Habitat Restoration Project Application

This application is based on the Expert Regional Technical Group's (ERTG) project review template. However, modifications necessary to satisfy the Estuary Partnership's project review process were made to the template. Habitat restoration project applications will be reviewed against the Estuary Partnership's project review criteria, and may be reviewed against the ERTG project review criteria. The review process is described in greater detail in Section 2 (Project Narrative) of this application.

SECTION 1: BACKGROUND AND PROJECT DESCRIPTION

1. PROJECT INFORMATION

Project Title: Louisiana Swamp Tidal Reconnection
Project Type: **X** Construction ☐ Acquisition ☐ Design / Planning

2. APPLICANT CONTACT INFORMATION

Organization: Lower Columbia River Watershed Council
Project Manager/Title: Margaret Magruder
Address: 12589 Hwy 30, Clatskanie, OR 97016
Telephone Number: (503) 728-9015 Email: magruder@clatskanie.com
Fiscal Agent: Kari Hollander; Columbia SWCD;

3. PROJECT LOCATION

Latitude, Longitude (e.g., -123.45, 45.67): -123.278, 46.1158
Watershed Name and Code (10 digit hydrologic unit code): Plympton Creek (1708000306)
County/State: Columbia/OR
Columbia River Mile: Westport Slough connects to the Columbia River at RM 43.1 and RM 50
River or Stream Name: Westport Slough
Distance from mainstem Columbia River (in river miles): 2.8 RM via east confluence and 7.8 miles via west confluence
Landowner(s)
☐ Public: Agency:
X Private: Name(s): Lower Columbia Tree Farm

4. PROPOSED PROJECT SCHEDULE

Provide a list of major tasks to be completed as part of this project, start and end dates for each task, and a description of the task.

Project Task	Start Date	End Date	Task Description
Engineering and Surveying	06/01/13	10/30/13	Includes staking site, construction supervision etc.
Construction	07/01/13	10/30/13	Erosion control measures, dike breach and earth moving, large wood and placement etc.
Planting and Maintenance	11/01/13	11/01/14	Installation of plants, invasive control, maintenance etc.
Effectiveness Monitoring	06/01/13	10/01/14	Monitor hydrology, water quality and photomonitoring

5. PROJECT COST

Total Project Cost: $529,519
Estuary Partnership Share $456,569
Applicant's Share: $72,950

Cost-share is not required for this funding opportunity.

6. PROJECT PARTNERS

List all anticipated funding sources and indicate the dollar value of their cash or in-kind contributions. Mark the respective box to show if contributions have been secured or are pending.

Project Partner	Cash	In-Kind	Secured	Pending
LCRWC		$2,450	X	
OWEB	$70,500			X

7. PROJECT SUMMARY

Provide a 250 word summary of the project, including the following: project type (i.e., design, restoration, acquisition); project description; number of acres or miles treated; habitat function(s) being restored; benefit to salmon; timeline; and partners.

The "Louisiana Swamp" is a 45-acre property located on Westport Slough, which is a ~11-mile meandering channel running parallel with the Columbia from RM 43.1 to RM 50. Currently, 35-acres of the site exist behind a private levee with two failing tide gates that are not fish passable. This has disconnected the site from Westport Slough, prevented access by fisheries, and degraded the ecological function of the site. In addition, Tandy Creek has been channelized through the center of the property between the diked 35-acres and remaining 10-acres of the property's tidal floodplain. The LCRWC believes that restoring this project site would provide key rearing habitat for migrating salmonids. Westport Slough and Tandy Creek are both known to support coho, Chinook, and steelhead populations. The lower Columbia River's system of freshwater tidal floodplains and off-channel habitats have been lost over the years as a result of diking, filling, and flood control structures. This is especially true along Westport Slough, which has had significant levee construction along its margins. By reconnecting this habitat, juvenile salmonid refugia and rearing habitat would be created providing opportunities to feed, rest, and escape extreme conditions within the Columbia and Westport Slough. Funding of this proposal would allow the LCRWC to implement the reconnection of 31-acres of tidal floodplain habitat, restoration of 1,100 ft. of Tandy Creek and 3,700 ft of intertidal channel, and the restoration of the property's native plant community in 2013. Current partners include the Columbia SWCD, USFWS, ODFW, and Greenwood Resources, Inc.

