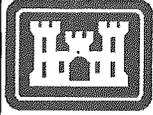


Joint Permit Application

AUG 29 2016

This is a joint application, and must be sent to both agencies, who administer separate permit programs. Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.

RECEIVED

	U.S. Army Corps of Engineers Portland District <i>NWP-2016-453</i>		Oregon Department of State Lands
Corps Action ID Number		DSL Number	

(1) APPLICANT AND LANDOWNER CONTACT INFORMATION

	Applicant	Property Owner (if different)	Authorized Agent (if applicable) <input type="checkbox"/> Consultant <input type="checkbox"/> Contractor
Contact Name	Levi Kilcher		Integral Consulting Inc. and H. T. Harvey & Associates
Business Name	National Renewable Energy Laboratory		
Mailing Address 1	15013 Denver W Pkwy		
Mailing Address 2			
City, State, Zip	Golden, CO 80401		
Business Phone	303-384-7192		
Cell Phone			
Fax			
Email	levi.kilcher@nrel.gov		

(2) PROJECT INFORMATION

A. Provide the project location.

Project Name	Tax Lot #	Latitude & Longitude*	
High Fidelity Wave Resource Characterization, Model Validation and Establishment of Wave Classification Scheme – making wave measurements in Oregon		43.587, -124.290 "site A" 43.760, -124.224 "site B"	
Project Address / Location	City (nearest)	County	
	Lakeside, Reedsport	Coos, Douglas	
Township	Range	Section	Quarter/Quarter

Brief Directions to the Site
Two to three nautical miles offshore of Lakeside and Reedsport, Oregon.

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**	River Mile	6 th Field HUC Name	6 th Field HUC (12 digits)
Pacific Ocean			

C. Indicate the project category. (Check all that apply.)

Commercial Development Industrial Development Residential Development
 Institutional Development Agricultural Recreational

(2) PROJECT INFORMATION

- | | | |
|--|--|--|
| <input type="checkbox"/> Transportation | <input type="checkbox"/> Restoration | <input type="checkbox"/> Bank Stabilization |
| <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 checked="" type="checkbox"/> Other: Scientific research |

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

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

(3) PROJECT PURPOSE AND NEED

Provide a statement of the purpose and need for the overall project.

Wave device developers in the U.S. are preparing to deploy a new generation of wave energy converter (WEC) devices at 'early deployment' sites. These projects are expected to receive heightened public attention throughout all stages of their lifecycle (design, installation, operation and decommissioning). This research project is designed to better understand resource details in regions and sites that are likely to see early WEC deployments, but there are no plans to deploy WEC devices as part of this project.

Numerical wave models are highly valuable tools for wave characterization. However, as useful and accurate as these tools are, important questions about their accuracy in shallow water (<100 meters) along the U.S. West Coast still exist. In particular, these models are known to under-predict the amplitude of large waves during large storm events ("extreme events"). Measurements from this scientific research project will improve our understanding of the U.S. West Coast wave characteristics in shallow waters and during storms, and the findings will be codified in a wave-classification scheme.

(4) DESCRIPTION OF RESOURCES IN PROJECT AREA

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

Site A and Site B are both located in coastal oceanic waters of the eastern Pacific Ocean, outside Oregon's Territorial Sea. These sites are characterized by seasonally high waves and strong winds, and are heavily influenced physically and biologically by upwelling events (lower temperatures, higher nutrients), mostly in the spring to early summer. The mean water depth at Site A is approximately 80 meters, and the mean water depth at Site B is approximately 45 meters. Water temperatures off this part of the Oregon coast range, on average, from 9 to 13 degrees Celsius; salinity is generally around 34 ppt. The benthos is composed of sand or fine sediment. The benthic community includes sessile and mobile invertebrates (e.g., anthozoans, echinoderms, crustaceans, annelids) as well as benthic fishes (e.g., scorpaeniforms, pleuronectiforms). The pelagic or open water components provide habitat for more mobile fishes (e.g., salmonids, clupeids), as well as marine mammals (e.g., gray whales, sea lions) and marine birds (e.g., murre, auklets, gulls). Some species with ecologically significant presence (e.g., Pacific sardine, gray whales) exhibit seasonal patterns to their abundance. Both sites could be considered exemplary for the majority of the coastal waters off Oregon at this depth range or distance from shore in terms of both physical and biological characteristics.

