regular exercises that ensure its plans can be implemented and will be effective. CPBR is required to show spill response preparedness by performing a yearly exercise that simulates a spill in the Columbia River. The EPA executed an unannounced drill at CPBR's facility, and they received an “A” grade for execution. CPBR also executed drills with Federal and state agencies, and received high marks for the execution and planning of a medium-sized incident. CPBR also



participates in Columbia River corridor spill exercises with other entities and their OSROs.

### Concern: Shutting Down Pumps and Flooding

In David Long's comment letter to DSL dated October 1, 2021 in Paragraph 5, he states "...[if] the Next mitigation system failed from any number of events including but not limited to their pumps failing and contaminated water spilling into the drainage district waters... Such a scenario might require the pumps that keep our land from flooding several times a year to be turned off to keep contaminated waters from being pumped into the Columbia." In our meeting with landowners, they express similar concerns that in the event of a spill that the downstream pumps that are used to pump water out of district during high water events would be shut off to prevent hazardous materials from entering the Columbia River.

**Response:** As previously stated, prior to operation of the facility, NEXT will develop a Facility Response Plan, an Oil Spill Contingency Plan (OSCP), and a Spill Prevention Control and Countermeasure Plan (SPCC). The goal with any type of spill is containment. The BDIC pumps are approximately 6 ditch miles from the site. There are many opportunities to contain any spill before it got to the pumps. The complete spill response and counter measure plan will be created once the facility is fully designed.

## General Concerns

The following narrative is provided to address general concerns expressed in the received comments. The narrative is approached in two sections Mitigation Site General Concerns and Project General Concerns.

### Mitigation Site General Concerns

#### Concern: Longer-Term Effects

**Response:** As previously stated NEXT does not anticipate that the CWM site will have any negative effects on neighboring property owners or agriculture production in the BDIC. In fact, NEXT anticipates that the CWM site will provide net benefit to the BDIC as wetlands are remarkable ecosystems that provide many environmental benefits and biodiversity. Biodiversity is an imperative element of the multifunctional resilience in wetland ecosystems. The CWM site is



designed with an abundance of biodiversity. These ecosystems can be an important asset to sustainable agriculture. Scientific research has shown that wetlands are known to provide flood control, improve water quality, and enhance carbon sequestration. Wetland function as natural filters for agricultural nutrients and contaminants which improves water quality. Their water storage capability also makes wetlands a valuable asset for replenishing groundwater resources and drought resiliency. Additionally, wetlands serve as permanent and temporary homes for a variety of fauna including pollinators, beneficial insects, birds, amphibians, reptiles, and mammals. Having non-crop habitat creates a favorable environment for pollinators resulting in an abundance of species due to the complex landscape. By increasing biodiversity, natural enemies (predators) increase; as a result, fewer pesticides are needed for crop production. Finally, the proposed mitigation site will protect valuable topsoil in perpetuity.

Overall, long-term the CWM site will be a benefit for landowners and the biodiversity in the BDIC. While it is extremely difficult to anticipate the long-term outlook for the proposed CWM site given the multiple variables such as climate change, environmental impacts, and potential catastrophic events, we do know is that the CWM site will be designed to be self-sustaining, the land will be protected in perpetuity by a deed restriction or a conservation easement, and NEXT will develop a long-term management plan which incumbers the renewable fuels facility with the financial responsibility for long-term maintenance of the CWM site. Additionally, NEXT is required to provide DSL with a financial instrument to guarantee the performance of the CWM Site and to provide to DSL financial resources to conduct mitigation in the event of default of the mitigation obligation.

In conclusion, NEXT anticipates that CWM site will have positive long-term effects for BDIC and the environment.

#### **Concern: Inclusion of Columbia County SWCD and OSU Extension**

In a comment to DSL from Dan and Lynn Green, they state *"The design of mitigation site should include local Columbia Co. agencies such as the Soil and Water Conservation District and OSU Extension to ensure the success of the wetland site."*

**Response:** NEXT has made multiple attempts to reach out to both the Columbia County SWCD and the OSU Extension service to gain input on the design. To date NEXT has not received any response from the SWCD. Chip Bubl, OSU Extension Agent, is a Port of Columbia County



Commissioner and very aware of the project.

