

# WATERSHED RESTORATION GRANT APPLICATION

Revised  
October 2013

## OWEB's Mission

To help protect and restore healthy watersheds and natural habitats that support thriving communities and strong economies.

**OWEB applications were updated for the October 2013 cycle. All sections of applications must be completed using the October 2013 application forms. Applications submitted using previous forms will not be accepted.**

## GENERAL INSTRUCTIONS

1. Please read the "Instructions for Completing Restoration Grant Applications" before beginning your application.
2. Please use 8½" x 11" paper. A double-sided application and materials are **optional** except for oversized maps and designs or multiple sets for reviewers. All materials included with the application should be **single-spaced** wherever possible, **unstapled and unbound**.
3. Complete Sections I, II and III.
4. Complete the required forms and attachments: Section IV, Attachments A, B, C and D
5. Avoid color, except maps, and detail that will not photocopy clearly (see below\*).
6. Read and sign the Restoration Grant Application (Section I Certification).

\* **IMPORTANT:** Submit one **COLOR Project Location map** on 8½" x 11" paper. This map will be used to track project locations, and color will provide identifying features that are not legible in black and white. **If there are map(s), photo(s) or design(s) that you want the reviewers to see in color, supply 25 copies of each. If more than one map/photo/design is included, assemble and staple as a set; provide 25 sets for distribution to reviewers. This is the only exception to the use of staples.**

## SUBMISSION OF GRANT APPLICATIONS

Grant applications may be submitted to OWEB by hard copy via mail or delivery to our Salem office.  
No faxes or e-mails will be accepted.

Oregon Watershed Enhancement Board  
775 Summer Street NE, Suite 360  
Salem OR 97301-1290  
Phone: (503) 986-0178

Section I  
**APPLICANT INFORMATION**

Type in the information for Sections I and II.

Name of project: Winter Lake Restoration Project

OWEB funds requested: \$1,370,000.00

Total cost of project: \$1,450,000.00

**PROJECT LOCATION:**

This project occurs in one region only. Region 1  Region 2  Region 3  Region 4  Region 5  Region 6

This project occurs in multiple regions. Check all that apply. Region 1  Region 2  Region 3  Region 4  Region 5  Region 6

This project occurs statewide / in all regions.

This project occurs at (check one):  Site unknown at this time  A single site  Multiple sites

Watershed Name(s)	County or Counties
Coquille	Coos

Township, Range, Section(s) (e.g., T1N, R5E, S12)	Longitude, Latitude (e.g., -123.789, 45.613) (required for federal/state reporting)	Watershed code(s) – Please note the 10-digit hydrologic unit code, previously 5 <sup>th</sup> Field HUC
T27,R13,S28	43° 12' 15.511" N; 124° 15' 13.479"	1710030506

Applicant	Project Manager
Name: Steve Denney	Name: Steve Denney
Organization: The Nature Conservancy	Organization: The Nature Conservancy
Address: 821 SE 14 <sup>th</sup> Ave. Portland, Oregon 97214	Address: 859 Nandy Drive Roseburg, Oregon 97471
Phone: 503-802-8100	Phone: 541-672-5469 O 541-671-1803 C
Fax: 503-802-8199	Fax: n/a
Email: sdenney@tnc.org	Email: sdenney@tnc.org

Fiscal Agent	Landowner(s)
Name:	<input checked="" type="checkbox"/> Public: Agency: Oregon Dept. Fish and Wildlife
Organization:	<input checked="" type="checkbox"/> Private: Name(s): China Creek Gun Club
Address:	
Phone:	
Fax:	
Email:	

**CERTIFICATION:**

I certify that this application is a true and accurate representation of the proposed work for watershed restoration and that I am authorized to sign as the Applicant or Co-Applicant. By the following signature, the Applicant certifies that they are aware of the requirements (*see Application Instructions*) of an OWEB grant and are prepared to implement the project if awarded.

Applicant Signature: Catherine A Macdonald Date: August 14, 2013  
 Print Name: Cathy Macdonald Title: Director of Conservation, The Nature Conservancy in Oregon  
 Co-Applicant Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Print Name: \_\_\_\_\_ Agency: \_\_\_\_\_

**Section II**  
**PROJECT INFORMATION**

1. **Abstract.** In approximately 200 words, 1) identify the project location, 2) state the watershed issue or problem to be addressed, 3) the proposed solution including the area or other measurable units to be treated, 4) any proposed effectiveness monitoring, and 5) how OWEB funds will be used.

The Nature Conservancy will design and engineer a project to restore 546 acres of tidal wetlands at the mouth of China Camp Creek in the Coquille River estuary. This project area is owned by two landowners, the Oregon Dept. Fish and Wildlife (ODFW) and the China Creek Gun Club. Additional habitat work will occur on ODFW land (246 acres) in an adjacent drainage, Beaver Creek in an area known as Beaver Slough. The Coquille Sub-basin Plan written by the Coquille Indian Tribe for NOAA Fisheries and the Oregon Coastal Coho Plan identify lack of off-channel over winter habitat and loss of access to that habitat as the key limiting factor for coho populations in the Coquille River. This project will improve and restore over winter habitat by reconnecting approximately 10 miles of remnant channels, remove approximately 3 miles of internal berms and 1.5 miles of internal ditches, place 145 pieces of large wood and plant 248 acres with historic wetland trees. Access for juvenile coho salmon to the Coquille River will be improved. Invasive species on both project sites will be controlled. OWEB funds will be used to conduct the habitat improvement described above as well as design, engineering and permitting the project. A \$1,000,000 National Coastal Wetland Conservation Act grant from the U.S. Fish and Wildlife Service has been awarded to the Oregon Watershed Enhancement Board to fund a portion of the work described in this project.

2. **Has this project or any element of this project, ever been submitted in a previous application(s) to OWEB?**

Yes  No

If yes, what was the application number(s)?

3. **Is this project, or any element of this project, a continuation of a previously funded OWEB restoration project(s)?**

Yes  No

If yes, what was the grant number(s)?

4. **Is this project a result of a previously funded OWEB Technical Assistance project(s)?**

Yes  No

If yes, what was the grant number(s)?

5. **Does this application propose a grant for a property in which OWEB previously invested funds for purchase of fee title or a conservation easement; or is OWEB currently considering an acquisition grant for this property?**

Yes  No

If yes, what is the grant number(s)?

6. **Is this project related to a proposed or funded Oregon State Weed Board grant application(s)?**

Yes  No

If yes, list the month and year, or grant application(s) number, and briefly describe how this project is related to the Weed Board application or grant.

7. **Project Partners.** Show all anticipated funding sources, and indicate the dollar value for cash or in-kind contributions. Be sure to provide a dollar value for each funding source. If the funding source is providing in-kind contributions, briefly describe the nature of the contribution in the Funding Source Column. Check the appropriate box to denote if the funding status is secured or pending. In the Amount/Value Column, provide a total dollar amount or value for each funding source.

Funding Source Name the Partner and what their contribution is.	Cash	In-Kind	Secured (x)	Pending (x)	Amount/Value
OWEB	\$1,370,000.00	\$	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$1,370,000.00

Landowner(s) or other partners:	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
The Nature Conservancy	\$	\$80,000.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$80,000.00
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
	\$	\$	<input type="checkbox"/>	<input type="checkbox"/>	\$
<b>Total Estimated Funds (add all amounts in the far-right Column):</b>					<b>*\$1,450,000.00</b>

\* The total should equal the total cost of the project on page 1 of the application.

8. Have any conditions been placed on other funds that may affect completion?  Yes  No

If yes, explain:

9. Are you requesting OWEB funds for Effectiveness Monitoring?  Yes  No

If you check "Yes", follow the instructions in Question R17

10. Are you requesting OWEB funds for Plant Establishment?  Yes  No

If you check "Yes", follow the instructions in Question R18

## Section III

### SPECIFIC RESTORATION PROJECT ACTIVITY

These essay questions and their answers are designed to guide you and reviewers through a logical process of understanding and identifying the problem to “fixing” the problem and measuring for success. **Refer to the Application Instructions for clarification and helpful examples.**

You may use the application form to respond to the questions, using additional sheets of paper as necessary **OR** answer the questions on separate pages. Be sure to include the question numbers and text of the questions before you begin typing your answers to assist the reviewers in evaluating your application.

Use 8½" x 11" paper. A double-sided application and materials are optional except for oversize maps and designs or multiple sets for reviewers. All materials should be **single-spaced** wherever possible, **unstapled** and **unbound**, except for sets of maps/photos/designs (see Page 1 of the application instructions for assembling multiples for reviewers). Use a 12-pt type size to answer the questions and a 10-pt type size for the tables. Use bullets where appropriate. Use **bold face** and *italics* for emphasis only. Do not use color highlights for text emphasis or in tables as the highlight turns black when the application is scanned. If the project involves multiple sites, be specific for each.

#### **R1. Contextual Overview**

Provide the location and significance of the project including why that location was chosen and a brief explanation of the history of the issues leading to the project. Describe the project in the context of the landscape including the key water quality, water quantity, species, habitat, land use and resource management issues (physical or social) that are proposed to be addressed in that watershed. **See the Application Instructions for clarification.**

\* The Winter Lake Wetland Restoration project targets restoration of approximately 546 acres of floodplain habitat on the Coquille River in an area referred to as Winter Lake and Beaver Slough, just west of the town of Coquille (River Mile 18.5). The project also includes a Conservation Easement on 120 acres and an acquisition of 107 acres at Lowe Creek. The Coquille River Valley historically had an estimated 17,425 acres of estuarine wetlands. Starting in the 1870s, European settlers began converting wetlands in the valley for agricultural and community development purposes. By 1992, only 373 acres of the valley’s wetlands remained un-diked (Benner, 1992).

While there are many reasons for the decline of coho in the Coquille— including over-fishing, predation, water quality declines, logging practices, and competition with invasive species – conversion of wetlands and lack of connectivity have severely decreased habitat value and fish access to critical off-channel, slow-water overwinter habitat. The loss of tidal wetlands has also increased stream temperatures and reduced dissolved oxygen levels. Scientists have identified loss of overwinter habitat – i.e., loss of these tidal wetlands – as the key limiting factor preventing the Coquille coho population from reaching the desired status (Coquille Subbasin Plan, Coquille Indian Tribe, 2007, prepared for NOAA Fisheries, p. 2, 66, 68, 101). This project will help address that primary limiting factor for coho recovery in the Coquille Valley. In addition to restoring water flow, replanting native wetland vegetation will provide shade, lower water temperatures, help improve dissolved oxygen levels, and increase insects and other forage species for salmonids.

\* The Nature Conservancy is working with numerous entities, including the U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife (ODFW), Ducks Unlimited, the Coquille Indian Tribe, Beaver Slough Drainage District and many others to protect and restore Coquille Valley wetlands to address these issues. The request for restoration funding proposed here is part of this broader conservation effort which includes:

- Acquisition of two properties – one on Winter Lake and one on Beaver Slough through a land exchange by Oregon Department of Fish and Wildlife (completed in February 2013);

- Restoring stream and wetland habitat on the ODFW–Winter Lake and ODFW–Beaver Slough properties which ODFW has recently acquired (this proposal). Specific actions include: connecting approximately 10 miles of remnant channels to the Coquille River for salmon and other fish/wildlife species on the ODFW-Winter Lake property, planting native wetland plants on the ODFW -Winter Lake property, and placing large wood and controlling invasive species on both properties;
- Protection of two additional properties utilizing US Fish and Wildlife Service funding – fee title to a property located downstream at Lowe Creek and acquisition of a conservation easement with the China Creek Gun Club immediately adjacent to the Winter Lake property; and
- Replacement of tide gates on China Camp Creek by the Beaver Slough Drainage District (under separate funding), which will allow some level of natural tidal flow to the restored ODFW-Winter Lake property while also allowing improved drainage and grazing on adjacent private, agricultural lands.

## R2. Problems to be Addressed

Provide information specific to the project: a) The specific problem(s) you are addressing; and b) the *root* cause(s) of the problem(s). **DO NOT describe the project here; you will do so in question #R3.** You may add narrative in addition to the table.

Specific Problem(s)	Root Cause(s) of the Problem
Lack of forested wetlands	By the early 1900s, most of the Coquille Valley forested wetlands were cleared, drained and diked. While these actions created habitat for wintering waterfowl and shorebirds, the practice resulted in a channelized creek and lack of high quality forested wetlands for coho salmon to overwinter. Out-migrating juvenile coho need access to overwinter habitat to escape the main channel during winter flood events/fast water, to forage, to escape predators, and to linger in the estuary while acclimating to salinity. Loss of forested wetlands also has reduced habitat for beaver, a keystone species.
Lack of insect life	Conversion of the Coquille Valley wetlands caused a decline in insect life, negatively affecting salmonids plus a variety of neo-tropical birds, insectivorous birds, reptiles, amphibians, and bats.
Increased stream temperatures	Converting the forested wetlands has resulted in a lack of shade from native vegetation, which in turn has increased stream temperatures to the detriment of salmon and other native species.
Degraded water quality	Draining the wetlands reduced dissolved oxygen levels. This funding request will not completely address the dissolved oxygen issue, but replanting native species and reconnecting the remnant channels will help increase DO levels.
Disconnected stream channels	Land conversion disconnected stream channels, which has increased the potential for fish stranding as winter water levels recede, as well as increasing the probability of predation from avian predators. Disconnected channels have also limited fish access to over winter habitat

## R3. Project Description

Using the table below, provide a description of the project that describes the restoration activities to occur (e.g., direct flow, remove 36" culvert, construct free spanning bridge, place 12 three log clusters between RM 44 and 52, etc.), including a description of the methodologies (e.g., juniper – burning or cutting; tree release – manual or herbicide; etc.) and the equipment planned for use. In addition, describe any Project Management functions/ activities necessary to implement the project (e.g., acquire permits or landowner approval; solicit bids, award contracts, etc.). The degree of detail should match the project complexity and technical difficulty to allow for full evaluation of technical viability. For projects involving multiple sites, be sure to identify and describe them separately, as appropriate. **This is not the place to describe the benefits of the project, but rather the specific elements of the proposed project.** You may add narrative in addition to the table.

Much of the 259 acre ODFW- Beaver Slough property is in historic vegetative condition and will require little intervention; restoration activities planned for this property include placing 45 pieces of large wood as well as surveying for and controlling invasive species.

Most of the on ground restoration activities will occur on the ODFW -Winter Lake property, including restoring 287 acres of off-channel, slow-water wetlands for coho salmon over-winter habitat; converting pasture to native wetland vegetation by planting approximately 248 of those 287 acres with native wetland trees and shrubs; placing 100 pieces of large wood; and surveying for and controlling invasive species. The ultimate goal of the project is to replace the existing deteriorating tide gates (with additional funding in the future) with a tide gate system that will allow this restoration project property to be placed under tidal influence. Replacing this tide gate system will provide for improved fish access to the restored wetlands, restore tidal flow to the restored wetlands and improve connectivity to the Coquille River.

