

# 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.

Date Stamp

			
<b>U.S. Army Corps of Engineers Portland District</b>	<b>Oregon Department of State Lands</b>	<b>Oregon Department of Environmental Quality</b>	
Action ID Number	Number		

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

**Corps:**  Individual  Nationwide No.: 14, 27  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) <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Contractor
Name (Required)	Ed Cope	Jason Richardson	Denise Hoffert
Business Name	Coos Watershed Association	Weyerhaeuser	Confluence Consulting, LLC
Mailing Address 1	P.O. Box 388	63459 Olive Barber Rd	842 10 <sup>th</sup> Ave SW
Mailing Address 2			
City, State, Zip	Coos Bay, OR 97420	Coos Bay, OR 97420	Albany, OR 97321
Business Phone	541-888-5922 x 305	541-267-1866	
Cell Phone			541-619-5896
Fax			
Email	ecope@cooswatershed.org	Jason.Richardson@weyerhaeuser.com	denise.confluence@peak.org

**(3) PROJECT INFORMATION**

**A. Provide the project location.**

Project Name Coos Millicoma Confluence Restoration Project		<a href="#">Latitude &amp; Longitude*</a> 43.3795, -124.1030		
Project Address / Location	City (nearest) Coos Bay		County Coos	
Township	Range	Section	Quarter / Quarter	Tax Lot
T25S	R12W	S27		5 27.95

**Brief Directions to the Site:**  
From Coos Bay, take Highway 241 East (Coos River Highway) approximately 5 miles to the project site (no street address). There is a cross street, "S & D Road" that is just to the east of the project area.

**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** South Fork Coos River	River Mile ~1	<a href="#">6<sup>th</sup> Field HUC Name</a> Coos River	<a href="#">6<sup>th</sup> Field HUC (12 digits)</a> 171003040301
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\* 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").

<b>C. Indicate the project category. (Check all that apply.)</b>		
<input type="checkbox"/> Commercial Development	<input type="checkbox"/> Industrial Development	<input type="checkbox"/> Residential Development
<input type="checkbox"/> Institutional Development	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Recreational
<input type="checkbox"/> Transportation	<input checked="" type="checkbox"/> Restoration	<input type="checkbox"/> Bridge
<input type="checkbox"/> Dredging	<input type="checkbox"/> Utility lines	<input type="checkbox"/> Survey or Sampling
<input type="checkbox"/> In- or Over-Water Structure	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Other:

**(4) PROJECT DESCRIPTION**

**A. Summarize the overall project including work in areas both in and outside of waters or wetlands.**  
 The Coos Millicoma Confluence Restoration Project proposes four restoration actions to restore tidal processes to 10.8 acres of ungrazed pasture along the north bank of the Coos River, just downstream of its confluence with the Millicoma River. The actions include: 1. Breach an existing levee (elevation 10.8-ft) and remove a 42-inch diameter, top hinged, tide gated culvert that drains to the Coos River; 2. Earthwork within the pasture to fill existing, straightline drainage ditches and re-establish meandering tidal channels and hummocks to support complex, heterogeneous habitat that will shelter juvenile salmonids; 3. Install 40 large wood structures within the newly excavated channels to provide structural complexity and capture fresh bed material; and 4. Install a new setback levee (top elevation of 12.0-ft) with a 4-ft culvert withside hinge tide gate along the eastern edge of the property to maintain flood protection to the upstream property owners, including three private residences. The project will also implement a vegetation restoration strategy that will not impact waterways.

The project fill will impact a total of 2.16 acres of wetland, of which 1.38 acres will be used to create habitat enhancement features (agricultural ditch filling, creation of habitat mounds to support Sitka Spruce Marsh, and installation of habitat logs). The remaining 0.78 acres of fill will be for the new setback levee. The project removal will impact 1.92 acres of wetland removal including: tidal channel excavation, setback levee foundation excavation, and side cast berm removal. The project also proposes to remove 0.85 acres fo the existing levee, tide gate, and culvert to the adjacent wetland elevation. This will result in a net increase in wetland area of 0.07 acres.

**B. Describe work within waters and wetlands.**  
 All proposed work is within an ungrazed, revetment protected property on the north bank of the Coos River, owned by Weyerhaeuser Company and historically used to stage log rafts. Prior to levee construction, the site was a salt water Sitka Spruce Marsh, however, due to the levee, the site is no longer tidally influenced and is transitioning to a freshwater wetland dominated by reed canary grass and non-native blackberry. The property is leveed along its southern border with the Coos River. A culvert and top hinge tide gate drain the low point in the drainage ditches that bisect the property. The current tide gate does not allow fish passage into the site except under flood conditions where river levels exceed the height of the levee.

The proposed project is designed to provide a substantial net benefit increase in wetland function over current condition that offsets impacts of the proposed project construction. The site is anticipated to be dry for the most part during the work period, although there will be some water in the existing drainage ditches. No juvenile salmonids are expected in the agricultural ditches due to warm and anoxic water quality conditions during the summer months.

