# A 211-6050 )N

Received By
OWEB
OCT 18 2010

Type in the information for Sections I and II.

**Name of project:** Lampson Levee Setback and Habitat Restoration

**OWEB funds requested:** $97,985.00 **Total cost of project:** $813,534.00

**Project location:**

**This project occurs at (check one):** ☒ **A single site** ☐ **Multiple sites**

| Watershed Name(s) | County or Counties |
|---|---|
| Walla Walla River | Umatilla |

| 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 5th Field HUC |
|---|---|---|
| T5N, R36E, Sections 18,19 | -118.355, 45.902 | 1707010201 |

| **Applicant** | **Project Manager** |
|---|---|
| **Name:** Brian Wolcott | **Name:** Wendy Harris |
| **Organization:** Walla Walla Basin Watershed Council | **Organization:** Walla Walla Basin Watershed Council |
| **Address:** 810 South Main St Milton-Freewater 97862 | **Address:** 810 South Main St Milton-Freewater 97862 |
| | |
| **Phone:** 541-938-2170 | **Phone:** 541-938-2170 |
| **Fax:** 541-938-2170 | **Fax:** 541-938-2170 |
| **Email:** brian.wolcott@wwbwc.org | **Email:** wendy.harris@wwbwc.org |

| **Fiscal Agent** | **Landowner(s)** |
|---|---|
| **Name:** Wendy Harris | ☐ **Public: Agency:** |
| **Organization:** Walla Walla Basin Watershed Council | ☒ **Private: Name(s):** Clark and Lyla Lampson |
| **Address:** 810 South Main St Milton-Freewater | Address: 54738 Day Rd. Milton-Freewater 97862 |
| 97862 | |
| **Phone:** 541-938-2170 | Phone: 541-938-4711 |
| **Fax:** 541-938-2170 | |
| **Email:** wendy.harris@wwbwc.org | |

## 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: BRWolcott Date: 10/15/10

Print Name: BRIAN R. WOLCOTT Title: Exec. Director WWBWC

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.
This project will remove portions of private levee that was constructed years ago and constricts the Walla Walla river's ability to meander, limits fish habitat complexity, and limits riparian vegetation. This project will implement a levee setback design that will provide meander room, improved fish habitat along a 3/8th mile stretch of river, revegetate the riparian area and floodplain, install a secondary backwater channel, and reallign a channelized spring creek. Approximately 22 acres of conservation easement exists on the Lampson property along the Walla Walla River floodplain however it is currently disconnected from the river by the existing levee. Over 3/8ths of a mile of riparian habitat will be restored along (ESA listed) steelhead and spring chinook spawning habitat and (ESA) bull trout rearing habitat. The river bank where the levee will be removed will be redesigned for stability and fish habitat, utilizing J-hooks, root wads, and rock structures to create pools and spawning gravels. OWEB funds will be used to purchase vegetation, prep planting areas, plant vegetation, purchase of rock, and rock placement. This will match BPA funds that will cover the levee setback and instream habitat work.

2. **Has this project or ay element of this project, ever been submitted in a previous application(s) to OWEB?** ☒ Yes ☐ No

   If yes, what was the application number(s)? 201-363, 211-6023

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)? 208-5031

5. **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<br>Name the Partner and what their contribution is. | Cash | In-Kind | Secured (x) | Pending (x) | Amount/Value |
|---|---|---|---|---|---|
| **OWEB** | $100,000.00 | $ | ☐ | ☐ | $97,985.00 |
| **Landowner(s):**Clark and Lyla Lampson | $ | $165,000.00 | ☒ | ☐ | $165,000.00 |
| Confed. Tribes of Umatilla Indian Reservation Fish Habitat Program | $666,009.00 | $ | ☒ | ☐ | $715,549.00 |
| | $ | $ | ☐ | ☐ | $ |
| | $ | $ | ☐ | ☐ | $ |
| | $ | $ | ☐ | ☐ | $ |
| | $ | $ | ☐ | ☐ | $ |
| | $ | $ | ☐ | ☐ | $ |
| | $ | $ | ☐ | ☐ | $ |
| | $ | $ | ☐ | ☐ | $ |

| | | | | | |
|---|---|---|---|---|---|
| | $ | $ | ☐ | ☐ | $ |
| | $ | $ | ☐ | ☐ | $ |
| **Total Estimated Funds (add all amounts in the far-right Column):** | | | | | *$880,549.00 |

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

6. **Have any conditions been placed on other funds that may affect completion?** ☐ Yes ☒ No

   If yes, explain:

7. **Are you requesting OWEB funds for Effectiveness Monitoring?** ☐ Yes ☒ No
   **If you check "Yes", follow the instructions in Question R16**

8. **Are you requesting OWEB funds for Riparian Plant Establishment?** ☒ Yes ☐ No
   **If you check "Yes", follow the instructions in Question R17**

## 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 encouraged 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 private levee along the Lampson property was constructed several decades ago and is one of many that constrict the river's ability to meander and prevent fish habitat complexity such as pools, spawning gravels, and large woody debris. This highly channelized reach of the river produces high flood velocities, imperiling juvenile fish, fry and fish eggs and limiting backwater or other low velocity refugia for fish during high flow events, and limits year round fish habitat complexity.

Designs have been completed and reviewed. Three alternatives were taken to a 50% design, one was selected.

The landowners at the project site, Clark and Lyla Lampson are committed to restoring the floodplain benefits of their property. They have put 22 acres of their land into a 15 year conservation easement with the Confederated Tribes of the Umatilla Indian Reservation. The Tribal fish habitat program has been restoring the former orchard lands to a mix of cottonwood and other native trees and grasses. The Lampsons are considering a permanent conservation easement with the Blue Mountain Land Trust.

The Lampson property is located on the mainstem Walla Walla River at river mile (RM) 49, approximately 2.5 miles southeast of Milton-Freewater, Oregon. The Lampson Reach of the Walla Walla River is located within the northeast quarter of Section 19 of Township 5 North, Range 36 East of the Bowlus Hill, Oregon quadrangle map. The site location is shown on Sheet S-1. An aerial photo of the existing site is presented on Sheet S-4.1. Site soils generally consist of silt loam in the riparian and agricultural areas, throughout the valley floor, which is laterally controlled by rock outcrops. Sheet S-4.2 identifies the site soils, rock outcrops and boundaries. Site topography is shown on Sheet S-4.3.

A long-term conservation easement, signed by the landowner in 1998, includes 2,000 feet of the mainstem Walla Walla River and 22 acres of adjacent riparian and upland habitat. The approximate location of this easement is shown on Sheet S-4.4. The river along this reach is confined by a near-vertical rock cliff on the south bank and a levee constructed in the 1960s on the north bank. The majority of the Lampson Reach consists of confined, moderately incised riffles with essentially no floodplain connectivity during all but extreme flood events (the 1996/1997 flood inundated much of the property on the backside of the levee. Based on field observations and conversations

with the CTUIR and property owner, the levee appears to have been "field designed" and most likely does not satisfy current U.S Army Corps of Engineers design standards.

The project reach riparian area is largely restricted to the immediate bank area due to natural confinement by a vertical rock cliff on the south (left) bank and artificial confinement by a levee on the north (right) bank. In general, the riparian vegetation on bars and the immediate banks, inside the levee, is dominated by a black cottonwood (*Populus trichocarpa*) overstory. The understory is largely comprised of Himalayan blackberry (*Rubus armeniacus*) and other woody shrubs, likely emerging from rhizomes of overstory trees. The levee itself is almost exclusively dominated by a black locust (*Robinia pseudoacacia*) overstory and herbaceous groundcover. Despite the separation created by the levee, a relatively robust riparian community is developing in isolated patches landward of the right-bank levee due to a successful re-vegetation effort implemented by the CTUIR in 2001. The success of this re-vegetation effort is evidence of relatively shallow groundwater and hyporheic connectivity associated with either the river, springs emerging on the valley floor, irrigation or all three. As such, this design was developed under the assumption that the overall riparian community will respond with increased density and expand to accommodate natural floodplain conditions.

## 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 |
|---|---|
| Channel confinement | Private levee |
| Limited fish habitat | Private levee |
| Disconnected floodplain | Private levee |
| Limited vegetation | Private levee |

## 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.

The objectives of our work are to address some of the symptoms and causes of the degraded fish habitat, riparian area, and floodplain condition to enhance habitat for native salmonids within an ecological context. In other words; the proposed enhancement design focuses on improving habitat for all freshwater life history stages of native salmonids by restoring a self-maintaining geomorphic landscape. Since habitat for juvenile rearing, adult resting, and spawning are the most limiting factors, the design reflects measures that will increase both quantity and quality of habitats supporting these life history stages. Secondary benefits of these measures will span aquatic and terrestrial communities alike and reverberate throughout the watershed. Specific enhancement measures include:

- Levee setback to increase channel capacity, encourage bar development and sediment deposition, increase low-velocity channel margins, and increase riparian area width
- Add large woody debris (LWD) and boulders to increase complex pool and pocket-water habitat
- Create a side-channel, and a tributary (from springs and irrigation return flows), to enhance juvenile rearing

■ Widen and diversify the riparian community
■ Promote hydraulic, geomorphic and biologic interaction between the river, spring/irrigation return, side channels, riparian areas, and floodplains

The ultimate success of these types of river enhancement projects relies largely upon establishing appropriate riparian vegetation throughout the disturbed areas. In addition to providing stability and erosion resistance along the banks and floodplain, the vegetation supports the desired habitat in terms of both cover and overall ecosystem function. Sheet 10.1 shows the planting plan for the proposed project. Sheets 10.2 and 10.3 present typical planting schemes and species-specific planting guidelines, respectively. More specific information regarding the planting plans are available in the Planting Attachment.

The instream habitat portion of the project includes the creation of roughened channels, pools, habitat rocks, pocket water, and large woody debris placement. See the design sheets for more information regarding layout and method.

| Project Element | Proposed Action |
|---|---|
| Levee setback | a levee removal and levee setback to allow reconnection of the river with its floodplain, including re-establishment of meanders. The former leveed bank will be engineered to create habitat complexity while still providing stability needed to protect downstream property. |
| Fish habitat and cover | Instream habitat structures |
| Channel complexity | Side channel creation |
| Spring creek | Spring creek realignment |
| Riparian and upland habitat | Revegetation |
| Instream habitatComplexity | Rock purchase-install |
| Large woody debris | LWD installation |

## 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.**

The proposed river design includes the following elements:
■ Excavating a relatively large, single threaded, secondary channel and floodplain north of the main channel
■ Selectively retaining desirable riparian vegetation along the banks and floodplains
■ Removing the existing levee, riprap and debris along the north bank of the main channel
■ Selectively laying back portions of the north bank of the main channel
■ Extenuating two bends along the north bank of the main channel
■ Sculpting/excavating in-stream pools in select locations along the main channel
■ Slightly raising the existing channel elevation in between the excavated pool areas
■ Installing both LWD and rock habitat structures throughout the main channel and side channel
■ Creating a small channel and floodplain for the existing spring

| Project Element | Specific Objectives | Measure for Evaluation |
|---|---|---|
| Increase and enhance Instream Habitat complexity and instream Habitat structures | Multiple Habitats Close Together Woody Habitat Structures<br>Primary Pool Habitat Roughened Channels, Boulder Structures<br>Substrate Diversification | Fish presence<br>Fish habitat feature assessment<br>Channel cross sections<br>Pebble Counts |
| Levee setback/floodplain connectivity | The levee setback will allow reconnection of the river with its floodplain along 2297 feet of river, opening up 25 acres of floodplain to a currently constricted river.<br>Side Channel/Off Channel Habitat Layback Steep Existing Slopes<br>Levee Removal and/or Setback | Visual inspection<br>Cross sections |
| Geomorphic Stability | Meander Creation (Side Channel, Main Channel) Reduces Erosion, Sedimentation, Property Loss Wetlands<br>Self-Sustaining, Self-Maintaining Backwater Habitat<br>Minimize Maintenance of levee | Turbidity monitoring<br>Flow and velocity monitoring |
| Spring creek realignment | Off channel fish habitat, hyporheic exchange | Fish presence surveys<br>Groundwater monitoring |
| Increase, Enhance Diversify Riparian Habitat | Revegetation of riparian area and reconnected floodplain<br>Diverse Vegetation (Cover, Temperature, Recruitment, Macroinvertebrates)<br>Bio-Engineering (Native Plants. Channel, Floodplain and Habitat Stability | Plant surveys, plant mortality inspection |
| Upland habitat creation | Preserve, Enhance and Minimize Disturbance to High-Value Resource<br>Benefits to Other Species (Water fowl, Song Birds, Upland Species) | Bird, amphibian, and mammal surveys |

In addition to the above mentioned objectives, the project also:
Dissipates Energy
Maintains Deeper Water
Focuses, Directs, or Turns Flow
Promotes Gravel Sorting
Lowers Flood Elevation
Provides Bank and Erosion Protection
Avulsion (Stream Movement) Protection
Fish Holding, Fish Rearing, Fish Cover and Refuge, Fish Food Source, Fish Spawning

Most notably the project creates the following quantifiable improves for steelhead and Chinook salmon productivity:

Creates .44 acres of new spawning habitat

Creates .74 acres of new juvenile habitat

## 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.

An RFQ was advertised and a scoring and evaluation matrix based on skill sets, experience, site visit interaction, and references was used by WWBWC staff and CTUIR staff to determine which of the competing engineering firms would be selected. GeoEngineers was the firm that was awarded the project. GeoEngineers have designed more than 60 instream and floodplain habitat restoration projects and have assembled a diverse team of a design engineer, hydrologist, fish biologist, wetland scientist, fluvial geomorphologist, and hydraulic engineer. They have designed two successful instream projects in the local area. One was a fish passage barrier removal and the other was a levee setback.

Jim Webster, fluvial geomorphologist, and Jed Volkman, fish biologist are both on staff at the Confederated Tribes of the Umatilla Indian Reservation and are providing extensive input on the design. Also we will receive review assistance from the district fish Biologist Oregon Department of Fish and Wildlife.

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 design is based on river channel and floodplain surveys. These were combined with extensive terrestrial and river survey work completed by the Corps in 1999-2000, analysis of upstream reference reaches, and completion of HEC-RAS modeling. A planning meeting occurred with the landowners and technical partners, prior to the engineering firm developing the designs. The design was completed in January 2010, following technical and landowner review. The project is designed to accommodate a 100 year event. Permitting and funding proposals based on designs and costing was initiated in January. As part of the permitting review, modifications to the original design have been made, with a final design to be completed in November 2010. Once permitting is complete, out of stream construction is planned to begin in winter of 2010/2011, and instream construction will occur during summer of 2011, with final planting occurring winter of 2011/2012.

Primary objectives are to increase fish habitat and fish habitat complexity. Secondary benefits anticipated by the proposed enhancements will include increased flood storage capacity, increased hyporheic connectivity, and dissipation of flood energy and channel aggradation. These goals are intended to be achieved within the hydrologic and geomorphic constraints of the river; the physical constraints of the adjacent topography; the practical constraints of the property's land use; the environmental constraints of applicable regulations permits; and the constraints of CTUIR's schedule and the availability of funds.

## R6. Design Alternatives

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

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

Designs have been completed and reviewed. Three design alternatives were developed and reviewed. One design was selected and developed into a final design. The other two designs were dismissed. One design was not pursued as it did not create enough environmental improvements, and the other was dismissed as it created a potentially unstable river channel that could increase the possibility of flooding impacts downstream.

GeoEngineers and the CTUIR collaboratively developed three design alternatives that targeted fish habitat objectives. These alternatives, which are briefly discussed below, progressively increased in complexity, site disturbance, habitat benefits and cost.

- Alternative 1 involved relatively minor enhancements in and along the existing channel, laying back the banks of the main channel and creating a small channel and floodplain for the existing spring. In-stream benefits would have largely been realized passively through the enhancements rather than through extensive in-stream work.
- Alternative 2 involved the creation of a relatively large, single threaded, secondary channel north of the main channel; laying back the banks of the main channel; excavating in-stream pools; excavating a wider floodplain along the main channel and secondary channel, extenuating two bends in the main channel and creating a small channel and floodplain for the existing spring
- Alternative 3 involved the creation of several relatively large, side channels north of the main channel; laying back the banks of the main channel; excavating in-stream pools; excavating a wider floodplain along the main channel and side channels, extenuating two bends in the main channel and creating a small channel and floodplain for the existing spring.

A variation of Alternative 2, which reduced the size of the proposed secondary channel, was ultimately selected by the CTUIR because it resulted in a suitable balance between the overall project costs and benefits. It is the design of this alternative that is described in this design package.

As part of the permitting process, options to minimize impacts to aquatic species during construction have been discussed among ODFW, CTUIR, USFWS, NOAA Fisheries staff and the GeoEngineers design team. The river will be rerouted around the instream work area during the latter part of the instream work window (August and September) to minimize impacts to fish species. This is typically the lowest flow time of year. A fish salvage will be conducted to remove fish from the reach prior to dewatering.

