CRWC
CROOKED RIVER WATERSHED COUNCIL

Expansion of Crooked River Watershed Council in Oregon

(Task B)

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Table of Contents

Technical Proposal

Description of the Proposed Work

The Crooked River Watershed Council (CRWC) is applying for this grant to support an existing watershed group expansion under Task B described in the Funding Opportunity Announcement (FOA). We intend to use the grant funds to support hours and activities of our existing Project Manager position that will be required to expand the overall project development tasks associated with completing responsive restoration projects that address watershed limitations. These limitations are closely associated with water quality and quantity issues as well as fish habitat, movement, and screening concerns. In this context, project development includes all the individual activities that are required to effectively and efficiently implement these types of projects with multiple partners. These activities and be summarized to include, but are not limited to:

1- Review existing technical data available for the geographic location and pertinent to the issue(s) being addressed,
2- Conduct landowner and partner outreach,
3- Coordinate with landowners and partners to advance concepts,
4- Generation of engineering designs at the appropriate level of detail,
5- Define, describe, and generate cost estimates for project specifications,
6- Develop and write grants and lead collaborative funding efforts to secure project implementation funds, and
7- Develop and submit permitting information where applicable to the appropriate permitting agency(s).

Activities associated with actual implementation of projects beyond the described development steps are funded by implementation grants received. These include pre-implementation, coordination, contract preparation, contract administration, final design oversight, reporting, and project closure. The CRWC receives adequate funding for implementation activities through other grant sources. This proposal expressly addresses a constant funding shortfall to support project development activities, primarily grant writing. By combining existing implementation funding opportunities with USBR WaterSMART funds the Council will be able to increase projects developed and the involvement level of collaborative partners.

The Council has in place and has previously completed about 70% of the activities that are mandatory. The following explanations are offered for each of the four mandatory activities with some detail to meet this requirement tailored for our situation:

-Expansion of a watershed group:

The CRWC is an established watershed group as per the definition provided in the FOA under *III.A.2. Eligibility for Task B*. Furthermore, the Council is a legally incorporated, non-profit organization in Oregon serving a public conservation need. This proposal seeks to expand activities of this entity by increasing direct funding support for the Project Manager positions' activities associated with project identification, development, and some pre-implementation within the context of a locally driven collaborative process.

Additionally, the Council has an established outreach program that features printed and electronic materials and activities. The Council has a printed brochure that explains in general terms what the Council does, target audience, its' mission and goals, and contact information. The CRWC also has a website that is used to provide informational updates, post meeting agendas and minutes, provide access to our water quality data, and conduct outreach. Lastly, the Council also participates in two annual landowner workshops co-hosted by several other agencies (OSU Extension, Crook County Soil & Water Conservation District, and USDA-NRCS). Other conservation-oriented organizations that work in our watershed are also invited to present materials and have a booth at these events. Approximately 20% of the Project Manager's time supported by this grant will be allocated to this task. This task will be on-going through the first 18 months of the two-year grant period.

The CRWC will also expand landowner collaboration on projects by developing two new landowner workgroups during the two-year grant period. By the end of the grant new landowner workgroups will have been established in both the Lower and Upper Crooked River watershed areas. These groups will be tasked with identifying watershed issues, proposing projects, and working with Council staff to fully develop projects for their respective areas.

-Development of a mission statement for the watershed group:

This task has been completed and the Council meets this requirement as evidenced by a fully developed Mission Statement included in our organizational Charter attached in the Appendix as item A. This completed task will not require any support from the grant.

-Development of watershed management project concepts:

This task has largely been completed, but some minor portion (less than 10%) of the Project Manager's position time supported by this grant will be allocated to refining existing concepts to make them more universally applicable or to customize them to a specific project type or need.

The Council shares a Hydrologist position with the US Forest Service and uses this professional to generate conceptual plans for specific projects that can then be used to discuss goals and objectives with project landowner ensuring the concept meets their

own goals and capacity to maintain the project once completed. This task will be completed in the first year of the two -year grant period.

-Development of a watershed restoration plan:

This task has been completed, but existing plans require updates about every 10 years as condition changes and restoration projects are completed. The three plans that provide primary guidance for the Council are Oregon Watershed Enhancement Board's (OWEB) basin restoration priority plans, the Crooked River Watershed Assessment (Crooked River Watershed Council; 2001), and the Crooked River Agricultural Water Quality Management Area Plan, developed by the Oregon Department of Agriculture and the Crook County Soil and Water Conservation District in 2010. This completed task will not require any support from the grant.

The work proposed under this grant is consistent with the current work plans of the CRWC. Over the two-year period of the grant, the CRWC will be identifying, developing, and ultimately implementing several key projects in the watershed that address both water quality and quantity. For some of these activities, the CRWC will be the lead organization, while for others the role will be as a partner, providing either funding or technical assistance. Another secondary role when the CRWC is not the lead is one of private landowner outreach and interaction. The Council will expand its project portfolio and support an existing project manager position to refine and expand our list of collaborative partners.

The CRWC will utilize funds provided in the grant to increase the capacity of the council to engage and complete projects over a shorter time frame than would be allowed without this support. This is a critical point because work in the Crooked River is part of a regional focus on the larger Deschutes River basin. This basin is currently experiencing a high level of interest and engagement by many agencies, private organizations, state and federal funding sources, and non-profit entities. Our partnering agencies and organizations are all part of this larger regional effort to not only return previously extirpated anadromous fish (Chinook salmon and steelhead) to their home waters, but to create conditions that will support their return over a longer period in a self-sustaining manner. Habitat quality, water quantity at key locations and times of the year, and irrigation diversion fish barriers are all prime examples of the types of projects that must be completed to meet this objective. Urgency for completing this basin-scale project list derives from the fact that the targeted ESA-listed fish species of interest have began being out planted as fry in 2010, and are now returning as adults in search of spawning and rearing habitat. Additionally, a concurrent goal is to maintain agricultural and economic activities that currently exist and to support their thoughtful expansion.

To meet these challenges more specifically, the CRWC proposes to increase our ability to complete projects in a timely fashion and utilize more of the resources available to meet this

outcome. At this time, the CRWC is limited by current funding stipulations that do not support increasing work load and output due to restrictions on project identification and development. An example of this can be made for McKay Creek. This important tributary to the Crooked River is expected to produce the highest numbers of steelhead in the larger basin. The CRWC is working on a McKay Creek Strategy with local landowners and other agencies to identify limits and resource conditions that prevent full production potential. Once complete, the Strategy will serve to prioritize identified needs and then develop action plans (projects) that can be implemented. The project development step is where the Council lacks funding support from conventional sources that focus on implementation. Task B activities as prescribed in the grant announcement are a perfect fit for our needs and will add significant forward thrust to our existing work plans and trajectory allowing us to complete more priority projects at a faster rate than without this support.

Overview of Goals & Approaches

The overarching goal of the CRWC aligns with the grant objectives and matches the mission statement of the CRWC. Our mission statement:

> *"To promote stewardship of the Crooked River watershed and its resources and to ensure sustainable watershed health, functions, and uses for optimal conservation and economic benefits",*

while broad in its overall scope, also has the balance of interests desired and required to make project implementation a success.

Our goal under this proposal is to continue working with diverse interests to find and maximize common ground in support of projects in the Crooked River watershed that address water quality and quantity issues in the context of comprehensive watershed health, function, and benefit to all resources and their uses. We will continue to develop, maintain, and enhance our working relationships with a diverse list of partners using a collaborative approach that factors in the range of interests and needs of the group.

The approach we will use has been in place for over a decade and reflects past investments in relationship building with basin partners that share a common vision for the resources in the region. More specifically, we will host an annual meeting in the winter for the next three years inviting all interested parties and the public to discuss current and future potential projects, review past accomplishments, and identify additional projects needed in the Crooked River watershed. These sessions will also be used to identify and secure funding to implement projects. This coordinated, comprehensive approach will benefit the CRWC by enlisting the assistance of new partners, ensuring our projects track with the goals of our partners, and provide an opportunity to strengthen bonds that lead to an increased level of meaningful

activities that can be pursued through time. This effort will provide tangible benefits that outlast the two-year grant period.

Eligibility of the Applicant

The Crooked River Watershed Council is fully and completely eligible for consideration and award under this grant solicitation. The Council is a registered 501(c)(3) non-profit organization under the U.S. Internal Revenue Service code. Additionally, and more importantly, the Council is an established watershed council set up and meeting the applicable definition under Oregon Revised Statutes that prescribe required endorsements, process for establishment, and board membership representation. The Council was chartered by Crook County in 1994, and established as a non-profit under the tax code in 1997. The Council is also recognized by the State of Oregon as a legitimate and functioning watershed council as evidenced by on-going funding support via grants and reporting history.

