



To: Nick Green, City of John Day

From: Tammy Stout, Cascade Environmental Group

Subject: John Day Innovation Gateway Adaptive Water Reuse Project Wetland Support

Date: September 23, 2022

Cascade Environmental Group (Cascade) is pleased to offer this proposal to provide wetlands support for the proposed John Day Innovation Gateway Adaptive Water Reuse Project in John Day, Oregon to support permitting requirements of the Oregon Department of State Lands (DSL) and United States Army Corps of Engineers (Corps). Outlined below are the tasks necessary to complete the wetland delineation and permitting. This scope of work is based on the work area provided via email, and as depicted on the attached Scoping Map.

Tammy Stout and Brent Haddaway (Professional Wetland Scientist) will conduct your wetland delineation and permitting. Tammy leads Cascade’s regulatory compliance projects, supervising and conducting wetland delineations, developing project permits, and prescribing best management practices to assure coverage under programmatic permits and Endangered Species Act consultations. Tammy has nearly 20 years of professional experience in wetland science and is respected amongst regulatory staff that oversee permitting work.

Task 1. Wetland Delineation Fieldwork

Cascade will conduct formal wetland delineation of the project area according to methods and protocols established by the Corps and DSL, based on the methodology described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (2010). Data collection will include soils, vegetation, and hydrology data, aerial photography, precipitation data, and general site descriptions. The study area encompasses approximately 13.07-acres and will include the project work area including all permanent and temporary impact areas. Approximately 4.64 acres of this total have been formally delineated and either concurred with, or under review. The formally delineated area will be walked to assess for any changes since the delineations were completed (agency requirement) and the remaining 8.43 acres will be formally delineated to meet regulatory requirements.

Assumptions:

- The “Study Area Boundary” and extent of work for the purpose of this scope includes the approximate areas shown in the attached Scoping Map.
- Cascade assumes access to the subject properties has been arranged.

Deliverables:

- Wetland boundary spatial data and maps for the Study Area shown on the attached map. Wetland and waters boundaries will be flagged in the field, unless otherwise requested.

Task 2. Reporting

Cascade will provide a formal wetland delineation report that documents the extents and condition of existing wetlands and other waters within the study area shown in the attached map. The report will comply with agency standards to satisfy federal, state, and local requirements; specifically, DSL report templates will be followed.

Deliverables:

- Wetland Delineation Report with associated maps, figures, and data forms.

Task 3. Permitting

Cascade will provide the Joint Permit Application (JPA) that for any impacts to wetlands and other waters within the study area shown in the attached map. The JPA will comply with agency standards to satisfy federal and state requirements.

If the total wetland/waters impacts are less than 50 CY of cut and fill, DSL will not require a permit, but the Corps may. Cascade will coordinate with the City of John Day and their engineers to adjust designs to minimize wetland/waters impacts as feasible.

Assumptions:

- Client's engineer will provide wetland cut and fill volumes by type in the provided Excel table (by Cascade).
- Client's engineer will provide site plan figures in pdf format and as required by the Corps (8.5X11, B&W)
- Client's engineer will prepare the ESC Plans and a Stormwater Management Plan (SWMP) that satisfies standards of the Corps and Oregon DEQ; preparation of the NPDES 1200-C is not included in this scope.
- Given the project is in the concept and pre-design phase, a mitigation plan and mitigation strategy **is not** included in this scope. Cost of this will be dictated by the level of avoidance and potential impacts incurred by the site design, and will be provided under a separate scope. If wetland impacts are incurred, DSL/Corps will require a mitigation plan to be included with the JPA.
- It is assumed that no fish "take" will be required for construction of project elements in waters. This scope **does not** include time for the preparation of a take permit with Oregon Department of Fish and Wildlife (ODFW) nor does it include preparation of a Biological Evaluation/Biological Assessment for National Marine Fisheries Service (NMFS) for ESA listed species.
- Removal-Fill Fees are not included in this scope and cost estimate (dependent on volume).

Deliverables:

- 404/401 Wetland Permit Package

Task 4. Project Management and Client Meetings

CEG will provide internal QA/QC of project deliverables, and coordinate with the client via email and phone as needed.

Deliverables:

- None

The afore-mentioned services are proposed to be charged on a time and materials basis, **not to exceed** \$26,110 without prior approval. Non-labor charges (mileage, reproduction, per-diem, etc.) are included in this cost estimate. This cost estimate is valid for a period of 90 days from the date of the proposal.

Thank you for your consideration.

