

FROM: Columbia River Estuary Study Taskforce  
TO: Heather Hansen, Clatsop County  
CC: Denise Lofman and April Silva, CREST  
DATE: September 12, 2016  
Subject: Local Wetland Determination Scoping Discussion

---

## **Introduction**

Clatsop County's Wetland's Advisory Committee has expressed interested making a local wetland determination service available to development applicants or to the County, to further the following goals:

- Provide wetland information early in applicants' project conceptualization process, so that wetland impacts can be addressed early.
- Provide site specific wetland information that improves on existing wetland information such as the NWI and Arch Cape's LWI.
- Provide wetland information to the County to inform either required standards and conditions of approval , or optional wetland protection measures like clustering, reduced lot line setbacks, and TDR.

## **How long would a local wetland determination take and what would it cost?**

DSL's average response time for completing off-site determinations was 9.6 days in 2015. These are provided free of charge. A local consultant could probably average less than that for completing both off-site screening and on-site determinations. CREST's Lead Ecologist indicated that a simple off-site screening combined with brief field observations and simple determination report that does not include characterization of wetland functions might take four to eight hours after the initial implementation kinks are worked out, however this off-the cuff estimate needs to be explored in more detail. A four to eight hour determination billed at \$60 per hour would cost between \$240 and \$480, not including mileage.

## **What might a local wetland determination look like?**

Decisions on the procedures and data to be collected in local wetland determinations should be informed by objectives that we want local wetland determinations to achieve. A local determination would probably involve initial off-site screening using GIS data, following in some cases by on site field verification and data collection, followed by a brief report or compilation of the collected information. The report would inform the following:

- A developer and the County would use the report early in the project concept phase to design projects to avoid and mitigate for wetland impacts.
- The report would inform whether or not a DSL notification is required.
- The report would inform whether certain County wetland protection regulations will be applicable to the project.
- The determinations could help insure that otherwise unknown wetlands are not inadvertently impacted.

### **Offsite Screening**

The consultant or County staff would review GIS data from the table below in the office. If wetlands indicators are present at the project site, an on-site determination would be conducted. The GIS data could be consolidated into a single MXD file or web platform for recurring use. The GIS layers listed in the table below would provide a comprehensive off-site screening for wetland presence. Additional information on potential habitat values or other characteristics could be incorporated into the screening process if desired.

Decisions on the specific criteria for conducting an on-site determination should be made in the context of the whole wetland program. Some example questions are:

- If none of the remote inventory data sources indicate wetlands, except that USDA soil surveys indicate hydric soils, should an on-site determination be conducted?
- If wetlands are not indicated at the project site, but are indicated in the vicinity of the project site, should an on-site determination be conducted? Based on what distance and what topographic or hydrologic criteria?

**Resources and indicators to inform off-site screening for wetlands**

Source	Applicable Geography	Potential Information recorded
National Wetlands Inventory wetland online <sup>1</sup>	County	Wetland presence at project site Wetland distance from project site Wetland acres by Cowardin classification
State Wetlands Inventory (prior determinations and delineations)	County	Wetland presence at project site Wetland distance from project site Characteristics from prior determinations and delineations
Local Wetland Inventory <sup>2</sup>	Arch Cape	Wetland presence at project site Wetland distance from project site Characteristics from LWI
Essential Salmon Habitat (ORS 196.810)	County	Presence of ESH stream where fill or removal is proposed.
USDA Web Soil Survey online <sup>4</sup>	County	Soil classification at project site Hydric or not hydric at project site Hydric soil distance from project site
Areal Imagery	County	Existing structure locations, vegetation patterns
Lidar or other topographic maps <sup>5</sup>	Coastal and estuarine areas	Topographic characteristics of wetland or between wetland and project site. Comparing project site elevations to known wetland elevations in immediate vicinity.
LCEP Landcover Dataset <sup>6</sup>	Columbia River Estuary	Wetland presence at project site
County Zoning Map <sup>7</sup>	County	Wetland presence at project site Wetland distance from project site
100 year floodplain	County	Floodplain presence and BFE.
Other?		

<sup>1</sup> <https://www.fws.gov/wetlands/>

<sup>2</sup> If in Arch Cape or bordering City of Astoria or City of Warrenton, where local wetland inventories have been completed.

<sup>4</sup> <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

<sup>5</sup> Potential sources include:

2010 Lower Columbia Terrain Model: <http://www.estuarypartnership.org/resource/lower-columbia-digital-terrain-model-2010>

<sup>6</sup> 2010 Lower Columbia River Land Cover Dataset: <http://www.estuarypartnership.org/lower-columbia-river-land-cover>

<sup>7</sup> County webmaps for Lake and Wetlands Zoning: <http://maps.co.clatsop.or.us/applications/login.asp>

**On-site Determination**

On-site Wetland determinations should follow a consistent protocol for collecting and presenting information that will inform applicant and County decisions. A local on-site determination would at least include observation/recording of overall plant communities, presence of saturated soil or surface water, and a rough map that includes the expected wetland boundary. To provide a more accurate preliminary wetland boundary, on-site determinations could include soil test pits and plant identifications in areas with questionable wetland presence, coupled with GPS location of sample plots. To front load wetland characterization work into the determination, additional wetland characteristics could be recorded. Some related wetland inventory or wetland delineation protocols from which ideas could be drawn are in the table below. Of the four sources, the Corps of Engineer’s Delineation Manual, its Regional Supplement, and associated field data collection sheet seem to provide the best framework for completing local determinations. It can be revised to meet the County’s needs.

**Example Wetland Determination, Delineation, and Characterization Protocols**

Source	Internet Location	Comments
USACE Wetland Jurisdictional Determination Form	<a href="http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/app_b_approved_jd_form.pdf">http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/app_b_approved_jd_form.pdf</a>	USACE jurisdictional determinations are heavily focused on determining USACE jurisdiction, rather than wetland presence or wetland characteristics.
Corps of Engineers Wetland Delineation Manual, 1987 and Regional Supplement	<a href="http://www.bwsr.state.mn.us/wetlands/publications/corpsmanual.pdf">http://www.bwsr.state.mn.us/wetlands/publications/corpsmanual.pdf</a>	The “routine approach” could provide many useful protocols and data points. Some of this framework will be excessive for the purposes of making determinations, however it represents the best overall framework for our purposes. The associated data collections would be used, and is attached.
Oregon Freshwater Assessment Methodology (OFWAM)	<a href="https://www.oregon.gov/DSL/WETLAND/docs/OFWAM.pdf">https://www.oregon.gov/DSL/WETLAND/docs/OFWAM.pdf</a>	OFWAM goes beyond identification of wetland presence and delineation of boundaries, to include a characterization of a wetland’s conditions and functions. It would more appropriately be used later when completing a wetland delineation.
Methods from recent local wetland inventories	<a href="https://www.oregon.gov/dsl/WETLAND/Pages/lwi.aspx">https://www.oregon.gov/dsl/WETLAND/Pages/lwi.aspx</a>	Some protocols could be borrowed from local wetland inventories. For example, the Arch Cape LWI combined the “routine approach” from the 1987 Corps of Engineers Wetland Delineation Manual, with the Oregon Freshwater Assessment Methodology.