Goals

The goals of this proposal are to apply funding received in combination with other funding commitments to achieve a more diverse and longer list of projects implemented over the next five years. While the grant funds would expire after two years, the momentum generated will carry over several additional years or more relative to projects implemented as supported by partnering entities. This funding is a crucial element that will facilitate and increase the Council's ability to directly take on additional work that would not be accomplished within a shorter time frame without this support. In terms of time, it is estimated that projects identified will ultimately be accomplished at twice the average rate over the next five years.

We have a tentative list of projects forecasted into this five year time frame, but without additional funding support as represented by this solicitation, the CRWC will not be able to complete this list in five years. Projects are placed on a priority list as defined by several variables including, but not limited to restoration needs, water quality impairment as defined by water quality data and the Oregon DEQ 303(d) list, external funding source interests and focus, project priorities as identified by partner agencies, and internal capacity within the CRWC. Very little additional information gathering is anticipated, however, the Council will incorporate new water quality data (collected from over 40 fixed locations in the watershed) as it becomes available.

Once projects have been identified using the priority setting method described, the Council works to develop details addressing funding needs, partnership opportunities, outreach to

potentially bring in additional adjacent landowners and new partners where appropriate to expand project impacts, and complete engineering designs.

Specific to the technical goals of the grant solicitation, the Council will focus efforts on projects that address the following watershed plans, assessments, strategies, and initiatives, most of which are derived from our partner organizations. These documents and the guidance they provide relative to data-driven goal setting and consistency in goal application are listed and summarized as:

1. OWEB basin restoration priorities identify several issues in the Crooked River Watershed (HUC# 1707030406) as:
    - Riparian habitat fragmentation/connectivity with specific reference to reduced water storage capacity and habitat complexity.
    - Altered thermal regime - noting lack of riparian cover in the watershed.
    - Altered hydrologic regime – indicating increased flood intensity through the upper drainages of the watershed due to the loss of natural water storage. Concerns with downstream flooding associated with more rapid run off were also noted.
    - Altered in stream Flow – summer low flows were identified as a significant issue for redband trout habitat.

2. Crooked River Watershed Assessment developed by the Crooked River Watershed Council in 2001 rated over half of all private rangeland in the Crooked River Watershed as low integrity due to increasing juniper density. The assessment identified three primary risks to rangelands in the watershed:
    - Continued juniper encroachment into rangeland systems
    - Reduction in forage availability for wild and domestic ungulates due to juniper encroachment
    - Expansion of noxious weeds

3. Crooked River Agricultural Water Quality Management Area Plan, developed by the Oregon Department of Agriculture and the Crook County Soil and Water Conservation District, identifies juniper expansion as a threat to water quality and watershed health. This plan recommends the active control of juniper expansion and suggests management options to contribute to healthy uplands including:
    - Thinning of overstocked stands of trees, including juniper
    - Controlled burning
    - Seeding of perennial grass plants
    - Control of noxious weeds
    - Construction of well designed off-stream water impoundments to improve livestock distribution and decrease negative riparian vegetation impacts

4. The Brothers/LaPine Resource Management Plan, produced by the Bureau of Land Management provides a framework for resource management on BLM lands within the Brothers/LaPine planning area. Resource management activities were selected on the basis of input from public meetings and comments made through correspondence, contacts with local governments, input from user groups, and staff discussions and include western juniper control projects and prescribed fire to reduce fuel loads and improve wildlife habitat conditions.

Approach

The planned approach is to lead a coordinated inter-organizational process to basically identify, develop, and implement high-value projects that address the goals of those participating. We conduct outreach to our existing partners who collectively represent the diverse interests across the Crooked River watershed. We will also attempt to expand this list of partners where needed to address any oversight to inclusion.

At times certain types or locations of proposed projects are not uniformly supported by this diverse range of interests so additional effort will be made to create a forum or process that effectively addresses concerns expressed about a specific project or project location. The Council will continue to avoid policy issues but rather focus on how to fund and implement projects on-the-ground that can be widely supported.

On a technical level, the CRWC will utilize existing resource data available to assist in identifying priority actions and projects to be undertaken during the grant period. The Crooked River watershed has been studied and evaluated in depth through time applying the most current research tools and investigative methods available at the time of such activities. The CRWC will apply these data to reduce the potential for emotion-driven decisions, and to assist in sorting out solid, qualitative information from other information largely anecdotal or based on limited science. The CRWC adds value to this science-based information through our Oregon Department of Environmental Quality-approved water quality monitoring program that collects water column data at over 40 fixed locations across the watershed. This data set contains information for nine primary water quality parameters for each site going back to 2006.

As a way of further describing our approach to meeting watershed goals across a broad landscape, several project examples are offered that indicate how we work with others, factor in multiple project objectives, share work tasks, and provide leadership to complete important work identified by numerous organizations and private landowners. These project examples are all at varying stages of development. Some are conceptual, some have been funded, and some are in implementation stage.