## 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 |
|---|---|---|---|
| Permit Applications | Jan 2010 | Dec2010 | Has already been initiated with site visits |
| Materials Acquisition | May2011 | Dec2011 | |
| Bid Solicitation | Jun 2011 | Jun 2011 | |
| Contracting | July 2011 | Jul 2011 | |
| Construction | Aug 2011 | Sep2011 | |
| Project Inspection | Sep 2011 | Dec2011 | |
| Post Project Implementation Review | Jun 2012 | Jun 2013 | |
| Project Maintenance | Apr 2012 | Ongoing | CTUIR Fish Habitat Program, BPA O&M $ |
| *Add rows as needed* | | | |

See attached Sheet 11.2 for more detailed construction sequencing.

## 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** (*Oncorhynchus tshawytscha*) |
|---|---|
| ☐ | Deschutes River summer/fall-run ESU |
| ☐ | Lower Columbia River ESU |
| X | Mid-Columbia River spring-run ESU |
| ☐ | Oregon Coast ESU |
| ☐ | Snake River Fall-run ESU |
| ☐ | Snake River Spring/Summer-run ESU |
| ☐ | Southern Oregon and Northern California Coastal ESU |
| ☐ | Upper Klamath-Trinity Rivers ESU |
| ☐ | Upper Willamette River ESU |
| ☐ | unidentified ESU |
| | **Chum Salmon** (*O. keta*) |
| ☐ | Columbia River ESU |
| ☐ | Pacific Coast ESU |
| ☐ | unidentified ESU |

| | **Coho Salmon** (*O. kisutch*) |
|---|---|
| ☐ | Lower Columbia River ESU |
| ☐ | Oregon Coast ESU |
| ☐ | Southern Oregon/Northern California ESU |
| ☐ | unidentified ESU |
| | **Steelhead** (*O. mykiss*) |
| ☐ | Klamath Mountains Province DPS |
| ☐ | Lower Columbia River DPS |
| X | Middle Columbia River DPS |
| ☐ | Oregon Coast DPS |
| ☐ | Snake River Basin DPS |
| ☐ | Washington Coast DPS (SW Washington) |
| ☐ | Upper Willamette River DPS |
| ☐ | Steelhead/Trout unidentified DPS |

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. **See Application Instructions for helpful examples.**

The overall vision for this project is to enhance habitat for native fish and wildlife, particularly ESAlisted steelhead (*Oncorhynchus mykiss*), bull trout (*Salvelinus confluentus*), and reintroduced spring-run Chinook (*O. tshawytscha*). To achieve this vision, the project design focuses on addressing the limiting habitat factors of the project reach and, to the extent possible, this general reach of the Walla Walla River. Specifically, the proposed design is intended to decrease flow velocity, diversify in-stream structure, add low-velocity refugia, enhance spawning habitat and increase habitat complexity.

## 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. **(See the Application Instructions for helpful links to various regional plans.)**

This type of project to dechannelize the river and create fish habitat complexity is listed as a priority need for the Walla Walla River in multiple plans:
"The Walla Walla Basin Subbasin Plan 2004, (BPA)".
"The Mid Columbia Steelhead Recovery Plan, 2009 (NOAA/ODFW)".
"The Oregon Conservation Strategy 2006, ODFW
"Watershed Assessment and Action Plan; Upper Walla Walla River Subbasin 2003 (WWBWC)",
"Bull Trout Recovery Plan Draft 2002, (USFWS)",
"Walla Walla River Floodplain Restoration Report" (USACE-2000)

This project also implements riparian shading and floodplain reconnection actions recommended in the "Walla Walla River Temperature TMDL, 2005" (ODEQ).

Projects that create habitat complexity are second in priority only to projects that enhance and/or maintain fish passage and habitat connectivity and have been identified by NOAA Fisheries and the US Fish and Wildlife Service on several occasions as critical to efforts to restore listed steelhead and bull trout.

## R10. 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 |
|---|---|---|
| X | Stream complexity | The site is currently dominated by a long riffle with minimal pocket water |
| X | Riparian vegetation structure | Removing the levee will allow riparian plantings and natural regeneration |
| X | Species diversity | The project will increase aquatic and vegetative diversity |
| X | Vegetative ground cover | More of the floodplain will be revegetated |
| X | Floodplain connectivity | Levee removal |
| ☐ | Species migration patterns | |
| X | Sediment transport | Spawning gravels will now be able to develop rather than washout with current velocities |
| ☐ | Nutrient cycling | |
| X | Water quality | Better shading |
| ☐ | Water quantity | |
| ☐ | Water storage | |
| X | Hydrologic cycle | Increases opportunity for floodplain saturation and hyporeic exchange |
| X | Other (please describe) | Dechannelization of a section of the river |

## R11. 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 education projects, conservation actions and ecological protection efforts in the watershed and explain how this project relates to those actions.

This project complements multiple flow restoration projects, fish passage projects, and fish habitat projects that have occurred or are occurring on the Walla Walla River upstream and downstream from this site.

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).

This project implements an OWEB Technical Assistance grant that funded the design with significant match funding from BPA via the CTUIR Fish Habitat Program.

## R12. Project Inspection

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

| *Name of Person & Agency/Organization* | *Telephone Number* | *Email Address* | *Project Element Inspected* |
|---|---|---|---|
| *Jason Scott, GeoEngineers* | *509-363-3125* | *jscott@geoengineers.com* | *Construction elements* |
| *Jed Volkman CTUIR* | *509-524-5224* | ***jedvolkman@ctuir.com*** | *Planting* |

## R13. Educational/Public Awareness Opportunities

Explain whether and how you will raise public awareness about the project (e.g., install a project partner or interpretive sign, write an article for the local paper, lead a site tour for local citizens). **See the Application Instructions for clarification of eligible education and outreach costs.**

Site visits and presentations will be made available for the interested public, elected officials, and agency personnel.
"This project has high public awareness due to our U-pick farm operation, and we would welcome interpretive signs. We already are asked by numerous people what the lower half of our property is all about. We specifically point out in our farm advertising that we are nature friendly and note the conservation easement and numerous people comment on this when visiting. People visiting our property have expressed interests in doing conservation on their own properties, and we have referred people to Jed [CTUIR Habitat Program] before. Ideally, we would like eventually to have some walking trails through the area which our visitors could enjoy. We argue over the relative merits of letting hordes of people tramp through and scare out all the wildlife however, so...." Clark Lampson

## R14. 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? |
|---|---|---|
| Brian Wolcott WWBWC | 541-938-2170 | Project stability/ plant survival 10 years |
| Jed Volkman CTUIR | 509-524-5224 | Project stability/ plant survival 10 years |

## R15. 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.

   Costs were developed based on going rates for contracted services and materials. The budget was determined from an engineered evaluation of the acreages to be planted, types of vegetation, cubic yards to be excavated, and typical costs for contracted services and materials based on other projects completed in the area.

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.

   Not applicable

- **R16. 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 R16 Effectiveness Monitoring Application Insert, print it out and add after Question R15. See the R16 Effectiveness Monitoring Insert Instructions for clarification.**

- **R17. Riparian Planting. If you are proposing a Riparian Planting Project and you are requesting more than $3,500 in OWEB funds for implementation and plant establishment, you must complete the R17 Riparian Planting Application Insert, print it out and add after Question R15 or R16 as appropriate. 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 R17 Riparian Planting Application Insert Instructions for clarification.**

# QUESTION R17 RIPARIAN PLANTING INSERT

## Section I

## RIPARIAN PLANTING INFORMATION

These essay questions and their answers are designed to guide you and reviewers through a logical process from understanding and identifying the problem to measuring for success. **Refer to the 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. Do not use color highlights for text emphasis or in tables as the highlight turns black when the application is scanned.

Use 8½" x 11" paper. A double-sided application and materials are encouraged 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 3 of the Riparian Planting Insert 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. If the project involves multiple sites, be specific for each. If the project involves multiple sites, be specific for each.

**RP1** Clearly describe the condition of the site(s) to be planted and any site preparation activities that will be completed prior to planting. Why did you choose this approach to site preparation? Are there special conditions involved at this site? Discuss any predation or competition issues.

The site was formerly an orchard up to the landward side of a private levee along the river edge. The former floodplain has been partially restored over the last decade with grass and tree plantings. The project reach riparian area is largely restricted to the immediate bank area due to natural confinement by a vertical rock cliff on the south (left) bank and artificial confinement by a levee on the north (right) bank. In general, the riparian vegetation on bars and the immediate banks, inside the levee, is dominated by a black cottonwood (*Populus trichocarpa*) overstory. The understory is largely comprised of Himalayan blackberry (*Rubus armeniacus*) and other woody shrubs, likely emerging from rhizomes of overstory trees. The levee itself is almost exclusively dominated by a black locust (*Robinia pseudoacacia*) overstory and herbaceous groundcover. Despite the separation created by the levee, a relatively robust riparian community is developing landward of the right-bank levee due to a successful re-vegetation effort implemented by the CTUIR in 2001. The success of this re-vegetation effort is evidence of relatively shallow groundwater and hyporheic connectivity associated with either the river, irrigation or both. As such, this design was developed under the assumption that the overall riparian community will respond with increased density and expand to accommodate natural floodplain conditions.

**RP2** Provide detailed information regarding the plants, planting locations, and planting techniques at the site(s). (A diagram would be very helpful for reviewers and may result in a more favorable evaluation.) Explain why you are taking this approach at the site and include information on:

- Number and species to be planted;
- Plants per acre;
- Location of plantings;
- Size (age class) of planting stock;
- Type of stock (Rooted, bare root, or cuttings);

- Month(s) of plantings; and
- Protective devices/strategies to be used or vegetation competition and or predation.

For planting mosaics and delineation of zones please refer to the attached Sheets 10.1, 10.2, 10.3 from the River Enhancement Design, completed by GeoEngineers, Inc.

The following list describes planting methods and species to be planted. The size of planting stock can be determined by cutting length or pot size. Planting will occur from November through April, except for the lie cuttings that will be planted directly into the river bank and spring creek bank as large woody debris root wads are being installed.

Grass Seed Mix
1. Add topsoil mix and/or organic mulch to disturbed areas if necessary.
2. Seed all disturbed areas.
3. Cover with straw or mulch if necessary to minimize erosion.
Sandberg's bluegrass, bluebunch wheatgrass, blue wildrye, Idaho fescue and mountain brome
Seeding rate: 7 lbs per acre, 14.08 acres, 98.56 lbs total

Upland Nursery Stock
1. Add topsoil mix and/or organic mulch at base of plants if necessary.
Ponderosa pine, snowberry, blue elderberry, woods rose, serviceberry, golden currant and chokecherry.
Space individual plants 12 ft on center (oc) for tree species and 6 ft oc for shrub species

Riparian Nursery Stock
1. Add topsoil mix and/or organic mulch at base of plants if necessary.
2. Plant in proper hydrologic regime (see sheet 10.2)
Black cottonwood, woods rose, red osier dogwood, golden currant, coyote willow, Drummond's willow, snowberry, blue elderberry and chokecherry.
Space individual plants 12ft on center (oc) for tree species and 6 ft oc for shrub species

Nursery stock total: 2047 units, 14.55 acres Transition, riparian, and bank zones).

Live Cuttings
1. Plant live cuttings into permanent moisture regime.
2. Plant immediately if possible. When possible, materials will be salvaged from site prior to construction)
3. Plant top end up.
Black cottonwood, coyote willow, Drummond's willow, red alder, and red osier dogwood.
Space individual trees 6-8 ft oc and shrubs 1-3 ft oc with highest densities in streambank protection zones, at LWD structures and along outside bends.
Live cuttings total 1458 units, 16.02 acres.

Tree and Shrub Planting Specifications by Species
Common Name, Scientific Name, Recommended Size, Recommended Spacing

Trees

| | | | |
|---|---|---|---|
| Black cottonwood | *Populus trichocarpa* | 4 ft-6 ft cuttings | 6-8 ft on center |
| Ponderosa pine | *Pinus ponderosa* | 2 gallon pot | 12 ft oc |

Shrubs

| | | | |
|---|---|---|---|
| Woods rose | *Rosa woodsii* | 1 gallon | 6 ft oc |
| Golden currant | *Ribes aureum* | 1 gallon | 6 ft oc |
| Red osier dogwood | *Cornus serices* | 4 ft-6 ft cuttings | 1-3 ft oc |
| Drummond's willow | *Salix drummondiana* | 4 ft-6 ft cuttings | 1-3 ft oc |
| Coyote willow | *Salix exigva* | 4 ft-6 ft cuttings | 1-3 ft oc |
| Snowberry | *Symphoricarpos albus* | 1 gallon | 6 ft oc |
| Blue elderberry | *Sambucus nigra* | 1 gallon | 6 ft oc |
| Serviceberry | *Amelanchier alnifolia* | 1 gallon | 6 ft oc |
| Chokecherry | *Prunus virginiana* | 1 gallon | 6 ft oc |

Grass Seed Mix

| Common Name | Scientific Name | Application Method | Pounds Per Acre |
|---|---|---|---|
| Mountain brome | *Bromus carniatus* | Broadcast | 1.2 |
| Sandberg's Bluegrass | *Poa secunda* | Broadcast | 1.6 |
| Blue Wildrye | *Elymus glaucus* | Broadcast | 1.2 |
| Bluebunch wheatgrass | *Pseudoroegneria spicata* | Broadcast | 2.4 |
| Idaho fescue | *Festuca idahoensis* | Broadcast | 1.6 |

As shown on attachment 10.1, the project area has been divided into a bank zone, a replant zone, and supplemental planting zone. Most of the riparian area is included in the bank zone and replant zone. The bank zone will be replanted with bank zone vegetation from the low water level to five feet beyond the top of bank per the typical section on Sheet 10.2. The replant zone will be planted with either riparian vegetation or transitional vegetation as designated by elevation per the typical section on sheet 10.2. The supplemental planting zone will be planted with either riparian or transitional plantings around existing native vegetation as previously established by the CTUIR habitat program per the typical section on sheet 10.2. Sheet 10.3 shows which of the above mentioned seed mixes and plant stock will be planted to which zone or zones. Native vegetation previously established by the CTUIR will be maintained to the best extent possible. All existing trees greater than eight inch diameter and root wads to be removed will be incorporated into the proposed woody habitat structures in addition to those trees specified in the attached drawings.

a. Refer to Sheet 10.1 for typical planting zone designations and Sheet 10.2 for typical plant groupings.
b. Planting Applications and Specifications are based on USDA-NRCS technical notes and literature.
c. Wetland seed mix shall be broadcast 1-2 years after the planting of live cuttings to allow sediment to build up on the cobble bottom. If wetland seed mix is planted immediately after construction, it shall be covered with straw and staked with live willow stakes.
d. Transplanted materials and live cuttings should be installed immediately upon completion of LWD placement.
e. All existing trees larger than 8" in diameter and root wads to be removed shall be incorporated into the proposed woody habitat structures in addition to those trees specified in these drawings.

**RP3** Provide a *general* plant establishment plan that covers 3-5 years post implementation. Include a schedule with information on how frequently the site(s) will be visited, by whom (landowners or contractors), what type of invasive species and animal damage control will be implemented, what type of weather protection measures will be implemented, and what irrigation plans will be considered. If no plant establishment activity is planned, explain why.

CTUIR Fish Habitat Program staff will purchase and/or collect the planting materials, store them appropriately until installation, implement the planting by hand and with machinery. Mats will be installed to reduce weed encroachment and assist with moisture retention. Stem protection cylinders and or wire netting will be placed around stems to avoid deer browsing and beaver impacts. Crews will visit the site weekly throughout the

growing seeding, monitoring and maintaining the site as necessary to control weeds by hand pulling and if needed spraying individual noxious specimens, check on and replace if necessary stem protection cylinders that reduce deer browsing impacts, water trees, shrubs, and grasses from their watering truck, and if necessary replant any areas that are not successful. The only weather related concerns are the long dry season which will mitigated with wekkly watering fromn the CTUIR habitat water truck. The success of the prior revegetation work completed by CTUIR staff at portions of the project site demonstrates the CTUIR's skills and dedication to a successful project.

**RP4** What is your measure of 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?

A success rate of 80% plant survival is acceptable within 5 years of planting. Natural reseeding over time will compensate for up to 20% mortality should that occur. If the success rate falls below this standard, the CTUIR habitat program will work to secure the funding necessary for plant materials and staff time for planting and maintenance.

