Planning and Combination (Planning and Acquisition) Project Proposal

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<tr>
<th>Project Number</th>
<th>Project Name</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td>15-1315</td>
<td>Asotin IMW Monitoring</td>
<td>Dave Karl, WDFW</td>
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List all related projects previously funded or reviewed by RCO:

<table>
<thead>
<tr>
<th>Project # or Name</th>
<th>Status</th>
<th>Status of Prior Phase Deliverables and Relationship to Current Proposal?</th>
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<tbody>
<tr>
<td>South Fork Restoration</td>
<td>Completed</td>
<td>Completed. Part of the Asotin IMW restoration phase</td>
</tr>
<tr>
<td>Charley and North Fork Restoration</td>
<td>Completed</td>
<td>Completed. Part of the Asotin IMW restoration phase</td>
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1. **Project Location.**

Upper Asotin Creek including Charley Creek, North Fork Asotin Creek, and South Fork Asotin Creek.

2. **Brief Project Summary.**

This is an ongoing Intensively Monitored Watershed to assess the effectiveness of large woody debris restoration and has been ongoing for 8 years. This proposal is for monitoring funds to maintain the current level of monitoring of fish and habitat in the IMW due a short-fall in PCMFC funds.

3. **Problems Statement.**

This is a request for monitoring funds because the IMW is underfunded (see above).

   **A. Describe the problem including the source and scale.**

   NOAA and RCO have not set aside adequate funds for annual monitoring associated with Asotin IMW.

   **B. List the fish resources targeted by your monitoring effort.**

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<tr>
<th>Species</th>
<th>Life History Targeted (egg, juvenile, adult)</th>
<th>Current Population Trend (decline, stable, rising)</th>
<th>Endangered Species Act Coverage (Y/N)</th>
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<tbody>
<tr>
<td>Steelhead</td>
<td>All</td>
<td>Unknown</td>
<td>Y</td>
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<tr>
<td>Chinook</td>
<td>All</td>
<td>Unknown</td>
<td>Y</td>
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<tr>
<td>Bull trout</td>
<td>All</td>
<td>Unknown</td>
<td>Y</td>
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</table>
4. **Project Goals and Objectives.**

   **A. What are your project’s goals?**
   
   Monitor juvenile steelhead populations pre- and post-restoration and determine 1) if populations responded to restoration, 2) what habitat changes were linked to fish responses, and 3) how to extrapolate the results to other watersheds.

   **B. What are your project’s objectives?**
   
   Continue monitoring at permanent Fish (12) and Habitat (18) sites in IMW study area, manage and analyze the data, report results.

   **C. What are the assumptions and constraints that could impact whether you achieve your objectives?**
   
   If funding is not available for monitoring we may have to skip a year of monitoring which could seriously limit our ability to test restoration effectiveness.

5. **Project Details.**

   **A. Provide a narrative description of your proposed project.**
   
   The proposal is to maintain the monitoring effort in Asotin Creek IMW that has been implemented since 2008. The Asotin Creek IMW is located in southeast Washington in the Snake River Basin just upstream of Clarkston, WA (Figure 1). The goal of the IMW is to measure the effectiveness of large woody debris (LWD) additions to increasing the production of wild steelhead. Three tributaries in the upper watershed were selected for the IMW study area. Each has one 4 km long treatment section and two 4 km control sections. Treatments have been staggered with one section restored each year starting in 2012. The overall restoration goal is to add enough high density, low cost LWD structures to increase instream habitat diversity and kick start hydraulic and geomorphic processes (i.e., scour pools and reworking of sediment and LWD) that will maintain and create instream diversity. To date ~ 550 LWD structures have been installed (~140-200 per treatment section). Baseline monitoring of stream temperature, discharge, instream and riparian habitat, and juvenile steelhead abundance began in the tributaries in 2008 and will continue through 2019 (assuming adequate funding). We have also devoted substantial resources to identifying the casual mechanisms of fish response to restoration by sampling fish throughout the year and modeling the bioenergetics and net rate of energy intake in treatment and control areas. The IMW monitoring is further enhanced by the Washington Department of Fish and Wildlife (WDFW) effort to monitor “fish in-fish out” near the mouth of Asotin Creek that has been ongoing since 2004. Preliminary results indicate there have been increases in fish abundance and decreases in growth (density dependent growth) in the treatment sections compared to the control sections. These changes were despite low spring runoff in 2013 and 2014 that limited the effectiveness of the LWD structures (i.e., very little scour or reworking of sediments and LWD). With a diverse and extensive monitoring infrastructure,
strong experimental design, and a focused and large treatment, the Asotin IMW is poised to provide detailed effectiveness monitoring of one of the most commonly used stream restoration methods – however, continued monitoring is paramount to achieving these objectives. This monitoring proposal is to continue the existing monitoring of permanent fish (12 sites) and habitat (18 sites) surveys from January 1, 2016 to December 31, 2016.

B. Provide a scope of work.

Year round monitoring of fish and habitat sites, management of data, and quality control/quality assurance of data all completed by Eco Logical Research Inc.