Project Element	Proposed Action
<i>Restoration Activity</i>	
Winter Lake- Reconnect remnant channels	Reconnect approximately 10 miles of remnant channels to the Coquille River. Utilize LiDAR to identify remnant channels and conduct physical land survey to determine their location, depth, and width. Contract with engineer to design shape, slope, and depth of channels to be able to handle the amount of water flow. Place two ditch fill areas in China Camp Creek at sites identified on map (see attached). Place a water control structure as indicated on attached map to improve water management into the restored wetland project area and China Camp Creek. Restore remnant channels to proper depth and grade using a track hoe to make sure all channels are connected.
Winter Lake- Fill ditches and remove berms, build approximately 150 feet of new berm. Raise low areas in exterior dikes to levels consistent with the rest of the dike system	Remove existing interior dikes and drainage ditches with a track hoe. Fill 1.5 miles of existing interior ditches with berm material currently located on each side of the ditch, to allow free flow of water across the property and allow reconnection of remnant channels; remove 3.0 miles of existing berms. The short new berm will be constructed to separate a small private property parcel from the ODFW property, so it will not be impacted when the restored wetland is ultimately placed under tidal flow (see map for dike location). Raise low areas on exterior dikes (which need to remain in place to protect adjacent properties) to levels consistent with the rest of the dike system to eliminate potential erosion sites and provide water management at levels to prevent overtopping, erosion and weak areas. Track hoe and dump truck will be needed for these activities
Winter Lake- Plant native wetland trees and shrubs on approximately 248 acres	A planting plan for the property has been developed (see planting plan attached), to be implemented in phases, which includes species, planting densities, plant sizes, etc. Plant densities and species composition were derived from vegetation composition at the ODFW-Beaver Slough property which is in near historic vegetation. Contract with nurseries to raise the planting stock for multiple years; contract crews and use volunteers for the actual planting. Develop and implement a monitoring plan to monitor survival targets and replace plants as needed. Develop and implement a plan to control reed canary grass until shrubs and trees are established and free to grow.
Winter Lake- large wood	Hire contractor to secure and place 100 pieces of large wood throughout the project site in such a way that they can't float and move (see R5b below for details). Track hoe and log truck needed. Possible alternatives that will be evaluated by the design and engineering firm include using water-logged wood from log ponds, partial burying of large wood with root wads attached, driving wood pieced into existing banks, among others.
Winter Lake- invasive species	Survey for invasive species. Develop and implement a control/eradication and monitoring plan for those invasive species and areas identified. For all invasive species control, hire a contractor for the control work. Draft a control plan for reed canary grass and implement while restoration work is conducted.
Winter Lake - Pre-project monitoring	Implement surveys of fish, birds, and vegetation for pre and post project monitoring. Design plans are being completed in consultation with Oregon State University and ODFW.
Winter Lake - Geo-tech report and Hydrology reports	Complete geotechnical engineering and Hydrology reports
Winter Lake - Remove old tide gate structures	Remove old, remnant tide gate structures from stream outlet to improve connectivity to Coquille River. The hazardous materials associated with the 3 or 4 old tide gate structures

	include creosote timbers and bulkheads, old galvanized tubes coated with tar, old pump house tubes, concrete and steel girders.
Beaver Slough-Roseburg Resources- invasive species	Survey for invasive species. Develop and implement a control/eradication plan for those species and areas identified. Develop a contract with a licensed applicator for control work if determined to be needed.
Beaver Slough-Roseburg Resources- large wood	Develop a plan for placing large wood on the project area that prevents movement to downstream properties. Place 45 pieces of large wood in the project site with a helicopter. Monitor placed wood to ensure none moves. Work with Coaledo Drainage District to make sure project does not affect drainage for upstream and downstream neighboring properties and meets current drainage district statutes and rules.
<b>Project Management Activity</b>	
Secure permits	For ODFW-Winter Lake earth-moving activities: secure fill/removal permits from Oregon Division of State Lands and Army Corps of Engineers for removal of old berms, construction of new berms, filling of ditches, and shaping of the remnant channels.
State Historic Preservation Office (SHPO) review and approval	For ODFW-Winter Lake earth-moving activities: conduct archeological survey and secure approval from SHPO in cooperation with the tribes for all ground-disturbing activities on the project site and areas where fill material may be obtained.
Engineering approval	For ODFW-Winter Lake earth-moving activities: secure engineering approval. Engineering design will be described in the Request For Bid and will include site-specific drawings and specifications for ditch fills and will include hydraulic analysis of China Camp Creek for the peak storm flows and tides
NOAA Fisheries approval	For ODFW-Winter Lake earth-moving activities: secure approval from NOAA Fisheries under the ESA to conduct the project while minimizing or eliminating impacts to coho salmon.
NOAA Fisheries and ODFW fish passage rules	Meet and comply with fish passage rules for both agencies. If needed, obtain needed approval for the project from each entity.
Coos County Flood Plain Certification	Meet the requirements for flood plain certification by review of the Coos County Planning Department
Hazardous materials evaluation of the China Creek Gun Club	Survey needed- to determine potential and identify hazardous materials that might be present on the China Creek Gun Club prior to completing the Conservation Easements. If hazardous materials are found develop a plan and funding for removal.
Develop and award contracts	Develop and advertise RFBs and award contracts for all aspects of the project using contractors.

#### R4. Project Objectives

What are the proposed project objectives? Provide specific objectives based on the location, size and significance of the project and provide information on how the objectives could be evaluated. The measurements should be able to be reported to document successful implementation. **See the Application Instructions for the distinction between project objectives and achievement of goals.**

Project Element	Specific Objectives	Measure for Evaluation
Reconnect remnant channels at Winter Lake	Reconnect approximately 10 miles of remnant channels to the Coquille River.	Stream length
Fill in existing drain ditches and remove associated berms at Winter Lake	Fill in 1.5 miles of existing ditches on project sites and remove 3.0 miles of berms associated with the ditches.	Miles of ditch and berm removed.
Plant native wetland trees and shrubs on 248 acres at Winter Lake	66 % survival after 3 years	% survival.
Place large wood on Winter Lake and Beaver Slough project sites	Place 145 piece of large wood on Winter Lake and Beaver Slough project sites; no movement of wood.	# of wood placed. # of pieces of wood that remain in place.
Control Invasive	95 % removal of target invasive	% cover of target invasive species



Species on Winter Lake and Beaver Slough properties	species	
---	---------	--

**R5. Project Design**

- a) Provide a list of qualifications and experience you will require for the project designer. If a project design has been completed, identify the designer and what qualifications and experience they have.

Steve Denney, project manager for The Nature Conservancy at the Coquille, will oversee project design, and be the project manager for implementation. Denney has 39 years of experience managing fish and wildlife projects, the last 28 years overseeing or managing projects in Southwest Oregon. Most recently, he was the southwest regional manager for Oregon Department of Fish and Wildlife, before coming to The Nature Conservancy as the South Coast Conservation Director. He has supervised stream restoration and habitat biologists in all five southwest Oregon counties. Steve has overseen two large comprehensive projects including the federal and state delisting of Columbian white-tailed deer and Diamond Lake restoration. He has spent the last three years developing restoration projects along the South Coast of Oregon, working closely with the Coquille and South Coast Watershed Councils. He serves on the executive committee for the Wild Rivers Coast Alliance, which may be a funder of Coquille wetlands restoration in the future.

- b) Describe the design criteria used or proposed and how those criteria take into consideration natural events and conditions (e.g., culvert design to 100-year flood event, wood placement to readjust with higher than bankfull flows, cultivation to retain at least 75% stubble, 4-strand fence to allow for wildlife passage, etc.).

The Winter Lake area floods on an annual basis, and the project site is under water during most of the winter months, so major flood events should have minimal impact. Other restoration activities such as reconnecting remnant channels and planting native wetland trees and shrubs should not be lost during natural events and conditions

Large wood provides habitat, not only for fish but a variety of mammals, birds, reptiles, amphibians and insect life. No large wood currently exists on the Winter Lake site. A large wood survey was completed at the Beaver Slough property in 2012. While some large wood exists, most is small diameters and lengths and are concentrated along the upland edge. A literature search, while describing lots of prescriptions for large wood in streams, revealed no literature on how much large wood is appropriate for forested wetlands. Most restoration experts contacted indicated larger volumes and numbers of large wood pieces is more desirable. The numbers chosen for this project proposal were chosen based on the available funding. If more large wood is needed, additional grants would be secured for the work. Wood placement at both the Beaver Slough and Winter Lake sites will be done in a floodplain within existing Drainage Districts so large wood will need to be placed in such a way that it remains in place and does not move to neighboring properties or against other infrastructure such as bridges. This may include large logs with roots attached, using water-logged "sinkers" that won't float, keying in the logs and root wads into the bank, using bio-blocks as anchors or partially burying logs to prevent movement. The log placement planning process will utilize best practices to prevent movement. This activity will also be done in consultation with the local drainage district to get input on the wood placement.

**R6. Design Alternatives**

Were alternative designs or solutions considered? (check one)       Yes       No

If yes, explain why the design or approach proposed was chosen. If no, explain why alternative approaches were not explored.

On the Winter Lake property, we examined three alternatives: 1) reconnect China Camp Creek and revegetate the property with native wetland trees and shrubs, with no additional actions; 2) do all of the above in number 1, as well as replace the tide gates downstream with Muted Tidal Regulators, which will provide natural tidal flow to the Winter Lake property while also allowing existing practices on adjacent private, agricultural lands; and 3) reconnect remnant channels to the Coquille River while keeping China Camp Creek in its current location, place a water control structure at the SE corner of the property and eventually (using future funding sources) replace the existing tide gate system with Muted Tidal Regulators. We chose #3 in an effort to provide the maximum tidal influence to the restored wetlands and restore the maximum access by coho salmon to critical over-winter habitat while not negatively affecting neighboring agricultural lands and activities. By isolating the restored wetlands and the China Creek Gun Club property, it will be possible to provide for more tidal influence to the restored wetlands. This alternative restores the natural tidal processes, improves access to the area by juvenile coho salmon using overwinter habitat (which will increase survival), restores habitat and access for other anadromous fish, and improves habitat for other fish, wildlife, birds, reptiles and amphibians while not affecting neighboring properties with tidal flows.

As previously mentioned, replacing the tide gates is not included in this grant request because of the cost and lack of access to funding. The Nature Conservancy and ODFW are currently working with the Beaver Slough Drainage District to secure funding to replace those tide gates with Muted Tidal Regulators, which will dramatically improve the restoration project by improving fish passage and allowing for tidal flow to the Winter Lake project area. Acquiring a conservation easement over an adjacent property owned by the China Creek Gun Club, a duck-hunting club, will enable replacement of the tide gate and allow project managers to restore tidal function and connectivity to the restored wetland area on ODFW ownership. The Beaver Slough Drainage District and others are seeking funding for tide gate replacement. We expect to be able to complete these two steps in the next few years.

On the ODFW-Beaver Slough property, we examined two alternatives: 1) acquire the property and conserve it in perpetuity, with no restoration actions since the property is in near historic vegetative condition; and 2) acquire the property and perform some restoration actions to improve the habitat. We chose the latter, because it will greatly benefit fish and wildlife species. Furthermore, some of the restoration actions involve surveying for and controlling invasive species, which is important because without any surveillance or control, they have the potential to greatly degrade the habitat value over time.

### R7. Proposed Project Schedule

Use the table below to show the anticipated schedule for the project. Add or change the list of project elements to fit your project. See the Application Instructions for clarification and an example.

Project Elements	Start Date	End Date	Description
Phase I Bid Solicitation	August 2013	August 2013	Develop and distribute bid solicitation materials for design, engineering and permitting for reconnecting remnant channels and removing interior berms and ditches
	October 2013	October 2013	Develop and distribute bid solicitation materials for a nursery to provide shrubs and trees over the next four to five years
Phase I Contracting	September 2013	March 2014	Contract with Engineering firm to complete the design, engineering and permitting phase of the project. Engineering firm will complete engineering phases at 30%, 60%, 90% and 100 % design levels. Contractor will complete permitting with appropriate agencies for restoration activities.
	October 2013	Nov. 2013	Contract for monitoring

	October 2013	March 2018	Contract with nursery for shrubs and trees- three phases over 5 years
Pre-project Fish Population Monitoring	October 2013	July 2014	Implement pre-project fish population monitoring
Permit Applications	March 2014	July 2014	US Army Corp of Engineers and Oregon Division of State Lands fill and removal permits
	March 2014	July 2014	SHPO surveys and approvals
	March 2014	July 2014	NOAA Fisheries Review and approval for impacts to juvenile coho
	March 2014	July 2014	Engineering Stamp and Approval
Phase II Bid Solicitation and Contracting	March 2014	July 2014	Flood Plain Certification Approval- Coos County
	July 2014	July 2014	Solicit bids and contract for reconnecting remnant channels and removing interior berms and ditches
	July 2014	Aug. 2014	Solicit bids and contract for crew and contractor to plant trees and shrubs over four years
Construction	July 2014	October 2014	Reconnect remnant channels, install water control structure, and remove interior berms and ditches
Planting & Plant Establishment	Oct. 2014	March 2019	Implement planting plan
Implementation Review	January 2015	Ongoing Annual	Annual review with partners to update on implementation, maintenance, monitoring, etc.
Post Project Plant Monitoring	September 2015	May 2019?	Implement post-project plant monitoring to determine plant survival
Phase III Bid Solicitation and Contracting	January 2016	Feb. 2016	Solicit bids and contract for large wood placement: Beaver Slough (helicopter) and Winter Lake (track-hoe)
Materials Acquisition	February 2016	July 2016	Acquire large wood for Beaver Slough and Winter Lake
Install Large Wood	July 2016	Sept. 2016	Implement large wood component on Beaver Slough and Winter Lake
Project Inspection	October 2016	October 2019	Verify that all components of the project committed to were completed
Project Maintenance	2015	Ongoing-annual	Monitor large wood placement & tree and survival
<i>Add more lines as needed</i>			

**R8. Salmon/Steelhead Populations Targeted and Expected Benefits to Salmon/Steelhead**

The information provided will be used by OWEB to better meet federal and state reporting requirements. Completion of this section is required but will not be used to evaluate this application for funding.

This project is **NOT** specifically designed to benefit salmon or steelhead.

► **If you check this box, STOP here and GO TO Question R9.**

**Targeted Salmon/Steelhead Populations:** Select one or more of the salmon ESUs (Evolutionary Significant Unit) or steelhead DPSs (Distinct Population Segment) that the project will address/benefit. For species where the ESU/DPS name is not known or determined, use the species name with unidentified ESU (e.g., Chinook salmon – unidentified ESU). Additional information on the designation and location of the salmon/steelhead populations can be found at <http://www.nwr.noaa.gov/ESA-Salmon-Listings/Salmon-Populations/Maps/Index.cfm>.

Chinook Salmon ( <i>Oncorhynchus tshawytscha</i> )		Coho Salmon ( <i>O. kisutch</i> )	
<input type="checkbox"/>	Deschutes River summer/fall-run ESU	<input type="checkbox"/>	Lower Columbia River ESU
<input type="checkbox"/>	Lower Columbia River ESU	<input checked="" type="checkbox"/>	Oregon Coast ESU
<input type="checkbox"/>	Mid-Columbia River spring-run ESU	<input type="checkbox"/>	Southern Oregon/Northern California ESU
<input checked="" type="checkbox"/>	Oregon Coast ESU	<input type="checkbox"/>	unidentified ESU
<input type="checkbox"/>	Snake River Fall-run ESU	Steelhead ( <i>O. mykiss</i> )	
<input type="checkbox"/>	Snake River Spring/Summer-run ESU	<input type="checkbox"/>	Klamath Mountains Province DPS
<input type="checkbox"/>	Southern Oregon and Northern California Coastal ESU	<input type="checkbox"/>	Lower Columbia River DPS
<input type="checkbox"/>	Upper Klamath-Trinity Rivers ESU	<input type="checkbox"/>	Middle Columbia River DPS
<input type="checkbox"/>	Upper Willamette River ESU	<input checked="" type="checkbox"/>	Oregon Coast DPS
<input type="checkbox"/>	unidentified ESU	<input type="checkbox"/>	Snake River Basin DPS
Chum Salmon ( <i>O. keta</i> )		<input type="checkbox"/>	Washington Coast DPS (SW Washington)
<input type="checkbox"/>	Columbia River ESU	<input type="checkbox"/>	Upper Willamette River DPS
<input type="checkbox"/>	Pacific Coast ESU	<input type="checkbox"/>	Steelhead/Trout unidentified DPS
<input type="checkbox"/>	unidentified ESU		

**Expected Benefits:** Write a brief description of the goals and purpose of the project and how it is expected to benefit salmon/steelhead or salmon/steelhead habitat. This answer should be no longer than 2000 characters, which is approximately 330 words. See **Application Instructions** for examples and ideas on how to calculate the number of words or characters in your answer.