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

Commercial fisheries make up the majority use of the project sites and the surrounding areas. Commercial and recreational navigation, as well as recreational fishing, comprise a comparatively minor part of the human use of these sites.

(5) 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 waterway or wetland.

(5) PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

The wave measurements proposed for this project have two objectives:

- Measure resource details at wave sites that are likely to see early commercial deployment but are currently lacking detailed public resource measurements
- Extend the dataset of detailed wave resource measurements for model validation that will assist the wave classification scheme (WCS).

For wave energy, “detailed resource data” are defined as measurements that capture directional wave spectra during at least 90% of 1 year at a water depth that is relevant to existing technologies suitable for that site. This site selection methodology builds on the *Marine Hydrokinetic Energy Site Identification and Ranking Methodology Part I: Wave Energy* report (Kilcher 2016), which identifies likely wave deployment locales (“hot spots”) in U.S. waters. To meet the objective of making measurements at early commercial sites, we stepped through the long-term ranking¹ of likely deployment locales and selecting the top-ranking site within the locale that meets the following three criteria:

1. Is zoned for marine renewable energy projects (if the state has marine renewable energy zoning designations)
2. Is not occupied by an existing renewable energy project permit
3. Is a site where new measurements would be valuable to the wave classification scheme, in shallow water (<100 m; deep measurements are considered >100 m), and there are no detailed shallow water resource data within 80 miles

(See attached Table 1. Ranked list of top 25 wave locales from the site identification long-term analysis.)

The state of Oregon is the top-ranked locale in the site identification long-term model. Oregon has also undergone a zoning process that identified locations within the state’s territorial sea where wave energy projects are more likely to be permitted. Through that process, four sites were identified for commercial wave energy project development; from north to south these are Camp Rilea, Pacific City, Reedsport, and Lakeside. This project will not make measurements at Camp Rilea and Pacific City sites because they are shallow water sites within 80 miles of existing shallow water data.

The Lakeside and Reedsport sites are shallow water sites that are more than 150 miles from the nearest shallow water buoy. The Lakeside site is at 80 m water depth, and the Reedsport site is at 45 m water depth. Because these sites are so close together (<10 miles), the added cost of making measurements at both (compared to only one) is minimal. These sites also have an offshore, deep water (183 m) directional wave buoy that would be useful for measure-correlate-predict hind- and fore-casts at these sites. This type of extended data record is likely to dramatically increase the value of these measurements for the Wave Classification Scheme (WCS).

The Reedsport site was previously the location of an Ocean Power Technologies permit for wave energy project development. However, according to Federal Energy Regulatory Commission dockets, Ocean Power Technologies surrendered its permit in 2014. As a result, the Oregon Territorial Sea Plan indicates that the Reedsport site is no longer zoned for wave energy development. Measurements at this site are especially valuable to model validation because it is a shallower site and has a wider shelf than the Lakeside site. Furthermore, it is reasonable to expect that this site could one day be re-zoned for wave energy projects because it was previously zoned as such. In summary, the Lakeside site is especially valuable as an early commercial site, while the Reedsport site is valuable as a shallow water model validation point for the WCS.

(6) PROJECT DESCRIPTION

¹ Kilcher 2016b presented short- and long-term ranking results. Short-term includes local energy costs, where long-term does not. Consensus opinion suggests that long-term results are best used for this measurement campaign.

(6) PROJECT DESCRIPTION

A. Briefly summarize the overall project including work in areas both in and outside of waters or wetlands.
This project will deploy a surface wave buoy (Datawell Waverider MKIII) at site A. A surface wave buoy and acoustic Doppler profiler (Nortek acoustic wave and current profiler) mounted on a bottom lander platform will be deployed at site B. The buoys and bottom lander platform will be deployed for 1 year, from October 2016 to October 2017. (See attached instrumentation specifications.)

B. Describe work within waters and wetlands.

The oceanographic instrumentation will be loaded on board the vessel at either Newport or Coos Bay harbor. Equipment will be transited via vessel to the deployment locations and deployed using the ship's A-frame and winch system. The surface wave buoys and bottom lander will be similarly recovered.

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

There will be no removal or fill activities associated with this project.