One of these examples is a concurrent project that the Council has initiated and that represents the collaborative approach applied is for Conant Basin. Conant Creek drains into the Crooked River above Bowman Dam. This project addresses many of the watershed issues that have combined to undermine conditions, land productivity, water quality and quantity (timing), and habitat resilience. This multi-year project incorporates multiple agencies and organizations as partners and addresses resource issues that are priorities for their interests. The list of participating collaborators includes: four landowners, USDA-NRCS, Crooked River Weed Management Area, Oregon Department of Fish & Wildlife, US-BLM, Oregon Department of Forestry, and the Crook County Soil & Water Conservation District.

The Council has also initiated and is a key partner on a water quality & quantity project in the lower watershed. This project on private land addresses water quality by implementing an irrigation water return wetland that captures and biologically treats water to remove nutrients, chemicals, reduce water temperature and soil erosion, and increase dissolved oxygen before water is returned to the Crooked River. The project also effectively addresses water conservation as it also installs pumps and pipes to reuse return water on the farm before final release to the river. This reuse scheme cycles up to 2 cfs of water that can be reapplied to the farm. Some of this water will be used to supplement irrigation water withdrawals and increase acreage under irrigation.

A similar project is in conceptual phase at this time and will address water quality at Ochoco Irrigation District's (OID) Lytle Creek water return site as part of a current System Optimization Review (USBR). Irrigation water that flows through the Districts canal system unused or returned from farms is currently leading to water quality problems in the Crooked River when the water enters that system. This project will address water quality parameters of temperature, nutrients, dissolved oxygen, and turbidity. The Council is involved as a technical partner supplying water quality data for evaluation and effectiveness monitoring purposes. This project is currently under evaluation by a contractor for feasibility considerations.

Lastly, an example of our project development approach can be illustrated by our direct involvement with the City of Prineville's wetland project along the Crooked River. This project is in the conceptual design phase at present and will address several key limiting factors in that section of the river. First, the wetland project will address the need to dispose of treated effluent in a responsible manner by routing this water through a series of artificial wetland cells before routing in through the ground to the river as a subsurface (colder) water return. A second notable objective is to lower the current banks and levies that have constrained the Crooked River for the last 100 years in the project area allowing high seasonal flows to recapture and reconnect to floodplain areas creating unique fish and wildlife habitat that does

not exist today. The Council has enlisted many diverse partners to fulfill the broad objectives in this project, including water conservation, environmental education, recreation, vector control, and fish habitat. Our approach has been to open the planning process up to any interested party, organization, or individual so that we may address issues, concerns and opportunities in the planning stage.

The CRWC is also interested in increasing it support role to the Deschutes Habitat Conservation Planning effort. This plan is under development and has a role for the Council relative to coordinating and leading implementation of projects in the Crooked River watershed.

The Project Manager will work closely with the Council Director and Fiscal Agent to generate a final report at the conclusion of the two-year grant period. This report will address all components of the grant and meet any reporting requirements as specified in a grant agreement. This report will also include a full description with photographs or design diagrams for all project development work completed using USBR grant funds.

Duration of Grant Activities

Activities directly supported by the grant will be concluded after the two year period as per the grant requirements and considering the activities funded by the grant. Activities related to the grant objectives will continue past this date and are expected to conclude after five years, but up to 10. We can state this with full confidence in that the Council is established and has base support provided through the Oregon Watershed Enhancement Board (OWEB). The funds that are made available through OWEB are legislatively-mandated state lottery proceeds. This source of funding has been proven to be stable over a substantial time period with the only fluctuations due to variable lottery receipts year to year.

Beyond the two year grant period that will directly fund a portion of the CRWC Project Manager position associated with the same activities, the Council anticipates securing new funding sources to continue the work expressly identified in this grant.

Projects initiated at one of three levels under the grant (identification, development, and pre-implementation) will be completed as soon as five years following the initial award, and no later than 10 years. This expanded duration is mostly due to the long list of items that must be completed to fully implement a project on the ground. Securing funding for implementation is dependent on grant opportunities that align with individual projects, permitting for certain types of projects can be a lengthy process, and working with private landowners has a certain amount of variability built in due to a range of factors. Grant funds provided will be primarily

directed at project development as this is the activity we find most difficult to fund from other sources that are generally more focused on placing every dollar provided to project implementation.

