

# Hood River Water Bank Feasibility Study

## Request for Proposals

### July 20, 2017

**Project Sponsors: Hood River Watershed Group & Hood River Soil & Water Conservation District**

**Proposal and bid must be submitted by August 14, 2017, 5 p.m.**

**Questions and Proposals shall be directed to:**

Cindy Thieman, Coordinator  
Hood River Watershed Group  
3007 Experiment Station Dr.  
Hood River, OR 97031  
[cindy@hoodriverswcd.org](mailto:cindy@hoodriverswcd.org)  
541-386-6063 (office)  
541-206-0026 (cell)

## **I. Introduction**

The Hood River Watershed Group (HRWG) is requesting proposals for the completion of the Hood River Water Bank Feasibility Study. This project is funded by grants from the Oregon Watershed Enhancement Board and Oregon Water Resources Department. **Total proposed budget should not exceed \$87,430.**

This project must be completed by March 30, 2019.

## **II. Project Goals & Context**

The goals of the study are 1) to assess the viability of a Hood River water bank to increase summer stream flows for fish and provide greater irrigation water reliability for perennial crop growers during dry or drought years, and 2) to determine the feasibility of implementing a program in the Hood River Basin. For the purposes of this feasibility study, a water bank would be an institutional mechanism that facilitated temporary leases of water from annual crop growers to instream flows and possibly also to perennial crop growers. Water would come from landowners with annual crops (e.g., hay, pasture) who were willing to forgo some or all of their irrigation water for a season in exchange for financial compensation. The intent of a Hood River water bank would be to increase summer stream flows for fish during dry or drought years and to increase water reliability for perennial crop growers during drought years.

Voluntary fallowing of annual crops during dry years was identified as a potential water conservation action in the recently completed Hood River Water Conservation Strategy (Salminen *et al.* 2016), which estimated that up to 17 cfs could be left instream if all annual crops in the watershed were fallowed during a dry or drought year. Even if only 30% of all annual crop land were fallowed, it could make a meaningful difference to instream flows as well as tree fruit growers. During the 2015 drought, one of

the irrigation districts in the Hood River Basin implemented an informal water bank with its district patrons, which resulted in 100 acres of pasture being fallowed and 1.5 cfs (~300 acre-ft) left in Clear Branch and Laurance Lake. This example illustrates the interest and need to investigate this option at a basin scale. This 2015 pilot project also highlights the need to develop the appropriate programmatic, legal, and financial infrastructure that would make this approach more effective and sustainable.

### **III. Water Needs**

The two largest water needs in the basin are irrigated agriculture and instream flows for threatened populations of salmon and steelhead. These competing needs are at the crux of most water conservation planning and restoration efforts that have occurred in the watershed. Climate models for the Hood River Basin predict that by the year 2050 average air temperatures in the Hood River Basin are expected to increase by 2.3° F. This will lead to more precipitation falling as rain instead of snow, resulting in less snowpack, higher winter streamflows, and even lower summer streamflows (BOR 2014). Consequently, water conservation tools will become even more important than they are today.

The Hood River is an essential basin within Oregon for recovery of the Lower Columbia Salmon and Steelhead ESU. This is due to the unique genetics and life history diversity of its populations. For example, the basin contains the only population of summer steelhead in the Lower Columbia ESU. With the exception of winter steelhead, the current extinction risks of salmon and steelhead populations within the Hood are very high (ODFW 2010). Tribal, state, and federal fisheries agencies estimate that recovery of Hood River winter steelhead and spring Chinook populations is likely with appropriate restoration and conservation actions.

The Ecosystem Diagnostic and Treatment Model, developed for the Hood River Subbasin Plan, identified five primary limiting factors to anadromous salmonid production (Coccoli 2004). These were streamflow, habitat diversity, key habitat quantity, channel stability, and sediment load. The Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead also identified low streamflow and impaired habitat diversity as primary limiting factors to recovery (ODFW 2010).

The primary threats to streamflow are withdrawals for agriculture as well as predicted reduction in summer streamflow from climate change. In some stream reaches, diversions for agricultural use can withdraw 40% or more of the average natural flow from July to September. These diversions reduce the quantity of spawning and rearing habitat and can affect fish passage.

