

# 2015 Snake River Salmon Recovery Board Project Application

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## Complete Application Checklist Summary:

Through the application process each of the following elements, depending on the project type, will need to be created and submitted at some point before the final application due date.

- Local Snake River Salmon Recovery Board Application – this does not need to be submitted in PRISM, but is required and will assist in finalizing a complete application – may elements including the project title, description, property details, etc., can be copied and pasted throughout. The SRSRB Application includes this entire form, the pre-application, draft application, and final application sections.
- The relevant Salmon Project Proposal (Appendix C, found in RCO Manual 18), which includes the response to the SRFB Review Panel comments if required.
- Three maps: 1. a general vicinity map, 2. a detailed worksite map for planning and restoration projects or a parcel map for acquisitions, and 3. a map showing the project's Area of Potential Effect with the section, township, and range identified.
- A minimum of two site photographs in JPEG file format.
- The proposed project design including plans, specifications, and a design report if available (for restoration projects only).
- Detailed Cost Estimate.
- Landowner Acknowledgement Form (Appendix F, found in RCO Manual 18).
- Barrier Evaluation Form (fish passage construction and design projects only).
- Correction Analysis Form (fish passage construction projects only).
- Intensively Monitored Watershed Certification (when relevant).
- Waiver of Retroactivity (for acquisition projects only).
- Deliverables from prior phases of the project (when relevant).
- Project partnership contribution form (when relevant, Appendix G, found in RCO Manual 18).
- Complete required elements of PRISM Online Application:  
(<https://secure.rco.wa.gov/Prism/Sponsor/Account/LogOn>).

***Please contact the Snake River Salmon Recovery Board Lead Entity office for questions or assistance with the application and application process at 509-382-4115 or [john@snakeriverboard.org](mailto:john@snakeriverboard.org).***

## Pre-Application Section

*(This section must also be included as part of the Draft and Final Applications if you don't submit a pre-application).*

**Project Title (less than 50 characters including spaces, please create a title that accurately reflects the project):**