Long term, the project partners' goal for the Coquille River basin is to increase habitat connectivity and biodiversity. For this project, in particular, we will restore habitat for coho salmon and other anadromous fish (Chinook salmon, cutthroat trout, winter steelhead, western brook lamprey and Pacific lamprey), which will gain more than 10 miles of creek habitat and 546 acres of forested wetlands for foraging, rearing, and overwintering in Winter Lake and Beaver Slough. In addition, objectives include raising dissolved oxygen levels, lowering stream temperatures through increased shade from vegetation, and facilitating the return of beaver (a keystone species) to the area, thus providing additional habitat for anadromous fish as well as other species of birds, mammals, reptiles and amphibians.

Immediate outcomes after implementation of the restoration project include:

- 3 miles of berms removed;
- 1.5 miles of ditches and associated interior dikes removed;
- 248 acres of wetlands re-vegetated with native wetland shrubs and trees at Winter Lake-Bandon Biota;
- 10 miles of remnant channels and side channels restored in Winter Lake and reconnected to the Coquille River;
- Invasive species controlled on Winter Lake and Beaver Slough properties; and,
- 145 piece of large wood placed on Winter Lake and Beaver Slough properties.

### R9. Project Relationship to Regional Priorities

If the project specifically implements a plan or larger conservation effort, identify the effort and the specific role of this project. Explain whether the project implements a regional plan (e.g., ESA Recovery Plan, Coastal Coho Assessment, NWPCC Subbasin Plan, Groundwater Management Area). Specifically identify the relationship between the proposed project and the OWEB Basin Priorities. Priorities can be found on the OWEB website at: [www.oregon.gov/OWEB/restoration\\_priorities.shtml](http://www.oregon.gov/OWEB/restoration_priorities.shtml). (See the **Application Instructions** for helpful links to various regional plans.)

According to OWEB's restoration priorities for the Lower Coquille River, nearly every watershed health indicator is limiting the Oregon coastal coho ESU's recovery. The limiting factors this project will address include the following

- Aquatic/in-stream: water quality, water temperature, complexity of winter rearing habitat, large wood
- Riparian: invasive species
- Tidal wetlands: water quality, vegetation modification, invasive species, tidal wetland loss.

\* This project implements the following regional and local plans:

- 1) Coquille Subbasin Plan (Coquille Tribe, for NOAA Fisheries, 2007) identifies lack of overwinter habitat as the key limiting factor that negatively affects coho salmon and other salmonid species and the one limiting factor that needs to be addressed for coho to reach their desired population/status. The subbasin plan also recommends that wetlands be reconnected to the Coquille River and freshwater wetlands be restored to provide year-round rearing habitat (p. 2, 66, 68, 101). Our project fulfills both needs by creating more overwinter habitat and reconnecting the river to the wetlands.
- 2) Oregon Coast Coho Conservation Plan (ODFW 2007) designates many lowland areas in Coquille Valley as having "high intrinsic potential" for coho. It names insufficient overwintering habitat as the biggest limiting factor; 75 percent of coho juveniles are lost due to lack of overwinter habitat. Our project addresses this need by creating more overwinter habitat.
- 3) Coquille Watershed Association Action Plan (Coquille Watershed Association 2003) emphasizes the need to concentrate restoration efforts on non-federal lands in the watershed. The plan recommends restoring and enhancing historic floodplains; creating and maintaining off-channel refuge and rearing areas for fish; planting, protecting and fencing riparian areas; and managing fecal coliform sources. Our project will be doing all these things.
- 4) Oregon Plan for Salmon & Watersheds (Oregon Coastal Salmon Restoration Initiative 1997) names the Coquille River Valley a core salmon area. Our project helps focus restoration efforts on this important area.
- 5) The Oregon Conservation Strategy (ODFW 2006) identifies the Coquille River Valley as a priority area for conservation action to benefit four strategy habitats and 23 strategy species. The strategy recommends restoring wetlands, natural stream channels, and riparian habitats within the river floodplain in the Coquille Valley Conservation Opportunity Area (COA). Our project helps implement each of these recommendations.
- 6) USFWS Coastal Program Strategic Plan for Region 1 (2007) notes that though the Coquille ranks high compared to other Oregon Coast watersheds for fisheries production and diversity; the present populations of coho, chum, spring Chinook, and sea-run coastal cutthroat trout are at a small fraction of stock sizes before 1900. Key limiting factors are water quality, sedimentation and erosion, elevated temperature, loss of channel complexity, isolation of the floodplain, and lack of riparian vegetation. Our project will address each of these limiting factors.
- 7) Pacific Coast Joint Venture Strategic Plan (1994, 2004) identifies the Coquille Valley as an important habitat area for numerous species of waterfowl and anadromous fish and recommends developing strategies involving cooperative agreements, easements or acquisitions. ODFW has completed the acquisition of the properties to be restored, for permanent protection.
- \* 8) Regional Wetlands Concept Plan (USFWS 1990), prepared under the Emergency Wetlands Resource Act, identifies an acquisition target of 5,000 acres in the Coquille Valley.

**R10. List each component or activity of the project that requires a permit(s) and/or license(s) from a local, state or federal agency or governing body.**

Use the table provided to list the activities and permit(s)/license(s) including the entity issuing the permit(s)/license(s). Every project will vary in the number and types of permits and licenses needed. In Column 1

and in separate rows, list the project activities requiring a permit or license. In Column 2, provide the name of the permit or license. In Column 3, provide the name of the entity issuing the permit or license. See **Application Instructions pages 9-11 for clarification and examples before completing the table.**

Project Activity Requiring a Permit/License	Permit or License Name	Entity Issuing Permit or License
Reconnecting China Camp Creek to remnant channels, filling drain ditches and removing berms	Fill/Removal permit	Oregon Division of State Lands and US Army Corps of Engineers
Same as above – any earth-disturbing activity	State Historic Preservation Act approval	State Historic Preservation Office in Consultation with appropriate Indian Tribes
Same as above	Project review and approval Endangered Species Act	NOAA Fisheries and ODFW
Engineering designs	Engineering stamp and approval	State approved Engineer
Earth-moving activities such as construction of the new berm, raising low spots on exterior dikes, reconnecting China Camp Creek to remnant channels, filling in drain ditches, removing berms	County Development permit and Flood Plain Permit	Coos County

### R11. Project Relationship to Watershed Processes and Functions

The restoration and protection of natural watershed process is the foundation of achieving watershed health. Since natural watershed processes have been eliminated, altered or reduced in many areas, habitat restoration activities are the primary method for reintroducing the necessary functions to watersheds that have been altered due to past management practices and/or disturbance events. Restoration activities are intended to address the watershed functions necessary to support natural processes that are indicative of healthy watersheds. This includes, but is not limited to improving water quality, water quantity, habitat complexity, flood plain interaction, vegetation structure, and species diversity.

OWEB wants to be able to track how restoration projects are addressing watershed process and function. Please check all the boxes below that apply to your restoration project. You may add narrative in addition to checking the boxes.

	Project Element	Narrative
<input checked="" type="checkbox"/>	Stream complexity	Reconnect approximately 10 plus miles of remnant meandering channel to the Coquille River at the ODFW-Winter Lake restoration site and place large wood pieces. At the ODFW property at Beaver Slough large wood pieces will be placed outside the stream channel in the forested wetland portion of the property that flood on an annual basis.
<input checked="" type="checkbox"/>	Riparian vegetation structure	Plant native wetland shrubs and trees on 248 acres on ODFW project site
<input checked="" type="checkbox"/>	Species diversity	Planting native trees and shrubs will increase plant species diversity and riparian/wetland vegetative structure, which will increase the diversity of habitat conditions and food sources. We expect this will increase the diversity of native wildlife and fish species using the property
<input type="checkbox"/>	Vegetative ground cover	
<input checked="" type="checkbox"/>	Floodplain connectivity	Re-connect 10 miles of remnant channels and side channels to the Coquille River. This activity will re-connect the old creek meanders that are present on the LiDAR images. Restored stream flows along with planted wetland trees and large wood will provide for improved water quality and habitat for over-wintering salmonids including coho salmon.
<input type="checkbox"/>	Species migration patterns	
<input type="checkbox"/>	Sediment transport	
<input type="checkbox"/>	Nutrient cycling	
<input checked="" type="checkbox"/>	Water quality	Existing conditions are anoxic to fish due to low dissolved oxygen and high temperatures

		during the summer time period. Planting the area with native trees and shrubs to provide shading will lower temperatures and improve dissolved oxygen levels. As mentioned previously, although not part of this proposal, the ultimate goal of the project is to replace the aging and failing tide gate system with a more modern tide gate system. This will allow for tidal influence on the restored wetlands, which will resolve the low dissolved oxygen levels
<input type="checkbox"/>	Water quantity	
<input type="checkbox"/>	Water storage	
<input type="checkbox"/>	Hydrologic cycle	
<input type="checkbox"/>	Other (please describe)	

**R12. Other Related Conservation Actions**

- a) Explain how the project complements other efforts under way or completed in the watershed. Identify other restoration, technical assistance, monitoring, assessment or outreach projects, conservation actions and ecological protection efforts in the watershed and explain how this project relates to those actions.

As described above, this grant request is part of a larger project where the Conservancy is partnering with ODFW, Coquille Indian Tribe, USFWS and private landowners to perpetually conserve wetlands in the Coquille basin and restore their condition and function. The ultimate, long-term goal is to work with local entities, willing landowners, and agricultural producers to protect and restore estuary habitat in the valley to benefit salmon, waterfowl, and other important species. Projects that benefit both agriculture and natural resources will be the highest priority.

This project will complement other habitat protection and restoration efforts in the Coquille watershed including the Bandon Marsh National Wildlife Refuge on the Coquille River estuary about 10 miles downstream from the project area. The refuge was established in 1983 with 307 acres of salt marsh and was expanded between 2000 and 2004 to include an additional 582 acres, including more than 400 acres of diked former tidal wetlands. The USFWS restored those 400 acres of diked wetlands in 2011 by removing the dikes, filling existing drain ditches, removing berms and reconnecting three remnant stream channels to the Coquille estuary, which allowed unrestricted tidal influence to the project site.

In addition, in 2005, Oregon Trout and Ducks Unlimited began working with a private landowner to restore wetlands on the Bandon Biota ownership at Lowe Creek, consisting of about 80 acres of floodplain. Initial construction on the Lowe Creek project – which is reestablishing old creek channels, tidal depressions, and wetlands to reconnect the floodplain and the river – was completed in 2011. Restoration work at Lowe Creek is similar to that envisioned for the other properties and for future projects as part of a large-scale, multi-year effort to restore wetlands in the Coquille Valley.

The Oregon Watershed Enhancement Board has funded a number of other restoration and enhancement projects in the valley, through the Coquille Watershed Association, primarily to benefit freshwater and anadromous fish, but also birds and other terrestrial species. Examples include riparian fencing, reconnection of the floodplain to the Coquille River, planting native vegetation, and placing large woody debris in streams. These projects greatly improved in-stream spawning and migratory habitat for salmon, which will complement this project’s work to improve off-channel wintering and rearing habitat.

- b) If the project is a continuation of previously completed activities, describe the results of the previous project(s) and identify what you have learned from the implementation of similar project(s).

Both the Bandon National Wildlife Refuge restoration projects were completed in September 2011 and not enough time has elapsed to draw conclusions and results from any monitoring that will occur on the project sites.

### R13. Project Inspection

Identify who will inspect and sign off on the completed project.

<i>Name of Person &amp; Agency/Organization</i>	<i>Telephone Number</i>	<i>Email Address</i>	<i>Project Element Inspected</i>
<i>Steve Denney/The Nature Conservancy</i>	<i>541-817-4198 541-672-5463</i>	<i>sdenney@tnc.org</i>	<i>All</i>
<i>Larry Cooper/Oregon Department of Fish and Wildlife</i>	<i>541-440-3353 541-913-6311</i>	<i><u><a href="mailto:larry.d.cooper@state.or.us">larry.d.cooper@state.or.us</a></u></i>	<i>All</i>

### R14. Outreach

If your project proposal includes outreach activities (e.g., a site tour for local citizens, landowner meetings, informational materials), please describe the proposed activities and products and why they are necessary for the overall success of the restoration proposal. See the Application Instructions for clarification of eligible outreach costs.

Regional review teams will evaluate the appropriateness of proposed outreach activities with respect to their necessity for success of the restoration project, budget, and other factors.

Significant outreach has been conducted already, and will continue until the project is completed. We are not requesting OWEB funds for outreach. To date, over 200 meetings have been held with individuals and groups on the ODFW land trade, proposed wetland restoration project and the tide gate replacement portions of the project. These meetings have included federal, state, county and local elected officials, two drainage districts, neighboring landowners, the public, permitting agencies and potential funding partners. Public input will continue to be sought. The permitting process have public comment periods built into the process and meetings with the two drainage districts are open to all landowners within the drainage district.

For example, the local agriculture community has been involved via the Beaver Slough Drainage District. Various Coos County Commissioners have been involved through meetings and tours of the site. At least 15 tours of the project site have been conducted with permitting agencies, potential funding sources and interested partners. One meeting has been held and another meeting scheduled with all the permitting agencies, landowners and other partners to describe the proposed project. Additional meetings have been held in conjunction with the Beaver Slough Drainage District and the Coaledo Drainage District to explain the project and answer questions from landowners. A meeting was held for the landowners and neighbors in October 2012 to discuss the results of the hydrologic study and update them on the geologic study progress. Six additional meetings were held with the landowners and neighbors to obtain input on the proposed restoration work prior to soliciting bids. The drainage district chairman and Conservancy's project leader have met with the Coquille Indian Tribal Council to describe the project, and the tribe is supportive because it fulfills the primary recommendation of the Coquille Subbasin Plan. The tribe has provided some GIS and funding assistance. Talks to local natural resource, industry and community groups will be conducted on the project to keep them updated on progress, completion and monitoring results.

Two local high schools – Bandon and Coquille – will be involved in the implementation phase, with environmental studies teachers from those schools making plans to have their students help with restoration and monitoring. Southwest Oregon Community College is opening a new natural resource curriculum for students interested in working in the natural resource field. As part of that curriculum, there will be a requirement to obtain field experience. This project has been put forward as one where students can get sampling, restoration and monitoring experience for their field work credits.



**R15. Project Maintenance and Reporting**

Use the table below to document how the project will be maintained over time. State who will maintain the project. Identify their affiliation and provide contact information. In addition, please indicate who will conduct Post-Implementation Status Reporting following project completion.

Name of Person & Agency/Organization and Addresses	Telephone Number Email Address	What will be done and for how long?
Fred Messerle, Chairman, Beaver Slough Drainage District	541-404-6105 Email- fredm@uci.net	Annual inspection and maintenance of new berm and exterior dikes on Winter Lake – in perpetuity for life of structures
Stuart Love-Oregon Department of Fish and Wildlife	541-888-5515 Email- stuart.l.love@state.or.us	Annual management, monitoring, inspections and maintenance of the habitat work to be accomplished on Winter Lake, Beaver Slough and Lowe Creek – in perpetuity
<i>Add rows as needed</i>		

**R16. Budget Development**

There are a number of assumptions used to develop any budget. This does not mean you must provide a line by line description of costs. Use this response to provide a clear understanding of what the budget estimate was based on.