**STAGING AREA & CONSTRUCTION ACCESS**  
 Site staging selection rationale: The project's staging and storage area will be located on the southwest corner of the property off Highway 241. This location was selected because the private property owner to the east of the project site will not provide permission for construction access. Vehicle access from the highway increases in elevation as you head east on Highway 241, creating an increasingly steep slope to enter the property, making access dangerous or not possible. The nearest off-site staging and storage area alternative is approximately ½ mile away on the opposite side of the highway. It is expected that the heavy equipment used for this project will not be rated for highway use, so off-site staging and storage is considered impractical.

The following best management practices (BMP's) are proposed for installation at the staging area to prevent impacts to waters and wetlands:

- Equipment will be refueled at the road side edge, near the access point and at a distance a minimum of 150' from the Coos River.
- Spill emergency equipment including containment pads and booms will be stored at the staging location.
- Temporary fill laid over geotextile separation fabric will be placed to create a stable and level storage surface in accordance with the geotechnical recommendations.
- All containers and tanks of regulated substances (including fuel, oil, lubricants, etc.) will be placed on a stable, level surface within a permanent impermeable secondary containment facility comprised of a leak proof membrane or pan capable of holding 110% of the largest container stored in the containment area. The area will be covered and kept free of standing water.
- All refueling activities will occur over a portable impermeable secondary containment comprised of a leak proof membrane or pan capable of holding any spilled fuels during refueling.
- Before the existing levee is breached, a berm will be created to isolate the staging and storage area from high tides.

### FISH SALVAGE

Once equipment has been mobilized to the staging area, the Contractor will coordinate fish salvage and dewatering activities with support from Oregon Department of Fish & Wildlife and Coos Watershed Association. The first step will be to plug the existing culvert outlet following a low tide to ensure water and fish are out of the work area before isolation. Then, a pump with fish screen will be used to drawdown water in the wetland while fisheries biologists perform fish salvage. Drawdown rates will be less than 3 cfs and will be directed by a fish biologist to prevent stranding to the maximum extent practicable while fish salvage is occurring. Fish salvage activities will occur during the coolest times of the day. The wetted channel will be swept with sein nets prior to any use of an electrofisher. If electrofishing is necessary, it will follow NOAA Fisheries 2000 guidelines. Fish handled during salvage will be placed in containers in shaded areas, the buckets will have aerators or have the water replaced every 15 minutes. Records will be kept of fish presence, handling and injury/mortality during all phases of fish relocation and submit a fish salvage report to NOAA Fisheries within 60 days.

### RESTORATION CONSTRUCTION ACTIONS

1. Excavate tidal channel network and fill existing agricultural ditches:

Once work area isolation and perimeter control measures are installed, earthwork will start with the excavation of internal channels and installation of large wood. Three tidal channel types will be constructed (trunk, pilot and secondary). Excavated materials from creation of the tidal channels will be used to fill existing agricultural ditches and build hummocks. The tidal channel excavation will be balanced by an equal amount of agricultural ditch filling and creation of hummocks within the project area. These new tidal channels will provide improved habitat for fish that has not been present since the site was originally bermed and drained.

Large wood structures will be placed in the newly excavated tidal channel network. A total of 40 Douglas-fir or hemlock logs 25-ft to 30-ft long, 18-in to 24-in diameter with intact rootwads, will be installed. The logs will be driven into the channel bank a minimum of 10-ft with the rootwad extending into the channel and embedded. The intent is that the rootwad is not perched above the channel, but that the roots are in contact with the channel bed.

Soil disturbed by these activities will be seeded with locally collected, native herbaceous species and mulched following construction.

2. New levee construction and old levee removal:

Following construction of the interior channel network, a temporary haul road will then be constructed around the perimeter of the newly built tidal channels and hummocks for construction of the new levee and removal

of the existing levee. Silt fence will be installed along the tidal channel side of the road for erosion control. Construction of the new levee and removal of the old levee will be conducted in a coordinated and phased approach. Removal of the old levee and construction of the new levee will happen simultaneously. Vegetation on the levee will be removed and placed in storage piles prior to berm excavation, to be used in mulching on exposed soils following completion of the berm reconstruction. Groundwater monitoring wells will be installed per the geotechnical report recommendations for levee construction. The footprint of the new levee will be cleared and grubbed. A key trench will be excavated for the footprint of the new levee.

Based on a review of peak tide elevations at the Charleston river gauge for the past 10 years, maximum Coos River stage expected during construction is approximately 9-ft (NAVD 88). The existing levee will be lowered from its existing elevation of 10.8-ft down to an elevation of 9-ft without resulting in any overtopping during construction. The new levee will be built to an elevation of 9-ft. Once the new levee is built to a height of 9-ft, the old tide gate and culvert will be removed. Additional temporary isolation berms will be built around the staging and storage area to a level of 9-ft before the existing levee is lowered below this elevation.

When removing the levee, the excavator will pull material toward the center of the project area, away from the Coos River and prevent materials from sloughing into the River. Work will be conducted during low incoming tidal conditions to maintain dry work area conditions to the extent possible. Working during low tide prevents sediments from moving off-site and downstream as streamflow is static or upward. Excavation will be ceased if not completed as the tide moves in following low ebb until the next low tide cycle.