Note which of the 13 ESA listed salmon Evolutionarily Significant Units (ESUs) or steelhead Distinct Population Segments (DPSs) found in the Columbia River will benefit from the project:

	Chinook Salmon (*Oncorhynchus tshawytscha*):		**Steelhead** (*Oncorhynchus mykiss*):
	Snake River spring/summer Chinook salmon		Snake River steelhead
	Snake River fall Chinook salmon		Upper Columbia River steelhead
	Upper Columbia River spring Chinook salmon		Middle Columbia River steelhead
	Upper Willamette River Chinook salmon		Lower Columbia River steelhead
X	Lower Columbia River Chinook salmon		Upper Willamette River steelhead
	Chum salmon (*Oncorhynchus keta*) Columbia River chum salmon		**Sockeye salmon** (*Oncorhynchus nerka*) Snake River sockeye salmon
X	**Coho salmon** (*Oncorhynchus kisutch*) Lower Columbia River coho salmon	X	Steelhead – Washington DPU

If ESU information is unavailable, specify if ocean-type or stream-type salmonids will benefit from project.

(http://www.nwr.noaa.gov/ESA-Salmon-Listings/Salmon-Populations/Maps/Index.cfm)

8. AUTHORIZED SIGNATORY

I certify to the best of my knowledge that the information in this application is true and correct and that I am legally authorized to submit this information on behalf of the applicant.

Printed Name Margaret Magruder	Signature 
Title Watershed Coordinator	Date 02/07/13

SECTION 2: PROJECT NARRATIVE

Please answer the following questions. The responses to these questions will be the basis for evaluating and ranking project proposals. Please ensure text is single spaced, with no less than one inch margins and 11-point font. Refer to the ERTG Resources document (http://lcrep.org/sites/default/files/restoration/docs/Expert%20Regional%20Technical%20Group%20Resources.pdf), Estuary Partnership project review criteria (http://lcrep.org/sites/default/files/restoration/docs/Estuary%20Partnership%20Project%20Review%20Criteria.pdf), and definitions below (footnotes) when completing the project narrative. Reference to the Columbia River Estuary Conceptual Model (see above hyperlink for ERTG Resources document) can also be made to help standardize terminology and to provide descriptions for stressors, habitats, processes and functions. An example of a completed ERTG Project Template can be found on the Estuary Partnership's Project Application webpage (http://lcrep.org/sites/default/files/restoration/docs/Project%20Template%20Example.pdf).

Header:

Date	January 29, 2013
Prepared by	Bill Bennett, 503.915.0220, bennett@estuarypartnership.org
Sponsoring agency	Margaret Magruder; (503) 728-9015; Magruder@Clatskanie.com
Funding agency	Catherine Corbett, 503.226.1565, ccorbett@estuarypartnership.org
Site	Louisiana Swamp; Westport Slough; River Mile 50; -123.278, 46.1158
Project status or stage	Implementation

Proposed Project:

Problem statement

Summarize the site-specific problem(s) the proposed restoration(s) is intended to address. What are the causes of the problems?

The Louisiana Swamp is a 45-acre property that was historically a freshwater marsh and shrub-scrub wetland located on Westport Slough that provided important refugia and foraging habitat to salmonids. Today, the site is primarily pasture that is dominated by exotic invasive vegetation with 35 acres of the site being hydrologically disconnected from Westport Slough by a levee. In addition, Tandy Creek, which historically ran through the site, has been rerouted and channelized. These modifications have had the effect of eradicating all available foraging, rearing, and refugia opportunities for salmonids within the site and simplifying aquatic habitat within Westport Slough.

Vision/goal

Describe the expected outcome, i.e., what the site would look like if restoration is successful.

