



January 28, 2013

Mr. William H. Busch  
PO Box 354  
Neskowin, OR 97149

RE: Scope of Work and Fee Estimate – South Beach Road and adjacent embankment repair

Dear Mr. Busch

The following is a preliminary scope of work and fee estimate for services associated with the South Beach Road Bridge and embankment repair at South Beach Road, Neskowin, Oregon. This information is in response to your request and takes into account anticipated engineering and environmental permitting tasks necessary to repair the bridge and associated embankments that have sustained damage during winter storms. We have prepared this document after we received correspondence in the form of photographs and a description of the problem area from you, review of an OBEC Inspection Report of the structure (dated Nov. 23, 2011), review of FEMA Floodway mapping, and from a site visit conducted on January 26, 2013.

We have provided the following for your information and consideration and have divided tasks into engineering and design and environmental sub-tasks. We assume the need for engineering and hydraulics analysis necessary to complete repairs at both bridge bents as well as adjacent failing embankments. We anticipate project repair work to require the need for compliance with a variety of federal and state regulations in addition to the need for permits and certifications from a number of state and federal entities.

## **Engineering**

### **Task 1.1 Site Visit and Inspection**

A WHPacific engineer and hydraulics specialists will conduct a site review to determine existing conditions, design considerations, and project needs. Site visit will be consolidated with environmental agency site visit to minimize travel and mobilization costs if both engineering and environmental services are selected.

### **Task 1.2 Surveys**

A WHPacific survey crew will complete a topographic survey of the project area to provide engineers and permit specialists with preparation of design drawings and permit applications.

### **Task 1.3 Hydraulics Analysis**

A WHPacific hydraulics engineer will analyze creek flows from rainfall and survey data to determine appropriate protection sizing and design. This analysis will also be necessary to provide a baseline for a "No Rise" condition to be designed and so a No Rise Certificate can be by FEMA.

#### **Task 1.4 Design Drafting**

This task includes the production of design drawings and project solutions in AutoCAD. This task generates fill and removal volumes, quantities, and post project conditions.

#### **Task 1.5 Quality Assurance Review**

This task includes review of project design by senior project engineer.

#### **Task 1.6 Sheet Drafting and Cost Estimate**

Task includes production of engineering drawings suitable for construction contractor use. Also includes the development of a cost estimate for anticipated project materials and labor.

#### **Task 1.7 Project Management**

Task includes contracting, staff management, budget management, and billing efforts associated with the project.

Task	Cost
1.0 Site Visit and Inspection	\$ 1,445.22
2.0 Survey	\$ 2,106.00
3.0 Hydraulic Analysis	\$ 3,613.05
4.0 Design Drafting	\$ 2,538.00
5.0 QA Review	\$ 745.48
6.0 Sheet Drafting and Estimate	\$ 2,242.40
7.0 Project Management	\$ 1,123.54
Expenses Mileage and Materials	\$ 400.00
<b>Engineering Total</b>	<b>\$ 14,213.69</b>

### **Environmental**

#### **Task 2.1 Joint Permit Application**

This task includes the preparation of a Joint Permit Application to be submitted to the Corps of Engineers and the Oregon Department of State Lands. Successful completion of this task will require preliminary design drawings for planned project activities in addition to volume calculations for material placed in and removed from the project waterways. Task 2.1 will include project site meetings with applicable state and federal agency representatives as necessary. As part of this task, WHPacific will complete all necessary supporting documentation for project approval by these agencies. Anticipated components of this task include the determination of the Ordinary High Water Line and elevation and/or highest measured tide, preparation of stormwater management plans and necessary documentation for DEQ 401 Water Quality Certification, and documentation of alternatives analysis for project activities. This task will include Endangered Species Act compliance if project activities adhere to design components presented in the *Standard Local Operating Procedures for Endangered Species (SLOPES)*. If project constraints do not allow for compliance with SLOPES – compliance will be covered by Contingency Task 2.3 – below.

#### **Task 2.2 Environmental Services Project Management**

Task includes contracting, staff management, budget management, and billing efforts associated with environmental services.

**Task 2.3 Biological Assessment (Contingency Task)**

This task will be necessary if project design cannot meet the standards outlined in SLOPES. This task includes the development of a Biological Assessment document that outlines anticipated project impacts to Endangered Species and Critical Habitat, alternatives considered, minimization measures, and potential mitigation necessary to offset project impacts to listed species. The BA will be developed for use in consultation between the Corps of Engineers and the National Marine Fisheries Service.

**Cost Estimate Environmental Tasks**

Task	Cost
2.1 Joint Permit Application	\$5,356.00
2.2 Project Management	\$1,123.54
2.3 Biological Assessment	\$3,260.00(Contingency)
Expenses Mileage and Materials	\$300.00
<b>Environmental Total</b>	<b>\$6,779.54</b>
<b>Environmental w/ Contingency</b>	<b>\$10,039.54</b>

If you have any questions about the tasks, costs, or assumptions of this estimate, please do not hesitate to contact us. If this estimate is agreeable, we will proceed with contract documents to get project activities underway. Thank you for the opportunity to assist you and I look forward to speaking with you soon.

Sincerely,

**WHPacific, Inc.**



Casey Storey  
Environmental Coordinator

cc: