

Joint Permit Application

This is a joint application, and must be sent to all agencies (Corps, DSL, and DEQ). Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.



	U.S. Army Corps of Engineers Portland District		Oregon Department of State Lands		Oregon Department of Environmental Quality
Action ID Number		Number		66364	

(1) TYPE OF PERMIT(S) IF KNOWN (check all that apply)

Corps: ☐ Individual ☐ Nationwide No.: _____ ☐ Regional General Permit _____ ☐ Other (specify): _____

DSL: ☒ Individual ☐ GP Trans ☐ GP Min Wet ☐ GP Maint Dredge ☐ GP Ocean Energy ☐ No Permit Waiver

(2) APPLICANT AND LANDOWNER CONTACT INFORMATION

	Applicant	Property Owner (if different)	Authorized Agent (if applicable) ☐ Consultant ☐ Contractor
Name (Required)	Michael Durham		Emma Eichhorn, PWS
Business Name	Digital Beaver 4, LLC		AKS Engineering & Forestry, LLC
Mailing Address 1	2323 Bryan Street		12965 SW Herman Road
Mailing Address 2	Suite 1800		Suite 100
City, State, Zip	Dallas, TX 75201		Tualatin, OR 97062
Business Phone			(503) 563-6151
Cell Phone			(971) 235-6361
Fax			
Email	mdurham@digitalrealty.com		eichhorne@aks-eng.com

(3) PROJECT INFORMATION

A. Provide the project location.

Project Name Corny Data Center		Latitude & Longitude* (in DD.DDDD format) 45.541756, -122.898008		
Project Address / Location No situs; located east of NE Cornelius Pass Road, between NE Cornell Road and NE 79 th Avenue		City (nearest) Hillsboro	County Washington	
Township	Range	Section	Quarter / Quarter	Tax Lot
1N	2W	26	D	200

Brief Directions to the Site: From US Route (US) 26, take Exit 64 for 185th Avenue and turn left onto the Hillsboro/Beaverton ramp. Turn left onto NW 185th Avenue, then merge onto NE Evergreen Parkway. Turn left onto NE Alolek Drive. Turn right onto NE Cornell Road. Turn right onto NE Cornelius Pass Road, then the site is located to the right. Parking is available on NE 79th Avenue.

B. What types of waterbodies or wetlands are present in your project area? (Check all that apply.)

☐ River / Stream	☒ Non-Tidal Wetland	☐ Lake / Reservoir / Pond
☐ Estuary or Tidal Wetland	☐ Other	☒ Pacific Ocean
Waterbody or Wetland Name** Wetland A	River Mile NA	6th Field HUC Name Upper Rock Creek
		6th Field HUC (12 digits) 170900100402

* In decimal format (e.g., 44.9399, -123.0283)

** If there is no official name for the wetland or waterbody, create a unique name (such as "Wetland 1" or "Tributary A").

C. Indicate the project category. (Check all that apply.)		
☐ Commercial Development	☒ Industrial Development	☐ Residential Development
☐ Institutional Development	☐ Agricultural	☐ Recreational
☐ Transportation	☐ Restoration	☐ Bridge
☐ Dredging	☐ Utility lines	☐ Survey or Sampling
☐ In- or Over-Water Structure	☐ Maintenance	☐ Other:

(4) PROJECT DESCRIPTION

A. Summarize the overall project including work in areas both in and outside of waters or wetlands.

The project, referred to as Corny Data Center, consists of a data center campus that will provide 144 megawatts (MW) of data storage and processing capacity, and features two data buildings with associated employee parking, vehicle drive aisles, dedicated generator and electrical equipment yards, and stormwater facilities. Additionally, the project includes the extension of NE Ronler Drive from NE Cornelius Pass Road to a northwest connection at NE Aloclek Drive to provide primary vehicle access to the campus. Designed as a hybrid campus, the project will accommodate both hyperscale and colocation operations, with hyperscale facilities hosting top technology companies focused on social media, while colocation spaces will host enterprise clients across financial services, telecommunications, and IT. The project will deliver significant direct local economic benefits by driving capital investment; creating new and higher paying jobs, funding local utility, fiber, and grid infrastructure upgrades, and long-term revenue from property taxes. The project will be constructed in a single phase that is stand-alone, having independent utility to accomplish its intended purpose without the need for additional removal-fill activities. The project site is located northwest of the intersection of NE Cornelius Pass Road and NE Cornell Road in Hillsboro, Oregon, and consists of Tax Lot 200 of Washington County Assessor's Map 1N2266D, as shown on Figures 1 and 2 in Attachment A. A recent aerial photograph is included as Figure 3 in Attachment A.

The project will require a total of 0.39 acres of direct permanent impacts to a Palustrine emergent (PEM) wetland belonging to the Slope Valley (SV) hydrogeomorphic (HGM) subclassification for construction of the data center building, requiring an Individual Permit from the Oregon Department of State Lands (DSL) in accordance with Oregon Administrative Rule (OAR) 141-085-0540(1). No indirect or temporary wetland impacts or impacts to non-wetland waters are proposed. Direct permanent wetland impacts will be mitigated through the purchase of mitigation bank credits from the Dairy Creek mitigation bank to satisfy DSL-regulated wetland compensatory mitigation requirements.

According to the Approved Jurisdictional Determination (AJD) for the project site issued under US Army Corps of Engineers (USACE) File Number NWP-2025-00461, the wetland was determined not to be a Water of the US (WOTUS). Therefore, USACE Section 404 authorization is not required for the project.

Post-construction stormwater for the project will be treated by stormwater facilities to meet current Oregon Department of Environmental Quality (DEQ) post-construction treatment standards. Because the project does not require USACE Section 404 authorization, a DEQ Mutual Agreement and Order (MAO) will be requested in lieu of 401 Water Quality Certification to confirm the project is consistent with DEQ water quality standards. A copy of this Joint Permit Application (JPA), along with the stormwater management plan, will be submitted to DEQ with the MAO request.

B. Describe work within waters and wetlands.

The project requires direct permanent impacts to 17,075 square feet (0.39 acres) of PEM/SV wetland for a data center building. A total of 315 cubic yards of native soil will be permanently removed from the wetland, and a total of 6,830 cubic yards of non-native structural fill will be permanently placed within the wetland. No indirect wetland or water impacts will occur. The site plan is included as Figures 5A and 5B in Attachment A. Representative cross sections and an impact summary table are included as Figure 6 in Attachment A.

C. Construction Methods. Describe how the removal and/or fill activities will be accomplished to minimize impacts to waters and wetlands.

Construction Equipment, Access, and Staging

Construction equipment for the project will likely include dump trucks, backhoes, graders, roller compactors, excavators, water trucks, cement trucks, paving machines, and end loaders. Construction access will come from NE 79th Avenue, NE Cornell Road, and NE Cornelius Pass Road via gravel construction entrances. Staging and stockpiling will occur in an upland area in the northeast corner of the project site. The construction entrances and staging and stockpile area are shown on Figure 7 in Attachment A.

Pre-Construction Minimization

Elements to be implemented prior to construction to minimize wetland impacts include:

- Inform contractor of all permit conditions.
- Install appropriate erosion and sediment control best management practices (BMPs) prior to initiating ground disturbance.
- Clearly demarcate the limits of the remaining wetland and water areas adjacent to the disturbance areas with orange construction fencing or similar material during construction.
- Confirm that emergency erosion control and spill response materials are on-site prior to construction.

Minimization Measures During Construction

Erosion and sediment control BMPs, including sediment fencing and straw wattles, will be used to minimize erosion and siltation associated with site runoff throughout construction. Erosion control measures will be installed prior to the start of construction and properly maintained throughout the duration of construction. The contractor will be required to monitor and maintain all erosion and sediment control BMPs throughout the project to ensure that they are working properly. Once construction is completed, all temporarily disturbed upland areas will be reseeded to establish ground cover. The Grading and Erosion Control Plan is included as Figure 7 in Attachment A.

Post-Construction Stormwater

The stormwater management for the project has been designed to meet current Clean Water Services (CWS) water quality and quantity design criteria. Runoff from on-site contributing impervious areas will be treated and detained within a stormwater facility located in the southeastern portion. Runoff from off-site contributing impervious areas on NE Ronler Drive will be treated within streetside planters. The post-construction stormwater management plan is included as Figure 8 in Attachment A.

(4) PROJECT DESCRIPTION (continued)

D. Describe source of fill material and disposal locations if known.

The source of fill is unknown at this time but will consist of clean material from an authorized source. Removed soil will be disposed of at an authorized upland location.

E. Construction timeline.

What is the estimated project start date? Summer 2027

What is the estimated project completion date? Fall 2027

Is any of the work underway or already complete? ☐ Yes ☒ No
If yes, please describe.

F. Removal Volumes and Dimensions (if more than 7 impact sites, include a summary table as an attachment)							
Wetland / Waterbody Name *	Removal Dimensions					Time Removal is to remain**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq.ft. or ac.)	Volume (c.y.)		
Wetland A	±550	±31 (average)	Varies	0.39 ac	315	Permanent	Native soil

G. Total Removal Volumes and Dimensions				
Total Removal to Wetlands and Other Waters	Length (ft.)	Area (sq. ft or ac.)	Volume (c.y.)	
Total Removal to Wetlands	Varies	0.39 ac	315	
Total Removal Below Ordinary High Water				
Total Removal Below Highest Measured Tide				
Total Removal Below High Tide Line				
Total Removal Below Mean High Water Tidal Elevation				

H. Fill Volumes and Dimensions (if more than 7 impact sites, include a summary table as an attachment)							
Wetland / Waterbody Name*	Fill Dimensions					Time Fill is to remain**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq. ft. or ac.)	Volume (c.y.)		
Wetland A	Varies	Varies	Varies	0.39 ac	6,830	Permanent	Non-native structural fill

I. Total Fill Volumes and Dimensions				
Total Fill to Wetlands and Other Waters	Length (ft.)	Area (sq. ft or ac.)	Volume (c.y.)	
Total Fill to Wetlands	Varies	0.39 ac	6,830	
Total Fill Below Ordinary High Water				
Total Fill Below Highest Measured Tide				
Total Fill Below High Tide Line				
Total Fill Below Mean High Water Tidal Elevation				

*If there is no official name for the wetland or waterbody, create a unique name (such as "Wetland 1" or "Tributary A").

**Indicate whether the proposed area of removal or fill is permanent or, if you are proposing temporary impacts, specify the days, months or years the fill or removal is to remain.

*** Example: soil, gravel, wood, concrete, pilings, rock etc.

(5) PROJECT PURPOSE AND NEED
Provide a statement of the purpose and need for the overall project. Project Purpose The purpose of the project is to construct a 144 MW colocation data center campus to support hyperscale and enterprise colocation tenants within the City of Hillsboro. Public Need for Removal-Fill <i>Global and National Demand for Data Centers:</i> The rise in cloud computing, streaming platforms, e-commerce, and remote work, along with the proliferation of artificial intelligence (AI) in recent years, has led to an urgent demand for higher-capacity data centers with processing power that legacy servers can no longer provide. According to the Jones Lang LaSalle (JLLS) <i>Data Centers 2024 Global Outlook</i> report, it's estimated that in the next five years, consumers and businesses will generate twice as much data as all the data created over the past 10 years. According to the 2023 Newmark US Data Center Market Overview, data center demand in the US is expected to reach 35 gigawatts (GW) by 2030, up from 17 GW in 2022. Additionally, iRecruit.co reports that the emerging data center market is experiencing an ever increasing demand for hyperscale and colocation facilities with modular designs that accommodate rapid scaling to meet the growing demand for enormous computing, storage, and networking workloads.

Need for Data Centers in Hillsboro: According to industry analyses and reports from the Oregon Citizens' Utility Board (CUB), Hillsboro ranks among the top data center markets in the US. This is primarily due to direct access to subsea fiber connections to the Asia-Pacific market, robust high-voltage grid infrastructure, favorable tax incentives, and a temperate climate that allows facilities to use ambient outside air for free cooling, which significantly reduces energy and water consumption. Data centers serve as critical infrastructure for industries in Hillsboro like advanced manufacturing, biotechnology, healthcare, transportation, fintech, and education. A 2025 study by JLLS found that 80 percent of the data centers in Hillsboro are supporting technology industries and development, with the remaining 20 percent supporting cloud-based computing (15%) and telecommunications (5%). Proximity to supporting data centers is important because it reduces latency, decreases the likelihood of network congestion and data loss, and lowers infrastructure costs. Therefore, data centers are needed within Hillsboro to directly support the local economy.

Existing Hillsboro Inventory: According to the City of Hillsboro, 16 data centers are currently in operation within the City while another 6 are in permitting or construction. Despite the increase in capacity in recent years, data center vacancy rates in Hillsboro have continued to decrease. According to CBRE.com, the data center vacancy rate in Hillsboro in terms of MW capacity was ± 0.2 percent at the end of 2025. All of the existing data centers are smaller, lower capacity facilities that cannot meet the needs of hyperscale tenants that this project will provide. Of the 6 projects currently in permitting or construction, only two are large-scale projects (between $\pm 550,000$ and $\pm 750,000$ square feet of building area), while the others are smaller facilities (averaging less than $\pm 200,000$ square feet). The Applicant expects that most of this project's data center space will be pre-leased by existing clients well before construction is completed.

Need for 144 MW Facility: According to CBRE.com, the total data center inventory in Hillsboro at the end of 2025 was ± 475 MW and ± 137 MW were under construction. Based on the JLLS prediction that the demand for data will double in the next five years, another ± 612 MW would be needed within Hillsboro by 2030. As discussed further in Block 7 (Off-Site Alternatives), there is a very limited amount of suitable land available within the Hillsboro to construct new data centers, so it is unclear where there will be opportunity in the future to fulfill this need within Hillsboro. Therefore, to contribute to this unprecedented need for more data, the Applicant has set the goal of providing 144 MW, which equates to ± 24 percent of the predicted data need by 2030 for Hillsboro.

Public Economic Benefits Through Local Job Creation: According to the City of Hillsboro, data centers create substantial economic activity, particularly through construction, engineering, operations, and infrastructure investment. As the tech center of the Portland metro region, Hillsboro is a major economic contributor to the metro area and the state, and according to the 2025 City of Hillsboro Economic Opportunities Analysis, data centers were identified as one of the key emerging economic opportunities in Hillsboro for the next 20 years. According to ECONorthwest's July 31, 2026, assessment entitled *Understanding Oregon's Data Center Economy*, almost one in every 100 jobs in Oregon is directly related to data centers, and data center construction has created approximately 3,900 jobs and \$980 million in labor income across Oregon. This includes jobs in industries such as engineering, heavy machinery operations, general construction labor, and skilled trades. In addition to construction jobs, data centers generate long term employment through ongoing operations and maintenance and periodic IT equipment updates. According to ECONorthwest (2026), current data center operations support an estimated 3.5 billion in annual economic value across the state, including 2,630 jobs and \$622 million in labor income. Once operational, the Applicant estimates that this project will create approximately 186 full-time employment opportunities in Hillsboro.

Public Economic Benefits Through Local Tax Revenue: The project will develop an abandoned property, which provide a public economic benefit by generating substantial municipal tax revenue that benefits Hillsboro residents through public infrastructure and services. As demonstrated in the letter from the City included as Attachment B, the City has expressed strong support for this project, as it will make productive use of a site that has remained vacant for years. According to ECONorthwest, \$20.58 million in tax revenue has been collected in Washington County as a result of data centers. The state and local community will benefit from data center businesses through the Corporate Activity Tax, payroll taxes, community service fees and/or School Support Fees, other negotiated fees, and property tax on land and existing

improvements.

Indirect Public Economic Benefits: According to ECONorthwest, for every dollar spent by data centers for operations, an additional \$0.45 is supported elsewhere in the state economy. Many industries, including advanced manufacturing, computer electronics, biotechnology and others, increasingly rely on data processing and support from nearby data centers. The project will support a diverse mix of ±5,000 clients across a variety of sectors, including cloud and information technology services, social media platforms, network and communications providers, and financial institutions, along with smaller enterprise clients. Additionally, the project is within the City's Enterprise Zone which provides short-term tax incentives to businesses in exchange for Community Service Fees that help fund local workforce and small business development activities.

Public Social Benefits: Data centers are essential to store and run the software that supports computing services people use every day. Families and businesses rely on the benefits they provide, ranging from the convenience of email and streaming media to essential first responder communications and digital medical records. According to the International Telecommunication Union (2026), approximately 6 billion people (74 percent of the global population) are online today. This represents an increase of 46 percent since 2010. On average, U.S. households have a total of 22 internet connected devices, according to Deloitte's Connectivity and Mobility Trends Survey (2023). Additionally, the average monthly home internet use has increased from 150 GB in 2018 to more than 750 GB per household in 2025, according to Open Vault Broadband Insights Report (2025). The project will provide meaningful social benefits to Hillsboro residents by upgrading the public broadband and creating unique opportunities for community engagement, education, and local business growth.

Economic cost to the public if the proposed fill or removal is not accomplished: The economic cost to the public if wetland fill is not accomplished would be a loss of employment and job opportunities, and a loss of tax revenue that could be used for public services and infrastructure. Additionally, a shortage of data centers would lead to indirect economic costs due to increased strain on digital networks and an increase in lag times across nearly every industry that relies on the internet, ranging from education, financial institutions, healthcare services, cybersecurity, entertainment, and other businesses.

(6) DESCRIPTION OF RESOURCES IN PROJECT AREA

A. Describe the existing physical, chemical, and biological characteristics of each wetland or waterbody. Reference the wetland and waters delineation report if one is available. Include the list of items provided in the instructions.

AKS Engineering & Forestry, LLC (AKS) conducted a site visit on September 4, 2025, and delineated the boundary of one wetland within the project site (Figure 4A and 4B Attachment A). The Wetland Delineation Report received concurrence from DSL on June 22, 2026, under DSL File Number WD#2025-0609 (Attachment C). The wetland is jurisdictional to DSL. The project received an Approved Jurisdictional Determination (AJD) from USACE on November 3, 2025, under USACE File Number NWP-2025-00461 (Attachment D). The wetland was determined to not be WOTUS.

There are no documented Aquatic Resources of Special Concern (ARSC) such as vernal pools, bogs, fens, mature forested wetlands, seasonal mudflats, or native wet prairies present on-site or immediately adjacent to the project site.

Wetland A

Wetland A is a 0.39-acre PEM wetland contained entirely within the southern portion of the project area. The wetland is situated on a subtle slope, where wetland hydrology primarily consists of upland runoff (City of Hillsboro stormwater outfall), with secondary inputs from a seasonally high groundwater table, lateral subsurface flow, and direct precipitation. Water moves freely in one direction, and the wetland lacks a surface connection to other nearby wetlands and waters; therefore, it was determined to belong to the SV HGM subclassification. The wetland is dominant in bentgrass (*Agrostis* sp.; assumed FAC) and sharp-leaf cancerwort (*Kickxia elatine*; FAC).

Existing Wetland Function and Value Assessment

The existing functions and values of Wetland A were assessed using the DSL Oregon Rapid Wetland Assessment Protocol (ORWAP), Version 3.2 (2020) in accordance with OAR 141-085-0685(4)(a). A summary of the functional group function and values ratings is provided in the table below. The ORWAP data and maps are included as Attachment E.

Groups	Selected Function	Function Rating	Values Rating
Hydrologic Function	Water Storage & Delay (WS)	Moderate	Lower
Water Quality Support	Sediment Retention & Stabilization (SR)	Moderate	Higher
Fish Habitat	Anadromous Fish Habitat (FA)	Lower	Lower
Aquatic Habitat	Waterbird Nesting Habitat (WBN)	Moderate	Moderate
Ecosystem Support	Pollinator Habitat (POL)	Moderate	Moderate

- Hydrologic Function:** The wetland was rated *moderate* in hydrologic function due to its limited capacity to retain surface runoff and precipitation. The wetland has a temporary hydrological regime; therefore, it has periodically unsaturated soils and some capacity for detaining additional precipitation. However, the wetland is situated on a subtle slope (2 to 6 percent) where water flows freely through the wetland without being detained. Additionally, Wetland A belongs to the SV HGM subclass, with the primary source of hydrology primarily consisting of a seasonally high groundwater table. Therefore, only limited subsurface storage may be available. According to the ORWAP report (Attachment E), the HUC 12 does not have a functional deficit for water storage; therefore, the wetland's water storage function have *lower* value.
- Water Quality Support:** The wetland was rated *moderate* in water quality support because although the presence of herbaceous vegetation within the wetland provides some frictional resistance to filter out sediments, it lacks a connection to downstream waters. Additionally, because the wetland is located on a gentle slope, water moves through the wetland unconstrained, which limits its capacity to retain suspended sediment. The wetland was rated as having a *higher* value in water quality support due to its relatively large contributing area and the proportion of the RCA comprised of unvegetated, developed surfaces.
- Fish Habitat:** The wetland was rated *lower* for fish habitat function and value because it lacks a connection to fish-bearing waters. Additionally, the wetland lacks significant perennial vegetation cover, and tree canopy is absent. Therefore, the wetland has minimal ability to cool runoff temperatures and process pollutants before they reach occupied waters.
- Aquatic Habitat:** The wetland was rated *moderate* for aquatic habitat because although it is in close proximity to other aquatic habitat sites, including a mitigation site on the adjacent property to the east (DSL File Number 17192-FP), and within 2 miles of ponds at Dawson Creek Park, the Falkenberg Reservoir, Tanasbrook Reservoir, and Bethany Lake). However, it lacks persistent, ponded water and is within an actively managed agricultural field lacking perennial cover. Though waterbirds typically prefer herbaceous vegetation for nesting cover, consistent agricultural use has minimized available habitat. The temporary flow regime of the wetland does not provide the physical habitat typically required by waterbirds and amphibians. The wetland's value in aquatic habitat function was rated as *moderate* because it is surrounded by commercial and industrial development; therefore, there is a greater need for aquatic habitat sites within the overall landscape.
- Ecosystem Support:** The wetland was rated *moderate* for ecosystem support due to the lack of persistent surface water and the small proportion of bare ground to herbaceous cover. Wetlands lacking persistent surface water tend to have greater vegetative cover, and therefore more plants for pollinators, while bare earth can provide important nesting habitat for some pollinator species. However, the wetland is dominant in non-native species and primarily lacks perennial vegetation, potentially reducing consistent pollen availability throughout the year. The wetland was rated *moderate* in ecosystem support value because although services of pollinators are more valued in area where the dominant land cover is development, the wetland's vegetation type (herbaceous) is

not particularly unique within the greater vicinity and, is not the only pollen source in the area.

Listed Threatened and Endangered Species

According to the US Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) website, the following Endangered Species Act (ESA)-listed species have the potential to be present in the vicinity of the project site:

- Northern Spotted Owl (*Strix occidentalis caurina*) – Threatened
- Streaked Horned Lark (*Eremophila alpestris strigata*) – Threatened
- Northwestern Pond Turtle (*Actinemys marmorata*) – Proposed Threatened
- Fender's Blue Butterfly (*Icaricia icarioides fenderi*) – Threatened
- Monarch Butterfly (*Danaus Plexippus*) – Threatened
- Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*) – Proposed Endangered
- Kincaid Lupine (*Lupinus sulphureus ssp. kincaidii*) – Threatened
- Willamette Daisy (*Erigeron decumbens*) – Endangered

According to the Oregon Department of Agriculture (ODA), there are four additional state-listed flowering plant species that have the potential to be present in the vicinity of the study area:

- White rock larkspur (*Delphinium leucophaeum*; Endangered)
- Thin-leaved pea (*Lathyrus holochlorus*; Endangered)
- Tall western penstemon (*Penstemon hesperius*; Endangered)
- Nelson's checkermallow (*Sidalcea nelsoniana*; Threatened)

The study area is not within designated critical habitat for any of the listed species. Based on existing site conditions and species-specific habitat requirements, no suitable habitats for the listed threatened and endangered species are present within the study area. None of the listed species or their required habitat features were observed during the AKS site visit. According to iNaturalist, no known occurrence of any of the above species has been documented within the vicinity of the study area.

Wildlife Use

The project area is potentially used by common songbirds and mammals typical of urban areas, such as raccoons, skunks, opossums, rabbits, and squirrels.

Cultural Resources

No aboveground structures are present in the project area. No belowground cultural resources are expected to be present during soil-disturbing activities. If cultural remains are identified during the project, all construction activities will stop, and the Oregon State Historic Preservation Office (SHPO) will be notified to evaluate the discovery and recommend a subsequent course of action.

B. Describe the existing navigation, fishing and recreational use of the waterbody or wetland.

The project area consists of private property and provides no existing navigational, fishing, or recreational uses of the wetland.

(7) PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

Describe project-specific criteria necessary to achieve the project purpose. Describe alternative sites and project designs that were considered to avoid or minimize impacts to the waterbody or wetland.*

Project-Specific Criteria

The purpose of the project is to construct a 144-MW colocation data center campus to support hyperscale and enterprise tenants within the City of Hillsboro. To fulfill the project purpose, the following project-specific criteria must be met:

- **The project site must be located within 5 kilometers (3.1 miles) of existing Digital Realty data centers.** Grid connection is the primary driver for the site location selection due to the added infrastructure costs of connecting to existing data centers. Proximity to existing data centers operated by the Applicant is essential to provide a seamless fiberoptic connection.
- **The project site must have a minimum lot size of 25 acres.** The minimum lot size criterion is based on the need to provide campus infrastructure necessary to provide 144 MW data capacity for hyperscale and colocation tenants. The project site must be large enough to accommodate ±371,000 square feet of data center building space, equipment yards housing backup power generators and other electrical infrastructure, vehicle drive aisles and parking stalls, and stormwater facilities.
- **The project site must be adjacent to existing public utilities.** New development applications must show that water, wastewater, and stormwater requirements can be met adequately by infrastructure that is in place or will be in place at the time of occupancy, and it is the developer's responsibility to bear the cost of infrastructure improvements. Therefore, public utilities must be readily available within 500 feet of the site.
- **A site owned by the applicant or listed for purchase.** The project site must be available to the applicant for development. Therefore, it must either be owned by the applicant or listed for sale on the Regional Multiple Listing Service (RMLS).
- **Opportunity to minimize wetland and water impacts.** The project site location must minimize impacts to jurisdictional wetlands and waters when compared to alternate sites.

No-Built Alternative

The no-build alternative was rejected because it would fail to fulfill the project's purpose of constructing a 144 MW colocation data center campus within Hillsboro. The alternative of not constructing the data center would result in strain on digital networks and fewer economic growth opportunities within Hillsboro.

Off-Site Alternatives

As of the date of this application, only 11 undeveloped sites within Hillsboro are currently listed for sale on the RMLS. All but two are within 3.1 miles of existing Digital Realty data centers, but none of them meet the project site's minimum size criterion. The largest site that is listed for sale was reviewed as a potential alternative. The alternative site consists of two parcels totaling ±6.76 acres located at 6955 E Main Street. As shown on Attachment F, this alternate site is located within 5 kilometers of an existing Digital Realty data center. Public water, sewer, and stormwater are available within E Main Street. However, it is too small to support a 144 MW data center campus. According to the City of Hillsboro Local Wetland Inventory (LWI), a locally significant wetland referred to as BeC is mapped across the entirety of the site. Therefore, developing this site would require more wetland impacts than the selected project site. All other sites listed for sale range between ±0.14 and ±2.3 acres, and are all far too small to support the project purpose. Therefore, no suitable off-site alternatives were identified.

Site Limitations

- The site plan must be designed to meet the City of Hillsboro's zoning requirements, including property line setbacks, minimum landscaping requirements, parking, and circulation.

- The City of Hillsboro's zoning regulations include height restrictions that prevent the use of three-story buildings. In order to maximize floor space within a smaller building footprint, each building has already been designed for two stories.
- That City requires that the project includes extension of NE Ronler Drive across the northern portion of the project site. According to the City of Hillsboro Transportation System Plan (TSP), NE Ronler Drive is a Collector road. It must be designed to three-lane Collector standards which require an 80-foot improved right of way. There are no alternate alignments for the required road improvements.
- Additionally, the project is required to have two access points with interconnected driveways for first-responder emergency access to all sides of the buildings, pedestrian access, and efficient traffic circulation (including commercial vehicles).
- The number of parking stalls is determined based on the square footage of office space as is typical for this use.
- Stormwater treatment and detention facilities are provided on-site to meet CWS and DEQ stormwater requirements. Underground stormwater detention chambers are considered "gray infrastructure" and are not preferred by CWS if "green infrastructure" options are feasible.
- Due to existing topographic conditions on the site, significant grading and fill in the southern portion of the site is necessary. There is approximately 18 feet of grade difference from east to west across the site, which forces significant grading outside of building footprints. Flat grades are needed to support equipment yards for generators and electrical equipment, parking and vehicle circulation, and accessible pedestrian pathways.

Data Center Design Limitations

- All components of the site plan are essential to deliver 144 MW of reliable data processing and storage capacity, making design reductions impracticable. To support building operations, site design requires equipment yards for generators and electrical equipment, employee parking and drive aisles for vehicular circulation, and accessible pathways for pedestrian circulation. Due to these requirements, the site plan utilizes the full footprint of the project area, leaving no undeveloped space available to relocate site plan elements and avoid wetland impacts.
- The total building floor space is the minimum necessary to provide 144 MW of data processing and storage capacity. Building configurations are global prototypes developed by the Applicant to accommodate a diverse range of potential clients. The standard floor plan is designed to provide the required proximity and sizing of the various internal components, including data server halls, mechanical and electrical halls, equipment halls, and office space.
- Equipment yards adjacent to the buildings are designated for backup generators and auxiliary electrical infrastructure, serving as control points between the utility grid and the facilities. These are necessary to support building operations during power outages and cannot be eliminated from the design so that Building 2 can be reconfigured to minimize wetland impacts.
- All data center server halls must have access to backup generators within the external equipment yards. The amount of data provided by the project dictates the number of generators and amount of associated electrical infrastructure needed.

Alternative Layout Alternative

- The Alternative Layout consists of consolidating the two data center buildings into one larger building located entirely in the northern portion of the site.
- Equipment yards to support the data center buildings would still be necessary. With the northern portion of the site taken up almost entirely by the large data center building, the equipment yards would need to be located in the southern portion of the site. Mounting the generators on the roof is not feasible due to operational requirements and the weight of the fuel tanks.
- Site access would still be required from NE Cornell Road, but the access road could possibly be aligned further to the east to avoid wetland impacts.

- The equipment yards could potentially be configured in a such a way that they would not be directly within Wetland A. However, impacts to the remainder of Wetland A would still be required due to the existing topographic conditions on the site and the grading needed to create a level building area for the equipment yards.
- Even if a retaining wall could be used as an alternative to the extensive grading, any remaining wetland would not be likely to sustain post-construction. Hydrology to the wetland would be intercepted by the retaining wall, as footing drains would be required according to the geotechnical report prepared for the site (TerraCon, 2025). Further, any remaining wetland would then be surrounded by development on all sides and no longer provided meaningful habitat function.
- This alternative was rejected because it would result in the same amount of wetland impacts and would require a significantly more complex design and higher construction costs.
- Additionally, this alternative would place some of the generators ±900 feet from the data server halls. Maximum proximity between the servers and the generators and associated electrical equipment is preferred, as it minimizes lag time in the event of the power outage.

Preferred Layout Minimization Alternatives

- Due to the location of Wetland A, there is no opportunity to avoid or further minimize wetland impacts.
- Shifting Building 2 to the east would not reduce wetland impacts.
- Shifting Building 2 to the west would not result in a reduction in wetland impacts due to significant site grading required beyond the building footprint. As discussed previously, using a retaining wall to reduce the amount of grading needed would likely dewater any small amount of remaining wetland.
- Shifting Building 2 to the north or south would inhibit necessary traffic circulation.
- Even if the smaller of the two buildings (Building 1) were located in the southern part of the site, wetland impacts could not be minimized due to the need for the adjacent electrical equipment yards.
- The width of the equipment yards are determined based on equipment dimensions and required clearance around the equipment for maintenance and utility routing. To minimize space, equipment yards are located as close to the buildings as possible and designed with minimum working distances.
- The applicant investigated the feasibility of stacking the generators to reduce the area occupied by the equipment yards. Stacked generators would result in significant operational concerns and were determined not to be feasible. In lieu of stacking, the site plan uses paired generators (two generators tightly spaced side by side) to minimize the overall yard space.

(8) ADDITIONAL INFORMATION

Are there [state](#) or [federally](#) listed species on the project site? ☐ Yes ☒ No ☐ Unknown

Is the project site within designated or proposed critical habitat? ☐ Yes ☒ No ☐ Unknown

Is the project site within a national [Wild and Scenic River](#)? ☐ Yes ☒ No ☐ Unknown

Is the project site within a [State Scenic Waterway](#)? ☐ Yes ☒ No ☐ Unknown

Is the project site within the [100-year floodplain](#)? ☐ Yes ☒ No ☐ Unknown

If yes to any above, explain in Block 6 and describe measures to minimize adverse effects to those resources in Block 7.

Is the project site within the [Territorial Sea Plan \(TSP\) Area](#)? ☐ Yes ☐ No ☒ Unknown

If yes, attach TSP review as a separate document for DSL.

Is the project site within a designated [Marine Reserve](#)? ☐ Yes ☐ No ☒ Unknown

If yes, certain additional DSL restrictions will apply.

Will the overall project involve ground disturbance of one acre or more? ☒ Yes ☐ No ☐ Unknown

If yes, you may need a 1200-C permit from the Oregon Department of Environmental Quality (DEQ).

Is the fill or dredged material a carrier of contaminants from on-site or off-site spills? ☐ Yes ☒ No ☐ Unknown

Has the fill or dredged material been physically and/or chemically tested? ☐ Yes ☒ No ☐ Unknown

If yes, explain in Block 6 and provide references to any physical/chemical testing report(s).

Has a cultural resource (archaeological and/or built environment) survey been performed on the project area? ☐ Yes ☒ No ☐ Unknown

Do you have any additional archaeological or built environment documentation, or correspondence from tribes or the State Historic Preservation Office? ☐ Yes ☒ No ☐ Unknown

If yes, provide a copy of the survey and/or documentation of correspondence with this application to the Corps only. Do not describe any resources in this document. Do not provide the survey or documentation to DSL.

Is the project part of a DEQ Cleanup Site? ☒ No ☐ Yes Permit Number: _____
DEQ contact _____

Will the project result in new impervious surfaces or the redevelopment of existing surfaces? ☒ Yes ☐ No

If yes, the applicant must submit a post-construction stormwater management plan as part of this application to DEQ's 401 WQC program for review and approval, see <https://www.oregon.gov/deq/FilterDocs/401wqcertPostCon.pdf>

Identify any other federal agency that is funding, authorizing or implementing the project.

Agency Name	Contact Name	Phone Number	Most Recent Date of Contact
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List other certificates or approvals/denials required or received from other federal, state or local agencies for work described in this application.

Agency	Certificate / approval / denial description	Date Applied
Oregon DEQ	Memorandum of Agreement	September 2026

Other DSL and/or Corps Actions Associated with this Site (Check all that apply.)

☐ Work proposed on or over lands owned by or leased from the Corps (may require authorization pursuant to 33 USC 408). These could include the federal navigation channel, structures, levees, real estate, dikes, dams, and other Corps projects.

☐ State owned waterway

DSL Waterway Lease #:

☐ Other Corps or DSL Permits

Corps #

DSL #

☐ Violation for Unauthorized Activity

Corps #

DSL #

☒ Wetland and Waters Delineation

Corps #NWP-2025-00461

DSL #WD2025-0609

Submit the entire delineation report to the Corps; submit only the concurrence letter (if complete) and approved maps to DSL. If not previously submitted to DSL, send under a separate cover letter

(9) IMPACTS, RESTORATION/REHABILITATION, AND COMPENSATORY MITIGATION

A. Describe unavoidable environmental impacts that are likely to result from the proposed project. Include permanent, temporary, direct, and indirect impacts.

The project requires 17,075 square feet (0.39 acres) of direct, permanent impacts to PEM/SV wetland. The project will not result in any indirect or temporary wetland impacts or water impacts.

Changes in Hydrologic Characteristics

All impervious surface runoff on the site will be detained by the stormwater facility and released at pre-construction rates to an outfall located in the eastern portion of the project area. Therefore, the project is not expected to impede, restrict, increase, or redirect flow, and will not cause downstream flooding or erosion. Because runoff from the project site will continue to drain easterly and discharge from the stormwater outfall near the eastern project area boundary, the project will not sever or redirect hydrology to an off-site mitigation wetland located on the adjacent property to the east (DSL File Number 17192-FP).

B. For temporary removal or fill or disturbance of vegetation in waterbodies, wetlands or riparian (i.e., streamside) areas, discuss how the site will be restored after construction to include the timeline for restoration.

No temporary wetland impacts are required by the project. All wetland impacts are permanent and will be mitigated as discussed in the following section.

Compensatory Mitigation

C. Proposed mitigation approach. Check all that apply:

Permittee responsible

Permittee responsible

Mitigation Bank or

Payment In-Lieu

☐ Onsite Mitigation

☐ Offsite Mitigation

☒ In-Lieu Fee Program

☐ (Not approved for use with Corps permits)

D. Provide a brief description of proposed mitigation approach and the rationale for choosing that approach. If you believe mitigation should not be required, explain why.

The project requires 0.39 acres of direct permanent impacts to PEM/SV Wetland A. Using the Draft Compensatory Mitigation Eligibility and Accounting Determination Form (Attachment G), the applicant proposes to mitigate unavoidable wetland impacts through the purchase of 0.39 credits from the Dairy Creek Mitigation Bank.

The mitigation bank will establish highly functioning emergent wetlands of the Slope HGM classification, providing local replacement for important functions and values that have been disproportionately lost in the region. According to the Dairy Creek Mitigation Bank Instrument (MBI), the predicted condition ORWAP scores for slope wetlands at the mitigation site will result in a replacement of all 16 functions and values lost at the impact site, and an improvement in 14 specific functions (no change predicted for Anadromous Fish Habitat (FA) or Resident Fish Habitat (FR) scores). Therefore, the purchase of mitigation bank credits will more than replace the wetland functions lost at the project site. Ongoing monitoring and maintenance of the mitigation site will ensure the functions and values will remain in perpetuity.

The following explains how the proposed mitigation addresses the Principal Objectives set forth in OAR 141-085-0680(2)(a):

- (A) *Replace functions and values lost at the removal-fill site:* Wetland mitigation will be an ecological match with respect to the Cowardin class and HGM classification. The impacted wetland is a PEM wetland belonging to the SV subclassification. The Dairy Creek Mitigation Bank provides PEM Slope wetland credits; therefore, wetland impacts will be mitigated in-kind and will replace lost functions and values at the impact site. Further, the wetlands at the mitigation bank provide functions and values at a higher level than the wetlands to be impacted due to the interconnected system of wetland and riparian areas within the bank site that will be much more structurally complex and diverse than the wetland being impacted at the project site.
- (B) *Provide local replacement for locally important functions and values, where appropriate:* The following discusses how wetland functions and values lost by the project will be replaced through the purchase of wetland mitigation bank credits from the Dairy Creek Mitigation Bank.

Hydrologic Functions: The Dairy Creek Mitigation Bank provides hydrologic function by restoring floodplain connection to West Fork Dairy Creek, and by restoring wetland hydrology to its unaltered natural condition by removing agricultural tiles and ditches. The mitigation bank will increase the total wetland acreage and flood storage capacity within the watershed.

Water Quality Support: According to the June 2022 MBI for the Dairy Creek Mitigation Bank, the bank will provide a significant lift in water quality function for the Dairy-McKee subbasins within the Tualatin River watershed. Water quality issues within the Dairy-McKay creek subbasin include erosion and increased turbidity in areas of agricultural and timber harvest, high temperatures, phosphorus, and bacteria levels. In particular, high dissolved oxygen levels in the summer limit aquatic life. The bank will increase shade and native plant density, which will reduce water temperatures, remove nutrients, and retain sediment as water moves through the wetlands.

Aquatic Habitat: The Dairy Creek bank converts agricultural lands to emergent, shrub, and forested wetland complexes. The wetlands at the Dairy Creek Mitigation bank will be much more structurally complex and diverse when compared to the wetland at the project site, which is dominant in non-native vegetation and lacks large-diameter trees, snags, and downed wood. The mitigation bank will create an interconnected system of wetlands with a diversity of vegetation structures, along with the addition of snags and downed wood to provide high-functioning amphibian and avian habitat. Additionally, the bank will increase topographic variation in areas that have historically been leveled for agriculture, resulting in microtopography and different hydroperiods throughout the mitigation site. Therefore, the wetlands at the mitigation bank far exceed the ecological condition and extent of wetland areas present at the project site.

Ecosystem Support: The mitigation bank provides enhanced ecosystem support functions through an interconnected system of structurally complex wetland areas. The bank will convert degraded agricultural lands to native plant communities, providing organic materials and food sources to support the local ecosystem. Additionally, the mitigation bank will provide forest and shrub-dominated buffers that will protect wetland ecosystem function from pollution, disturbance from humans and domestic animals, and establishment of invasive species.

- (C) *Enhance, restore, create or preserve waters of this state that are self-sustaining and minimize long-term maintenance needs:* The mitigation bank is located within the appropriate landscape with respect to the topography, soils, and natural hydrology sources to be self-sustaining. Hydrology sources to the mitigation bank wetlands are natural and permanent, primarily in the form of precipitation, groundwater seepage, and overbank flooding from West Fork Dairy Creek. As a result, irrigation and water control structures are not needed to sustain hydrology at the mitigation bank site. These conditions ensure the mitigation will be self-sustaining and have minimal maintenance needs.
- (D) *Ensure the siting of compensatory mitigation in ecologically suitable locations considering: local watershed needs and priorities; appropriate landscape position for the waters types, functions and values sought; connectivity to other habitats and protected resources; and the absence of contaminants or conflicting adjacent land uses or development trends that would compromise functions and values:* The Dairy Creek Mitigation Bank was designed to meet the needs of the Dairy-McKay watershed, and is sited in an ecologically suitable location to develop the wetlands and vegetation class types proposed. The large size of the mitigation bank contributes to meaningful mitigation in the landscape context and provides connectivity to other habitats, including the Killin Wetlands Nature Park adjacent to the bank site and other natural habitats through the West Fork Dairy stream corridor. A small area of the mitigation bank site is currently enrolled in DEQ's Voluntary Cleanup Program to clean up lead contamination and is not expected to compromise wetland functions and values once cleanup is complete. A dense forested buffer will be planted at the mitigation bank to protect wetland functions from adjacent land uses.
- (E) *Minimized Temporal Loss of Wetland and Waters Functions and Values:* The purchase of mitigation bank credits will occur prior to project construction, which will avoid temporary loss to local wetland functions.

Mitigation Bank / In-Lieu Fee Information:

Name of mitigation bank or in-lieu fee project: Dairy Creek Mitigation Bank

Type and amount of credits to be purchased: 0.39 PEM/SV

If you are proposing permittee-responsible mitigation, have you prepared a compensatory mitigation plan?

☐ Yes. Submit the plan with this application and complete the remainder of this section.

☐ No. A mitigation plan will need to be submitted (for DSL, this plan is required for a complete application).

Mitigation Location Information (Fill out only if permittee-responsible mitigation is proposed)

Mitigation Site Name/Legal Description		Mitigation Site Address		Tax Lot #	
County		City		Latitude & Longitude* (in DD.DDDD format)	
Township	Range	Section		Quarter/Quarter	

(10) ADJACENT PROPERTY OWNERS FOR PROJECT AND MITIGATION SITE		
☐ Pre-printed mailing labels of adjacent property owners attached separately (if more than 30).	Project Site Adjacent Property Owners	Mitigation Site Adjacent Property Owners
Contact Name Address 1 Address 2 City, ST ZIP Code	QC Investments LLC 3365 NE 79 th Ave Hillsboro, OR 97124	
Contact Name Address 1 Address 2 City, ST ZIP Code	LD DI Assetco 2 LLC 200 Central Ave Suite 1600 St. Petersburg, FL 33701	
Contact Name Address 1 Address 2 City, ST ZIP Code	Madrona Joes LLC 210 SW Morrison St Suite 600 Portland, OR 97204	
Contact Name Address 1 Address 2 City, ST ZIP Code	James Allen Kirby and Marjor Kirby 1701 NW 7 th Ave Hillsboro, OR 97124	
Contact Name Address 1 Address 2 City, ST ZIP Code	City of Hillsboro 150 E Main St Hillsboro, OR 97123	

(11) CITY/COUNTY PLANNING DEPARTMENT LAND USE AFFIDAVIT (TO BE COMPLETED BY LOCAL PLANNING OFFICIAL)

I have reviewed the project described in this application and have determined that:

- ☐ This project is not regulated by the comprehensive plan and land use regulations
☐ This project is consistent with the comprehensive plan and land use regulations
☒ This project is consistent with the comprehensive plan and land use regulations with the following:

- ☐ Conditional Use Approval
☒ Development Permit
☐ Other Permit (explain in comment section below)

☐ This project is not currently consistent with the comprehensive plan and land use regulations. To be consistent requires:

- ☐ Plan
☐ Amendment
☐ Zone Change
☐ Other Approval or Review (explain in comment section below)

An application or variance request has☒ has not☐ been filed for the above required above.

Local planning official name (print)	Title	City / County
Emma Porricolo	Senior Planner	City of Hillsboro
Signature Emma Porricolo	Digitally signed by Emma Porricolo Date: 2026.10.06 09:33:21 -07'00'	Date 10/6/2026
Comments: Development Review application is in process. City of Hillsboro Planning Division Case File DR26-0031		

(12) COASTAL ZONE CERTIFICATION

If the proposed activity described in your permit application is within the [Oregon Coastal Zone](#), the following certification is required before your application can be processed. The signed statement will be forwarded to the Oregon Department of Land Conservation and Development (DLCD) for its concurrence or objection. For additional information on the Oregon Coastal Zone Management Program and consistency reviews of federally permitted projects, contact DLCD at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050 or click [here](#).

CERTIFICATION STATEMENT

I certify that, to the best of my knowledge and belief, the proposed activity described in this application complies with the approved Oregon Coastal Zone Management Program and will be completed in a manner consistent with the program.

Print /Type Applicant Name	Title
Applicant Signature	Date

(13) SIGNATURES

Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or DSL staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish supplemental information in support of this permit application. I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. I understand that payment of the required state processing fee does not guarantee permit issuance.

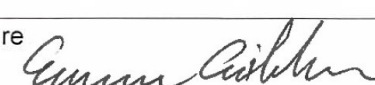
To be considered complete, the fee must accompany the application to DSL. The fee is not required for submittal of an application to the Corps.

Fee Amount Enclosed	\$2,100 (Type B base fee)
----------------------------	---------------------------

Applicant Signature (required) must match the name in Block 2

Print Name Michael Durham	Title Vice President Americas Portfolio West, Digital Beaver 4, LLC
Signature 	Date 9-11-2026

Authorized Agent Signature

Print Name Emma Eichhorn, PWS	Title Natural Resource Specialist, AKS Engineering & Forestry, LLC
Signature 	Date 10/6/2026

Landowner Signature(s)***Landowner of the Project Site (if different from applicant)**

Print Name Same as Applicant	Title
Signature 	Date 9-11-2026

Landowner of the Mitigation Site (if different from applicant)

Print Name	Title
Signature	Date

Department of State Lands, Property Manager (to be completed by DSL)

If the project is located on state-owned submerged and submersible lands, DSL staff will obtain a signature from the Land Management Division of DSL. A signature by DSL for activities proposed on state-owned submerged/submersible lands only grants the applicant consent to apply for a removal-fill permit. A signature for activities on state-owned submerged and submersible lands grants no other authority, express or implied and a separate proprietary authorization may be required.

Print Name	Title
Signature	Date

* Not required by the Corps.

(14) ATTACHMENTS

☒ Drawings

- ☒ Location map with roads identified
- ☒ U.S.G.S topographic map
- ☒ Tax lot map
- ☒ Site plan(s)
- ☒ Plan view and cross section drawing(s)
- ☒ Recent aerial photo
- ☐ Project photos
- ☒ Erosion and Pollution Control Plan(s), if applicable
- ☒ DSL / Corps Wetland Concurrence letter and map, if approved and applicable

☐ Pre-printed labels for adjacent property owners (Required if more than 30)

☒ Incumbency Certificate if applicant is a partnership or corporation

☐ Restoration plan or rehabilitation plan for temporary impacts

☐ Mitigation plan

☒ Wetland functional assessments, if applicable

- ☒ Cover Page
- ☒ Score Sheets
- ☒ ORWAP OR, F, T, & S forms
- ☒ ORWAP Reports
- ☒ Assessment Maps
- ☒ ORWAP Reports: Soils, Topo, Assessment area, Contributing area

☐ Stream Functional Assessments, if applicable

- ☐ Cover Page
- ☐ Score
- ☐ Sheets
- ☐ SFAM PA, PAA, & EAA forms
- ☐ SFAM Report
- ☐ Assessment Maps

☐ Aerial Photo Site Map and Topo Site Map (Both maps should document the PA, PAA, & EAA)

☒ Compensatory Mitigation (CM) Eligibility & Accounting [Worksheet](#)

- ☒ Matching Quickguide sheet(s)
- ☒ CM Eligibility & Accounting sheet

☐ Alternatives analysis

☐ Biological assessment (if requested by the Corps project manager during pre-application coordination)

☐ Stormwater management plan (may be required by the Corps or DEQ)

☐ Other

☐ Please describe:

List of Attachments

Attachment A – Maps and Figures

Attachment B – Letter of Support from City of Hillsboro

Attachment C – DSL Concurrence Letter WD#2026-0609

Attachment D – USACE Approved Jurisdictional Determination NWP-2025-00461

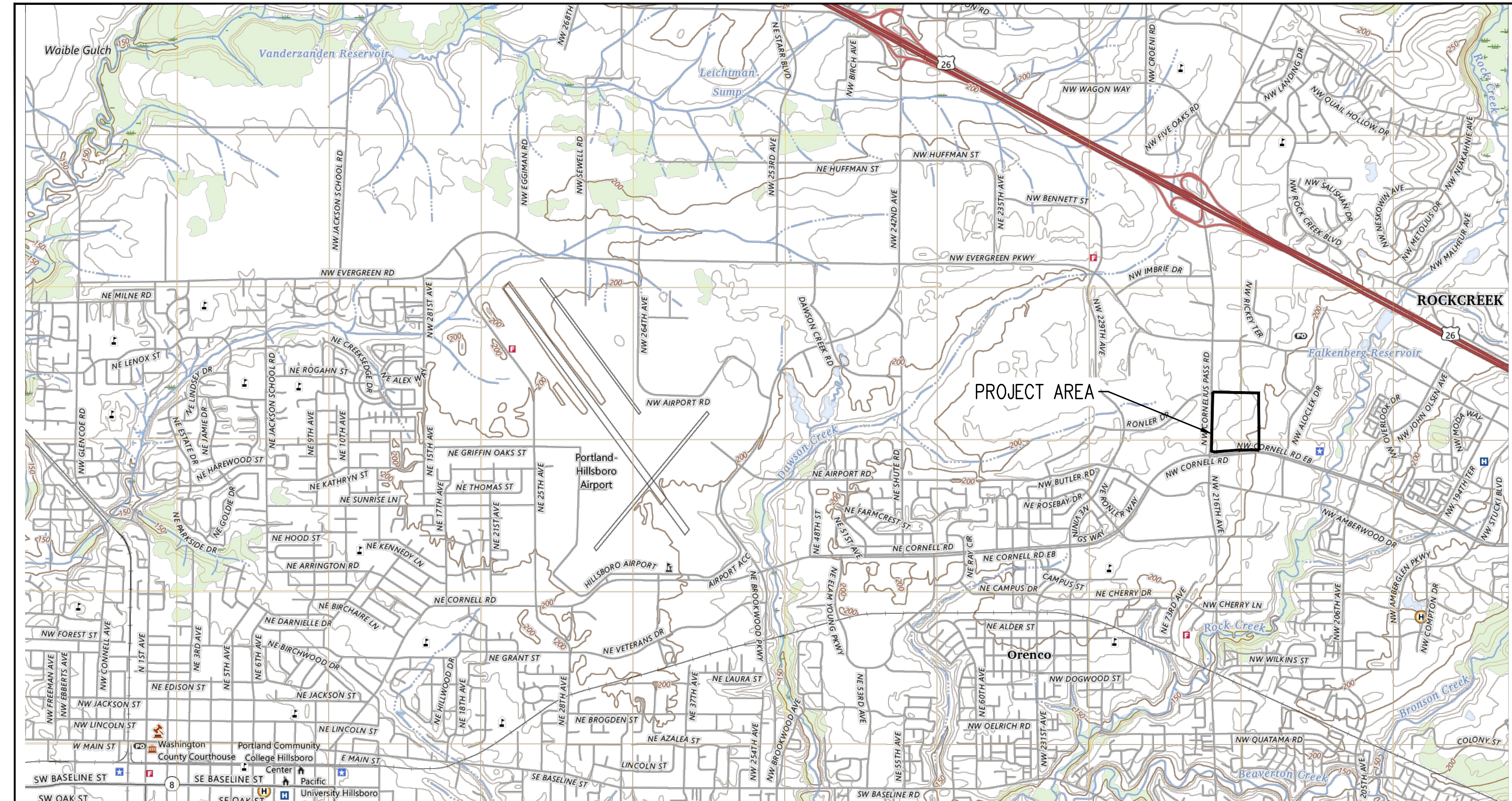
Attachment E – Wetland A ORWAP

Attachment F – Off-Site Alternatives Map

Attachment G – Draft Compensatory Mitigation Eligibility and Accounting Worksheet

Attachment H – Incumbency Certificate

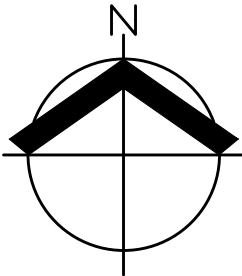
Attachment A: Maps and Figures



PROJECT AREA

USGS 7.5' TOPOGRAPHIC SERIES
QUADRANGLE: HILLSBORO, OR (2023)

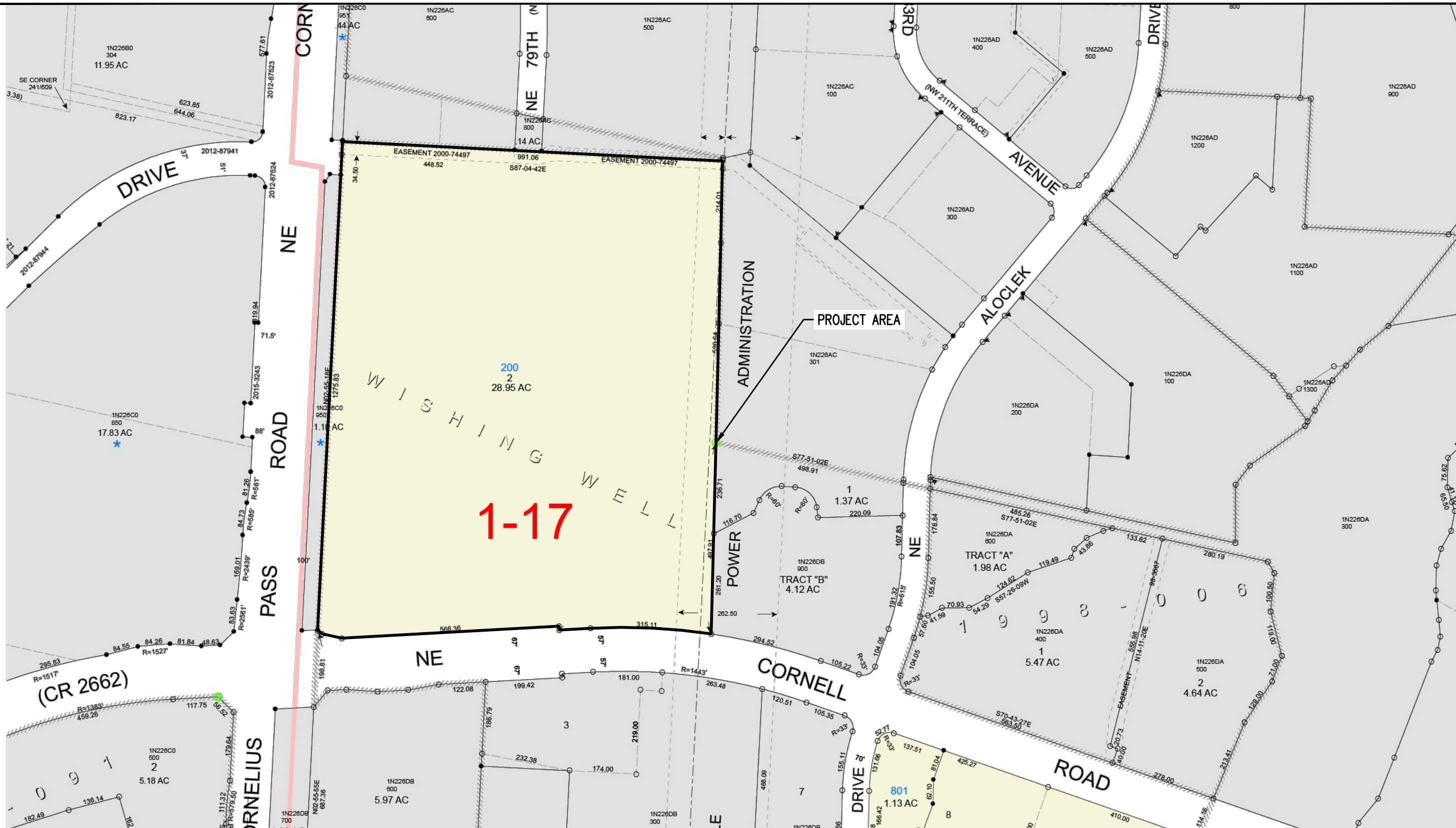
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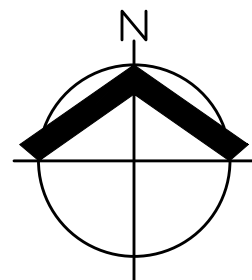
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USGS SITE VICINITY MAP		EXHIBIT
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AKS ENGINEERING AND FORESTRY, LLC		DRWN: KJG
12965 SW HERMAN RD, STE 100		CHKD: BGZ
TUALATIN, OR 97062		AKS JOB:
503-563-6151 WWW.AKS-ENG.COM		12802





WASHINGTON COUNTY
TAX LOT 200
TAX MAP 1N226D



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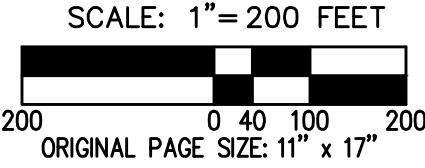
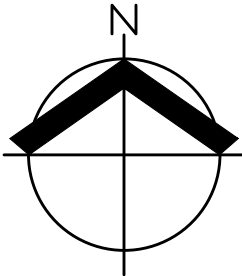
DATE: 10/5/2026

TAX MAP 1N266D		EXHIBIT
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AKS ENGINEERING AND FORESTRY, LLC		DRWN: KJG
12965 SW HERMAN RD, STE 100		CHKD: BGZ
TUALATIN, OR 97062		AKS JOB:
503-563-6151 WWW.AKS-ENG.COM		12802





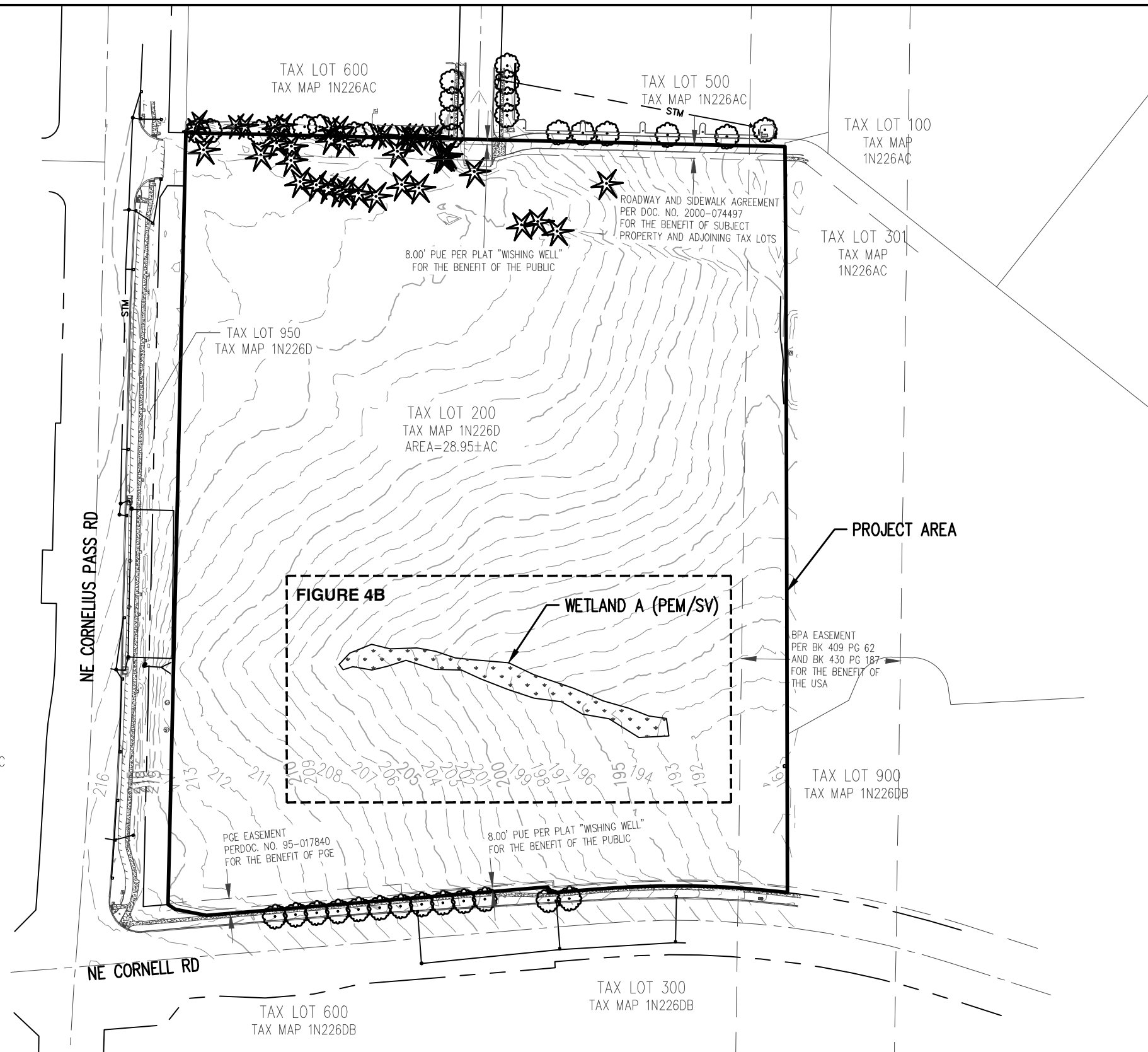
AERIAL IMAGE DERIVED FROM AKS AERIAL SURVEY
(SEPTEMBER 8TH 2025)



DATE: 10/5/2026

RECENT AERIAL IMAGE		EXHIBIT
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AKS ENGINEERING AND FORESTRY, LLC		DRWN: KJG
12965 SW HERMAN RD, STE 100		CHKD: BGZ
TUALATIN, OR 97062		AKS JOB:
503-563-6151 WWW.AKS-ENG.COM		12802

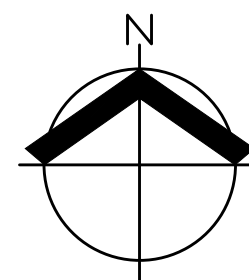




- LEGEND**
- WETLAND A (PEM/SV): 17,075 SF (0.39 ACRES)
 - 201 — EXISTING GROUND CONTOUR (1FT)
 - 205 — EXISTING GROUND CONTOUR (5FT)

WETLAND BOUNDARIES DELINEATED BY AKS ENGINEERING AND FORESTRY, LLC AND ADOPTED PER WD# 2025-0609

WETLAND BOUNDARIES AND PLOTS SHOWN WERE RECORDED WITH SUB-METER ACCURACY USING TRIMBLE R10 GPS RECEIVER. EXISTING CONDITIONS, TAX LOT BOUNDARIES, GROUND CONTOURS AND TREE SURVEY DERIVED FROM AKS FIELD WORK CONDUCTED SEPTEMBER 8TH, 11TH, 16TH-17TH, & 19TH, 2025