The proposed project will restore 35-acres of tidally influenced shrub-scrub swamp , 3,700 ft of off-channel habitat, and 1,100 ft of stream supporting a diversity of fish and wildlife species along Westport Slough.

Objectives

State the project's objectives in terms of functions for salmon. For example, how will access, capacity etc. be increased or enhanced?

Specific Project Objectives Include:

1. Breach 1,000 feet of levee reconnecting 31.7-acres of historical freshwater tidal marsh and shrub-scrub wetland habitat
2. Restore 2,400 ln. ft of existing off-channel habitat and excavate ~1,300 ln. ft of off-channel habitat to create a complex network of sinuous tidal channels

3. Restore 1,100 ft of Tandy Creek by restoring its floodplain connectivity, creating secondary channels that activate under high flows, installing large wood, and restoring the riparian buffer
4. 35-acres of native plant restoration including exotic invasive control

Project actions, phase, sizes by year

List the proposed restoration[1] actions and phases by year. For each restoration action, state the number of barriers to be removed, the width of the breach or reconnection, and/or the number of acres/miles to be restored by year. In a multi-year effort, be sure to identify the action(s)/phase(s) that are being proposed at this time.

Project Timeline and Action Size: 2013 – All restoration actions are planned to be completed in one phase including

1. Remove 1,000 ft of levee
2. Restore/Excavate 3,700 ft of off-channel habitat and place large wood
3. Restore 1,100 ft of Tandy Creek and place large wood
4. Plant 35-acres with native plants and conduct invasive plant control

2014: Complete native plant installation (as needed), control exotic invasive vegetation, maintain plantings for establishment, and conduct project monitoring

2014 to 2019: Maintain plantings for establishment

Linkage to Estuary Module: Estuary Module action, subaction(s) and project goal
Maps of the site, landscape, and site location in the LCRE

Identify the appropriate subaction(s) (ERTG Resources document, page 4) and state the size (number of acres or miles) the project subaction(s) will provide. Document how the value was obtained. Show these subaction(s) on a map of the site. Also include a map of the project site in its landscape and a map of the project's location in the lower Columbia River and estuary.
Actions were digitized in AutoCAD and then imported into ArcMap where each sub-actions was measured using the calculate geometry in the attribute table. All actions were calculated using the proposed topography based upon the 2-yr flood (13 ft NAVD88).

CRE-1.4 Riparian restoration .....0.6 miles
CRE-9.4 Channel restoration ..... 2.4 acres
CRE-10.1 Levee breach..... 31.7 acres