- a) Explain how costs were determined for the budget elements. Describe if contractor conversations, past projects or other cost figures were used for each major element of the budget. This is particularly important for lump sum elements in the budget. For project management costs describe the time and activities that would be involved.

The costs for shrub/tree planting, reconnecting China Camp Creek to its remnant channels, removing interior berms, filling drain ditches, etc. came from Oregon Department of Fish and Wildlife fish habitat restoration biologist and the Coquille Watershed Association who have over 10 years of experience implementing fish habitat improvement projects in the Coos and Coquille River Basins.

- b) If there are any unusual cost factors, explain them. For example, if the fencing costs are unusually high because of steep, rocky terrain and unroaded access, this is the place to explain the cost elements on the budget page.

There are no unusual cost factors in this proposal.

**R17. Effectiveness Monitoring.** If you plan to conduct Effectiveness Monitoring beyond post-implementation status reporting and you are requesting more than \$3,500 in OWEB funds to support these EM activities, complete the R17 Effectiveness Monitoring Application Insert, print it out and add after Question R16. See the R17 Effectiveness Monitoring Insert Instructions for clarification.

We are not asking for OWEB funds for effectiveness monitoring. We are seeking other funds to monitor the project. The Beaver Slough Drainage District, Oregon Department of Fish and Wildlife, The Nature Conservancy and other partners are discussing a long-term research project on the China Camp Creek project with researchers from Oregon State University Agricultural Economics Department, OSU Fish and Wildlife, US Dept. of Agriculture and Oregon Department of Fish and Wildlife. Researchers would develop an effectiveness monitoring study to determine use of habitat by coho and furbearers, as well as economic benefits of the project to local businesses both from restoration activities and improved salmon survival.

**R18. Planting Activities.** If you are proposing a Riparian, Upland or Wetland Planting activities and you are requesting more than \$3,500 in OWEB funds for planting activities and/or for post-planting activities that are necessary for long-term survival of the plantings, you **must** complete the R18 Planting Activities Insert, print it out

and add after Question R17 or R18 as appropriate. Please see the definition of "plant establishment activities" in R18. If you are asking for \$3,500 or less, you may answer the questions if you would like the reviewers to have additional information on the planting component of the project. See the R18 Planting Activities Application Insert Instructions for clarification.

See Attached

**Section IV  
WATERSHED RESTORATION BUDGET**

**IMPORTANT: Read the application instructions. Add additional lines, if necessary.**

Totals automatically round to the nearest dollar

	A	B	C	D	E	G
<i>Itemize projected costs under each of the following categories.</i>	Unit Number (e.g., # of hours)	Unit Cost (e.g., hourly rate)	In-Kind Match	Cash Match Funds	OWEB Funds	Total Costs (add columns C, D, E)
<b>PRE-IMPLEMENTATION.</b> Must occur after the OWEB grant agreement has been fully executed, unless it is a city or county charge for processing the Land Use form. OWEB funds will not be disbursed for project components requiring permits or licenses until those permits and licenses have been received by OWEB. However, funds may be released for non-permitted project components whose implementation is not affected by the required permits.						
Geo-technical and hydrology reports	975 hrs	\$80/hr		40,000	38,000	78,000
Project Engineering and Design	666.73 hrs	\$97/hr			64,763	64,763
Permitting	553 hrs	\$85/hr			47,000	47,000
						0
						0
						0
<b>SUBTOTAL (1)</b>			0	40,000	149,763	189,763
<b>PROJECT MANAGEMENT.</b> Includes actual in-house staff or contractors who coordinate project implementation. Line items should identify who will be responsible for project management and their affiliation.						
The Nature Conservancy, project manager	566 hrs	\$49.86/hr			28,229	28,229
The Nature Conservancy, project oversight	155.85 hrs	\$75.53/hr			11,771	11,771
						0
<b>SUBTOTAL (2)</b>			0	0	40,000	40,000
<b>IN-HOUSE PERSONNEL.</b> Includes <i>only</i> actual in-house staff costs for project implementation.						
						0
						0
<b>SUBTOTAL (3)</b>			0	0		0
<b>CONTRACTED SERVICES.</b> Labor, supplies, and materials to be provided by non-staff for project implementation.						
Reconnect 10 miles of China Camp Creek historic channels, remove .75 miles of interior ditches and 1.5 miles of associated berms- track hoe, dumptruck and operator	908 hrs	\$125/hr			113,500	113,500
Control Invasive Species on both properties.	400 hrs	\$25/hr			10,000	10,000
Place 145 pieces of large wood(100 at Winter Lake and 45 at Roseburg	145 pieces	\$759/log avg			111,000	111,000
Remove old tide gate structures (hazardous materials) from mouth of China Camp Creek , crane, trackhoe and operator	1,050 hrs	\$200/hr			210,000	210,000
Pre-project monitoring costs-Coho salmon passage and movements-Oregon State University					30,000	30,000
<b>SUBTOTAL (4)</b>			0	0	474,500	474,500
<b>TRAVEL.</b> Mileage, per diem, lodging, etc. Must use current State of Oregon rate.						
						0
						0
<b>SUBTOTAL (5)</b>			0	0	0	0

	A	B	C	D	E	G
<i>Itemize projected costs under each of the following categories.</i>	Unit Number	Unit Cost	In-Kind Match	Cash Match Funds	OWEB Funds	Total Costs
	(e.g., # of hours)	(e.g., hourly rate)				(add columns C, D, E)
<b>SUPPLIES/MATERIALS.</b> Refers to items that are "used up" in the course of the project. Costs to OWEB must be directly related to on-the-ground work.						
Purchase costs for 109,000 willow, 10,000 red alder, 10,000 Oregon ash, 1,000 crabapple, 500 Sitka spruce, and 500 myrtle trees	131,000 seedlings	Avg \$6/potted plant, \$.05/cutting			137,450	137,450
						0
						0
						0
<b>SUBTOTAL (6)</b>			0	0	137,450	137,450
<b>EQUIPMENT.</b> List equipment costing \$250 or more per unit. Useful life of equipment is for the duration of project and will be used only for this project. Identify any portable equipment (items with useful life of generally 2 years or more). Must be property of a governmental entity, tribe, watershed council, SWCD, institution of higher learning or school district						
						0
						0
<b>SUBTOTAL (7)</b>			0	0		0
<b>OUTREACH.</b> Refers to informational and promotional activities associated with the project.						
						0
						0
<b>SUBTOTAL (8)</b>			0	0		0
<b>[Add all subtotals, (1-8) above] CATEGORY TOTALS (9)</b>			0	40,000	801,713	841,713

	A	B	C	D	E	G
<i>Itemize projected costs under each of the following categories.</i>	<b>Unit Number</b>	<b>Unit Cost</b>	<b>In-Kind Match</b>	<b>Cash Match Funds</b>	<b>OWEB Funds</b>	<b>Total Costs</b>
	(e.g., # of hours)	(e.g., hourly rate)				(add columns C, D, E)

**FISCAL ADMINISTRATION** \*Totals automatically round to the nearest dollar

<b>FISCAL ADMIN.</b> Not to exceed 10% of Category Totals (9) Funds. Compute by multiplying by 0.10 or less. Costs associated with accounting; auditing (fiscal management); contract management (complying with the terms and conditions of the grant agreement); and fiscal reporting expenses for the OWEB project, including final report expenses (e.g., film developing) for the grant.						
					15,000	15,000
						0
<b>SUBTOTAL (10)</b>			0	0	15,000	15,000
<b>POST-IMPLEMENTATION STATUS REPORTING.</b> Costs associated with annual reporting requirements typically required for each grant (see Application Instructions).						
	/yr					0
	/yr					0
<b>SUBTOTAL (11)</b>			0	0		0
<b>[Add the two Subtotals (10 &amp; 11)] TOTAL (12)</b>			0	0	15,000	15,000

**RESTORATION BUDGET TOTAL** \*Totals automatically round to the nearest dollar

<b>RESTORATION BUDGET TOTAL (13)</b>						
<b>[Add Category Totals (9) and Fiscal/PISR Total (12) from above]</b>	0	40,000	816,713	856,713		

**EFFECTIVENESS MONITORING BUDGET TOTAL**

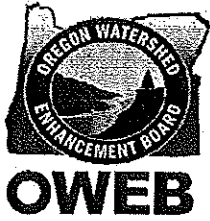
<b>EFFECTIVENESS MONITORING BUDGET TOTAL (14)</b>						
This only applies if you are doing Effectiveness Monitoring; see Application Instructions and R17. Transfer Budget Total (11) from the Effectiveness Monitoring Budget Insert.	0	0	0	0		0

**PLANT ESTABLISHMENT BUDGET TOTAL**

<b>PLANT ESTABLISHMENT BUDGET TOTAL (15)</b>						
This only applies if you are doing a planting project; see Application Instructions and R18. Transfer Budget Total (9) from the Plant Establishment Budget Insert.	0	40,000	553,287	593,287		

**PROJECT BUDGET TOTAL** \*Totals automatically round to the nearest dollar

<b>PROJECT BUDGET TOTAL</b>						
<b>[Add (13), (14), AND (15) as applicable]</b>	0	80,000	1,370,000	1,450,000		



## R18 - PLANTING ACTIVITIES

October 2013

OWEB applications were updated for the October 2013 cycle. All sections of applications must be completed using the October 2013 application form. Applications submitted using previous forms will not be accepted.

You **must** respond to Question R18 if **both** of the following apply:

- 1) Your Restoration application includes riparian, upland or wetland planting activities, **and**
- 2) You are requesting **more than \$3,500** in OWEB funds for planting activities and/or for post-planting activities that are necessary for long-term survival of the plantings. Please see the definition of "plant establishment activities", below.

You **are encouraged to respond to Question R18** if you are requesting OWEB to fund **\$3,500 or less** for planting and/or plant establishment activities. Providing this information will help reviewers understand what you are proposing and may assist the review of your proposed project

**Broadcast seeding, rangeland drill seeding and other seeding activities** generally do not involve post-seeding establishment activities. Seeding proposals are not required to complete Question R18, but you may do so if you wish to help reviewers better understand your seeding project.

### Why did OWEB add questions about planting activities?

OWEB added these questions because your answers will help reviewers and OWEB evaluate the likelihood of success of the planting proposal. OWEB effectiveness monitoring has shown that:

- Understanding and addressing site potential and site limitations, good site preparation, selection of appropriate plants and planting locations, and proper installation of plants, are critical to planting success.
- Most plantings take several years to become established and "free to grow." Care and attention are necessary, so that they survive, grow and over time achieve the goals of improving watershed process and function. OWEB encourages applicants to seek funding (from OWEB or other funders) to support 3-5 years of plant establishment activities for plantings that are part of an OWEB-funded project.

### What is considered "plant establishment activities?"

Plant establishment activities occur **after** site preparation for planting, installing the plants, initial watering of the plants, and initial installation of plant protection such as caging, fencing, mulching, weed mats, etc.

Plant establishment includes activities necessary for long-term survival of the plantings, including, but not limited to:

- Regular and ongoing control of invasive weeds (e.g., mulching, weed mats, weed treatment, etc.);
- Regular and ongoing control of animal damage to the plantings (e.g., maintaining/replacing caging, fencing or other methods of animal control);
- Regular and ongoing watering or irrigation.

## Do I need to fill out the Plant Establishment Budget?

You must complete the Plant Establishment Budget only if both of the following apply:

- 1) Your Restoration application includes riparian, upland or wetland planting activities; and
- 2) You are requesting OWEB to fund more than \$3,500 in plant establishment activities. If you are not requesting OWEB funds for plant establishment activities, do not use the Plant Establishment Budget.

OWEB encourages applicants to seek funding (from OWEB or other funders) to support 3-5 years of plant establishment activities for plantings that are part of an OWEB-funded project.

**Please note:** The Plant Establishment Budget cannot request OWEB funds for “replacement plantings” to replace plantings that die or disappear. If you would like to request OWEB funds for the purpose of replacement plantings or interplantings for previously completed planting projects, please contact your Regional Program Representative to discuss possible options.

## Does the Plant Establishment Budget include costs for planting site preparation and buying and installing plants?

No. Costs for planting activities — including site preparation, buying plants, installing plants and the initial installation of caging, fencing, mulching, weed mats, etc., **must be included in the Restoration Application Budget.**

Costs for plant establishment activities must be included in the Plant Establishment Budget.

## **IMPORTANT!**

1. Read the Instructions for Question R18, *Planting Activities* before completing Question R18.
2. Do not color highlight text or in tables for emphasis, because the highlight turns black when the application is scanned. Instead, use **bold face** and *italics* for emphasis only.
3. Complete R18 Section I and insert after Question R16 and/or R17 in the Watershed Restoration Grant Application
4. **If you are asking OWEB to fund plant establishment activities**, complete Section II, Plant Establishment Budget, and place behind Section I and insert both Sections I and II after Question R16 and/or R17 in the Watershed Restoration Grant Application budget.
5. **If you are not asking OWEB to fund plant establishment activities**, all of your project costs must be included in the Restoration Application budget.
6. If you include a planting diagram that you want the reviewers to see in color, supply 20 copies of each. If more than one diagram is included, assemble and staple as a set, and provide 20 sets for distribution to reviewers.

## Section I

### **R18. PLANTING ACTIVITIES**

You **must** complete R18 Section I if: 1) Your Restoration application includes riparian, upland or wetland planting activities; **and** 2) You are requesting **more than \$3,500** in OWEB funds for the planting and/or plant establishment activities. If you are requesting \$3,500 or less in OWEB funds for planting, OWEB encourages you to complete this section to provide reviewers with additional information on the planting component of the project. You are not required to complete this section if you are doing broadcast seeding or rangeland drilling.

- P1 a) Describe the condition of the site(s) to be planted and site preparation activities that will be completed prior to planting. Explain the reasons you chose this approach to site preparation. Discuss any special conditions involved at the site (e.g., beaver, elk or other animal predation; invasive weeds or overstory competition issues; slope, soil type, climatic regime).**

This planting plan and budget will cover the ODFW-Winter Lake site that has recently been acquired by the Oregon Department of Fish and Wildlife via a land trade. This tract historically was vegetated with wetland trees and shrubs that thrived in riparian or wetland habitats. It was cleared for agricultural purposes and has been primarily used for grazing and/or haying over the past century. The site currently has a mix of non-native pasture grasses as well as wetland vegetation such as silver leaf, sedges and rushes. The topography is flat and is part of the larger area locally known as Winter Lake, 2,000-acre just west of the town of Coquille at River Mile 18.5.

The plant establishment criteria were based on the Riparian Monitoring Guide located at <http://www.oregon.gov/OWEB/docs/pubs/riparianmonitoringguide.pdf> which was developed by the Coos Watershed Association for the South Coast of Oregon and based on project goals determined by site characteristics, condition of a nearby reference site that still retains historic and pre-settlement vegetation composition. The planting and establishment guidelines were used for site prep, meeting project goals, plant species selection, plant stocks, sizes, target densities/spacing, fencing/protection and monitoring.

Long-term restoration plans include replacing the existing tide gates with Muted Tidal Regulators which will allow the restoration site to be placed under freshwater tidal influence, further improving the dissolved oxygen levels. The project will approximate historic conditions, benefiting fish, dozens of bird species, beaver plus amphibians and reptiles.