Following removal of the levee and leveling of the newly exposed channel bank, the project will remove the existing minimally functioning tide gated culvert. This work will be completed on the low incoming tide to provide conditions where the work area is dewatered to the extent possible. Excavation will be initiated as the tide is falling. Work will proceed from the inner portion of the levee outward toward the Coos River with removal of the final several feet of the levee and full removal of the culvert at low incoming tide. An excavator will be used to work from top of bank to remove the culvert and tide gate. Fill will be removed along the outside edges of the culvert until the pipe is fully exposed and little if any soil will enter water when it is pulled. The culvert and tide gate will be hauled off site and disposed of at an appropriate upland storage site or recycled.

4. A new setback levee, culvert and tide gate will be constructed on the eastern edge of the property 20 feet off the eastern property boundary line to avoid impacting the neighboring drainage ditch.

Topographic survey data shows that the lowest elevation of the levee on Weyerhaeuser property is ~10.8 feet (NAVD 88). Given the likelihood of some settlement following construction of the new levee, the design sets the top elevation of the new levee to 12.0 feet (NAVD 88) assuming up to 1 foot of settlement. The geometry of the new levee will be 3H:1V side slopes with a 10-foot-wide maintenance access road on top of the levee. The river facing side of the levee will be armored with riprap from 2 feet below finished grade up to an elevation of 10 feet.

The new levee will be oriented perpendicular to the Coos River.

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

All proposed construction will occur during the driest months of the year and with the Oregon Department of Fish & Wildlife approved in-water work window (July 1 - Sept 15) to minimize impacts to soils and prevent soil compaction to the extent possible. The project will implement an Erosion and Sediment Control Plan to minimize erosion and prevent sediment entry into surface waters. Provisions of the ESCP include:

- The operator will maintain equipment in a leak proof condition. If there is evidence of any leakage, the operator will suspend the further use of such equipment until the deficiency has been corrected.
- Before entering the project site, all petroleum based hydraulic fluids will be replaced with biodegradable products.
- Before entering the project site, all equipment will be power washed to ensure no plants, soil or other organic material is adhering to any surface.
- Operators will take immediate and appropriate action to stop and contain leaks or spills. An oil spill response kit will be on-site and ready for deployment.
- Erosion control measures will be installed before vegetation or soils are disturbed and will be in place, maintained and repaired for the duration of the project. The contractor will maintain on-site spill containment measures with specific cleanup and disposal instructions for all products used on-site.
- Before any heavy equipment accesses the site and prior to any ground disturbance, the site will be clearly staked/flagged to identify: equipment entry and exit locations, staging, storage and stockpile areas. A site layout survey will be conducted to identify all areas that will be filled or excavated. Stakes will be clearly labeled with offsets and cuts/fills to delineate the desired final elevations.
- A staging area will be established to store fuel, service construction equipment and house the site's sanitation area with a port-a-pottie and hand-washing/sanitizing station. This staging area will be a minimum of 150' from the Coos River. It may be necessary to establish a stockpile area for excavated material to be re-used in building the new levee. Depending on the contractor's equipment availability and staffing, the levee material can be excavated, hauled and placed or may be excavated, hauled and stored, then placed. It is anticipated that all of the excavated material, both from excavation of the levee and the tidal channels will be re-used on the project site to either build the new levee or fill the existing agricultural ditches and no material will be hauled off-site
- Sediment will be prevented from tracking onto public roads by installing, as needed temporary gravel access and parking areas. If needed, soils will be temporarily stabilized at the end of a shift before holidays and weekends. The construction contractor is responsible for ensuring that soils are stable during rain events at all times of the year. At the end of each work day, soil stockpiles must be stabilized or covered or other BMPs must be implemented to prevent discharges to surface waters or conveyance systems leading to surface waters. If sediment fence is used, the contractor will remove trapped sediment before it reaches one-third of the above ground fence height and before fence removal. Within 24 hours, significant sediment that has left the site must be remediated, along with an inspection to determine the cause of the sediment release and a plan for how to prevent a recurrence. Released sediments will be cleaned up using dry sweeping or vacuuming.
- If construction actions cease for 30 days or more, the entire site will be temporarily stabilized using vegetation, a heavy mulch layer or temporary seeding.

#### **(4) PROJECT DESCRIPTION (continued)**

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

Fill materials will be generated on-site from two activities: 1. Excavation of the existing levee and 2. Within the pasture to excavate the fill from the historic channel network. Fill from the existing levee will be used to the maximum extent on-site to construct the new setback levee. Imported levee materials will be needed to supplement the on-site materials including the rock slope protection on the face of the levee. These

materials will be sourced from nearby quarries. Material excavated from the pasture will be used to build hummocks that will be planted with sitka spruce.

Large wood will be imported to the site to construct the 40 large wood structures. The logs will be either Douglas-fir or hemlock with rootwad. Each structure will include one log, 25-30' long and 18"-24" in diameter.