**RP5** Provide the name and contact information for the people who will be working on the various planting phases, if known.

| Project Element | Name of Person & Agency/Organization | Telephone Number and Email Address |
|---|---|---|
| **Site Prep** | Jason Scott, GeoEngineers, Inc. | 509-363-3125<br>jscott@geoengineers.com |
| **Planting** | Jed Volkman, CTUIR | 509-524-5224,<br>jedvolkman@ctuir.com |
| **Plant Establishment Work** | Jed Volkman, CTUIR | 509-524-5224,<br>jedvolkman@ctuir.com |
| **Project Management** | Jed Volkman, CTUIR | 509-524-5224,<br>jedvolkman@ctuir.com |

## Section IV
## WATERSHED RESTORATION BUDGET

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

### CAPITAL BUDGET *Totals automatically round to the nearest dollar

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| *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) |
| **PRE-IMPLEMENTATION.** 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 be disbursed only upon receipt of all required permits and licenses. | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| | | **SUBTOTAL (1)** | 0 | 0 | 0 | 0 |
| **PROJECT MANAGEMENT.** 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. | | | | | | |
| WWBWC Project Management | 10 days | 250 | | | 2,500.00 | 2,500 |
| CTUIR Habitat Program Manager | 12 days | 300 | 3,600.00 | | | 3,600 |
| GeoEngineers Construction Oversight | 12 days | 800 | | 9,600.00 | | 9,600 |
| | | **SUBTOTAL (2)** | 3,600 | 9,600 | 2,500 | 15,700 |
| **IN-HOUSE PERSONNEL.** Includes *only* actual in-house staff costs for project implementation. | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| | | **SUBTOTAL (3)** | 0 | 0 | 0 | 0 |
| **CONTRACTED SERVICES.** Labor, supplies, and materials to be provided by non-*staff* for project implementation. | | | | | | |
| Temporary Stream Diversion | 1 LS | 10000 | | 10000 | | 10,000 |
| Construction Staking | 5 Days | 1015.88 | | 5079 | | 5,079 |
| Selectively Lay Back Steep Slopes | 1.4 Acres | 14000 | | 19600 | | 19,600 |
| Selective Floodplain Grading | 5.4 Acres | 14000 | | 75600 | | 75,600 |
| Clearing, grubbing, stockpile trees & roots | 6.6 Acres | 3709.13 | | 24480 | | 24,480 |
| Floodplain Excavation, haul, stockpile & rough grade stockpile | 24500 CY | 5 | | 122,500 | | 122,500 |
| Fine Grade (sculpt) dry pools, riffle, banks | 2.10 Acres | 4000 | | 8400 | | 8,400 |
| In-Water Grading of pools, riffles. | 7 Days | 3000 | | 21000 | | 21,000 |
| Boulder acquisition, haul & placement in stream. 2 to 6 feet in diameter | 560 Ea | 125 | | 14,000 | 56,000 | 70,000 |
| Install woody habitat structure. Acquire wood from site, mostly small. Assume 25% anchored | 100 Pieces | 350 | | 35000 | | 35,000 |
| Acquire, haul & install woody habitat structure. Assume 25% anchored. | 225 Pieces | 750 | | 168750 | | 168,750 |
| Best Management Practices, including installation & maintenance. | 1 LS | 6000 | | 6,000.00 | | 6,000 |
| Pumping dirty water from in-water work overboard into settling basin. | 7 Days | 800 | | 5,600.00 | | 5,600 |
| | | | | | | |
| | | | | | | |
| | | **SUBTOTAL (4)** | 0 | 516,009 | 56,000 | 572,009 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **TRAVEL.** Mileage, per diem, lodging, etc. Must use current State of Oregon rate. | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| | | **SUBTOTAL (5)** | 0 | 0 | 0 | 0 |
| **SUPPLIES/MATERIALS.** Refers to items that typically are "used up" in the course of the project. Costs to OWEB must be directly related to on-the-ground work. | | | | | | |
| Donated land/Conservation easement 15 years | 22 acres | $500/acre/year | 165,000.00 | | | 165,000 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **SUBTOTAL (6)** | 165,000 | 0 | 0 | 165,000 |
| **CAPITAL EQUIPMENT.** List portable equipment costing only **$250 or more per unit**. Useful life of *capital* equipment is for the duration of project and will be used only for this project **(see next page for Non-Capital Equipment).** | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | **SUBTOTAL (7)** | 0 | 0 | 0 | 0 |
| | | **CAPITAL SUBTOTAL [Add all subtotals, (1-7) above]** | 168,600 | 525,609 | 58,500 | 752,709 |

## NON-CAPITAL BUDGET *Totals automatically round to the nearest dollar

| | | | | | | |
|---|---|---|---|---|---|---|
| **EDUCATION/OUTREACH.** Refers to informational and promotional activities associated with the project. | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| **SUBTOTAL (8)** | | | 0 | 0 | 0 | 0 |
| **EQUIPMENT.** List portable equipment costing only **$250 or more per unit**. Refers to items with a useful life of generally 2 years or more. | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| **SUBTOTAL (9)** | | | 0 | 0 | 0 | 0 |
| **NON-CAPITAL TOTAL (10) [Add the two subtotals, (8-9)** | | | 0 | 0 | 0 | 0 |

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

| | | | | | | |
|---|---|---|---|---|---|---|
| Not to exceed 10% of the Capital Subtotal (1-7) and the Non-Capital Total (8-9). Refers to 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 grant, including final report expenses for the grant. | | | | | | |
| **FISCAL ADMIN.** Compute by adding the **Capital Subtotal** and **Non-Capital Total** and multiplying both by 0.10 or less. | | | | | | |
| Fiscal Administration | | | | | 5,850.00 | 5,850 |
| | | | | | | 0 |
| **SUBTOTAL (11)** | | | 0 | 0 | 5,850 | 5,850 |
| **POST-IMPLEMENTATION STATUS REPORTING.** Costs associated with annual reporting requirements typically required for each grant (*see Application Instructions*). | | | | | | |
| | /yr | | | | | 0 |
| | /yr | | | | | 0 |
| **SUBTOTAL (12)** | | | 0 | 0 | 0 | 0 |
| **CAPITAL SUBTOTAL (1-7)** | | | 168,600 | 525,609 | 58,500 | 752,709 |
| **CAPITAL TOTAL (13) [Add the two Subtotals (10&11) to the Capital Subtotal from (1-7) above]** | | | 168,600 | 525,609 | 64,350 | 758,559 |

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

| | | | | |
|---|---|---|---|---|
| **RESTORATION BUDGET TOTAL (14) [Add Non-Capital Total (10) and Capital Total (13), from above]** | 168,600 | 525,609 | 64,350 | 758,559 |

## RIPARIAN PLANT ESTABLISHMENT BUDGET TOTAL

| | | | | |
|---|---|---|---|---|
| **RIPARIAN PLANT ESTABLISHMENT BUDGET TOTAL (15)** **This only applies if you are doing a riparian planting project; see Application Instructions and R17. Transfer Budget Total (10) from the Riparian Plant Establishment Budget Insert.** | 0 | 21,340 | 33,635 | 54,975 |

## EFFECTIVENESS MONITORING BUDGET TOTAL

| | | | | |
|---|---|---|---|---|
| **EFFECTIVENESS MONITORING BUDGET TOTAL (16)** **This only applies if you are doing Effectiveness Monitoring; see Application Instructions and R16. Transfer Budget Total (11) from the Effectiveness Monitoring Budget insert.** | 0 | 0 | 0 | 0 |

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

| | | | | |
|---|---|---|---|---|
| **PROJECT BUDGET TOTAL [Add (14), (15), AND (16) from above]** | 168,600 | 546,949 | 97,985 | 813,534 |

## Section II

# RIPARIAN PLANT ESTABLISHMENT BUDGET INSERT

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

**CAPITAL BUDGET** ***Totals automatically round to the nearest dollar**

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| *Itemize projected costs under each of the following categories.* | **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) |
| **PROJECT MANAGEMENT.** Includes *staff or contractors* who coordinate project implementation. Line items should identify who will be responsible for project management and their affiliation. | | | | | | |
| WWBWC - Executive Director | 40 hrs | 48 | | | 1,920.00 | 1,920 |
| | | | | | | 0 |
| **SUBTOTAL (1)** | | | 0 | 0 | 1,920 | 1,920 |
| **IN-HOUSE PERSONNEL.** Includes *only* Applicant employee costs and the portion of their time devoted to this project. | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| **SUBTOTAL (2)** | | | 0 | 0 | 0 | 0 |
| **CONTRACTED SERVICES.** Labor, supplies, and materials to be provided by non-*staff* for project implementation. | | | | | | |
| Riparian Planting, live willow stakes, cottonwood poles, some conifers, seeding, 4.91 acres | 158 hours | 20 | | 3,160 | | 3,160 |
| Transitional Zone Planting, live willow stakes, cottonwood poles, shrubs, bushes, 9.17 acres | 396 hours | 20 | | 7,920 | | 7,920 |
| Bank zone Planting, live cuttings, nursery stock, cottonwood poles, salvaged alder, 1.94 acres | 503 hours | 20 | | 10,060 | | 10,060 |
| Grass seeding, 16.02 acres | 10 hours | 20 | | 200 | | 200 |
| **SUBTOTAL (3)** | | | 0 | 21,340 | 0 | 21,340 |
| **TRAVEL.** Mileage, per diem, lodging, etc. Must use current State of Oregon rate. | | | | | | |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| **SUBTOTAL (4)** | | | 0 | 0 | 0 | 0 |
| **SUPPLIES/MATERIALS.** Refers to items that typically are "used up" in the course of the project. Costs to OWEB must be directly related to on-the-ground work. | | | | | | |
| Riparian Planting, live willow stakes, cottonwood poles, some conifers, 4.91 acres | 1220 plants | 3.72 | | | 4,538 | 4,538 |
| Transitional Zone Planting, live willow stakes, cottonwood poles, shrubs, bushes, 9.17 acres | 1975 plants | 5.35 | | | 10,566 | 10,566 |
| Bank zone Planting, live cuttings, nursery stock, cottonwood poles, salvaged alder, 1.94 acres | 5643 plants | 2.21 | | | 12,471 | 12,471 |
| Grass seed mix | 114 lbs | 10.00/lb | | | 1,140 | 1,140 |
| | | | | | | 0 |
| | | | | | | 0 |
| **SUBTOTAL (5)** | | | 0 | 0 | 28,715 | 28,715 |
| **CAPITAL EQUIPMENT.** List equipment costing only **$250 or more per unit**. Useful life of *capital* equipment is for the duration of project and will be used only for this project **(see next page for Non-Capital Equipment).** | | | | | | |
| | | | | | | 0 |
| **SUBTOTAL (6)** | | | 0 | 0 | 0 | 0 |
| **CAPITAL SUBTOTAL [Add all subtotals, (1-6) above]** | | | 0 | 21,340 | 30,635 | 51,975 |

## NON-CAPITAL BUDGET *Totals automatically round to the nearest dollar

| EQUIPMENT. List equipment costing only **$250 or more per unit**. Refers to items with a useful life of generally 2 years or more. | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | 0 |
| | | | | | | 0 |
| | | | | | | 0 |
| **SUBTOTAL (7)** | | | 0 | 0 | 0 | 0 |
| **NON-CAPITAL TOTAL [ subtotal (7) above]** | | | 0 | 0 | 0 | 0 |

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

| Not to exceed 10% of the Capital Subtotal (1-8) and the Non-Capital Total (9). Refers to 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 grant, including final report expenses for the grant. | | | | | | |
|---|---|---|---|---|---|---|
| **FISCAL ADMIN.** Compute by adding the **Capital Subtotal** and **Non-Capital Total** and multiplying both by 0.10 or less. | | | | | | |
| Administration | | | | | 3,000.00 | 3,000 |
| | | | | | | 0 |
| **FISCAL ADMIN SUBTOTAL (8)** | | | 0 | 0 | 3,000 | 3,000 |
| **POST-IMPLEMENTATION STATUS REPORTING.** Costs assocaited with annual reporting requirements typically required for each grant (***see Application Instructions***) | | | | | | |
| | /yr | | | | | |
| | /yr | | | | | |
| **SUBTOTAL (9)** | | | | | | |
| **CAPITAL SUBTOTAL (1-6)** | | | 0 | 21,340 | 30,635 | 51,975 |
| **CAPITAL TOTAL [Add the Fiscal Admin Subtotal (8) and PISR (9) to the Capital Subtotal from (1-6) above]** | | | 0 | 21,340 | 33,635 | 54,975 |

## PLANT ESTABLISHMENT BUDGET TOTAL *Totals automatically round to the nearest dollar

| **[Add Non-Capital Total and Capital Total, from above]** | | | | |
|---|---|---|---|---|
| **PLANT ESTABLISHMENT BUDGET TOTAL (10)** | 0 | 21,340 | 33,635 | 54,975 |
| **Insert this TOTAL in the RPE Budget (15) in the Restoration Application** | | | | |

# ATTACHMENT A

# MATCH FUNDING FORM

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

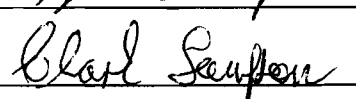
**OWEB accepts all non-OWEB funds as match**. An applicant may not use *another OWEB grant* to match an OWEB grant. However, an applicant who benefits from a pass-through OWEB agreement with another state agency, by receiving either staff expertise or a grant from that state agency, may use those benefits 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), Riparian Plant Establishment (RPE) or Other (OTHER) Dollar Value. **If you are not requesting funds from OWEB to support effectiveness monitoring or riparian plant establishment, disregard the EM column or the RPE 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 R16, 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 EM Dollar Value.

**RIPARIAN PLANT ESTABLISHMENT (RPE):** If you are requesting more than $3,500 in OWEB funds to support Riparian Plant Establishment 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 Riparian Plant Establishment portion of the application. This is identified in the match form table as the RPE Dollar Value.

If you have questions about whether your proposed match is eligible or not, visit our website at www.oregon.gov/OWEB/GRANTS/grant_app_materials.shtml, or contact your local OWEB regional program representative (contact information available in the instructions to this application).

Project Name: Lampson Levee Setback and Habitat Restoration  Applicant: Walla Walla Basin WSC

| Match Funding Source | Type (√ one) | Status (√ one)** | EM Dollar Value | RPE Dollar Value | OTHER Dollar Value | Match Funding Source Signature/Date** |
|---|---|---|---|---|---|---|
| CTUIR Fish Habitat Program | ☒ cash ☐ in kind | ☒ secured ☐ pending | | $10,000.00 | $656,009.00 |  |
| Clark and Lyla Lampson | ☐ cash ☒ in kind | ☒ secured ☐ pending | | | $165,000.00 |  |
| | ☐ cash ☐ in kind | ☐ secured ☐ pending | | | |  |
| | ☐ cash ☐ in kind | ☐ secured ☐ pending | | | | |
| | ☐ cash ☐ in kind | ☐ secured ☐ pending | | | | |
| | ☐ cash ☐ in kind | ☐ secured ☐ pending | | | | |
| | ☐ cash ☐ in kind | ☐ secured ☐ 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, RPE 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 before OWEB releases project funds. OWEB will release project 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 project funds until these conditions are satisfied.*

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

Applicant/Grantee Name: Walla Walla Basin Watershed Council

Project Name: Lampson Levee Setback and Habitat Restoration

## 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:

____ Conditional Use Permit
____ Plan Amendment
____ Other
__X__ Development Permit
____ Zone Change

NOTE: A Floodplain Development Permit and a Zoning Permit will be required for this project before the County will give final approval.

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

* Signature of Local Official

April 15, 2010
Date

Print Name: Richard Jennings

Phone: 541-278-6249

Title: Senior Planner

Email: richardj@umatillacounty.net

***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. CLARK AND LYLA LAMPSON
2. ALBERT DWIGHT AND RUTH E. SMITH
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
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

| | |
|---|---|
| Applicant Signature | Date: 4-15-2010 |
| Print Name: BRIAN R. WOLCOTT | Title: WWBWC EXECUTIVE DIRECTOR |
| 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 those funds. The information you provide in the following form will be used for federal reporting purposes. Please complete all portions of the form below as they apply to your project.*

*If you have any questions, please contact Cecilia Noyes, OWEB Performance Analyst/Reporting Specialist at 503-986-0204 or 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.**

| | |
|---|---|
| ☐ **Urban/Suburban/Exurban** *(Projects located within urban growth boundaries or rural residential areas)* | ☒ **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.

| | |
|---|---|
| ☐ **Estuary** *(where freshwater meets and mixes with saltwater of ocean tides.)* | ☒ **Riparian** *(adjacent to a water body, within the active floodplain.)* |
| ☐ **Instream** *(below the ordinary high-water mark or within the active channel — includes fish passage.)* | ☐ **Upland** *(above the floodplain.)*<br>☐ **Groundwater** *(Projects that recharge groundwater or primarily affect the subsurface water table.)* |
| ☐ **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.* | |

3. **Total Acres Treated:** 26 **Total Stream Miles Treated:** _____ *(**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 |
|---|---|---|
| Walla Walla Basin Strategic Action Plan | WWBWC | 2003 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

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.

| | | | |
|---|---|---|---|
| ☒ Onsite | ☐ Downstream | ☐ Upstream | ☐ 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 R16)

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

| | |
|---|---|
| ☒ Adult Fish presence/absence/abundance/distribution survey(s) | ☒ Spawning surveys |
| ☒ Juvenile Fish presence/absence/abundance/distribution survey(s) | ☒ Upland vegetation (Presence/Absence) |
| ☒ Instream Habitat surveys | ☐ Water quality |
| ☒ Macroinvertebrates | ☐ Water quantity |
| ☒ Noxious weed (Presence/Absence) | ☐ Other (explain): ____ |
| ☒ Riparian vegetation (Presence/Absence) | |

## 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 (shown on page 1 of this application) that applies to the activity. The total 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.*

____ Estimated percentage of total cost of the project applied to fish screening activities.

____ Estimated number of screens installed, replaced, repaired or modified.

## Fish Passage Improvement Projects: *Projects that affect or provide fish migration.* Includes road crossings (e.g., culverts, bridges or fords), barriers (e.g., dams or log jams), and engineered fish barrier bypasses. *For partial barriers, include total miles made accessible by the project.* Check all proposed types of barrier that will be installed, removed or modified for fish passage.

| | |
|---|---|
| ☐ Fish ladder installed/improved | Road Stream Crossing installed or improved/upgraded: ☐ Culvert(s) ☐ Bridge(s) ☐ Rocked ford(s) |
| ☐ Engineered fish barrier bypass (other than fish ladders) installed/ improved (e.g., rock/boulder step pools, weirs, bedrock chutes) | ☐ Tidegate alteration/removal |
| ☐ Fish passage blockage removed or modified (e.g., diversion dam, push-up dam, log-jam removed/modified) | ☐ Other (explain): _____ |
| ☐ Road Stream crossing(s) removed (not replaced) | |

____ Estimated percentage of total cost of the project applied to fish passage activities

____ Estimated total stream miles in the main channel and tributaries where access is improved above project. [Note: Calculate distance furthest upstream likely to be used by fish.]