*Tucannon Limiting Factors Assessment*

**Submitting Organization:**

*SRSRB in partnership with PFC*

**Project Contact Information**

*(Complete for each project contact)*

Mrs.  Ms. First Name: Jesse

Last Name: Schwartz

Address: 8940 N. Bradford St

City/Town: Portland

State: OR Zip: 97203

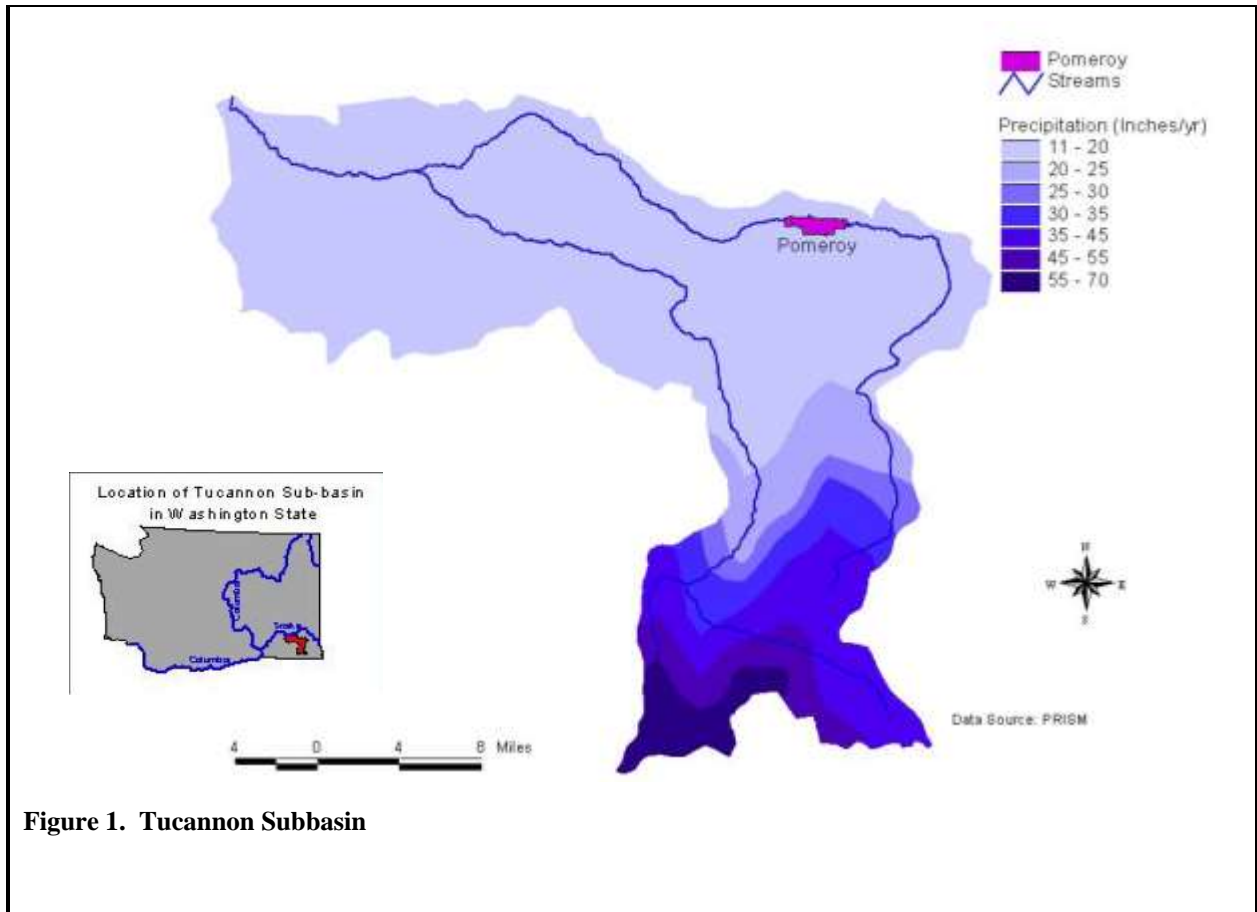
Telephone # (503) 753-8349

Cell # ( ) -

E-mail address: jdmschwartz@portlandfishcompany.com

**Project Location:** *Tucannon Subbasin*

**Maps:**



**Figure 1. Tucannon Subbasin**

***Project Description***

The Tucannon River was historically home to abundant spring Chinook and summer steelhead populations. Habitat modification, coupled with localized dewatering, fish passage barriers, and hydrosystem modification, greatly decreased fish population performance during much of the 20th century. During the past decade substantial restoration activities have been undertaken in the Tucannon, resulting in improvements to the physical environment and localized improvements in fish use.

During 2004 (Columbia Conservation District 2004) fish habitat conditions were assessed in the Tucannon Subbasin using the ecosystem diagnosis and treatment process (Lichatowich et al. 1995), limiting factors were identified, and initial restoration recommendations were presented. Habitat restoration during the past decade was improved habitat conditions, and is expected to have improved the long-term performance of Tucannon fish populations. This in turn will affect restoration prioritization and planning priorities. The purpose of this project is to conduct an ecosystem diagnosis and treatment (EDT) analysis of Tucannon Chinook and steelhead to document improvements to the system, re-assess limiting factors and restoration priorities, and to support subsequent restoration planning.

**Pre-Application Cost Estimate:**

*Note: Please only use this section for the Pre-Application – the Cost Estimate for the Draft and Final Applications must be more detailed and in a separate document or spreadsheet – please contact LE Staff for examples.*

*List SRFB request, match, and total project costs.*

| <b>Budget Items</b>       | <b>Cost/Unit</b> | <b>Unit</b> | <b>Matching Funds</b> | <b>SRFB Request</b> | <b>Total Project Cost</b> |
|---------------------------|------------------|-------------|-----------------------|---------------------|---------------------------|
|                           |                  |             |                       |                     |                           |
|                           |                  |             |                       |                     |                           |
|                           |                  |             |                       |                     |                           |
| <b>Total Matching</b>     |                  |             | <b>\$</b>             |                     |                           |
| <b>Total SRFB Request</b> |                  |             |                       | <b>\$</b>           |                           |
|                           |                  |             |                       |                     |                           |
| <b>Total Project Cost</b> |                  |             |                       |                     | <b>\$</b>                 |

**Restoration Project Preliminary Design Requirements**

*Starting in 2013, the SRFB changed the requirement for design review of restoration projects which exceed \$250,000 in SRFB requested funds. If your grant request from the SRFB will exceed \$250,000 you will be required to submit a preliminary design or equivalent with the final application. Check the SRFB Manual18 (Appendix D) for information of the Design Requirements or contact LE Staff.*