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

There are no fill activities associated with this project.

(6) PROJECT DESCRIPTION

E. Construction timeline.

What is the estimated project start date?

October 1, 2016.

What is the estimated project completion date?

October 1, 2017.

Is any of the work underway or already complete?

No.

If yes, describe.

F. Fill Volumes and Dimensions (if more than 4 impact sites, include a summary table as an attachment)

Wetland / Waterbody Name *	Fill Dimensions					Duration of Impact**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq.ft. or ac.)	Volume (c.y.)		
N/A							

G. Total Fill Volumes and Dimensions

Fill Impacts to Waters	Length (ft.)	Area (sq. ft or ac.)	Volume (c.y.)
Total Fill to Wetlands			
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			

H. Removal Volumes and Dimensions (if more than 4 impact sites, include a summary table as an attachment)

Wetland / Waterbody Name*	Removal Dimensions					Duration of Impact**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq. ft. or ac.)	Volume (c.y.)		
N/A							

I. Total Removal Volumes and Dimensions

Removal Impacts to Waters	Length (ft.)	Area (sq. ft or ac.)	Volume (c.y.)
Total Removal to Wetlands			
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			

* If there is no official name for the wetland or waterway, create a unique name (such as "Wetland 1" or "Tributary A").
 ** Indicate the days, months or years the fill or removal will remain. Enter "permanent" if applicable. For DSL, permanent removal or fill is defined as being in place for 24 months or longer.
 *** Example: soil, gravel, wood, concrete, pilings, rock etc.

(7) ADDITIONAL INFORMATION			
Are there any <u>state</u> or <u>federally</u> listed species on the project site?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Is the project site within designated or proposed critical habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Is the project site within a national <u>Wild and Scenic River</u> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Is the project site within the <u>100-year floodplain</u> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
* If yes to any of the above, explain in Block 4 and describe measures to minimize adverse effects to these resources in Block 5.			
Is the project site within the <u>Territorial Sea Plan (TSP) Area</u> ?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
* If yes, attach TSP review as a separate document for DSL.			
Is the project site within a designated <u>Marine Reserve</u> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
* If yes, certain additional DSL restrictions will apply.			
Will the overall project involve construction dewatering or ground disturbance of one acre or more?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
Has the fill or dredged material been physically and/or chemically tested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unknown
*If yes, explain in Block 4 and provide references to any physical/chemical testing report(s).			
Has a cultural resource (archaeological) survey been performed on the project area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Unknown
* If yes, provide a copy of the survey with this application. Do not describe any resources in this document.			
Identify any other federal agency that is funding, authorizing or implementing the project.			
Agency Name	Contact Name	Phone Number	Most Recent Date of Contact
Department of Energy	Joel Cline	202-287-6966	July 19, 2016
List other certificates or approvals/denials required or received from other federal, state or local agencies for work described in this application. For example, certain activities that require a Corps permit also require 401 Water Quality Certification from Oregon DEQ.			
Approving Agency	Certificate/ approval / denial description	Date Applied	
N/A			
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			
<input type="checkbox"/> State owned waterway		DSL Waterway Lease #	
<input type="checkbox"/> Other Corps or DSL Permits		Corps #	DSL #
<input type="checkbox"/> Violation for Unauthorized Activity		Corps #	DSL #
<input type="checkbox"/> Wetland and Waters Delineation		Corps #	DSL #

(7) ADDITIONAL INFORMATION

- A wetland / waters delineation has been completed (if so, provide a copy with the application)
- The Corps has approved the wetland / waters delineation within the last 5 years
- DSL has approved the wetland / waters delineation within the last 5 years

(8) IMPACTS, RESTORATION/REHABILITATION, COMPENSATORY MITIGATION

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

There are no known major environmental impacts of the project.

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

There is no removal or fill associated with this project.

Compensatory Mitigation

C. Proposed mitigation approach. Check all that apply:

- Permittee-responsible Onsite Mitigation
- Permittee-responsible Offsite mitigation
- Mitigation Bank or in-lieu fee program
- Payment to Provide (not approved for use with Corps permits)

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

There is nothing to mitigate against. There are no major environmental impacts to this project, nor are there any removal or fill or disturbances.