CRE-15.3 Invasive Plant Control ……..31.7 acres

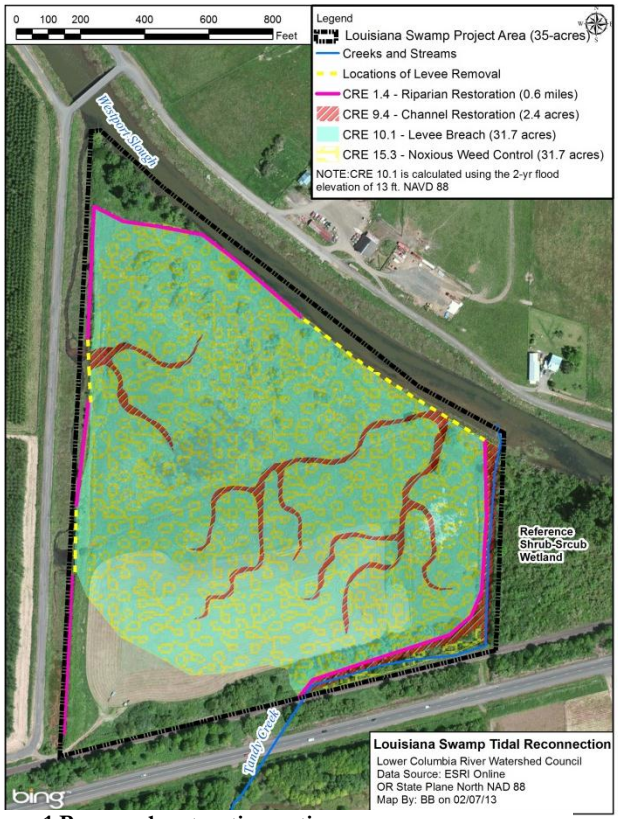

Figure 1 Proposed restoration actions

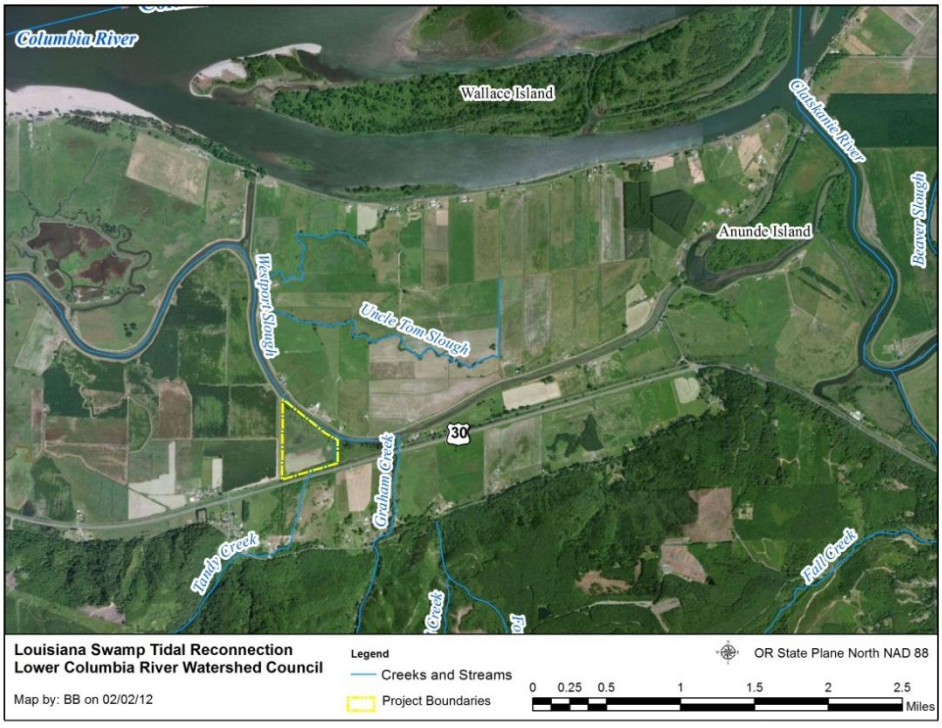

Figure 2 Overview map of project area within the surrounding landscape

Pre-Assessment:
Photo Point

Whenever possible, provide summary data (values).
Provide a digital photograph(s) of the site; note the point and orientation of the photograph, time of year, and tide/water level stage.

Figure 3 Mouth of Tandy Creek looking south across Westport Slough at low tide (January 2011)

Figure 4 Looking at a tide gate on western side of dike from across the slough at low tide (Sept 2012)

Figure 5 Looking west from inside the diked area (July 2011)

Aerial image

Provide an aerial image from a satellite or plane. Annotate the image to convey information about the project. Prepare map(s) with landform types delineated.

Figure 6 2012 Aerial photo of the project site.

Condition

Describe the major stressors and physical controlling factors[2]. Summarize the existing condition

of physical metrics

of the site. What is the average tidal range, salinity? What is the ordinary high water tide elevation? Extreme high water elevation? Two-year flood elevation?

Currently, 35 acres of the project site are hydrologically impaired by the construction of a levee around the site with two non-functional tide gates. This has the effect of disconnecting the site from Westport Slough and preventing access by fish. Water level recorders have been operated at the site within Westport Slough, Tandy Creek, and behind the dike for a 2-year period. Data indicates that Westport Slough tracks Columbia River Water Levels when compared to the Wauna Gage (Station 9439099) operated by NOAA on the Columbia River. The station is 2-miles downstream of the western confluence of Westport Slough and the Columbia. The following tidal elevations are based on measurements taken at the Wauna Gage from 2002 to 2012 and FEMA's estimation of the 2-year flood event for the Columbia.