**Please check the appropriate box below as to whether the design requirement can be met.**

|  |                          |
|--|--------------------------|
| I have preliminary designs completed and have cross walked them w/ SRFB requirements                   | <input type="checkbox"/> |
| I am currently working on preliminary design and may be able to complete by final application deadline | <input type="checkbox"/> |
| I do not have preliminary designs and will not have them by the final application                      | <input type="checkbox"/> |

**Evidence that this project is part of the Snake River Salmon Recovery Plan:**

*List the HWS project number and the title of the project as stated in the Snake river Salmon Recovery Region Provisional Work Plan 2013-2018. If project is not directly stated in the Work Plan, list the general project category your project pertains to and describe the correlation.*

**Work Plan Number(s):**

**This is the end of the PRE-APPLICATION**

**When submitting your draft application, make sure to update the pre-application information where required as well as completing the following draft application. The pre-application will become part of the draft application to reduce redundant forms.**

## Draft Application Section

*(This section is in addition to the pre-application, please update sections above in the Pre-Application section where necessary).*

| <b>Salmon Recovery Funding Board<br/>Draft Application Information</b>  |                                     |
|---|-------------------------------------|
| <input checked="" type="checkbox"/> <b>Draft</b>  | Date Submitted to SRSRB 4/29/2015   |
| <b>Vicinity / Site Maps &amp; Photos</b>  |                                     |
| <i>Please submit photos as JPEG or other non PDF picture format. Maps and designs maybe submitted in photo or PDF format. If maps and photos were submitted with the pre-application, re-submit only if they have been updated.</i> |                                     |
|   | <b>Attached</b>                     |
| Vicinity Map  | <input checked="" type="checkbox"/> |
| Detailed Worksite Map (planning and restoration projects) or parcel map (acquisition projects)  | <input type="checkbox"/>            |
| Map showing the project's Area of Potential Effect (APE) with Section/Township/Range  | <input type="checkbox"/>            |
| A minimum of two (2) Aerial or Site Specific Photos Attached  | <input type="checkbox"/>            |
| Designs (conceptual, preliminary, or final) or Field Sketches   | <input type="checkbox"/>            |

| <b>Salmon Project Proposal</b>  |                                     |
|---|-------------------------------------|
| <i>To complete this section download the Salmon Project Proposal template that fits your proposed project and attach as a separate document. Check appropriate box below.</i>   |                                     |
| <i>NOTE: This project proposal will be used primarily to evaluate your project and is the meat of the application. Please include appropriate metrics within the body of the text.</i>  |                                     |
| <i>The Salmon Project Proposal template documents listed below can be found at:<br/><a href="http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/">http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/</a> or in Appendix C of SRFB Manual 18.</i> |                                     |
|   | <b>Attached</b>                     |
| 1) Restoration, Acquisition, and Combination (Restoration & Acquisition) Project  | <input type="checkbox"/>            |
| 2) Planning Projects (Assessment, Design, and Study) and Combination (Planning & Acquisition) Projects  | <input checked="" type="checkbox"/> |
| 3) Barrier Inventory Projects   | <input type="checkbox"/>            |

| <b>Projects that address Imminent Threats – Population Effect Determination</b>  |   |
|--|---|
| <i>When the Lead Entity Committee reviews and evaluates project proposals, addressing an Imminent Threat to salmon and/or steelhead is taken into consideration Following the submission of the draft application, if your project addresses an Imminent Threat as identified in the Funding Habitat Restoration Projects for Salmon Recovery in the Snake River Region Application Booklet, the Snake River Salmon Recovery Board Regional Technical Team (RTT) will be consulted on the severity of Imminent Threats being proposed for restoration funding. The RTT will consider population level effects the project may have if the project is implement and provide a technical recommendation to the LE Committee either (I) large improvement on a population scale or (i) minimum impact on a population scale for project scoring and evaluation.</i> |   |
| <b>RTT Technical Opinion</b> <i>(Filled in by LE Staff)</i>  | Population Scale (I) <input type="checkbox"/> OR Local Scale (i) <input type="checkbox"/> |

### Landowner Acknowledgment Forms

To complete this section, download the landowner acknowledgment form (different from the landowner agreement form), have the landowner complete and sign the form, and submit a copy with the draft application. Draft applications without signed agreement forms may not be considered by the SRSRB for final scoring and ranking. Remember to complete a Landowner Acknowledgement form for each separate Landowner.