**Concern: Mitigation Site Proximity to Impact Area**

In several of comment letters received by DSL it states *"Disturbed sensitive lands should be mitigated as closely as possible to the disrupted site so local flora and fauna still have local habitat to live in."*

**Response:** NEXT looked at multiple mitigation site options including land adjacent to the impact site to conduct mitigation before deciding on the proposed CWM site. The proposed CWM site is an ecologically suitable location that is approximately 0.5 miles directly south of the impact site. The site was selected due to its proximity to the impacted wetlands and its ability to provide naturally functioning hydrology and long-term sustainability. The site is located within the Lower Columbia/Clatskanie Watershed which is within the DSL required 8<sup>th</sup> HUC. The proposed site has hydraulic connectivity to the impact site and has similar function and values as the impact site. The proposed CWM site is currently a commercial poplar plantation with varying aged stands.

Regarding the mitigation site the comments letter also state that *"A project of this size should have to meet the ODSL "Enhancement" level of mitigation. Wetlands on the proposed construction site are low-quality degraded wetlands, so mitigation should restore habitat that is far better than what currently exists in the drainage district."*

According to the DSL Removal/Fill Guide, *"Enhancement recognizes that there will be a net loss of wetland acreage but that a net gain in wetland functions and values allows the agencies to achieve other programmatic mitigation goals."* The concept of this CWMP is to replace the functions and values of wetlands lost from construction of the renewable fuel facility, through enhancement of wetlands. Proposed mitigation for wetland impacts associated with the project will involve enhancement of degraded wetlands located southwest of the proposed renewable fuels facility site. The goal of this mitigation activity is to offset permanent, unavoidable impacts to wetlands by enhancing Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), and Palustrine Forested (PFO) wetland areas with essentially similar or better attributes as the impacted wetlands. The proposed CWM Plan will enhance 484.44 acres of wetlands at a ratio of 3.9:1. The goal is to enhance the proposed CWM site with vegetation and hydrology to re-establish a native Columbia River bottomland emergent and



shrubby wetland community.

**Concern: Historic Pesticide Use**

According to a local landowner, historically, harmful pesticides have been used on the proposed CWM site. There is concern that site excavation will release pesticides that could be potentially stored in the soil.

**Response:** NEXT has discussed the use of pesticides with the previous owner's manager. He indicated that over past 20 years the tree farm did use pesticides that were mechanically applied by a licensed applicator and that all pesticides were applied according to the manufacturer's label. According to the Tree Farm Manager, the tree farm was Forest Stewardship Council (FSC) Certified from 2007 to 2018. FSC certification ensures that products come from responsibly managed forests that provide environmental, social, and economic benefits. To be FSC Certified the member must follow the program's strict pesticide policy. He also indicated that no pesticides have been applied to the proposed CWM site since 2018. He said that according to his predecessor, rodenticide was used in the past but not been used in the past 20 years.

While pesticides can remain in the soil for years and even decades, given the annual rainfall and sub-irrigation at the proposed CWM site and the tree rotation that occurs every 12 to 15 years, it is unlikely that excavation will release toxic pesticides. Soil sampling will be conducted prior to removal of soil to an upland disposal site.

**Concern: Incomplete Mitigation Plan**

In a letter to DSL from Columbia Riverkeeper dated September 30, 2021 on Page 2 Paragraph 2, it states "The proposed mitigation is not only inadequate but also in a state of flux...." Several commentors stated that the mitigation plan is incomplete and needs more detail, others were concerned that NEXT was too far along in the design.

**Response:** According to the DSL Removal Fill Guide "*A mitigation plan describes in detail the proposed mitigation site; how it will be constructed, monitored, and maintained.*" The CWM Plan for NEXT Renewable Fuels Oregon (the Plan) was developed in a specific sequence. First, a goal was established, then the objectives were identified, performance standards were outlined, and a monitoring plan was developed to help achieve the goal. Based on these



guidelines, Chapter 9, “Develop a Mitigation Plan” of the Removal Fill Guide and the related Oregon Administrative Rules, the Plan was developed and includes all features of a mitigation plan as defined above. Additionally, the Plan meets the following principal objectives:

- Replaces functions and values lost at the removal fill site.
- Enhances waters of the state, will be self-sustaining and will require minimal long-term maintenance.
- Siting of CWM site is ecologically suitable given its proximity to the impact site and the hydrologic connection.
- Construction of the CWM site will be concurrent with the impact site to minimize temporal loss.