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<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Fish Surveys</td>
<td>Mark-recapture surveys and mobile PIT tag surveys at 12 permanent sites (4 sites per study stream – see map 2 attached)</td>
<td>July 1-31: Summer mark-recapture Sept 15- Oct 25: Fall mark-recapture Dec 15 – Jan 31: Winter mobile PIT Mar 15- Apr 15: Spring mobile PIT</td>
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<tr>
<td>Habitat surveys</td>
<td>Columbia Habitat Monitoring Protocol (CHaMP) surveys at 18 permanent sites (6 sites per study stream – see map 2 attached)</td>
<td>Aug 1 – Oct 15: CHaMP surveys</td>
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<tr>
<td>QAQC and Databases</td>
<td>All data will be QAQC as collected (by field staff according to protocols developed for Integrated Status and Effectiveness Monitoring Program (fish data) and CHaMP (habitat data). Further QAQC is performed at the end of the field season as data is uploaded to Columbia Basin PIT Tag Information System (ptagis.org; fish data) and champmonitoring.org; habitat data.</td>
<td>Ongoing throughout the year: QAQC and Databases completed Dec 31, 2016.</td>
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C. Explain how you determined your cost estimates.

Same fees for labor and equipment we have been charging for the last 8 years – we have provided numerous work plans detailing costs to SRSRB and RCO for review since 2008.

6. 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.

NA

7. Will you apply for permits as part of this project’s scope?
   Yes
   A. If not, please explain why permits are not required.

8. Context within the local recovery plan.
   A. How does the proposed monitoring address high priority information needs or data gaps identified within your regional recovery plan and/or associated regional research, monitoring, and evaluation (RME) plan or lead entity strategy?

The IMW is part of the SRSRB Recovery Plan and addresses a common restoration method (addition of LWD) in a major spawning area within a wild steelhead sanctuary.

   B. Explain why it is important to do this project now instead of later.
   We need uninterrupted monitoring data to determine fish and habitat responses to restoration

   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.

   Yes – several IMWs are operating in WA and other parts of PNW with the same goals; however, each IMW operates independently and applies for funding separately.

   A. Describe your experience managing this type of project.
   We have been managing this IMW for 8 years. We also work with ISMEP and mange or provide assistance to three other IMWs (Bridge Creek – OR, Lemhi River – ID, Entiat River – WA).

   B. List all landowner names.
   WDFW and USFS

   C. List project partners and their roles and contributions to the project.
SRSRB and RTT – oversight and technical review
WDFW – collect data and provide logistical support
USFS – donate LWD and logistical support
Supplemental Questions

Monitoring Project Supplemental Questions

1. How will the proposed monitoring complement, enhance, or leverage ongoing monitoring efforts?

Proposed monitoring is a continuation of 8 years of monitoring of Asotin IMW and will leverage all data previously collected to determine restoration effectiveness.

2. Describe your methods for data collection, analysis, and management. Identify other regional and statewide protocols or monitoring programs with which your methodology is consistent or compatible.

We use standard Lincoln-Petersen mark-recapture surveys twice a year (summer and fall) at 12 permanent fish sites to assess abundance, growth, movement and survival of juvenile steelhead; mobile PIT tag surveys at same 12 fish sites to assess winter and movement and spring survival of juvenile steelhead using our own protocol; Columbia Habitat Monitoring Protocol (CHaMP) to assess habitat at 18 permanent habitat sites; water height gages and water temperature probes to monitor discharge and stream temperature continuously.

3. Describe or provide documentation of your planned approach to evaluating data quality.

We use a fish data base developed by ISEMP to store and QAQC all fish data and we upload all our habitat and temperature data to champmonitoring.org where it is QAQC’d through a web interface. We store discharge data in our own database which we write scripts and plot the data to perform QAQC.

4. How will you disseminate collected data and reports?

We provide semi annual and annual reports to RCO as part of our deliverables and we also prepare other reports that summarize IMW findings, designs, and restoration plans every few years.

5. Why are SRFB funds necessary, rather than funds from other sources?

Our regular PCMFC funds are potentially not available in 2016 and we have not other sources of funding available for this project.

Comments

Monitoring projects will not include a site visit by the monitoring panel. Use this section to respond to the comments you will receive after you submit your final application.

Response to Post-Application Comments
Regional Monitoring Project Proposal

July 17, 2015

Please describe how you’ve responded to the monitoring panel’s post-application comments. We recommend that you list each of the monitoring panel’s comments and questions and identify how you have responded. Please use this space to respond directly to their comments.

DRAFT APPLICATION / SITE VISIT REVIEW PANEL COMMENTS

Date: June 18, 2015
Project Site Visit? ☑ Yes ☐ No
No Review Panel Member(s): Slocum and Tyler

1. Recommended improvements to make this a technically sound project according to the SRFB’s criteria:

   This project is being submitted for consideration as a planning project to fill a data gap in the regular grant round (reviewed by the SRFB Review Panel) as well as a regional monitoring request (reviewed by the SRFB Monitoring Panel). As a planning project, the proposal would be strengthened by clearly articulating how the project will address the four bullets on p 18 of Manual 18 (http://www.rco.wa.gov/documents/manuals&forms/Manual_18.pdf), which identifies the eligibility criteria for monitoring projects intending to fill a data gap.