**E. Construction timeline.**

What is the estimated project start date? July 1, 2022

What is the estimated project completion date? September 15, 2022

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

**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.)		
See attached table F.							

**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			
Total Removal Below Ordinary High Water			
Total Removal Below <a href="#">Highest Measured Tide</a>			
Total Removal Below <a href="#">High Tide Line</a>			
Total Removal Below <a href="#">Mean High Water Tidal Elevation</a>			

**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.)		

<b>(4) PROJECT DESCRIPTION (CONTINUED)</b>				
<b>I. Total Fill Volumes and Dimensions</b>				
<b>Total Fill to Wetlands and Other Waters</b>		<b>Length (ft.)</b>	<b>Area (sq. ft or ac.)</b>	<b>Volume (c.y.)</b>
<b>Total Fill to Wetlands</b>				
<b>Total Fill Below Ordinary High Water</b>				
<b>Total Fill Below <u>Highest Measured Tide</u></b>				
<b>Total Fill Below <u>High Tide Line</u></b>				
<b>Total Fill Below <u>Mean High Water Tidal Elevation</u></b>				
<p>*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.</p>				
<b>(5) PROJECT PURPOSE AND NEED</b>				
<p><b>Provide a statement of the purpose and need for the overall project.</b>  In Fall 2016, the project site's existing levee and culvert failed during a flood event. Property owner Weyerhaeuser performed emergency repairs (permitted by U.S. Army Corps of Engineers, COE NWP-2016-518, Emergency Dike and Culvert Repair) to prevent flooding on the adjoining neighbors' agricultural land and residences. A condition of this emergency repair was that the permittee was required to develop designs for a permanent tide gate that meets federal and state fish passage guidelines. Weyerhaeuser no longer has any use for the property and contracted Coos Watershed Association in 2018 to develop a site plan with a goal to restore the site to a natural tidal condition. While installation of a new, properly-sized tide gate would suffice for permitting purposes and would maintain existing conditions, the Coos Watershed Association recognized the potential ecological uplift that could be achieved at this site by removing the existing top hinged tide gate, setting back the levee, installing a new side hinged tide gate in the set-back levee and re-establishing the site's hydrologic and vegetative complexity. The proposed project design allows for full tidal influence over the 10.81 acre property and creates complex habitat features that are currently lacking at the site and within the Coos River Basin. Aging flood control infrastructure, often designed without consideration for the stream's ecological integrity, is limiting the resilience of the Coos River Basin by reducing fish access to off-channel habitat and lowland floodplains. Under current conditions, water quality and hydraulic function also suffer, which further diminishes the capacity for these waterways to support resilient, healthy ecosystems.</p> <p>Several state and federal planning documents describe the need for this type of restoration action including NOAA's Recovery Plan for Oregon Coast Coho that states that restoring watershed and estuarine processes to increase rearing habitat quality is vital to recovering coho populations. In addition, ODFW's Oregon Coast Coho Conservation Plan recommends focusing restoration efforts on lowland areas on private lands to restore coho overwintering habitat. This proposed project fulfills both of these stated needs.</p>				
<b>(6) DESCRIPTION OF RESOURCES IN PROJECT AREA</b>				
<p><b>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.</b></p>				

The project site lies northwest of the confluence of the Millicoma River and the south fork of the Coos River. It is bounded on the north by Highway 241 and on the south by the Coos River. Based on the project's archaeology report, the project area was likely a tidal mudflat prior to Euroamerican development of the lower Coos River valley. The soil type mapped for the project area is Coquille silt loam, which consists of very deep, very poorly drained soils that formed within mixed alluvium along tidal influenced floodplains. The underlying geologic units within the project area are classified as marsh deposits and Siletz River Volcanics. Marsh deposits are comprised of horizontally bedded sand, silt and clay rich in organic material that was deposited during the Holocene. Sediments are comprised of brown silty clays and grey clays. The upper 10 cm of the soil profile reveals a heavy organic component with matted grass roots forming a sod cap. The water table varies from the surface in portions of the western half the property and to 60 cm below the surface in portions of the eastern inventory area (pg 4, "Class III Cultural Resources Inventory, Millicoma Confluence Wetland Restoration Project", Logan Simpson Technical Report: 185698).

**Wetlands:** The Millicoma project site is a freshwater wetland now, but historically, would have been tidally influenced. A wetland delineation was not completed for the project area. The attached map, created using the US Fish & Wildlife Service National Wetlands Inventory wetlands mapper, shows the site is predominantly classified as: PEM1Ah. This indicates the system is Palustrine (P), Class Emergent (EM), Subclass Persistent (1) with a Water Regime Temporary Flooded (A), indicating that surface water is present for brief periods during the growing season, but the water table usually lies well below the ground surface for most of the season. The Special Modifier (h) is used for this site because the site conditions are the result of being diked and modified by a human made barrier that restricts the inflow and outflow of water.

The 1.33 acre southeast corner of the site is classified as PSSAh. This indicates the system is Palustrine (P), Class Scrub-Shrub (SS), with a Water Regime Temporary Flooded (A), indicating surface water is present for brief periods during the growing season, but the water table usually lies well below the ground surface for most of the season. The Special Modifier (h) is used for this site because site conditions are the result of being diked and modified by a human made barrier that obstructs the inflow and outflow of water. Alterations to the natural conditions at the site include the levee, shallow drainage ditches and the Coos River Highway Road prism. The site elevations are between 5 and 7 feet above mean seal level within the broad floodplain which encompasses the project area. The existing agricultural ditches are 2 to 3 feet lower than the adjacent pastureland, with elevations of 3 to 4 feet above mean sea level. The top of the levee varies from about 9 to 11 feet above mean sea level in elevation. Along the northwest side of the site, the ground slopes up steeply above the flat floodplain for several feet up to Highway 241, which follows the adjacent hillslope, about 10 feet above the floodplain.