NEXT agrees that construction plans for the CWM site are relatively conceptual, but conditions for finalizing the construction drawings are identified in the Plan and could be conditions of the permit. These include:

- Installing groundwater monitoring wells and collecting the data for a year. These observations will assist the engineers in determining the appropriate grading elevations for final construction drawings, help confirm how the seasonal operation of the BDIC impacts groundwater level at the mitigation site, and determine the relationship of the groundwater within the site to the surface water in the sloughs.
- Completing a LiDAR survey with ground truthing once the trees are removed. This will provide the engineers with a more accurate understanding of ground elevations and better topographic definition of the features of the site.
- Gathering operational information from the BDIC and local landowners to ensure that the mitigation plan will have no negative impacts on water conveyance.
- Utilizing adaptive management in the final design and construction.

As previously stated, NEXT has been holding regular meetings with the BDIC Board and has met with several of the adjacent landowners to work through issues and concerns. Additional information has been gathered regarding water rights, easements, existing site conditions, existing elevations of features within the district, flow levels, and district operations. This information has been used to update the CWM Plan. NEXT will provide DSL an update plan by December 15, 2021.



## Project General Concerns

### Concern: Tribal Land Impacts

**Response:** To help inform the Section 106 process, Archaeological Services, LLC (ASCC) began a cultural resources investigation of the both the facility and mitigation sites in November 2020. To date, ASCC has completed a literature review and pedestrian survey of the entire Area of Potential Effects (APE) along with a subsurface survey of the facility site. Although research is ongoing, ASCC has identified no precontact or NRHP-eligible cultural resources within the APE. ASCC's work has resulted in one cultural resources survey report being submitted to Oregon SHPO (Phase One Cultural Resources Survey of the NEXT Renewable Fuels Oregon Project Area, Columbia County, Oregon [Oregon SHPO Biblio# 31574]). A second report covering the subsurface investigation is in progress.

Recognizing that Section 106 consultation with Tribes is a government-to-government process, ASCC reached out informally to appropriate Tribes on November 24, 2020 to notify them of the field schedule and invite discussions about the project area. ASCC contacted cultural resource staff of the Confederated Tribes of Grand Ronde, the Confederated Tribes of Siletz Indians, the Cowlitz Indian Tribe, the Shoalwater Bay Tribe, the Chinook Indian Tribe, and the Confederated Tribes of Warm Springs. As of this writing, ASCC has received no responses from Tribes aside from thanks for the notification. Tribes have also been kept informed of ASCC's research and field methodology through the Oregon State Historic Preservation Office (SHPO) archaeological permit process, which produced Oregon SHPO archaeological permits 3063 and 3064.

Given the presence of at least one early nineteenth-century Indigenous village on the nearby Columbia River shoreline (Qaniak or Cooniak, or the "Whill Wetz Village" as it was called by one Euro-American explorer), ASCC expects that formal consultation with Tribes of the Lower Columbia River may include discussions of potential Traditional Cultural Places (TCPs) in the vicinity. ASCC's research has not indicated that any TCPs are present, but this information may be confidential to Tribes.

ASCC's review of the archaeological literature indicated that two previously recorded archaeological sites, 35CO14 and 35CO16, overlap



portions of the APE. ASCC's work at 35CO14 classifies it as a historic debris scatter from ca. 1940-1960. ASCC has found no evidence of a precontact component at the site. Site 35CO16 is recorded at a heavily disturbed location at the mouth of Bradbury Slough. Although the past archaeological finds there suggest the remains of a precontact village, the portion of the site within the APE has already been established as an industrial docking/loading area and is covered in roughly 16 inches of compacted gravels. The project proposes the continued use of this area as a turnaround and storage area, presenting no real potential for adverse effects to archaeological deposits.

In summation, ASCC's investigation of the APE has thus far produced no indication that the project will affect significant Tribal or Euro-American historic cultural resources. Formal Tribal consultation for the project is expected to be taken up by the U.S. Army Corps of Engineers during the Section 106 review.

**Concern: ESA Species Impacts**

Several commentors stated that they were concerned about the potential impacts to species listed under the Endangered Species Act (ESA).

**Response:** A Biological Evaluation (BE) was completed by Lynn Simpson, Ecological Land Services, Inc. A federal nexus is created through NEXT's application to the USACE for a Section 404 permit to place fill into Waters of the United States. The BE was completed in part to determine the effects the project might have on ESA listed species and their critical habitat. The following table shows federally endangered, threatened, proposed, and candidate species and critical habitat that were on the species list and that may have suitable habitat within the action area.