Few invasive species are present at the site, with the exception of reed canary grass, which can compete with newly planted trees. Planting techniques will be incorporated (see pages 6 and 7) to reduce seedling completion with reed canary grass and insure higher plant survivability. Blackberry is also found along the edge of the property near the railroad tracks and at isolated spots along the remnant channels that will need to be controlled to keep from spreading. Beaver are present upstream of the site and may cause some damage to seedlings over time. ODFW currently owns and will be responsible for management of the property. ODFW will develop a management plan to deal with any animal damage on a case-by-case basis. Since the restoration site is located near the river in the floodplain, some damage to infrastructure (berms) may occur due to severe flood events, however, it is not anticipated that severe flooding will affect plant survival. We realize some losses will naturally occur. If survival of plants falls below the 300 plants per acre target objective, ODFW will replace the trees to bring them up to target standards. A target density of 300 plants per acres was chosen for two reason: 1) Those were densities outlined in the Riparian monitoring guide (see above) which cited Hoag, 1993 as recommending 1-3 foot spacing for hardwood trees (including willow) and 6-12 foot spacing for larger tree types such as conifers and myrtle and 2) a survival of 300 trees/acres was also the target recommended by the Coquille Watershed Association for their wetland restoration projects.



- b) If this project is part of an ongoing riparian restoration program or continues a previously funded riparian project, discuss past project results and what you have learned from those projects that helped you in developing this proposal.

This project is not an ongoing riparian restoration program or continuing a previously funded riparian project. However, the local watershed council has done many riparian planting projects though out the Coquille watershed and has provided advice on how to approach this particular project.

**P2 Provide detailed information on the plants, planting locations, and planting techniques at the site(s). Including a diagram and one or two representative site prescriptions would be helpful to reviewers. Explain why you are taking this approach at the site and include information on:**

- a) Number and species to be planted

Species	Min. Size	Spacing	Acres	Number	Planting Zone	Costs
Willow	6ft. cuttings	3'x3"	218	109,000	Wetland Site	\$168,950
Oregon Ash	3 ft. rooted – 2 gal.	8'x8'	20	10,000	Wetland Site	\$210,000
Red Alder	3 ft. rooted – 2 gal.	8'x8'	20	10,000	Wetland Site	\$210,000
Oregon Crabapple	3 ft. rooted – 2 gal.	8'x8'	*	1,000	Wetland Edge	\$31,500
Sitka Spruce	1 ft. rooted – 1 gal.	12'x12'	*	500	Banks	\$1,500
Myrtle Tree	1 ft. rooted – 1 gal.	12'x12'	*	500	Banks	\$1,500

- b) Plants per acre: 500 initially with a goal of 300 surviving after three years.

- c) Location of plantings:

Planting will occur on 248 of the 287-acre site. Oregon Crabapple, Sitka Spruce and Myrtle, identified in the table with a \* in the acreage column will be planted throughout the 248 acre planting sites and will be located in the higher/dryer sites such as along berms, along channel banks and along the railroad tracks and will not appreciatively change the overall planting density for the entire 248 acre planting area. Planting will be clumped and at a higher density along reconnected channels and along China Camp Creek. Shading the restored stream channels and wetlands will help resolve the high temperature levels. Restoring the 10 miles of remnant channels on the 287 acre property will mean that all planted trees will be near a channel which will provide for some sub-irrigation of planted seedlings. Once the restored wetlands are placed under some level of freshwater tidal influence, the project area will be flooded twice daily to provide watering for trees.

Also, clustered plantings in denser patches near the re-connected remnant channels will provide shade, escape cover and insect production to help meet wildlife objectives. In addition some small openings dispersed throughout the 287 acres will be left unplanted for song birds and waterfowl winter forage. Mapping the exact locations of these unplanted areas would be difficult until we get surveys and channels identified at the 30% design level but in general they are expected to be located around the fringe of the properties and on high ground. Target densities were based on an overall density for the entire restored property, assuming the denser patches and openings will even out to hit the overall target survival.

- d) Size (age class) of planting stock: (see table above)

Larger trees, 3-feet/two-gallon size, will be used so that they are taller than the surrounding grasses. Discussions with the local watershed council indicate that larger trees will have a higher survival rate,

be better able to outcompete reed canary grass and will provide critical shade to the stream channels more quickly than planting smaller trees.

e) Type of stock: (Rooted, bare root, or cuttings): (see table above)

f) Month(s) of plantings: Winter, from November through March over four years

g) Protective devices/strategies to be used for vegetation competition and/or animal predation:

Future plans to place the stream channels under tidal influence will ensure a consistent supply of water that will act to irrigate newly planted shrubs, and daily inundation will eliminate small rodents that could damage seedlings. This will eliminate the need for tree cages and tree mats to protect the trees. Damage by deer and elk is not expected because of the location. Beaver damage is expected to be minimal since it will take several years for beaver to pioneer the site. The Oregon Department of Fish and Wildlife is developing a furbearer management plan for the property to manage all aquatic furbearers, including beaver. If beaver move into the area sooner than expected and cause excessive damage this management plan will define courses of action to minimize the damage.

Cattle grazing will control grass growth in areas that have not been planted. Grazing will provide short grass habitat that will be used by wintering waterfowl and shorebirds. Since the area is inundated from fall through late spring each year, temporary New Zealand electric fence will be used to control livestock during the summer grazing months and prevent them from reaching the newly planted trees. This electric fence will be erected by using permanent corner posts with temporary fiberglass stays in between. Permanent posts will be placed at 100-foot intervals to provide a suitable anchor. This fence will be erected in the spring prior to cattle being turned out on the property and taken down in the fall once cattle are removed and the area is saturated and inundated by the fall rains and rising river. Fence construction will be based on the Coos Monitoring and Silviculture Guide to insure objectives are met.

Costs were obtained from the local watershed association based on their costs for similar projects that have met or exceeded survival guidelines. Since planting will not occur until the fall-winter-spring of 2013/14 prices may vary; project will be put out for competitive bid.

#### **Plant Labor and Costs**

Wages and Benefits= \$25 per hour

#### **Time and Cost per Three Person Crew**

2 gallon pot/2-3 ft. height- Crew can plant 50 trees per 10-hour day

1 gallon pot/12-18" in height- Crew can plant 70 trees per 10-hour day

Cuttings- 3-6 feet in height- Crew can plant 500 per 10-hour day

#### **Plant Material Costs**

2 gallon pot- 2-3 ft. height- \$6 dollars per plant

1 gallon pot- 12-18" height- \$2.50 per plant

Cuttings- 3-6'height- \$.05 per plant

- P3 a) Provide a *general* plan for your proposed *plant establishment activities* that covers 3-5 years after the plantings are installed. Include a schedule with information on how frequently the site(s) will be visited, the type of invasive species and animal damage control that will be implemented, the type of weather protection measures that will be implemented, and the watering or irrigation plans that will be considered.**

Plantings will occur during the winter months of November thru March and will be checked at two times (late spring and early fall) to assess survival and maintenance needs as recommended in the Riparian Monitoring Guide referenced above.

There will be no need to water plants at the Winter Lake site since the planted area will be provided water from adjacent restored creek channels. The Winter Lake site will be visited and monitored once in June and once in August/September to determine if any maintenance needs to occur. A combination of hoeing, grubbing, hand pulling and spray will be used to control vegetation around each tree. If sprays are to be used, label directions will be followed.

Planting sites will be monitored over three years to determine survival by species. Plant monitoring will not be funded under this grant. If survival rates are below targets or there is a need to replant substantial numbers of plants, ODFW will monitor replanted trees for an additional two years beyond the initial three years.

As noted in P2 (g) above, cattle grazing will be used on the area to control reed canary grass and to provide winter foraging sites for wintering waterfowl and shorebirds. Temporary fencing will be used to control cattle and prevent damage to seedlings during the plant establishment period. Electric fencing will be erected prior to cattle turnout in the Spring and taken down after cattle have been removed and prior to annual flooding events.

ODFW, who owns the property, is developing a Furbearer Management Plan for several properties they will own. If significant loss of trees from beaver damage occurs at Winter Lake and threatens meeting the plant survival objectives, this plan will outline strategies to be used to reduce or eliminate beaver damage to tree seedlings. Additionally, trees are being planted at levels much above the survival objectives (66% higher) to allow for some loss over time including losses to beaver.

**b) If you are not asking for OWEB funds for plant establishment activities, explain how you plan to carry out activities to help the plantings survive and grow over time.**

**c) If no plant establishment activity is planned, explain why.**

**P4 Explain how you will document and determine success for the plantings. If, in the course of the 3-5 years following planting, the success rate falls below your standard, what is your plan?**

The target objective for tree survival at the Winter Lake site is 300 trees/acre. The planting plan calls for planting approximately 500 trees per acre, which will allow for some mortality and loss due to floods, natural mortality or beaver damage. If plant monitoring determines that plant survival falls below the targets described below at the two sites, plants will be purchased by ODFW and planted by contract labor crews, as well as volunteers, including students from two local high schools as part of an educational opportunity on riparian/wetland restoration work.

Monitoring will be conducted annually for three years after which it is expected the trees will be in a "free to grow" stage, established, and able to out-compete other surrounding vegetation, particularly pasture grasses. Monitoring will follow the protocols outlined in the Coos Riparian Monitoring Guide referenced above and adopted by the Coquille Watershed Association Riparian Project Guidelines for use in the Coquille River Basin. These two documents outline monitoring guidelines using line transects or circular plots that sample the planted area to determine survival and tree densities. The monitoring form example in the Coquille Watershed Association Riparian Project Guidelines describes the information gathered and documented at each monitoring site.

Photo points will be established using the Oregon Watershed Enhancement Board Photo Point Guidelines, which describe how to set up permanent photo points and utilize them to document changes to the planting site over time.

**P5 Provide the name and contact information for the people who will be working on the various planting phases, if known.**

Since this project is not scheduled to be implemented until the Fall/Winter of 2014 most information requested on the table cannot be provided at this time.

Project Element	Name of Person & Agency/Organization	Telephone Number and Email Address
<b>Project management</b>	Steve Denney, The Nature Conservancy	541-672-5469 (w); 541-671-1803 (c) <a href="mailto:sdenney@tnc.org">sdenney@tnc.org</a>
<b>Planting site preparation</b>	Contractor TBD	
<b>Planting</b>	Contractor TBD	
<b>Plant establishment activities</b> (e.g., post-planting, ongoing weed control, animal control, inspections, watering or irrigation, etc.)	Oregon Dept. Fish and Wildlife  Contractor TBD	

**Section II**  
**PLANT ESTABLISHMENT BUDGET INSERT**  
*IMPORTANT: Read the application instructions. Attach additional lines, if necessary.*

**PLANT ESTABLISHMENT BUDGET** \*Totals automatically round to the nearest dollar

	A	B	C	D	E	G
Itemize projected costs under each of the following categories.	Unit Number	Unit Cost	In-Kind Match	Cash Match Funds	OWEB Funds	Total Costs
	(e.g., # of hours)	(e.g., hourly rate)				(add columns C, D, E)
<b>PROJECT MANAGEMENT.</b> Includes <i>staff or contractors</i> who coordinate project implementation. Line items should identify who will be responsible for project management and their affiliation.						
						0
						0
						0
<b>SUBTOTAL (1)</b>			0	0	0	0
<b>IN-HOUSE PERSONNEL.</b> Includes <i>only</i> Applicant employee costs and the portion of their time devoted to this project.						
TNC project manager	~802 hrs over 3 yrs	\$49.86/hr		40,000		40,000
						0
						0
<b>SUBTOTAL (2)</b>			0	40,000	0	40,000
<b>CONTRACTED SERVICES.</b> Labor, supplies, and materials to be provided by <i>non-staff</i> for project implementation.						
Labor: site prep, scalping, hole digging, planting seedlings, maintenance	19440 hrs	\$25/hr (salary+ben efits)			486,000	486,000
Maintenance of plants and invasive species control	362 hrs/yr for 5 yrs; 1,810 total hrs	\$25/hr			45,250	45,250
Digging post holes: tractor, auger, operator	40 hrs	\$25/hr			1,000	1,000
<b>SUBTOTAL (3)</b>			0	0	532,250	532,250
<b>TRAVEL.</b> Mileage, per diem, lodging, etc. Must use current State of Oregon rate.						
TNC mileage	11,070 mi	\$.565/mi			6,255	6,255
						0
						0
<b>SUBTOTAL (4)</b>			0	0	6,255	6,255
<b>SUPPLIES/MATERIALS.</b> Refers to items that typically are "used up" in the course of the project. Costs to OWEB must be directly						
5-in treated wood fence posts	500	\$18			9,000	9,000
Fiberglass fence stays	1000	\$2.99			2,990	2,990
Pollywire - electric fence wire	12 rolls	\$138			1,652	1,652
<b>SUBTOTAL (5)</b>			0	0	13,642	13,642
<b>EQUIPMENT.</b> List equipment costing \$250 or more per unit. Useful life of equipment is for the duration of project and will be used only for this project. Identify any portable equipment (items with useful life of generally 2 years or more). Must be property of a governmental entity, tribe, watershed council, SWCD, institution of higher learning or school district.						
B200 solar power electric charger	2	\$570/unit			1,140	1,140
						0
<b>SUBTOTAL (6)</b>			0	0	1,140	1,140
<b>[Add all subtotals, (1-6) above] CATEGORY TOTALS (7)</b>			0	40,000	553,287	593,287

**FISCAL ADMINISTRATION** \*Totals automatically round to the nearest dollar

	A	B	C	D	E	G
<i>Itemize projected costs under each of the following categories.</i>	Unit Number	Unit Cost	In-Kind Match	Cash Match Funds	OWEB Funds	Total Costs
	(e.g., # of hours)	(e.g., hourly rate)				(add columns C, D, E)
<b>FISCAL ADMIN.</b> Not to exceed 10% of Category Totals (7) Funds. Compute by multiplying by 0.10 or less. Costs associated with accounting; auditing (fiscal management); contract management (complying with the terms and conditions of the grant agreement); and fiscal reporting expenses for the OWEB project, including final report expenses (e.g., film developing) for the grant.						
						0
						0
<b>FISCAL ADMINISTRATION TOTAL (8)</b>			0	0	0	0

**BUDGET TOTAL** \*Totals automatically round to the nearest dollar


[Add Category Totals (7) & Fiscal Total (8)]						
<b>PLANT ESTABLISHMENT BUDGET TOTAL (9)</b>						
Insert the PLANT ESTABLISHMENT BUDGET TOTAL (9) in the Plant Establishment Total (15) in the Restoration Application Budget			0	40,000	553,287	593,287