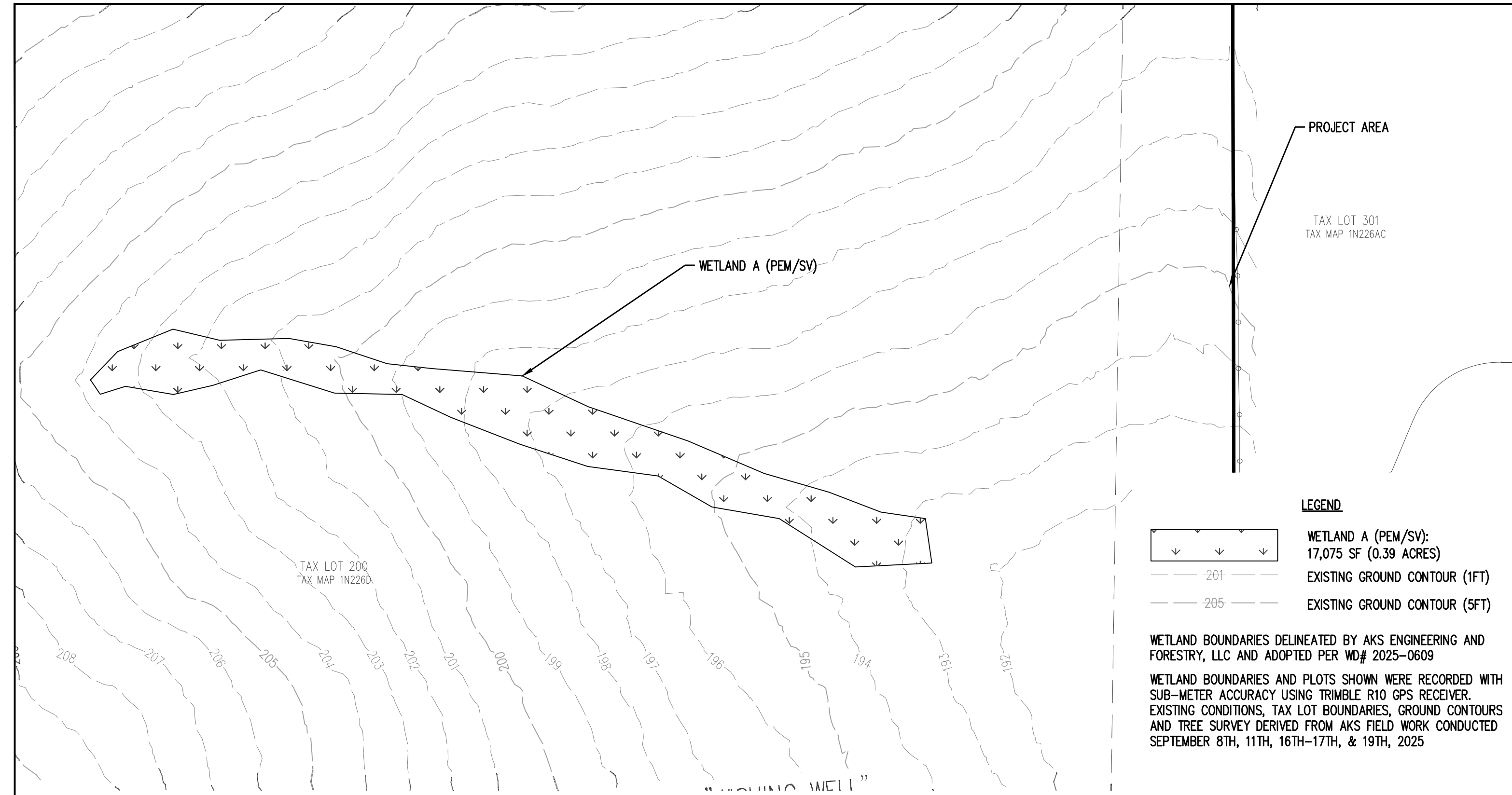
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DATE: 10/5/2026

EXISTING CONDITIONS OVERVIEW		EXHIBIT
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AKS ENGINEERING AND FORESTRY, LLC		DRWN: KJG
12965 SW HERMAN RD, STE 100		CHKD: BGZ
TUALATIN, OR 97062		AKS JOB:
503-563-6151 WWW.AKS-ENG.COM		12802





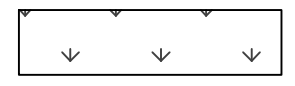
PROJECT AREA

TAX LOT 301
TAX MAP 1N226AC

WETLAND A (PEM/SV)

TAX LOT 200
TAX MAP 1N226D

LEGEND



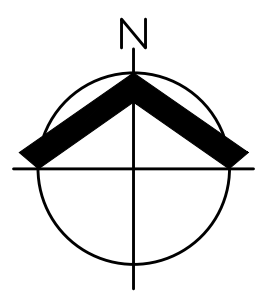
WETLAND A (PEM/SV):
17,075 SF (0.39 ACRES)

EXISTING GROUND CONTOUR (1FT)

EXISTING GROUND CONTOUR (5FT)

WETLAND BOUNDARIES DELINEATED BY AKS ENGINEERING AND FORESTRY, LLC AND ADOPTED PER WD# 2025-0609

WETLAND BOUNDARIES AND PLOTS SHOWN WERE RECORDED WITH SUB-METER ACCURACY USING TRIMBLE R10 GPS RECEIVER. EXISTING CONDITIONS, TAX LOT BOUNDARIES, GROUND CONTOURS AND TREE SURVEY DERIVED FROM AKS FIELD WORK CONDUCTED SEPTEMBER 8TH, 11TH, 16TH-17TH, & 19TH, 2025



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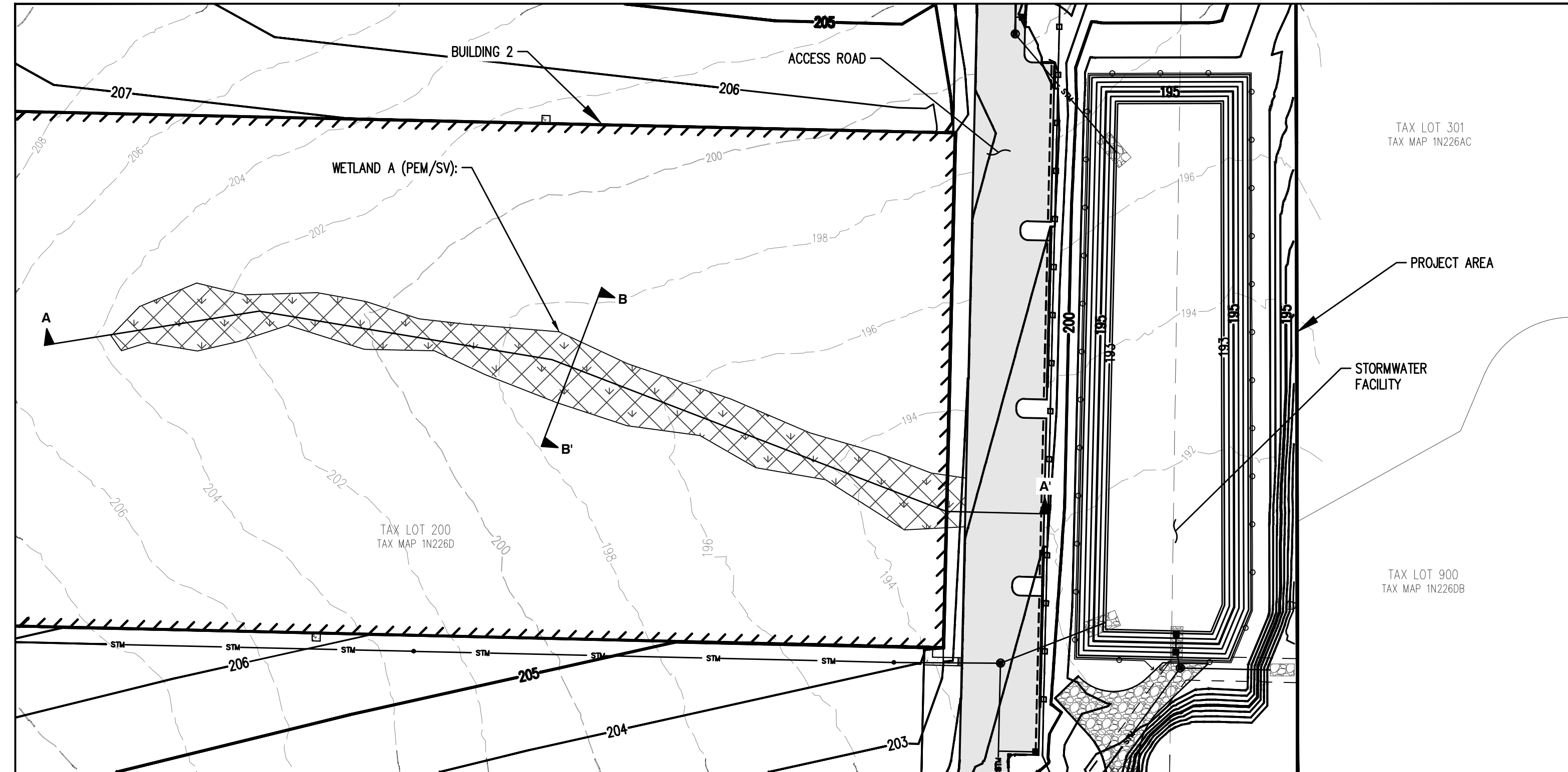
EXISTING CONDITIONS ENLARGEMENT

CORNY DATA CENTER JPA
AKS ENGINEERING AND FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503-563-6151 WWW.AKS-ENG.COM

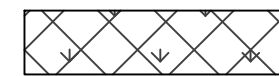


EXHIBIT
4B
DRWN: KJG
CHKD: BGZ
AKS JOB:
12802

DWG: 12802 JPA SITE_ZOOM | 5B



LEGEND



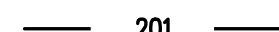
WETLAND A (PEM/SLOPE) DIRECT
PERMANENT IMPACTS:
17,075 SF (0.39 ACRES)



EXISTING GROUND CONTOUR (1FT)



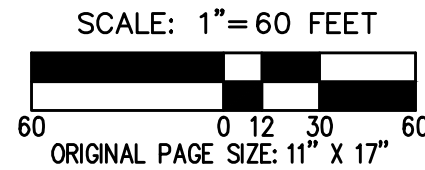
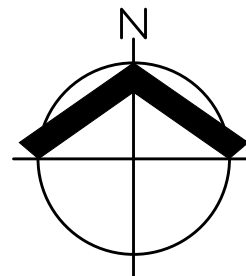
EXISTING GROUND CONTOUR (5FT)



FINISHED GRADE CONTOUR (1FT)



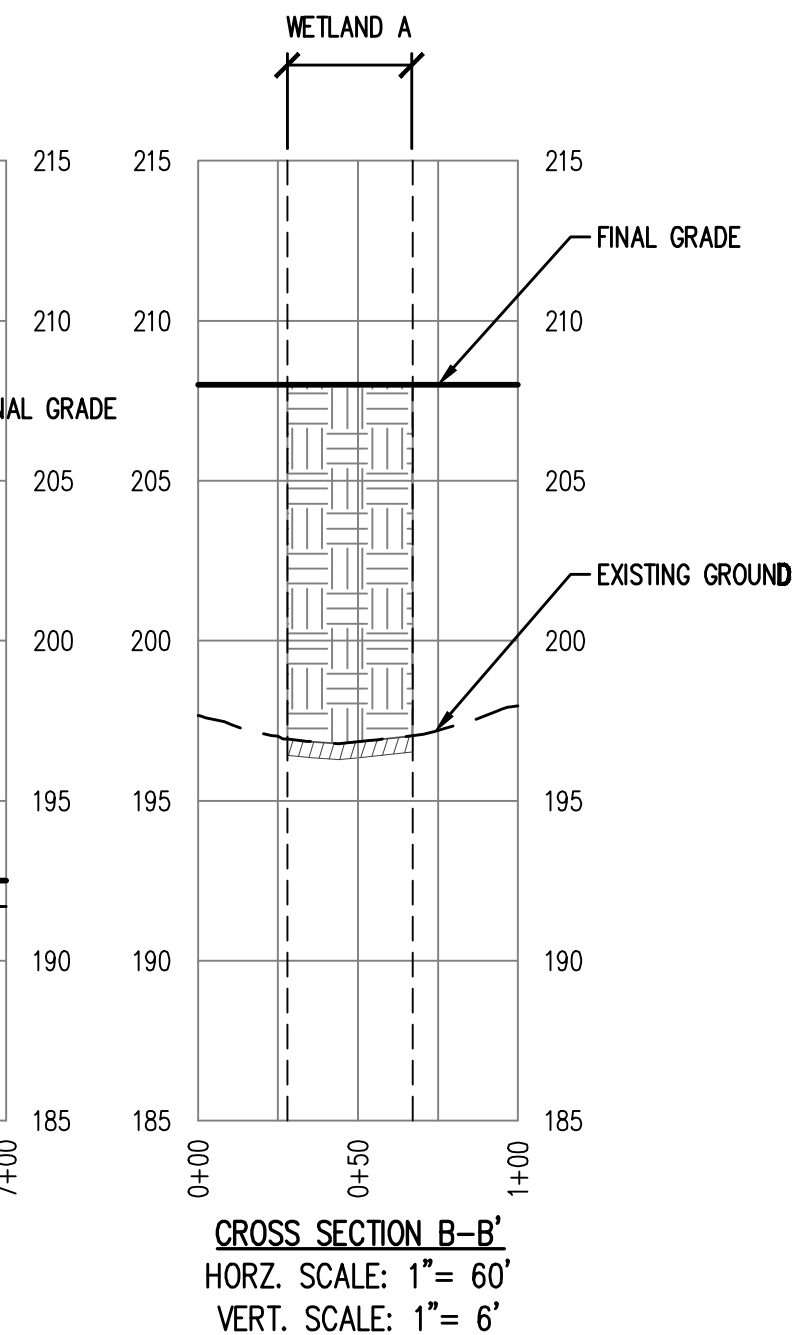
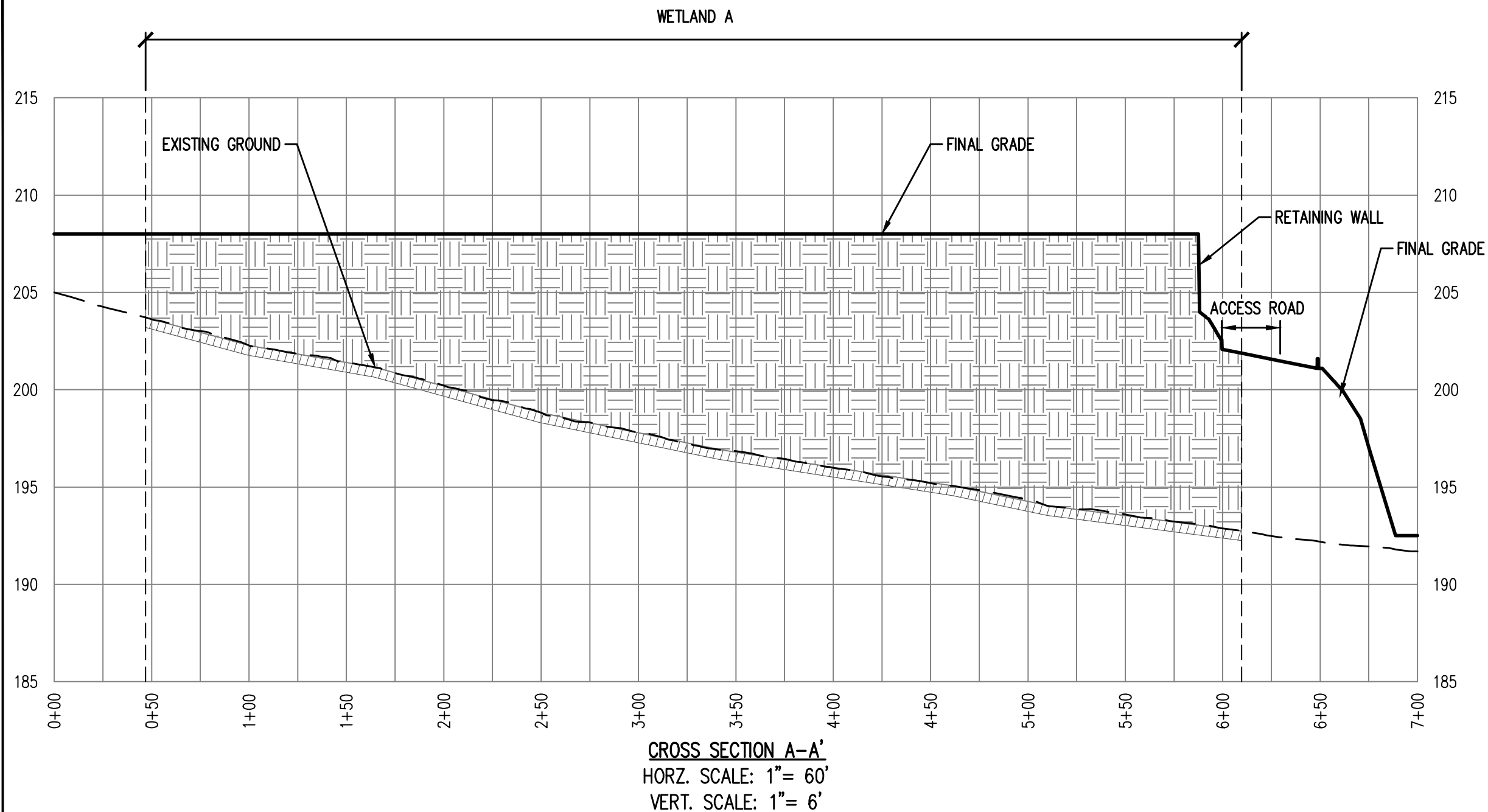
FINISHED GRADE CONTOUR (5FT)



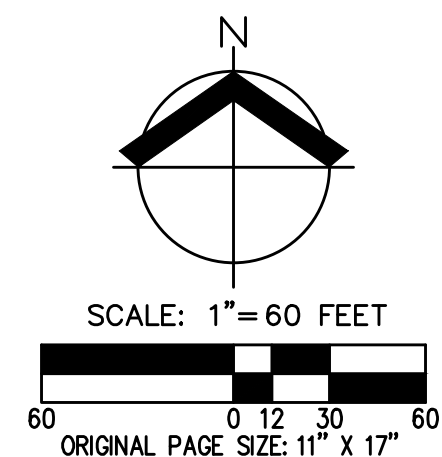
DATE: 10/5/2026

SITE PLAN ENLARGEMENT		EXHIBIT
CORNLY DATA CENTER JPA		5B
AKS ENGINEERING AND FORESTRY, LLC		DRWN:KJG
12965 SW HERMAN RD, STE 100		CHKD: BGZ
TUALATIN, OR 97062		AKS JOB:
503-563-6151 WWW.AKS-ENG.COM		12802

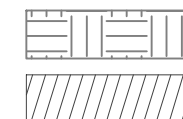




WETLAND REMOVAL/FILL SUMMARY TABLE				
IMPACT ACTIVITY	LOCATION	AREA, SF (ACRES)	REMOVAL (CY)	FILL (CY)
DIRECT PERMANENT IMPACT	WETLAND A	17,075 (0.39)	315	6830
TOTAL		17,075 (0.39)	315	6830

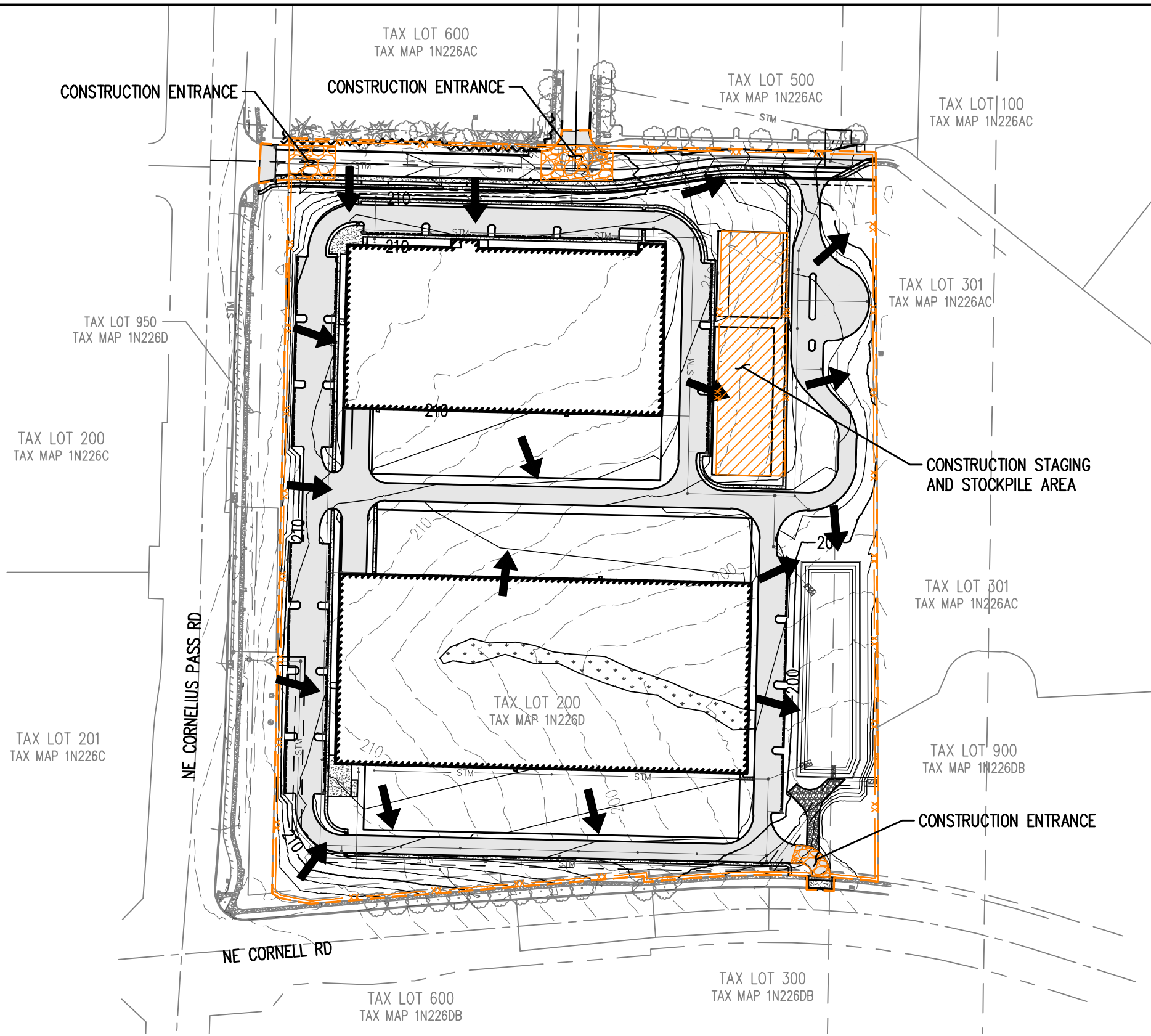


LEGEND



CROSS SECTIONS AND SUMMARY TABLE		EXHIBIT
CORNY DATA CENTER JPA		6
AKS ENGINEERING AND FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503-563-6151 WWW.AKS-ENG.COM		AKS
		DRWN: KJG CHKD: BGZ AKS JOB: 12802

DWG: 12802 JPA ESC | 7



LEGEND

EXISTING GROUND CONTOUR (2 FT)

EXISTING GROUND CONTOUR (10 FT)

---200---

FINISHED GRADE CONTOUR (2 FT)

FINISHED GRADE CONTOUR (10 FT)

_____200_____

SEDIMENT FENCE AND/OR OTHER BMPS
TO COMPLY WITH DEQ 1200C PERMIT

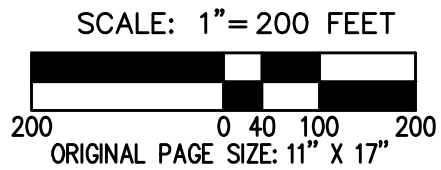
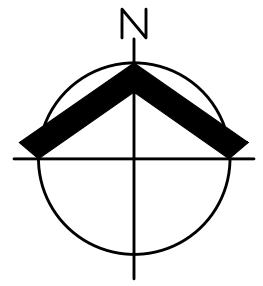
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LIMITS OF DISTURBANCE

DRAINAGE FLOW DIRECTION

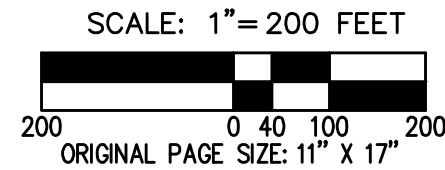
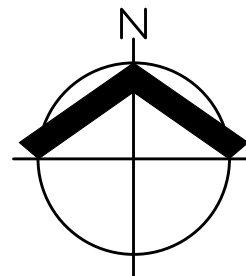
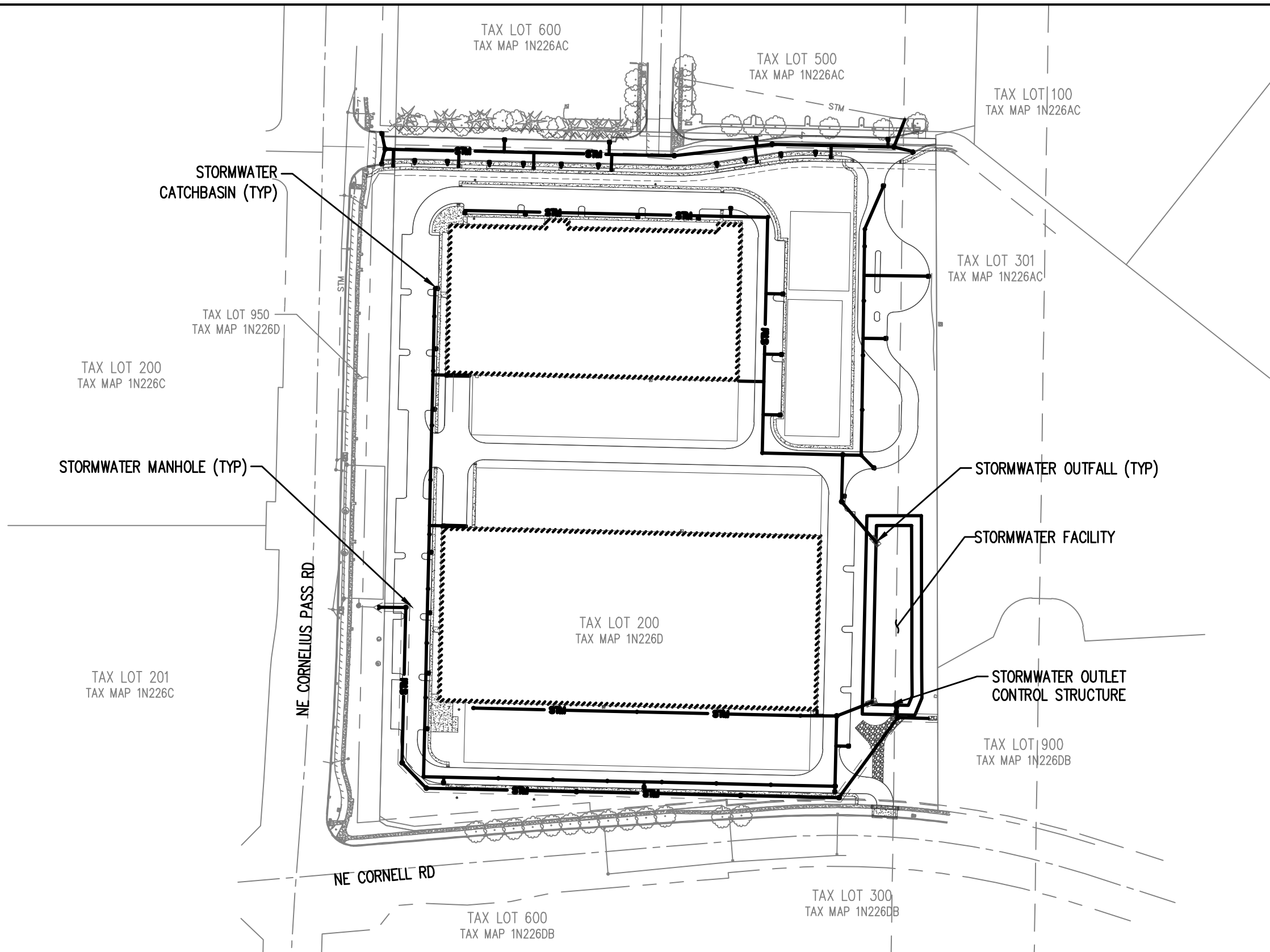
➔

GRAVEL CONSTRUCTION ENTRANCE



DATE: 10/5/2026	
GRADING AND EROSION CONTROL	EXHIBIT
CORNY DATA CENTER JPA	7
AKS ENGINEERING AND FORESTRY, LLC	DRWN:KJG
12965 SW HERMAN RD, STE 100	CHKD: BGZ
TUALATIN, OR 97062	AKS JOB:
503-563-6151 WWW.AKS-ENG.COM	12802





DATE: 10/5/2026

STORMWATER MANAGEMENT PLAN		EXHIBIT
CORN DATA CENTER JPA		8
AKS ENGINEERING AND FORESTRY, LLC		DRWN: KJG
12965 SW HERMAN RD, STE 100		CHKD: BGZ
TUALATIN, OR 97062		AKS JOB:
503-563-6151 WWW.AKS-ENG.COM		12802



Attachment B: Letter of Support from City of Hillsboro



November 3, 2025

Oregon Department of State Lands
775 Summer St., NE #100
Salem, Oregon 97301

Subject: Letter of Support – Digital Realty Trust Wetland Permit Application

Dear Oregon Department of State Lands:

On behalf of the City of Hillsboro, I am writing to express support for Digital Realty's wetland permit application submitted to your agency. This site has remained vacant, and it is encouraging to see it being put to productive use.

Digital Realty has a proven record of responsible site development and long-term environmental compliance. Within our city, the company operates three established facilities – both of which were originally developed on greenfield sites like the property now under consideration. We are confident that Digital Realty will apply the same level of care and adherence to environmental protection measures in the development of the proposed site.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in blue ink that reads 'Valerie Okada'.

Valerie Okada
Economic Development Manager

Attachment C: DSL Concurrence Letter
WD#2026-0609



Oregon

Tina Kotek, 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

June 22, 2026

State Land Board

Tina Kotek

Governor

Legacy Health Systems
c/o RNZ 5027, LLC
Attn: Carrie Tillman
103 Foulk Road, Suite 202
Wilmington, DE 19803

Tobias Read

Secretary of State

Elizabeth Steiner

State Treasurer

Re: WD # 2025-0609 **Approved**
Wetland Delineation Report for NE 79th Avenue
Washington County; T1N R2W S26D, TL 200
Hillsboro Local Wetlands Inventory - Wetland W6

Dear Carrie Tillman:

The Department of State Lands has reviewed the wetland delineation report prepared by AKS Engineering & Forestry, LLC for the site referenced above. Based upon the information presented in the report, and additional information submitted upon request, we concur with the wetland boundaries as mapped in Figure 6 of the report. Please replace all copies of the preliminary wetland map with this final Department-approved map.

Within the study area, one wetland (Wetland), totaling approximately 0.39 acres, was identified. The wetland is 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. We recommend that you attach a copy of this concurrence letter to any subsequent state permit application to speed application review. Federal, other state agencies 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 impacts to waters of this state. Because measures to avoid and minimize impacts to waters of this state 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 Matt Unitis, the Wetland Ecologist for Washington County, at (503) 910-1559.

Sincerely,

Daniel Evans  Digitally signed by Daniel Evans
Date: 2026.06.22 15:06:25 -07'00'

Daniel Evans, PWS
Wetland Ecology Specialist

Enclosures

ec: Emma Eichhorn, AKS Engineering & Forestry, LLC
City of Hillsboro Planning Department (Maps enclosed for refining LWI)
US Army Corps of Engineers
Hannah Wilson, DSL
Lindsey Obermiller, Clean Water Services

TERMINATION REPORT COVER FORM

A complete report and signed report cover form, along with [applicable review fee](#), are required before a report review timeline can be initiated by the Department of State Lands. All applicants will receive an emailed confirmation that includes the report's unique file number and other information.

Ways to submit report:

- ❖ **Under 50MB** - A single unlocked PDF can be emailed to: wetland.delineation@dsl.oregon.gov.
- ❖ **50MB or larger** - A single unlocked PDF can be uploaded to the [Jurisdiction Box.com](#) folder. Email wetland.delineation@dsl.oregon.gov of the new upload.
- ❖ Unbound paper report and signed cover form can be mailed to: Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.

Ways to pay review fee:

- ❖ By credit card on [DSL's epayment portal](#) after receiving the unique file number from DSL's emailed confirmation.
- ❖ By check payable to the Oregon Department of State Lands attached to the unbound paper report **OR** attached to the complete signed cover form if report submitted electronically.