The economy of Hood River County is heavily dependent upon irrigated agriculture, with one-third of personal incomes in the County coming from the fruit industry (Radtke et al, 2000). In 2012, gross agricultural commodity sales in Hood River County were \$112,094,000 ([www.oain.oregonstate.edu](http://www.oain.oregonstate.edu)).

The three major irrigation districts in the Hood River Watershed are East Fork (EFID), Middle Fork (MFID), and Farmers (FID) irrigation districts, which serve over 21,000 acres. Two smaller districts, Dee (DID) and Mt. Hood (MHID) irrigation districts serve an additional 2,000 acres. Over the past 20 years, these districts have been converting irrigation ditches to pipeline, and many farmers have installed modern, efficient irrigation equipment. With the exception of EFID, the majority of districts have piped most of their open canals. EFID and MFID still have a significant number of patrons that could upgrade their on-farm irrigation equipment. Watershed partners have an ambitious plan for completing the

remaining pipeline and on-farm upgrade projects. However, the Water Conservation Strategy clearly highlights that we will need to go beyond piping and on-farm upgrades if we are to realistically support recovery of threatened local populations of salmon and steelhead.

#### **IV. Statement of Work**

The consultant shall provide detail on their approach, deliverables, costs, and timeline for delivery associated with each of the following tasks:

**Task 1. Geospatial Database & Map of Land Currently in Hay/Pasture Production:** Update or create geospatial database of land currently in hay and pasture production. The attribute table should include landowner contact information, tax lot numbers, acres, and water rights. This information will determine total potential acres for fallowing and provide relevant landowner contact information.

**Task 2. Landowner Interest Survey:** Survey a statistically valid sub-set of landowners to gauge interest in fallowing their pastures for compensation, including their concerns, requirements to participate, and minimum compensation rate. In addition, query landowners on their water use patterns (e.g., Do they fallow fields every 5 years?)

#### **Task 3. Evaluate Alternatives and Recommend Program Structure & Financing:**

- Present findings from geospatial analysis and grower survey to core watershed partners group (note: this is a pre-existing group that can be convened by the HRWG Project Manager). Solicit initial thoughts on a water bank; determine schedule and confirm content of subsequent meetings. Meetings will allow contractor to present interim findings and solicit input from core watershed partners.
- Evaluate water value and pricing, and costs for transactions, program development, and long-term operations. Document rationale for pricing.
- Identify likely funding sources and any specific institutional and governance needs to facilitate funding from these sources.
- Describe and evaluate alternative options for fallowing agreements in the Hood River Basin (e.g., partial vs. full season), and the fate of water saved from annual crop fallowing. If saved water were to benefit perennial crop growers, describe who might pay for it and how it should be managed.
- Describe program elements, tasks, and legal and permitting requirements for operating a “water leasing” program. Determine whether a water bank is necessary to accomplish this.
- Determine the criteria for initiating annual crop fallowing in any given year.
- Evaluate whether there is enough interest/willingness on the part of annual crop growers to justify and support the overhead costs of running a program.
- Evaluate and make recommendations for institutional and governance options for a Hood River Water Bank (or alternative structure). Analysis would include the potential for program to be operated by a Qualified Local Entity (QLE) in Hood River vs. an existing out-of-basin QLE.

#### **Task 4. Evaluate Instream Benefits**

- Determine which tributary streams would benefit depending on where acres were fallowed. This will be particularly important in the Middle Fork and Farmers irrigation districts, which have multiple points of diversion.
- Evaluate minimum targets for conserved water to be left instream. Evaluate and discuss, with working group, opportunities and circumstances where saved water could also benefit perennial crop growers.
- Determine how and where saved water would be measured and protected. Meet with stakeholders to discuss alternatives.

**Task 5. Evaluate Local Economic Benefits and Impacts:** Analyze potential benefits and impacts to both annual and perennial crop growers in the basin in terms of crop productivity, overall economic output, potential cost savings, potential cost increases, and potential avoided regulatory burdens. Assess impact of decrease in local hay production. Evaluate the long-term need and feasibility for using leased water for perennial crop growers.

#### **Task 6. Reporting:**

- Provide quarterly summaries of work completed for each task, including amount billed to each task.
- Produce a final report on the feasibility and specific structure of a drought year following program in the Hood River basin. Based on study findings, provide specific recommendations for a Hood River Water Bank.