Species, ESU, or DPS	Status	Critical Habitat in Action Area?
<b><i>NMFS Jurisdiction</i></b>		
<i>No species under NMFS jurisdiction have suitable or critical habitat in the action area.</i>		
<b><i>USFWS Jurisdiction</i></b>		
<b>Columbian White-Tailed Deer - Columbia River DPS</b> <i>(Odocoileus virginianus leucurus)</i>	Threatened	No

Species, ESU, or DPS	Status	Critical Habitat in Action Area?
Streaked Horned Lark ( <i>Eremophila alpestris strigata</i> )	Threatened	No
Nelson's Checker-Mallow ( <i>Sidalcea nelsoniana</i> )	Threatened	No
Kincaid's Lupine ( <i>Lupinus sulphureus ssp. kincaidii</i> )	Threatened	No

### Summary of Effect Determination

The project may affect, but is not likely to adversely affect the following listed species or their designated critical habitat:

- Columbian White-Tailed Deer, Columbia River DPS
- Streaked Horned Lark
- Nelson's Checker-Mallow
- Kincaid's Lupine

### Columbia White Tail Deer

The USFWS species list includes the Columbia River DPS of Columbian white-tailed deer (CWTD, *Odocoileus virginianus leucurus*). No critical habitat has been designated for this species (USFWS 2021).

While there is no preferred habitat in the action area, CWTD have been observed in the area as they have adapted to using lower elevation floodplain areas where they seek out deciduous forests and woodland edges (Washington Department of Fish and Wildlife 2021). There is suitable habitat for foraging and cover at the proposed mitigation site and surrounding areas.

### Effect Determination for Columbian White-Tailed Deer

The proposed project may affect, but is not likely to adversely affect Columbian white-tailed deer. A may affect determination is warranted for the following reasons:

- Suitable habitat for Columbian white-tailed deer foraging occurs on the project site. The project site will eliminate about 127 acres of suitable foraging habitat by constructing the industrial facility.



- Staging areas near the facility may be used by CWTD as foraging habitat.
- CWTD will not be able to use the mitigation site for approximately 5 years while fencing is up to protect the planted species.
- CWTD will not be able to use the 27-acre staging area near the mitigation site for 2.5 years.

A not likely to adversely affect determination is warranted for the following reasons:

- The area of suitable habitat on the proposed development site is relatively small when compared to the other agricultural areas that exist in the action area and across this floodplain, which extends eastward for over a mile and extends westward for over 10 miles. These other areas have crop lands and approximately 2,100 acres of hybrid poplar trees that can provide other foraging and cover habitat as shown on Sheet 25 of the BE.
- The existing fence at a mitigation site established for another project at Port Westward will be removed in 2022, opening 17 acres of habitat for CWTD.
- After the mitigation site is established, it will provide 477 acres of restored floodplain habitat and 6.5 acres of buffer habitat that will provide excellent forage and cover for CWTD when compared to the existing habitat on the mitigation site.

Streaked Horned Larks

The USFWS species list includes streaked horned larks (*Eremophila alpestris strigata*; USFWS 2021). The nearest designated critical habitat is about 1 mile northeast of the action area on the northeastern side of Crims Island. There is approximately 8.5 acres of potentially suitable habitat for foraging in the action area.

Effect Determination for the Streaked Horned Lark

The proposed project may affect but is not likely to adversely affect streaked horned larks. A may affect determination is warranted for the following reasons:



- Potentially suitable habitat for streaked horned lark foraging occurs on the project site on a total of about 8.5 acres, which will be eliminated by constructing the industrial facility.
- The nearest designated critical habitat for larks is about 1 miles northeast of the action area, so the project site could potentially provide foraging habitat for this breeding site and for overwintering larks.

A not likely to adversely affect determination is warranted for the following reasons:

- It is uncertain whether the project site is used by streaked horned larks.
- The area of potentially suitable habitat on this site is relatively small when compared to the other areas in the Columbia River corridor that provide foraging habitat.

#### Nelson's Checker-mallow

Nelson's checker-mallow is a federally threatened species. Critical habitat has not been proposed or designated for this species in the action area (USFWS 2021).