These forms can be found on the SRSRB web site at: <http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/> or in SRFB Manual 18.

**Number of Landowners and Attached Landowner Forms**

Number:

### Project Proposal Cost Estimate

Please provide a detailed cost estimate to supplement the general cost information required by PRISM (it is easiest to align the cost estimate you create with the cost fields from PRISM). Applicants may use their own formats, but, in general, restoration and design project cost estimates should separate costs for individual construction, design, and project administration elements and tasks (e.g., survey, design, permits, cultural resources, materials, labor, and equipment). Acquisition projects should include costs for land, incidentals (including, as appropriate, appraisals, review appraisals, hazardous substance assessment, title reports and insurance, baseline documentation for conservation easements, closing, recording fees, wetland delineation, fencing, signing, taxes), boundary survey, cultural resources review, demolition, noxious weed control, relocation, stewardship plan, and project administration. Contingency costs should NOT be included as a separate line item in the attached cost estimate. For more information and eligible costs, see RCO Manual 18.

For this section, you may use an existing example cost estimate which can be found on the SRSRB website at: <http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/> OR you may submit a detailed budget in your own format. Please check the appropriate project budget type below that you have completed.

|                               | Attached                            |
|-------------------------------|-------------------------------------|
| <b>Detailed Cost Estimate</b> | <input checked="" type="checkbox"/> |

### Barrier Evaluation Form *(Fish Passage construction and design projects only)*

This form is used to document fish passage barrier conditions. This form can be found on the SRSRB web site at: <http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/> or in SRFB Manual 18.

|                                | Attached                 |
|--------------------------------|--------------------------|
| <b>Barrier Evaluation From</b> | <input type="checkbox"/> |

**This is the END of the DRAFT APPLICATION.**

**Don't forget to update the pre-project information to reflect changes, if didn't submit in the pre-application round fill out the pre-application information on your draft submittal.**



## Final Application Section

*(This section is in addition to the pre-application and draft application sections, please update sections above where necessary).*

### SRFB Final Application

*In completing your final application make sure to update changes in your project on the sections listed under Pre-Application and Draft Application in track changes to aid in final review and comment of your project. It is also important to update previous sections to reduce replication in the final application.*

Final

Date Submitted to SRSRB

### Non-profit Organizations must answer the following questions

**Is your organization registered as a non-profit with the Washington Secretary of State?  
 If so, what is your Unified Business Identifier (UBI) number?**

No  Yes, UBI #:

**What date was your organization created?**

**How long has your organization been involved in salmon and habitat conservation?**

### Application Questionnaire

*All applicants must answer the following questions.*

#### Property Details

*Enter a brief description (250 characters or less) of the Property and the work that you will complete there.*

*For acquisition projects please provide some basic information about the Property (acreage, acquisition type, site characteristics, etc...).*

**Driving Directions (provide directions that will enable staff to locate the project):**

For any grants listed in the Summary of Funding Request and Match Contribution Section, are there any restrictions on the use of these grant funds (double click on box to select it)?  No  Yes

When and how long will the grant funds be available to this project?

Describe the type of donated labor (skilled and unskilled), donated equipment, and donated materials that will be used for this project, identified in the Summary of Funding Request and Match Contribution Section.

What is the current land use of the site, and its history? Describe past human uses and salmon habitat functions. Are there any structures on site?

### Planning Questions

*These questions are specifically related to Cultural Resources. These questions must be answered, even if they are redundant or repetitive – i.e., please do not reference other sections of your application or state that they have previously been addressed. The response to these questions will be reviewed independently of the rest of your application.*

Has the worksite been investigated for historical, archeological, or cultural resources? If yes, when did this occur and what agencies and tribes were consulted? Make sure to attach related documents (letters, surveys, agreements, etc.) to your project in PRISM.

What is the current land use of the site? Has there been ground disturbances historically, if so, what are/were those disturbances? Is there any fill where ground disturbance is proposed? If known, how deep is the fill?