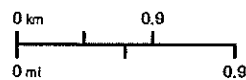


● AREA  
ENLARGED

**Figure 2 - Restoration Properties**

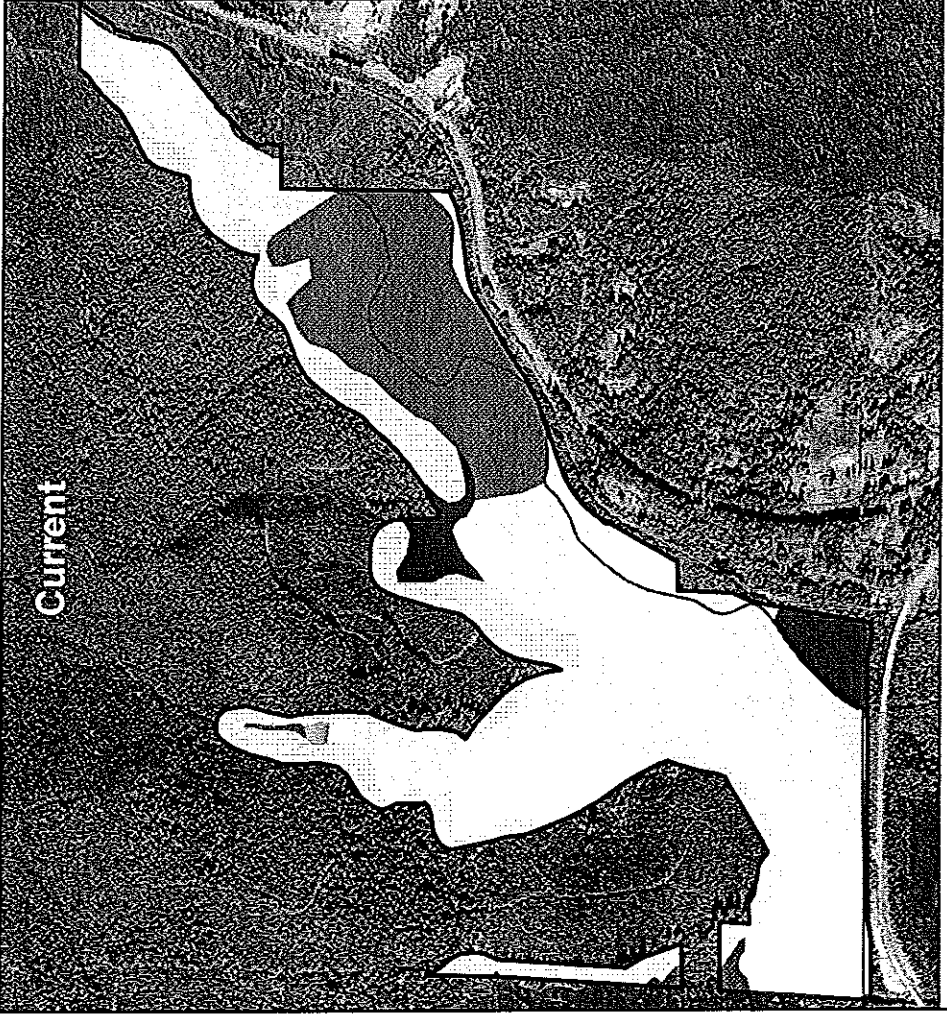
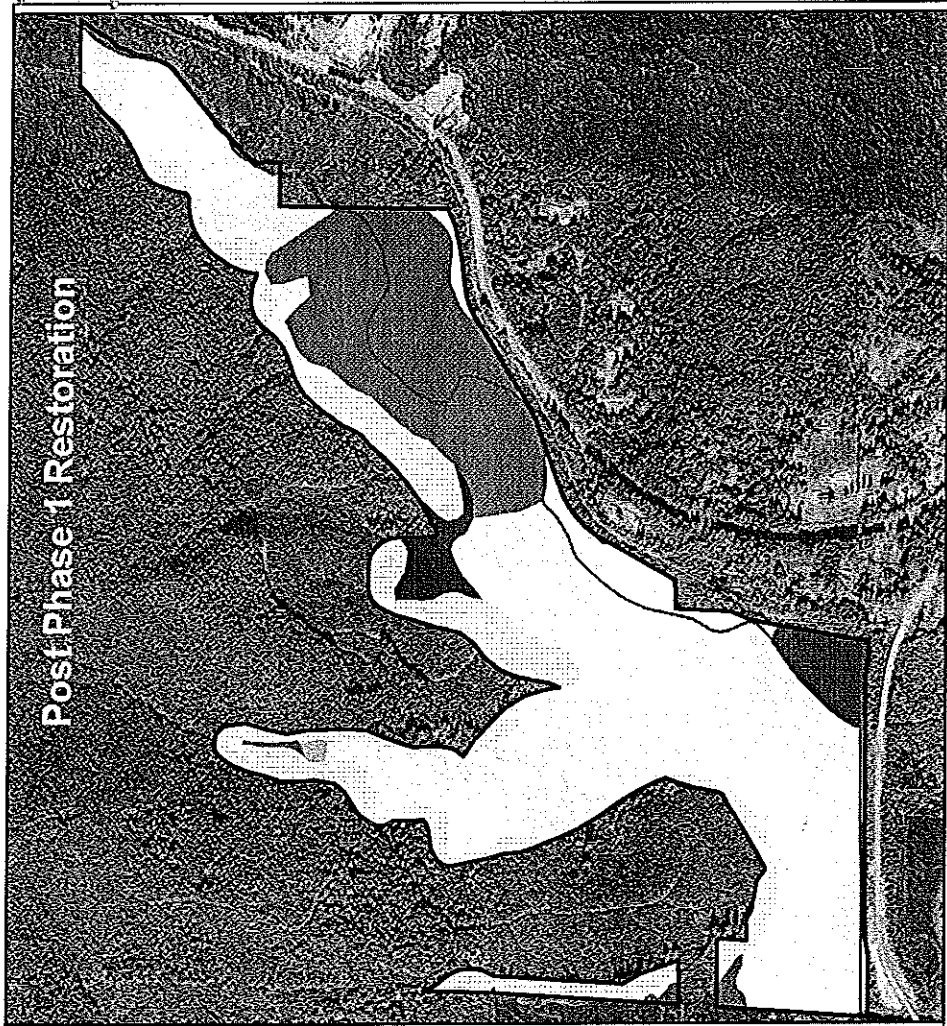
 ODFW/Winter Lake 287 acres

 ODFW/Beaver Slough 259 acres



Background: 2011 NAIP aerial photo  
Map created by: Shonene Scott  
The Nature Conservancy in Oregon  
August 12, 2013





**Figure 3 - Wetland Types on ODFW/Beaver Slough Property, Currently and After Phase 1 Restoration**

Property boundary (222.85 acres)

**USFWS National Wetland Inventory Wetland Types**

- [R] Riverine, [2] Lower Perennial, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [X] Excavated
- [P] Palustrine, [EM] Emergent, [A] Temporarily Flooded
- [P] Palustrine, [EM] Emergent, [C] Seasonally Flooded
- [P] Palustrine, [EM] Emergent, [F] Semipermanently Flooded
- [P] Palustrine, [EM] Emergent, [SS] Scrub-Shrub, [C] Seasonally Flooded
- [P] Palustrine, [FO] Forested / [SS] Scrub-Shrub, [C] Seasonally Flooded
- [P] Palustrine, [SS] Scrub-Shrub, [A] Temporary Flooded
- [P] Palustrine, [SS] Scrub-Shrub, [C] Seasonally Flooded
- Upland

0 m 180 0 ft 880

N

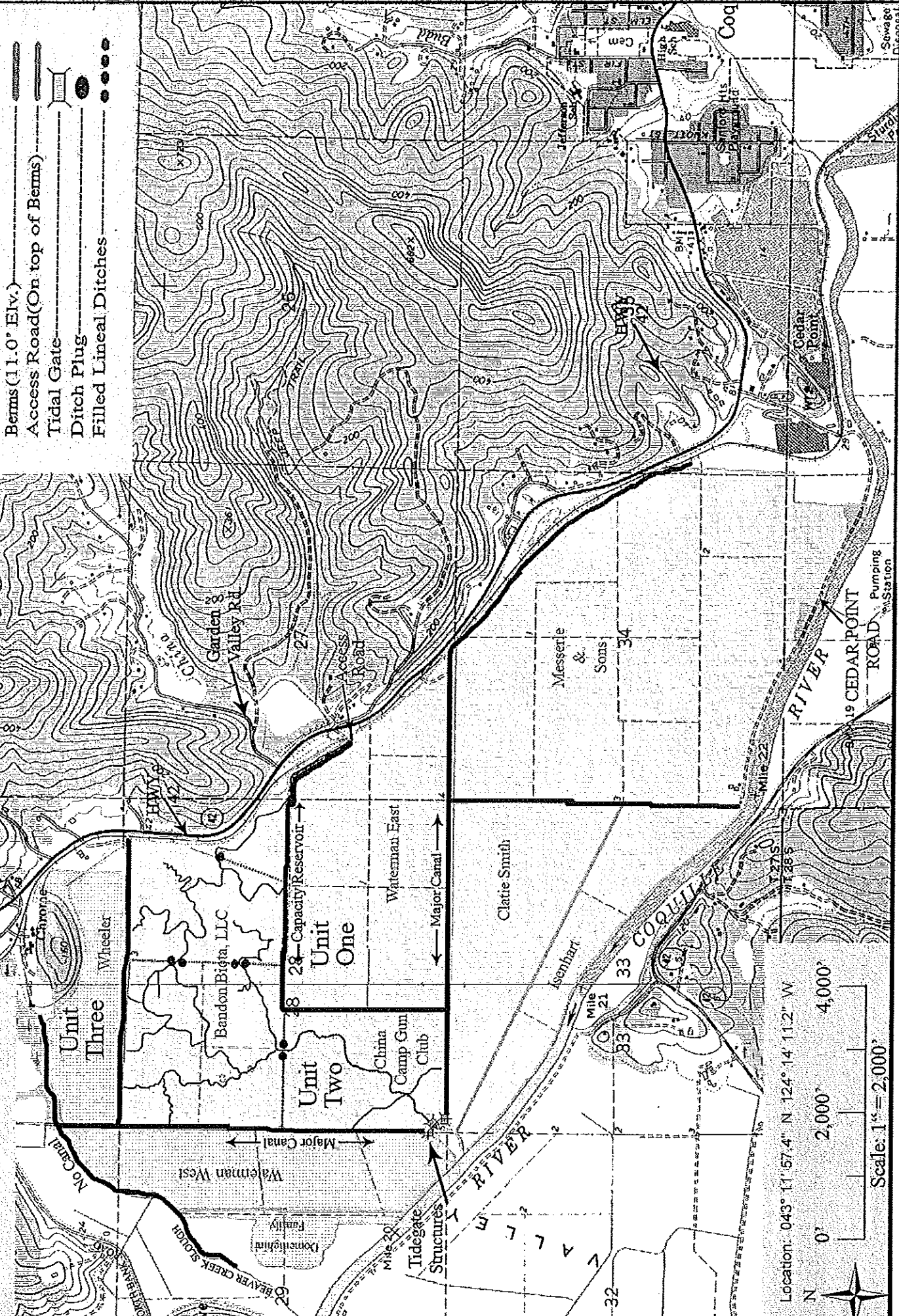
Background: 2011 NAIP aerial photo  
Map created by: Shonens Scott  
The Nature Conservancy of Oregon  
August 12, 2013

04/27/11

# Legend

- Restored Historic Tidal Channel
- New Tidal Channel
- Berms (11.0' Elv.)
- Access Road (On top of Berms)
- Tidal Gate
- Ditch Plug
- Filled Lineal Ditches

### Figure 4 - Restoration Units

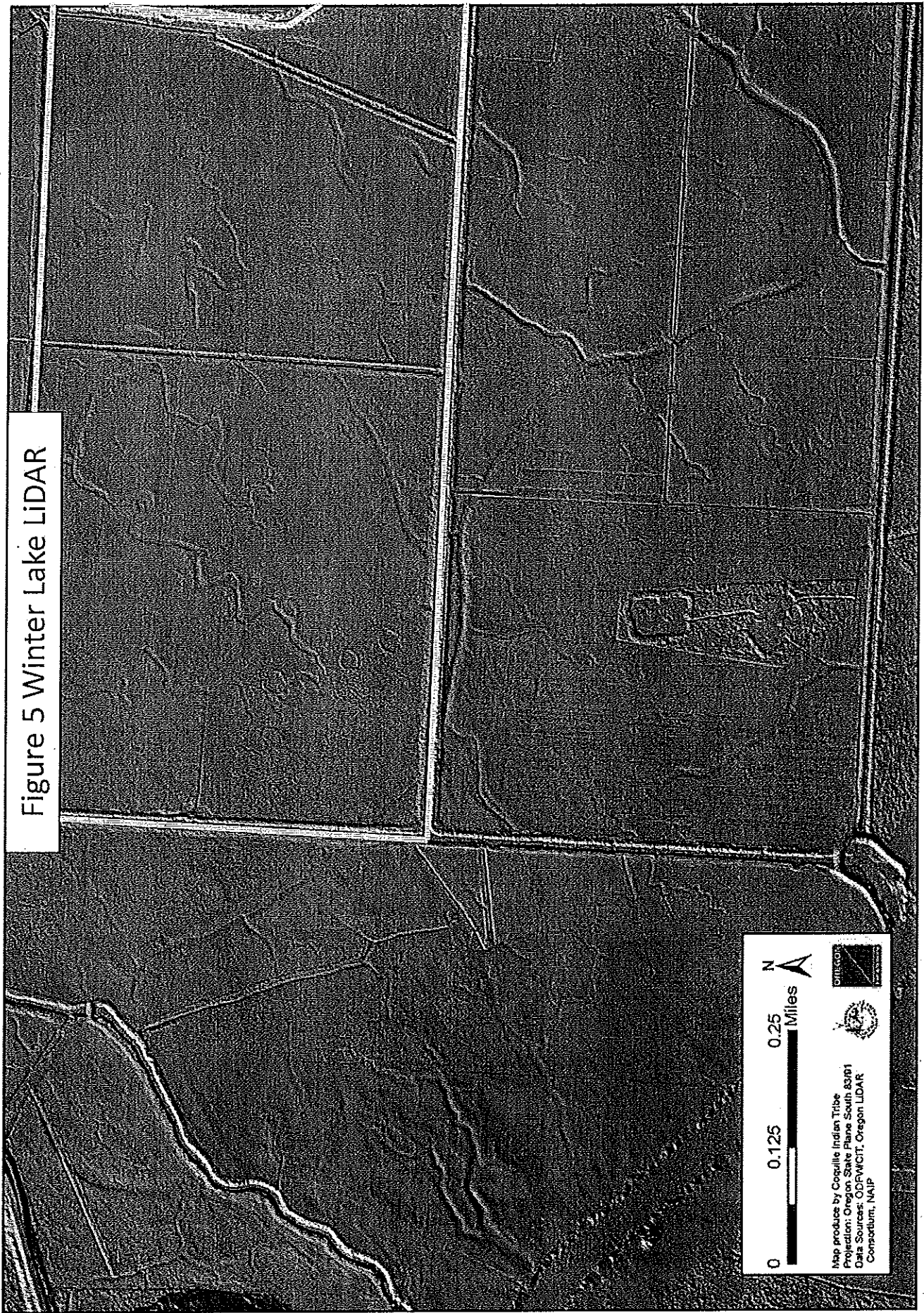


Location: 043° 11' 57.4" N 124° 14' 11.2" W

Scale: 1" = 2,000'

0' 2,000' 4,000'

Figure 5 Winter Lake LiDAR



0 0.125 0.25 Miles




Map produce by Copulla Indian Tribe  
Projection: Oregon State Plane South 83001  
Data Sources: ODFW/CIT, Oregon LiDAR  
Consortium, NAIP

Figure 6 ODFW/Winter Lake Property  
Before Phase 1 Restoration




**ODFW/Winter Lake property before Phase 1 restoration**

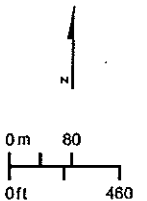
 Property boundary (286 acres)

**USFWS National Wetland Inventory Wetland Types**

 [R] Riverine, [2] Lower Perennial, [UB] Unconsolidated Bottom, [H] Permanently Flooded, [x] Excavated

 [P] Palustrine, [EM] Emergent, [A] Temporarily Flooded, [d] Partially Drained/Ditched









 [P] Palustrine, [EM] Emergent, [C] Seasonally Flooded, [d] Partially Drained/Ditched