Average tidal range…….5.77 ft

Salinity……0 ppt

Ordinary high water tide elevation…… ….8.98 ft (NAVD 88)

Extreme high water elevation…….11.59 ft (NAVD 88)

Two-year flood elevation……13 ft (NAVD 88)

Condition of habitat metrics

Describe the key results of a vegetation survey.

The General Land Office Survey shows the project area was a mix of intertidal marsh, scrub-shrub wetlands, and some riparian forest prior to Euroamerican settlement. Today the 35 acres behind the levee is predominately reed canarygrass (*Phalaris arundinacea*) with some patches of Pacific willow (*Salix lucinda*). In addition, areas along the levee are predominated by Himalayan blackberry (*Rubus discolor*) with some individuals of black cottonwood (*Populus balsamifera ssp. trichocarpa*) and red alder (*Alnus rubra*).

Condition of functional metrics

Assess using existing data whether juvenile salmonids are present in the area and within the site. Describe the species composition and population sizes in the immediate or nearby watershed; use an available historical and current fish species and abundance data. Provide context for the potential of the site for fish availability.

ODFW surveys have identified multiple salmonid species utilizing Westport Slough for migration, rearing, and spawning. Salmonids species listed include fall Chinook, coho, and winter steelhead (Table 1) (Streamnet 2011). In addition, Westport Slough is listed as Critical Habitat for Lower Columbia River Chinook and proposed as critical habitat for Lower Columbia River coho; both of which are federally threatened.

Table 1 Streamnet 2011 data regarding salmonid distribution in Westport Slough

Species	Strata	Habitat Utilization	River Mile Reach of Westport Slough
Chinook	Fall	Spawning and Rearing	0 to 1.08 RM
	Fall	Migration and Rearing	1.08 to 9.48 RM
Coho	NA	Migration and Rearing	0 to 10.21 RM
Steelhead	Winter	Migration and Rearing	0 to 10.21 RM

Many of Westport Slough's drainages have spawning populations of coho including Tandy and Graham Creeks, which are adjacent to the property. In addition, the Clatskanie River which connects to Westport Slough at its confluence with the Columbia River supports populations of spawning coho, Chinook, and steelhead. In the last four years, ODFW estimates 1,506 (Year 2011), 1,609 (Year 2010), 1,070 (Year 2009), and 995 (Year 2008) coho adults have returned in each year to spawn (ODFW, "Status of Oregon Stocks of Coho Salmon, Nov 2011). Also, preliminary numbers from a smolt trap operated by ODFW at River Mile 4 of the Clatskanie River estimate the watershed produced 36,850 (+/- 9,068) coho smolts, 71,075 (+/- 24,280) coho fry, and 10,648

(+/- 7,910) chinook fry in the 2011-2012 year.

[1] As used here, the term "restoration" refers to conservation, protection, enhancement, restoration, or creation.
[2] Controlling factors are the basic physical and chemical conditions that construct and influence the structure of the ecosystem.

Performance Anticipated:

Physical change

Describe how the action(s) will affect physical controlling factors.

Breaching the levee will reconnect 31.7-acres of historically tidal marsh and shrub-scrub habitat to Westport Slough and reintroduce natural hydrologic processes to the site. Tidal channels within the site will also be reconnected to Westport Slough, which will experience diurnal tides daily. In addition, Tandy Creek will be restored by reconnecting the stream to its historical floodplain and returning its historical function as an alluvial fan.

Habitat change

Describe the expected condition of habitat after restoration.

The site will be converted to a scrub-shrub wetland with a network of intertidal backwater channels by reconnecting the site to Westport Slough. This will establish a natural and dynamic tidal hydrology supportive of the native plant community and that suppresses invasives. In addition, the increased tidal exchange will restore and maintain a more sinuous network of dendritic tidal channels. Tandy Creek will also be reconnected to its floodplain and allowed to migrate through the project site again. Large wood will also be placed in the intertidal channels, on the floodplain, and in Tandy Creek to increase habitat complexity.