Mitigation Bank / In-Lieu Fee Information:

Name of mitigation bank or in-lieu fee project: N/A

Type of credits to be purchased: N/A

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 #
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(8) IMPACTS, RESTORATION/REHABILITATION, COMPENSATORY MITIGATION

N/A			
County		City	Latitude & Longitude (in DD.DDDD format)
Township	Range	Section	Quarter/Quarter

(9) ADJACENT PROPERTY OWNERS FOR PROJECT AND MITIGATION SITE

<p>Pre-printed mailing labels <input type="checkbox"/> of adjacent property owners attached</p>	<p>Project Site Adjacent Property Owners</p>	<p>Mitigation Site Adjacent Property Owners</p>
---	---	--

Contact Name
Address 1
Address 2
City, ST ZIP Code

N/A

Contact Name
Address 1
Address 2
City, ST ZIP Code

Contact Name
Address 1
Address 2
City, ST ZIP Code

Contact Name
Address 1
Address 2
City, ST ZIP Code

Contact Name
Address 1
Address 2
City, ST ZIP Code

Contact Name
Address 1
Address 2
City, ST ZIP Code

Contact Name
Address 1
Address 2
City, ST ZIP Code

Contact Name
Address 1
Address 2
City, ST ZIP Code

**(10) 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 will be consistent with the comprehensive plan and land use regulations when the following local approval(s) are obtained:
 - Conditional Use Approval
 - Development Permit
 - Other Permit (see comment section)
- This project is not consistent with the comprehensive plan. Consistency requires:
 - Plan Amendment
 - Zone Change
 - Other Approval or Review (see comment section)

An application has has not been filed for local approvals checked above.

Local planning official name (print)	Title	City / County (circle one)
--------------------------------------	-------	----------------------------

Signature	Date
-----------	------

Comments:

(11) 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. A public notice will be issued with the certification statement, which 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, contact DLCD at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050.

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 Name	Title
------------------	-------

Signature	Date
-----------	------

(12) 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	\$
---------------------	----

Applicant Signature

Print Name	Title
Levi Kilcher	Engineer
Signature	Date
	8/26/2016

Authorized Agent Signature

Print Name	Title
Signature	Date

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

Print Name	Title
Signature	Date

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

(13) ATTACHMENTS

- Drawings (items in bold are required)
 - Location map with roads identified
 - U.S.G.S topographic map
 - Tax lot map
 - Site plan(s)
 - 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 5)
- Restoration plan or rehabilitation plan for temporary impacts
- Mitigation plan
- Wetland functional assessment and/or stream functional assessment
- Alternatives analysis
- Biological assessment (if requested by Corps project manager during pre-application coordination.)
- Stormwater management plan (may be required by the Corps or DEQ)

Other:

- Site map and instrumentation specifications and photographs
- Alternative site analysis, ranked list of the top 25 wave locales

Send Completed form to:

U.S. Army Corps of Engineers
ATTN: CENWP-OD-GP
PO Box 2946
Portland, OR 97208-2946
Phone: 503-808-4373

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

OR

U.S. Army Corps of Engineers
ATTN: CENWP-OD-GE
211 E. 7th AVE, Suite 105
Eugene, OR 97401-2722
Phone: 541-465-6868

Counties:
Benton, Coos, Crook,
Curry, Deschutes,
Douglas Jackson,
Josephine, Harney,
Klamath, Lake, Lane,
Linn

Send Completed form to:

DSL - West of the Cascades:

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

OR

DSL - East of the Cascades:

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

Send all Fees to:

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Pay by Credit Card by Calling 503-986-5253

INSTRUCTIONS FOR PREPARING THE JOINT APPLICATION

This is a joint application, and must be sent to both agencies, who administer separate permit processes. For more complete instructions, contact the Corps and/or DSL or refer to online resources:

- [DSL's Removal-Fill Guide](#); or,
- The Corps' "Permitting 101" video: <http://www.nwp.usace.army.mil/Missions/Regulatory.aspx>

General Instructions and Tips

- Provide the information in the appropriate blocks of the application form. If you need more space, provide a summary in the space provided and attach additional detail as an appendix to the application.
- Not all items on the application form will apply to all projects.
- For most applications, binding and section dividers are not necessary and require additional handling.

The information requested on the form is necessary for the agencies to begin their review. For complex projects or for those that may have more than minimal impacts, additional information may be necessary to complete the evaluation and make a permit decision. Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.