Background Data

Watershed Map

A map of the Crooked River watershed is included in the Appendix, as item B, at the end of this document. The map presents the entire watershed as our service area and also places the watershed in context of the lager Deschutes River basin. Map scale and compass direction are indicated on the map along with a reference indicating its location in Oregon.

Description of the Watershed

The watershed contains 2.9 million acres and is comprised of all or parts of seven Oregon counties. Population of this rural, Central Oregon watershed is estimated at 25,500, mostly residing in Crook County's seat, the City of Prineville. Three other notable clusters of population include Powell Butte, Post, and Paulina. This is a 'working watershed' where the bulk of economic activity is associated with natural resource management. It is fundamentally unchanged over the past 80 years with a focus on primary agricultural production in the form of farming and ranching with some timber production also contributing.

There are two major dams in the watershed, Bowman and Ochoco. Both structures have U.S. Bureau of Reclamation oversight but at different levels. Combined, the irrigation water provided by two reservoirs behind the dams via Ochoco Irrigation District serves approximately 22,000 acres. Many smaller, private irrigation diversions exist throughout the watershed both above and below the two impoundments. Some of these diversions are four to six feet tall structures spanning their associated water bodies while others are pumps that directly pull water for irrigation purposes.

Water resources across the basin have been generally characterized as driven by surface flows as opposed to groundwater. While groundwater exists and has a significant influence in some areas, the geology of the watershed promotes disproportionately less groundwater. Soil mantles are generally comprised of finer textured particle sizes due to highly weathered volcanic tufts and breccias found throughout the basin. In fact, several commercial scale bentonite mines are active in the upper watershed providing further evidence of fine textured soil. Domestic water supplies at the municipal level are proved by a series of wells owned and

operated by the City of Prineville, Crook County's only incorporated city. Other development clusters are served by local private wells individually or in some combination. Water rights to surface water have all been allocated and the only reserve surface water in the watershed is the non-contracted portion held behind Prineville Reservoir. Any new water uses must be mitigated at a 1:1 ratio resulting in tight water supplies for new enterprises, residential development, or agriculture. Currently, federal legislation has been proposed and is under consideration in Washington. D.C. This legislation seeks to assign some of the non-contracted reservoir water to both irrigation and municipal uses. Current water uses include irrigation, industrial, commercial, municipal, and domestic.

Water issues currently confronting the watershed and others to emerge in the future include a desire for instream water rights or allocations to support fisheries, and the need for a secure source of additional industrial water to support a newly emerging high tech industrial complex in Prineville's industrial park. Newcomers include Facebook and Apple Computers, and companies of similar trade sectors are likely to follow. These will all drive higher water demands to meet their needs. Additionally, conflicts over the unallocated (un-contracted) portion of water in Prineville reservoir are increasing over time as those interested in fisheries resources push for ever more water to increase flows in the Crooked River through the summer low flow period. Endangered species concerns are also on the rise in the watershed as the re-introduction program brings these particular species into the basin for the first time since the mid-1960s. Farmers and ranchers have expressed concerns over what these ESA-listed fish species will mean to their own practices, incomes, and future ability to remain in production agriculture. Lastly, the Oregon Department of Environmental Quality currently lists over 30 water body reaches in the watershed as impaired under the CWA Section 303 process requiring the maintenance of a 303(d) list. Nearly all of these are listed because they exceed the temperature standard at critical times of the year for fish life history use.

With regard to interactions between water quantity and quality, the watershed tends to magnify this interplay as the natural hydrograph exhibits steep peaks and sharp declines across the water year. Water temperature, in particular, is largely influenced by velocity and flow conditions and to a lesser degree by morphology[1]. Localized groundwater in several key areas typified by changes in channel morphology or geology are important water temperature amelioration zones, as are the areas directly below the two large, bottom-release reservoirs. These areas support cool- and cold-water fisheries.

Relative to other natural resources, some of the smaller diversion structures have been or continue to be fish barriers to volitional fish movement within the system. The CRWC continues to work with irrigation districts in the watershed to address these and have reduced

the list of existing barriers from a high of 11 down to six; about half. Three of the remaining six to be addressed are in planning or design stages where the CRWC is either the lead organization or a funding source partner. The most significant of these last six is located at the bottom of the watershed at Opal Springs.

Fish species in the watershed include redband and rainbow trout, suckers, dace, and sculpins. Significant efforts and investments are being made in the watershed to reintroduce ESA-listed species vanquished from the waters in 1965 when the Pelton-Round Butte dam complex was constructed on the Deschutes River several miles below the Crooked River-Deschutes River confluence effectively blocking migration of these anadromous species.