____ Estimated stream miles for Fish Barrier(s) removal/modification, other than road stream-crossings : Miles of stream channel made accessible upstream by replaced/improved/removed fish passage barrier(s), other than road stream crossings

____ Estimated stream miles for Road stream-crossing(s) only: Miles of stream channel made accessible upstream by replaced/improved/removed road stream-crossing(s)

____ Estimated total number of passage blockages, impediments or barriers and road stream-crossings removed or altered to allow passage.

____ Estimated number of culverts, installed, replaced, or improved to allow passage

## Instream Flow Projects: *Projects that maintain and/or increase the instream flow of water.* If these activities do not have a value for the estimated increase in instream flows then the activities should be recorded under Upland – Agriculture Management Activities. Check all proposed activities.

| | |
|---|---|
| ☐ Irrigation practice improved to increase instream flows (e.g. install diversion headgate, replace open ditches with pipes) | ☐ Water flow gauges installed to measure water use |
| ☐ This project will dedicate instream flow. | ☐ Other (explain): _____ |

_____ Estimated percentage of total cost of the project applied to instream flow activities.

_____ Estimated miles of stream where increased flow is the result of decreased/eliminated water withdrawals.

_____ The estimated increase in flow of water in the stream as a result of conservation effort (cubic feet per second).

_____ mm/dd/yyyy of initial start date

_____ mm/dd/yyyy of final end date

## Instream Habitat Projects: *Projects that increase or improve the physical conditions within the stream environment to provide needed habitat conditions.* Check all proposed activities.

| | |
|---|---|
| ☒ Channel reconfiguration and connectivity (e.g., creating instream pools, meanders, improving floodplain connectivity, off-channel habitat) | ☐ Spawning gravel placement |
| ☒ Channel structure - large wood placement | ☐ Plant Removal/control (instream): List scientific names of plants _____ |
| ☒ Channel structure - boulder placement | ☐ Beaver introduction |
| ☒ Channel structure placement (other than large wood or boulder placements), e.g., engineered structures or deflectors, barbs, weirs, etc. | ☐ Carcass or nutrient placement: ☐ salmonid carcass; ☐fish meal brick; ☐other nutrient |
| ☐ Streambank stabilization | ☐ Other (explain): _____ |

80% Estimated percentage of total cost of the project applied to instream habitat activities.

_____ Estimated miles of stream to be treated with instream habitat treatments

## Riparian Habitat Projects: *Projects above the ordinary high-water mark of the stream and within the floodplain of the stream.* Check all proposed activities.

| | |
|---|---|
| ☒ Riparian planting | ☐ Conservation grazing management (e.g., rotation grazing) |
| ☐ Riparian fencing | ☐ Non-native/noxious plant control |
| ☐ Livestock exclusion (by means other than fencing) | ☐ Vegetation management (e.g. prescribed burnings, stand thinning, stand conversions, silviculture) |
| ☐ Water gap development | ☐ Other (explain): _____ |

15% Estimated percentage of total cost of the project applied to riparian habitat activities

26% Estimated acres of riparian habitat to be planted

_____ Estimated acres of riparian habitat to be treated for non-native/noxious weeds

_____ Estimated total riparian acres to be treated.

_____ Estimated miles of riparian streambank to be treated. *Stream sides treated* ☐ one ☐ two (Do not double count miles if a second side was treated)

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

| | |
|---|---|
| ☐ Erosion control structures (e.g., sediment collection basins, WASCOBs) | ☐ Upland Agriculture Management (e.g., no/low-till, irrigation/water management) |
| ☐ Planting/seeding for erosion control (e.g., convert from crops to native vegetation, grassed waterways, windbreaks, filter strips) List scientific names of plants _____ | ☐ Livestock Manure Management (e.g., relocate/improve manure holding structures and manure piles to reduce/eliminate drainage into streams) |
| ☐ Slope stabilization (e.g., grade stabilization, landslide reparation, terracing slopes) | ☐ Livestock Water Developments |
| ☐ Non-native/noxious plant control; List scientific names of plants: _____ | ☐ Upland Livestock Management (other than livestock water developments), e.g., grazing plans, fencing |
| ☐ Juniper removal/control | ☐ Restore Historic Upland Habitats ( e.g. oak woodland, oak savannah, upland prairie restoration) |
| ☐ Vegetation Management (other than Non-native/noxious plant control or juniper removal, e.g. tree thinning, brush control, burning) | ☐ Other (explain): _____ |

_____ Estimated percentage of total cost of the project applied to upland habitat activities.

_____ Estimated number of livestock water developments

_____ Estimated acres of upland habitat to be treated for non-native/noxious plants

_____ Estimated total acres of upland habitat to be treated (**do not** include acres of upland habitat affected by livestock water developments)

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

| | |
|---|---|
| ☐ Road drainage system improvements & reconstruction | ☐ Other (explain): _____ |
| ☐ Road closure, relocation, obliteration (decommissioning) | |

_____ Estimated percentage of total cost of the project applied to road activities.

_____ Estimated miles of road treated

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

| | |
|---|---|
| ☐ Sewage outfall clean-up | ☐ Bioswales |
| ☐ Toxin reduction: list names of each toxic species, element or material: _____ | ☐ Detention Facility |
| ☐ Pesticide reduction: list names of each pesticide: _____ | ☐ Other urban impact reduction (explain):_____ |
| ☐ Stormwater/wastewater modification or treatment | |

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

| | | |
|---|---|---|
| ☐ Bacteria | ☐ Pesticides | ☐ Nutrients |
| ☐ Dissolved Oxygen | ☐ Toxics | ☐ Sediment |
| ☐ Heavy Metals | ☐ High Temperature | ☐ Other (explain): _____ |

_____ Estimated percentage of total cost of the project applied to urban impact activities.

## Wetland Habitat Projects: *Projects designed to create or improve wetland areas.* Check all proposed activities.

| | |
|---|---|
| ☐ Wetland planting | ☐ Artificial wetland area created from an area not formerly a wetland |
| ☐ Non-native/noxious/invasive plant control | ☐ Other (explain): _____ |
| ☐ Wetland improvement/restoration of existing or historic wetland (other than vegetation planting or removal) | |

_____ Estimated percentage of total cost of the project applied to wetland habitat activities.

_____ Estimated acres of wetland habitat to be treated for non-native/noxious/invasive plants

_____ Estimated acres of artificial wetland created

_____ Estimated total acres of wetland habitat (existing or historic) treated

## Estuarine Habitat Projects: *Projects that result in improvement or increase in the availability of estuarine habitat.* Check all proposed activities.

| | |
|---|---|
| ☐ Channel modification/creation (e.g., improve intertidal flow to existing estuarine habitat) | ☐ Non-native/noxious plant control |
| ☐ Dike or berm modification/removal | ☐ Creation of new estuarine habitat where one did not exist previously by methods other than tidegates or dikes |
| ☐ Removal of existing fill material | ☐ Other (explain): _____ |

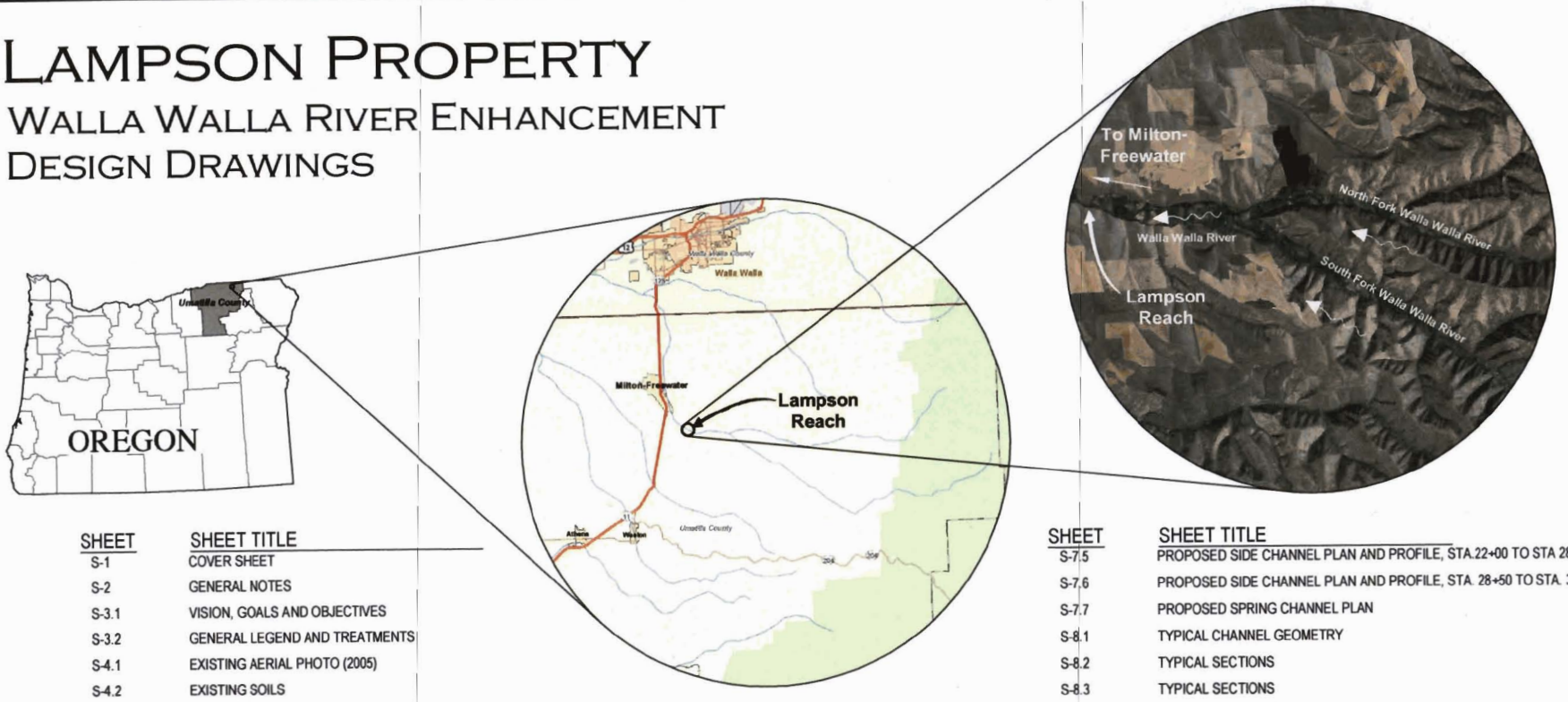
_____ Estimated percentage of total cost of the project applied to estuarine habitat activities.

_____ Estimated acres of estuarine habitat to be treated for non-native/noxious plants

_____ Estimated total estuarine habitat (existing or historic) acres to be treated

# LAMPSON PROPERTY

## WALLA WALLA RIVER ENHANCEMENT
## DESIGN DRAWINGS




| SHEET | SHEET TITLE |
|---|---|
| S-1 | COVER SHEET |
| S-2 | GENERAL NOTES |
| S-3.1 | VISION, GOALS AND OBJECTIVES |
| S-3.2 | GENERAL LEGEND AND TREATMENTS |
| S-4.1 | EXISTING AERIAL PHOTO (2005) |
| S-4.2 | EXISTING SOILS |
| S-4.3 | EXISTING TOPOGRAPHY |
| S-4.4 | EXISTING HABITAT |
| S-4.5 | EXISTING FLOODPLAIN |
| S-5.1 | PROPOSED CONDITIONS |
| S-5.2 | PROPOSED HABITAT |
| S-6 | SHEET INDEX |
| S-7.1 | PROPOSED CHANNEL PLAN AND PROFILE, STA. 15+00 TO STA. 21+50 |
| S-7.2 | PROPOSED CHANNEL PLAN AND PROFILE, STA. 21+50 TO STA. 28+00 |
| S-7.3 | PROPOSED CHANNEL PLAN AND PROFILE, STA. 28+00 TO STA. 34+50 |
| S-7.4 | PROPOSED CHANNEL PLAN AND PROFILE, STA. 34+50 TO STA.41+00 |

| SHEET | SHEET TITLE |
|---|---|
| S-7.5 | PROPOSED SIDE CHANNEL PLAN AND PROFILE, STA.22+00 TO STA 28+50 |
| S-7.6 | PROPOSED SIDE CHANNEL PLAN AND PROFILE, STA. 28+50 TO STA. 33+19 |
| S-7.7 | PROPOSED SPRING CHANNEL PLAN |
| S-8.1 | TYPICAL CHANNEL GEOMETRY |
| S-8.2 | TYPICAL SECTIONS |
| S-8.3 | TYPICAL SECTIONS |
| S-8.4 | TYPICAL SECTIONS |
| S-9.1-S9.6 | TYPICAL DETAILS |
| S-10.1 | PLANTING PLAN |
| S-10.2 | TYPICAL PLANTING PLAN |
| S-10.3 | TYPICAL PLANTING PLAN |
| S-11.1 | PHASE 1 CONSTRUCTION SEQUENCING |
| S-11.2 | PHASE 2 CONSTRUCTION SEQUENCING |
| S-11.3 | TYPICAL COFFERDAM AND DIVERSION DAM LAYOUT |
| S-11.4 | CONSTRUCTION SEQUENCING NOTES |
| S-11.5 | CONSTRUCTION QUANTITIES |

Reference: Aerial image obtained from NAIP, 07/2005, base map obtained from ESRI.

| Revision No: | Date: | Description: | Initials: |
|---|---|---|---|
| | | BID DOCUMENTS Not For Construction. | MKH/MGF |

Designed: JJF
Drawn: MGF
Checked: MKH
Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

GEOENGINEERS
523 East Second Avenue
Spokane, Washington 99202

Cover Sheet
Lampson Design Drawings

Sheet
S-1


Reference: Aerial obtained from NAIP, 2005.

| Revision No: | Date: | Description: | Initials: |
|---|---|---|---|
| | | BID DOCUMENTS Not For Construction. | |

Designed: JJF
Drawn: MGF
Checked: MKH
Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the
Umatilla Indian Reservation

GeoEngineers
523 East Second Avenue
Spokane, Washington 99202

Existing Aerial Photo (2005)

Lampson Design Drawings

Sheet
S-4.1

MKH : MGF

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Reference: Aerial obtained from NAIP, 7/25/2005.

| Revision No: | Date: | Description: | Initials: |
|---|---|---|---|
| | | BID DOCUMENTS Not For Construction. | |

Designed: JJF
Drawn: MGF
Checked: MKH
Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