**Hydrology:** The site's wetland hydrology is currently controlled by a levee and top hinge tide gate that excludes the entire property from tidal inundation except under flood conditions that overtop the levee. Natural channels within the property have been filled, moved or straightened to provide site drainage and support pasture development. In addition, uneven terrain has been smoothed and flattened out. The result of this historic diking and land elevation manipulation is a system with a high degree of disconnectivity in the project area as documented on the landscape and visible from LiDAR elevation information. As a result, accessibility for anadromous and resident fish is limited and there is potential for stranding following flood events. Function of the wetland has been substantially altered due to a lack of nutrient flow and lack of full tidal influence and a functional channel network. Historically, the tidal inflow/outflow would have reached the landscape more effectively and plants adapted to the wetting conditions and periods of low water conditions would have dominated the site and contributed to aquatic production. The existing culvert provides drainage from the 17 acre watershed to the Coos River, the major downstream waterbody.

There is drainage ditch that drains the ~7acres of land to the east of the project area that will drain through the new culvert/tidegate to be installed in the new setback levee.



Aquatic Resources of Special Concern: There are no Aquatic Resources of Special Concern (ARSC) in the project area or that will be impacted by the project.

Dominant Plant Species: Currently, the 10.83 acre site is an abandoned log staging area, dominated by a near monoculture of *Phalaris arundinacea* (reed canary grass). Other invasive species have become subdominant, including *Rubus armeniacus* (Himalayan blackberry) and *Digitalis purpurea* (common foxglove). There are also some invasive species, such *Rubus laciniatus* (cutleaf blackberry) and *Hedera helix* (English ivy), which are present in small quantities but have the potential to expand as site conditions evolve. Small populations of a few native plants persist, including *Deschampsia cespitosa* (tufted hairgrass) and *Baccharis pilularis* (coyote brush), though they do not represent a significant proportion of the vegetative cover. On the high road bank bounding the northern end of the property, there are a few mature trees and shrubs, principally *Umbellularia californica* (Oregon myrtle) and *Salix* spp. (willow).

OHW: Ordinary High Water was not determined for the Coos River. Inundation of the site is linked to flows that are above OHW as the project area is behind a levee and is entirely within the Coos River 100-yr floodplain.

Structurally, the site could presently be described as a grassland, though it is transitioning to brush along the fringes of the property. This is especially true along the top of the existing levee. There are a handful of wet depressions and shallow ditches that support emergent aquatic species, but overall the structure of the vegetative community is very homogeneous. The soils are poorly drained silt loams derived from alluvium. They are very uniform across the site, with no major variation in composition, elevation or slope.

Fish Use: Per personal communication with Chris Claire, ODFW (January, 2021): "There will be at least some native fish and wildlife present; e.g. sticklebacks, newts, lamprey ammocoetes, northwestern salamanders. Depending on the inflow (or lack thereof) of groundwater into the channels, there also may be juvenile coho present. This will be dependent on the temperature regimes and if waters are sufficiently cool for summer rearing."

The project is adjacent to and connects to Critical Habitat for Oregon Coast ESA threatened coho salmon in the south fork Coos River. These floodplain habitats are considered vital wintertime rearing habitat for anadromous fish, particularly in the tidal zone. Historically, the Coos Rier floodplain supported a heterogeneous complex of different types of habitat. Of particular importance among these was Sitka Spruce Swamp, which dominated estuarine river terraces just above the daily reach of tide. These spruce swamps, characterized by complex channels flowing between maze-like hummocks, provided ideal winter rearing habitat for anadromous fish. As juvenile salmonids are pushed downstream during high winter flows, they seek refugia off the main tiver channel in these tidal wetlands. In the absence of this refugia, now they are simply swept out to sea before they have the opportunity to mature.

Wildlife Use: No wildlife surveys have been conducted for the site. The Oregon's South Coast, including Millicoma Marsh, located approximately 2 miles from the project site, is known as a flyway for migratory birds. No bird surveys were completed for this property.

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

The property does not support navigation, fishing or recreation. It is currently unmanaged vegetation, privately owned by a timber company, with no recreation opportunities.

## **(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.\***

The design process has been in development since 2018. This project has been reviewed multiple times by a Technical Advisory Team assembled by the Coos Watershed Association. This team is comprised of scientists, consultants and management practitioners. For the Millicoma Confluence Restoration Project, this team worked collaboratively with design engineering firm Waterways Consulting to create a sound basis of design.

Project purpose: Restore tidal function to 10.83 acres of estuarine habitat for migrating anadromous fish, including ESA listed coho salmon and implement a sitka spruce swamp revegetation strategy.

Project specific criteria needed to accomplish the project purpose:

- Maintain current flood protection to adjacent landowners that is provided by the existing levee.
- Create high quality off-channel aquatic habitat that is, at a minimum partially inundated year-round.
- Create topographic variability in the floodplain surrounding the channels to support development of a Sitka Spruce tidal wetland.
- Improve water quality by establishing native vegetation that will supply shade and provide the potential for future wood recruitment.