Itemized Costs

<i>Name</i>	Brent Haddaway	Tammy Stout	Olivia Morgan	Sharon Cannizzo		
<i>Project Role</i>	PWS/ Ecologist	Senior Ecologist	Ecologist / GIS	Admin Support	Subtotal	Total Price
Task 1. Wetland Delineation Fieldwork						
Review material on soils, NWI/LWI, historical aerials		2			\$240	
Prepare base maps			2		\$190	
Travel + Onsite fieldwork	30	30			\$7,500	
Hours	30	32			\$7,930	\$7,930
Task 2. Wetland Delineation Report						
Report text		22			\$2,640	
Data sheets			5		\$475	
GIS mapping and analysis			4		\$380	
QA/QC		2			\$240	
Hours		24			\$3,735	\$3,735
Task 3. Permitting						
JPA for 404 DSL/Corps		50	5		\$6,475	
Wetland Functions (ORWAP if impacts greater than 0.2 ac otherwise BPJ)	15	4			\$2,430	
Engineering Firm Coord for Info		10			\$1,200	
401 Water Quality Cert		10			\$1,200	
Hours	15	74	5		\$11,305	\$11,305
Task 4. Project Management and Client Meetings						
Client and Project Coordination		10		4	\$1,460	
Hours		10		4	\$1,460	\$1,460
Total hours	194	45	140	5	4	
Percent of Total Effort	23.2%	72.2%	2.6%	2.1%		
Billing rates	\$130	\$120	\$95	\$65		
Subtotals	\$5,850	\$16,800	\$475	\$260		
Direct Expenses						
GPS					\$100	
Production costs					\$80	
WL Delin Fees					\$500	
Per Diem (Grant Co @ \$155/day)					\$620	
Mileage at current IRS rate	0.625				\$380	
Direct expense subtotal					\$1,680	\$1,680
Total price						\$26,110

Qualifications

Cascade is a small, locally-owned consulting firm that specializes in wetland studies and developing mitigation projects for wetlands and other regulated resources. We work primarily with restoring disturbed sites and accounting for resulting ecological uplift, making it critical that our delineation work be defensible and accurate. Most of the delineation work we complete is performed on highly altered sites. We work in both Oregon and Washington, and have established a high degree of credibility; regulatory agencies have accepted every wetland delineation boundary we have submitted, without any alterations.

Selected example delineation projects include:

- Wapato Valley Wetland and Conservation Bank (2016) – This is a 986-acre mitigation bank project in Clark County, Washington that includes levee protected areas, natural floodplains, basalt outcrops, ditches, irrigation systems, and duck hunting impoundments. The delineation required analysis and calibration of Columbia River gage data, and application of special “wetland-upland mosaic” methods. The Corps of Engineers called the project the “largest and most complex JD (jurisdictional determination) ever issued by the Seattle District” in their approval communications.
- Tono Solar Project (2019) – We are currently delineating a 1,000 acre solar energy project on a reclaimed coal mine property in Centralia, Washington. The development site includes a large constructed ridgeline, with both engineered and unintended aquatic features. The entire hillside was constructed with sub-soil left from mining practices, requiring us to inspect for evidence of active hydric soil development, citing characteristics identified in Oregon State University research.
- Mitigation Project Monitoring – Cascade monitors and manages over a dozen wetland mitigation projects, totaling over 400 acres in Oregon and Washington, requiring delineation to be performed 3-5 years after site restoration efforts. This requires developing project-specific criteria based on the restoration actions. Sites have been recently graded, include a mix of planted and volunteer vegetation, and include recent hydrologic alterations. For each site, we must consider the site disturbance, and restoration history to interpret wetland delineation indicators.

In addition to these large wetland mitigation projects, Cascade does support more routine wetland delineation and permitting services. The majority of this work has been performed in Washington State, for Verizon, AT&T, home builders, and other commercial land owners. In Oregon, we have developed wetland delineations for Williams Pipeline, Metro, Port of Portland, homebuilders, and architecture firms. Since 2013, Cascade has received approvals on over 60 wetland delineation projects, covering well over 1,300 acres.

Cascade’s client list demonstrates our ability to delineate wetlands with precision; we work on high profile projects and receive nearly all of our work by referral. We work with mitigation bank development companies, whose existence depends of monetizing wetland mitigation value, as well as local governments with experienced staff that select Cascade because they recognize our expertise.

Our client list includes:

City of Portland	Cowlitz Indian Tribe	Metro
City of Gresham	Shoalwater Bay Indian Tribe	Tillamook County
Port of Portland	TransAlta Centralia Mine	Verizon, AT&T
Clean Water Services	North Douglas Betterment/DSL	Richmond American Homes
Clackamas County Watershed Environment Services	Mitigation banking companies: RestorCap, Falling Springs, Plas Newydd	Oregon City



- Study Area (13.07 ac)
- Tax Lots Associated with Option 1
- Existing Delineations
- National Wetland Inventory Wetland Type
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

Date: 9/22/2022 5:49 PM
 Oregon Statewide Imagery Program (OSIP) - Oregon Imagery Framework Implementation Team

John Day Adaptive Water Reuse Project Wetland Support Scoping Map