**Is the worksite(s) located within an existing park, wildlife refuge, natural area preserve, or other recreation or habitat site? If yes, name the area and specify if the land is owned by local, state or federal government.**

**Correction Analysis Form** *(Fish Passage construction projects only)*

*This form is used to document how a fish passage barrier will be corrected. This form can be found on the SRSRB web site at: <http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/> or in SRFB Manual 18.*

**Attached**

**Correction Analysis From**

**Intensively Monitored Watershed Certification (when relevant)**

*If the proposed project is in or near an intensively monitored watershed, attach a letter from the regional organization (Snake River Salmon Recovery Board) certifying that the proposed project contributes to and will not negatively affect ongoing data collection and salmon restoration efforts.*

**Attached**

**Intensively Monitored Watershed Certification**

**Waiver of Retroactivity (for acquisition projects)**

*Required if a land acquisition will occur before project agreement. Waivers of Retroactivity are discussed in detail in SRFB Manual 18. Note that they must be secured before closing on the property*

**Attached**

**Waiver of Retroactivity**

**Deliverables from Prior Phases of the Project**

*If you have received a planning or design grant from SRFB for your proposed restoration project, then you must submit completed design deliverables, at a minimum preliminary designs, from that grant as part of your final application.*

**Attached**

**Deliverables from Prior Phases**

**Project Partnership Contribution Form**

*State agencies are required to have a local partner and must attach a signed Partner Contribution Form. A Partner Contribution Form also is recommended, but not required, for other eligible applicants where a third party is providing a funding match. This form can be found on the SRSRB web site at:*

*<http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/> or in SRFB Manual 18.*

**Attached**

**Project Partnership Contribution Form**

**Complete required elements of PRISM Online Application**

*Many of the questions and information that needs to be completed for the PRISM Online Application can be taken directly from this SRSRB application (and is designed to do so). Work with SRSRB Staff to complete. PRISM Online can be accessed here: <https://secure.rco.wa.gov/Prism/Sponsor/Account/LogOn>*

**Work with SRSRB Staff to complete the PRISM Online Application**

**Permits**

Please check the appropriate boxes to indicate required and/or anticipated permits.

General permit information can be obtained at the Governor's Office for Regulatory Innovation and Assistance by calling 1-800-917-0043 or on the web at: [http://www.oria.wa.gov/site/alias\\_oria/347/default.aspx](http://www.oria.wa.gov/site/alias_oria/347/default.aspx).

| Permits   | Comments Regarding Permit Status |
|---|----------------------------------|
| <input type="checkbox"/> Aquatic Lands Use Authorization<br>(Dept of Natural Resources)   |                                  |
| <input type="checkbox"/> Building Permit<br>(City/County)   |                                  |
| <input type="checkbox"/> Clear & Grade Permit<br>(City/County)  |                                  |
| <input type="checkbox"/> Cultural Assessment [Section 106]<br>(CTED-OAHP)   |                                  |
| <input type="checkbox"/> Dredge/Fill Permit [Section 10/404 or 404]<br>(US Army Corps of Engineers)   |                                  |
| <input type="checkbox"/> Endangered Species Act Compliance [ESA]<br>(US Fish & Wildlife/NMFS*)<br><br>*(The SRFB has a permit programmatic with NMFS such that for a SRFB Funded project you just need a Self-Certification 4(d) Rule, Limit 8 Form signed and attached. Find the form at <a href="http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/">http://snakeriverboard.org/wpi/salmon-recovery/lead-entity-committee/grant-applications/</a> or in SRFB Manual 18. |                                  |
| <input type="checkbox"/> Forest Practices Application [Forest & Fish]<br>(Dept of Natural Resources)  |                                  |
| <input type="checkbox"/> Health Permit<br>(Dept of Health/County)   |                                  |
| <input type="checkbox"/> Hydraulics Project Approval [HPA]<br>(Dept of Fish & Wildlife)   |                                  |
| <input type="checkbox"/> NEPA<br>(Federal Agencies)   |                                  |
| <input type="checkbox"/> SEPA<br>(Local or State Agencies)  |                                  |
| <input type="checkbox"/> Shoreline Permit<br>(City/County)  |                                  |
| <input type="checkbox"/> Water Quality Certification [Section 401]<br>(County/Dept of Ecology)  |                                  |
| <input type="checkbox"/> Water Rights/Well Drilling Permit<br>(Dept of Ecology)   |                                  |
| <input type="checkbox"/> Other Required Permits (identify)  |                                  |
| <input type="checkbox"/> None – No permits Required   |                                  |