### **V. Selection Process**

Consultants must submit proposals in digital format by 5 p.m. August 14, 2017 to Cindy Thieman ([cindy@hoodriverswcd.org](mailto:cindy@hoodriverswcd.org)). The proposal package shall include:

- a. Description and itemized cost, including hourly rates, for each task described in Statement of Work.
- b. A list of staff who will work on the project, their primary role, relevant experience, and approximate number of hours they will spend on the project.
- c. The location of the office that will be providing service to this project.
- d. A description and references for at least two relevant projects.

HRWG will review proposals for the project and may propose modifications to the selected contractor before finalizing the contract. Responding firms will be ranked in order of their cost-effectiveness, qualifications, and proposal content. The following evaluation criteria will be used:

- a. Experience with designing and conducting similar feasibility studies;
- b. Cost-effectiveness of proposal, and
- c. Clarity, quality and presentation of proposal.

### **VI. General Information**

The Hood River Soil & Water Conservation District (HRSWCD) is the fiscal sponsor for the HRWG. As such, all bid solicitation and contracting requirements of the HRSWCD will be adhered to and the contract for this feasibility study will be executed and administered by the HRSWCD. A Professional Services Contract template is provided in **Appendix A**. The HRWG and HRSWCD reserve the right to accept the proposals and award a contract to a responsible and qualified bidder;

to postpone the acceptance of the proposal and the award of the contract for a period not to exceed thirty (30) days; or to reject any and all bids received and further advertise the project for bids.

**HRWG and HRSWCD also reserve the right to eliminate the need for the selected consultant to complete one or more tasks, pending the outcome of preceding related tasks or issues.**

## APPENDIX A. Professional Services Contract Template

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BETWEEN: Hood River Soil & Water Conservation District (HRSWCD)

AND: To be determined (Contractor)

PROJECT: Hood River Water Bank Feasibility Study

### AGREEMENT

#### 1. Engagement

The HRSWCD hereby engages Contractor to perform the Services, and Contractor agrees to perform the Services, according to the terms and conditions set forth herein and in **Exhibit A. Request for Proposals: Hood River Water Bank Feasibility Study** and **Exhibit B. (Contractor proposal, company name, & date of proposal)**.

**2. Project Management.** The Hood River Watershed Group (HRWG) will oversee and manage the project. The HRWG Project Manager is an employee of the HRSWCD. Contact: Cindy Thieman; 541-386-6063 (office); 541-206-0026 (cell).

#### 3. Statement of Work and Completion Timeline

To be added based on Request for Proposal and contractor proposal

#### 4. Compensation

The compensation for Tasks X - X, per Exhibit B, is \$X.

#### 5. Payment Schedule

Contractor may bill for work on a monthly basis. Invoices must be received by the Monday before the first Thursday of each month in order to be paid that month. Invoices shall document dates of service, tasks completed, hours, and hourly rates. Invoices should be sent via email to Project Manager, Cindy Thieman, for review and approval.

#### 6. Quality of Work/Warranty

Contractor warrants to HRSWCD that the work will conform to appropriate standard specifications and practices. Work not conforming to these standards shall be considered defective. At its own expense, Contractor will make good and repair any defects arising from faulty workmanship.

#### 7. Insurance

Contractor shall maintain in force for the duration of this contract insurance against claims for injuries to persons or damages to property, including errors and omissions coverage, for claims that may arise from or in connection with the performance of the work by Contractor, its agents, employees, or assigns. The insurance shall cover such claims as may be caused by any negligent act or omission. This coverage shall not be less than \$500,000 combined single limit per occurrence, and \$1 million aggregate. This policy shall be with an admitted insurance carrier licensed to do business in the state of Oregon and shall contain an endorsement entitling the HRSWCD to not less than 30 days prior written notice of any material change, non-renewal or cancellation. **A certificate of Additionally Insured shall be received by HRSWCD by September X, 2017.** Failure to maintain any

insurance coverage required by this contract shall be cause for immediate termination and non-payment of this contract by HRSWCD.

Contractor will maintain Workers' Compensation Insurance coverage for all Contractor employees and agrees to require all subcontractors to carry such insurance in compliance with Oregon law.

## **9. Employment Status**

Contractor acknowledges that neither the firm nor Contractor employees are employees of the HRSWCD.