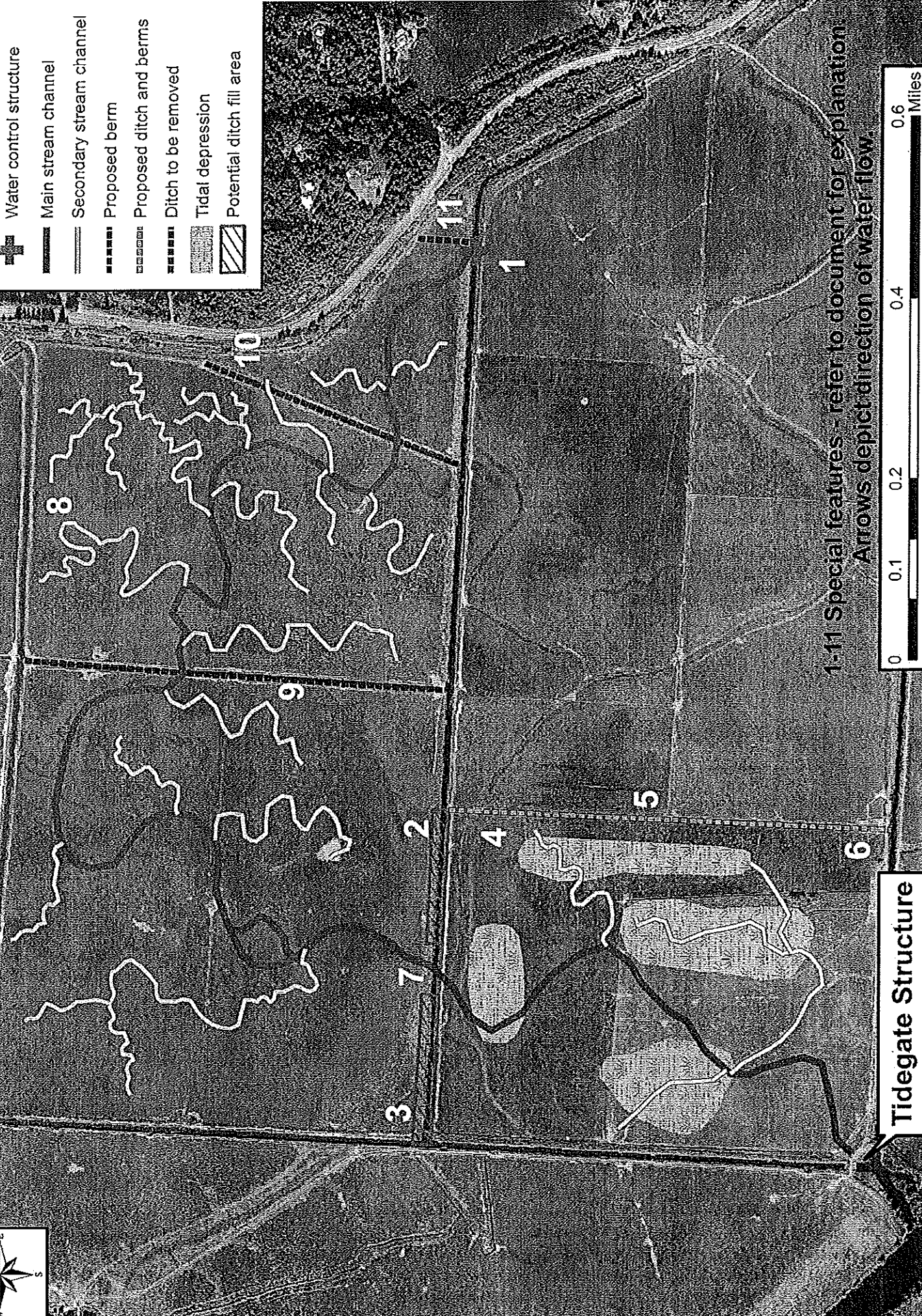


**Figure 7. ODFW/Winter Lake Conceptual Restoration Map after Phase 1 Restoration**



**Winter Lake Vicinity:**

-  Water control structure
-  Main stream channel
-  Secondary stream channel
-  Proposed berm
-  Proposed ditch and berms
-  Ditch to be removed
-  Tidal depression
-  Potential ditch fill area



1-11 Special features - refer to document for explanation.  
 Arrows depict direction of water flow.

**Tidegate Structure**



# ATTACHMENT A



## MATCH FUNDING FORM

*Document here the match funding  
shown on the budget page of your grant application*

**OWEB accepts all non-OWEB funds as match.** An applicant may not use *another OWEB grant* to match an OWEB grant; this includes ODA Weed Board projects because they are funded through OWEB grants. However, an applicant who benefits from a pass-through OWEB agreement with another state agency, by receiving either staff expertise or a grant from that state agency, may use those benefits as match for an OWEB grant. (Example: A grantee may use as match the effort provided by ODFW restoration biologists because OWEB funding for those positions is the result of a pass-through agreement). At the time of application, match funding for OWEB funds requested does not have to be *secured*, but you must show that at least 25% of match funding has been sought. On this form, you do not necessarily need to show authorized signatures (“secured match”), but the more match that is secured, the stronger the application. Identify the type of match (cash or in-kind), the status of the match (secured or pending), and either a dollar amount or a dollar value (based on local market rates) of the in-kind contribution. In the table below, the match may be identified as Effectiveness Monitoring (EM), Plant Establishment (PE) or Other (OTHER) Dollar Value. **If you are not requesting funds from OWEB to support effectiveness monitoring or plant establishment, disregard the EM column or the PE column and use only the OTHER column.**

**EFFECTIVENESS MONITORING (EM):** If you are requesting more than \$3,500 in OWEB funds to support Effectiveness Monitoring activities as part of a Watershed Restoration Grant Application and filling out information for Question R17, you must include matching funds which will be used as match for the effectiveness monitoring portion of the project. This is identified in the table below as the EM Dollar Value.

**PLANT ESTABLISHMENT (PE):** If you are requesting more than \$3,500 in OWEB funds to support Plant Establishment as part of a Watershed Restoration Grant Application and filling out information for Question R18, you must include matching funds which will be used as match for the Plant Establishment portion of the application. This is identified in the table below as the PE Dollar Value.

If you have questions about whether your proposed match is eligible or not, see Allowable Match document in OGMS <http://apps.wrd.state.or.us/apps/oweb/fiscal/nologin.aspx> under Restoration application or contact your local OWEB regional program representative (contact information available in the instructions to this application).

Project Name: Winter Lake Restoration Project

Applicant: The Nature Conservancy

Match Funding Source	Type (√ one)	Status (√ one)**	EM Dollar Value	PE Dollar Value	OTHER Dollar Value	Match Funding Source Signature/Date**
The Nature Conservancy	<input checked="" type="checkbox"/> cash <input type="checkbox"/> in kind	<input checked="" type="checkbox"/> secured <input type="checkbox"/> pending		\$80,000.00	\$80,000.00	
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> pending				
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> pending				
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> pending				
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> pending				
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> pending				
	<input type="checkbox"/> cash <input type="checkbox"/> in kind	<input type="checkbox"/> secured <input type="checkbox"/> pending				

**\*\* IMPORTANT:** If you checked the “Secured” box in the Status Column for any match funding source, you must provide either the signature of an authorized representative of the match source in the final Column, or attach a letter of support from the match funding source that specifically mentions the dollar amount you show in the EM, PE or OTHER Dollar Value Column(s).

# ATTACHMENT B



## LAND USE INFORMATION FORM

*This information is needed to determine if the proposed project complies with statewide planning goals and is compatible with local comprehensive plans (ORS 197.180). The form must be submitted at the time of application (OAR 695-050-0035(1)(a)) with the applicant completing at least #1 below. The completed and signed form must be submitted before OWEB releases grant funds. OWEB will release grant funds only if the project either is not regulated by, or is compatible with, the local comprehensive plan and zoning ordinance. If a project is regulated by the local comprehensive plan and zoning ordinance, OWEB will void grant agreements for projects the county determines to be incompatible with the local comprehensive plan and zoning ordinance. If the county requires additional local approvals for a project regulated by the local comprehensive plan and zoning ordinance, OWEB will not release grant funds until these conditions are satisfied.*

### 1. TO BE COMPLETED BY THE APPLICANT/GRANTEE

Applicant/Grantee Name: The Nature Conservancy

Project Name: Winter Lake Restoration Project

### 2. TO BE COMPLETED BY CITY/COUNTY OR TRIBAL PLANNING OFFICIAL

Complete this section only after section 1, above, has been completed. Check the box below that applies:

- This project is not regulated by the local comprehensive plan and zoning ordinance.
- This project has been reviewed and is compatible with the local comprehensive plan and zoning ordinance.
- This project has been reviewed and is not compatible with the local comprehensive plan and zoning ordinance.
- Compatibility of this project with the local planning ordinance cannot be determined until the following local approvals are obtained:
- |   |   |
|---|---|
| <input type="checkbox"/> Conditional Use Permit | <input type="checkbox"/> Development Permit |
| <input type="checkbox"/> Plan Amendment         | <input type="checkbox"/> Zone Change        |
| <input type="checkbox"/> Other                  |   |

An application has  has not  been made for the local approvals checked above.

\_\_\_\_\_  
\* Signature of Local Official

\_\_\_\_\_  
Date

Print Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Title: \_\_\_\_\_

Email: \_\_\_\_\_

*\*Must be an authorized signature from your local City/County or Tribal Planning Department, regardless of which box is checked above.*

# ATTACHMENT C



## PUBLIC RECORD CERTIFICATION

Oregon Administrative Rule 695-005-0030(4) states that "All applications that involve physical changes or monitoring on private land must include certification from the applicant that the applicant has informed all landowners involved of the existence of the application and has also advised all landowners that all monitoring information obtained on their property is public record. If contact with all landowners was not possible at the time of application, explain why."

**INSTRUCTIONS:** All applicants must complete Part One. In Part One, if you check the first box, skip Part Two and sign and date in the signature box below. If you check the second box, you must complete Part Two and sign and date in the signature box below.

### PART ONE

- Public land only (STOP: go to signature box and complete)
- Private land only, or a mix of public and private land (complete Part Two and sign and date in the signature box)

### PART TWO

- I certify that I have informed all participating private landowners involved in the project of the existence of the application, and I have advised all of them that all monitoring information obtained on their property is public record. The following is a complete list of all participating private landowners.

- |  |           |
|--|-----------|
| 1. <u>Oregon Department of Fish and Wildlife</u> | 6. _____  |
| 2. <u>China Creek Hunt Club</u>                  | 7. _____  |
| 3. _____   | 8. _____  |
| 4. _____   | 9. _____  |
| 5. _____   | 10. _____ |

- I certify that contact with all participating private landowners was not possible at the time of application for the following reasons:

Furthermore, I understand that should this project be awarded, I will be required by the terms of the OWEB grant agreement to secure cooperative landowner agreements with all participating private landowners prior to expending Board funds on a property.

### APPLICANT/CO-APPLICANT SIGNATURE

	<u>August 14, 2013</u>
Applicant Signature	Date
<u>Catherine A. Macdonald</u>	<u>Director of Conservation Programs</u>
Print Name	Title
_____ Co-Applicant Signature	_____ Date
_____ Print Name	_____ Agency



# ATTACHMENT D



## RESTORATION METRICS FORM

OWEB receives a portion of its funds from the federal government and is required to report how its grantees have used both federal and state funds. The information you provide in the following form will be used for federal and state reporting purposes.

Please complete all portions of the form below as they apply to your project and submit all pages (do not exclude any pages). Please provide specific values, do not enter values like "2-3" or "<100". Enter your best approximation of what the project will accomplish.

If you have any questions, please contact Cecilia Noyes, OWEB Federal Reporting Coordinator, at 503-986-0204 or [cecilia.noyes@state.or.us](mailto:cecilia.noyes@state.or.us).

### Section 1 - Project Overview

Answer all five questions below, even if you have answered a similar question in a previous section in the grant application.

**1. Land Use Setting: CHECK ONE BOX ONLY.**

<input type="checkbox"/> Urban/Suburban/Exurban (Projects located within urban growth boundaries or rural residential areas)	<input checked="" type="checkbox"/> Rural (Projects located outside urban growth boundaries or rural residential areas.)
--	--

**2. Dominant Watershed Setting: CHECK ONE BOX ONLY.** Example: Your project involves managing erosion in the upland area with some erosion control extended to the riparian area. Because most of the work is to occur in the upland area, you would check only the Upland box below.

<input checked="" type="checkbox"/> Estuary (where freshwater meets and mixes with saltwater of ocean tides.)	<input type="checkbox"/> Riparian (adjacent to a water body, within the active floodplain.)
<input type="checkbox"/> Instream (below the ordinary high-water mark or within the active channel — includes fish passage.)	<input type="checkbox"/> Upland (above the floodplain.)
<input type="checkbox"/> Wetland (areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.)	<input type="checkbox"/> Groundwater (Projects that recharge groundwater or primarily affect the subsurface water table.)

**3. Total Acres Treated: 653      Total Stream Miles Treated: 10** (do not include upstream stream miles made accessible to fish with passage improvements)

**4. Project Identified in Plan or Watershed Assessment:** List the primary watershed/subbasin plan(s) or assessment(s) in which this project type is identified as a priority. The plans identified in Section III, question #R9 should include the plans or assessments listed below. Attach additional page, if needed.

Title	Author(s)	Date
Coquille Subbasin Plan	Coquille Tribe, for NOAA Fisheries	2007
Oregon Coast Coho Conservation Plan	Oregon Dept. Fish and Wildlife	2007
Coquille Watershed Action Plan	Coquille Watershed Association	2003
Oregon Conservation Strategy	Oregon Dept. Fish and Wildlife	2006
Oregon Plan for Salmon and Watersheds	Oregon Coastal Salmon Restoration Initiative	1997

USFWS Coastal Program Strategic Plan for Region I	U.S. Fish and Wildlife Service	2007
Pacific Coast Joint Venture Strategic Plan	Pacific Coast Joint Venture	1994,2004
Regional Wetlands Concept Plan	U.S. Fish and Wildlife Service	1990

**5. Project Monitoring:** All OWEB funded restoration projects require post-implementation status reporting including photo point monitoring. Please indicate below: 1) the location of the monitoring activities relative to the project, including photo point locations, 2) whether effectiveness monitoring is planned, and 3) whether additional monitoring will be conducted for this project.

5.1) Identify the location for the planned monitoring activities relative to the restoration project location. Check as many boxes as apply.

<input checked="" type="checkbox"/> Onsite	<input type="checkbox"/> Downstream	<input type="checkbox"/> Upstream	<input type="checkbox"/> Upslope
--	-------------------------------------	-----------------------------------	----------------------------------

5.2)  Effectiveness monitoring will be conducted for this project, this can be selected regardless of whether the effectiveness monitoring is funded by OWEB (refer to definition of effectiveness monitoring in the Application Instructions under R17).

5.3) Will this project conduct monitoring activities beyond the required post-implementation status reporting and photo point monitoring?

Yes  No If you answer yes, select the monitoring activities below, if you answer no proceed to Section 2.

Check all proposed monitoring activities

<input type="checkbox"/> Adult Fish presence/absence/abundance/distribution survey(s)	<input checked="" type="checkbox"/> Riparian vegetation (Presence/Absence)
<input checked="" type="checkbox"/> Juvenile Fish presence/absence/abundance/distribution survey(s)	<input type="checkbox"/> Spawning surveys
<input checked="" type="checkbox"/> Instream Habitat surveys	<input type="checkbox"/> Upland vegetation (Presence/Absence)
<input type="checkbox"/> Macroinvertebrates	<input checked="" type="checkbox"/> Water quality
<input checked="" type="checkbox"/> Noxious weed (Presence/Absence)	<input checked="" type="checkbox"/> Water quantity
<input type="checkbox"/> Other Biological Monitoring (bird counts, amphibian surveys)	<input type="checkbox"/> Other (explain): _____

## Section 2 - Project Activities

Provide values for each Project Activity applicable to your application. Leave blank any Project Activity or metric line that is not appropriate to your application. All data entered in this form should be what you plan to do with the project. Data about completed projects will be reported at the end of the project to the Oregon Watershed Restoration Inventory (OWRI).