### **TIDAL CHANNEL NETWORK DESIGN APPROACH**

The design approach for the proposed tidal channel network is to try to mimic the characteristics of naturally formed tidal floodplain channels as much as possible. Removing the existing levee and tide gate will restore tidal flow to the site, but without any additional work, the newly introduced flow would mostly be confined to the existing drainage ditches with little habitat value. To improve the ecological value of the restored habitat, the project proposes filling the existing agricultural ditches and excavating an initial tidal channel network that will provide high quality off-channel habitat for salmonids.

The project consultant completed a geomorphic evaluation to develop the tidal channel design criteria consisting of: topographic analysis of the site conditions to guide the development of the planform channel network and examining the channel characteristics for two reference sites. The location of the proposed tidal channel network inlet is based on current topography and interpreted past geomorphology. Before land disturbance, the tidal channel network draining the site probably emptied into the Coos River near the site of the current tide gate and culvert. This location, on the outside bend of the Coos River, reduces the chances of sediment clogging the inlet. To follow natural drainage patterns and reduce future sedimentation

\* Not required by the Corps for a complete application, but is necessary for individual permits before a permit decision can be rendered.

problems, the outlet of the proposed tidal channel network was chosen to be at the location of the current tide gate. The lowermost section of the tidal channel network will use parts of the current ditches, reducing the amount of soil disturbance.

Close inspection of high-resolution topographic data (LiDAR) shows subtle curved features no more than one foot in elevation on the floodplain surface (refer to Figure 2 in the project's Design Report). From their shape, size and orientation, these are interpreted to be remnants of filled channels, possibly preserved because of differential compaction of the soils. The proposed tidal channel network design aims to reoccupy these historic channel features.

A 2D hydraulic model of the proposed design conditions using USACE HEC-RAS was used to understand typical inundation patterns and frequencies through the channel network to confirm they meet the design expectations. (Refer to the project's Design Report for additional details on the model set-up and modeling results.) The model results indicate that during the lowest water depth modeled, the tidal channel network is mostly dry. At tidal elevation 2 feet (exceeded about 80% of the time,) the model shows about 1 foot of water in the primary and secondary channels. At tidal elevation of 6 feet (exceeded about 20% of the time), most of the floodplain is wet. The model predicts that water velocities rarely exceed 2 feet per second anywhere in the proposed project area. The highest water velocities are expected during outgoing tides in the channel that drains the culvert, when water levels are low in the Coos River, but the neighboring, upslope property continues to drain. However, these velocities are less than 1.75 feet per second.

#### SET BACK LEVEE DESIGN APPROACH

Multiple channel configurations were considered, as were several possible ways to position the new dike including:

1. One possible design option was to leave the existing levee and agricultural channels in their current condition and simply replace the failing tide gate. We did not believe that this would provide a satisfactory degree of ecological uplift, and decided against pursuing this option.
2. Next, we considered whether to leave the levee in place but to excavate habitat channels in the property's interior. Though this would increase the heterogeneity of the available habitat, we came to the conclusion that full tidal influence would be necessary to create beneficial habitat.
3. We then examined whether a levee setback could be built without excavating new channels. While the tide would eventually sculpt new channels on its own, that process could take decades, and also would deprive us of the opportunity to strategically place channels in a configuration that minimizes their erosive potential.
4. The conclusion was reached that in order to meet the project's core goals, we must couple a levee setback with creation of new channels. The current design was chosen to ensure adequate drainage of the property and minimize sediment transport and erosion potential around the new levee and highway embankment. The precise details of levee construction were evaluated to ensure that the new levee would be able to withstand erosional forces and be resistant to settling over time. Different sizes and orientations of the new culvert and tidegate were modeled to ensure that adequate flow and fish passage were possible. A 3-foot culvert would be compliant with state and federal fish passage requirements, but we wanted to ensure that water would not back up behind the levee and flood neighboring properties. We had to balance this against the fact that there would not always be adequate head pressure to open a large tide gate during normal flow periods. Installation of a new 4-foot culvert and side hinge mounted tide gate achieves the goals for the site.

The new 4-foot diameter culvert and side hinge tide gate will replace the existing 42-inch culvert with a top hinge culvert. This represents a 30% increase in theoretical pipe capacity. Results of the 2-D hydraulic model show that during a levee overtopping flood event on the neighboring property, the proposed culvert drains the adjacent properties within a single tidal cycle with peak outgoing flow rates of 26 cubic feet per second. Stormwater modeling for the adjacent properties assumed the 25-year, 24 hour storm event as the design event. This equates to 6 inches of rainfall in 24 hours. The model shows this would result in flows 2.5 feet deep in the culvert with a velocity of 9.4 feet per second.

Many different vegetation restoration planting plans were also considered. Options include: no action, partial restoration and full restoration. We concluded that "no action" would result in the site being overtaken by invasive species, much as it currently is. This provides little benefit to wildlife, and limits the site capacity to provide shade to the newly constructed interior channels network on the property. A "partial restoration" action would have involve planting some trees and shrubs, but would ignore the herbaceous layer. This is a fitting option for some restoration projects, but given the regional rarity of Sitka Spruce Swamp habitat, and that this project site supports ideal conditions to recreate it, we chose to take advantage of this valuable opportunity and conduct a "full restoration". This includes an herbicide regime for site preparation, planting mature trees and shrubs, and the distribution of a diverse seed mix to establish the herbaceous layer. This additional effort will create habitat components that are significantly more attractive to a variety of wildlife species. Due to high costs and low availability of desired species we have opted to conduct local seed collections with a small crew to obtain the seeds necessary to establish the herbaceous layer.