Contact and Authorization Information

☐ Applicant ☒ Owner Name, Firm and Address:
Legacy Health Systems
1919 NW Lovejoy Street
Portland, OR 97209

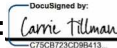
Business phone #
Mobile phone # (optional)
E-mail:

☒ Authorized Legal Agent, Name and Address (if different):
RNZ 5027, LLC
103 Foulk Road, Suite 202,
Wilmington DE 19803

Business phone # (302) 485-1346
Mobile phone # (optional)
E-mail: carrie.tillman@cscglobal.com

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: Carrie Tillman

Signature: 

Date: 10/28/2025

Special instructions regarding site access: _____

Project and Site Information

Project Name: NE 79th Avenue

Latitude: 45.541756

Longitude: -122.898008

decimal degree - centroid of site or start & end points of linear project

Proposed Use:
Industrial Development

Tax Map # 1N226D

Tax Lot(s) 200

Tax Map #

Project Street Address (or other descriptive location):
Northeast of NE Cornelius Pass Road and NE Cornell Road
intersection

Tax Lot(s)

Township 1N Range 2W Section 26 QQ D

Use separate sheet for additional tax and location information

City: Hillsboro

County: Washington

Waterway: NA

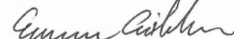
River Mile: NA

Wetland Delineation Information

Wetland Consultant Name, Firm and Address:
Emma Eichhorn
AKS Engineering & Forestry, LLC
12965 SW Herman Road, Suite 100
Tualatin OR 97062

Phone # (503) 563-6151
Mobile phone # (if applicable)
E-mail: eichhorne@aks-eng.com

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: 10/30/2025

Primary Contact for report review and site access is ☒ Consultant ☐ Applicant/Owner ☐ Authorized Agent

Wetland/Waters Present?

☒ Yes ☐ No

Study Area size: 28.95

Total Wetland Acreage: 0.3900

Check Applicable Boxes Below

☐ R-F permit application submitted

☒ Fee payment submitted \$ 575

☐ Mitigation bank site

☐ Resubmittal of rejected report (\$100)

☐ EFSC/ODOE Proj. Mgr: _____

☐ Request for Reissuance. See eligibility criteria. (no fee)

☐ Wetland restoration/enhancement project
(not mitigation)

DSL # _____ Expiration date _____

☐ Previous delineation/application on parcel
If known, previous DSL # _____

☒ LWI shows wetlands or waters on parcel
Wetland ID code W6

For Office Use Only

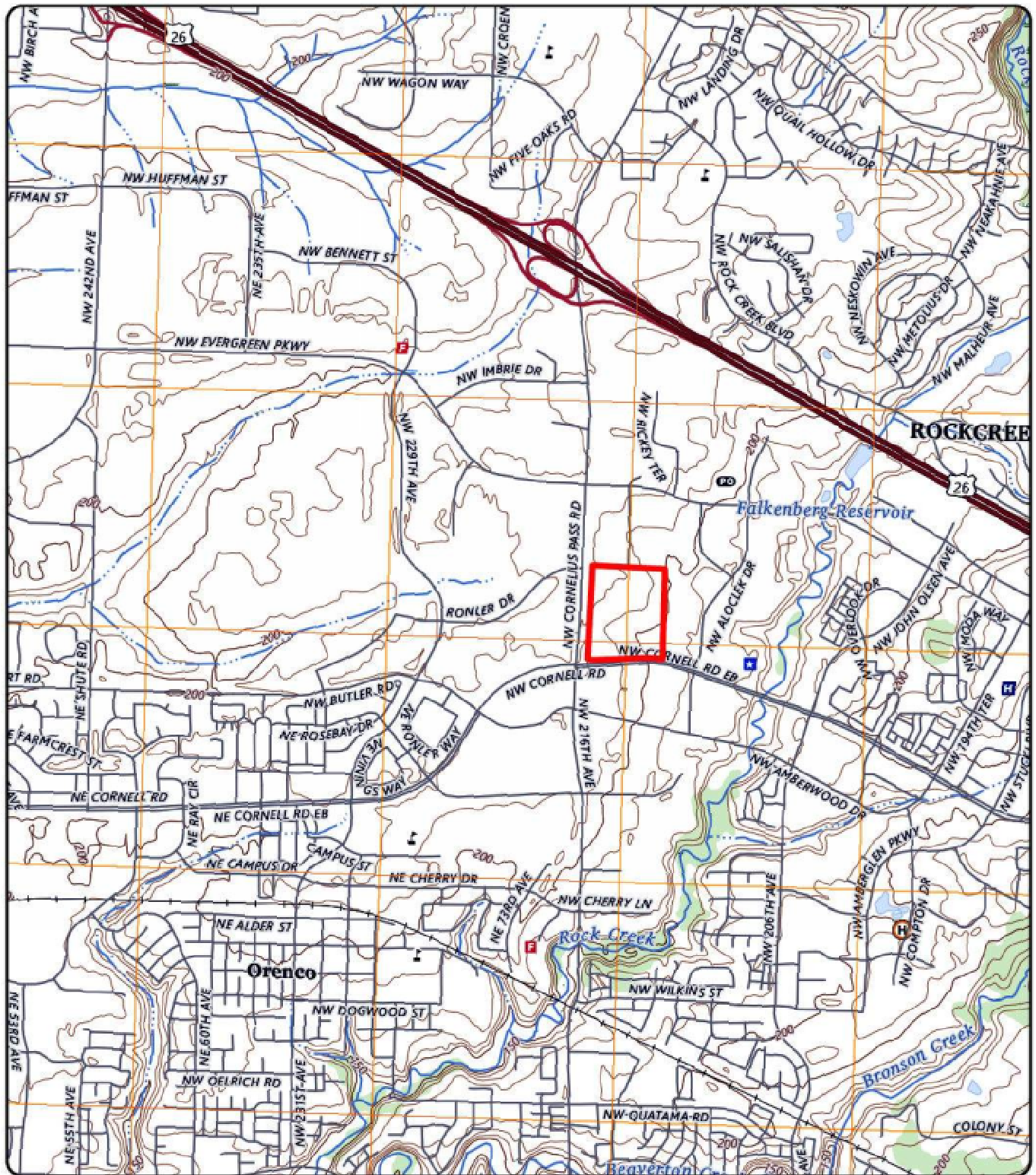
DSL Reviewer: MU

Fee Paid Date: 11 / 6 / 2025

DSL WD # 2025-0609

Date Delineation Received: 10 / 30 / 2025

DSL App.# _____



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Source: USGS 7.5' topographic series quadrangle for Hillsboro, OR obtained from USGS.gov (2023).

Legend

 Study Area Boundary

Figure 1 USGS Vicinity Map

Job: 12802
NE 79th Ave - Hillsboro
Wetland Delineation Report



AKS Engineering & Forestry, LLC
12965 SW Herman RD, STE 100
Tualatin, OR 97062
P:503.563.6151 | aks-eng.com

N 0 1,000 2,000 Feet

Printed on 8.5" x 11"



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Source: June 2024 aerial photograph obtained from Oregon Statewide Imagery Program (OSIP). Taxlots obtained from Washington County GIS database.

Legend

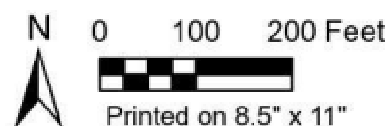
- ▮ Study Area Boundary
- Taxlots

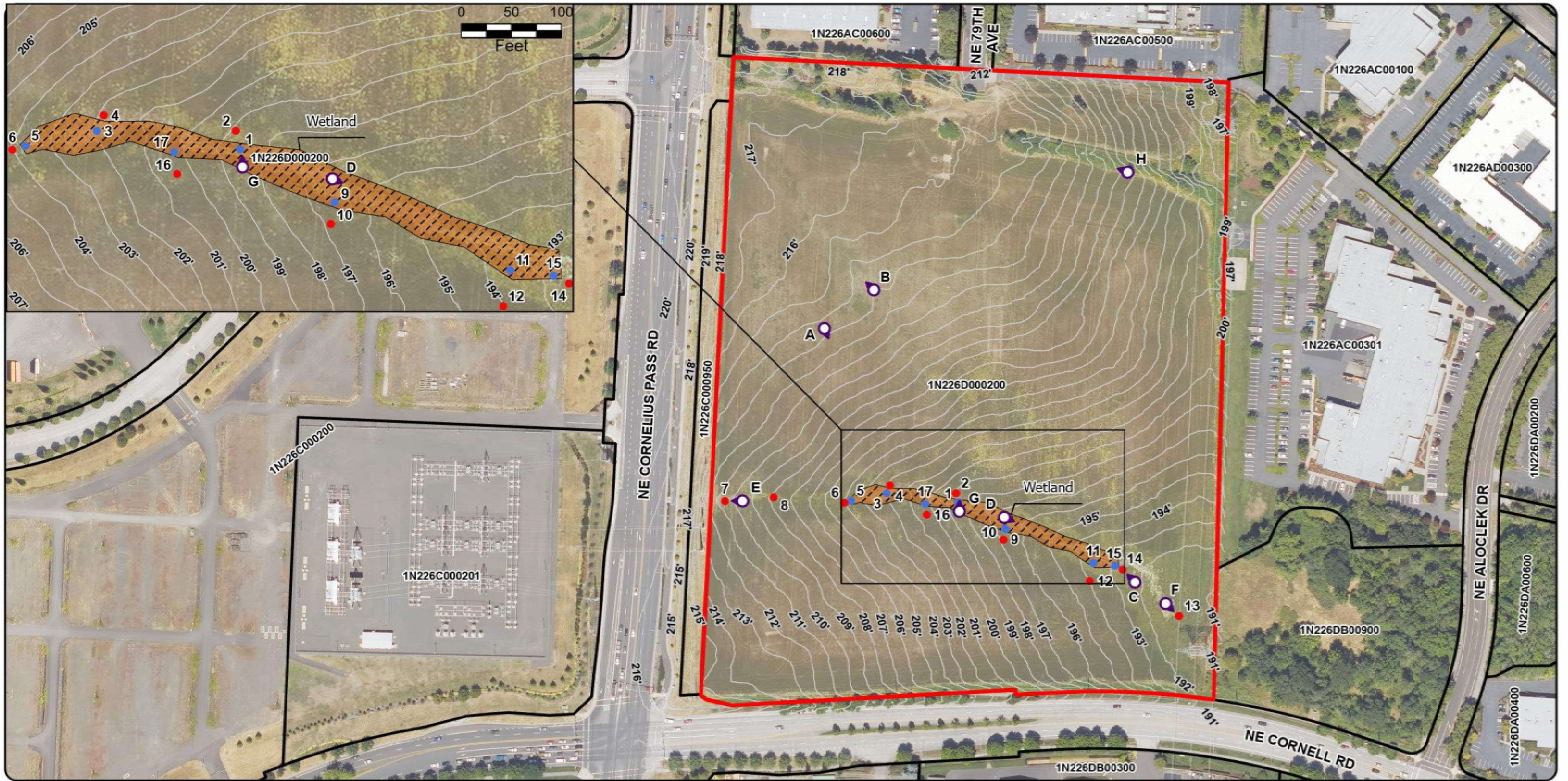
Figure 2 Assessor's Map

Job: 12802
NE 79th Ave - Hillsboro
Wetland Delineation Report



AKS Engineering & Forestry, LLC
12965 SW Herman RD, STE 100
Tualatin, OR 97062
P:503.563.6151 | aks-eng.com





Wetland boundaries delineated by AKS Engineering & Forestry, LLC (AKS) on September 4, 2025. Wetland boundaries and plots shown were recorded with sub-meter accuracy using a Trimble R10 GPS receiver and ArcGIS Field Maps

Source: June 2024 Aerial Photograph obtained from Oregon Statewide Imagery Program (OSIP). Contours derived from September 15, 2025 drone LIDAR flight by AKS Engineering & Forestry. Taxlot boundaries from Washington County GIS database.

Legend

- Photo Point
- Upland Sample Plot
- Wetland Sample Plot
- Study Area Boundary
- AKS Delineated Wetlands
 - PEM, SV
 - Taxlots
 - Contours (1')

DSL WD# 2025-0609
Approval Issued: 6/22/2026
Approval Expires: 6/22/2031

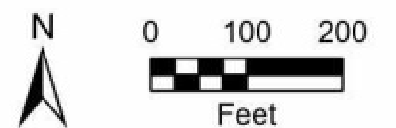
Figure 6
Wetland Delineation Map

AKS Job: 12802
NE 79th Ave - Hillsboro
Wetland Delineation Report



AKS Engineering & Forestry, LLC
12965 SW Herman RD, STE 100
Tualatin, OR 97062
P: 503.563.6151 | aks-eng.com

WETLAND_ID	COWARDIN	HGM	MOSAIC	Area (Sqft)	Area (Acres)
Wetland	Palustrine Emergent	Slope Valley	PEM, SV	17075	0.39



**Attachment D: USACE Approved Jurisdictional
Determination NWP-2025-00461**



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PORTLAND DISTRICT
P.O. BOX 2946
PORTLAND, OR 97208-2946

November 3, 2025

Regulatory Branch
Corps No. NWP-2025-00461

Ms. Kimberly Vogel
Legacy Health
1919 NW Lovejoy Street
Portland, Oregon 97209
kivogel@lhs.org

Dear Ms. Vogel:

The U.S. Army Corps of Engineers (Corps) received your request for an Approved Jurisdictional Determination (AJD) of the aquatic resources, including wetlands, within the review area on the property located northeast of the NE Cornelius Pass Road and NE Cornell Road intersection, in Hillsboro, Washington County, Oregon at Latitude/Longitude: 45.541756°, -122.898008°. Other aquatic resources, including wetlands, that may occur on this property or on adjacent properties outside the review area are not the subject of this determination.

The Corps has determined Wetland 1 is not a water of the United States. The enclosed *Memorandum for Record* (MFR) (Enclosure 1) provides the size, criteria and rationale for jurisdiction for all aquatic resources within the review area. The perimeter of the review area and the boundaries of the delineated waters of the United States subject to this AJD are identified on the enclosed drawings (Enclosure 2).

This AJD is valid for a period of five years from the date of this letter unless new information warrants revisions of the determination.

The delineation included herein has been conducted to identify the location and extent of the aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should discuss the applicability of a Natural Resources Conservation Service Certified Wetland Determination with the local USDA service center, prior to starting work.

This letter contains an AJD for the subject site. If you object to the enclosed AJD, you may request an administrative appeal under the Corps regulations at 33 CFR Part 331. Enclosed you will find a *Notification of Administrative Appeal Options and Process* (NAP)

and Request for Appeal (RFA) form (Enclosure 3). If you request to appeal this AJD, you must submit a completed RFA form to the Corps Northwestern Division Office at the following address:

Melinda Larsen, Regulatory Appeals Review Officer
U.S. Army Corps of Engineers, Northwestern Division
1201 NE Lloyd Blvd., Suite 400
Portland, OR 97232

You may contact the Appeals Review Officer by phone at 503-808-3888 or by email at melinda.m.larsen@usace.army.mil. In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR § 331.5, and that it has been received by the Division Office within 60 days from the date on the NAP. Should you decide to submit an RFA form, it must be received at the above address by January 2, 2026. It is not necessary to submit an RFA form to the Division Office if you do not object to the enclosed AJD.

We would like to hear about your experience working with the Portland District, Regulatory Branch. Please complete a customer service survey form available on our website (<https://regulatory.ops.usace.army.mil/customer-service-survey/>).

If you have any questions regarding our Regulatory Program or permit requirements for work in waters of the United States, please contact Mr. Tyler Krug by telephone at (541) 756-2097 or by email at tyler.j.krug@usace.army.mil.

FOR THE COMMANDER, LARRY D. CASWELL, JR., PE, PMP, COLONEL, U.S. ARMY,
DISTRICT COMMANDER and DISTRICT ENGINEER:

Melanie O'Meara

For: William D. Abadie
Chief, Regulatory Branch

Enclosures

cc with drawings:

AKS Engineering & Forestry, LLC. (Emma Eichhorn, eichhorne@aks-eng.com)
Oregon Department of State Lands (Trevor Griffiths, trevor.griffiths@dsl.oregon.gov)
Oregon Department of Environmental Quality (401certifications@deq.oregon.gov)



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PORTLAND DISTRICT
P.O. BOX 2946
PORTLAND, OR 97208-2946

CENWP-ODG

3 November 2025

MEMORANDUM FOR RECORD

SUBJECT: U.S. Army Corps of Engineers (Corps) Approved Jurisdictional Determination in accordance with the "Revised Definition of 'Waters of the United States'"; 88 FR 3004 (18 January 2023) as amended by the "Revised Definition of 'Waters of the United States'; Conforming" 88 FR 61964 (8 September 2023),¹ NWP-2025-00461 (MFR #1 of #1).²

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.³ AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.⁴

On 18 January 2023, the Environmental Protection Agency (EPA) and the Department of the Army ("the agencies") published the "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (18 January 2023) ("2023 Rule"). On 8 September 2023 the agencies published the "Revised Definition of 'Waters of the United States'; Conforming", 88 FR 61964 (8 September 2023) which amended the 2023 Rule to conform to the 2023 Supreme Court decision in *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023) ("*Sackett*").

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR § 331.2. For the purposes of this AJD, we have relied on Section 10 of the Rivers and Harbors Act of 1899 (RHA),⁵ the 2023 Rule as amended,

¹ While the Revised Definition of "Waters of the United States"; Conforming had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

² When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, the territorial seas, or interstate water that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).

³ 33 CFR § 331.2.

⁴ Regulatory Guidance Letter 05-02.

⁵ USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

CENWP-ODG

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), NWP-2025-00461

as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

1. SUMMARY OF CONCLUSIONS.

- a. Provide a list of each individual feature within the Review Area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

- i. Wetland 1, non-jurisdictional

2. REFERENCES.

- a. "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (18 January 2023) ("2023 Rule")
- b. "Revised Definition of 'Waters of the United States'; Conforming" 88 FR 61964 (8 September 2023)
- c. *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023)
- d. "Memorandum To The Field Between The U.S. Department Of The Army, U.S. Army Corps Of Engineers And The U.S. Environmental Protection Agency Concerning The Proper Implementation Of 'Continuous Surface Connection' Under The Definition Of 'Waters Of The United States' Under The Clean Water Act" (March 12, 2025)

- 3. REVIEW AREA. The Review Area (RA) is 28.95-acres in size and is located northeast of the NE Cornelius Pass Road and NE Cornell Road intersection, in Hillsboro, Washington County, Oregon at Latitude/Longitude: 45.541756°, -122.898008°.

- 4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED. The nearest TNW to the RA is Tualatin River, river mile (RM) 38 which is located approximately four miles southwest of the RA. The Tualatin River is recognized as a TNW to RM 56.8 pursuant to the Corps' Portland District October

1993 list of Navigable Riverways within the State of Oregon.⁶ Wetland 1 is not connected to a TNW, the territorial seas, or an interstate water.

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER. Wetland 1 does not possess a flowpath to a TNW, the territorial seas, or an interstate water.
6. SECTION 10 JURISDICTIONAL WATERS⁷: Describe aquatic resources or other features within the Review Area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the Review Area and how it was determined to be jurisdictional in accordance with Section 10.⁸ N/A
7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the Review Area that were found to meet the definition of waters of the United States in accordance with the 2023 Rule as amended at 33 CFR § 328.3(a)(1) through (a)(5), consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the 2023 Rule as amended. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.
 - a. Traditional Navigable Waters (TNWs) (a)(1)(i): N/A
 - b. The Territorial Seas (a)(1)(ii): N/A

⁶ This MFR should not be used to complete a new stand-alone TNW determination. A stand-alone TNW determination for a water that is not subject to Section 9 or 10 of the Rivers and Harbors Act of 1899 (RHA) is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established.

⁷ 33 CFR § 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

⁸ This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR § 329.14 to make a determination that a water is a navigable water of the United States subject to Section 10 of the RHA.

- c. Interstate Waters (a)(1)(iii): N/A
- d. Impoundments (a)(2): N/A
- e. Tributaries (a)(3): N/A
- f. Adjacent Wetlands (a)(4): N/A
- g. Additional Waters (a)(5): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

- a. Describe aquatic resources and other features within the Review Area identified in the 2023 Rule as amended as not “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5). Include the type of excluded aquatic resource or feature, the size of the aquatic resource or feature within the Review Area and describe how it was determined to meet one of the exclusions listed in 33 CFR 328.3(b).⁹ N/A
- b. Describe aquatic resources and features within the Review Area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the 2023 Rule as amended (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

Wetland 1: Wetland 1 is a palustrine emergent wetland measuring 0.39-acre located in the south-central portion of the RA. Wetland 1 is an isolated depressional wetland with no inlet or outlet. Wetland 1 lacks a requisite continuous surface connection to an (a)(1), (a)(2), or (a)(3). The Corps has determined Wetland 1 is not a waters of the U.S.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

- a. Office evaluation: 1 November 2025
- b. Wetland delineation report titled “NE 79th Avenue, Hillsboro, Oregon, Wetland Delineation Report” prepared by AKS Engineering & Forestry, LLC, accessed 31 October 2025.

⁹ 88 FR 3004 (18 January 2023)

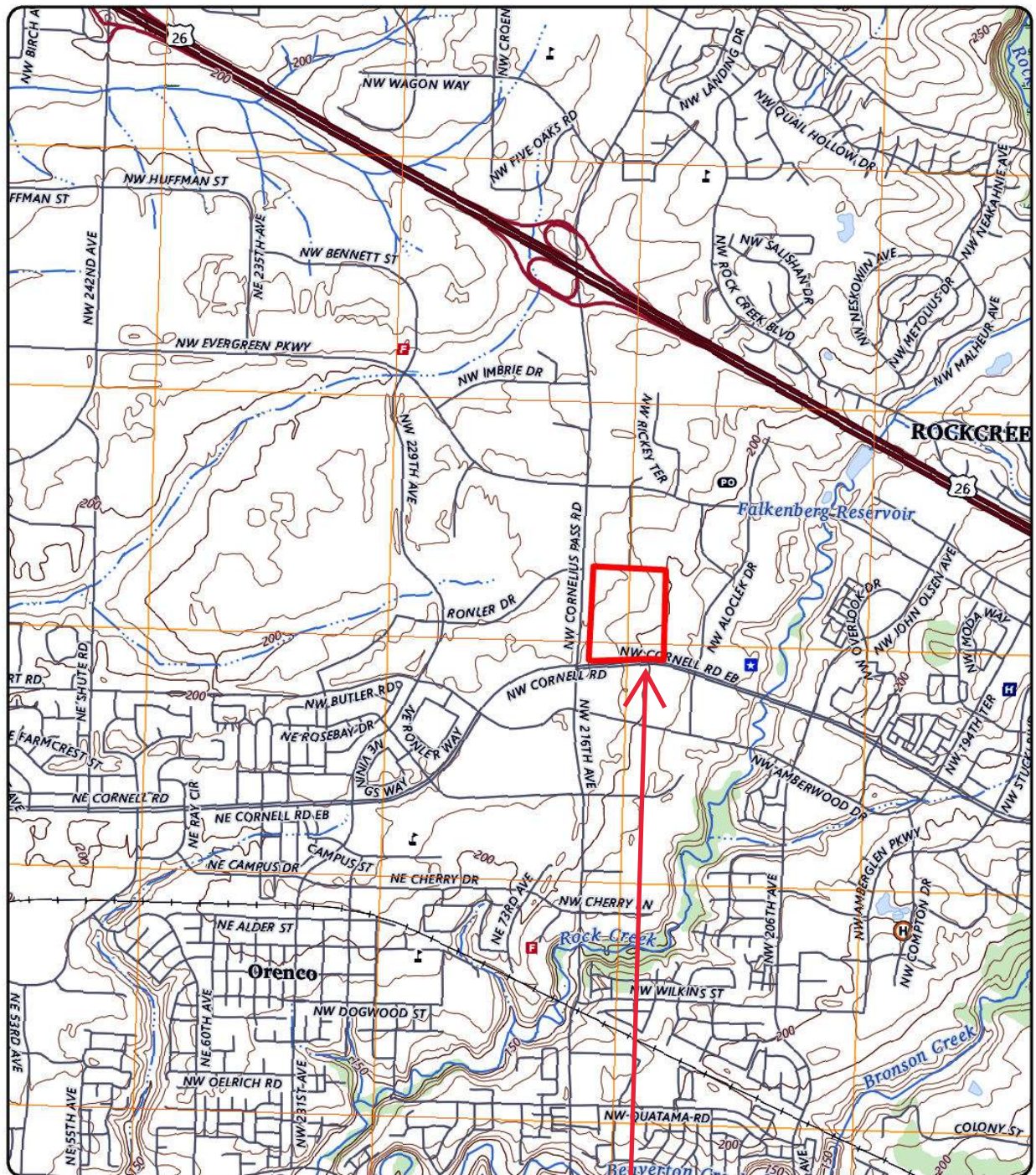
CENWP-ODG

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), NWP-2025-00461

- c. Corps' Portland District October 1993 list of Navigable Riverways within the State of Oregon accessed 1 November 2025 at
- d. Corps' Northwestern Division Regulatory Viewer data layers accessed 1 November 2025: U.S. Geological Survey 3DEP Light Detection and Ranging (LiDAR) imagery and Oregon Department of Geology and Mineral Industries LiDAR imagery.
- e. Google Earth Pro aerial imagery accessed 1 November 2025.

10. OTHER SUPPORTING INFORMATION. N/A

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Source: USGS 7.5' topographic series quadrangle for Hillsboro, OR obtained from USGS.gov (2023).

Legend



USACE Review Area

Figure 1
USGS Vicinity Map

Job: 12802
NE 79th Ave - Hillsboro
Wetland Delineation Report



AKS Engineering & Forestry, LLC
12965 SW Herman RD, STE 100
Tualatin, OR 97062
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0 1,000 2,000 Feet

Printed on 8.5" x 11"



Wetland 1 = non-waters of the U.S.

USACE Review Area

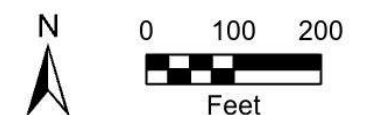
Legend

- Photo Point
- Upland Sample Plot
- Wetland Sample Plot
- USACE Review Area
- AKS Delineated Wetlands: PEM, SV
- Taxlots
- Contours (1')

WETLAND_ID	COWARDIN	HGM	MOSAIC	Area (Sqft)	Area (Acres)
Wetland	Palustrine Emergent	Slope Valley	PEM, SV	17075	0.39

Figure 6
Wetland Delineation Map

AKS Job: 12802
NE 79th Ave - Hillsboro
Wetland Delineation Report



Wetland boundaries delineated by AKS Engineering & Forestry, LLC (AKS) on September 4, 2025. Wetland boundaries and plots shown were recorded with sub-meter accuracy using a Trimble R10 GPS receiver and ArcGIS Field Maps

Source: June 2024 Aerial Photograph obtained from Oregon Statewide Imagery Program (OSIP). Contours derived from September 15, 2025 drone LiDAR flight by AKS Engineering & Forestry. Taxlot boundaries from Washington County GIS database.



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Attachment E: Wetland A ORWAP

Oregon Rapid Wetland Assessment (ORWAP) V.3.2.*	Cover Page: Basic Description of Assessment
Site Name:	Corny Data Center
Investigator Name:	Emma Eichhorn, Addison Dillon
Date of Field Assessment:	4/2/2026
County:	Washington
Nearest Town:	Hillsboro
Latitude (decimal degrees):	45.540843
Longitude (decimal degrees):	-122.897367
TRS, quarter/quarter section and tax lot(s):	T.1N. R.2W. Sec.26
Approximate size of the Assessment Area (AA, in acres):	0.39
AA as percent of entire wetland (approx.). Attach sketch map if AA is smaller than the entire contiguous wetland.	100%
If delineated, DSL file number (WD #) if known:	WD#2025-0609
Cowardin Systems & Classes (indicate all present, based on field visit and/or aerial imagery): <u>Systems</u> : Palustrine =P, Riverine =R, Lacustrine =L, Estuarine =E <u>Classes</u> : Emergent =EM, Scrub-Shrub =SS, Forested =FO, Aquatic Bed (incl. SAV) =AB, Open Water =OW, Unconsolidated Bottom =UB, Unconsolidated Shore =US	PEM
Predominant HGM Class : Estuarine=E, Lacustrine=L, Riverine=R, S= Slope, F= Flats, D= Depressional	SV
Soil Unit Mapped in Most of the AA:	Aloha silt loam
If tidal, the tidal phase during most of visit:	NA
What percent (approximate) of the wetland were you able to visit?	100%
What percent (approximate) of the AA were you able to visit?	100%
Have you attended an ORWAP training session? If so, indicate approximate month & year.	Emma Eichhorn: 2023
How many wetlands have you assessed previously using ORWAP (approximate)?	20+
Comments about the site or this ORWAP assessment (attach extra page if desired):	

ORWAP V.3.2 Site Name:	Corny Data Center
Investigator Name:	Emma Eichhorn, Addison Dillon
Date of Field Assessment:	4/2/2026
Scores will appear below after data are entered in worksheets OF, F, T, and S. See Manual for definitions and descriptions of how scores were computed and ratings assigned.	

Normalized Scores & Ratings for this Assessment Area (AA):								
Specific Functions or Values:	Function Score	Function Rating	Rating Break Proximity	Values Score	Values Rating	Rating Break Proximity	Function Score (raw)	Values Score (raw)
Water Storage & Delay (WS)	6.00	Moderate		0.00	Lower		6.00	0.00
Sediment Retention & Stabilization (SR)	4.46	Moderate	LM	7.81	Higher		4.72	5.95
Phosphorus Retention (PR)	3.81	Moderate		7.17	Higher		4.05	5.96
Nitrate Removal & Retention (NR)	4.05	Moderate	LM	5.93	Moderate		5.19	5.96
Anadromous Fish Habitat (FA)	0.00	Lower		0.00	Lower		0.00	0.00
Resident Fish Habitat (FR)	0.00	Lower		0.00	Lower		0.00	0.00
Amphibian & Reptile Habitat (AM)	4.72	Moderate	LM	2.80	Lower		4.28	2.80
Waterbird Nesting Habitat (WBN)	6.15	Moderate		3.11	Moderate		5.10	3.11
Waterbird Feeding Habitat (WBF)	3.83	Moderate		4.17	Moderate		3.46	4.17
Aquatic Invertebrate Habitat (INV)	0.00	Lower		2.04	Lower		2.03	2.56
Songbird, Raptor, Mammal Habitat (SBM)	1.17	Lower		4.00	Moderate		3.48	4.00
Water Cooling (WC)	2.22	Lower	LM	0.00	Lower		1.94	0.00
Native Plant Diversity (PD)	0.00	Lower		0.00	Lower		0.00	0.00
Pollinator Habitat (POL)	3.96	Moderate		5.15	Moderate	MH	3.45	4.17
Organic Nutrient Export (OE)	5.48	Moderate					4.85	
Carbon Sequestration (CS)	1.99	Lower					2.55	
Public Use & Recognition (PU)				3.53	Lower	LM		4.13

Other Attributes:	Score	Rating	Rating Break Proximity		
Wetland Sensitivity (SEN)	2.82	Moderate			4.82
Wetland Ecological Condition (EC)	1.59	Lower			3.33
Wetland Stressors (STR)	9.52	Higher			8.76

GROUPS	Selected Function	Function Rating	Rating Break Proximity	Values Rating	Rating Break Proximity
Hydrologic Function (WS)	Water Storage & Delay (WS)	Moderate		Lower	
Water Quality Support (SR, PR, or NR)	Sediment Retention & Stabilization (SR)	Moderate	LM	Higher	
Fish Habitat (FA or FR)	Anadromous Fish Habitat (FA)	Lower		Lower	
Aquatic Habitat (AM, WBF, or WBN)	Waterbird Nesting Habitat (WBN)	Moderate		Moderate	
Ecosystem Support (WC, INV, PD, POL, SBM, or OE)	Pollinator Habitat (POL)	Moderate		Moderate	MH

NOTE: A score of 0 does not always mean the function or value is absent from the wetland. It usually means that this wetland has equal or less capacity than the lowest-scoring one, for that function or value, from among the 200 calibration wetlands that were assessed previously by Oregon Department of State Lands.