Section 1. Applicant and Landowner Contact information

Applicant: The applicant is the responsible party. If the applicant is an agency, business entity or other organization, indicate the name of the organization and a person that has the authority to sign the application.

Authorized Agent: An authorized agent is someone who has permission from the applicant to represent their interests and supply information to the agencies. An agent can be a consultant, an attorney, builder, contractor, or any other person or organization. An authorized agent is optional.

Landowner: Provide landowner information if different from the applicant. The landowner must also sign the application.

Section 2. Project Information

Provide location information. Latitude and longitude can be found by zooming in to your respective project location and reading off the coordinates displayed on the bottom of the map.

Provide information on wetlands and waterways within the project area. Indicate the category of activities that make up your project.

Section 3. Project Purpose and Need

Explain the purpose and need for the project. Also include a brief description of any related activities needed to accomplish the project objectives.

The following items are required by DSL, as applicable:

- If the removal-fill would satisfy a public need and the applicant is a public body, include any pertinent findings regarding public need and benefit.
- If the project involves fill in the estuary for a non-water dependent use, explain how the project is for public use and/or satisfies a public need.
- If the project is located within a marine reserve or marine protected area, explain how the project is needed to study, monitor, evaluate, enforce or protect the designated area.

Section 4. Description of Resources in Project Area

Territorial Sea: For activities in the Territorial Sea (mean lower low water seaward 3 nautical miles), provide a separate evaluation of the resources and effects determination.

For each wetland, include:

- Whether the wetland is freshwater or tidal, and the Cowardin class and Hydrogeomorphic (HGM) class.
- Source of hydrology and direction of flow (if any).
- Dominant plant species by layer (herb, shrub, tree).
- A functional assessment of the wetland to be impacted (for impacts greater than 0.2 acre, DSL requires use of ORWAP or HGM), should be attached as a separate document.
- Identify any vernal pools, bogs, fens, mature forested wetland, seasonal mudflats, or native wet prairies in or near the project area.
- Refer to wetland delineation report if available, and provide copies to agencies (if not previously provided).
- Describe existing uses, including fish and wildlife use (type, abundance, period of use, significance of site).

For rivers, streams, other waterways, lakes and ponds, include a description of, as applicable:

- Streamflow regime (e.g., perennial year-round flow, intermittent seasonal flow, ephemeral event-driven flow). If flow is ephemeral, provide streamflow assessment data sheet or other information that supports your determination.
- Field indicators used to identify the Ordinary High Water Mark (OHWM).
- Channel and bank conditions.
- Type and condition of riparian (streamside) vegetation.
- Channel morphology (structure and shape).
- Stream substrate.
- Assessment of the functional attributes including hydrologic, geomorphic, biological and chemical and nutrient related functions.
- Fish and wildlife (type, abundance, period of use, significance of site).

Section 5. Alternatives to Avoid and Minimize Impacts to Waters

Provide a brief explanation describing how impacts to waters and wetlands are being avoided and minimized on the project site. For DSL, the alternatives analysis must include:

- Project-specific criteria that are needed to accomplish the stated project purpose.
- A range of alternative sites and designs that were considered with less impact.
- An evaluation of each alternative site and design against the project criteria and a reason for why the alternative was not chosen.
- If the project involves fill in an estuary for a non-water dependent use, a description of Alternative non- estuarine sites must be included.

Section 6. Project Description

Overall Description. Provide a brief description of the overall project, including:

- All associated work with the project both outside and within waters or wetlands.
- Total ground disturbance for all associated work (i.e, area and volume of ground disturbance).
- Total area of impervious surfaces created or modified by the project, if applicable.

Work within Waters and Wetlands. Provide a description of the proposed work within waters and wetlands, including:

- Each removal or fill activity proposed in waters or wetlands, as well as any construction or maintenance of in-water or over-water structures.
- The number and dimensions of in-water or over-water structures (i.e., pilings, floating docks) proposed within waters or wetlands.

Fill Material and Disposal. Provide a description of fill material and procedure for disposal of removed material, including:

- The source(s) of fill materials (if known).
- Locations for disposal area(s) for dredged material, if applicable. If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If using an upland disposal area that is not a DEQ-regulated landfill, a Solid Waste Letter of Authorization or a Beneficial Use Determination from DEQ may be required.