There may be suitable habitat for Nelson's checker-mallow where hay mowing does not occur, which is along fence lines, in wetlands that have not been disturbed, or on the mitigation site along the edges of the hybrid poplar plantations. However, it is unlikely to be present in areas of proposed ground disturbance.

#### Effect Determination for Nelson's Checker-Mallow

The proposed project may affect but is not likely to adversely affect Nelson's checker-mallow. A may affect determination is warranted for the following reasons:

- Suitable habitat may occur on areas of the project site or mitigation site along fence lines or waterway banks. There have been no plant surveys for two consecutive years within the species' identification window to determine that it is not present.

A not likely to adversely affect determination is warranted for

the following reasons:

- The areas of potential suitable habitat in areas of ground disturbance are small due to decades of previous ground disturbances such as cattle grazing, hay mowing, poplar farming, and significant coverage of invasive, non-native blackberries along ditch margins.
- There is no indication in the literature that Nelson's checker-mallow was present in the areas of proposed ground disturbance.

Kincaid's Lupine

Kincaid's lupine is listed as threatened. Critical habitat units have been designated in Benton, Lane, Polk, and Yamhill counties in Oregon, and in Lewis County, Washington.

There have been no plant surveys at the project site or mitigation site; however, it is unlikely that Kincaid's lupine is present. The project site and mitigation sites have been disturbed by dredged-material placement, and the project and mitigation sites have been in agricultural use for decades. There have been no previous reports of Kincaid's lupine along the Columbia River in Oregon, most of the waterway margins have a large coverage of Himalayan blackberries, and the mitigation site has a dense stand of mature hybrid poplars.

Effect Determination for Kincaid's Lupine

The proposed project may affect but is not likely to adversely affect Kincaid's lupine. A may affect determination is warranted for the following reasons:

- Suitable habitat may occur on areas of the project site or mitigation site along open fence lines or along waterways not dominated by invasive blackberries.
- There have been no plant surveys for two consecutive years within the species' identification window.

A not likely to adversely affect determination is warranted for the following reasons:

- The areas of potential suitable habitat in areas of ground disturbance are small due to decades of previous



disturbances such as cattle grazing, hay mowing, poplar farming, and significant coverage of invasive blackberries along waterway margins.

- There is no indication in the literature that Kincaid's lupine was present in the areas of proposed ground disturbance.

### Species and Habitat Not Address in the BE

NMFS and USFWS information show that other federally listed species could potentially be present in the general project vicinity, as summarized in the following table. These species are highly unlikely to occur within the action area because there is no suitable habitat. In addition, there is no designated critical habitat or proposed critical habitat for these species within the action area. Therefore, the project will have no effect on these species or their critical habitats.

Species, ESU, or DPS	Federal Status	Critical Habitat in Action Area?
<b>NMFS Jurisdiction</b>		
<b>Chinook Salmon (<i>Onchorhynchus tshawytscha</i>)</b>		
Lower Columbia River Chinook ESU	Threatened	No
Upper Willamette River Chinook ESU	Threatened	No
Upper Columbia River Spring-run Chinook ESU	Endangered	No
Snake River Spring-run Chinook ESU	Threatened	No
Snake River Fall-run Chinook ESU	Threatened	No
<b>Chum Salmon (<i>Onchorhynchus keta</i>)</b>		
Columbia River Chum Salmon ESU	Threatened	No
<b>Coho Salmon (<i>Onchorhynchus kisutch</i>)</b>		
Lower Columbia River Coho Salmon ESU	Threatened	No
<b>Sockeye Salmon (<i>Onchorhynchus nerka</i>)</b>		
Snake River Sockeye DPS	Endangered	No
<b>Steelhead (<i>Onchorhynchus mykiss</i>)</b>		
Lower Columbia River Steelhead DPS	Threatened	No
Upper Willamette River Steelhead DPS	Threatened	No
Middle Columbia River Steelhead DPS	Threatened	No
Upper Columbia River Steelhead DPS	Threatened	No