Date: 4/2/2026		Name: Emma Eichhorn, Addison Dillon		Site: Corny Data Center		
Form OF Office Data ORWAP V. 3.2		Conduct an assessment <u>only after reading the accompanying Manual and explanations in column E below</u> . Answering many of the following questions requires viewing aerial imagery and maps, covering an area up to within 2 miles of the AA. For each affirmative answer, change the 0 in the "Data" column to a "1" . Answer all items except where directed to skip to others. Questions whose cells in "Data" column have a "W" MUST be answered for the ENTIRE wetland and bordering waters .		For a list of functions to which each question pertains, see bracketed codes in column E. Codes for functions and their benefits are: WS= Water Storage, WC= Water Cooling, SR= Sediment Retention, PR= Phosphorus Retention, NR= Nitrate Removal, CS= Carbon Sequestration, OE= Organic Nutrient Export, INV= Aquatic Invertebrate Habitat, FA= Anadromous Fish Habitat, FR= Resident Fish Habitat, AM= Amphibians & Reptile Habitat, WBF= Feeding Waterbird Habitat, WBN= Nesting Waterbird Habitat, SBM= Songbird, Raptor, & Mammal Habitat, POL= Pollinator Habitat, PD= Native Plant Diversity, PU= Public Use & Recognition, EC= Ecological Condition, Sens= Sensitivity, STR= Stressors.		For guidance and detailed descriptions of how Excel calculates the numbers in the Scores worksheet, see the Technical Supplement and Appendix C of the Manual. For a documented rationale for each indicator, open each of the worksheet tabs at the bottom (one for each function or value) and see column H.
#	Indicators	Condition Choices	Data	Explanations, Definitions (Column E)	Cell Name	Comments
OF1	Distance to Extensive Perennial Cover (DistPerCov)	The distance from the <u>AA edge</u> to the edge of the closest patch or corridor of perennial cover (see definition in <u>column E</u>) larger than 100 acres is:		Corridor - is simply an elongated patch of perennial cover that is not narrower than 150 ft at any point.		
		<100 ft.	0	Perennial cover - is vegetation that includes wooded areas, native prairies, sagebrush, vegetated wetlands, as well as relatively unmanaged commercial lands in which the ground is disturbed less than annually, such as hayfields, lightly grazed pastures, timber harvest areas, and rangeland. <u>It does not</u> include water, row crops (e.g., vegetable, orchards, Christmas tree farms), lawns, residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. [AM, WBN, PD, PDv, POL, SBM, Sens, STR]		
		100 to <300 ft.	0			
		300 to <1000 ft.	0			
		1000 ft. to <0.5 mile.	0			
		0.5 mile to 2 miles.	1			
		> 2 miles.	0			
OF2	Distance to Tidal Waters (DistTidal)	The distance from the <u>AA edge</u> to the closest body of tidal water is:		Tidal water - If unclear whether a water body is tidal, check the <u>ORWAP Map Viewer's</u> Headtide layer (expand Hydrology), or check with local sources. Assume <u>Columbia River</u> is tidal east to Bonneville Dam and the Willamette River south to the Oregon City Falls. [WBF]		
		<1 mile.	0			
		1-5 miles.	0			
		>5 miles.	1			
OF3	Distance to Poned Water (DistPond)	The distance from the <u>AA edge</u> to the closest (but separate) body of nontidal fresh water (wetland, pond, or lake) that is ponded all or most of the year is:		Use field observations, aerial imagery, and/or the <u>ORWAP Map Viewer's</u> Persistent Nontidal layer (expand Wetlands/National Wetlands Inventory). [AM, WBF, WBN, SBM, PD, Sens]		
		<100 ft.	0			
		100 to <300 ft.	0			
		300 to <1000 ft.	0			
		1000 ft. to < 0.5 mile.	0			
		0.5 mile to 2 miles.	1			
		>2 miles.	0			
OF4	Distance to Lake (DistLake)	The distance from the <u>AA edge</u> to the closest (but separate) body of nontidal fresh water (wetland, pond, or lake) that is ponded during most of the year and is larger than 20 acres (about 1000 ft on a side) is:		Use field observations, aerial imagery, and/or the <u>ORWAP Map Viewer's</u> Persistent Nontidal layer (expand Wetlands/National Wetlands Inventory). [WBF, WBN]		
		<1 mile.	0			
		1-5 miles.	1			
		>5 miles.	0			
OF5	Distance to Herbaceous Open Land (DistOpenL)	The distance from the <u>AA edge</u> to the closest patch of herbaceous openland larger than 10 acres and in flat terrain is:		Herbaceous openland - includes both perennial and non-perennial cover. For example, it can include pasture, herbaceous wetland, meadow, prairie, ryegrass fields, row crops, herbaceous rangeland, golf courses, grassed airports, and hayfields. <u>Do not include</u> open water of lakes, ponds, or rivers; or unvegetated surfaces; or areas with woody vegetation. In dry parts of the state, croplands in flat areas are often irrigated and are distinctly greener in aerial images. Flat terrain - means slope of less than 5%. [WBF, WBN, POL]		
		<100 ft.	0			
		100 to <300 ft.	0			
		300 to <1000 ft.	0			
		1000 ft. to < 0.5 mile.	0			
		0.5 mile to 2 miles.	1			
		>2 miles.	0			

OF6	Distance to Nearest Busy Road (DistRd)	The distance from the <u>AA center</u> to the nearest road with an average daytime traffic rate of at least 1 vehicle/ minute is:		Estimate this traffic rate threshold using your judgment and considering the road width, local population, distance to densely settled areas, alternate routes, and other factors. [AM,SBM,PD,PUv,STR]		
		<100 ft.	0			
		100 to <300 ft.	1			
		300 to < 0.5 mile.	0			
		0.5 to <1 miles.	0			
		1 to 2 miles.	0			
		>2 miles.	0			
OF7	Size of Largest Nearby Patch of Perennial Cover (SizePerenn)	Including the AA's vegetated area, the largest patch or corridor that is perennial cover and is contiguous with vegetation in the AA (i.e., not separated by roads or channels that create gaps wider than 150 ft), occupies:		Contiguous -Abutting, with no major physical separation that prohibits free exchange or flow of surface water (i.e., not separated by roads or channels that create gaps wider than 150 ft) Perennial cover - See OF1. Disqualify any patch or corridor of perennial cover where it becomes separated from the AA by a gap of >150 ft, if the gap is comprised of unvegetated land or if the corridor narrows to less than 150 ft. [AM,SBM,PD,POL,Sens,STR]		
		<.01 acre.	1			
		.01 to < 1 acre.	0			
		1 to <10 acres.	0			
		10 to <100 acres.	0			
		100 to <1000 acres.	0			
		1000 to 10,000 acres.	0			
OF8	Wetland Type Local Uniqueness (UniqPatch)	Select EACH of the vegetation types below that comprise more than 10% of the AA AND less than 10% of a 0.5 mile radius around the AA. (See Column E).		This is a 2-part question: (1) if no vegetation class comprises more than 10% of the AA, answer "none of the above." (2) If a vegetation class does comprise more than 10%, determine if that vegetation class also comprises less than 10% of a 0.5 mile circle (~50 acres). [INVv,AMv,WBFv,WBNv,SBMv,PDv,POLv,Sens]		
		Herbaceous vegetation (perennial grasses, sedges, forbs; not under a woody canopy; not crops).	0			
		Unshaded shrubland (woody plants shorter than 20 ft).	0			
		Trees (woody plants taller than 20 ft).	0			
		None of above.	1			
OF9	Perennial Cover Percentage (PerCovPct)	Within a <u>2-mile</u> radius of the AA center, the percentage of <u>land</u> that has perennial cover is:		Perennial cover - is vegetation that includes wooded areas, native prairies, sagebrush, vegetated wetlands, as well as relatively unmanaged commercial lands in which the ground is disturbed less than annually, such as hayfields, lightly grazed pastures, timber harvest areas, and rangeland. It does not include water, row crops (e.g., vegetable, orchards, Christmas tree farms), lawns, residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. [FA,AM,SBM,POL,Sens,STR]		
		<5% of the land.	1			
		5 to <20% of the land.	0			
		20 to <60% of the land.	0			
		60 to 90% of the land.	0			
		>90% of the land.	0		PerennAll	
OF10	Forest Percentage (ForestPct)	Within a <u>2-mile</u> radius of the AA center, the cumulative amount of <u>forest</u> (regardless of forest patch sizes, and including any in the AA) is:		Forested patch - is a land cover patch that currently has >70% cover of woody plants taller than 20 ft. May be in a plantation. [FA,SBM,STR]		
		<5% of the circle.	1			
		5 to <20%.	0			
		20 to <50%.	0			
		50 to 80%.	0			
		>80%.	0			
OF11	Herbaceous Open Land Percentage (OpenLpct)	Within a <u>2-mile</u> radius of the AA center, the amount of herbaceous openland in flat terrain is:		Herbaceous openland - can include both perennial and non-perennial cover. For example, it can include pasture, herbaceous wetland, meadow, prairie, ryegrass fields, row crops, herbaceous rangeland, golf courses, grassed airports, and hayfields. Do not include open water of lakes, ponds, or rivers; or unvegetated surfaces; or areas with woody vegetation. Flat terrain - means slope of less than 5%. [WBF,WBN,POL]		
		<5% of the land.	0			
		5 to <20%.	1			
		20 to <50%.	0			
		50 to 80%.	0			
		>80%.	0			

OF12	Landscape Wetland Connectivity (ConnScapeW)	Within a <u>2-mile</u> radius of the AA center:		Corridor - is simply an elongated patch of perennial cover that is not narrower than 150 ft at any point. Regular traffic - is at least 1 vehicle per hour during the daytime throughout most of the growing season. Assess this based on local knowledge, type of road, and proximity to developed areas. Perennial - see OF9 for definition. [WBN,SBM,Sens,STR]		
		There are NO other wetlands.	0			
		There are other wetlands (or a wetland), but NONE are connected to the AA by a corridor of perennial vegetation. The corridor must be at least 150 ft wide along its entire length and not interrupted by roads with regular traffic .	1			
		There are other wetlands (or a wetland), and <u>ALL</u> are connected to the AA by the type of corridor described.	0			
		There are other wetlands (or a wetland), and <u>ONE or MORE</u> (but not all) are connected to the AA by the type of corridor described.	0			
OF13	Local Wetland Connectivity (ConnLocalW)	Within a <u>0.5 mile</u> radius of the AA center:		Regular traffic - is at least 1 vehicle per hour during the daytime throughout most of the growing season. Assess this based on local knowledge, type of road, and proximity to developed areas. Perennial - see OF9 for definition. IF possible, field verify [AM,WBN,SBM,PD,Sens,STR]		
		There are NO other wetlands.	0			
		There are other wetlands (or a wetland), but NONE are connected to the AA by a corridor of perennial vegetation. The corridor must be at least 150 ft wide along its entire length and not interrupted by roads with regular traffic .	1			
		There are other wetlands (or a wetland), and ALL are connected to the AA by the type of corridor described.	0			
		There are other wetlands (or a wetland), and ONE or MORE (but not all) are connected to the AA by the type of corridor described.	0			
OF14	Wetland Number & Diversity Uniqueness (HUCbest)	According to the ORWAP Report, this AA is located in one of the HUCs that are listed as having a large diversity, area, or number of wetlands relative to the area of the HUC. Select <u>All</u> of the following that are true:		In the <u>ORWAP Report</u> , under the Watershed Information section and the HUC Best table, look at the columns "Is HUC Best?" and "Greatest Criteria Met." [AM,WBF,WBN,SBM,Sens]		
		Yes, for the HUC8 watershed	0			
		Yes, for the HUC10 watershed	1			
		Yes, for the HUC12 watershed	0			
		None of above.	0			
		Data are inadequate (NWI mapping not completed in HUC).	0			
OF15	Landscape Functional Deficit (GISscore)	In the ORWAP Report, find the HUC 12 Functional Deficit table. Select <u>All</u> functions below that have a notation for that HUC.		In the <u>ORWAP Report</u> , under the Watershed Information section, look at the Functional Deficit table. Enter 1 for each of the listed functions that are noted. These are HUCs in which a relatively small number, or proportional area, of the wetlands are likely to be performing the named function, thus adding value to those that are. See ORWAP's <u>Technical Supplement</u> for explanation of how the FuncDeficit was calculated. [WSv,WCv,SRv,PRv,INVv,FAv,AMv,WBNv]		
		Water storage (WS)	0			
		Sediment retention (SR)	0			
		Nutrient transformation (NT)	0			
		Thermoregulation (WC)	0			
		Aquatic invertebrate habitat (INV)	0			
		Amphibian habitat (AM)	0			
		Fish habitat (FH)	0			
		Waterbird habitat (WB)	0			
		None of above.	1			
		No data.	0			
OF16	Conservation Designations of the AA or Local Area (ConDesig)	On the ORWAP Map Viewer, use the layers indicated below to answer: Select <u>All</u> of the following that are true:		In the <u>ORWAP Map Viewer</u> , use the applicable layers.		
		(a)The AA is within or connected to a stream or other water body and this stream or water body has been designated as ESH within <u>0.5 miles</u> of the AA, according to the Essential Salmonid Habitat (ESH) layer.	0	Include areas not shown as ESH, if ODFW has confirmed they qualify as ESH. [WCv, FA, FAv]		
		(b)The AA is within or contiguous to a designated Oregon's Greatest Wetlands , according to the map layer of that name.	0	Oregon's Greatest Wetlands identifies the most biologically and ecologically significant wetlands in the State of Oregon. [PU]		
		(c)The AA is within an Important Bird Area (IBA) , as officially designated, according to the map layer of that name.	0	[WBFv, WBNv]		
		None of above.	1			

OF17	Non-anadromous Fish Species of Conservation Concern (RareFR)	According to the ORWAP Report, the score for occurrences of rare non-anadromous fish species in the vicinity of this AA is:		Use ORWAP Report's Rare Species Scores max and sum scores. See Supp_Info file for a list of species.		
		High (≥ 0.75 for maximum score, or ≥ 0.90 for this group's sum score), or there is a recent (within 5 years) onsite observation of any of these species by a qualified observer under conditions similar to what now occur.	0	Species include Miller Lake lamprey, Goose Lake lamprey, Pit sculpin, Lahontan cutthroat trout, Inland Columbia Basin redband trout, Steelhead (Snake River Basin ESU), Alvord chub, Goose		
		Intermediate (i.e., not as described above or below).	0	Lake tui chub, Borax Lake chub, Lahontan redbside, Oregon chub, Goose Lake sucker, Tahoe		
		Low (≤ 0.33 for both the maximum score this group's sum score, but not 0 for both).	0	sucker, Warner sucker, Shortnose sucker, Lost River sucker. Note that for some of these species, only specific geographic populations are designated. [FRv]		
		Zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur.	1	This question may need to revised after the field visit.		
OF18	Amphibian or Reptile of Conservation Concern (AmphRare)	According to the ORWAP Report, the score for occurrences of rare amphibian or reptile species in the vicinity of this AA is:		Use ORWAP Report's Rare Species Scores max and sum scores. See Supp_Info file for a list of species.		
		High (≥ 0.60 for maximum score, or >0.90 for sum score), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur.	0	Species include: Black salamander, California slender salamander, Cope's giant salamander, Rocky Mountain tailed frog, Woodhouse's toad, Foothill yellow-legged frog, Northern leopard frog, Oregon spotted frog, Columbia spotted frog.		
		Intermediate (i.e., not as described above or below).	0			
		Low (≤ 0.21 for maximum score AND <0.15 for sum score, but not 0 for both).	0			
		Zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur.	1	[AMv] This question may need to revised after the field visit.		
OF19	Feeding (Non-breeding) Waterbird Species of Conservation Concern (RareWBF)	According to the ORWAP Report, the score for occurrences of rare non-breeding (feeding) waterbird species in the vicinity of this AA is:		Use ORWAP Report's Rare Species Scores max and sum scores. See Supp_Info file for a list of species.		
		High (≥ 0.33 for maximum score, or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur.	0	Non-breeding - mainly refers to waterbird feeding during migration and winter. California brown pelican, Aleutian cackling goose, Dusky Canada goose		
		Low (< 0.33 for maximum score and for sum score, but not 0 for both).	0	[WBFv]		
		Zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur.	1	This question may need to revised after the field visit.		
OF20	Nesting Waterbird Species of Conservation Concern (RareWBN)	According to the ORWAP Report, the score for occurrences of rare <u>nesting</u> waterbird species in the vicinity of this AA is:		Use ORWAP Report's Rare Species Scores max and sum scores. See Supp_Info file for a list of species.		
		High (≥ 0.60 for maximum score, or ≥ 1.00 for this group's sum score), or there is a recent breeding-season observation of any of these species onsite by a qualified observer under conditions similar to what now occur.	0	Species include: Horned grebe, Red-necked grebe, Western grebe, Clark's grebe, American white pelican, Least bittern, Snowy egret, Trumpeter swan, White-faced ibis, Harlequin duck,		
		Intermediate (i.e., not as described above or below).	0	Bufflehead, Yellow rail, Western snowy plover, Upland sandpiper, Franklin's gull, Marbled murrelet.		
		Low (≤ 0.09 for maximum score and for sum score, but not 0 for both).	0	[WBNv]		
		Zero for both this group's maximum and its sum score, and no recent onsite observation of these species during breeding season by a qualified observer under conditions similar to what now occur.	1	This question may need to revised after the field visit.		
OF21	Songbird, Raptor, Mammal Species of Conservation Concern (RareSBM)	According to the ORWAP Report, the score for occurrences of rare <u>songbird, raptor, or mammal</u> species in the vicinity of this AA is:		Use ORWAP Report's Rare Species Scores max and sum scores. See Supp_Info file for a list of species.		
		High (≥ 0.60 for maximum score, or >1.13 for sum score), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur.	0	Species include: Bald eagle, American peregrine falcon, Arctic peregrine falcon, Greater sage-grouse, Columbian sharp-tailed grouse, Yellow-billed cuckoo, Northern spotted owl, Short-eared owl, Black swift, Lewis's woodpecker, Purple martin, Northern waterthrush, Bobolink, Tricolored blackbird, Fringed myotis, Spotted bat, Townsend's big-eared bat, Pallid bat, Northern sea lion, Fisher, Sea otter, Canada lynx, Columbian white-tailed deer. [SBMv]		
		Intermediate (i.e., not as described above or below).	0			
		Low (≤ 0.09 for maximum score AND <0.13 for sum score, but not 0 for both).	0			
		Zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur.	1	This question may need to revised after the field visit.		
OF22	Invertebrate Species of Conservation Concern (RareInvert)	According to the ORWAP Report, the score for occurrences of rare <u>invertebrate</u> species in the vicinity of this AA is:		Use ORWAP Report's Rare Species Scores max and sum scores. See Supp_Info file for a list of species.		
		High (≥ 0.75 for maximum score, or for this group's sum score), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur.	0	See the Supp_Info file's RareAnimals worksheet for list of species addressed by this question.		
		Low (< 0.75 for maximum score AND for this group's sum score, but not 0 for both).	0	[INVv] This question may need to revised after the field visit.		
		Zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur.	1			

OF23	Plant Species of Conservation Concern (RarePspp)	According to the ORWAP Report, the score for occurrences of rare <u>wetland-indicator plant</u> species in the vicinity of this AA is:		Use <u>ORWAP Report</u> 's Rare Species Scores max and sum scores.		
		High (≥ 0.75 for maximum score, or > 4.00 for sum score), or there is a recent onsite observation of any of these species by a qualified observer under conditions similar to what now occur.	0	See the <u>Supp_Info's</u> RareWetPlants worksheet for list of species addressed by this question.		
		Intermediate (i.e., not as described above or below).	0	[PDv,POLv]		
		Low (≤ 0.12 for maximum score AND < 0.20 for sum score, but not 0 for both).	0	This question may need to revised after the field visit.		
		Zero for both this group's maximum and its sum score, and no recent onsite observation of these species by a qualified observer under conditions similar to what now occur.	1			
OF24	River Proximity (RiverProx)	There is a nontidal river within 1 mile and it is adjacent to, OR downslope from, the AA (connected or not). Enter 1, if true. If not, SKIP to OF27.	0	River - as used here is a channel wider than 50 ft between its banks. In the ORWAP Map Viewer, use the National Hydrography Dataset - Flowline layer (expand Hydrology).[WSv]	NearRiver	
OF25	Floodable Property (FloodProp)	Select ONE of the below:		Row crops - do not include pasture or other perennial cover.		
		Floodplain boundaries within 1 mile downslope or downriver from the AA have not been mapped. Enter 1 and SKIP TO OF27.	0	In the <u>ORWAP Map Viewer</u> , use the Floodplain layers. Also, the Seasonal Nontidal Wetland layer (expand Wetlands/National Wetlands Inventory) may indicate some floodplain areas.		
		Floodplain boundaries within 1 mile downslope from the AA have been mapped BUT there is neither infrastructure nor row crops vulnerable to river flooding located within the floodplain and within that distance. Enter 1 and SKIP TO OF27.	0	[WSv] Supplement with field observations at multiple seasons, if possible.		
		Floodplain boundaries have been mapped AND infrastructure or row crops are present within 1 mile downslope or downriver and those are not protected from 100-year floods, but actual damage has not been documented.	0			
		Damage to infrastructure or row crops from river flooding <u>has been documented</u> within that distance.	0			
OF26	Type of Flood Damage (DamageType)	The greatest financial damage in the floodplain is (or would be) to:		Row crops - do not include pasture or other perennial cover. On the <u>ORWAP Map Viewer</u> , use the Floodplain layers		
		Buildings, roads, bridges.	0	[WSv]		
		Row crops (during some years).	0			
OF27	Hydrologic Landscape (Arid)	According to the ORWAP Report, the wetland is in a hydrologic landscape unit classified as:		In the <u>ORWAP Report</u> , under the Location Information table, find the Hydrologic Landscape Class.		
		Arid.	0	[AM, AMv, WBNv, SBMv, OE, Sens]		
		Semi-arid.	0			
		Dry.	0			
		Moist.	0			
		Wet.	1			
		Very Wet.	0			
OF28	Input Water - Recognized Quality Issues (WQin)	According to ORWAP Map Viewer's Water Quality Streams layer and Water Quality Lakes layers, <u>ALL</u> of the following are <u>true</u> : (a) within 1 mile upstream from the AA edge, a water body or stream reach is labeled as being 303d, Water Quality Limited (categories 3B-5); Potential Concer; or TMDL Approved AND (b) the problem concerns one or more of the parameters listed below. Select <u>All</u> that apply.		Use the <u>ORWAP Map Viewer's</u> Water Quality Streams layer and the Water Quality Lakes layer (expand Water Quality and Quantity) and the Distance tool. Use the Identy tool to determine the reason for the listings.		
		Total suspended solids (TSS), sedimentation, or turbidity.	0	If the AA receives both inflow and outflow from river flooding, consider the polluted water to be both "upstream" and "downstream".		
		Phosphorus, chlorophyll-a, or algae.	0			
		Nitrates, ammonia, chlorophyll-a, or algae.	0			
		Petrochemicals, heavy metals (iron, manganese, lead, zinc, etc.), other toxins.	0	[SRv,PRv,INV,FA,FR,AM,WBF,WBN,STR]		
		Temperature or dissolved oxygen.	0	This may need to be verified in the field.		
		None of above, or no data. If true, enter 1 and SKIP to OF30.	1		NoDataWQup	
OF29	Duration of Connection Between Problem Area & the AA (ConnecUp)	The upstream problem area mentioned above (OF28) has a surface water connection to the AA:		In the <u>ORWAP Map Viewer</u> , use the National Hydrography Dataset (expand Hydrology) and the Persistent, Seasonal, or Saturated nontidal layers (expand Wetlands/National Wetlands Inventory)		
		For 9 or more continuous months annually.	0	to determine duration of surface water connection.		
		Intermittently (at least once annually, but for less than 9 months continually).	0	[SRv,PRv,INV,FA,FR,AM,WBF,WBN,STR]		
		Never (or less than annually).	0	This may need to be determined or verified in the field.		

OF30	Downslope Water Quality Issues (ContamDown)	According to ORWAP Map Viewer's Water Quality Streams layer and Water Quality Lakes layer, <u>ALL of the following are true</u> : (a) within 1 mile downhill or downstream from the AA's edge, a water body is labeled as being 303d, Water Quality Limited (categories 3B-5); Potential Concern; or TMDL Approved AND (b) the problem concerns one or more of the parameters listed below. Select <u>All</u> that apply.		Use the <u>ORWAP Map Viewer's</u> Water Quality Streams layer and the Water Quality Lakes layer (expand Water Quality and Quantity) and the Distance tool. Use the Identy tool to determine the reason for the listings. [WCv,SRv,PRv,FA]		
		Total suspended solids (TSS), sedimentation, or turbidity.	0			
		Phosphorus, chlorophyll-a, or algae.	1			
		Nitrates, ammonia, chlorophyll-a, or algae.	1			
		Petrochemicals, heavy metals (iron, manganese, lead, zinc, etc.), other toxins.	0			
		Temperature or dissolved oxygen.	1			
		None of above, or no data. Enter 1 and SKIP to OF32.	0		NoDataWQdo	
OF31	Duration of Connection Between AA & Water Quality Problem Area (ConnDown)	The connection between the downstream problem area mentioned above (OF30) and the AA:		In the ORWAP Map Viewer, use the National Hydrography Dataset (expand Hydrology) and the Persistent, Seasonal, or Saturated nontidal layers (expand Wetlands/National Wetlands Inventory) to determine duration of surface water connection. [WCv,SRv,PRv,FA] This may need to be determined or verified in the field.		
		Is a stream or water body that connects these areas for 9 or more continuous months annually.	0			
		Is a stream or water body that connects these areas intermittently (at least once annually, but for less than 9 months continually).	0			
		Is a probable groundwater connection, or connection via direct runoff only (no channel connection).	1			
		Never exists (a topographic ridge probably prevents all the AA's runoff and groundwater from reaching the problem area).	0			
OF32	Drinking Water Source (DEQ) (DWsource)	According to ORWAP Map Viewer's Surface Water Drinking Water Source Areas layer and the Ground Water Drinking Water Source Areas layer, the AA is within:		In the <u>ORWAP Map Viewer</u> , use the water source layers (expand Water Quality and Quantity). [NRv]		
		The source area for a surface-water drinking water (DW) source.	0			
		The source area for a groundwater drinking water source.	0			
		Neither of above.	1			
OF33	Groundwater Risk Designations (GWrisk)	According to ORWAP Map Viewer's Groundwater Management Areas layer and the Sole Source Aquifer layer, the AA is: Select <u>All</u> that apply		In the <u>ORWAP Map Viewer</u> , use the DEQ Groundwater Management Areas layer and the Sole source Aquifer layer (expand Water Quality and Quantity). [NRv]		
		Within a designated Groundwater Management Area (ODEQ).	0			
		Within a designated Sole Source Aquifer area (EPA): the North Florence Dunal Aquifer.	0			
		Neither of above.	1			
OF34	Relative Elevation in Watershed (Elev)	In the ORWAP Map Viewer, based on the Hydrologic Boundaries 4th Level (HUC 8) layer (expand Hydrology), determine if the AA is: (See Column E)		1) Consider which end of the HUC is the bottom. Where streams join, the "V" that they form on the map points towards the bottom of the HUC. 2) If the AA is closer to the HUC's outlet than to its upper end, and is closer to the river or large stream that exits at the bottom of the HUC than it is to the boundary (margin) of the HUC, then check "lower 1/3" If not near that river, check "middle 1/3". 3) If the AA is not in a 100-yr floodplain, is closer to the HUC upper end than to its outlet, and is closer to the boundary (margin) of the HUC than to the river or large stream that exits at the bottom of the HUC, then check "upper 1/3" 4) For all other conditions, check "middle 1/3". [WSv, PRv, FA, FR, WCv, OE, Sens, SRv]		LowerShed
		In the upper one-third of its watershed.	0			
		In the middle one-third of its watershed.	1			
		In the lower one-third of its watershed.	0			
OF35	Runoff Contributing Area (RCA) - Wetland as % of (WetPctRCA)	Delimit the wetland's Runoff Contributing Area (RCA) using a topographic base map. The area of the AA's wetland is:	W	See the <u>ORWAP Manual</u> for specific protocol for delimiting the RCA (Section 4.1 Step 5). The RCA includes only the areas that potentially drain directly to the AA's wetland rather than to channels that flow or flood into that wetland. Exact precision in drawing the boundary is not required. [WS, WSv, SR, SRv, PR, PRv, WCv]		
			1			
		<1% of its RCA.	1			
		1 to <10% of its RCA.	0			
		10 to 100% of its RCA.	0			
		Larger than the area of its RCA. Enter 1 and SKIP TO OF39.	0		NoRCA	

OF36	Unvegetated % in the RCA (ImpervRCA)	The proportion of the RCA comprised of buildings, roads, parking lots, exposed bedrock, and other surface that is usually unvegetated at the time of peak annual runoff is about:	W	In the ORWAP Map Viewer, use an Aerial layer to determine the proportion of the RCA comprised of buildings, roads, parking lots, exposed bedrock, and other surfaces that are usually unvegetated at the time of peak annual runoff. [WSv,WCv,SRv,PRv,INV,FA,Sens,STR]		
		<10%.	0			
		10 to 25%.	0			
		>25%.	1			
OF37	Transport From Upslope (TransRCA)	A relatively large proportion of the precipitation that falls farther upslope in the RCA reaches this wetland quickly as indicated by the following: (a) RCA slopes are steep, <u>and/or</u> (b) upslope wetlands historically present have been filled or drained extensively, <u>and/or</u> (c) land cover is mostly non-forest, <u>and/or</u> (d) most RCA soils are shallow. This statement is:	W	Refer to aerial imagery and/or consult local sources. See the <u>ORWAP Manual</u> for instructions. [WSv,SRv,PRv,STR]		
		Mostly true.	0			
		Somewhat true.	1			
		Mostly untrue.	0			
OF38	Upslope Soil Erodibility Risk (ErodeUp)	Use the ORWAP Report or the Map Viewer to determine if the erosion hazard rating of the soil within 200 ft away and upslope of the AA is:		If the soil unit is the <u>same as the AA</u> , the Erosion Hazard can be obtained from the ORWAP Report's Soil Information section. If the soil unit is <u>different than the AA</u> , use ORWAP Map Viewer's Oregon Soil layer and see the ORWAP Manual for instructions on how to determine the erosion hazard rating. [SRv,PRv,STR]		
		Slight.	1			
		Moderate.	0			
		Severe.	0			
		Very severe.	0			
		Could not determine.	0			
OF39	Streamflow Contributing Area (SCA) - Wetland as % of (WetPctSCA)	Delimit (or visualize, for large river basins) the wetland's Streamflow Contributing Area (SCA) using a topographic base map. The area of the AA's wetland is:	W	See the <u>ORWP Manual</u> for specific protocol for delimiting the SCA (section 4.1, Step 6). The SCA is all upland areas that drain into streams, rivers, and lakes that feed the AA's wetland either directly or during semi-annual floods. In addition, for wetlands intercepted by a mapped stream, the SCA can be delineated automatically and its area reported at this <u>USGS web site</u> : https://streamstats.usgs.gov/ss/ . Enter the coordinates, select Oregon, select Delineate, zoom to level 15 or finer, and click on a stream. [WS, SR, SRv, PR, PRv, WCv]		
		<1% of its SCA, or wetland is in the floodplain of a major river.	0			
		1 to <10% of its SCA.	0			
		10 to 100% of its SCA.	0			
		Larger than the area of its SCA. Enter 1 and SKIP TO OF41.	0		NoSCA1	
		Wetland lacks tributaries and receives no overbank water. Enter 1 and SKIP to OF41.	1		NoSCA	
OF40	Unvegetated % in the SCA (ImpervSCA)	The proportion of the SCA comprised of buildings, roads, parking lots, exposed bedrock, and other surface that is usually unvegetated at the time of peak annual runoff is about :	W	See the <u>ORWAP Manual</u> for instructions. [WCv,SRv,PRv,FA,STR]		
		<10%.	0			
		10 to 25%.	0			
		>25%.	0			
OF41	Upland Edge Shape Complexity (EdgeShape)	Most of the edge between the AA's wetland and upland is (select one):	W	See <u>ORWAP Manual</u> for instructions and illustrations. [NR, SBM, Sens]		
		Linear: a significant proportion of the wetland's upland edge is straight, as in wetlands bounded partly or wholly by dikes or roads, or the AA is entirely surrounded by water or other wetlands.	0			
		Intermediate: Wetland's shape is (a) ovoid, or (b) mildly ragged edge, and/or (c) contains a lesser amount of artificially straight edge.	1			
		Convolute d: Wetland perimeter is many times longer than maximum width of the wetland, with many alcoves and indentations ("fingers").	0			
OF42	Zoning (Zoning)	According to ORWAP Map Viewer's Zoning layer, the dominant zoned land use designation for currently undeveloped parcels upslope from the AA and within 300 ft. of its upland edge is:		See the <u>ORWAP Manual</u> for instructions on how to determine the zoning designation. If information is not provided, check local zoning maps. [WSv,WCv,SRv,PRv,INVv,FAv,FRv,AMv,WBFv,WBNv,SBMv,PDv,POLv,PUv]		
		Development (Commercial, Industrial, Urban Residential, etc.), or no undeveloped parcels exist upslope from the AA.	1			
		Agriculture or Rural Residential.	0			
		Forest or Open Space, or entirely public lands.	0			
		Not zoned, or no information.	0			