Process/Function change

Describe the expected changes in ecosystem processes and functions; e.g., juvenile salmon feeding, rearing, refuge, water quality improvement, and off site food web support.

The objective of this project is to restore estuarine processes that will support a native shrub-scrub wetland with intertidal channels, which historically occurred at the site. By re-establishing these estuarine processes, there will be an increase in food production and in the outflow of nutrients, invertebrates, and detritus into the Columbia River. This will support a more diverse food web and increase preferred prey resources, such as chironomids, for juvenile salmonids within the estuary. In addition, reconnecting the site to Westport Slough will create refugia from extreme flow events and provide critical rearing habitat for juvenile salmonids promoting their growth and likelihood of surviving at sea. The restoration of these ecosystem processes and functions will also support a diversity of wildlife species and life history strategies including neotropical birds, raptors, waterfowl, beaver, deer, amphibians, and reptiles.

Certainty of Success:

Landowner support

Describe the willingness and support of the landowner.

The property is owned Lower Columbia Tree Farm, LLC and managed by Greenwood Resources, Inc. Both entities are very supportive of the project and would like to see the property restored (See Attached Letter of Support).

Constraints or show-

Describe potential issues that could inhibit or prevent execution and fulfillment of the project goals and objectives.

stoppers	No major issues are anticipated in preventing execution of the project. Currently, the landowner is on board with the project and interested in seeing habitat restored at the site.
Restoration Technique	*Describe the level of acceptance and maturity of the restoration technique; e.g., tried and true or experimental.* Levee removal is a proven and widely utilized technique for restoring floodplains and wetlands. These projects have continually shown to be successful in the re-establishment of tidal processes and the restoration of habitat. Moreover, the restoration design is based upon an in-depth analysis of data collected at the site and nearby reference sites.
Natural processes and self-maintenance	*Explain the extent to which natural processes would be restored and how well the restoration action(s) are anticipated to be maintained through natural processes.* We will restore the site's hydrology by removing the levee, which is the primary controlling factor causing habitat degradation. This will restore estuarine forming processes returning the site's structure and function to a natural state. Moreover, reconnecting the site will establish self-sustaining ecosystem processes that promote and maintain a diverse native wetland community. In addition, we will continue maintenance work to establish native plantings and eradicate exotic invasive weeds over a period of five years. Once fully established, the native plantings will form a diverse and resilient plant community that is self-maintaining.
Community support	*Describe the level of support in the community for this project and how local commitment will be demonstrated throughout the life of the project. Describe how the project will promote partnerships (i.e.– among communities, organizations, and agencies.* The LCRWC is working with multiple partners on the project. Partners include the Columbia SWCD, LCEP, USFWS, ODFW, and the land manager Greenwood Resources. Greenwood Resources is committed to the long-term maintenance of the project for wildlife habitat. They have a strong record environmental stewardship and are Forest Stewardship Council Certified company. ODFW has helped provide guidance regarding specific fisheries needs and the value of different restoration actions. In addition, USFWS has helped with the development of the restoration design and handled all federal permitting.
Project management experience	*Describe your experience administering and fiscally managing similar projects.* The LCRWC and Columbia SWCD have extensive experience coordinating all aspects of habitat restoration projects. We have worked on numerous riparian and wetland restoration projects over the past 10 years. We are familiar with the challenges of working and monitoring project sites under these environmental conditions. Moreover, the SWCD is equipped to handle contracting, monitoring, and reporting for restoration projects. We work with qualified contractors to i construct the projects and will provide construction oversight.