For each activity type where you enter metrics, estimate the percentage of the total cost of the project (OWEB and all other funding sources, shown on page 1 of this application) that applies to the activity. The sum of all of the activity cost percentages should equal 100%. Please distribute all administrative, project management and other general project costs among the various project activities when estimating percentages.

*Example: A project will remove a fish passage barrier, place large boulders instream, and plant a riparian buffer. You would enter the appropriate metrics into the Fish Passage, Instream Habitat, and Riparian Habitat activity sections of this form. Then, estimate the percentage of the total cost of the project for each activity. For instance: 20% towards Fish Passage activities, 25% towards Instream Habitat activities, and 55% towards Riparian Habitat activities.*

**Fish Screening Projects:** Projects that result in the installation or improvement of screening systems that prevent fish from passing into areas that do not support fish survival, for example into irrigation diversion channels.

\_\_\_\_ % Estimate the percentage of total cost of the project applied to fish screening activities

### New Fish Screens Installed

\_\_\_\_ # Estimate the number of new screens installed (do not count diversions where existing screens are replaced)

\_\_\_\_ cfs Estimate the cubic feet per second of flow influenced by new screen(s) installed (to nearest 0.01 cfs)

### Existing Screens Replaced, repaired or modified

\_\_\_\_ # Estimate the number of existing screens replaced, repaired or modified

\_\_\_\_ cfs Estimate the cubic feet per second of flow influenced by existing screen(s) screens (to nearest 0.01 cfs)

**Fish Passage Improvement:** *Projects that improve fish migration by addressing a migration barrier problem.*

Complete sections A-E as they apply to the proposed project. Projects that improve fish passage at road crossings should complete both sections A (define the problem) and B (define the treatment). Non-road crossing improvements are reported in sections C and D. Section E should be completed for all fish passage improvement projects. Refer to the application instructions for additional information and examples.

**A. Road Crossings – Define Existing Fish Passage Problem**

1. Culverts hindering fish passage	_____ # crossings
2. Bridges hindering fish passage	_____ # crossings
3. Fords hindering fish passage	_____ # crossings

**B. Road Crossings – Define the Fish Passage Improvements to be implemented by this project**

1. Culverts installed/improved - <i>Improvements may include installing baffles inside culverts or installing/improving engineered bypasses (e.g. weirs) directly below a culvert outlet to improve passage.</i>	_____ # crossings	_____ str. mi with improved access*
2. Bridges installed/improved - <i>Improvements may include installing/improving engineered bypasses (e.g. weirs) directly below a bridge crossing to improve passage.</i>	_____ # crossings	_____ str. mi with improved access*
3. Fords installed/improved	_____ # crossings	_____ str. mi with improved access*
4. Road Crossings removed and <u>not</u> replaced	_____ # crossings	_____ str. mi with improved access*

\*Estimate stream miles in the main channel and tributaries made more accessible above the crossing(s) (to nearest 0.01 mile). If a barrier exists upstream, report the length made accessible up to that next upstream barrier.

**C. Fish Passage Barriers – Other than Road Crossings**

1. Type(s) of barriers to be treated/removed to improve fish passage.	<input type="checkbox"/> Diversion Dam <input type="checkbox"/> Push-up Dam <input type="checkbox"/> Wood or Concrete Dam <input type="checkbox"/> Weir (not associated with a road crossing) <input type="checkbox"/> Logs (not weirs) <input type="checkbox"/> Debris <input checked="" type="checkbox"/> Tidegates <input type="checkbox"/> Boulder/Rock Barrier (not weirs) <input type="checkbox"/> Landslide Other (explain) _____
2. $\Sigma$ # Estimate the total number of non-road crossing barriers (listed under C.1 above) to be removed or altered to improve passage.	

**D. Fish Ladders or Engineered Bypasses (not associated with Road Crossings)**

1. Fish ladders will be installed/improved	_____ # fish ladders to be installed/improved
2. Engineered bypasses will be installed/improved. <i>This includes weirs, rock boulder step pools, and chutes constructed/roughened in bed rock. Do not count engineered bypasses located at a road crossing to improve passage at the crossing. These types of improvements should be identified above in section B as a Road Crossing Fish Passage Improvement.</i>	_____ # engineered bypasses to be installed/improved

**E. Fish Passage Summary Metrics**

1. \_\_\_\_\_ % Estimate the percentage of total cost of the project applied to fish passage improvements
2. \_\_\_\_\_ mi Estimate the total stream miles that will be made more accessible in the main channel and tributaries above the project (to nearest 0.01 mile). *This metric summarizes the stream miles for all of the proposed passage improvements (defined above in Sections A-D). If a barrier exists upstream of the project, report the length made accessible up to that next upstream barrier.*
3. \_\_\_\_\_ # Estimate the total number of barriers (this includes road crossings, diversion dams, push up dams, wood or concrete dams, weirs, tidegates, etc.) to be removed or altered to improve passage.
4. \_\_\_\_\_ % Estimate the percentage of fish passage activity costs applied to tidegates. If you do not select tidegate as a type of fish passage barrier for question C.1, leave this value blank. Example: Your project will remove a tidegate. You estimated that 100% of the total project cost will apply to fish passage improvements and one quarter of the fish passage improvements costs will apply to the tidegate removal, you would report 25%.

**Instream Flow:** *Projects that maintain and/or increase the instream flow of water.* Irrigation improvements that are primarily designed to improve water quality should be reported under Upland – Agriculture Management Activities.

Check all proposed activities.

<input type="checkbox"/> Irrigation practice improved to increase instream flows (e.g. install diversion headgate, replace open ditches with pipes)	<input type="checkbox"/> Water flow gauges installed to measure water use
<input type="checkbox"/> This project will dedicate instream flow.	<input type="checkbox"/> Other (explain): _____

- \_\_\_\_\_ % Estimate the percentage of total cost of the project applied to instream flow activities
- \_\_\_\_\_ mi. Estimate the miles of stream where increased flow is the result of decreased/eliminated water withdrawals
- \_\_\_\_\_ cfs Estimate the increase in flow of water in the stream as a result of conservation effort (cubic feet per second)
- \_\_\_\_\_ mm/dd/yyyy Initial start date of irrigation practice improvement
- \_\_\_\_\_ mm/dd/yyyy Final end date of irrigation practice improvement (if improvement is permanent enter 12/31/9999)

**Instream Habitat:** *Projects that are designed to improve instream habitat conditions.*

Check all proposed activities.

<input type="checkbox"/> Channel reconfiguration and connectivity (e.g., creating instream pools, meanders, improving floodplain connectivity, off-channel habitat, removal or alteration of levee or berm, removal of sediment)	<input type="checkbox"/> Spawning gravel placement
<input type="checkbox"/> Channel structure - large wood placement	<input type="checkbox"/> Plant Removal/control (instream) List scientific names of plants _____
<input type="checkbox"/> Channel structure - boulder placement	<input type="checkbox"/> Beaver introduction
<input type="checkbox"/> Channel structure placement ( <u>other</u> than large wood or boulder placements), e.g., engineered structures or deflectors, barbs, weirs, etc.	<input type="checkbox"/> Carcass or nutrient placement: <input type="checkbox"/> salmonid carcass; <input type="checkbox"/> fish meal brick; <input type="checkbox"/> other nutrient
<input type="checkbox"/> Streambank stabilization (includes bio-engineering)	<input type="checkbox"/> Animal species removal (e.g. northern pike minnow, non-native fish, invasive animals)
	<input type="checkbox"/> Other (explain): _____

- \_\_\_\_\_ % Estimate the percentage of total cost of the project applied to instream habitat activities
- \_\_\_\_\_ mi. Estimate the miles of stream to be treated with instream habitat treatments (to nearest 0.01 mile)
- \_\_\_\_\_ % Estimate the percentage of instream activity costs for carcass or nutrient placements. If you do not select carcass/nutrient placements as an instream habitat activity, leave this value blank. *Example: Your project will place salmon carcasses. You estimated that 25% of the total project cost will apply to instream habitat activities and one half of the instream improvements costs will apply to the carcass placement, you would report 50%.*

**Riparian Habitat:** *Projects above the ordinary high-water mark of the stream and within the floodplain of the stream. This includes lakeshores of connected lakes.*

Check all proposed activities.

<input type="checkbox"/> Riparian planting	<input type="checkbox"/> Non-native/noxious plant control
<input type="checkbox"/> Riparian fencing	<input type="checkbox"/> Vegetation management (e.g. prescribed burnings, stand thinning, stand conversions, silviculture)
<input type="checkbox"/> Riparian exclusion by means <u>other than fencing</u> (includes excluding livestock, people, vehicles, etc.)	<input type="checkbox"/> Debris/structure removal (e.g. tires, appliances, old cars or buildings)
<input type="checkbox"/> Water gap development (fenced-livestock crossing or livestock bridge)	<input type="checkbox"/> Other (explain): _____ <i>Do not report livestock water developments here, report livestock water developments under upland habitat treatments.</i>
<input type="checkbox"/> Conservation grazing management (e.g., rotation grazing)	

- \_\_\_\_\_ % Estimate the percentage of total cost of the project applied to riparian habitat activities
- \_\_\_\_\_ ac. Estimate the acres of riparian habitat to be planted (to nearest 0.1 acres)
- \_\_\_\_\_ ac. Estimate the acres of riparian habitat to be treated for non-native/noxious weeds (to nearest 0.1 acres)
- \_\_\_\_\_ ac. Estimate the total riparian acres to be treated. (to nearest 0.1 acres)
- \_\_\_\_\_ mi. Estimate the miles of riparian streambank to be treated (to nearest 0.01 mi). Stream sides treated  one  two

(Do not double count miles if a second side is treated)

**Upland Habitat:** *Projects implemented above the floodplain. Check all proposed activities.*

<input type="checkbox"/> Erosion control structures (e.g., sediment collection basins, WASCOBs)	<input type="checkbox"/> Upland Agriculture Management – (e.g., no/low-till, wind breaks, filter strips, and irrigation improvements)
<input type="checkbox"/> Planting/seeding for erosion control (e.g., convert from crops to native vegetation, plant area where non-native/noxious weeds removed, grassed waterways) List scientific names of plants _____	<input type="checkbox"/> Livestock Manure Management (e.g., feedlot improvements to reduce runoff, relocate/improve manure holding structures and manure piles to reduce/eliminate drainage into streams)
<input type="checkbox"/> Slope stabilization (e.g., grade stabilization, landslide reparation, terracing slopes)	<input type="checkbox"/> Livestock/Wildlife Water Developments
<input checked="" type="checkbox"/> Non-native/noxious plant control; List scientific names of plants: _____	<input type="checkbox"/> Upland Livestock Management (other than livestock water developments), e.g., grazing plans, fencing
<input type="checkbox"/> Juniper removal/control	<input type="checkbox"/> Restore Historic Upland Habitats (e.g. oak woodland, oak savannah, upland prairie restoration)
<input type="checkbox"/> Vegetation Management (other than non-native/noxious plant control or juniper removal, e.g. tree thinning, brush control, burning, stand conversion, silviculture) List scientific names of plants: _____	<input type="checkbox"/> Trail or Campground Improvements (to decrease upland erosion; these may extend into or are in the riparian zone)
	<input type="checkbox"/> Other (explain): _____

1 % Estimate the percentage of total cost of the project will apply to upland habitat activities

\_\_\_\_\_ # Estimate the number of livestock/wildlife water developments

40 ac. Estimate the acres of upland habitat to be treated for non-native/noxious plants (to nearest 0.1 acres)

\_\_\_\_\_ ac. Estimate the total acres of upland habitat to be treated (do not include acres of upland habitat affected by livestock water developments (to nearest 0.1 acres)

\_\_\_\_\_ % Estimate the percentage of upland activity costs applied to Livestock Manure Management. If you do not select Livestock Manure Management as an upland habitat activity, leave this value blank. *Example: Your project will relocate a feedlot to reduce livestock manure runoff. You estimated that 33% of the total project cost will apply to upland habitat activities and one half of the upland improvements costs will apply to the feedlot relocation, you would report 50%.*

**Road Activities:** *Projects designed to improve road impacts to watersheds. Check all proposed activities.*

<input type="checkbox"/> Road drainage system and surface improvements & reconstruction	<input type="checkbox"/> Other (explain): _____
<input type="checkbox"/> Road closure, relocation, obliteration (decommissioning)	

\_\_\_\_\_ % Estimate the percentage of total cost of the project applied to road activities

\_\_\_\_\_ mi. Estimate the miles of road treated (to nearest 0.01 mile)

**Urban Impact Reduction:** Check all of the urban impact related activities that will be used by this project:

<input type="checkbox"/> Sewage outfall clean-up or reducing outfall)	<input type="checkbox"/> Bioswales
<input type="checkbox"/> Pesticide reduction: list names of each pesticide: _____	<input type="checkbox"/> Detention Facility
<input type="checkbox"/> Toxin (other than pesticide) reduction (herbicides, mine dredge tailings, other toxics): list names of each toxic species, element or material: _____	<input type="checkbox"/> Other urban impact reduction (explain): _____
<input type="checkbox"/> Stormwater/wastewater modification or treatment (includes rain gardens)	

Check all of the water quality limiting factors addressed by the Urban Impact Reduction activities selected above. Do not select limiting factors addressed by other types of restoration activities:

<input type="checkbox"/> Bacteria	<input type="checkbox"/> Pesticides	<input type="checkbox"/> Nutrients
<input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/> Toxics	<input type="checkbox"/> Sediment
<input type="checkbox"/> Heavy Metals	<input type="checkbox"/> High Temperature	<input type="checkbox"/> Other (explain): _____

\_\_\_\_ % Estimate the percentage of total cost of the project applied to urban impact activities

**Wetland Habitat:** *Projects designed to create or improve wetland or meadow areas.*

Check all proposed activities.

<input type="checkbox"/> Wetland planting	<input type="checkbox"/> Artificial wetland area created from an area not formerly a wetland
<input type="checkbox"/> Non-native/noxious/invasive plant control	<input type="checkbox"/> Other (explain): _____
<input type="checkbox"/> Wetland improvement/restoration of existing or historic wetland (other than vegetation planting or removal)	

\_\_\_\_ % Estimate the percentage of total cost of the project applied to wetland habitat activities

\_\_\_\_ ac. Estimate the acres of wetland habitat to be treated for non-native/noxious/invasive plants (to nearest 0.1 acres)

\_\_\_\_ ac. Estimate the acres of artificial wetland created (to nearest 0.1 acres)

\_\_\_\_ ac. Estimate the total acres of wetland habitat (existing or historic) treated (to nearest 0.1 acres)

**Estuarine Habitat:** *Projects that result in improvement or increase in the availability of estuarine habitat.*

Check all proposed activities.

<input checked="" type="checkbox"/> Estuarine planting	<input checked="" type="checkbox"/> Placement of fill material (for proper terrestrial function)
<input checked="" type="checkbox"/> Channel modification/creation (e.g., improve intertidal flow to existing estuarine habitat or create more habitat)	<input checked="" type="checkbox"/> Non-native/noxious plant control
<input checked="" type="checkbox"/> Dike or berm modification/removal	<input type="checkbox"/> Creation of new estuarine habitat where one did not exist previously by methods other than tidegates or dikes
<input type="checkbox"/> Removal of existing fill material	<input type="checkbox"/> Other (explain): _____

92 % Estimate the percentage of total cost of the project applied to estuarine habitat activities

3 ac. Estimate the acres of estuarine habitat to be treated for non-native/noxious plants (to nearest 0.1 acres)

506 ac. Estimate the total acres of estuarine habitat (existing or historic) to be treated (to nearest 0.1 acres)