GeoEngineers
523 East Second Avenue
Spokane, Washington 99202

**Proposed Conditions**

Lampson Design Drawings

Sheet
**S-5.1**

MKH : MGF

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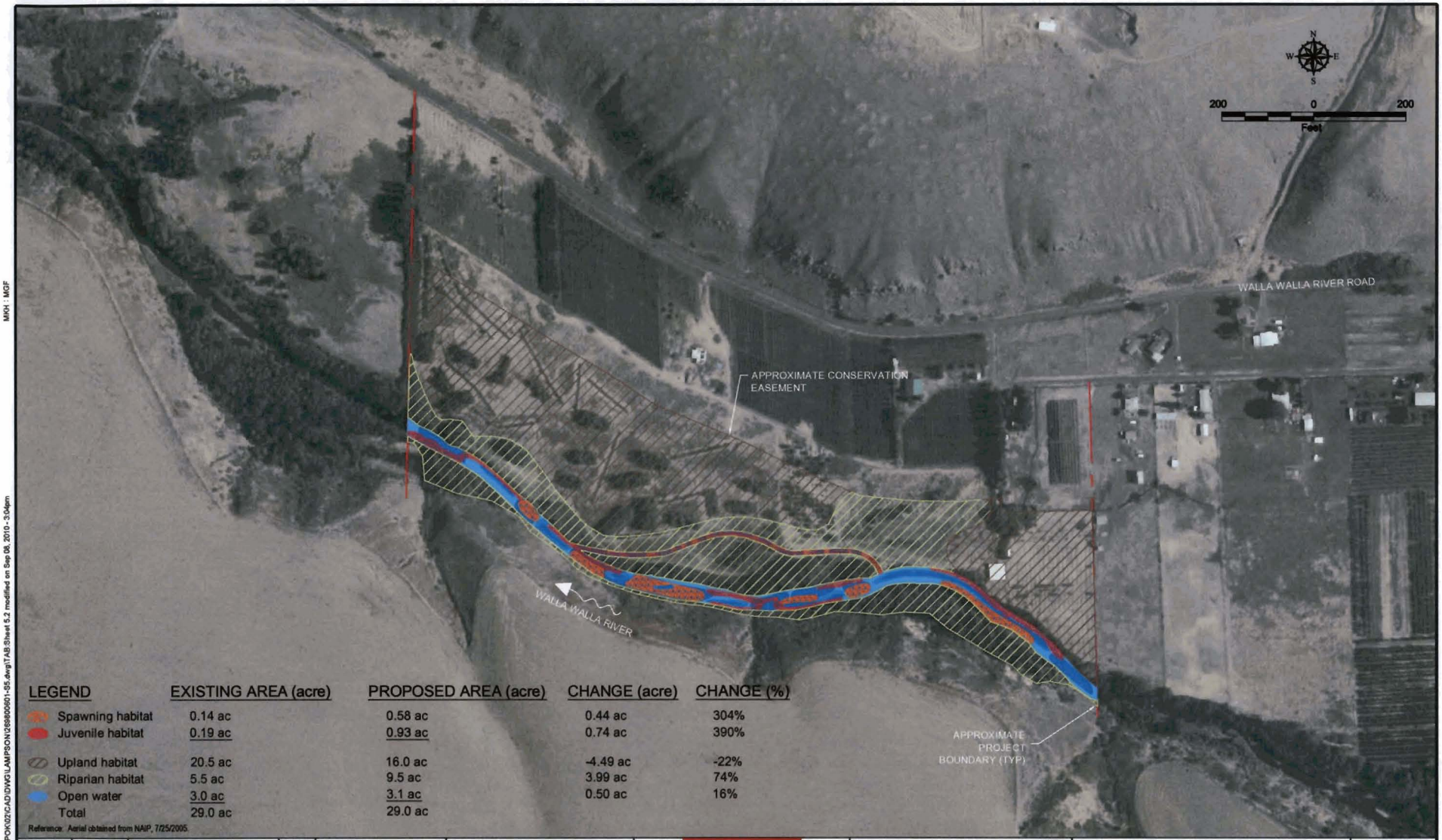


| LEGEND | EXISTING AREA (acre) | PROPOSED AREA (acre) | CHANGE (acre) | CHANGE (%) |
|---|---|---|---|---|
| Spawning habitat | 0.14 ac | 0.58 ac | 0.44 ac | 304% |
| Juvenile habitat | 0.19 ac | 0.93 ac | 0.74 ac | 390% |
| Upland habitat | 20.5 ac | 16.0 ac | -4.49 ac | -22% |
| Riparian habitat | 5.5 ac | 9.5 ac | 3.99 ac | 74% |
| Open water | 3.0 ac | 3.1 ac | 0.50 ac | 16% |
| Total | 29.0 ac | 29.0 ac | | |

Reference: Aerial obtained from NAIP, 7/25/2005.

| Revision No: | Date: | Description: | Initials: |
|---|---|---|---|
| | | BID DOCUMENTS Not For Construction. | |

Designed: JJF
Drawn: MGF
Checked: MKH
Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the
Umatilla Indian Reservation

GeoEngineers
523 East Second Avenue
Spokane, Washington 99202

Proposed Habitat

Lampson Design Drawings

Sheet
S-5.2

MKH : MGF

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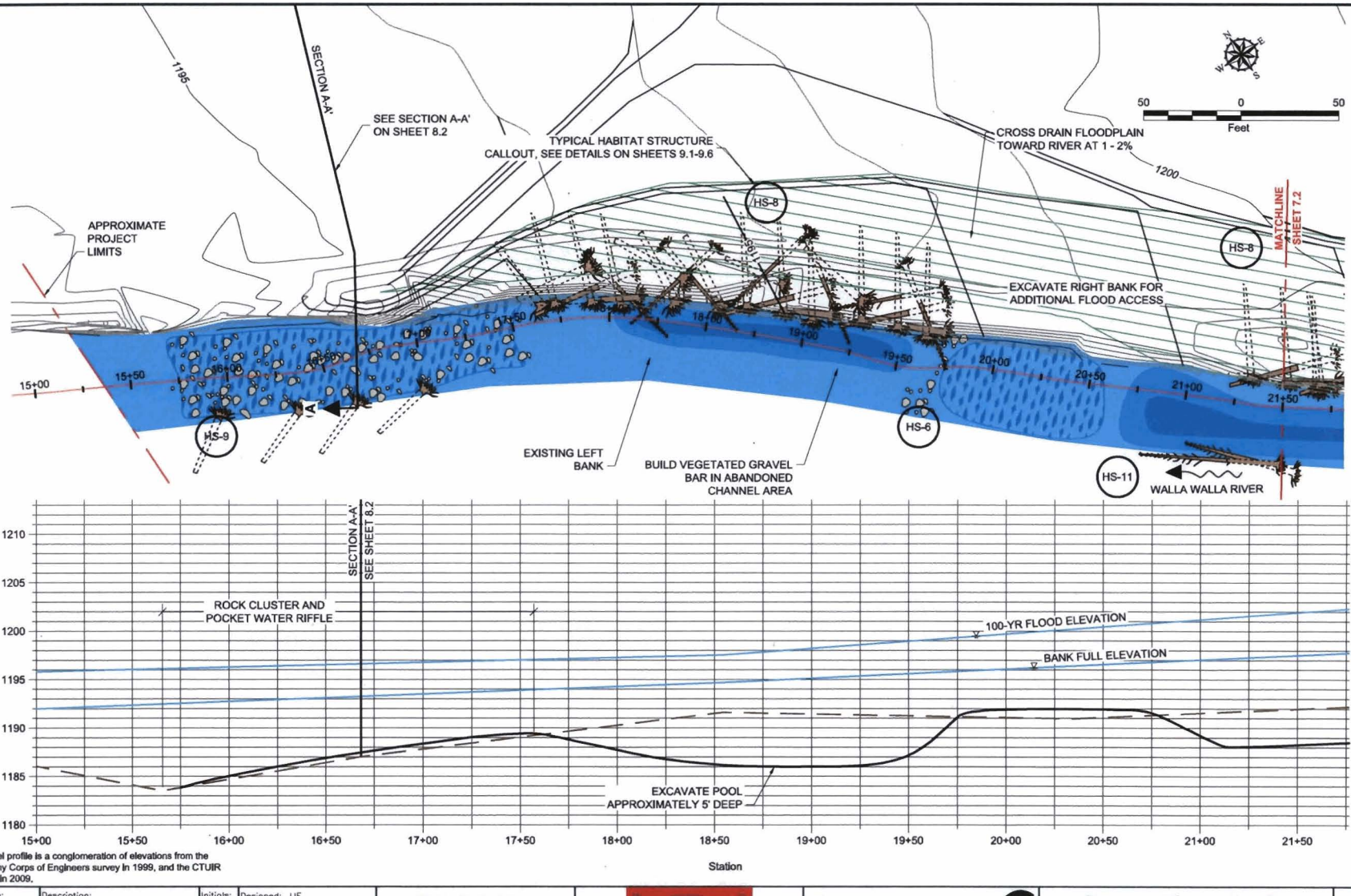


NOTE: Channel profile is a conglomeration of elevations from the US Army Corps of Engineers survey in 1999, and the CTUIR survey in 2009.

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Designed: JJF
Drawn: MGF
Checked: MKH
Date: 09/08/10
Project No: 2698-006-02

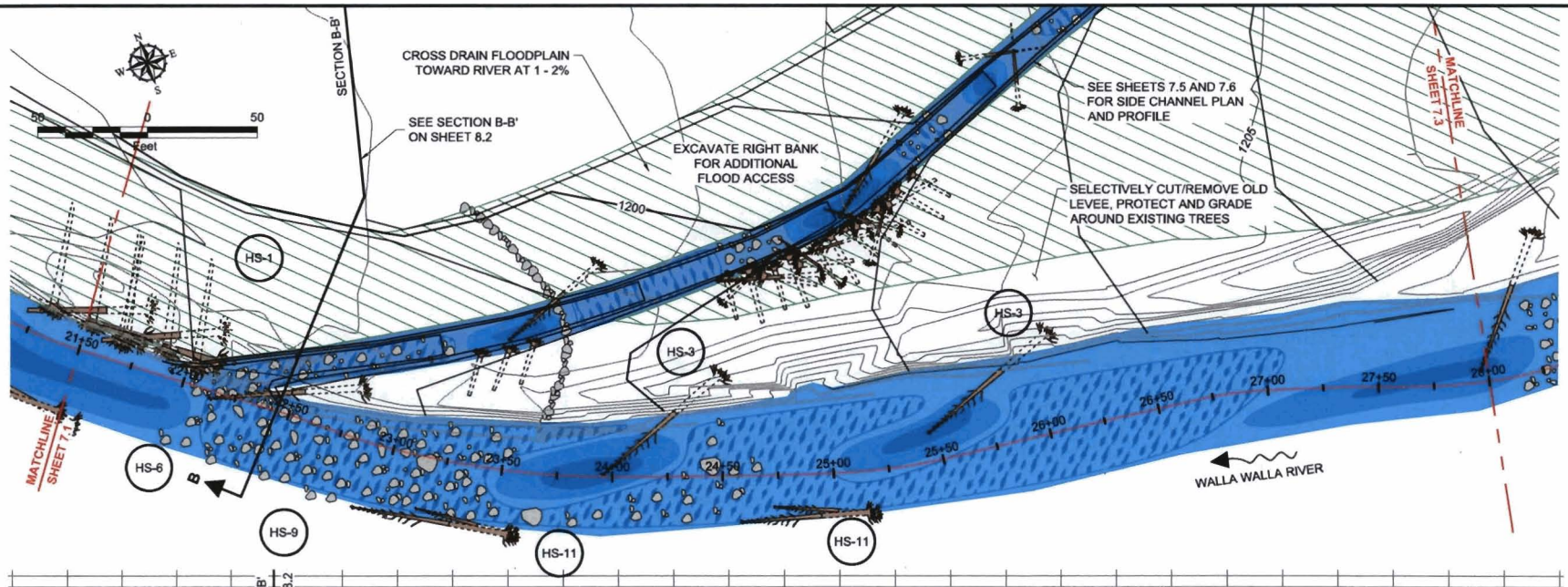
Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

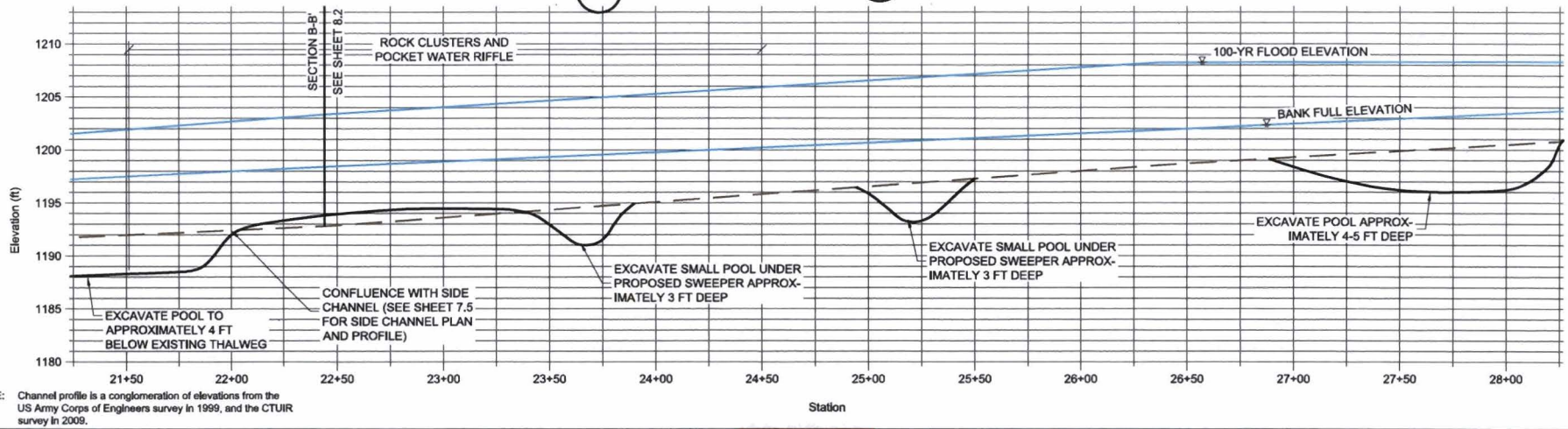
GeoEngineers
523 East Second Avenue
Spokane, Washington 99202

Proposed Plan and Profile
Sta. 15+00 to Sta. 21+50

Lampson Design Drawings

Sheet
S-7.1




NOTE: Channel profile is a conglomeration of elevations from the US Army Corps of Engineers survey in 1999, and the CTUIR survey in 2009.

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Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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523 East Second Avenue
Spokane, Washington 99202

**Proposed Plan and Profile**
**Sta. 21+50 to Sta. 28+00**
Lampson Design Drawings

Sheet
**S-7.2**

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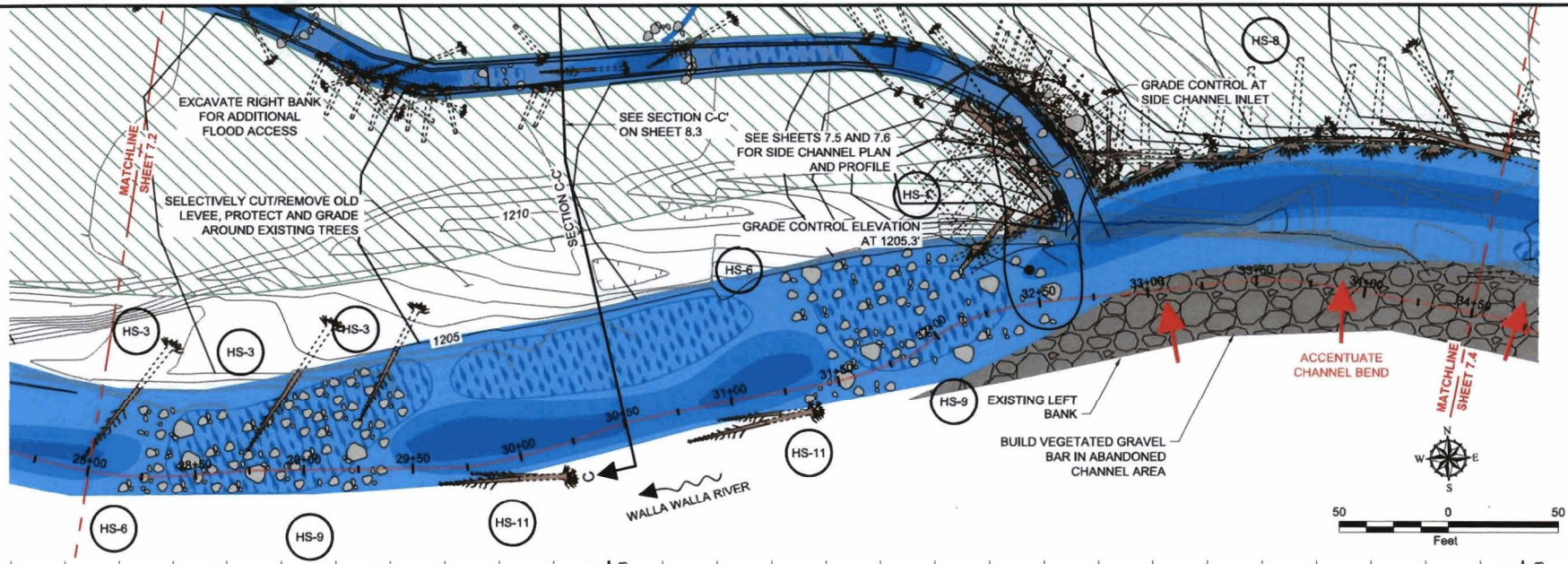


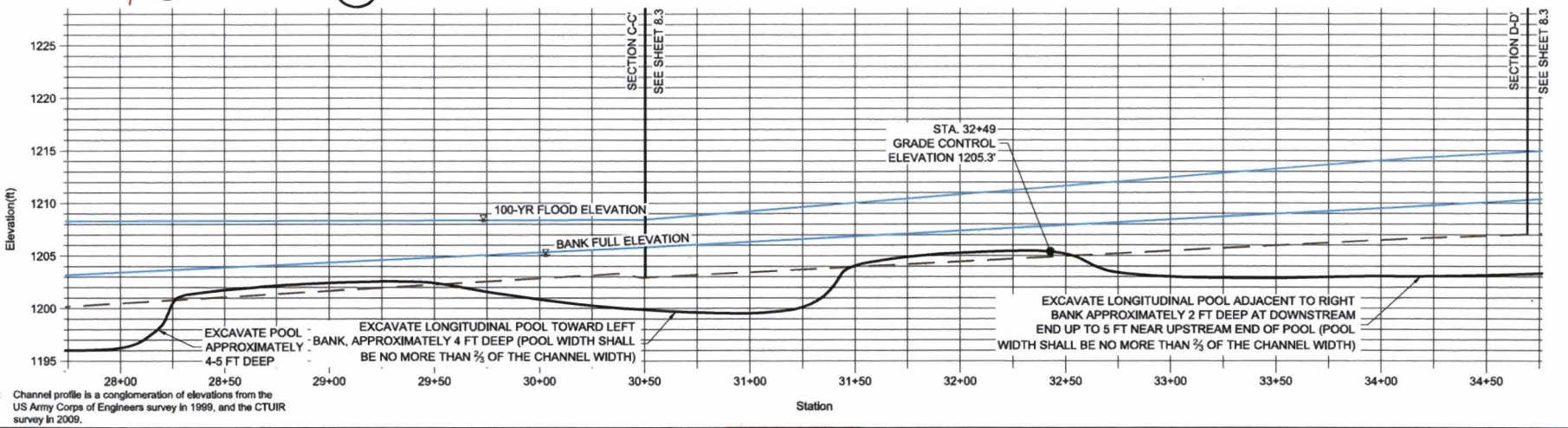


NOTE: Channel profile is a conglomeration of elevations from the US Army Corps of Engineers survey in 1999, and the CTUIR survey in 2009.