## **10. Ownership and Confidentiality**

Contractor will maintain all necessary documents for the professional services to be provided to the HRSWCD. Contractor will not make any information available to the public or any other party unless authorized by the HRSWCD. Contractor will not be held accountable for information released by the HRSWCD or HRWG to other parties.

During the course of the performance of this contract, Contractor may have access to confidential materials, data, strategies, systems or other information relating to the HRSWCD, HRWG, or private property owner. Any such information acquired by Contractor shall not be used, published or divulged by Contractor to any person, firm or corporation or in any advertising or promotion regarding Contractor or Contractor's services, or in any manner or connection whatsoever without first having obtained the written permission of the HRSWCD, which permission the HRSWCD may withhold in its sole discretion.

## **11. Assignments/Subcontract**

The Contractor may not assign or transfer this contract or subcontract for the work to be performed without the prior written consent of the HRSWCD. Subcontractors shall meet all the terms and requirements of this contract.

## **12. Indemnification**

HRSWCD agrees to hold Contractor, its officials, agents, and employees, while acting within the scope of their duties as such, harmless from and against all third party claims, demands, and causes of action that are not caused by the acts or omissions of Contractor. Contractor shall indemnify and hold HRSWCD, and its officers, agents and employees, harmless from and against all claims, actions, liabilities, costs, including attorney fees and other costs of defense, that are a result of the work completed by Contractor for this project and not caused by the acts or omissions of the HRSWCD. In the event any such action or claim is brought against HRSWCD, Contractor shall, if HRSWCD so elects and upon tender by HRSWCD, defend the same at Contractor's sole cost and expense, promptly satisfy any judgment adverse to HRSWCD, and reimburse HRSWCD for any loss, cost, damage or expense, including attorney fees, suffered or incurred by HRSWCD.

## **13. Termination and Suspension**

The HRSWCD may terminate this contract at any time with written notice if the hydraulic analysis identifies fatal flaws for the project or if Contractor fails to perform all duties as described. However, should the contract terminate, the HRSWCD agrees to pay Contractor for services/supplies already rendered if they meet the specifications described in this agreement. Any alterations to the scope of services must be agreed to by both the HRSWCD and Contractor in writing as a change order. Contractor may terminate this contract with a written notice if the HRSWCD fails to provide compensation in accordance with the agreed upon terms.

## **14. Laws and Ordinances**

In addition to provisions of the laws of the State of Oregon, Contractor shall comply with and require its subcontractors to comply with all applicable provisions of Federal, State and local statutes, ordinances, orders, rules and regulations.

**15. Arbitration**

All claims or disputes between HRSWCD and Contractor arising out of or related to the Work or this contract shall be decided by arbitration conducted in accordance with the construction industry arbitration rules of the American Arbitration Association unless the parties agree otherwise. The parties shall bear equally the administrative fees of the American Arbitration Association and the fees of the arbitrator.

**16. Notices**

Any notices permitted or required by this contract shall be deemed given when personally delivered or upon deposit in the United States mail, postage fully prepaid, certified, return receipt requested, addressed to:

Contractor:  
Name  
Street address  
City, ST Zip Code

HRSWCD:  
Cindy Thieman, Project Manager  
Hood River Soil & Water Conservation District  
3007 Experiment Station Dr.  
Hood River, OR 97031

or such other address as either party may provide to the other by notice given in accordance with this provision.

**17. Contract Documents/Interpretation**

This contract sets forth the entire agreement between the parties, and supersedes any prior agreements.

This contract shall be governed by and interpreted in accordance with the laws of the State of Oregon. The parties to this contract do not intend to confer on any third party any rights under this contract. No substantive part of this contract shall be voided by any non-substantive errors or omissions.

**18. Jurisdiction and Venue**

All actions relating to this contract shall be tried before the courts of the State of Oregon to the exclusion of all other courts, which might have jurisdiction apart from this provision. Venue in any action shall lie in the Circuit Court of Hood River County, Oregon.

**19. Effective Date.** The effective date of this contract shall be the latest date of signature by the parties.

**Contractor**  
**Name**  
Address  
City, State, Zip Code

**Hood River Soil & Water Conservation**  
**District**  
3007 Experiment Station Dr.  
Hood River, OR 97031

Name      Name

Name    Brian Nakamura



Title    Principal

Title    Board Chair

Signature\_\_\_\_\_

Signature\_\_\_\_\_

Date\_\_\_\_\_

Date\_\_\_\_\_