General ecology and vegetation of the watershed can be described as primarily reflective of the Blue Mountain eco-region characterized by climatic regime experiencing winter and spring precipitation and summer drought. The vegetation of the watershed is elevation-dependent with rangelands and lower elevation sites dominated by post-settlement stands of western Juniper (*Juniperus occidentale).* Major tree species at higher elevation include Ponderosa pine (Pinus ponderosa) and mixed fir species. Shrubs in the area include big sagebrush (*Artemisia tridentata*), Antelope Bitterbursh (*Purshia tridentata*) and major perennial grasses include Bluebunch wheatgrass *(Pseudoroegneria spicata),* Bottlebrush Squirreltail (*Elymus elymoides*), Idaho fescue (*Festuca idahoensis*), Mountain Brome (*Bromus carinatus*), and Sandeberg Bluegrass (*Poa secunda*). Populations of Cheatgrass (*B. tectorum*) and Medusahead (*Taeniatherum caput-medusa*) are also present primarily on disturbed sites or where management continues to be out of line with site potential.

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[1]-"Airborne Thermal Infrared Remote Sensing, Crooked River, Oregon", 2006- Watershed Sciences, Inc.,

Letters from Partnering Organizations and Agencies

Letters included in the application from partnering organizations and agencies are included in the Appendix; item C, found at the end of this document. The list of letters received includes the following with signing official listed in parenthesis and acronym provided:

1- Ochoco Irrigation District (Kasberger)-OID
2- Portland General Electric (Lawrence)-PGE
3- North Unit Irrigation District (Britton)-NUID
4- City of Prineville (Forrester)-CoP
5- US Fish & Wildlife Service (Renner)-USFWS
6- Oregon Watershed Enhancement Board (Craiger)-OWEB

Status of Board Resolution

The CRWC will be executing a formal Board Resolution at their August 2, 2012 board meeting. This completed resolution will be delivered to the contact person listed in the grant solicitation announcement via email as soon as it is available. We request that this information be included in this proposal when received.

Evaluation Criteria Comparison

Criteria A: Watershed Group Diversity and Geographic Scope

A1. Watershed Group Diversity- The CRWC Board is comprised of diverse interests. This intentional construct recognizes the need and benefit of having different perspectives, backgrounds, experiences, and relationships directly involved with guiding the Council and its staff. A complete and current roster of board members is included in the Appendix (item D) at the end of this document. The following organizations and interests have seats specifically reserved on the Board:

-Confederated Tribes of Warm Springs, Oregon
-Oregon Department of Forestry (ODF)
-Crook County
-City of Prineville
-Federal land managers (chair split between US BLM and US Forest Service)
-Ochoco Irrigation District
-Education
-Recreation
-Conservation
-Ranching
-Irrigated agriculture
-Crook County Soil & Water Conservation District
-Oregon Department of Fish & Wildlife (ODFW)
-Private forestry
-Private landowners at large (2x)

The Board also maintains a policy supporting participation in board meetings by the general public and also invites special guest speakers to present topics of interest, propose projects, or inquire about Council activities.

In addition to the formal designated seats on the Board, the Council also has a formal partnership with three other non-profit conservation-oriented organizations in the region as part of OWEB's Special Investment Partnership. These are the Deschutes Basin Land Trust, Upper Deschutes Watershed Council, and the Deschutes River Conservancy (DRC). As a group, the four partners are charged with working together in the larger Deschutes River basin and its' major tributaries to implement projects that directly support the fish reintroduction program led by Portland General Electric and the Confederated Tribes of Warm Springs as part of their FERC license for Pelton-Round Butte hydroelectric facilities on the Deschutes River.

Additionally, the Council leads a landowner workgroup for McKay Creek. This workgroup is assigned the role of assisting the Council in developing a restoration strategy on McKay Creek that includes water quantity issues. On a related project, the Council also partners with Deschutes River Conservancy and Ochoco Irrigation District on the McKay Water Switch Project which will convert direct, individual private diversions from McKay Creek to an Ochoco Irrigation District water right. This important project will potentially pipe water for delivery from the District to these irrigators so that their current withdrawals can be left instream as a dedicated instream right under Oregon water resource regulations.

A2. Geographic Scope- As mentioned briefly in prior sections, the Council has a service area equal to the geographic boundary defined by the Crooked River watershed. This boundary includes parts of seven Oregon counties and Crook County in its' entirety. The six other counties are Harney, Lake, Grant, Wheeler, Jefferson, and Deschutes.