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Drawn: MGF
Checked: MKH
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Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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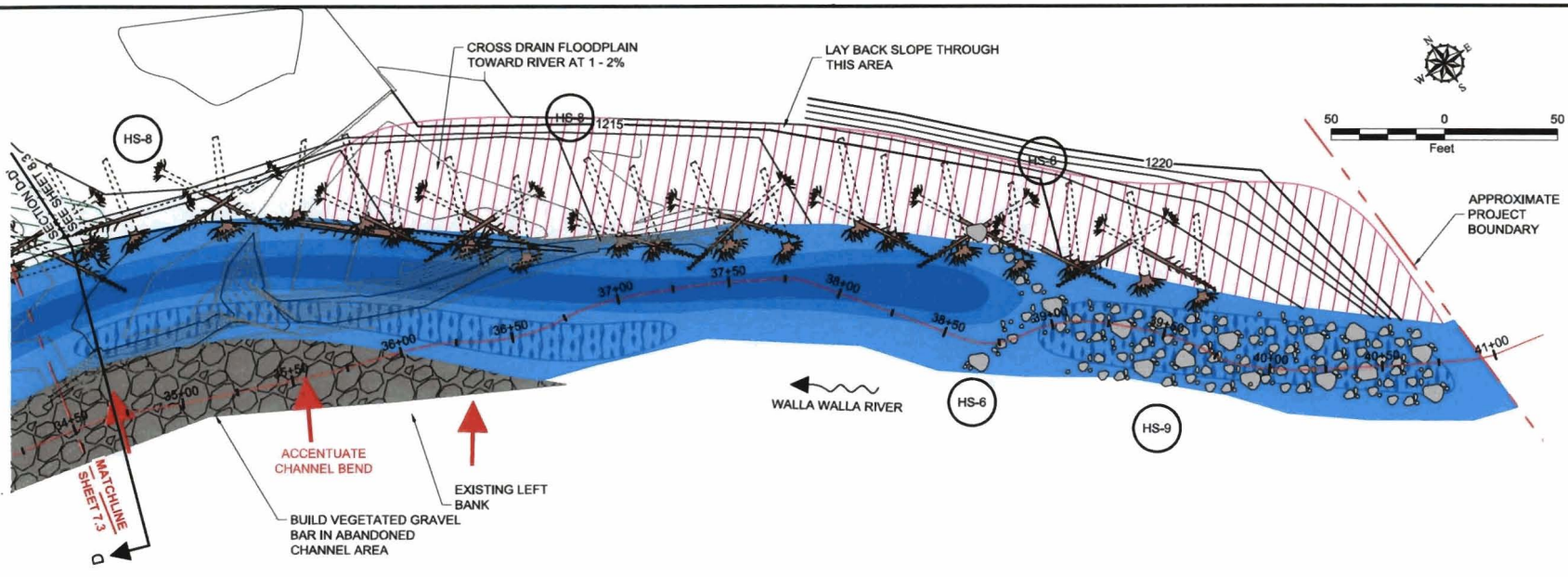
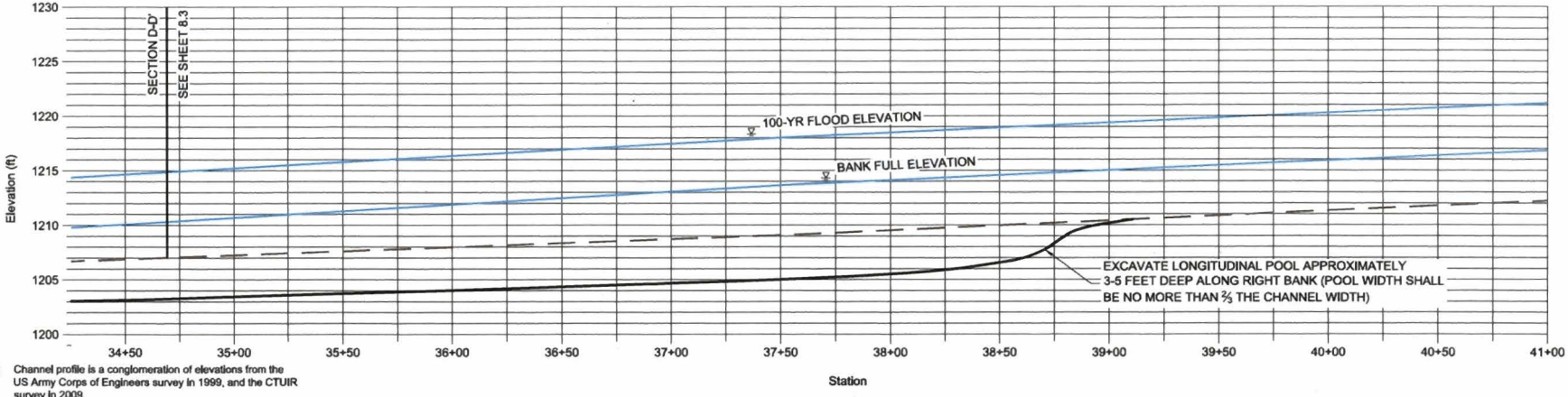
Spokane, Washington 99202

**Proposed Plan and Profile Sta. 28+00 to Sta. 34+50**

Lampson Design Drawings

Sheet **S-7.3**




NOTE: Channel profile is a conglomeration of elevations from the US Army Corps of Engineers survey in 1999, and the CTUIR survey in 2009.

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Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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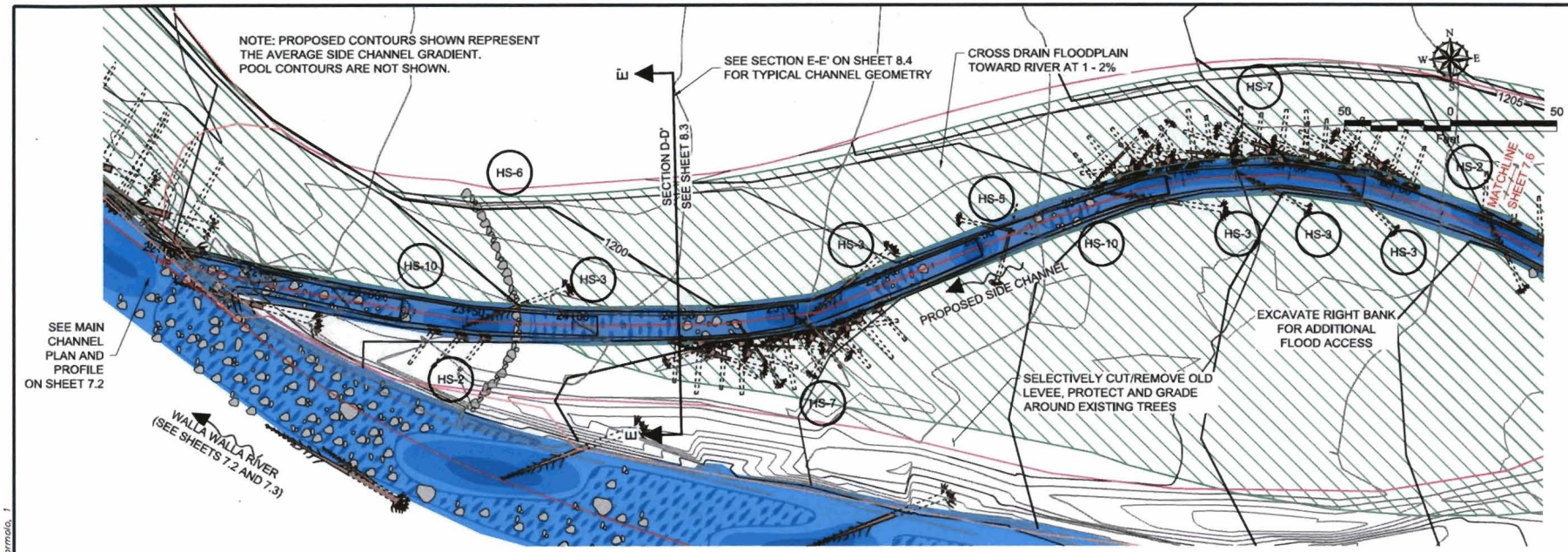
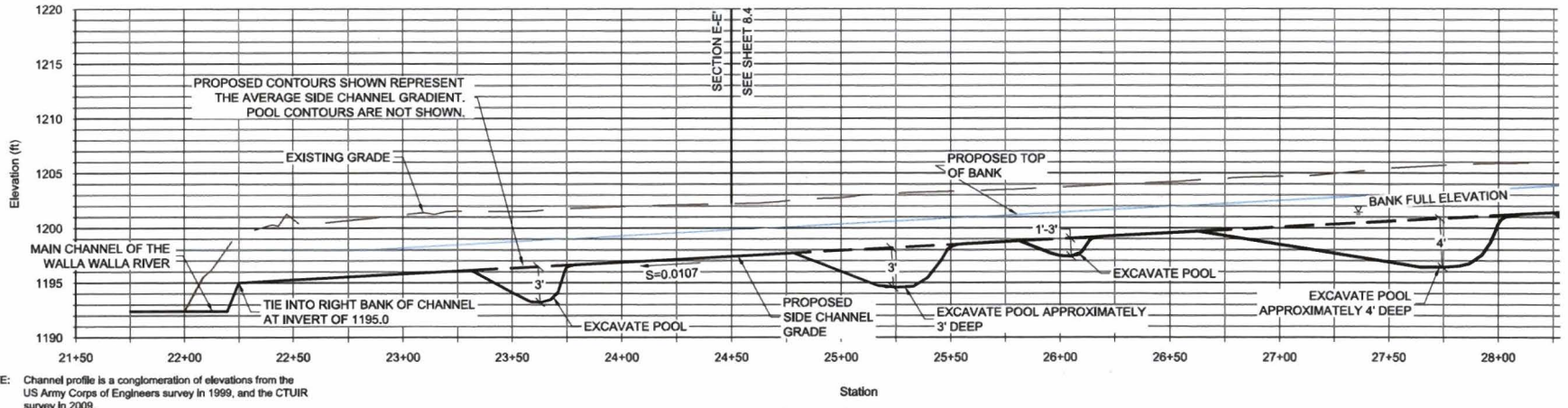
**Proposed Plan and Profile**
**Sta. 34+50 to Sta. 41+00**

Lampson Design Drawings

Sheet
**S-7.4**




NOTE: Channel profile is a conglomeration of elevations from the US Army Corps of Engineers survey in 1999, and the CTUIR survey in 2009.

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| | | BID DOCUMENTS Not For Construction. | |

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Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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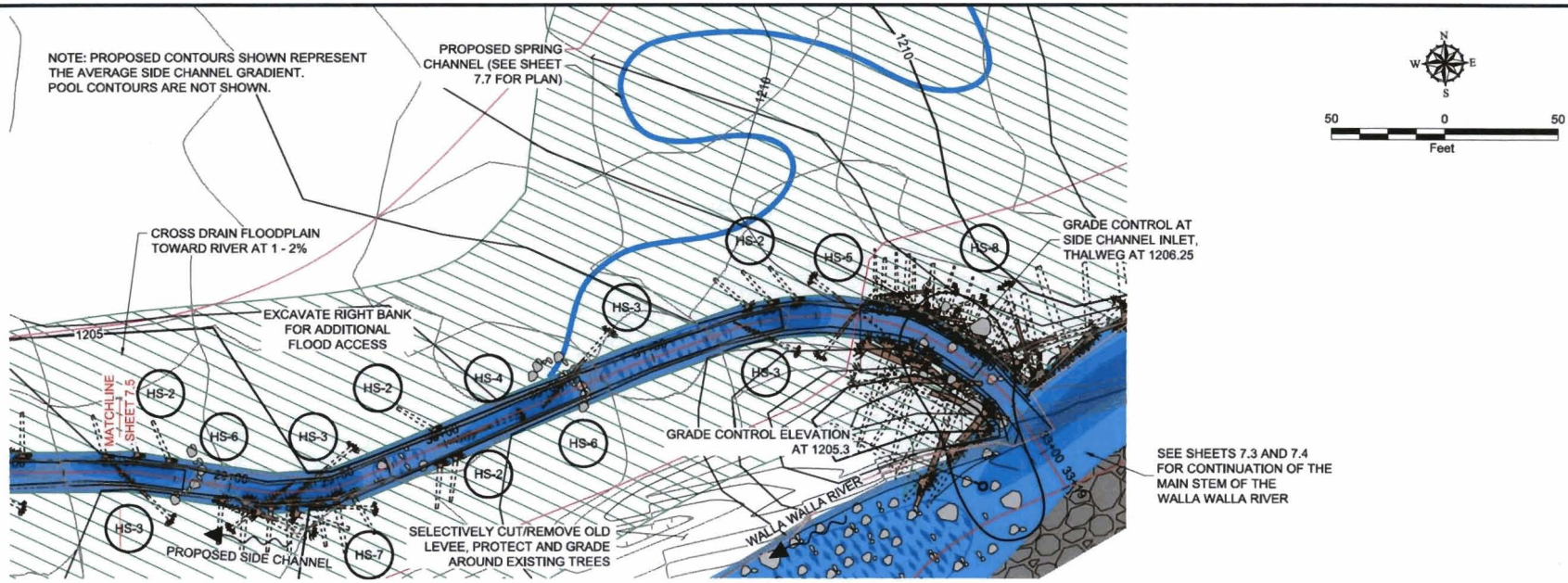
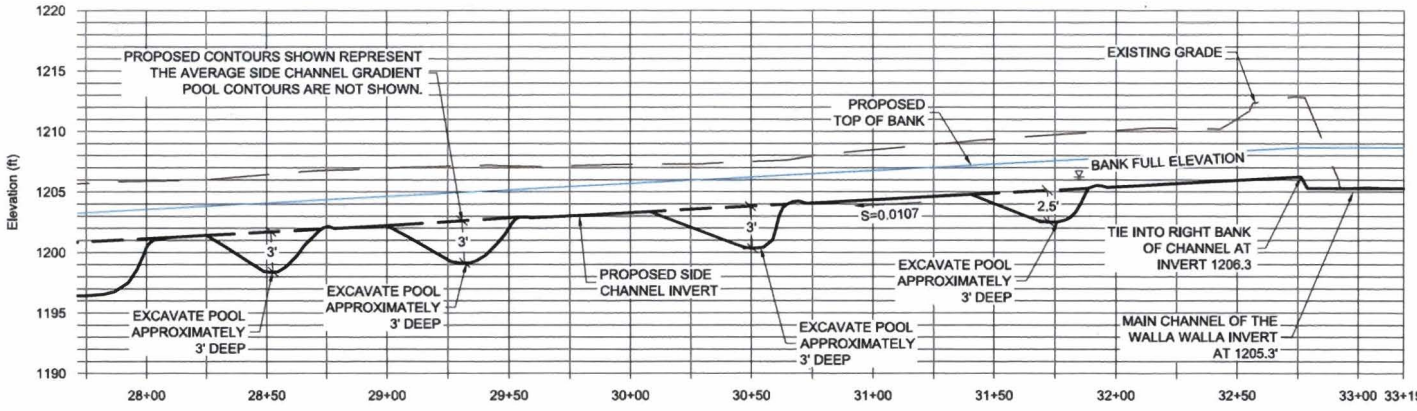
523 East Second Avenue
Spokane, Washington 99202

**Proposed Side Channel Plan & Profile Sta. 22+00 to Sta. 28+00**

Lampson Design Drawings

Sheet **S-7.5**




NOTE: Channel profile is a conglomeration of elevations from the US Army Corps of Engineers survey in 1999, and the CTUIR survey in 2009.