Response: No. This proposal is being submitted as a monitoring proposal and this was the form that we were instructed to use. Hence, the bullets on p 18 of Manual are not applicable.

2. Missing Pre-application information

Response: Because this is a monitoring proposal and the SRFB was not set up to accept monitoring proposals during the Pre-application phase there was no pre-application submitted.

3. General Comments:

   The data gap criteria identified in point 1 applies only to the regular grant round application and not to the regional monitoring application. Note that to submit this project for consideration under both the monitoring and project application approaches, two applications will be required by August 14: the Planning and Combination Project Proposal (already completed), and the Regional Monitoring Proposal (available for download at http://www.rco.wa.gov/documents/manuals&forms/RegionalMonitoringProposal.docx).

Response: This is a monitoring proposal. This was the form we were instructed to submit.

   This project is consistent with ongoing monitoring efforts in the Asotin IMW. The project follows the study plan for the IMW. The details of the monitoring approach are clearly outlined in related documents which have been reviewed by the SRFB Monitoring Panel.

4. Staff Comments:

   Please be sure to address all comments I provided when I reviewed the application in May/June (if you haven’t already done so), along with completing all other final application requirements.
listed in Section 3 of RCO Manual 18
http://www.rco.wa.gov/documents/manuals&forms/Manual_18.pdf. All changes to your proposal should be made using "Track Changes" in Word.

Response: Done.
Detailed Worksite Map (planning and restoration projects) or parcel map (acquisition projects)

Note – All 12 fish sites will be monitored in the summer (July) and fall (September/October) of 2016. All Rapid Habitat Monitoring sites and only monitoring of CHaMP sites in Charley Creek and North Fork Creek will be funded under this application.
Map showing the project’s Area of Potential Effect (APE) with Section/Township/Range
A minimum of two (2) Aerial or Site Specific Photos Attached

Aerial photo of the IMW study area showing Charley, North Fork and South Fork Asotin Creek.

Example of the restoration treatment using post-assisted log structure installed in Charley Creek to simulate natural large woody debris loading.
Designs (conceptual, preliminary, or final) or Field Sketches

A)

B)

A) Fish monitoring: mark-recapture and PIT tagging juvenile steelhead and B) CHaMP surveying with total station.
RESTORATION
See SRFB Manual 5 for additional information regarding allowable costs.

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<th>Amount</th>
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<th>Funding not reported in PRISM</th>
<th>Source (Grant, Cash, Materials, Labor, Volunteers, etc)</th>
<th>Match Type (federal, state, local)</th>
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STotal: $284,003 | $158,419 | $35,000 | $90,584 | Federal |

A&E maximum allowed in PRISM: $58,025.69
A&E validation: 58,026

A&E Project Total: $293,419 | $158,419 | $35,000 | $100,000

Lower Columbia Habitat Project Application Detailed Cost Estimate
2/1/2013
Appendix F: Landowner Acknowledgement Form

Landowner Information

Name of Landowner: Washington Department of Fish and Wildlife

Landowner Contact Information:

☑ Mr. ☐ Ms. Title:
First Name: Dave Last Name: Karl
Contact Mailing Address: PO Box 456, Walla Walla, WA 99362
Contact E-Mail Address: David.Karl@dfw.wa.gov
Property Address or Location: Aasotin Creek, WA

1. WDFW (Landowner or Organization) is the legal owner of property described in this grant application.
2. I am aware that the project is being proposed on my property.
3. If the grant is successfully awarded, I will be contacted and asked to engage in negotiations.
4. My signature does not represent authorization of project implementation.

Landowner Signature Date: 4-27-15

Project Sponsor Information

Project Name: Aasotin Intensively Monitored Watershed Monitoring

Project Applicant Contact Information:

☐ Mr. ☐ Ms. Title Biologist
First Name: Dave Last Name: Karl
Mailing Address: PO Box 456, Walla Walla, WA 99362
Office Phone: (509) 527-4138; E-Mail Address: David.Karl@dfw.wa.gov
Appendix F: Landowner Acknowledgement Form

Landowner Information

Name of Landowner: Washington Department of Fish and Wildlife

Landowner Contact Information:

☑ Mr. □ Ms. Title:

First Name: Dave Last Name: Karl

Contact Mailing Address: PO Box456, Walla Walla, WA 99362

Contact E-Mail Address: David.Karl@dfw.wa.gov

Property Address or Location: Asoin Creek, WA

1. WDFW (Landowner or Organization) is the legal owner of property described in this grant application.

2. I am aware that the project is being proposed on my property.

3. If the grant is successfully awarded, I will be contacted and asked to engage in negotiations.

4. My signature does not represent authorization of project implementation.

Landowner Signature

Date

Project Sponsor Information

Project Name: Asoin Intensively Monitored Watershed Restoration

Project Applicant Contact Information:

☐ Mr. □ Ms. Title Biologist

First Name: Dave Last Name: Karl

Mailing Address: PO Box456, Walla Walla, WA 99362

Office Phone: (509) 527-4138; E-Mail Address: David.Karl@dfw.wa.gov