Potential, Anticipated Access Benefit: Distance of the project to the mainstem Columbia River	*State distance in river miles from the mainstem Columbia River.* The project is ~2.8 miles to the Columbia via the upstream/eastern end and ~7.8 miles via the downstream/western end of Westport Slough.
Connectedness to mainstem	*Describe how well the project site is currently connected and will be connected to the mainstem after the restoration. Include any historical data on habitat access and quality.* Removal of the levee will restore full connectivity between the project site and Westport Slough, which is directly connected to the Columbia. Aerial photos from the 1920's and 30's show the site as being completely connected to Westport Slough at that time with no dike altering its hydrology.
Species impacted	*Describe which species, stocks, or populations are likely to benefit, based on the best available data.* ODFW surveys have identified multiple salmonid species utilizing Westport Slough for migration, rearing, and spawning including fall Chinook, coho, and winter steelhead. Lower Columbia River coho and Chinook in particular are known to spawn in the Clatskanie River and utilize the other drainages that contribute to Westport Slough. In addition, Westport Slough is listed as Critical Habitat for Lower Columbia River Chinook and proposed for Lower Columbia River coho. It is also expected that multiple upriver salmon stocks use Westport Slough during the migration period for refugia and rearing, but no data is available at this time regarding this subject.

Potential, Anticipated Capacity Benefit: Habitat Complexity	*Describe habitat complexity, channels, large woody debris.* Reconnecting the site to Westport Slough will provide fish access to a complex shrub-scrub wetland with a network of intertidal channels. Channels will be enhanced to create a complex network of sinuous tidal channels that provide a diversity of habitats. In addition, large wood will be placed within all intertidal channels and in Tandy Creek to increase in-stream complexity, floodplain connectivity, and provide overwintering rearing habitat for salmonids. Riparian plantings will also aid in the recruitment of large wood and create a more complex floodplain.
Water quality	*Describe water quality.* Westport Slough and Tandy Creek have no known major water quality impairments. Monitoring of temperature data indicates that Westport Slough is on average ~1° C warmer than the Columbia River most of the year. In addition, monitoring data indicates that Tandy Creek can provide cold-water refugia for salmonids with its temperature on average being ~4° C cooler than Westport Slough. Water quality will also be improved by increasing shade cover and reducing bank erosion by the installation of new riparian plants.

Invasive species	*Describe impacts from invasive plant and animal species.* Reed canarygrass is the dominant plant community within the low-lying areas behind the levee with Himalayan blackberry occurring along the levee. These plants have the effect of homogenizing habitat and reducing the diversity of detrital inputs that support the food web. Planned actions to control invasives include reconnecting the site to Westport Slough, clearing and grubbing of the Himalayan blackberry, covering with fill or disking the reed canary grass, and planting native plants to help restore the site to a more native natural plant community. In addition, some incidents of yellow flag iris have been observed, which will be removed. Moreover, the site will be managed for a total of 5-years post implementation to ensure a natural native plant community becomes established.
Adjacent lands	*Describe the condition of adjacent lands.* Properties adjacent to the project site are behind a levee and predominantly in agricultural and residential use.

Monitoring:

Monitoring plan	*Describe any long term monitoring plan that has been developed for the site. Describe how anticipated results will be measured and used.* We will follow the sampling methodology described in Roegner et al. 2008, "Protocols for Monitoring Habitat Restoration Projects in the Lower Columbia River and Estuary," to monitor water surface elevations, water temperature, and sediment accretion. We already have two years of baseline data collected, which will allow us to compare pre- and post-physical controlling factors (hydrology and water quality) at the site and how they respond to our restoration actions. In addition, we will conduct photomonitoring at the project site to monitor changes in the vegetation community and the project's landscape.
Reference site	*Describe any reference site(s) that have been identified.* The 10-acre undiked portion of the property that is east of the site reflects that of more undisturbed conditions consisting primarily of shrub-scrub wetlands. Few exotic invasive species occur within this tract and beaver activity is prevalent. Throughout this area, a diverse mix of willow (*Salix spp.*), creek dogwood (*Cornus sericea*), and Spiraea (*Spiraea douglasii*) occur with black cottonwoods dominating the canopy along higher drier hummocks. A vegetation survey and topographic survey was conducted of the reference site to determine what species of native vegetation and at what density they occur under the existing natural hydrology. In addition, hydraulically connected natural tidal channels were observed and measured in Westport Slough and on Swenson Island to provide an analog for the design of the tidal channels.