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| | | BID DOCUMENTS Not For Construction. | |

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Drawn: MGF
Checked: MKH
Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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**Proposed Side Channel Plan & Profile Sta. 28+00 to Sta. 33+19**

Lampson Design Drawings

Sheet
**S-7.6**

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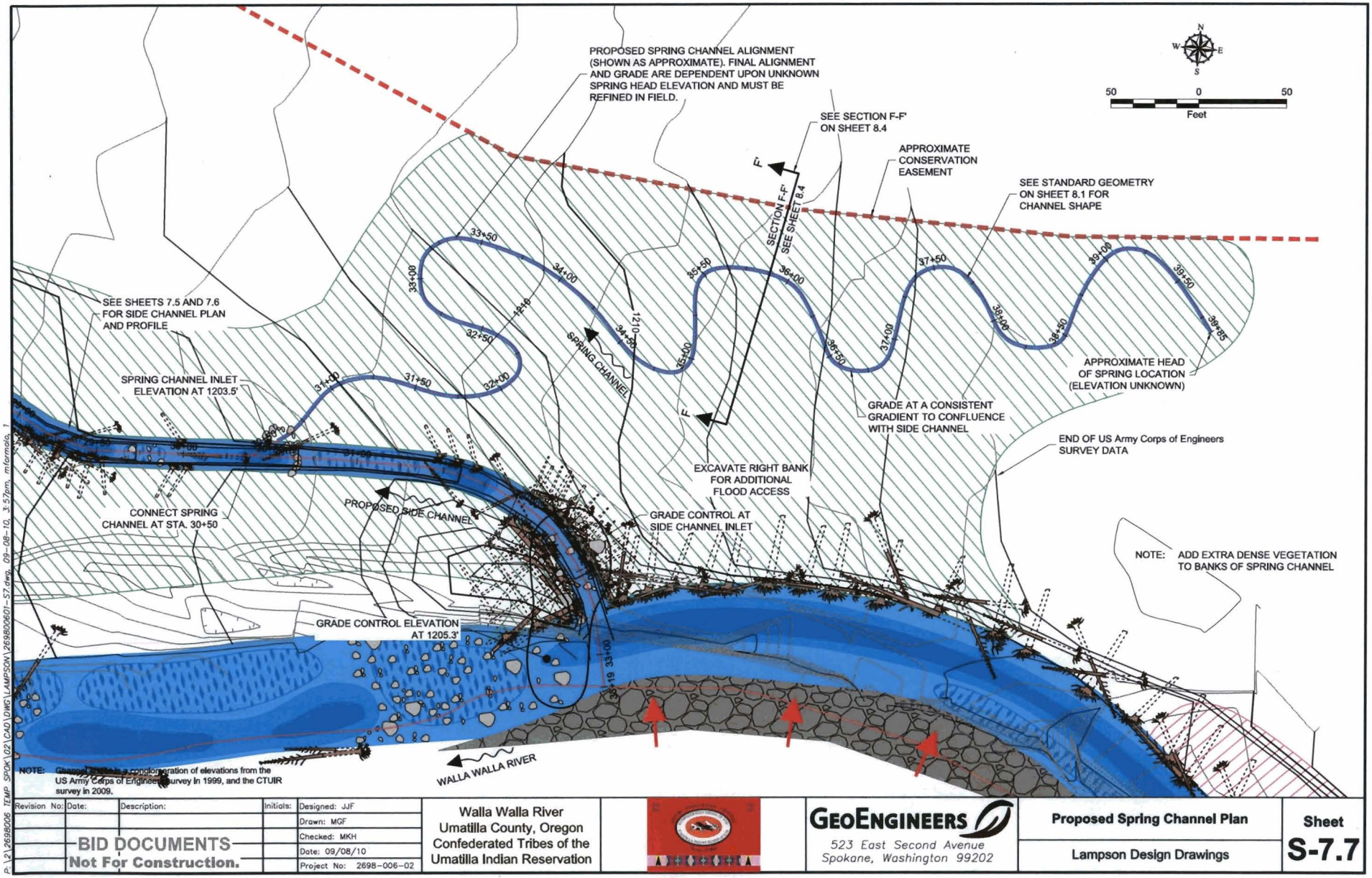


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Date: 09/08/10
Project No: 2698-006-02

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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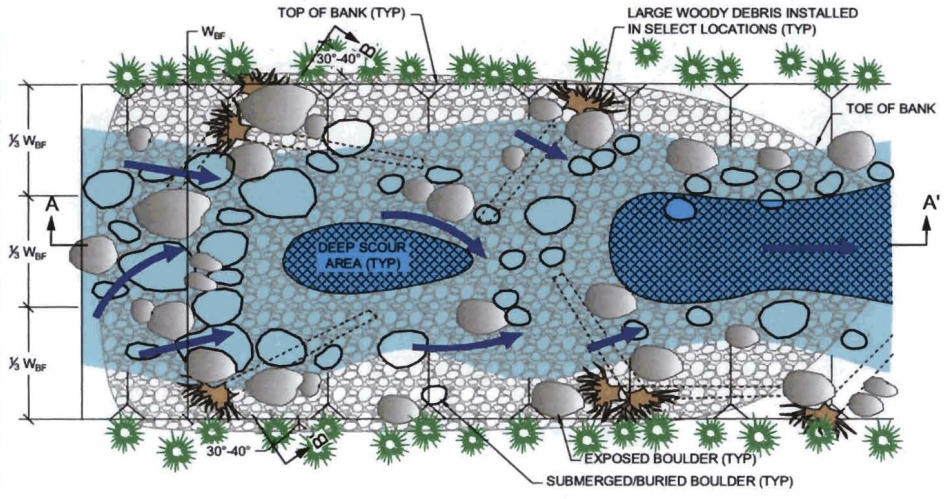
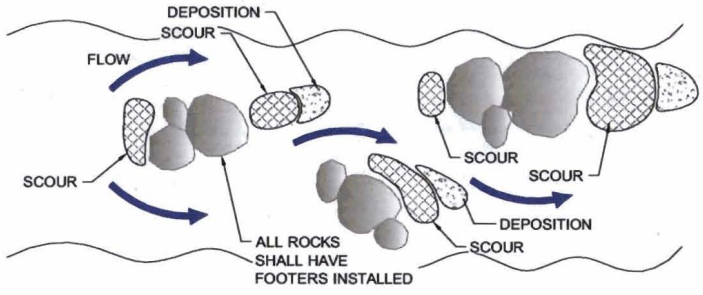
Proposed Spring Channel Plan

Lampson Design Drawings

Sheet
S-7.7




HS-9 **TYPICAL ROUGHENED CHANNEL PLAN**
NOT TO SCALE




HS-10 **TYPICAL POCKET WATER DETAIL PLAN**
NOT TO SCALE

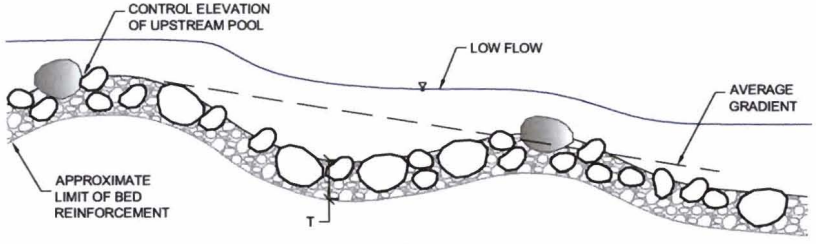
**NOTES:**

**Purpose:**
- Enhances fish habitat: creates large mid-stream pools, fish holding in eddies and sorts sediment.
- Protects channel against headcutting.
- Enables upstream fish passage.

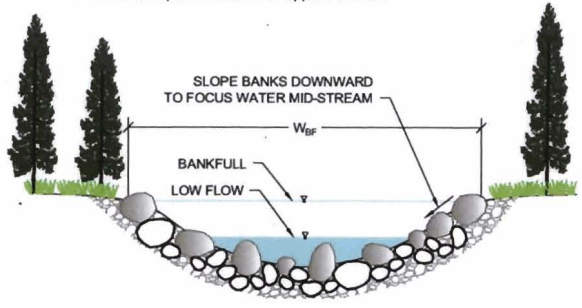
**Design Specifics:**
- Generally large, stream-wide structure with center coincident with channel centerline or thalweg.
- Structures to slope downwards towards center to focus water mid-stream.
- "Upstream Vee" configuration directs water to center of channel.
- Plant dense vegetation along banks.
- Reinforce channel bed with mixture of boulders, cobbles and gravel stabilize channel.
- Install large woody debris throughout channel to direct flow and enhance habitat.
- Grade and place boulders to appear natural.

BED REINFORCEMENT (MIN)
$D_{100}$ = LOCAL BED MATERIAL
$D_{85}$ = LOCAL BED MATERIAL
$D_{50}$ = LOCAL BED MATERIAL
$D_{15}$ = LOCAL BED MATERIAL
T=LOCAL BED MATERIAL

BOULDER GRADATION (MIN)
$D_{100}$ = 72"
$D_{85}$ = 60"
$D_{50}$ = 48"
$D_{15}$ = 36"




**SECTION A-A'**
NOT TO SCALE




**SECTION B-B'**
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| | BID DOCUMENTS | | | Checked: MKH |
| | Not For Construction. | | | Date: 09/08/10 |
| | | | | Project No: 2698-006-02 |

Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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523 East Second Avenue
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Typical Details

Lampson Design Drawings

Sheet
S-9.5

MKH : MGF

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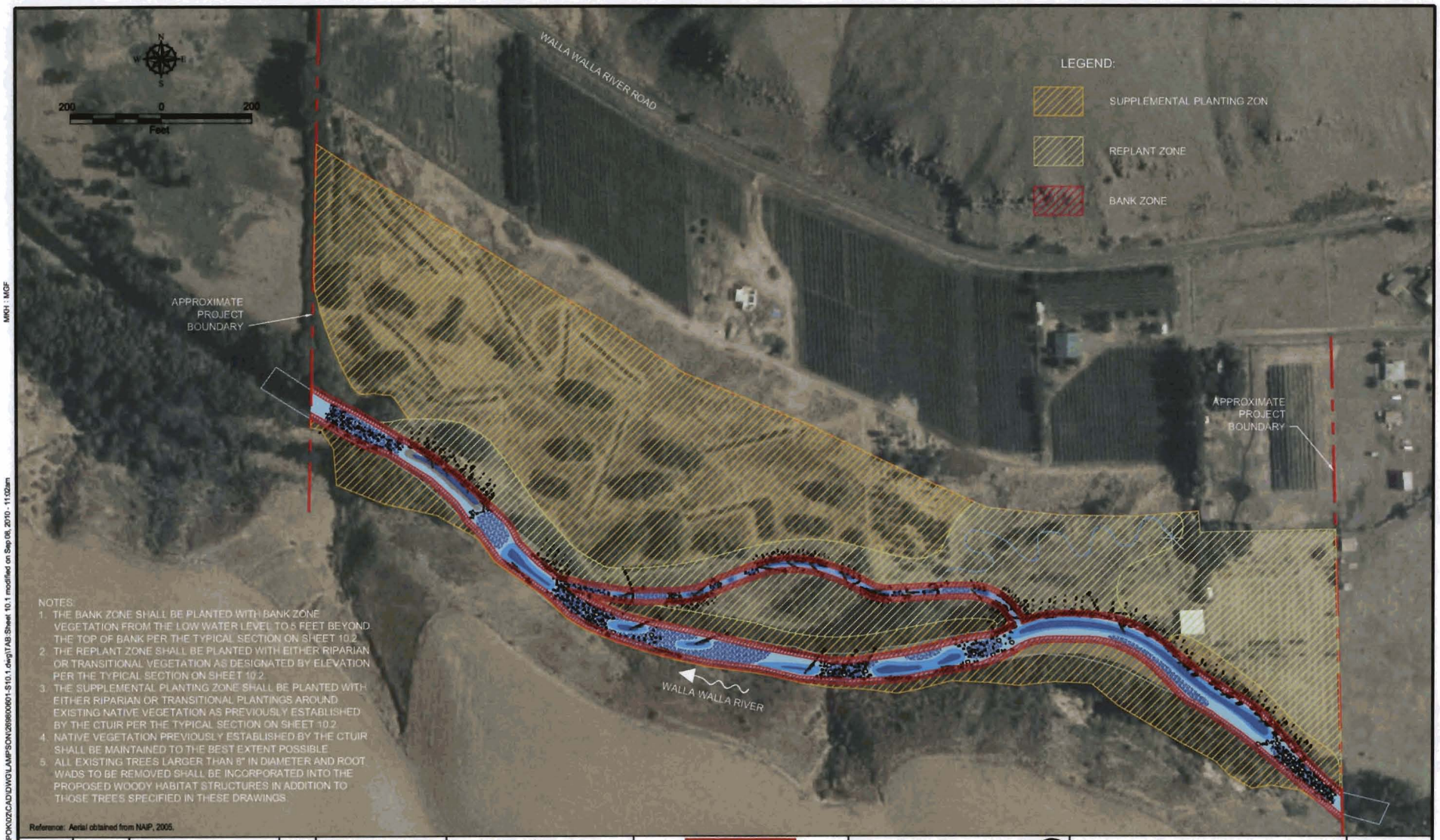


NOTES:

1. THE BANK ZONE SHALL BE PLANTED WITH BANK ZONE VEGETATION FROM THE LOW WATER LEVEL TO 5 FEET BEYOND THE TOP OF BANK PER THE TYPICAL SECTION ON SHEET 10.2.
2. THE REPLANT ZONE SHALL BE PLANTED WITH EITHER RIPARIAN OR TRANSITIONAL VEGETATION AS DESIGNATED BY ELEVATION PER THE TYPICAL SECTION ON SHEET 10.2.
3. THE SUPPLEMENTAL PLANTING ZONE SHALL BE PLANTED WITH EITHER RIPARIAN OR TRANSITIONAL PLANTINGS AROUND EXISTING NATIVE VEGETATION AS PREVIOUSLY ESTABLISHED BY THE CTUIR PER THE TYPICAL SECTION ON SHEET 10.2.
4. NATIVE VEGETATION PREVIOUSLY ESTABLISHED BY THE CTUIR SHALL BE MAINTAINED TO THE BEST EXTENT POSSIBLE.
5. ALL EXISTING TREES LARGER THAN 8" IN DIAMETER AND ROOT WADS TO BE REMOVED SHALL BE INCORPORATED INTO THE PROPOSED WOODY HABITAT STRUCTURES IN ADDITION TO THOSE TREES SPECIFIED IN THESE DRAWINGS.