Construction Methods. Describe how the removal and/or fill activities will be accomplished including the following:

- Construction methods, equipment to be used, access and staging areas, etc.
- Measures you will use during construction to minimize impacts to the waterway or wetland. Examples may include isolating work areas, controlling construction access and using specialized equipment or materials. Attach work area isolation and/or erosion and pollution control plans, if applicable.

Construction Timing. Provide the proposed start and completion date for the project. Describe project work that is already complete, if applicable.

Summary of removal and fill activities. Summarize the dimensions, volume and type/composition of material being placed or removed in each waterbody or wetland. Describe each impact on a separate row. For

instance, if two culverts are being removed from Clear Creek, use two rows. Add extra rows if needed, or include an attachment.

The DSL and the Corps use different elevations for determining whether an activity in tidal waters is regulated by the State's Removal-Fill law, the Clean Water Act, and/or the Rivers and Harbors Act. DSL regulates activities below the highest measured tide. The Clean Water Act applies below the high tide line. The Rivers and Harbors Act applies below the mean high water.

Section 7. Additional Information

Any additional information you provide helps the reviewer(s) understand your project and the other approvals or reviews that may be required.

Section 8. Site Restoration/Rehabilitation and Compensatory Mitigation

Site Restoration/Rehabilitation. For temporary disturbance of soils and/or vegetation in waterways, wetlands or riparian (streamside) areas, discuss how you will restore the site after construction. This may include the following:

- Grading plans to restore pre-existing elevations.
- Planting plans and species list (native species only) to replace vegetation in riparian or wetland areas.
- Maintenance and monitoring plans to document restoration to wetland condition and/or vegetation establishment.
- Associated erosion control for site stabilization.

Compensatory Mitigation. Describe your proposed compensatory mitigation approach, or explain why you believe compensatory mitigation is not required. If proposing permittee-responsible mitigation for permanent impact to wetlands, see OAR 141-085-0705 and 33 CFR 332.4(c) for plan requirements. For permanent impact to waters other than wetlands, see OAR 141-085-0765 and 33 CFR 332.4(c) for plan requirements.

Section 9. Adjacent Property Owners for Impact and Mitigation Site(s)

Names and addresses for properties that are adjacent to the project site and permittee responsible mitigation site (if applicable), are required. "Adjacent" means those properties that share or touch upon a common property line or are across the street or stream. If more than 5, attach pre-printed labels. A list of property owners may be obtained by contacting the county tax assessor's office.

Section 10. City/County Planning Department Land Use Affidavit

This section is required to demonstrate land use compatibility for removal fill permits and water quality certifications. Provide this form to your local planning official for them to complete and sign.

Section 11. Coastal Zone Certification

Your signature for this statement is required for projects within the coastal zone (generally, west of the summit of the Coast Range).

Section 12. Signatures

The application must be signed by the responsible party, landowner and agent, as identified in section 1.

Section 13: Attachments

Project Drawings. A complete application must include a location map, site plan, cross-section drawings and recent aerial photo. All drawings should be clear, legible and formatted for 8.5 by 11 printing. Use the fewest number of sheets necessary for your drawings or illustrations. While illustrations need not be professionally prepared, they should be clear, accurate, and contain all necessary information, as follows:

Location maps (with subject property identified):

- Location map with roads identified
- U.S.G.S. Topographic map
- Tax lot map (with subject tax lot(s) identified)

Site plan(s), including:

- Entire project site and activity areas
- Existing and proposed contours

- Location of ordinary high water, wetland boundaries or other jurisdictional boundaries (include wetland delineation report if not previously provided)
- Identification of temporary and permanent impact areas within waterways or wetlands
- Map scale or dimensions and north arrow
- Location of staging areas and construction access
- Location of cross section(s), as applicable
- Location of mitigation area, if applicable

Cross section drawing(s), including:

- Existing and proposed elevations
- Identification of temporary and permanent impact areas within waterways or wetlands
- Ordinary high water and/or wetland boundary or other jurisdictional boundaries
- Map scale or dimensions

Recent Aerial photo

- 1:200, or if not available for your site, highest resolution possible

DSL Wetland Concurrence (map and letter)