The watershed is generally split into two somewhat equal parts relative to size distinguished by the two major dams in the watershed. The Lower Crooked area is located below both Ochoco and Bowman dams, while the Upper Crooked watershed is defined as those areas above the same two structures. This distinction also follows the development and land use patterns in the watershed whereby the lower area is more urbanized and has more acres of irrigated agriculture. The upper area is primarily ranching country and much more rural with larger tracts under private ownership. About 95% of the population in Crook County resides in the lower watershed. The Council maintains, to the degree we have willing landowners, a balance between upper and lower watershed area projects over time.

A3. Increasing/Establishing Diversity or Geographic Scope- Relative to increasing the diversity of partners and landowners actively engaged in on-going work in coordination with the CRWC, the Council is pursuing the development of a lower Crooked River Workgroup similar to McKay, but with a different set of issues to address. In this case, landowners in these reaches below

Prineville have a desire to implement land conservation projects that protect their on farm investments from seasonally high flows that erode streambanks, undermine infrastructure and sweep fencing down river.

In terms if scope, at this time the Council is not pursuing an increase in our geographic scope. This is primarily because the complexity associated with taking this action. Our organizational charter does not contemplate an expansion in our scope (service area) and it would be challenging to make this type of change.

The one, albeit remote, opportunity to expand our scope would be to temporarily administer the designated OWEB watershed council area in the Middle Deschutes. This council has been vacated by OWEB administratively for performance reasons. This geographic area is immediately north of our geographic area and is contiguous to our service area. It is highly unlikely that the CRWC would increase its' geographic scope in this manner.

Criteria B: Addressing Critical Watershed Needs

B1. Critical Watershed Needs or Issues- The CRWC addresses the most critical needs in the watershed by applying a priority system of evaluation accounting for restoration needs, water quality impacts as defined by water quality data, external funding source interests and focus, project priorities as identified by partner agencies, and internal capacity within the CRWC. Internal capacity is often the most limiting factor of these parameters and it is for this reason that the CRWC is applying for this particular grant. This grant opportunity addresses this limiting factor by acknowledging watershed groups challenge with funding project development and management.

Critical watershed needs in the Crooked River can be generally listed, in no specific order, as:

1- Fish habitat; passage, diversity of habitat features, and cold-water refugia sites,
2- Western juniper encroachment in rangeland areas; both water quality and quantity are negatively impacted by this unnatural expansion, as well as reduction in site productivity due to competition,
3- Infrastructure protection,
4- Water quality and quantity,
5- Fish screening of irrigation diversions, and
6- Social awareness levels related to water use.

At a higher level of detail and with more specificity, the additional biological, ecological, and morphological constraints that limit watershed potential include the following list with conceptual remedies included to provide a sense of potential types of projects that could be applied:

A) Water quality- Improving watershed capture, storage, and safe release of precipitation will reduce surface erosion and thereby reduce sediment inputs. Improving infiltration and moisture storage within the watershed will lengthen the period of subsurface cool water inputs into receiving waters, potentially reducing stream temperatures in the Crooked River watershed. Improved livestock distribution associated with off stream water development and CREP program implementation will reduce direct impacts on stream channels and riparian vegetation which can positively influence water quality in terms of temperature, sedimentation, and bacteria.

B) Water quantity- Natural late season flows throughout the watershed may be increased as a result of juniper control work, wetland developments, reconnecting floodplains, and improved vegetative conditions in the upper watershed. Increased infiltration and slower overland flow rates will flatten the peak of the hydrograph and keep water in the watershed longer thereby increasing late season flows.

C) Water storage- Increasing infiltration capacity will increase water storage. Rapid run off during spring melt or rainfall typical under degraded watershed conditions and function prevents water storage within the watershed. Western juniper densities also impact how much water is available to subsurface contribution.

D) Sediment generation and transport- Reduced overland flow associated with improved infiltration will reduce surface erosion and sediment transport. In addition, placement of wood instream and in riparian floodplain areas will decrease sediment transport and promote localized sediment deposition. This deposition can act to refresh fish habitat relative to spawning.

E) Floodplain connectivity & stream complexity- Instream wood placement and the restoration of historic channels will improve floodplain connectivity and hydrologic function of floodplain areas creating a diversity of habitats and adding roughness throughout the entire watershed, and storing water in associated hyporheic zones.

B2. Contributions that Address Watershed Needs or Issues- The CRWC plans to address identified watershed needs by leveraging both technical and financial resources internal and external to the Council to complete priority projects in a timely meaningful manner. This is not unfamiliar to this existing watershed group (CRWC) as this is the approach we have utilized since our inception in 1994. This method works well as it does not overly rely on any single entity to carry the full burden of developing and implementing projects. The Council typically leads or at least coordinates these collaborative efforts and we have a long track record of success.