OF43	Growing Degree Days (GDD)	According to ORWAP Map Viewer's Growing Degree Days layer, the long term normal Growing Degree Days category at the approximate location of the AA is:		See the ORWAP Manual for instructions on how to determine the growing degree days category.		
		<256.	0	[NR, FR, AM, WBN, SBM, WCv, OE, CS, Sens]		
		256 - 1020.	0			
		1021-1785.	0			
		1786 - 2550.	0			
		2551 - 3315.	1			
		3316 - 4079.	0			
		> 4079.	0			

Date: 4/2/2026		Name: Emma Eichhorn, Addison Dillon		Site: Corny Data Center		
Form F Field Data (nontidal Wetlands) ORWAP V 3.2		Conduct an assessment <u>only after reading the accompanying Manual and explanations in column E below</u> . For each affirmative answer, change the 0 in the "Data" column to a "1". Answer all items except where directed to skip to others. Questions whose cells in "Data" column have a "W" MUST be answered for the ENTIRE wetland and bordering waters.		For a list of functions to which each question pertains, see bracketed codes in column E. Codes for functions and their benefits are: WS= Water Storage, WC= Water Cooling, SR= Sediment Retention, PR= Phosphorus Retention, NR= Nitrate Removal, CS= Carbon Sequestration, OE= Organic Export, INV= Invertebrates, FA= Anadromous Fish, FR= Resident Fish, AM= Amphibians, WBF= Feeding Waterbirds, WBN= Nesting Waterbirds, SBM= Songbirds, Mammals, & Raptors, POL= Pollinators, PH= Plant Habitat, PU= Public Use & Recognition, EC= Ecological Condition, Sens= Sensitivity, STR= Stressors.		For guidance and detailed descriptions of how Excel calculates the numbers in the Scores worksheet, see the Technical Supplement and Appendix C of the accompanying Manual. For a documented rationale for each indicator, open each of the worksheet tabs at the bottom (one for each function or value) and see column H.
#	Indicators	Condition Choices	Data	Explanations, Definitions (Column E)	Cell Name	Comments
F1	Tidal Wetland (Tidal)	This is a tidal wetland (either freshwater or saltwater). If yes, GO TO worksheet " T ". Do not enter any data here. If nontidal, continue with F2.		Tidal wetland - a wetland that receives tidal water at least once during a normal year, regardless of salinity, and dominated by emergent or woody vegetation. Tidal flooding occurs on a 6-hour cycle DURING THE TIME it is flooded by tide, which may be as infrequent as once per year. If NWI map shows the wetland with a code beginning with E (for estuarine), assume the wetland to be tidal. However, some wetlands lacking that code are also tidal.		
F2	Ponded Condition (Lentic)	At least once every 2 years, some part of the AA contains a cumulative total of >900 sq.ft. of surface water that is ponded. The water persists for >6 days and may be hidden beneath emergent vegetation or scattered in small pools. Enter 1, if true.	0	Ponded - Most surface water is not visibly flowing. Flow, if any, is not sufficient to suspend fine sediment. These include pools in floodplains and may be either large (e.g., an off-channel pond) or small (size of a puddle). [AM,WBF,WBN]	Lentic	
Reminder: For all questions, the AA should include all persistent waters in ponds smaller than 20 acres that areadjacent to the AA. The AA should also include part of the water area of adjacent lakes or rivers larger than 20 acres -- specifically, the open water part adjacent to wetland vegetation and equal in width to the average width of that vegetated zone.				Adjacent - is used synonymously with abutting, adjoining, bordering, contiguous -- and means no upland (manmade or natural) completely separates the described features along their directly shared edge. Features joined only by a channel are not necessarily considered to be adjacent -- a large portion of their edges must match. The features do not have to be hydrologically connected in order to be considered adjacent.		
F3	Water Regime (Hydropd)	The water regime (hydroperiod) of the most permanent (usually deepest) part of the AA is: Select only ONE . [To meet any of the definitions other than <u>Ephemeral</u> , there must be >100 sq ft of surface water for the duration described, otherwise mark the type listed above it.]		In the <u>NRCS county soil survey</u> , the Water Features table provides information about periods of flooding, ponding, and highwater table depths. Descriptions of the soil units may include information on saturation persistence. Also consider the hydroperiod label on NWI wetland polygons. [WS, FA, FR, WBN, WBF, WC]		
		<u>Ephemeral</u> . Surface water in the wettest part of the AA is present for fewer than 7 consecutive days during an average growing season. Includes some of the areas mapped as <u>Saturated</u> Nontidal in the ORWAP Map Viewer (which is not comprehensive). Enter 1 and SKIP to F25 .	0		NeverWater	
		<u>Temporary</u> . Surface water present for 1-4 weeks consecutively during an average growing season, OR if persists for longer, it is almost entirely in scattered pools, each smaller than 1 sq.m. Dries up completely during part of most average years. Includes some of the areas mapped as <u>Saturated</u> Nontidal in the ORWAP Map Viewer (which is not comprehensive). Enter 1 and SKIP to F25 .	1		TempWet	
		<u>Seasonal</u> . Surface water present for 5-17 weeks (1-4 months) consecutively during an average growing season, but dries up completely during part of most average years. Includes some of the areas mapped as <u>Seasonal</u> Nontidal in the ORWAP Map Viewer (which is not comprehensive). Enter 1 and SKIP to F5 .	0		ShallowType	
		<u>Semi-Persistent</u> . Surface water present for more than 17 weeks (4 months) consecutively during an average growing season, but dries up completely during part of most average years. Includes some of the areas mapped as <u>Seasonal</u> Nontidal in the ORWAP Map Viewer (which is not comprehensive). Enter 1 and SKIP to F5 .	0		DeepType	
		<u>Permanent</u> . Does not dry up completely during most average years. Includes some of the areas mapped as <u>Persistent</u> Nontidal in the ORWAP Map Viewer (which is not comprehensive). Enter 1 and continue .	0		PermType	

F4	Flooded Persistently - % of AA (PermW)	Identify the parts of the AA that still contain surface water even during the driest times of a normal year . At that time, the percentage of the AA that still contains surface water is:		driest times of a normal year - i.e., when the AA's surface water is at its lowest annual level.		
		1 to <25% of the AA.	0	Sites fed by unregulated streams that descend on north-facing slopes, tend to remain wet longer into the summer. Indicators of persistence may include fish, some dragonflies, beaver, and muskrat. [WS,PR,NR,CS,INV,FR,AM,WBF,WBN]		
		25 to <50% of the AA.	0			
		50 to 95% of the AA.	0			
		>95% of the AA.	0		AllPermWater	
F5	Depth Class (Predominant) (DepthDom)	When water is present in the AA, the depth most of the time in most of inundated area is: [Note: NOT necessarily the maximum spatial or annual depth]		This question is asking about the spatial median depth that occurs during most of that time, even if inundation is only seasonal or temporary. If inundation in most but not all of the AA is brief, the answer will be based on the depth of the most persistently inundated part of the AA. Include surface water in channels and ditches as well as ponded areas.		
		>0 to <0.5 ft.	0			
		0.5 to < 1 ft deep.	0	In the <u>ORWAP Manual</u> , se the diagram in Appendix B.		
		1 to <3 ft deep.	0			
		3 to 6 ft deep.	0			
		>6 ft deep.	0		[WC,SR,PR,CS,OE,INV,FA,FR,WBF,WBN,PD,Sens]	
F6	Depth Class Distribution (DepthEven)	Within the area described above, and during most of the time when surface water is present, the water area has: Select only one.		Estimate these proportions by considering the gradient and microtopography of the site.		
		One depth class covering >90% of the AA's inundated area (use the classes in the question above).	0	In the <u>ORWAP Manual</u> , see the diagram in Appendix B. [INV,FR,WBF,WBN,PD]		
		One depth class covering 51-90% of the AA's inundated area (use the classes in the question above).	0			
		Neither of above. There are 3 or more depth classes and none occupy >50%.	0			
F7	Emergent Plants -- Area (EmArea)	Consider just the area that has surface water for >1 week during the growing season. Herbaceous plants (not moss, not woody) whose foliage extends above a water surface in this area (i.e., emergents) cumulatively occupy an annual maximum of:	W	If multiple small patches are separated by less than 150 ft, they may be combined when evaluating this question.		
		<0.01 acre (< 400 sq.ft). Enter 1 and SKIP TO F10 , unless only part of a wetland is being assessed.	0		NoEm	
		0.01 to < 0.10 acres (3,920 sq. ft).	0	[SR,PR,OE,INV,FR,WBF,WBN,SBM,PD]		
		0.10 to <0.50 acres (21,340 sq. ft).	0			
		0.50 to <5 acres.	0			
		5 to 50 acres.	0			
		>50 acres.	0			
F8	% Emergent Plants (EmPct)	Emergent plants occupy an annual maximum of:		[WC,SR,PR,NR,CS,OE,INV,PD,FA,FR,AM,WBF,WBN,SBM]		
		<5% of the parts of the AA that are inundated for >7 days at some time of the year.	0			
		5 to <30% of the parts of the AA that are inundated for >7 days at some time of the year.	0			
		30 to <60% of the parts of the AA that are inundated for >7 days at some time of the year.	0			
		60 to 95% of the parts of the AA that are inundated for >7 days at some time of the year.	0			
		>95% of the parts of the AA that are inundated for >7 days at some time of the year.	0			
F9	Cattail or Tall Bulrush Cover (Cttail)	The percentage of the emergent vegetation cover in the AA that is cattail (<i>Typha</i> spp.) or tall bulrush is:		[WBN, SBM]		
		<1% of the emergent vegetation, or cattail and bulrush are absent.	0			
		1 to <25% of the emergent vegetation.	0			
		25 to 75% of the emergent vegetation.	0			
		>75%, of the emergent vegetation.	0			

F10	Water Shading by AA's Woody Vegetation - Driest (WoodyDryShade)	During an average growing season, when water levels are lowest (but surface water still occupies >400 sq ft or >1% of the AA), the percentage of the remaining surface water within the AA that is shaded by trees and/or shrubs located within the AA is:		[WC,FA,WBN,SBM]		
		<5% of the water, and fewer than 10 woody plants taller than 3 ft shade it, or all surface water is flowing.	0			
		<5% of the water, but more than 10 woody plants taller than 3 ft shade it.	0			
		5 to <25% of the water.	0			
		25 to <50% of the water.	0			
		50 to 95% of the water.	0			
		>95% of the water.	0			
F11	Open Water - Extent	During most of the growing season, the largest patch of open water that is in or adjacent to the AA is >1 acre and mostly deeper than 1 ft. Enter 1, if true.	0	Open Water - is surface water of any depth that contains no emergent herbaceous or woody vegetation (may contain floating-leaved or completely submersed plants). It may be partially shaded by tree canopy.	OpenW	
F12	All Ponded Water as Percentage - Wettest (PondWpctWet)	When water levels are <u>highest</u> , during a normal year, the surface water that is ponded continually for >6 days occupies:		Ponded - Most surface water is not visibly flowing. Flow, if any, is not sufficient to suspend fine sediment. These include pools in floodplains and may be either large (e.g., an off-channel pond) or small (size of a puddle). [WS,WC,CS,OE,INV,AM,WBF,WBN]		
		<1% or none of the AA. Surface water is completely or nearly absent then, or is entirely flowing. Enter 1 and SKIP TO F22.	0		NoPond	
		1 to <5% of the AA.	0			
		5 to <30% of the AA.	0			
		30 to <70% of the AA.	0			
		70 to 95% of the AA.	0			
		>95% of the AA.	0			
F13	Ponded Open Water Area - Wettest (OWareaWet)	When water levels are <u>highest</u> , during a normal year, the AA's ponded open water occupies a cumulative area of:	W	Ponded - Most surface water is not visibly flowing. Flow, if any, is not sufficient to suspend fine sediment. These include pools in floodplains and may be either large (e.g., an off-channel pond) or small (size of a puddle). Open water - is surface water of any depth that contains no emergent herbaceous or wood vegetation (may contain floating-leaved or completely submersed species). It may be partially shaded by a tree canopy. [WS,WBF]		
		<0.10 acre (< 4356 sq. ft) of the AA and adjacent ponded waters. Enter 1 and SKIP TO F16.	0		NoPondOW	
		0.10 to <0.50 acres (21,340 sq. ft) of the AA and adjacent ponded waters.	0			
		0.50 to <1 acres of the AA and adjacent ponded waters.	0			
		1 to <5 acres of the AA and adjacent ponded waters.	0			
		5 to <50 acres of the AA and adjacent ponded waters.	0			
		50 to <640 acres (1 sq. mi) of the AA and adjacent ponded waters.	0			
		640 to <1000 acres of the AA and adjacent ponded waters.	0			
		1000 to <2500 acres of the AA and adjacent ponded waters.	0			
		>2500 acres (>4 sq.mi) of the AA and adjacent ponded waters.	0			
F14	Ponded Open Water Distribution - Wettest (WaterMixWet)	When water levels are <u>highest</u> , during a normal year, the distribution (in aerial view) of ponded open water patches larger than 0.01 acre (400 sq. ft) within the AA is (must meet both a and b criteria):		[NR,AM,WBF,WBN,PD,SBM]		
		(a) Vegetation <u>and</u> open water EACH comprise 30-70% of the AA (including its bordering waters if any) AND (b) There are <u>many</u> small patches of open water scattered widely within vegetation or <u>many</u> small vegetation clump "islands" scattered widely within open water. Typical (for example) of some extensive bulrush and cattail marshes.	0			
		(a) Vegetation <u>and</u> open water EACH comprise 30-70% of the AA (including its bordering waters if any) AND (b) There are only a few (or no) small patches of open water scattered widely within vegetation or a <u>few</u> small vegetation clump "islands" scattered widely within open water.	0			
		(a) Vegetation <u>or</u> open water comprise >70% of the AA (and its bordering waters) AND (b) There are <u>several</u> small patches of open water scattered within vegetation or <u>several</u> small vegetation clump "islands" scattered within open water.	0			

		(a) Vegetation <u>or open water</u> comprise >70% of the AA (and its bordering waters) AND (b) Open water is <u>mostly in a single area</u> (e.g., center of the wetland) and vegetation is in the rest (e.g., periphery), with almost no intermixing. (Typical of many ponds excavated for livestock watering, stormwater treatment, mineral extraction as well as many wetlands that are inundated only temporarily each year).	0			
F15	Width of Vegetated Zone - Wettest (WidthWet)	When water levels are <u>highest</u> , during a normal year, the width of the vegetated wetland that separates the largest patch of open water within or bordering the AA from the closest adjacent uplands, is predominantly: [Note: This is not asking for the maximum width.]		Vegetated wetland - in this case does not include underwater or floating-leaved plants, i.e., aquatic bed. In farmed wetlands that have different crops from year to year, consider vegetation condition as it probably existed during most of the past 5 years.		
		<5 ft, or no vegetation between upland and open water.	0			
		5 to <30 ft.	0			
		30 to <50 ft.	0			
		50 to <100 ft.	0			
		100 to 300 ft.	0			
		> 300 ft.	0			
F16	All Poned Water as a Percentage (Driest) (PondWpctDry)	When water levels are <u>lowest</u> , during a normal year, but surface water still occupies ≥1,076 sq feet (100 sq meter) OR >1% of the AA (whichever is more), the water that is ponded (either visible or concealed by vegetation) in the AA occupies:		Ponded - Most surface water is not visibly flowing. Flow, if any, is not sufficient to suspend fine sediment. These include pools in floodplains and may be either large (e.g., an off-channel pond) or small (size of a puddle).		
		<1% or none. Surface water is completely or nearly absent then, or is entirely flowing. Enter 1 and SKIP TO F22.	0		NoPond2	
		1 to <5% of the AA.	0			
		5 to <30% of the AA.	0			
		30 to <70% of the AA.	0			
		70 to 95% of the AA.	0			
		>95% of the AA.	0			
F17	Ponded Open Water Area (Driest) (OWareaDry)	When water levels are <u>lowest</u> , during a normal year, the AA's ponded open water occupies a cumulative area, including adjacent ponded waters, of:	W	Ponded - Most surface water is not visibly flowing. Flow, if any, is not sufficient to suspend fine sediment. These include pools in floodplains and may be either large (e.g., an off-channel pond) or small (size of a puddle). Open water - is surface water of any depth that contains no emergent herbaceous or wood vegetation (may contain floating-leaved or completely submersed species). It may be partially shaded by a tree canopy.		
		<0.10 acre (< 4356 sq. ft). Enter 1 and SKIP TO F24.	0		NoPondOW2	
		0.10 to <0.50 acres (21,340 sq. ft).	0			
		0.50 to <1 acres.	0			
		1- 4 acres.	0			
		5 to <50 acres.	0			
		50 to <640 acres (1 sq. mi).	0			
		640 to <1000 acres.	0			
		1000 to 2500 acres.	0			
		>2500 acres (>4 sq.mi).	0			
F18	Ponded Open Water Distribution - (Driest) (WaterMixDry)	When water levels are lowest, during a normal year, the distribution of ponded open water patches larger than 0.01 acre (400 sq. ft) within the AA is:		[NR,INV,AM,WBN]		
		(a) Vegetation <u>and open water</u> <u>EACH</u> comprise 30-70% of the AA (including its bordering waters if any) AND (b) There are <u>many small patches</u> of open water scattered widely within vegetation or many small vegetation clump "islands" scattered widely within open water. Typical (for example) of some extensive bulrush and cattail marshes.	0			
		(a) Vegetation <u>and open water</u> <u>EACH</u> comprise 30-70% of the AA (including its bordering waters if any) AND (b) There are only a <u>few (or no) small patches</u> of open water scattered widely within vegetation or a few small vegetation clump "islands" scattered widely within open water.	0			
		(a) Vegetation <u>or open water</u> <u>comprise</u> >70% of the AA (and its bordering waters) AND (b) There are <u>several small patches</u> of open water scattered within vegetation or several small vegetation clump "islands" scattered within open water.	0			

		(a) Vegetation or open water comprise >70% of the AA (and its bordering waters) AND (b) Open water is <u>mostly in a single area</u> (e.g., center of the wetland) and vegetation is in the rest (e.g., periphery), with almost no intermixing. Typical of many ponds excavated for livestock watering, stormwater treatment, mineral extraction as well as many wetlands that are inundated only temporarily each year.	0			
F19	Floating Algae & Duckweed (Algae)	At some time of the year, <u>most</u> of the AA's otherwise-unshaded water surface is covered by floating mats of algae, or small (<1 inch) floating plants such as duckweed, <i>Azolla</i> , <i>Wolffia</i> , or <i>Riccia</i> . Enter 1, if true.	0	This includes most nontidal wetlands labeled as Aquatic Bed (AB) on NWI maps. If wetland can be visited only during winter, it may not be possible to answer this question with much certainty unless local sources are contacted or indicators (e.g., dried remains of algae) are found. [PR,AE,WBF,WBN,FR]		
F20	Floating-leaved & Submerged Aquatic Vegetation (SAV)	SAV (submerged & floating-leaved aquatic vegetation, excluding the species listed above) occupies an annual maximum of:		SAV - are herbaceous plants that characteristically grow at or below the water surface, i.e., whose leaves are primarily and characteristically under or on the water surface during most of the part of the growing season when surface water is present. Some species are rooted in the sediment whereas others are not. If pond lily (<i>Nuphar</i>) is the predominant species, consider its maximum extent only during the period when surface water is present beneath the leaves. [PR,OE,INV,FR,AM,WBF,WBN]	NoSAV	
		none, or <5% of the water area.	0			
		5 to <25% of the water area.	0			
		25 to <50% of the water area.	0			
		50 to 95% of the water area.	0			
		>95% of the water area.	0			
		many SAV plants present, but impossible to select from the above categories.	0			
F21	Width of Vegetated Zone (Driest) (WidthDry)	When water levels are lowest, during a normal year, but surface water still occupies <u>>400 sq feet or >1% of the AA</u> (which ever is more), the width of the vegetated wetland that separates the largest patch of open water within or bordering the AA from the closest adjacent uplands, is predominantly:		Measure the width perpendicular to the open water part. Vegetated wetland - in this case does not include underwater or floating-leaved plants, i.e., aquatic bed. In farmed wetlands that have different crops from year to year, consider vegetation condition as it probably existed during most of the past 5 years. Note: For most sites larger than 1 acre and with persistent water, measure the width using aerial imagery rather than estimating in the field. [WBN]		
		<5 ft, or no vegetation between upland and open water.	0			
		5 to <30 ft.	0			
		30 to <50 ft.	0			
		50 to <100 ft.	0			
		100 to 300 ft.	0			
		> 300 ft.	0			
F22	Beaver (Beaver)	Use of the AA by beaver during the past 5 years is: Select most applicable ONE.		Valley width - is delimited by an abrupt increase in slope on both sides of the channel. [AM,WBN,SBM,PD,Sens]		
		Evident from direct observation or presence of gnawed limbs, dams, tracks, dens, or lodges.	0			
		<u>Very likely</u> based on known occurrence in this part of the region and <u>proximity to ALL of the following</u> (a) a persistent freshwater wetland, pond, or lake, or a perennial low-gradient (<5%) channel, and (b) average valley width is > 150 ft and (c) >20% cumulative cover of aspen, cottonwood, alder, and willow in vegetated areas within 150 ft of the AA's edge. Or there is evidence of beaver just outside the AA.	0			
		<u>Somewhat likely</u> based on known occurrence in this part of the region and <u>proximity to ALL of the following</u> (a) a persistent freshwater wetland, pond, or lake, or a perennial low or mid-gradient (<10%) channel, and (b) average valley width is >50 ft, and (c) >20% cumulative cover of hardwood trees and shrubs in vegetated areas within 150 ft of the AA's edge.	0			
		<u>Unlikely</u> because site characteristics above are deficient, and/or this is an area where beaver are routinely removed. But beaver occur within 2 miles.	0			
		<u>None.</u> Beaver are absent from this part of the region.	0			
F23	Isolated Island (Island)	During June, the wetland contains (or is part of) an island that is isolated from the shore by water depths >3 ft. The island may be solid, or it may be a floating vegetation mat suitable for nesting waterbirds. The island must be larger than 400 sq.ft and without inhabited buildings. Enter 1, if true.	0	[WBF,WBN]		
F24	Ice-free (IceDura)	During most years, most of the AA's surface water (if any) does not freeze, or freezes for fewer than 4 continuous weeks. Enter 1, if true.	0	[PR,FR,WBF]		

F25	Water Fluctuation Range - Maximum (Fluctu)	The maximum vertical fluctuation in surface water within the AA, during a normal year is:		maximum vertical fluctuation - is the difference between the highest annual and lowest annual water level during an average year.		
		<0.5 ft or stable.	1	Use field indicators to assess this indicator. [WS,SR,PR,NR,CS,OE,INV,AM,WBN,PD]		
		0.5 to < 1 ft.	0			
		1 to <3 ft.	0			
		3 to 6 ft.	0			
		>6 ft.	0			
F26	% Only Saturated or Seasonally Flooded (SeasPct)	Identify the parts (if any) of the AA that never contain surface water (only saturated soil) or where the water (either ponded or flowing) usually remains on the land surface <u>for less than the entire growing season</u> . The percentage of the AA containing such areas is:		If you can identify plants, use their wetland indicator status to infer the possible extent of seasonal-only inundation within a wetland. Vegetation may be patterned in concentric or parallel zones, as one moves outward & away from the deepest part of the wetland or channel. Flood marks (algal mats, adventitious roots, debris lines, ice scour, etc.) may be evident when not fully inundated. In riverine systems, the extent of this zone can be estimated by multiplying by 2 the bankful height and visualizing where that would intercept the land along the river. Also, such areas often have a larger proportion of upland and annual (vs. perennial) plant species. Although useful only as a general guide, the NRCS county soil survey descriptions of the soil units and water feature table usually includes information on flooding frequency and saturation persistence. [SR,NR,CS,OE,INV,FA,WBF,WBN,POL,SBM,PD,Sens,EC]		
		<5% of the AA, or none (i.e., all water persists for >4 months).	0		NoSeasonal	
		5 to <25% of the AA.	0			
		25 to <50% of the AA.	0			
		50 to 75% of the AA.	0			
		>75% of the AA.	1			
F27	Salinity, Alkalinity, Conductance (Salin)	The AA's surface water is mostly:		Saline or brackish conditions are commonly indicated by a prevalence of particular plant species. Consult the <u>ORWAP Supplnfo</u> file's P_Salt worksheetfor a list of these. Brackish or saline - conductance of >5000 µS/cm, or >3200 ppm TDS Slightly brackish - conductance of 500- 5000 µS/cm, or 320 - 3200 ppm TDS Fresh - conductance of < 500 µS/cm, or <320 ppm TDS [PR,CS,AM]		
		Brackish or saline. Plants that indicate saline conditions dominate the vegetation. Salt crust may be obvious around the perimeter and on flats.	0			
		Slightly brackish. Plants that indicate saline conditions are common. Salt crust may or may not be present along	0			
		Fresh. [Note: Assume this to be the condition unless wetland is known to be a playa or there is other contradicting evidence].	1		FreshW	
		Unknown.	0			
F28	Fish & Waterborne Pests (FishAcc)	Select All that apply:		[INV,FA,FR,AM,WBF]		
		A regularly-used boat dock is present within or contiguous to the AA.	0			
		A regularly-used boat dock is not within the AA, but there is one within 300 ft. of the AA and there is a persistent surface connection between the dock and the AA.	0			
		Fish (native or stocked) are known to be present in the AA, or can access it during at least one day annually.	0			
		None of the above, and could not estimate fish presence/absence.	1			
F29	Non-native Aquatic Animals (PestAnim)	The following are known or likely to have reproducing populations in this AA, its wetland, or in water bodies within 300 ft that connect to the AA at least seasonally. Select All that apply:		Assume non-native fish to be present if wetland is associated with a nearby reservoir, fish pond, or perennial stream flowing through an agricultural or residential area. Assume bullfrog, nutria, and/or carp to be present if (a) the AA contains persistent water or is flooded seasonally by an adjoining body of permanent water, and (b) not a forested wetland, and (c) in western Oregon, elevation is lower than about 3000 ft. In the ORWAP_Supplnfo file, see Inverts_Exo worksheet for more complete list of non-native invertebratesf or Oregon, and WetVerts worksheet for more complete list of fish that are not native to Oregon. You may also consult: http://nas.er.usgs.gov/queries/default.aspx http://www.dfw.state.or.us/conservationstrategy/invasive_species.asp [FA,FR,AM,EC]		
		Non-native amphibians (e.g., bullfrog) or reptiles (e.g., red-ear slider).	0			
		Carp.	0			
		Non-native fish that prey on tadpoles or turtles (e.g., bass, walleye, crappie, brook trout).	0			
		Non-native invertebrates (e.g., New Zealand mudsnail, mitten crab, rusty crayfish).	0			
		Nutria.	0			
		None of above.	1			

F30	Shorebird Feeding Habitats (Shorebd)	The extent of <u>mudflats</u> , <u>very shallow waters</u> , or <u>shortgrass meadows</u> , within the AA, that meet the definition of shorebird habitat for at least 3 months during the period of late summer through the following May is:		Shorebird habitat - areas must have (a) grasses shorter than 6", or a mudflat, during any part of this period, AND (b) soils that either are saturated or covered with <2 inches of water during any part of this period, AND (c) no detectable surrounding slope (e.g., not the bottom of an incised dry channel), AND (d) not shaded by shrubs or trees. See photograph in Appendix A of manual. This addresses needs of most migratory sandpipers, plovers, curlews, and godwits. [WBF]		
		None, or <100 sq. ft.	1			
		100 to <1000 sq. ft. within AA.	0			
		1000 to 10,000 sq. ft. within AA.	0			
		>10,000 sq. ft. within AA.	0			
F31	Outflow Duration (OutDura)	The <u>most persistent</u> surface water connection (outlet channel, pipe, ditch, or overbank water exchange) between the AA and the closest stream or lake located downslope is: [Note: If the AA represents only part of a wetland, answer this according to whichever is the least permanent surface connection: the one between the AA and the rest of its wetland, OR the surface connection between the AA's wetland and a mapped stream or lake located within 300 ft downslope from this wetland].	W	The emphasis is on the connection to a mapped stream network. A larger difference in elevation between the wetland-upland boundary and the bottom of the wetland outlet (if any) indicates shorter outflow duration. Do not rely only on topographic maps or NWI maps to show this; inspect while in field if possible, and ask landowner. The durations given are only approximate and are for a "normal" year. The connection need not occur during the growing season. Assume that depressions with effective nearby ditches or tile drains will connect for shorter periods. [WS,WCv,SR,PR,NR,CS,OE,FA,FR,Sens]		
		Persistent (>9 months/year).	0			
		Seasonal (14 days to 9 months/year, not necessarily consecutive).	0			
		Temporary (<14 days, not necessarily consecutive).	1			
		None -- no surface water flows out of the wetland except possibly during extreme events (<once per 10 years). Or, water flows only into a wetland, ditch, or lake that lacks an outlet. Enter 1 and SKIP TO F33.	0		NoOutlet	
F32	Outflow Confinement (Constric)	During major runoff events , in the places described above where surface water exits the AA, it:	W	Major runoff events - would include biennial high water caused by storms and/or rapid snowmelt. Impeded - means causing a delay or reduction in water velocity or volume. [WS,SR,PR,NR,CS,OE,Sens,STR]		
		Is impeded as it mostly passes through a pipe, culvert, tidegate, narrowly breached dike, berm, beaver dam, or other partial obstruction (other than natural topography).	0			
		Leaves mainly through natural surface exits, not largely through artificial or temporary features which impede or accelerate outflow.	0			
		Is exported more quickly than usual as it mostly passes through ditches or pipes intended to accelerate drainage. They may be within the AA or connected to its outlet or within 30 ft of the AA's edge.	0			
F33	Tributary or Overbank Inflow (Inflow)	At least once annually, surface water from upstream or another water body moves into the AA. It may enter directly, or as unconfined overflow from a contiguous river or lake. If it enters only via a pipe, that pipe must be fed by a mapped stream or lake further upslope. Enter 1, if true. If false, SKIP TO F36.	0	[SRv,PRv, PD]	Inflow	
F34	Input Channel Gradient (SlopeInChan)	The gradient of the tributary with the largest inflow, averaged over the 150 ft. before it enters the AA (but excluding any portion of the distance where water travels through a pipe) is:		[SRv, PRv]		
		<1%.	0			
		1 to <3%.	0			
		3 to 6%.	0			
		>6%.	0			
F35	Throughflow Complexity (ThruFlo)	[Skip this question if the AA lacks both an inlet and outlet.] During peak annual flow, water entering the AA in channels encounters which of the following conditions as it travels through the AA: Select the ONE encountered most.		This mainly refers to surface water that moves between the inlet and outlet. Some judgment is required in assessing straight vs. indirect flow path. See <u>ORWAP Manual</u> . Appendix B diagram. [WS,SR,PR,NR,OE,INV,FA,FR,WBF,WBN,PD]		
		Does not bump into many plant stems as it travels through the AA. Nearly all the water continues to travel within unvegetated (often incised) channels and has minimal contact with wetland vegetation, or through a zone of open water such as an instream pond or lake.	0			
		Bumps into <u>herbaceous vegetation</u> but mostly remains in fairly <u>straight channels</u> .	0			
		Bumps into <u>herbaceous vegetation</u> and mostly <u>spreads throughout</u> , or follows a fairly <u>indirect path</u> (in widely meandering, multi-branched, or braided channels).	0			
		Bumps into <u>tree trunks and/or shrub stems</u> but mostly remains in fairly <u>straight channels</u> .	0			
		Bumps into <u>tree trunks and/or shrub stems</u> and follows a fairly <u>indirect path</u> (meandering, multi-branched, or braided) from entrance to exit.	0			