**This is the END of the FINAL APPLICATION.**

**Don't forget to update the pre-project information to reflect changes, if didn't submit in the pre-application round fill out the pre-application information on your draft submittal.**

***Please contact the Snake River Salmon Recovery Board Lead Entity office for questions or assistance with the application and application process at 509-382-4115 or [john@snakeriverboard.org](mailto:john@snakeriverboard.org).***

## Planning and Combination (Planning and Acquisition) Project Proposal

|                       |   |
|-----------------------|---|
| <b>Project Number</b> |   |
| <b>Project Name</b>   | Tucannon River Restoration Outcomes and Limiting Factors Assessment |
| <b>Sponsor</b>        | SRSRB in partnership with PFC                                       |

List all related projects previously funded or reviewed by RCO:

| Project # or Name | Status    | Status of Prior Phase Deliverables and Relationship to Current Proposal?   |
|-------------------|-----------|--|
| Multiple          | Completed | Numerous Tucannon projects have relied upon previous limiting factors assessments in their conceptual and technical designs. |

If previous project was not funded, describe how the current proposal differs from the original.

**1. Project Location.**

Tucannon Subbasin-Wide

**2. Brief Project Summary.**

Numerous habitat actions have been implemented in the Tucannon during the past decade to address limiting factors identified during Subbasin planning (Columbia Conservation District 2004). The purpose of this project is to provide a revised limiting factors assessment based on the assessment of outcomes from restoration, preservation, and degradation during the past ten years. The assessment will build upon existing data management pathways.

**3. Problems Statement.**

A. **Describe the problem including the source and scale.** Ten years of restoration actions have altered the limiting factors landscape in the Tucannon Subbasin. The revised assessment will provide managers and stakeholders with information needed to support annual and long-term planning processes including future project prioritization.

**B. List the fish resources present at the site and targeted by your project.**

| Species    | Life History Present (egg, juvenile, adult) | Current Population Trend (decline, stable, rising) | Endangered Species Act Coverage (Y/N) |
|------------|---|--|---------------------------------------|
| Chinook    | All life stages of spring and fall runs     | threatened   | Y                                     |
| Steelhead  | All life stages summer run                  | threatened   | Y                                     |
| Bull trout | All life stages                             | threatened   | Y                                     |

**C. Describe the limiting factors, and limiting life stages (by fish species) that your project expects to address.**

The project will review ecosystem (i.e. habitat) outcomes in the Tucannon and develop a limiting factors assessment for Chinook, steelhead, and bull trout.

**4. Project Goals and Objectives.**

**A. What are your project's goals?**

- i. Assess ecological outcomes of restoration actions in the Tucannon
- ii. Provide a revised limiting factors assessment
- iii. Identify priority areas and priority factors for future restoration actions

**B. What are your project's objectives?**

- i. Coordination with technical experts
- ii. Coordination with action groups
- iii. Project management
- iv. Data acquisition & Information Gap Summary
- v. Limiting Factors Analysis



**C. What are the assumptions and constraints that could impact whether you achieve your objectives?**

- i. Exerts will participate in assessment
- ii. Project data is available to assess outcomes
- iii. Scope is feasible

**5. Project Details.**

**A. Provide a narrative description of your proposed project.**

The Tucannon River was historically home to abundant spring Chinook and summer steelhead populations. Habitat modification, coupled with localized dewatering, fish passage barriers, and hydrosystem modification, greatly decreased fish population performance during much of the 20th century. During the past decade substantial restoration activities have been undertaken in the Tucannon, resulting in improvements to the physical environment and localized improvements in fish use.

During 2004 (Columbia Conservation District 2004) fish habitat conditions were assessed in the Tucannon Subbasin using the ecosystem diagnosis and treatment process (Lichatowich et al. 1995), limiting factors were identified, and initial restoration recommendations were presented. Habitat restoration during the past decade was improved habitat conditions, and is expected to have improved the long-term performance of Tucannon fish populations. This in turn will affect restoration prioritization and planning priorities. The purpose of this project is to conduct an ecosystem diagnosis and treatment (EDT) analysis of Tucannon Chinook and steelhead to document improvements to the system, re-assess limiting factors and restoration priorities, and to support subsequent restoration planning.