**(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
NOAA Restoration Center	Megan Hilgart	503-231-6848	11/17/2020
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	
SHPO	Section 106 Cultural Resources Survey	All will be submitted in May, 2022.	
SHPO	Section 106 NRHP Evaluation		
DEQ	401 Water Quality Certification		
ODFW	Fish Passage Approval		
Coos County	County Floodplain Permit		
DSL	Joint Removal/Fill Permit		
Other DSL and/or Corps Actions Associated with this Site (Check all that apply.)			
<input type="checkbox"/> 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.			
<input type="checkbox"/> State owned waterway	DSL Waterway Lease #:		
<input checked="" type="checkbox"/> Other Corps or DSL Permits	Corps # NWP-2016-518	DSL #	
<input type="checkbox"/> Violation for Unauthorized Activity	Corps #	DSL #	
<input type="checkbox"/> Wetland and Waters Delineation	Corps #	DSL #	
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			
<b>(9) IMPACTS, RESTORATION/REHABILITATION, AND COMPENSATORY MITIGATION</b>			
<b>A. Describe unavoidable environmental impacts that are likely to result from the proposed project. Include permanent, temporary, direct, and indirect impacts.</b>			
All work will be conducted within the ODFW/NOAA In-Water Work Window of July 1 to September 15th. This period is also when the project site will have the driest soils due to summer temperatures, decreased precipitation, lower tides and construction impacts will be reduced due to increased firmness of soils. All project actions were designed with intent to meet SLOPES V Restoration criteria.			
Permanent impacts:			
1. The existing levee, culvert and tide gate will be removed. This will allow for restored tidal connectivity and seasonal flooding to occur on 10.83 acres of previously diked floodplain.			
2. The existing agricultural drainage network will be filled and a more complex system of channels will be excavated that closely mimics the historic drainage pattern.			
3. Once the project is constructed, the inundation of salt water on the site will exclude most invasive plant species from the majority of the site, permanently altering the vegetation composition.			
4. The project's revegetation plan will change the current plant composition at the site from primarily pasture grass and non-native species to a Sitka spruce swamp.			
5. The new levee, installed on the eastern edge of the property will provide flood protection that is currently provided by the levee proposed for removal. Moving this levee more proximately to the flood protected landowners has no impact on their flood risk.			
Temporary impacts:			
1. Some soil disturbance is expected during project construction activities from equipment travel across the soft ground. This soil disturbance is not anticipated to significantly impact water quality because there is no source of perennial flow in the project construction zone to create flow pathways for transporting soil into a waterway.			

2. Rock and soil excavated from the levee and within the pasture may be stockpiled on-site during construction prior to being placed in permanent locations. These materials will be stockpiled away from waterways and will have erosion controls measures (such as straw wattles) placed to prevent any surface water erosion.

Indirect impacts:

1. The site's drainage pattern will be altered and the tidal channel network will allow for more water to be retained and stored in the soils at the site.
2. There will be seasonal flooding occurring on the 10.83 acre project site after the existing levee is set back.

**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.**

The proposed project does not include any temporary removal actions, only permanent removal of levee materials and soils excavated for the tidal channels and permanent fill by placing of those materials on-site in new locations.

The project will temporarily stockpile fill while excavated the levee and side channels. This will not impact any existing waterways or native vegetation. The on-site waterways are agricultural ditches that will be filled during the project construction. Project construction will not impact any native vegetation. The project site is currently dominated by non-native and invasive plant species.

Following construction activities, the site will have two years of invasives control and site preparation including mowing and carefully timed herbicide application (Fall 2022/2023). It is anticipated that the introduction of salt water to the site following levee removal will exclude most invasive species from the property's acreage. Invasive control will be focused on *Phalaris arundinacea* (reed canary grass) and *Rubus armeniacus* (Himalayan blackberry). Control of *P. arundinacea* will require a broadcast application of herbicide, given its density and rhizomatous habitat. This method should give the project a blank slate to work with for the initial planting. Equipment access in some parts of the property may be limited once tidal influence is restored, so all treatments will be conducted with a backpack sprayer.

The project has a robust revegetation strategy that proposes to plant trees and shrubs and establish an herbaceous layer by re-seeding the site with locally collected native wetland seed. The vegetation plan will plant 275 stems/acre on 6.6 acres of the site and a locally collected seed mix will be planted on 6.6 acres of the site at a density of 2 lbs/acre. The vegetation community to be restored is Sitka Spruce Swamp. Plants to be installed include: *Picea sitchensis* (Sitka spruce), *Cornus sericea* (red-osier dogwood), *Salix sitchensis* (Sitka willow), *Lysichiton americanus* (western skunk cabbage) and *Carex obnupta* (slough sedge). All plants and seeds will be installed in November 2022. The site will be maintained and monitored for five years following planting. If any of the following metrics fall below the desired success rate, the Coos Watershed Association and property owner, Weyerhaeuser Company, will work to design and implement a supplemental planting plan. Site metrics that will be evaluated include: invasive plants cover exceeds 20 percent, native vegetation cover is less than 60 percent and native plant survival is lower than 65 percent.