F36	Internal Gradient (Gradient)	The gradient from the lowest to highest point of land <u>within the AA</u> (or from outlet to inlet) is:		Wetlands with no outlet, and wetlands where most surface water is impounded on site, should be considered flat (<2%).		
		<2% (internal flow is absent or barely detectable; basically flat).	0	For other wetlands, estimate gradient as the elevation difference between the inlet and outlet (if any) divided by the distance between them, or the difference between the highest and lowest points in the wetland divided by the distance between them. [WS,SR,PR,NR,CS,OE,AM,WBF,WBN]		
		2 to <6%.	1			
		6 to 10%.	0		TooSteep1	
		>10%.	0		TooSteep2	
F37	Groundwater Strength of Evidence (Groundw)	Select first one that applies:		[WS,WC,NR,CS,OE,INV,FA,FR,PD]		
		In the AA or its wetland: (a) Springs are observed, OR (b) Water is markedly cooler in summer and warmer in winter (e.g., later ice formation) than in other local wetlands, OR (c) Measurements from shallow wells indicate groundwater is discharging to the wetland, OR (d) Water visibly seeps into pits dug within the AA during the driest time of the year and located >30 ft from the closest surface water.	0	Arid or Semi-arid hydrologic unit - See the ORWAP Report's Hydrologic Landscape Class (under Location Information).		
		The AA's wetland: (a) Is very close to the base of a natural slope steeper than 15% and longer than 300 ft or is located at a geologic fault, OR (b) Has no persistently flowing tributary AND one or more is true: (b1) Is on a natural slope of >5%, OR (b2) Has rust deposits ("iron floc"), colored precipitates, or dispersible natural oil sheen, OR (b3) Is in an Arid or Semi-arid hydrologic unit .	0			
		The AA is <u>not</u> in an Arid or Semi-arid hydrologic unit , but has persistent ponded water, no tributary, and is not fed by wastewater, concentrated stormwater, or irrigation water, or by an adjacent river or lake.	0			
		None of above is true, OR AA contains a hot spring. Some groundwater may nonetheless discharge to or flow through the wetland.	1			
F38	Unshaded Herbaceous Vegetation (Extent) (HerbExpos)	The annual maximum areal cover of herbaceous vegetation (excluding SAV, ferns, and mosses, but including forbs & graminoids) that is not beneath a woody canopy reaches:		Do not include submersed and floating-leaved aquatics (SAV) in the category of "herbaceous vegetation", or when defining the "vegetated part" of the site.		
		<5% of the vegetated part of the AA. Enter 1 and SKIP to F42.	0	For sites larger than 10 acres, this should be determined from aerial imagery rather than estimated in the field. [WBF,WBN]	NoHerb	
		5 to <25% of the vegetated part of the AA.	0			
		25 to <50% of the vegetated part of the AA.	0			
		50-95% of the vegetated part of the AA.	0			
F39	Forb Cover (Forb)	>95% of the vegetated part of the AA.	1			
		Within parts of the AA having herbaceous cover (excluding SAV), the areal cover of forbs reaches an annual maximum of:		Forbs - are flowering non-woody vascular plants (excludes grasses, sedges, ferns, mosses).		
		<5% of the herbaceous part of the AA.	0	[POL]		
		5 to <25% of the herbaceous part of the AA.	0			
		25 to <50% of the herbaceous part of the AA.	1			
F40	Species Dominance - Herbaceous (HerbDom)	50 to 95% of the herbaceous part of the AA.	0			
		>95% of the herbaceous part of the AA.	0			
		Determine which <u>two native</u> herbaceous (forb, fern, and graminoid) species comprise the greatest portion of the herbaceous cover that is unshaded by a woody canopy. Then select one:		[INV,WBF,SBM,PD,POL,Sens,EC]		
		Those species together comprise <u>more than half</u> of the areal cover of <u>native</u> herbaceous plants at any time during the year, i.e., one dominant species or two co-dominants. Also mark this if <20% of the vegetated cover is native species.	1			
		Those species together comprise <u>less than half</u> of the areal cover of <u>native</u> herbaceous plants at any time during the year.	0			

F41	Invasive or Non-native - % of Vegetative Cover (Invas)	Vegetative cover (annual maximum) is:		In the <u>ORWAP SupplInfo</u> , see P_Invas worksheet for list of invasives and P_Exo for non-native species list. Examples of woody invasives are Himalayan blackberry, English ivy, scotch broom, and gorse. For known distributions of invasive plants in your area see: http://inr.oregonstate.edu/orbic/invasive-species and http://www.weedmapper.org/maps.html but do not limit your answer based only on that information. Consider most crops to be non-native. [WBF,PD,POL,Sens,EC]		
		Overwhelmingly (>80% cover) non-native species AND <u>>10%</u> of the herbaceous cover is <u>invasive species</u> . (See ORWAP SupplInfo file for species designations).	1		InvasDom	
		Overwhelmingly (>80% cover) non-native species AND <u><10%</u> of the herbaceous cover is <u>invasive species</u> ; OR 50-80% of cover is non-native species regardless of invasiveness.	0			
		Mostly (50-80%) native species.	0			
		Overwhelmingly (>80%) native species.	0			
F42	Mowing, Grazing, Fire (VegCut)	There is evidence that grazing by domestic or wild animals -- or mowing (multiple times per year), plowing, herbicides, harvesting, or fire -- has repeatedly reduced the AA's vegetation cover (plants that normally grows taller than 4") to <u>less than 4 inches</u> , or has created an obvious browse line, over the following extent:		Repeatedly - means the condition occurred in at least half of the last 10 years. [SR,AM,WBN,SBM,PD,EC]		
		0% (No evidence of such activities).	0		NoMowGraze	
		Trace to 5% of the normally vegetated AA (grazing, mowing, or fire have occurred but vegetation height effects are mostly unnoticeable).	0			
		5 to <50% of the normally vegetated AA.	0			
		50 to 95% of the normally vegetated AA.	0			
		>95% of the normally vegetated AA.	1			
F43	Historically Lacking Trees (HistVeg)	According to the ORWAP Report, the <u>presettlement vegetation class</u> in the vicinity of the AA was prairie, sagebrush, or other open lands not dominated by trees. In addition, the AA is not within the biennial floodplain of a river where trees and shrubs typically dominate when conditions are unaltered. Enter 1, if true.	0	In the <u>ORWAP Report's</u> Location Information table. This question is used as a classification variable mainly to set appropriate expectations for the extent of forest cover.	HistOpenland	
F44	Moss Wetland (Moss)	The AA's ground cover is primarily a deep layer of moss, and/or soils are mainly peat or organic muck. Also, the soil remains water-saturated to within 3 inches of the surface during most of a normal year. Surface water within the AA often is absent or confined to small scattered pools or ditches. Enter 1, if true.	0	Includes most bogs and fens. May be a floating island. [NR,CS,OE,WBF,WBN,Sens]		
F45	Woody Extent (WoodyPct)	Within the vegetated part of the AA, woody vegetation (trees, shrubs, robust vines) taller than 3 ft occupies:		Robust vines - include Himalayan blackberry and others that are generally erect and taller than 1 ft. Vegetated part - should not include floating-leaved or submersed aquatics. For sites larger than 1 acre, this should be determined from aerial imagery rather than estimated only in the field. [NR,WC,CS,SBM,PD,Sens]		
		<5% of the vegetated AA, and fewer than 10 trees are present. Enter 1 and SKIP to F51.	1		NoWoody	
		<5% of the vegetated AA, but more than 10 trees are present.	0			
		5 to <25% of the vegetated AA.	0			
		25 to <50% of the vegetated AA.	0			
		50 to 95% of the vegetated AA.	0			
		>95% of the vegetated part of the AA.	0			
F46	Woody Diameter Classes (TreeDiams)	Select <u>All</u> the types that comprise >5% of the woody canopy cover in the AA or >5% of its wooded upland edge if any:		Wooded upland edge - includes woody plants located within one tree-height of the wetland-upland boundary. DBH is the diameter of the tree measured at 4.5 ft above the ground. [CS,SBM,POL,Sens]		
		Deciduous 1-4" diameter (DBH) and >3 ft tall.	0			
		Evergreen 1-4" diameter and >3 ft tall.	0			
		Deciduous 4-9" diameter.	0			
		Evergreen 4-9" diameter.	0			
		Deciduous 9-21" diameter.	0			
		Evergreen 9-21" diameter.	0			
		Deciduous >21" diameter.	0			
		Evergreen >21" diameter.	0			

F47	Snags (Snags)	The number of large snags (diameter >12 inches) in the AA plus 100 ft uphill of its edge is:		Snags - are standing trees at least 20 ft tall that are mainly without bark or foliage. [SBM,POL]		
		Few or none.	0			
		Several.	0			
F48	Abovewater Wood (WoodOver)	The number of horizontal wood pieces thicker than 4 inches that are <u>partly submerged</u> during most of the spring or early summer, thus <u>potentially serving as basking sites</u> for turtles, birds, or frogs and cover for fish is:		<u>Only the wood that is at or above the water surface is assessed</u> because of the impracticality of assessing underwater wood accurately when using a rapid assessment method. [FA,FR,AM]		
		None.	0			
		Few.	0			
		Several (e.g., >3 per 300 ft of channel or shoreline).	0			
F49	Downed Wood (WoodDown)	The number of downed wood pieces longer than 6 ft and with diameter >4 inches that are not submerged during most of the growing season, is:		Exclude temporary "burn piles." [INV,AM,SBM,POL]		
		Few or none.	0			
		Several.	0			
F50	Exposed Shrub Canopy (ShrExpos)	Within the vegetated part of the AA, shrubs shorter than 20 ft that are not overtopped by trees occupy: Select first statement that is true.		Vegetated part - should not include floating-leaved or submersed aquatics. [SBM,PD]		
		<5% of the vegetated AA and <0.01 acre (400 sq ft).	0			
		5 to <25% of the vegetated AA or the water edge (whichever is greater in early summer).	0			
		25 to <50% of the vegetated AA or the water edge (whichever is greater in early summer).	0			
		50 to 95% of the vegetated AA or the water edge (whichever is greater in early summer).	0			
		>95% of the vegetated part of the AA or the water edge (whichever is greater in early summer).	0			
F51	N Fixers (Nfix)	The percentage of the vegetated area in the AA <u>or</u> along its water edge (whichever has more) that contains nitrogen-fixing plants (e.g., alder, baltic rush, scotch broom, lupine, clover, alfalfa, other legumes) is:		For a more complete list, see <u>ORWAP_SupplInfo</u> , worksheet NFIX (includes native and non-native species). Do not include algae. [OE,INV,Sens]		
		<1% or none.	1			
		1 to <25%.	0			
		25 to <50%.	0			
		50 to 75%.	0			
		>75%.	0			
Note for the next four questions: If the AA lacks an upland edge, evaluate based on the AA's <u>entire perimeter</u> and outward into whatever areas are adjacent. In many situations, these questions are best answered by measuring from aerial images.						
F52	Upland Perennial Cover - % of Perimeter (PerimPctPer)	The percentage of the AA's <u>edge (perimeter)</u> that is comprised of a band of upland perennial cover wider than 10 ft and taller than 6 inches, during most of the growing season is:		Perennial cover - vegetation that includes wooded areas, native prairies, sagebrush, as well as relatively unmanaged commercial lands in which the ground is disturbed less frequently than annually such as perennial ryegrass fields, hayfields, lightly grazed pastures, timber harvest areas, and rangeland. It <u>does not</u> include water, row crops (vegetable, orchards, Christmas tree farms), residential areas, golf courses, recreational fields, pavement, bare soil, rock, bare sand, or gravel or dirt roads. [WCv,SRv,PRv,INV,FA,AM,WBF,WBN,SBM,PD,POL,POLv,Sens,STR]		
		<5%.	1			
		5 to <25%.	0			
		25 to <50%.	0			
		50 to <75%.	0			
		75 to 95%.	0			
		>95%.	0			

F53	Upland Perennial Cover Width (Buffer) (BuffWidth)	Along the greatest extent of the AA's upland edge , the width of perennial cover taller than 6 inches that extends upslope from the AA until mostly shorter or non-perennial cover is reached is: [NOTE: the width is not necessarily the maximum width. Base on vegetation that occurs most of the growing season.]		Upland edge - is the land within 3 ft of the wetland's perimeter that is not wetland. [WCv,SRv,PRv,INV,FA,AM, WBN,SBM,PD,POL,Sens,STR]		
		< 5 ft, or none.	1		NoUpPerCov	
		5 to <30 ft.	0			
		30 to <50 ft.	0			
		50 to <100 ft.	0			
		100 to 300 ft.	0			
		> 300 ft.	0		AllUpPerren	
F54	Upland Trees as % of All Perennial Cover (UpTreePctPer)	Within 100 f.t landward from the AA's edge (perimeter) , the percentage of the upland perennial cover that is woody plants taller than 20 ft is:		Base this on the cumulative canopy width of the trees. [WSv,FA,WBF,WBN,SBM]		
		<5%, or there is no upland perennial cover along the upland edge.	1			
		5 to <25% of perennial cover.	0			
		25 to <50% of perennial cover.	0			
		50 to <75% of perennial cover.	0			
		75 to 95% of perennial cover.	0			
		>95% of perennial cover.	0			
F55	Weeds - % of Upland Edge (UpWeed)	Along the AA's edge (perimeter) , the cover of invasive woody or herbaceous plants occupies: [If vegetation is so senesced that apparently-dominant edge species cannot be identified even to genus, answer "none"].		See <u>ORWAP SupplInfo file</u> , worksheet P_Invas. Some of the most common invaders along upland edges of Oregon wetlands are Himalayan blackberry, knotweed, sweetbrier rose, Russian olive, English ivy, nightshade, pepperweed, medusahead, white clover, ryegrass, quackgrass, false brome, bentgrass, dandelion, oxeye daisy, pennyroyal, bull and creeping thistles, tansy ragwort, poison hemlock, and teasel. If a plant cannot be identified to species (e.g., winter conditions) but its genus contains an invasive species, assume the unidentified plant to also be invasive. [PD,STR]		
		<5%, or none.	0			
		5 to <25%.	0			
		25 to <50%.	1			
		50 to <75%.	0			
		75 to 95%.	0			
		>95%.	0			
F56	Bare Ground & Accumulated Plant Litter (Gcover)	Consider the parts of the AA that go dry during a normal year. Viewed from 6 inches above the soil surface , the condition in most of that area just before the year's longest inundation period begins is:		Bare ground - includes unvegetated soil, rock, sand, or mud between stems if any. Bare ground under a tree or shrub canopy should be counted. Wetlands that are dominated by annual plant species tend to have more extensive areas that are bare during the early growing season. [WS,WC,SR,PR,NR,CS,OE,INV,AM,SBM,POL,Sens,EC]		
		Little or no (<5%) bare ground is visible between erect stems or under canopy and there is little or no dead detached plant tisuse (thatch) remaining on top of the ground surface and ground surface is extensively blanketed by moss, lichens, graminoids with great stem densities, or plants with ground-hugging foliage.	0			
		Some (5-20%) bare ground or remaining thatch is visible. Herbaceous plants have moderate stem densities and do not closely hug the ground.	1			
		Much (20-50%) bare ground or thatch is visible. Low stem density and/or tall plants with little living ground cover during early growing season.	0			
		Mostly (>50%) bare ground or thatch.	0			
		Not applicable. All of the AA is inundated throughout most years.	0			
F57	Ground Irregularity (Girreg)	In parts of the AA that lack persistent water, the number of small pits, raised mounds, hummocks, boulders, upturned trees, animal burrows, islands, natural levees, wide soil cracks, and microdepressions is:		Microtopography - refers mainly to vertical relief of <3 ft and is represented only by inorganic features, except where plants have created depressions or mounds of soil. Consider the microtopography to be " few or none " if one could walk easily through most of the AA once any slash and logs are removed. Consider it to be " several " if one has to constantly look down and check balance. [WS,SR,PR,NR,INV,AM,SBM,PD,POL,EC]		
		Few or none, or the entire AA is always water-covered. Minimal microtopography ; <1% of the AA, e.g., many flat sites having a single hydroperiod.	1			
		Intermediate.	0			
		Several (extensive micro-topography).	0			

F58	Soil Composition (SoilTex)	Based on digging into the substrate and examining the <u>surface layer</u> of the soil (2 inch depth) that was mapped as being predominant, its composition (excluding duff and living roots) is mostly:		Do not base the texture on soil maps unless the AA is inaccessible. See <u>ORWAP Manual's</u> protocol (Step 2 of section 5.3 and the soil chart in Appendix B). Judge which soil type is predominant <u>only in the part of the AA that is not inundated</u> at the time of your visit. Duff - is loose organic surface material, e.g., dead plant leaves and stems). Organic soils are much less common in floodplains. [WS,PR,NR,CS,OE,PD,Sens]		
		Loamy: includes silt, silt loam, loam, sandy loam.	1			
		Clayey: includes clay, clay loam, silty clay, silty clay loam, sandy clay, sandy clay loam.	0			
		Organic: includes muck, mucky peat, peat, and mucky mineral soils (blackish or grayish). Exclude live roots unless they are moss.	0			
		Coarse: includes sand, loamy sand, gravel, cobble, stones, boulders, fluvents, fluvaquents, riverwash.	0			
F59	Cliffs or Banks (Cliff)	Within 300 ft of the AA, there are elevated terrestrial features such as cliffs, bluffs, talus slopes, or unarmored stream banks that extend at least 6 ft nearly vertically, are unvegetated, and potentially contain crevices or other substrate suitable for nesting or den areas. Enter 1, if true.	0	[SBM,POL]		
F60	Restored or Created Wetland (NewWet)	The AA is (or is within, or contains) a "new" wetland resulting from human actions (e.g., excavation, impoundment) or other factors affecting what was upland (non-hydric) soil. Or, some part of the AA was originally a wetland, was artificially drained for many years, and has since had its water regime partly or wholly restored or rehabilitated (e.g., by ditch plugs, berms, tile breakage, non-maintenance).		Include wetlands whose area was likely expanded by road berms which impeded runoff, but do not include wetlands created by beaver dams except for the part where flooding affected uplands (not just existing wetlands and streams). Determine this using historical aerial photography, old maps, soil maps, consultation with landowners, and/or permit files as available. See <u>ORWAP Map Viewer's</u> Hydric Soil layer (expend Soils). Also, locations of some restoration wetlands can be found in the ORWAP Map Viewer under Restoration. Another potential source is the <u>Conservation Registry</u> : https://oregonexplorer.info/content/conservation-registry?topic&ptopic . [PR,NR,CS,OE,PD,Sens]		
		Yes, and constructed or restored mostly within last 3 years.	0			
		Yes, and constructed or restored mostly 3-7 years ago.	0			
		Yes, and constructed or restored mostly >7 years ago.	0			
		Yes, but time of origin or restoration unknown.	0			
		No.	1			
		Unknown if wetland is constructed, restored, or natural.	0			
F61	Ownership (Ownership)	Most of the AA is:		An initial indication of ownership can be found on the <u>ORWAP Map Viewer</u> under the Land Ownership layer (expand Land Classification). However, it is advisable to ask local sources or use local maps with higher precision. [PUV]		
		Publicly owned (municipal, county, state, federal).	0			
		Owned by non-profit conservation organization or easement holder who allows public access to this AA.	0			
		Other private ownership, including tribal. Enter 1 and SKIP to F63.	1			
F62	Special Protected Area Designation (Desig)	The AA is part of an area designated as a Special Protected Area according to the USGS Protected Areas Database of the U.S. Enter 1, if true.	0	See the ORWAP Map Viewer Report under the Location Information section for "In Special Protected Area?" [PUV]		
F63	Conservation Investment (Consinvest)	The AA is not a mitigation wetland, but public funds or community volunteer efforts have been applied to preserve, create, restore, or enhance the condition or functions of the wetland. (e.g. CRP or WRP wetlands, community projects). Enter 1, if true. (If unknown, leave 0).	0	Locations of some restoration wetlands can be found in the <u>ORWAP Map Viewer</u> under Restoration. Another potential source is the <u>Conservation Registry</u> : https://oregonexplorer.info/content/conservation-registry?topic&ptopic [PUV]		
F64	Compensation Wetland (MitWet)	The AA is all or part of a compensation site used explicitly to offset impacts elsewhere. Enter 1, if true. (If unknown, leave 0).	0	Answer to the best of your knowledge. Sources for information include the property owner, DSL, and/or the ACOE. [PUV]		
F65	Sustained Scientific Use (SciUse)	Plants, animals, or water in the AA have been monitored for >2 years, <u>unrelated to any regulatory requirements, and data are available to the public</u> . Or the AA is part of an area that has been designated by an agency or institution as a benchmark, reference, or status-trends monitoring area. Enter 1, if true. (If unknown, leave 0)	0	[PUV]		
F66	Visibility (Visibil)	The maximum percentage of the wetland that is visible from the best vantage point on public roads, public parking lots, public buildings, or public maintained trails that intersect, adjoin, or are within 300 ft of the AA is (Select ONE):		[WBFv,WBNv,SBMv,PUv,STR]		
		<25%.	0			
		25 - 50%.	1			
		>50%.	0			

F67	Non-consumptive Uses - Actual or Potential (RecPoten)	Select All statements that are true of this AA as it currently exists:		The question assumes access is allowed.		
		Walking is physically possible in >5% of the AA during most of year (e.g., free of deep water and dense shrub thickets).	1	[PUv]		
		All or part of the AA (or an area within sight of the AA and within 100 ft) would be physically accessible to people in wheelchairs (e.g., paved and flat).	0			
		Maintained roads, parking areas, or foot-trails are within 30 ft of the AA, or the AA can be accessed most of the year by boat.	0			
		Within or near the AA, there is an interpretive center, trails with interpretive signs or brochures, and/or regular guided interpretive tours.	0			
F68	Core Area 1 (VisitNo)	The percentage of the AA almost never walked or driven by humans during an average growing season probably comprises: [Note: If more than half the wetland is visible from areas within 100 ft of the AA, include visits by people to those areas that are actually walked or driven (not simply viewed from)].		Judge this based on proximity to population centers, roads, trails, accessibility of the AA to the public, wetland size, usual water depth, and physical evidence of human visitation.		
		<5% and no inhabited building is within 300 ft of the AA.	1	Exclude visits that are not likely to continue and/or that are not an annual occurrence (e.g., by construction, maintenance, or monitoring crews).		
		<5% and inhabited building is within 300 ft of the AA.	0			
		5 to <50% and no inhabited building is within 300 ft of the AA.	0	[AM,WBF,WBN,SBM,PD,PUv,STR]		
		5 to <50% and inhabited building is within 300 ft of the AA.	0			
		50 to 95% with or without inhabited building nearby.	0			
		>95% of the AA with or without inhabited building nearby.	0			
F69	Core Area 2 (VisitOften)	The part of the AA visited by humans <u>almost daily for several weeks</u> during an average growing season probably comprises: [The Note in the preceding question applies here as well].		See note above.		
		<5%.	1	[AM,WBF,WBN,SBM,PD,PUv,STR]		
		5 to <50%.	0			
		50 to 95%.	0			
		>95% of the AA.	0			
F70	Consumptive Uses (Provisioning Services) (Hunt)	Recent evidence was found <u>within the AA</u> of the following potentially-sustainable consumptive uses. Select All that apply.		Evidence of these consumptive uses may consist of direct observation, or presence of physical evidence (e.g., recently cut stumps, fishing lures, shell cases), or might be obtained from communication with the land owner or manager.		
		Low-impact commercial timber harvest (e.g., selective thinning).	0			
		Commercial or traditional-use harvesting of native plants, their fruits, or mushrooms.	0			
		Waterfowl hunting.	0	[FRv,WBFv,PUv]		
		Fishing.	0			
		Trapping of furbearers.	0			
		None of the above.	1			
F71	Domestic Wells (Wells)	Wells or water bodies that currently provide drinking water are:		If unknow, assume this is true if there is an inhabited structure within the specified distance and the neighborhood is known to not be connected to a municipal drinking water system (e.g., is outside an urban growth boundary or other densely settled area).		
		<300 ft and downslope from the AA or at same elevation.	0			
		300 to 1500 ft and downslope or at same elevation.	0			
		>1500 ft downslope, or none downslope, or no information.	1	[NRv]		

F72	Wetland Type of Conservation Concern (RareType)	Does the AA contain, or is it part of, any of these wetland types? Select All that apply.	W	Consult the <u>ORWAP Report</u> under the Location Information table for "Rare Wetland Types." But be aware that it may not apply to the exact AA you have delimited. [PDv, Sens]		
		<u>Mature forested wetland</u> (anywhere): a wetland in which mean diameter of trees (d.b.h., FACW and FAC species only) exceeds 18 inches, <u>and/or</u> the average age of trees exceeds 80 years, <u>or</u> there are >5 trees/acre with diameter >32 inches.	0	To qualify, the diameter of >18 inches must be the mean measured from at least 10 trees.		
		<u>Bog or Fen</u> : contains a sponge-like organic soil layer which covers most of the AA and often has extensive cover of sedges <u>and/or</u> broad-leaved evergreen shrubs (e.g., Ledum). Often lacks tributaries, being fed mainly by groundwater and/or direct precipitation.	0			
		<u>Playa, Salt Flat, or Alkaline Lake</u> : a nontidal ponded water body usually having saline (salinity >1 ppt or conductivity >1000 µS) or alkaline (conductivity >2000 µS and pH >9) conditions and large seasonal water level fluctuations (if inputs-outputs unregulated). If a playa or salt flat, vegetation cover is sparse and plants typical of saline or alkaline conditions (e.g., Distichlis, Atriplex) are common.	0	See <u>ORWAP_SupplInfo</u> file, worksheet P_Salt for species typically occurring in tidal or saline conditions.	Playa	
		<u>Hot spring</u> (anywhere): a wetland where discharging groundwater in summer is >10 degrees (F) warmer than the expected water temperature.	0			
		<u>Native wet prairie</u> (west of the Cascade crest): a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, and dominated primarily by native graminoids often including species in column E.	0	Deschampsia caespitosa, Danthonia californica, Camassia quamash, Tritoleia hyacinthina, Carex densa, C. aperta, and/or C. unilateralis		
		<u>Vernal pool (Willamette Valley)</u> : a seasonally inundated wetland, underlain by hardpan or claypan, with hummocky micro-relief, usually without a naturally-occurring inlet or outlet, and with native plant species distinctly different from those in slightly higher areas, and often including species in column E.	0	Downingia elegans, Isoetes nuttallii, Tritoleia hyacinthina, Eleocharis spp., Eryngium petiolatum, Plagiobothrys figuratus, Plagiobothrys scouleri, Grindelia nana, Veronica peregrina, Lasthenia glaberrima , Cicendia quadrangularis, Kickxia elatine, Gnaphalium palustre, and/or Callitriche spp.		
		<u>Vernal pool (Medford area)</u> : a seasonally inundated acidic wetland, underlain by hardpan, with hummocky micro-relief, usually without a naturally-occurring inlet or outlet, and having concentric rings of similar native vegetation, often including species in column E.	0	Downingia vina, Isoetes nuttalli, Pilularia americana, Tritoleia hyacinthina, Eleocharis spp., Eryngium petiolatum, Plagiobothrys brachteatus, Plagiobothrys scouleri, Grindelia nana, Veronica peregrina, Alopecurus saccatus, Lasthenia californica, Deschampsia danthonioides, and/or Callitriche spp.		
		<u>Vernal pool (Modoc basalt & Columbia Plateau)</u> : a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, located on shallow basalt bedrock and often having species in column E.	0	Blennosperma nanum, Camassia quamash, Epilobium densiflorum, Callitriche marginata, Cicendia quadrangularis, Eryngium vaseyi, Psilocarphus brevissimus, and/or Sedella pumila.		
		<u>Interdunal wetland (Coastal ecoregion)</u> : a seasonally inundated wetland, usually without a naturally-occurring inlet or outlet, located between sand dunes where wind has scoured the sand down to the water table (deflation plain, blowout pond), and often with significant cover of the native species in column E.	0	Carex obnupta, Argentina egedii, Juncus lesueurii, J. nevadensis, J. falcatus, Sisyrinchium californicum, and/or Salix hookeriana		
		<u>Ultramafic soil wetland (mainly southwestern Oregon)</u> : a low-elevation wetland, usually with a sponge-like organic soil layer, occurring in an area with exposed serpentine or peridotite rock, and/or in soils with very low Ca:Mg ratios.	0			
		None of above.	1			

Site: Comy Data Center		Name: Emma Eichhorn, Addison Dillon		Date: 4/2/2026		
Form S Stresser Data ORWAP V 3.2					Data	Comments
S1	Aberrant Timing of Water Inputs (AltTiming) <i>In the "Data" column, place an X next to any item that is likely to have caused the timing of water inputs (but not necessarily their volume) to shift by hours, days, or weeks, becoming either more muted (smaller or less frequent peaks spread over longer times, more temporal homogeneity of flow or water levels) or more flashy (larger or more frequent spikes but over shorter times).</i>					
	Control structure that regulates inflow to the AA (including tide gates), or flow regulation in tributaries, or water level in adjoining water body is regulated.					
	Irrigation runoff or seepage.					
	Snow storage areas that drain directly to the wetland.					
	Increased pavement and other impervious surface in the CA.				X	
	Straightening, ditching, dredging, and/or lining of tributary channels in the CA.					
	<i>If any items were checked above, then for each row of the table below, you may assign points (3, 2, or 1). However, if you believe the checked items had no measurable effect on the timing of water conditions in any part of the AA, then leave the "0"s* for the scores in the following rows. To estimate effects, contrast the current condition with the condition, if the checked items never occurred or were no longer present.</i>					
		Severe (3 pts)	Medium (2 pts)	Mild (1 pt)		
	Spatial extent within the AA of timing shift.	>95% of AA.	5-95% of AA.	<5% of AA.	2	
	When most of the timing shift began.	<3 yrs ago.	3-9 yrs ago.	10-100 yrs ago.	1	
	<i>Score the following 2 rows only if the altered inputs began within past 10 years, and only for the part of the AA that experiences those.</i>					
	Input timing now vs. previously.	Shift of weeks.	Shift of days.	Shift of hours or minutes.	1	
	Flashiness or muting.	Became very flashy or controlled.	Intermediate.	Became mildly flashy or controlled.	1	
					Sum=	5
					Final score=	0.42
S2	Accelerated Inputs of Nutrients (NutrLoad) <i>In the "Data" column, place an X next to any item -- occurring in either the AA or its RCA -- that is likely to have accelerated the inputs of nutrients (nitrogen, phosphorus) to the AA.</i>					
	Stormwater or wastewater effluent (including failing septic systems), landfills.				X	
	Fertilizers applied to lawns, ag lands, or other areas in the RCA.				X	
	Livestock, dogs.					
	Artificial drainage of upslope lands.				X	
	Other waterborne human-related nutrient sources within the RCA.					
	<i>If any items were checked above, then for each row of the table below, you may assign points. However, if you believe the checked items did not cumulatively expose the AA to significantly more nutrients, then leave the "0"s* for the scores in the following rows. To estimate effects, contrast the current condition with the condition if the checked items never occurred or were no longer present.</i>					
		Severe (3 pts)	Medium (2 pts)	Mild (1 pt)		
	Usual load of nutrients.	Large (e.g., feedlots, extensive residential on septic or 303d* for nutrients).	Moderate (e.g., grazing, light residential on septic, light agriculture).	Limited (e.g., a few animals, lawns, sewered residential).	1	
	Frequency & duration of input.	Frequent and year-round.	Frequent but mostly seasonal.	Infrequent & during high runoff events mainly.	1	
	AA proximity to main sources (actual or potential).	0 - <50 ft.	50-300 ft. or in groundwater.	In other part of contributing area.	2	
					Sum=	4
					Final score=	0.44
S3	Accelerated Inputs of Contaminants and/or Salts (Contamin). <i>In the "Data" column, place an X next to any item -- occurring in either the AA or its RCA -- that is likely to have accelerated the inputs of contaminants or salts to the AA.</i>					
	Stormwater or wastewater effluent (including failing septic systems), landfills, snow storage areas.				X	
	Metals & chemical wastes from mining, shooting ranges, oil/ gas extraction, other sources.					
	Irrigation of lands, especially those with saline soils.					
	Oil or chemical spills (not just chronic inputs) from nearby roads.					
	Road salt.					
	Pesticides applied to lawns, ag lands, roadsides, or other areas in the RCA, but excluding spot applications for controlling non-natives in the AA.				X	
	Artificial drainage of contaminated or saline soils.					
	Erosion of contaminated soils.					
	Other contaminant sources within the RCA.					
	<i>If any items were checked above, then for each row of the table below, you may assign points. However, if you believe the checked items did not cumulatively expose the AA to significantly higher levels of contaminants and/or salts, then leave the "0"s* for the scores in the following rows. To estimate effects, contrast the current condition with the condition if the checked items never occurred or were no longer present.</i>					
		Severe (3 pts)	Medium (2 pts)	Mild (1 pt)		
	Usual toxicity of most toxic contaminants.	Industrial effluent or 303d* for toxics.	Wastewater treatment plant, cropland, fossil fuel extraction, pipeline, power station, managed landfill.	Low density residential or commercial.	1	
	Frequency & duration of input.	Frequent and year-round.	Frequent but mostly seasonal.	Infrequent & during high runoff events mainly.	1	
	AA proximity to main sources (actual or potential).	0 - <50 ft.	50-300 ft. or in groundwater.	In other part of contributing area.	2	
	* See ORWAP Map Viewer for waters designated as 303d; see Oregon DEQ web site for reasons.				Sum=	4
					Final score=	0.44

S4	Excessive Sediment Loading from Runoff Contributing Area (SedRCA).				
In the "Data" column, place an X next to any item present in the RCA that is likely to have elevated the load of waterborne or windborne sediment reaching the AA from its RCA.					
Erosion from plowed fields, fill, timber harvest, dirt roads, vegetation clearing, fires.				X	
Erosion from construction, in-channel machinery in the RCA.					
Erosion from off-road vehicles in the RCA.					
Erosion from livestock or foot traffic in the RCA.					
Stormwater or wastewater effluent.				X	
Sediment from road sanding, gravel mining, other mining, oil/ gas extraction.					
Accelerated channel downcutting or headcutting of tributaries due to altered land use.					
Other human-related disturbances within the RCA.					
If any items were checked above, then for each row of the table below you may assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in increasing the amount or transport of sediment into the AA. To estimate that, contrast it with the condition if checked items never occurred or were no longer present.					
	Severe (3 pts)	Medium (2 pts)	Mild (1 pt)		
Erosion in RCA.	Extensive evidence, high intensity*.	Potentially (based on high-intensity* land use) or scattered evidence.	Potentially (based on low-intensity* land use) with little or no direct evidence.	1	
Recentness of significant soil disturbance in the RCA.	Current & ongoing.	1-12 months ago.	>1 yr ago.	2	
Duration of sediment inputs to the AA.	Frequent and year-round.	Frequent but mostly seasonal.	Infrequent & mainly during high runoff or severe wind events.	2	
AA proximity to actual or potential sources.	0 - <50 ft., or farther but on steep erodible slopes.	50-300 ft.	In other part of contributing area.	2	
* High-intensity= plowing, grading, excavation, erosion with or without veg removal; low-intensity= veg removal only with little or no apparent erosion or disturbance of soil or sediment.				Sum= 7	
				Final score= 0.58	
S5	Soil or Sediment Alteration Within the Assessment Area (SoilDisturb).				
In the "Data" column, place an X next to any item present in the AA that is likely to have compacted, eroded, or otherwise altered the AA's soil.					
Compaction from livestock, machinery, off-road vehicles, or mountain bikes, especially during wetter periods.					
Leveling or other grading not to the natural contour.					
Tillage, plowing (but excluding disking for enhancement of native plants).				X	
Fill, riprap, other armoring, excluding small amounts of upland soils containing organic amendments (compost, etc.) or small amounts of topsoil stockpiled or imported from another wetland.					
Excavation.					
Dredging in or adjacent to the AA.					
Boat traffic in or adjacent to the AA and sufficient to cause shore erosion or stir bottom sediments.					
Artificial water level or flow manipulations sufficient to cause erosion or stir bottom sediments.					
If any items were checked above, then for each row of the table below you may assign points (3, 2, or 1) in the last column that describe the combined maximum effect of those items in altering the AA's soils. To estimate that, contrast it with the soil condition if checked items never occurred or were no longer present.					
	Severe (3 pts)	Medium (2 pts)	Mild (1 pt)		
Spatial extent of altered soil.	>95% of AA or >95% of its upland edge (if any).	5-95% of AA or 5-95% of its upland edge (if any).	<5% of AA and <5% of its upland edge (if any).	3	
Recentness of significant soil alteration in AA.	Current & ongoing.	1-12 months ago.	>1 yr ago.	2	
Duration.	Long-lasting, minimal veg recovery.	Long-lasting but mostly revegetated.	Short-term, revegetated, not intense.	1	
Timing of soil alteration.	Frequent and year-round.	Frequent but mostly seasonal.	Infrequent & mainly during scattered events.	2	
				Sum= 8	
				Final score= 0.67	

Report Generated: August 27, 2026 12:04 PM

Assessment Area: 0.4 Acres

Location Map



Location Information

Latitude	45.5408431030619	Longitude	-122.897367480271
Elevation	201 ft	Annual precipitation	40 in
Watershed (HUC12)	Upper Rock Creek (170900100402)		
Presettlement Vegetation Class	Oak-Douglas fir		
Rare Wetland Type(s)	None		
Hydrologic Landscape Class	Wet		
In Special Protected Area?	No		

[View Salinity Maps \(pdf\)](#)

Soil Information

Soil Name	Aloha silt loam
Soil Symbol	1
Hydric Rating	Yes
Hydric Percent	1
Percent Area	81.2%
Erosion Hazard	Slight

This report was generated using the ORWAP Map Viewer, a tool of the Oregon Explorer (<http://oregonexplorer.info>).