**B. Provide a scope of work.**

**Task 1. Coordination and Project Management**

PFC will provide project coordination and project management.

**Sub-Task 1.1. Coordination with Technical Experts**

Throughout the duration of the project PFC will provide project management, coordination, and collaboration with the Snake River Salmon Recovery Board Staff and the Regional Technical Team (RTT). The RTT includes: CTUIR, Nez Perce Tribe, NOAA, USFWS, BPA, WDFW, Columbia



## Assessment for Walla Walla Basin Water and Fisheries Restoration

Conservation District, Walla Walla Watershed Management Partnership, Snake River Salmon Recovery Board (SRSRB). PFC will meet with experts to review and biological assumptions associated with the EDT assessment, and to assimilate knowledge regarding the performance of Tucannon populations.

*Deliverables*

Coordination of data discovery for the Tucannon River. In-person and phone meetings with RTT members. The project will culminate with a presentation of the project findings to the RTT.

*Assumptions*

RTT members will respond to project inquiries in a timely fashion.

### Sub-Task 1.2. Coordination with Action Groups

PFC will coordinate with action groups to procure habitat restoration information for the past ten years. The groups include the Columbia Conservation District, WDFW, USFS, and the SRSRB. We will meet directly and remotely with the action groups to discover their information holdings, and conduct knowledge transfer regarding restoration projects.

*Deliverables*

List of restoration actions and descriptions of their characteristics, correlated to specific river reaches.

*Assumptions*

Snake River Salmon Recovery Board (SRSRB) staff will identify relevant action groups, and assist with data discovery. Action groups will respond to project inquiries in a timely fashion.

### Sub-Task 1.3. Project Management

PFC will coordinate project activities with SRSRB Executive and Technical staff. We will participate in weekly project management phone calls, will give monthly progress reports, and will provide monthly invoices.

*Deliverables*

Weekly updates. Monthly progress reports. Final project report and presentation.

*Assumptions*

Assumes budget is sufficient to meet client's project management needs.



## Task 2. Assessment

We will assess limiting factors and restoration priorities for the Tucannon Subbasin to document improvements to the system and to support subsequent restoration planning.

### Sub-Task 2.1. Data Acquisition & Information Gap Summary

PFC will secure data through coordination under Task 1, and will work to develop a revised life history model and environmental attribute database for the Tucannon. We will post-process and compile information provided by the Technical and Action agencies including:

- 1) Life cycle structure
- 2) Life cycle timing
- 3) Migratory timing
- 4) Life stage productivity
- 5) Life stage capacity
- 6) Habitat conditions and passage
- 7) Harvest
- 8) Hatchery strays

As part of the data acquisition process PFC will identify any data gaps relevant to subsequent assessments, and will provide recommendations for attribute development as needed.

#### *Deliverables*

Database and information gap summary.

#### *Assumptions*

Data is available and in a form suitable for analysis. Data may require format upgrade or alteration.

### Sub-Task 2.2. Analysis and Diagnosis

PFC will conduct an ecosystem analysis begin with the Tucannon River EDT model developed during 2004 Subbasin planning, and will build upon that data using the updated information. PFC will evaluate this information “through the eyes” of summer Chinook and steelhead in the Tucannon River. Site specific models and previously published translation routines will be used to estimate fish-habitat attributes using the watershed-scale analysis model outputs. Fish habitat performance will be estimated using existing techniques including Habitat Suitability

## Assessment for Walla Walla Basin Water and Fisheries Restoration

Indices (HSI), the ecosystem diagnosis and treatment (EDT) process, Patient-Template Analysis (PTA), stock-recruitment modeling, and limiting factors analysis.

### *Deliverables*

Technical memorandum depicting the Analytic and Diagnostic model outputs and any outstanding issues.

### *Assumptions*

Budget is sufficient to conduct thorough analysis and diagnosis.

## **Task 3. Report Writing**

PFC will develop a final technical report to be delivered to the Snake River Salmon Recovery Board and Regional Technical Team along with a verbal presentation. The report and presentation will convey the outputs from the ecosystem analysis and diagnosis, and will provide preliminary recommendations for restoration and future study. The report will include conclusions and discussion of restoration alternatives to how these can frame future restoration activities.

### *Deliverables*

Technical report

### *Assumptions*

The technical report can be developed within the allocated time and budget.