Species, ESU, or DPS	Federal Status	Critical Habitat in Action Area?
Snake River Basin Steelhead DPS	Endangered	No
North American Green Sturgeon Southern DPS ( <i>Acipenser medirostris</i> )	Threatened	No
Eulachon (Columbia River Smelt) - Southern DPS ( <i>Thaleichthys pacificus</i> )	Threatened	No
<b>USFWS Jurisdiction</b>		
Bull Trout - Columbia River DPS ( <i>Salvelinus confluentus</i> )	Threatened	No
Marbled Murrelet ( <i>Brachyramphus marmoratus</i> )	Threatened	No
Northern Spotted Owl ( <i>Strix occidentalis caurina</i> )	Threatened	No
Yellow-billed Cuckoo - Western DPS ( <i>Coccyzus americanus</i> )	Threatened	No
Pacific Marten - Coastal DPS ( <i>Martes caurina</i> )	Threatened	No
Willamette Daisy ( <i>Erigeron decumbens</i> )	Endangered	No
Bradshaw's Lomatium ( <i>Lomatium bradshawii</i> )	Endangered	No

### Consultation History

The consultation should be limited to the project actions that have not undergone previous consultation. Prior ESA consultations evaluated construction and conveying product through the terminalling provider's pipeline. This prior consultation included sufficient estimates for the number of barge calls at the dock such that effects from ship traffic for the proposed project have already undergone ESA consultation (NMFS 2015, USFWS 2013). The U.S. Army Corps of Engineers (Corps) permit issued for the dock that was the subject of the consultation that evaluated these actions, and the effects of these actions was Corps Ref. #NWP-2007-998-1.

Similarly, the Port's water-intake structure and outfall structure have undergone ESA consultation, and there is an existing NPDES permit



#102650 for water discharges from the site. Because potential impacts to the Columbia River from the project were assessed through the prior consultation, this ESA consultation will focus only on the effects of the proposed project that have not undergone or been the subject of a prior consultation.

Based on the information in the BE and the previous consultation, NEXT does not anticipate significant impacts to ESA listed species.

### Concern: Fishing Industry Impacts

**Response:** The project as proposed will have no impacts on the fishing industry. NEXT is contracting with Cascade Kelly Holdings, LLC (D/B/A CPBR), the operator of the bulk liquid fuels terminal at Port Westward. CPBR will be responsible for receiving feedstocks from marine vessels and loading marine vessels with finished product at the existing Port Westward dock. As stated above USACE, during CPBR's permitting of upgrades to Berth 1, noted that Berth 1 had an annual operational capacity for 264 barges or 108 vessels. This capacity exceeds NEXT's project needs (even if all feedstock and finished product were to move by marine vessel). Prior ESA consultations evaluated upgrades to Berth 1. Aquatic impacts from the project were evaluated during permitting and are discussed in the "Endangered Species Act (ESA) Section 7(a)(2) Biological and Conference Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat (EFH) Consultation for the Columbia Pacific Bio-Refinery Barge Dock Expansion, Columbia River (5th Field HUC 1708000302) Columbia County, Oregon (Corps No.: NWP-2007-998)". NMFS concluded in the referenced Biological Opinion, that the marine traffic that results from the upgrades to Berth 1 would have no negative impacts on aquatic species. The Corps Environmental Assessment also determine that authorizing the work on Berth 1 and the resulting ship traffic would have no effect on Tribal Fishing Rights.

### Concern: Liquefaction Zone and Unverifiable Dike

In a letter to DSL dated October 1, 2021, from Jasmine Lillich, it states, *"...[it] is relevant to consider the geological surveys and predictions regarding large earthquakes and the implications of having toxic industry in a "liquefaction zone" as labeled and presented by Della Fawcett from the Oregon Department of Geology."*

**Response:** The NEXT Facility is being designed in accordance with



Process Industry Practices Standards. Additionally, all infrastructure will meet seismic and other requirements outlined in the 2019 Oregon Structural Specialty Code. To date NEXT has completed a preliminary design for the Facility based on a 2002 geotechnical study of the area. Prior to final design a complete geotechnical survey and site characterization of the Facility site and surrounding area will be completed. Facility design will be refined accordingly.

Regarding the Beaver diking system, in a comment from Mary Duvall date September 19, 2021 she states, *"It threatens productive farm land....in an area with unverifiable dikes holding back the river."*

A review of the USACE National Levee database (<https://levees.sec.usace.army.mil/#/levees/system/5005000008/system>) states that "the Beaver Drainage District is operated and maintained by the Beaver Drainage Improvement Company (BDIC). The project is located in Columbia County, Oregon, near the town of Clatskanie, between Columbia River Mile (RM) 49.7 and 55.4 and bounded on the north by the Columbia River, on the east by John Slough, and on the west by Bradbury Slough. U.S. Highway 30 and the Burlington Northern Railroad parallel the area's southern and east boundary."

The Levee Performance and Potential Lost Benefits program states "USACE evaluates risk as a function of both expected consequence of levee failure combined with the likelihood that the levee may fail. The levee has shown a history of good performance over the full range of flood loading, but there is a relatively high likelihood of overtopping. Relatively shallow inundation depths could be expected. The area behind the levee is primarily agricultural with some residential and industrial properties. The consequences are anticipated to be low in the event of breach or overtopping. USACE considers the risk associated with the Beaver Drainage Improvement Company levee segments to be low due to the anticipated consequences." The levee system status as reflected on the effective FIRM(s) for the NFIP community(s) is "Provisionally Accredited Levee System."

Based on this information NEXT anticipates that the BDIC will continue to maintain the levees and that the risk of failure is low.

#### **Concern: Damage to Seely's Farm**

Many of the comments received by DSL suggest that the project will



destroy family farms and businesses in the BDIC. What the comments fail to say is “how” the project will destroy family farms and business. NEXT and project engineers have been meeting with area farmers for months in order to understand these concerns.

**Response:** NEXT anticipates that the project will provide an overall net benefit for the environment, for the Community and State, and for the BDIC and local landowners. The NEXT Facility is a renewable fuels production facility that will produce renewable diesel from liquid biomass feedstocks. The renewable diesel produced in the process is a drop-in fuel which can directly replace up to 100-percent petroleum-based diesels. This will reduce greenhouse gas emissions by approximately 7 million ton per year. This is approximately half of the greenhouse gas emissions produced in the state of Oregon and moves the state toward meeting the Low Carbon Fuel Standards.

The Facility will be constructed on land zoned industrial and is in an area that is already developed with industrial facilities. It is designed on the smallest footprint possible for a facility of this type with the highest standards for safety, water quality, and air quality. Additionally, NEXT is utilizing existing infrastructure including the existing marine facility, rail, and utilities including Port Westward’s freshwater intake and wastewater discharge system, existing electric and natural gas services. By utilizing existing infrastructure this lowers the overall impact on resources.

It seems that the majority of concern is related to the CWM site. While the project will impact approximately 117 acres of low-quality wetlands, those function and values will be replaced at a rate of 3.9 to 1 (as required by DSL), by enhancing local degraded wetlands with a design that will provide far better wetland habitat than the impacted wetlands. As previously discussed throughout this memo the proposed CWM site will also have net benefit for the environment, the Community and the BDIC. The CWM site is being designed by experienced engineers and wetland professionals to ensure that there will be no negative impacts to the BDIC and surrounding neighbors. In order to ensure there are no impacts, NEXT has studied the hydrology in the area to understand how ground water and surface water interact with the existing ditches and proposed CWM site, and is working with the BDIC and landowners to understand how the district operates. NEXT has addressed landowner concerns in the design phase, and is applying adaptive management throughout design and construction. In terms of impacts to agriculture operations in the BDIC, the CWM site should benefit local agriculture by providing a



valuable ecosystem that provides flood control, improves water quality, reduces erosion and retains sediments, assists in drought resilience, and provides valuable habitat for pollinators, plants and animals.

NEXT does not anticipate that construction and operation of the facility or the mitigation site will have an impact on the success or failure of the Seely Farm. However, it is important that Mr. Seely communicates his concerns and works with NEXT and the NEXT engineers, as other district landowners have, on the design of the mitigation site.

#### Concern: Incomplete Alternative Analysis

In a letter to DSL dated October 1, 2021, from 1000 Friends of Oregon it states, *"While the Application includes an alternatives analysis in Appendix F, Table III-A makes conclusory determinations that lack explanations or information that would allow DSL to evaluate whether other sites are available. The following non-exhaustive list of examples from Table III-A demonstrate that DSL lacks the information necessary to evaluate alternatives:*

*1)Port of Coos Bay, OR and Port of Vancouver, WA both satisfy each criterion, except for "Access to or Ability to Construct Two Berths." However, instead of providing information explaining why berths are not possible at these locations, the table simply states "no." Without any information on the feasibility of berths at these locations, DSL is unable to evaluate these potential alternatives.*