Dom. Cond. Non-irrigated Capability Class	Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
---	---

Soil Name	Woodburn silt loam, 0 to 3 percent slopes
Soil Symbol	45A
Hydric Rating	Yes
Hydric Percent	1
Percent Area	18.8%
Erosion Hazard	Slight
Dom. Cond. Non-irrigated Capability Class	Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Watershed Information

HUC Best							
HUC Code	HUC Name	Is HUC Best?	Greatest Criteria met	FW, s/f, lg (Acres)	FW, em, lg (Acres)	EST, em, lg (Acres)	EST, s/f, lg (Acres)
HUC8: 17090010	Tualatin	No	n/a	179.6	115.8	0	0
HUC10: 1709001004	Rock Creek-Tualatin River	Yes	type diversity	65.2	102.5	0	0
HUC12: 170900100402	Upper Rock Creek	No	n/a	38.9	7.4	0	0

[abbreviations: FW- freshwater (wetland); em- Emergent; lg- largest; s/f- Shrub/Forested; EST- Estuarine (wetland)]

HUC 12 Functional Deficit									
HUC Code	HUC Name	WS	SR	NT	WC	INV	AM	FH	WB
HUC12: 170900100402	Upper Rock Creek								

[abbreviations: WS= Water Storage, SR= Sediment Retention, NT= Nutrient Retention (PR or NR), WC= Water Cooling (Thermoregulation), INV= Invertebrate Habitat, AM= Amphibian Habitat, FH= Fish Habitat (FA or FR), WB= Waterbird Habitat (WBF or WBN)]

Rare Species Scores

Rare Species Type	Maximum score	Sum Score	Rating
Non-anadromous Fish Species	0	0	None
Amphibian & Reptile Species	0	0	None
Feeding Waterbirds	0	0	None
Nesting Waterbirds	0	0	None
Songbirds, Raptors, and Mammals	0	0	None
Invertebrate Species	0	0	None
Plant Species	0	0	None

Scores have taken into account several factors for each rare species record contained in the official database of the Oregon Biodiversity Information Center (ORBIC): (a) the regional rarity of the species, (b) their proximity to the point of interest, and (c) the "certainty" that ORBIC assigns to each of those records.

Element of Occurrence (Rare Species)

[View wildlife list for Upper Rock Creek \(170900100402\)](#)

Within Assessment Area No EO Records

Within 1 mile No EO Records

In HUC12 watershed 7 EO Records

Element of Occurrence Record(s) in HUC12

- 1 Steelhead (Upper Willamette River ESU, winter run)
[6 occurrences]

Oncorhynchus mykiss pop. 33

ORBIC State Status: S2

ORBIC Global Status: G5T2Q

ODFW Strategy Species: No

- 2 Pacific lamprey
[1 occurrences]

Entosphenus tridentatus

ORBIC State Status: S1S2

ORBIC Global Status: G4

ODFW Strategy Species: No

- *HUC Best: Oregon watersheds (HUC8, HUC10, HUC12) with greatest type diversity, proportional area, or density of wetlands according to available National Wetland Inventory maps.*

"Type diversity" is the number of unique NWI codes in the watershed (e.g., PEMA, PEMC, PEMCx) and excluded types that have no vegetation component (e.g., PUBH, R3US2).

"Density" is the number of vegetated NWI polygons divided by the acreage of the watershed; many of these polygons may be contiguous with each other, forming a single wetland.

"Proportional Area" is the proportion of the watershed's total area occupied by vegetated wetlands as mapped by NWI.

- *The digital maps used to determine this do not show many wetlands or cover the entire state. Data were compiled only from watersheds that have been at least 90% mapped by NWI (see worksheets for HUC8, 10, and 12). Data were received in November 2008 from ORBIC.*

• *METHODS: The above 3 metrics can be strongly correlated with watershed size and with each other. To minimize that bias, the rankings of the residuals from a regression analysis were used, rather than simply the top-ranking watersheds, to identify the most "important" watersheds for each metric at each scale. That is, the watersheds were identified that were in the top 5% in terms of variety of mapped wetland types for watersheds of that size, the largest area of mapped wetlands as a proportion of the watershed area for watersheds of that size, and/or the greatest number of mapped wetland polygons for watersheds with that much wetland area.*

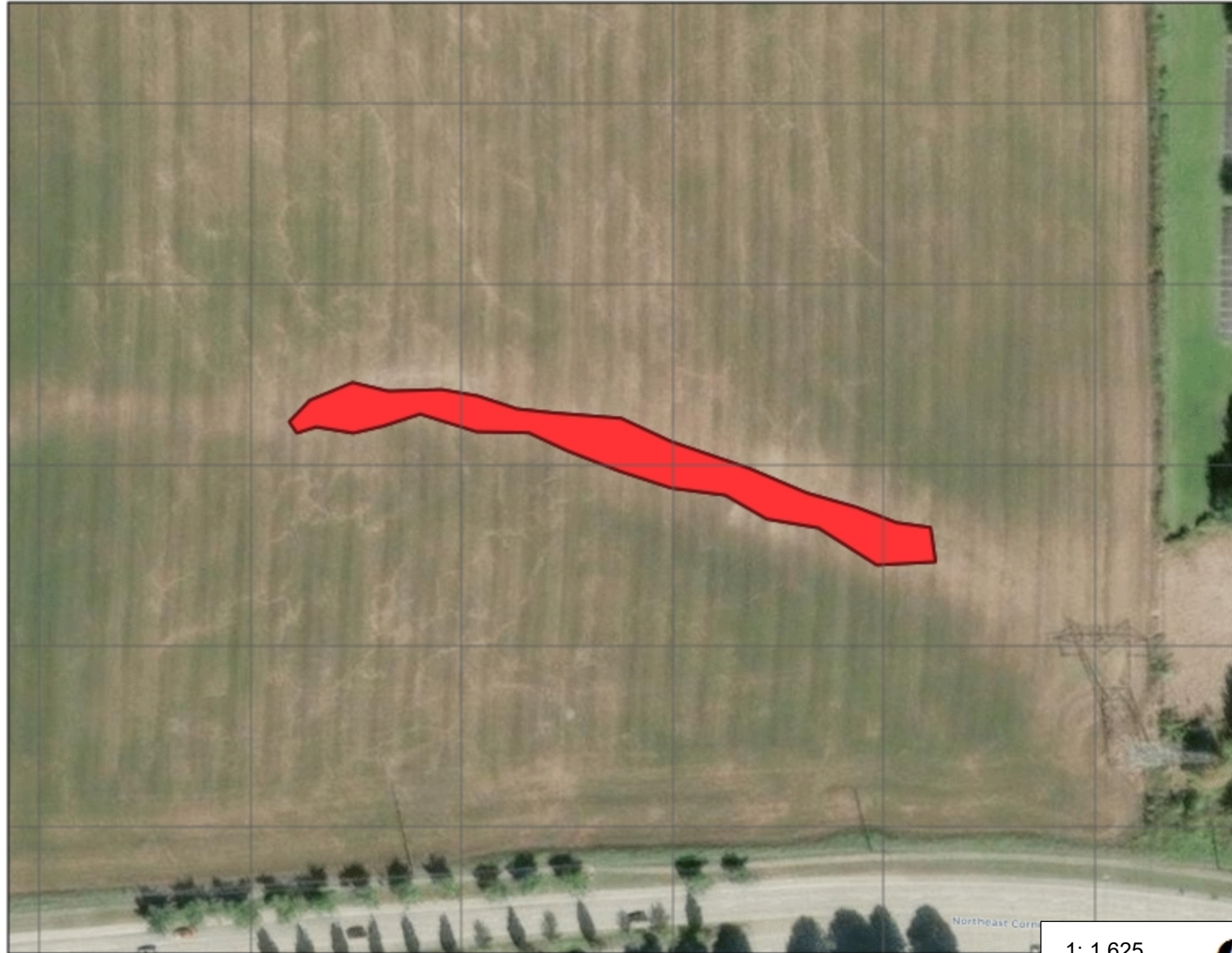
• *Global rank. ORBIC participates in an international system for ranking rare, threatened and endangered species throughout the world. The system was developed by The Nature Conservancy and is now maintained by NatureServe in cooperation with Heritage Programs or Conservation Data Centers (CDCs) in all 50 states, in 4 Canadian provinces, and in 13 Latin American countries. The ranking is a 1-5 scale, primarily based on the number of known occurrences, but also including threats, sensitivity, area occupied, and other biological factors. In this book, the ranks occupy two lines. The top line is the Global Rank and begins with a "G". If the taxon has a trinomial (a subspecies, variety or recognized race), this is followed by a "T" rank indicator. A "Q" at the end of this line indicates the taxon has taxonomic questions. The second line is the State Rank and begins with the letter "S". The ranks are summarized as follows: 1 = Critically imperiled because of extreme rarity or because it is somehow especially vulnerable to extinction or extirpation, typically with 5 or fewer occurrences; 2 = Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (extirpation), typically with 6-20 occurrences; 3 = Rare, uncommon or threatened, but not immediately imperiled, typically with 21-100 occurrences; 4 = Not rare and apparently secure, but with cause for long-term concern, usually with more than 100 occurrences; 5 = Demonstrably widespread, abundant, and secure; H = Historical Occurrence, formerly part of the native biota with the implied expectation that it may be rediscovered; X = Presumed extirpated or extinct; U = Unknown rank; ? = Not yet ranked, or assigned rank is uncertain.*

• *This report contains both centroid-based and polygon-based data. The Location Information and Watershed Information sections of the report contain centroid based data (determined by the center point of the polygon), while the remaining sections are polygon-based (determined from the entire polygon).*

• *The rare species results in this report are based on a subset of the ORBIC rare species dataset. The ORWAP tool only reports on rare species that meet the following criteria: wetland habitat species that are tracked by ORBIC, excluding historical or extirpated sites or those with low mapping accuracy. More information about specific sites and additional species can be obtained from ORBIC through data requests, see <https://inr.oregonstate.edu/orbic/data-requests> for details.*

-122°53'58" -122°53'55" -122°53'53" -122°53'50" -122°53'47" -122°53'45"

45°32'30"
45°32'29"
45°32'27"
45°32'26"
45°32'24"



-122°53'58" -122°53'55" -122°53'53" -122°53'50" -122°53'47"

1: 1,625



0.1 0 0.03 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Oregon Explorer (<https://oregonexplorer.info>)

This map is a user generated static output for reference only from:

[ORWAP and SFAM Map Viewer](#)

Data layers that appear on this map may or may not be accurate, current, or reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION.



Legend

States & Provinces

Other States and Provinces

Oregon

World Imagery

Low Resolution 15m
Imagery

High Resolution 60cm
Imagery

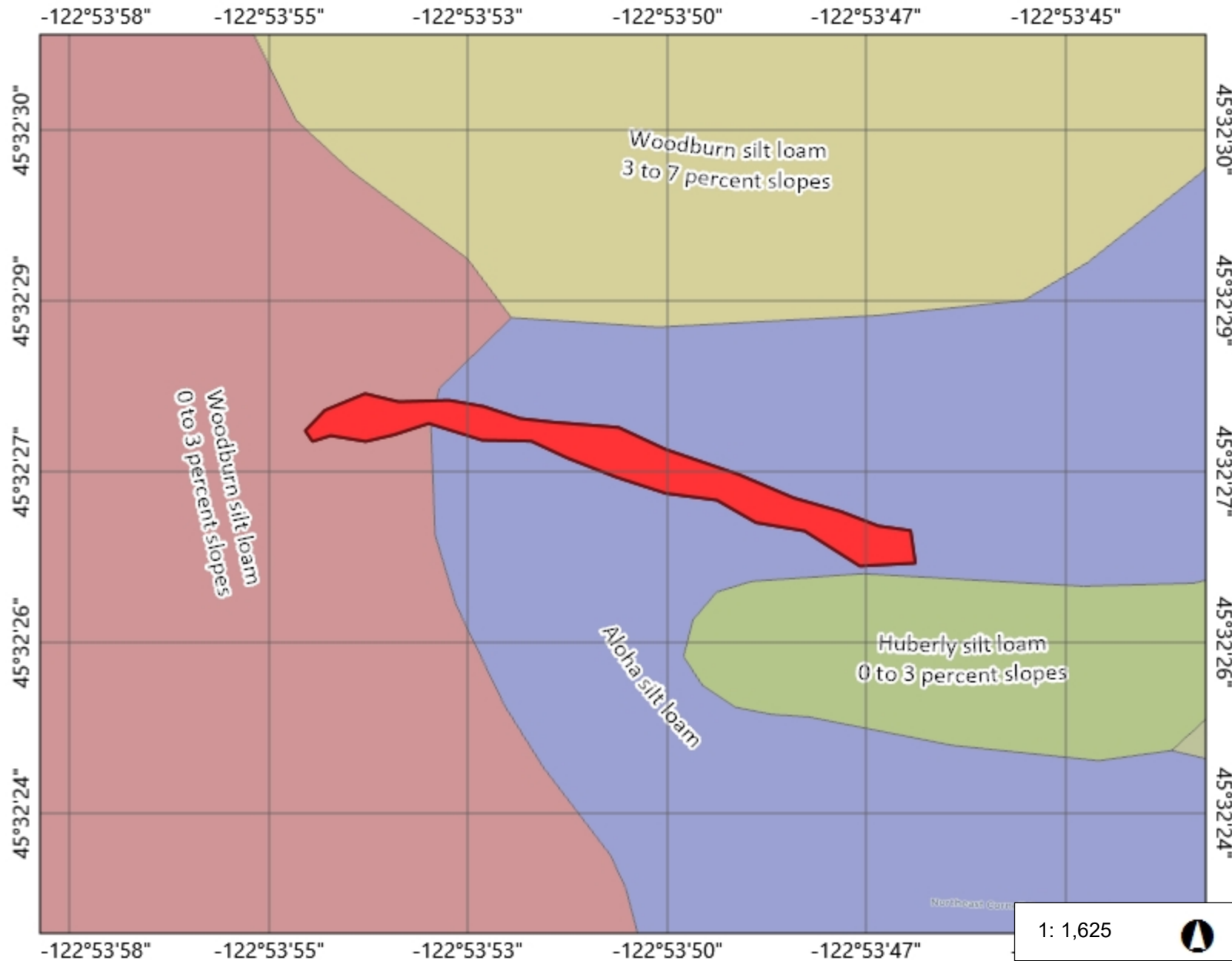
High Resolution 30cm
Imagery

Citations

60cm Resolution Metadata

Notes

Add your notes here



Legend

States & Provinces

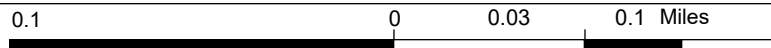
- Other States and Provinces
- Oregon

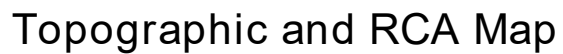
SSURGO/STATSGO Map Units

- Abegg gravelly loam, 2 to 7 percent slopes
- Abegg gravelly loam, 2 to 7 percent slopes, high precip
- Abegg gravelly loam, 2 to 7 percent slopes, low precip
- Abegg gravelly loam, 7 to 12 percent slopes
- Abegg gravelly loam, 7 to 12 percent slopes, low precip
- Abegg gravelly loam, 7 to 20 percent slopes
- Abegg gravelly loam, 12 to 20 percent slopes
- Abegg very gravelly sandy loam, 2 to 12 percent slopes
- Abegg very gravelly sandy loam, 12 to 20 percent slopes
- Abegg very gravelly sandy loam, 20 to 30 percent slopes
- Abert ashy loamy sand, 0 to 2 percent slopes
- Abin silty clay loam, 0 to 3 percent slopes
- Abiqua silty clay loam, 0 to 3 percent slopes
- Abiqua silty clay loam, 0 to 3 percent slopes, occasionally flooded
- Abiqua silty clay loam, 3 to 5 percent slopes
- Abiqua silty clay loam, high precipitation, 0 to 3 percent slopes
- Abiqua silty clay loam, high precipitation, 3 to 5 percent

Notes

Add your notes here





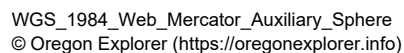
States & Provinces

- Other States and Provinces
- Oregon

Flowline - Large Scale

- Perennial
- Intermittent
- Ephemeral
- Artificial Path
- Canal Ditch
- Coastline
- Connector
- Pipeline
- Underground Conduit

Add your notes here



ORWAP and SFAM Map Viewer

Data layers that appear on this map may or may not be accurate, current, or reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Attachment F: Off-Site Alternatives Map

Off-Site Alternatives

Corny Data Center JPA

Existing Digital Realty Data Center

Existing Digital Realty Data Center

5 km radii from existing Digital Realty data centers

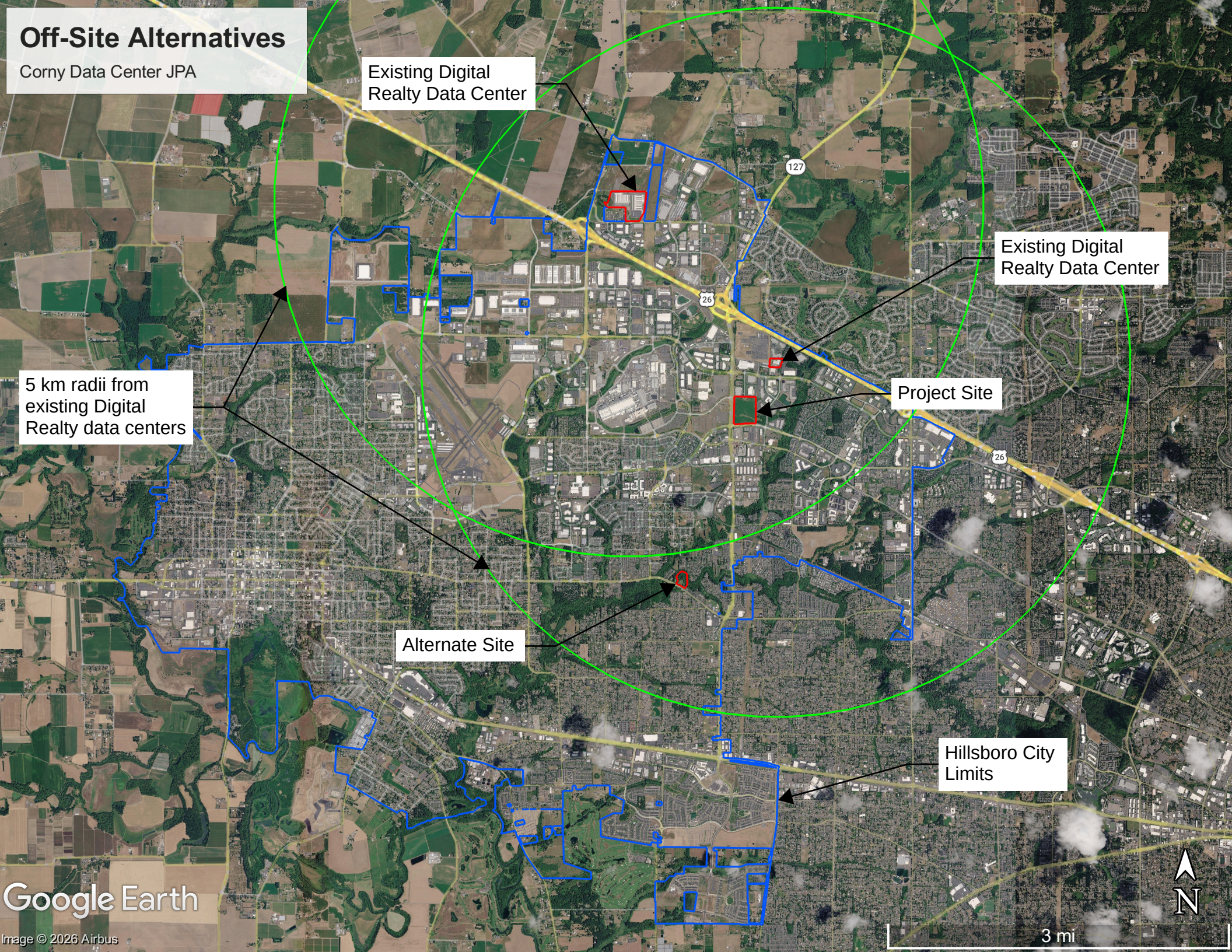
Project Site

Alternate Site

Hillsboro City Limits



3 mi



Attachment G: Draft Compensatory Mitigation Eligibility and Accounting Worksheet

Draft Compensatory Mitigation Eligibility and Accounting Determination Form
STEP 1. ELIGIBILITY

INSTRUCTIONS: This eligibility worksheet is used to determine whether a proposed compensatory mitigation site is ecologically appropriate to offset proposed impacts. Final eligibility is determined by the agency. The expectation is that compensatory mitigation sites provide an ecological match (i.e. class, function, and value) to the impact site. In some circumstances, an exception to ecological match may be allowed if the permittee demonstrates that the proposed compensatory mitigation site addresses local or watershed needs or priorities. Enter data in red boxes only. Yellow boxes will populate automatically.

Criteria	RESPONSE	RESULT	COMMENTS	
Expectation for providing ecological match for wetlands impacts	Does the mitigation site replace <u>all</u> of the following:		Aquatic Resources of Special Concern must be replaced in-kind and may not otherwise meet all criteria.	
	a) HGM class(es) and subclass(es)? ▪ <i>Select yes or no from drop-down list.</i>	Yes	MET	
	b) Cowardin system(s) and class(es)? ▪ <i>Select yes or no from drop-down list.</i>	Yes	MET	
	c) Group-level functions and values? ▪ <i>Compare ORWAP ratings between the impact site and the mitigation site (predicted scores) to determine this. Select yes or no from drop-down list.</i>	Yes	MET	This criterion does not apply when purchasing Legacy Credits, ILF credits not associated with a DSL-approved project, or PIL. Does not apply to non-tidal wetland impacts ≤0.2 acres purchasing credits.
Expectation for providing ecological match for stream impacts	WORKSHEET Does the mitigation site replace <u>all</u> of the following:		Aquatic Resources of Special Concern must be replaced in-kind and may not otherwise meet all criteria.	
	a) Flow permanence (intermittent or perennial)? ▪ <i>Select yes or no from drop-down list.</i>			
	b) Stream size class (small, medium, or large)? ▪ <i>Select yes or no from drop-down list.</i>			Stream size class as set forth by Oregon Department of Forestry in OAR 629-635-0200 Sections (13) and (14). Mitigation Planning Map Viewer
	c) Essential Indigenous Anadromous Salmonid Habitat (ESH) designation, if the impact is to an ESH stream? ▪ <i>Select yes, no, or Impact site is not ESH from the drop-down list.</i>			
	d) Group-level functions and values? ▪ <i>Compare SFAM ratings between the impact site and the mitigation site (predicted scores) to determine this. Select yes or no from drop-down list.</i>			This criterion does not apply when purchasing Legacy Credits, ILF credits not associated with a DSL approved project, or PIL
If any criterion above are not met, determine whether the mitigation site might qualify for an exception (as a watershed priority) by answering the following two questions. If all criteria above were met, skip the next two questions and move to Step 2: Accounting.			Aquatic Resources of Special Concern are not eligible for an exception and must be replaced in-kind	
Possible exception to ecological match	Does the mitigation site:			
	a) Address a watershed priority, as identified in a planning or assessment document, report, or other data? ▪ <i>Must be fully described in the permit application. Select yes or no from the drop-down list.</i>			
	b) Provide a high level of the functions and values that are relevant to the targeted priority (either currently or post-construction)? ▪ <i>Must be fully described in the permit application. Select yes or no from the drop-down list.</i>			

STEP 2. ACCOUNTING

INSTRUCTIONS: This accounting worksheet is used to estimate a permittee's wetland mitigation requirements, specific to a particular impact and proposed mitigation site. There are no minimum requirements defined for streams. Final requirements will be determined by the agency. Requirements are based on (1) the mitigation method, (2) the function/value replacement achieved, (3) function temporal loss factors, (4) level of function replacement, and (5) stewardship and site protection plans. Enter data in red boxes only. Yellow boxes will populate automatically. A separate column must be used for each mitigation method used (e.g. if a mitigation site includes both restoration and enhancement, the mitigation method for those distinct areas must be calculated in separate columns). A separate column may also be used to allow different function temporal loss factors to be applied to different acreages, even if the mitigation method being used on that acreage is the same.

Factor		Method 1	Method 2	Method 3	Notes
Mitigation method	What method(s) of mitigation is proposed? • <i>Select an option from drop-down list.</i>	Credit purchase			If purchasing credits, ILF or PIL, select "credit purchase." Minimum requirements for preservation and non-wetland waters are case-by-case, as determined by the Department.
	MINIMUM MITIGATION REQUIREMENT (acres of mitigation required per acre of impact)	1.00			

Note: Adjustments do not apply to non-tidal wetland impacts ≤0.2 acres purchasing credits as mitigation; select "Not applicable" for each factor.

Specific function and value replacement (increase factor)	How many specific functions and values from the impact site are replaced at the mitigation site? ▪ Compare ORWAP ratings between the impact site and the mitigation site (predicted scores) to determine this. Select an option from drop-down list.	≥13 matches			Select "Not applicable" if the mitigation site is approved/seeking approval as an exception to in-kind replacement under a watershed priority approach, if purchasing legacy credits, or best professional judgement was used to assess functions and values.
		+ 0%			
Function temporal loss (increase factor)	Which factor, if any, will cause the greatest temporal loss of function? WORKSHEET ▪ Select first applicable option from drop-down list.	Emergent/shrub impacted			Soil adjustment factors are not applicable to credit purchases or removal of historic fill. Vegetation and soil adjustments may not apply when the mitigation method is preservation.
		+ 20%			
High level of function replacement (decrease factor)	Does the CM site exceed at least 80% of the specific functions being lost at the impact site? ▪ Compare ORWAP function ratings between the impact site and the mitigation site (predicted scores) to determine this. Select an option from drop-down list.	Not applicable			"Exceed" means replaced beyond an overlapping rating break proximity. Select "Not applicable" if the mitigation site is approved/seeking approval as an exception to in-kind replacement under a watershed priority approach, if purchasing legacy credits, or best professional judgement was used to assess functions and values.
		- 0%			
Mitigation site protection & stewardship (decrease factor)	What level of site protection and stewardship is proposed for the mitigation site? ▪ Select an option from the drop-down list.	Enhanced stewardship			Mitigation banks and ILFs typically have enhanced stewardship. Minimum mitigation requirement is 1 acre credit to 1 acre of impact.
		- 20%			
	Total adjustment (percent increase)	0%			
	ADJUSTED MITIGATION REQUIREMENT (acres of mitigation required per acre of impact)	1.00			

	Method 1	Method 2	Method 3	Notes
Acreage of impact* (*enter the acreage associated with each method)	0.39			Insert the area of unavoidable permanent impact
MITIGATION ACREAGE REQUIRED (adjusted mitigation requirement * impacted acreage)	0.39			
TOTAL MITIGATION REQUIRED WITHOUT BUFFERS	0.39	This is the mitigation acreage required if a buffer is not required by DSL		

This section is only used if DSL requires a buffer at the compensatory mitigation project								
Factor		Method 1		Method 2		Method 3		Notes
Credit for DSL Required Buffers	Buffer acreage							Use multiple methods only if more than one ratio will be applied to the buffer.
	Buffer credit ratio							DSL will determine the credit ratio for required buffers. Enter the acres of buffer required per credit (e.g. for 10:1, enter 10).
	Buffer Credit							
	Total Buffer Credit	0						
TOTAL MITIGATION REQUIRED WITH BUFFER CREDITS APPLIED				This is the mitigation acreage required if buffers are required by DSL				

Attachment H: Incumbency Certificate

INCUMBENCY CERTIFICATE

Digital Beaver 4, LLC (entity name as recorded with the Secretary of State, Oregon)

I, Michael Durham (name of registered agent or authorized representative), do hereby certify that:

1. I am the duly elected and acting Vice President Americas Portfolio West of Digital Beaver 4, LLC, a Foreign Registered Limited Liability Partnership organized and existing in good standing under the laws of the State of Oregon (the "Entity"); and
2. I have the authority to submit, on behalf of the Entity, this application for a permit to conduct removal-fill within waters of the state (as evidenced by my signature on the application) and to commit the Entity to comply with all resulting permit conditions, including any mitigation obligations, resulting from the issuance of the permit.

 , this 11th day of September, 2026
Signature of Registered Agent or Authorized Representative