**C. Explain how you determined your cost estimates.**

| Direct                                      |   | Staff | Jesse Schwartz     | Kevin Scribner  | Ramiza Koya |             |
|---|---|-------|--------------------|-----------------|-------------|-------------|
| Task  | Sub-Task  | Role  | Technical Director | Project Manager | Editor      | Cost        |
|   |   | Rate  | \$ 100.00          | \$ 75.00        | \$ 50.00    |             |
| Task 1. Coordination and Project Management |   |       |                    |                 |             | \$ -        |
|   | Sub-Task 1.1. Coordination with Technical Experts |       | 4                  | 24              |             | \$ 2,200.00 |
|   | Sub-Task 1.2. Coordination with Action Groups     |       | 4                  | 24              |             | \$ 2,200.00 |
|   | Sub-Task 1.3. Project Management                  |       | 8                  | 40              |             | \$ 3,800.00 |
| Task 2. Assessment                          |   |       |                    |                 |             | \$ -        |
|   | Sub-Task 2.1. Data Acquisition                    |       | 80                 | 24              |             | \$ 9,800.00 |
|   | Sub-Task 2.2. Analysis and Diagnosis              |       | 160                | 16              |             | \$17,200.00 |
| Task 3. Reporting                           |   |       |                    |                 |             | \$ -        |
|   | Sub-Task 3.1. Draft Report                        |       | 40                 | 8               | 8           | \$ 5,000.00 |
|   | Sub-Task 3.2. Administrative Draft                |       | 60                 | 8               | 16          | \$ 7,400.00 |
|   | Sub-Task 3.3. Final Report                        |       | 60                 | 16              | 24          | \$ 8,400.00 |
|   |   |       |                    |                 |             | \$ -        |
| Total Hours                                 |   |       | 416                | 160             | 0           |             |
| <b>Sub-Total</b>                            |   |       | \$ 41,600.00       | \$ 12,000.00    | \$ 2,400.00 | \$56,000.00 |
| Indirect                                    | Description                                       |       |                    | Units           | Unit Cost   | Cost        |
| Airfare                                     | PDX-Walla Walla airfare                           |       |                    |                 | 4 \$ 400.00 | \$ 1,600.00 |
| Meals                                       | per diem  |       |                    |                 | 8 \$ 33.00  | \$ 264.00   |
| Lodging                                     | Hotel   |       |                    |                 | 8 \$ 90.00  | \$ 720.00   |
| Mark-Up on Indirect                         | 10%   |       |                    |                 |             | \$ 258.40   |
| <b>Indirect Sub-Total</b>                   |   |       |                    |                 |             | \$ 2,842.40 |
| <b>6. Total Cost</b>                        |   |       |                    |                 |             | \$58,842.40 |

**A. How have lessons learned from completed projects or monitoring studies informed your project?**

Our assessment will build upon previous assessments in the Tucannon since 2004 included the Subbasin plan.

**7. If your project includes an assessment or inventory**

**A. Describe any previous or ongoing assessment or inventory work in your project’s geographic area and how this project will build upon, rather than duplicate, the completed work.**

We will begin with the 2004 stream attribute information and incorporate best available science, including other assessments and data, developed since that time.

**8. If your project includes developing a design:**

**A. Will your project be designed by a licensed professional engineer?**

No

**i. If not, please describe the qualifications of your design team.**

9. **Will you apply for permits as part of this project's scope?**

No

A. **If not, please explain why and when you will submit permits.**

10. **If your project includes a fish passage or screening design:** N/A

11. **Context within the Local Recovery Plan.**

A. **Discuss how this project fits within your regional recovery plan and/or local lead entity's strategy to restore or protect salmonid habitat**

This project provides revised information for future strategic planning, as well as accounting of prior successes.

B. **Explain why it is important to do this project now instead of later.**

Much restoration has occurred, and regional planning processes are asking for revised limiting factors analyses.

C. **If your project is a part of a larger overall project or strategy, describe the goal of the overall strategy, explain individual sequencing steps, and which of these steps is included in this application for funding.**

N/A

12. **Project Proponents and Partners.**

A. **Describe your experience managing this type of project.** We have conducted numerous similar assessments.

B. **List all landowner names.** N/A

C. **List project partners and their roles and contributions to the project.** The Subbasin Planning Team will participate

D. **Stakeholder Outreach.** Stakeholders will be included through the Snake River Board process