*2)Port of Tacoma, WA, Port of Longview, WA, Teevin Brothers in Rainier, OR, and the Former Alcoa Site in Longview, WA all satisfy each criterion, except for "Availability of Suitable Acreage." However, the table simply states "no" for this criterion at each site and does not include information discussing the potential to lease, buy, or obtain access to adjacent properties. Without a discussion of these details, DSL lacks the information necessary to evaluate these locations as alternative sites."*

**Response:** NEXT did evaluate each of the sites referenced in the "First Tier Site Screening" in Appendix 2 to the Alternative Analysis. DSL did not include the Appendices to the Alternative Analysis in the public notice. However, DSL has a copy of the Appendices and therefore, will



be able to properly evaluate the alternatives.

Over a 5-year period, the Applicant performed a systematic search, review, and evaluation of geographically appropriate alternative sites located in Mexico, Canada, Washington, Oregon, and California. The applicant evaluated a wide range of sites that would accommodate a facility for receiving feedstocks from both domestic and international sources and, in turn, transport renewable fuel products to West Coast markets. An assessment of the project alternatives was carried out utilizing the US Army Corp of Engineers Alternative Analysis Framework as well as applicable Oregon Statutes and Rules. In the Alternative Analysis, NEXT showed reasonable alternatives including those that are practicable or feasible based on the project purpose. The alternative analysis clearly demonstrates that the preferred alternative does not interfere with navigation, fishing, or public recreation. NEXT feels that the Alternative Analysis is robust and thorough and provides the regulatory agencies and the public the necessary information to evaluate the alternatives.

**Concern: DSL Proprietary Authorization**

A comment was received from Alexis Richins, Department of State, Aquatic Resource Management Program that stated that the additional staging area may require Proprietary Authorization from DSL.

**Response:** NEXT has reached out to Ms. Richins for more information and will obtain DSL authorization if necessary.

NEXT appreciates the opportunity to review and address the public's concerns regarding the project. If you need additional input or have questions, please feel free to contact me.

Best Regards,

A handwritten signature in black ink that reads "Laurie R. Parry". The signature is written in a cursive, flowing style.

Laurie Parry, Project Delivery Manager  
Stewardship Solutions, Inc.

CC: Joe Brock, USACE  
Jeffery Brittain, DEQ  
Chris Efird, NEXT Renewable Fuels Oregon  
Brien Flanagan, Schwabe, Williamson & Wyatt

January 26, 2022

**Garrett H. Stephenson**  
Admitted in Oregon  
T: 503-796-2893  
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gstephenson@schwabe.com

**VIA E-MAIL**

Chair Henry Heimuller  
Columbia County Board of Commissioners  
230 Strand Street  
St. Helens, OR 97051

RE: NEXT Renewables Fuels Testimony for the First Open Record Period  
(App DR 21-03; V 21-05 and CU 21-04)

Dear Chair Heimuller:

As you know, this office represents NEXT Advanced Renewable Fuels, Inc. (“NEXT”). At the conclusion of the first evidentiary hearing on January 19, 2022, the Board closed the record to oral testimony and left the written record open until January 26 for any person to submit evidence and argument (the “first open record period”). The record is to be left open between January 27 and February 2 (the “second open record period”) for any person to submit evidence and argument responding to written testimony submitted during the first open record period. NEXT has until the end of day on February 7, 2022 to submit its final written argument. This constitutes NEXT’s testimony and evidence for the first open record period and is timely submitted via email prior to 5:00 PM on January 26, 2022.

This letter encloses the following documents prepared by NEXT’s consultant team:

1. A memorandum from NEXT’s project planner, Brian Varricchione of Mackenzie, addressing DCLD’s letter submitted on January 18, 2022.
2. A letter from Maul Foster Alongi explaining the estimated greenhouse gas reductions caused by the use of renewable diesel manufactured at NEXT’s facility through displacement of petroleum-based diesel.

Please place this letter and its attachments in the official record on the above-referenced applications.

Chair Henry Heimuller  
January 26, 2022  
Page 2

Best regards,



Garrett H. Stephenson

GST:jmhi  
Enclosures

cc: Mr. Chris Efird *(via email) (w/enclosures)*  
Mr. Gene Cotton *(via email) (w/enclosures)*  
Mr. Brian Varricchione *(via email) (w/enclosures)*  
Ms. Laurie Parry *(via email) (w/enclosures)*

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