Management Plans:

Consistency with regional management plans	*Explain how the project is consistent with the Estuary Partnership's Management Plan* (http://www.lcrep.org/complete-plan) and other regional plans. The proposed project directly supports the LCREP Management Plan goal of restoring and maintaining the biological integrity of the Lower Columbia River Estuary. Specific action goals the project would support include: •**Action 2-** "Protect, conserve and enhance identified habitats, particularly wetlands, on the mainstem of the lower Columbia River." •**Action 4** – "Preserve and/or restore buffer areas in appropriate locations along tributaries and the mainstem to a condition that is adequate to maintain a healthy, functioning riparian zone for the lower river and estuary." •**Action 5** – "Restore 3000 acres of tidal wetlands along the lower 46 river miles to return tidal wetlands to 50% of the 1948 level." In addition, the proposed project is consistent with and follows the recommended actions of the Columbia River Estuary ESA Recovery Plan Module for Salmon and Steelhead, Subbasin Plan for the Columbia

	Mainstem and Estuary, the Lower Columbia River Watershed Assessment, OWEB's Watershed Health Indicators for the Oregon Coast Coho Evolutionarily Significant Unit 2007, and the Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead.
Site management plan	*Describe any long-term management plan that has been developed for the site. For acquisition projects, list any possible restoration actions that have been identified for the site.* It is expected that restoration actions taken during the project will make it a fully functioning and self-maintaining ecosystem that will not require management. We will pursue funding to help establish the plantings over a 5-year period post-implementation, however, and eradicate/suppress the return of any exotic invasives. During this time period, we will continue to mow/weed wack reed canarygrass and blackberry, maintain herbivory fencing, and monitor the plantings to promote the site's transition into a natural vegetation community.

Comments:	*Include comments or other pertinent information.*

SECTION 3: PROJECT BUDGET

Applicants shall provide an itemized budget describing how funds will be spent and the details of the project's cost-share. Cost-share is not required for projects to be awarded funding. Although cost-share is not required, if matching funds are available for the project, please include them in the itemized budget. Using this Excel template (http://lcrep.org/sites/default/files/restoration/docs/Estuary%20Partnership%20Application%20Budget%20Form.xls) describe each task in detail, provide cost estimates for each task, and provide justification for the estimates (unit costs, units, etc.).

Provide a short narrative describing what information was used to develop the budget (i.e., contractor or engineering estimates, past project experience), any assumptions used for specific budget elements, and explanations for any unusual costs. Provide an estimate for future costs necessary to complete the restoration project.

Awards may be made for less than the full amount requested by the applicant.

In-kind contributions may be used as cost-share (not required). They are subject to the following limits:

- In-kind contributions shall relate directly to the proposal.
- In-kind contributions are limited to time, material, or real or personal property donated to the sponsoring organization to fulfill project requirements.
- Volunteer time may be donated at a rate not to exceed $20.00 per hour.
- Contributed time from individuals receiving compensation through the grant may not be counted as an in-kind contribution.
- Advisory groups or committee time is not eligible. An advisory group or committee is a group that provides advice about the project to the sponsoring organization.
- Donations of indirect costs, per diem, travel and subsistence expenses are not allowable, nor are studies conducted by other state or federal agencies.
- In-kind contributions shall be fully documented and reported separately when requesting reimbursement. In-kind contributions performed prior to the execution of the grant agreement or funded under another grant are not eligible.

SECTION 4: MAP AND PHOTOS

Please include a project map and photos of the project site. Please attach photos, including those used in Section 2 (Project Narrative), in JPEG format, separately.

Completed applications must be submitted electronically (in MS Word format) to:

ccorbett@estuarypartnership.org
Catherine Corbett
Chief Scientist
Lower Columbia Estuary Partnership