**Compensatory Mitigation**

**C. Proposed mitigation approach. Check all that apply:**

- |  |   |   |   |
|--|---|---|---|
| <input type="checkbox"/> Permittee-responsible Onsite Mitigation | <input type="checkbox"/> Permittee-responsible Offsite mitigation | <input type="checkbox"/> Mitigation Bank or In-Lieu Fee Program | <input type="checkbox"/> Payment to Provide (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 proposed project is being undertaken as a salmon habitat restoration project and mitigation should not be required. Positioned at the confluence of two salmon producing streams, the South Fork Coos River and Millicoma River, this site has high potential to provide off-channel refugia for juvenile salmonids, including the federally threatened Oregon Coast coho salmon. These floodplain habitats are considered vital winter rearing habitat for anadromous fish, particularly within the tidal zone. However, as managed in its current state, the site is entirely excluded from tidal influence by a levee and failing tide gate. The drastic changes to the site's hydrologic regime have significantly contributed to the loss of ecological potential. When the levee and its associated tide gate were constructed, all tidal influx to the site ceased.

Additionally, the existing agricultural drainage ditches are straighter and deeper than the meandering tidal channels that were historically present. The proposed project will remove the existing levee and tide gate, allowing full tidal access to 10.83 acres, while protecting neighboring properties by construction a new setback levee and tide gate on the property's eastern edge. The project also proposes to construct a network of channels and hummocks that mimic historic conditions to support complex, heterogeneous habitat that will shelter juvenile salmonids. The lack of off-channel refugia is recognized as one of the most significant impediments to salmon recovery in the Coos River watershed. This project's channel and hummock structure will provide conditions to recreate the critically imperiled "Sitka Spruce Swamp" habitat. Though once common, these tideland forests have all but disappeared from the region. The temporary construction impacts are far outweighed by the permanent, long-term project's benefits.

**Mitigation Bank / In-Lieu Fee Information:**

Name of mitigation bank or in-lieu fee project:

Type and amount of credits to be purchased:

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**

<input type="checkbox"/> Pre-printed mailing labels of adjacent property owners attached separately (if more than 30).	<b>Project Site Adjacent Property Owners</b>	<b>Mitigation Site Adjacent Property Owners</b>
<b>Contact Name</b> <b>Address 1</b> <b>Address 2</b> <b>City, ST ZIP Code</b>	W.J. & Dorren Wright, Trustees 96639 Hwy 241 Coos Bay, OR 97420	
<b>Contact Name</b> <b>Address 1</b> <b>Address 2</b> <b>City, ST ZIP Code</b>	Justin Partney 64526 S & D Rd. Coos Bay, OR 97420	
<b>Contact Name</b> <b>Address 1</b> <b>Address 2</b> <b>City, ST ZIP Code</b>	George & Alicia Smith Trust 96422 Coos River Ln. Coos Bay, OR 97420	



**(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 approvals required above.

Local planning official name (print)	Title	City / County
Signature		Date
Comments:		

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

Print Name	Title
Haley Lutz	Executive Director
Signature	Date
	5/5/22

**Authorized Agent Signature**

Print Name	Title
Signature	Date

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

Print Name	Title
JASON RICHARDSON	REGION ENGINEER
Signature	Date
	3/24/2021

**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:

**For U.S. Army Corps of Engineers send application to:**

USACE Portland District  
ATTN: CENWP-ODG-P  
PO Box 2946  
Portland, OR 97208-2946  
Phone: 503-808-4373  
[portlandpermits@usace.army.mil](mailto:portlandpermits@usace.army.mil)

**Counties:**

Baker, Benton, Clackamas, Clatsop, Columbia, Gilliam, Grant, Hood River, Jefferson, Lincoln, Linn, Malheur, Marion, Morrow, Multnomah, Polk, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco, Washington, Wheeler, Yamhill

U.S. Army Corps of Engineers  
ATTN: CENWP-ODG-E  
211 E. 7<sup>th</sup> AVE, Suite 105  
Eugene, OR 97401-2722  
Phone: 541-465-6868  
[portlandpermits@usace.army.mil](mailto:portlandpermits@usace.army.mil)

**Counties:**

Coos, Crook, Curry, Deschutes, Douglas, Jackson, Josephine, Harney, Klamath, Lake, Lane

**For Department of State Lands send application to:**

**West of the Cascades:**  
Department of State Lands  
775 Summer Street NE, Suite 100  
Salem, OR 97301-1279  
Phone: 503-986-5200

**East of the Cascades:**  
Department of State Lands  
1645 NE Forbes Road, Suite 112  
Bend, Oregon 97701  
Phone: 541-388-6112

**For Department of Environmental Quality e-mail application to:**

ATTN: DEQ 401 Certification Program  
Water Quality  
700 NE Multnomah St, Suite 600  
Portland, OR 97232  
[401applications@deq.state.or.us](mailto:401applications@deq.state.or.us)