Reference: Aerial obtained from NAIP, 2005.

| Revision No: | Date: | Description: | Initials: |
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| | | BID DOCUMENTS Not For Construction. | |

Designed: JJF
Drawn: MGF
Checked: MKH
Date: 09/08/10
Project No: 2698-006-02

**Walla Walla River**
**Umatilla County, Oregon**
**Confederated Tribes of the Umatilla Indian Reservation**

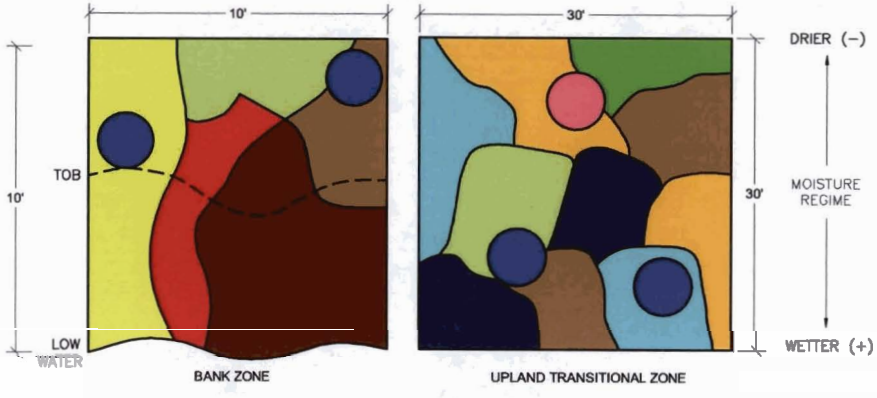
GeoEngineers
523 East Second Avenue
Spokane, Washington 99202

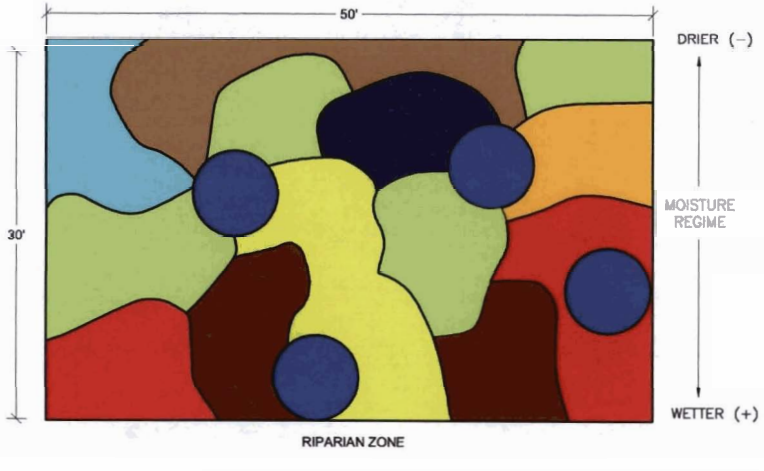
**Planting Plan**

Lampson Design Drawings

Sheet
**S-10.1**

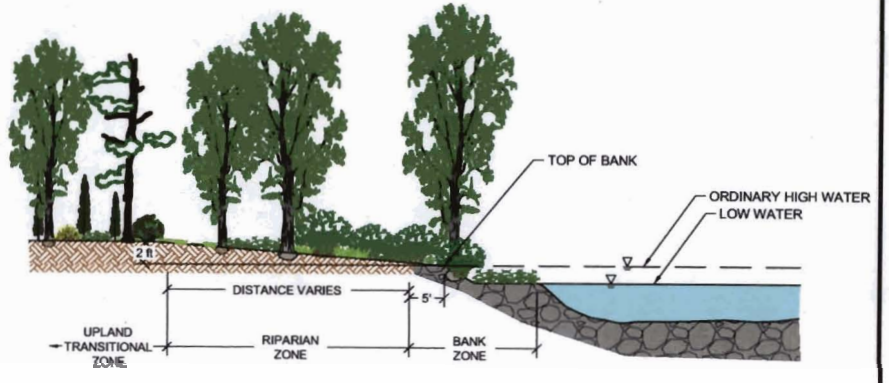
# TYPICAL PLANTING CONFIGURATIONS




NOTES:
TOB = TOP OF BANK

## TYPICAL PLANTING CONFIGURATIONS (PLAN VIEW)




REFER TO TABLE BELOW TO DETERMINE PLANTING APPLICATIONS.

## TYPICAL PLANTING ZONES

Not To Scale

LEGEND:

- BLACK COTTONWOOD
- PONDEROSA PINE
- RED OSIER DOGWOOD
- COYOTE WILLOW
- WOODS ROSE
- DRUMMOND'S WILLOW
- CHOKE CHERRY
- WAX CURRANT
- SNOWBERRY
- BLUE ELDERBERRY
- SERVICEBERRY

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Walla Walla River
Umatilla County, Oregon
Confederated Tribes of the Umatilla Indian Reservation

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523 East Second Avenue
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Typical Planting Plan

Lampson Design Drawings

Sheet S-10.2

# Landowner Letter of Support for Levee Setback/Removal

**Clark and Lyla Lampson**
March 24, 2010

We own approximately 45 acres through which the main stem of the Walla Walla river flows on our southern boundary for 3/8 of a mile. The south side of the river approximately follows a bluff, which forms both a boundary for the river and for our property. The north side of the river is constrained by a levee. Our property lies within the flood control district for the town of Milton-Freewater, located two miles downstream. The Army Corps flood control levee terminates on the property downstream from ours with a well designed upstream funnel extending across the entire width of the river valley.

Figure 2 shows the current conditions and issues we have. Our property is demarcated with yellow lines. Red lines show levees. The flood control levee funnel is shown on the left (towards MF) on Pat Kelly's property. It spans the width of the river bottom, nearly reaching the Walla Walla River Road on the North. This forms the upstream flood protection for Milton-Freewater.

The existing levee on our property is shown as the red line on the north of the river. It starts on the west side but does not connect to any other levee on Pat's property. It abruptly terminates on the east boundary of our property without an upstream funnel. Consequently, upstream floods such as happened in 1996 and 1998 flood behind this levee as shown in Figures 1, and 3.

**Figure 1**

Flood flow isolated from the river by levee for the entire length of our property.

As shown by the blue arrows in Figure 2, flooding enters our property not directly from the river, but further upstream and consists of a wide, thin sheet of water. Figure 3 shows the river at flood stage on our upstream boundary. Water is actually returning to the river at this point. The water which enters our property to the north of the building shown in Figure 1 is now trapped behind the levee, and must flow the length of the property before it can reenter the river on Pat's land.


**Figure 2**

Overview of existing conditions and issues

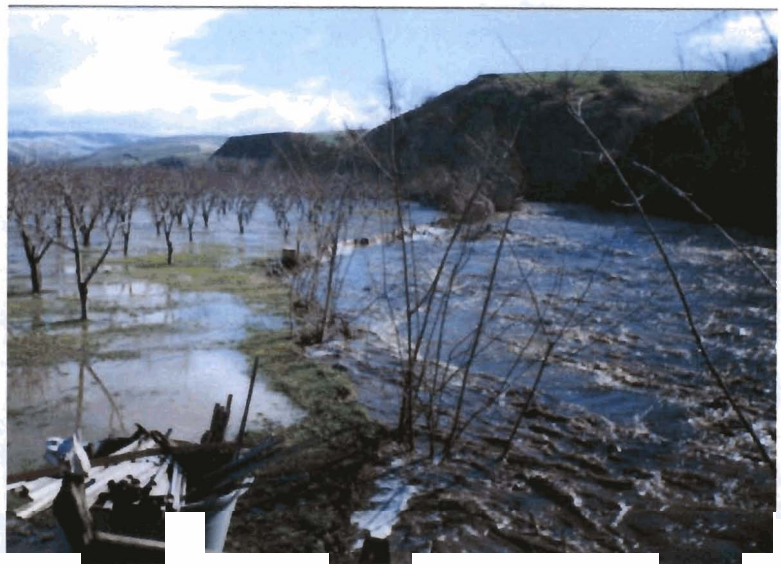

**Figure 3**

Flood flow immediately upstream of levee terminus showing return flow to the river channel.

The deepest water behind the levee tends to flow close to the north side of the levee, following an old road bed. This erodes further in floods. However, a thin sheet flow spreads far to the north as shown by the blue arrows in Figure 2.

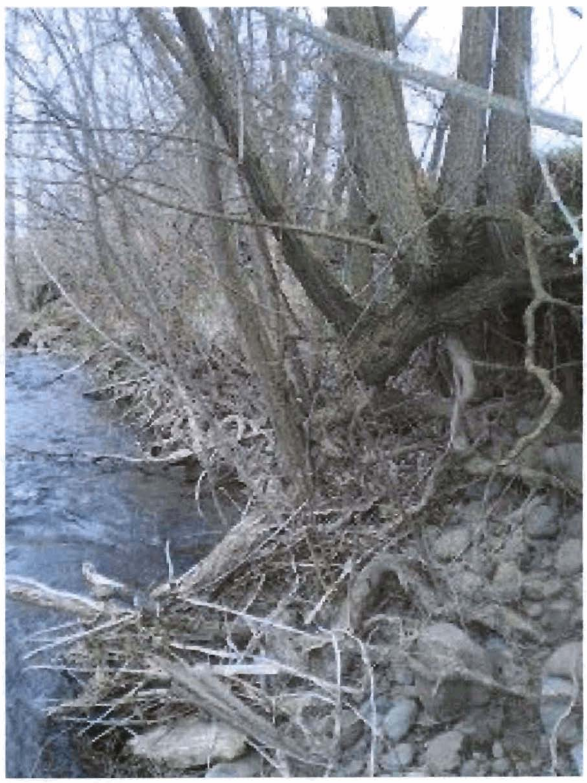

Figure 4

Levee upstream erosion

Figure 4 above shows the bank at the upstream end of the levee. Because of the river dynamics here, the riprap facing has eroded off, and the bank has been cut back about 15 ft during the floods of the 1990's. The bank is nearly vertical, and consequently has high erosive stress during floods due to the water depth along the bank. Unfortunately this erosion is occurring right at the head of the levee. There is significant risk that subsequent floods could erode enough additional bank that the river channel shifts behind the levee. An example of why this concerns me is shown in Figure 5.

**Figure 5**

Nick Peterson's property on S. Fork showing channel erosion in previous floods

This shows the erosion that occurred on Nick Peterson's property in one of the prior floods. His property used to extend out into the region of the current island. The river banks were steep, and thus erosion stress was high during floods. The main channel shifted 30 ft or more to be on the right during the flood. Work has since been done to shift it back to the left and protect the structures. A shift of less than this amount where erosion is occurring on our property will put the main flow of the river behind our levee.

If (when unless something is done) this occurs, we would have significant damage, including to our crops and buildings. In addition, Pat's land behind the levee funnel would likely have significant erosion as well.

**It should be noted, that even if the main channel formed north of our levee, this would likely not have much impact on Milton-Freewater, since the flood control funnel on Pat's land forms the protection.**

## Our Goals

Figure 2 shows our crops are restricted to the northern portion of our property, while the southern portion has riparian/upland restoration. We would like to protect the northern portion from severe

flooding, but we are willing to let the southern portion be used in any way that is deemed useful for ecological benefit.

The proposed project by CTUIR address this in the following ways (please refer to Sheet S-5.1 of the GeoEngineers report to CTUIR).

1) Opening up the levee to increase flow capacity and reduce vertical bank height.
2) Erosion control structures both at the upstream portion and along the setback.
3) Side channel provides a defined channel to collect and return upstream flood water.
4) Structural protection at the west end to protect Pat's land.
5) Habitat enhancements.

The cost of this project is high and cannot be justified solely for the reduced flood risk, since these improvements are restricted to two land owners, and there is likely little risk reduction for Milton-Freewater, although there may be some risk reduction. Instead, the local flood improvement on our land comes as a side benefit of letting CTUIR use the land for habitat restoration using funding they have specifically for such projects. Since we have already allowed CTUIR to do restoration on this area, we are happy to achieve the dual benefit of enhanced flood control and enhanced river ecology.


**Figure 6**

Proposed CTUIR project.

# Oregon Watershed Enhancement Board
## Region 5 (Eastern Oregon) Review Team
## Evaluation for June 1, 2001 Applications

**APPLICATION NO.:** z201-363 **PROJECT TYPE:** Acquisition

**PROJECT NAME:** Walla Walla River Floodplain Restoration

**APPLICANT:** Walla Walla Basin WSC

**BASIN:** Walla Walla **COUNTY:** Umatilla

**OWEB FUNDS REQUESTED: $235,150.00** **TOTAL COST:** $1,591,850.00

**NOTE**

**This project was not reviewed by the regional review team because the application is missing elements required by administrative rule, and thus is not eligible for consideration by the Board.**

**PROJECT DESCRIPTION:**

This purchase of 73 acres of land easements and .25 cfs of water rights will expand the Walla Walla River in a stretch constricted by 7 miles of levees. This land and water acquisition is one facet of a $1.6 million COE/CTUIR levee setback and riparian restoration project. If funded, 1.5 miles of riparian habitat for steelhead and bull trout will be restored. The land acquisition will result in new wetland habitat, benefiting steelhead and bull trout. The land purchase includes an1877 water right for .25 cfs, which will remain in the river. This portion of the Walla Walla is usually dewatered in the summer. The threat of downstream flooding will be reduced as the river is able to meander more naturally, dissipating energy. The meander will create habitat diversity such as pools, large woody debris replacement, increased vegetative shading and backwater refugia during high-water events. Approximately 40 wells went dry when the levees were constructed and it is hoped that with the enlarged floodplain these wells will be recharged. Reconnecting the river with its floodplain will improve bull trout and steelhead habitats. American Rivers listed the Walla Walla River on its 1998 list of America's most endangered rivers, identifying the threats as instream flow depletion, agricultural pollution and channelization.

OWEB funds are requested for the land purchase and administration. Cost-share partners include CTUIR, COE, Oregon Water Trust, Walla Walla Watershed Council, WRD and the landowners.

**REGIONAL TEAM REVIEW:**

The committee did not discuss the project because the application was not complete.

# Oregon Watershed Enhancement Board
## Region 5 (Eastern Oregon) Review Team
## Evaluation for April 23, 2007 Applications

**APPLICATION NO.:** 208-5031 **PROJECT TYPE:** Technical Assistance
**PROJECT NAME:** Lampson Levee Setback & River Channel Design
**APPLICANT:** Walla Walla Basin WSC
**BASIN:** Umatilla **COUNTY:** Umatilla
**OWEB FUNDS REQUESTED:** $18,210.00 **TOTAL COST:** $28,750.00

**APPLICATION DESCRIPTION:**
A private levee constructed years ago constricts the Walla Walla River's ability to meander and also limits fish habitat complexity. This project will design a levee setback to provide meander room along a 2,000 foot stretch of river. It will also design a smaller levee to protect two structures on the opposite side of the property and protect the downstream property. Approximately 25 acres of conservation easement will expand the Walla Walla River floodplain where it is currently restricted by seven miles of levee above and below this reach. Over 2,000 feet of riparian habitat will be restored along steelhead and spring chinook spawning habitat and bull trout rearing habitat. The riverbank where the levee will be removed will be redesigned for stability and fish habitat, utilizing "J" hooks, root wads and rock weirs to create pools and spawning gravels. The watershed council will contract with an engineering firm to complete the design work.

OWEB funds are requested for project management (8%), design (83%) and administration (9%). Partners include the CTUIR, WWBWC and landowners.

**REGIONAL TEAM REVIEW:**
The team thought highly of this project as the landowner is giving up the use of a significant portion of his property. It was questioned why the area was not enrolled in CREP and then stated that this work needs to be completed prior to CREP enrollment; the work cannot be done once the area is enrolled in CREP. There is ongoing recruitment of other landowners in this levee reach, which may increase the potential environmental benefits. Previously, several other OWEB funded projects have been implemented in this reach of the Walla Walla River. This project will be a good opportunity to revitalize the large effort on the levee setback. The amount requested for engineering is very modest. The project is ready for funding this grant cycle and has high potential for restoration benefits if implemented.

**RECOMMENDATION: Fund**

**PRIORITY: 4 of 8 Non-Capital**

# Oregon Watershed Enhancement Board
## Region 6 (Mid Columbia) Review Team
## Evaluation for April 19, 2010 Applications

**APPLICATION NO.:** 211-6023 **PROJECT TYPE:** Restoration
**PROJECT NAME:** Lampson Levee Setback and Habitat Restoration
**APPLICANT:** Walla Walla Basin WSC
**BASIN:** UMATILLA **COUNTY:** Umatilla
**OWEB FUNDS REQUESTED:** $102,212 **TOTAL COST:** $933,221

**APPLICATION DESCRIPTION:**
This project is located on 22 acres of a 15 year conservation easement along the upper mainstem Walla Walla River at river mile 49, approximately 2½ miles southeast of Milton Freewater. The levee, built by a previous landowner for flood protection, is one of many in this area that constrict the Walla Walla River's ability to meander and dissipate energy. This project is being noticed by many neighbors who would like to potentially do something similar. Project components include implementing a levee setback design to provide meander and fish habitat complexity along a 3/8$^{th}$ mile stretch of river, revegetating the riparian area and floodplain, and connecting a channelized spring creek to the river. The results will provide ESA listed steelhead and Chinook spawning habitat and Bull trout rearing habitat. The river bank, where the levee will be removed, will be redesigned utilizing j-hooks, root wads and rock weirs to create pools and spawning gravels. Partners include the landowners and the Confederated Tribes of the Umatilla Indian Reservation. OWEB funds were requested for contracted services and fiscal administration.

**REGIONAL TEAM REVIEW:**
The application requests OWEB funding for riparian planting, and for excavation of the levee setback. The team thought the goals of the project are important: improved spawning and rearing habitat and floodplain connection. However, the team felt that the application provided insufficient justification and detail for them to support nearly $80,000 in planting costs. The budget was a lump sum with no details for what was included and not included. Many reviewers thought that the planting costs seemed excessive, but without any budget breakdown, it was impossible to determine how the applicant had calculated the costs. The team felt without a more detailed application they couldn't recommend it for funding this cycle. They encouraged the applicant to resubmit the application with a detailed budget breakout and more detailed planting information.

**REGIONAL TEAM RECOMMENDATION: No Fund**

**STAFF RECOMMENDATION TO BOARD: Do not fund**