The way we work with diverse interests and our level of trust with the community we serve in the watershed uniquely positions the CRWC to broach delicate issues that some of our project partners may be in disagreement. We act as a social bridge in many cases where relationships either do not exist or are damaged by historical events. An example can be drawn for a project that involves private landowners and Oregon Department of Fish & Wildlife to screen an irrigation diversion. Due to distrust between the parties, it is likely the screen project would not progress without the CRWC facilitating the relationship and being an active partner in the project.

More specific to the list of resource issues presented in the FOA, the CRWC will address water conservation by pursuing projects that generate a water savings and do not impact agricultural production potential. We address water quality projects in a similar manner in that we identify needs and potential improvements within a priority scheme that emphasizes the best return on investment and addresses the most pressing issue(s). Often times, a project that addresses water quantity will also benefit water quality. For these elements the Council typically attempts to design projects that reroute more water into the subsurface creating additional late season flow and providing a cooling mechanism to reduce temperature. Examples include projects that develop wetland features, reclaim side channels, recharge hyporheic zones, or increase infiltration rates of upland sites. Invasive weed management, while typically not extensive, can also increase water quantity and quality by removing undesirable vegetation that uses water and decreases soil cover. We currently have several projects in conceptual phase that meet one of more of these elements. Where appropriate and supported by the landowner, we also promote the re-introduction of American beaver to hold back more water and encourage subsurface recharge.

We address water source resiliency in several ways depending on the site and specific opportunities presented. For smaller scale projects we will propose fencing off source from livestock and wildlife use and using a piped delivery system and associated trough(s) to control animal access and damage. For larger scale projects, we may redesign the delivery system

completely, typically modernizing features that have led to exposure and vulnerability. These can be more costly and require more resources to complete. These also have a much more rigorous permitting process. We also investigate the base causes for the sources problems and address them as part of the project. For example, we might facilitate a new management plan for the uplands around a primary source so that land management does not undermine the benefits provided by the source.

Reducing the potential for water conflicts is the most challenging work we do and our role is usually one of moderator. We find ourselves facilitating conversations between opposing viewpoints and providing a forum for exchange of ideas and concerns. While we try hard to stay out of politics, we sometimes get pulled into water conflict issues due to our reputation as watershed managers and caretakers. Often we try to find common ground, work on those elements of a project that are less controversial and leave the most difficult components for later when perhaps the relationships have matured and improved between all the participants.

One other aspect that is not part of this grant or projects is education. The CRWC has an active watershed education program that serves students in the community at all grade levels. This investment in social fabric has longer term returns relative to improved understanding and appreciation for water issues at large. We continue to conduct classroom presentations, workshops, media releases, and updates to our website for water quality data to increase watershed education and awareness. No part of any USBR WaterSMART grant funds will be used to support this activity.

Criteria C: Implementation Results

C1. Project Planning- As stated in previous sections, the CRWC relies on several key guidance plans and documents. Chief among these are the Oregon Department of Agriculture's Water Quality Area Management Plans. For the Crooked River, this plan was first completed in 2010 with biennial reviews and revisions scheduled. These plans address non-point sources of water pollution attributed to agriculture as a sector in Oregon. In concert with this overarching plan, the CRWC also utilizes ODEQ's 303(d) list of impaired water bodies, our won Crooked River Watershed Assessment (CRWC 2001), and current data generated by PGE's fish habitat surveys. Other information consulted when available includes ODFW stream and fish survey data.

C2. Readiness to Proceed- For the proposed two-year grant period, the CRWC plans to follow this schedule for major activities identified:

Activity	Start Date	Completion Date	Duration (months)
Compile existing and current watershed needs data	October 1, 2012	February 1, 2013	5
Project identification (list of potential projects)	February 1, 2013	June 1, 2013	4
Project development activities	June 1, 2013	September 30, 2014	15
Project permitting applications submitted	July1, 2014*	September 30, 2014*	3

*- Note some overlap between activities as individual projects are expected to progress at different rates.

There are no major difficulties anticipated in implementing this schedule. Minor difficulties could emerge in the form of design work completion time frames. All project development activities supported by this grant will include activities associated with project priority evaluation, landowner outreach, collaborating partners coordination, project design, grant application development, and permitting applications.

Previous collaborative work by CRWC is presented in this summary list of activities and outcomes also indentifying key collaborators (if applicable):

1- CRWC has developed the McKay Creek Workgroup to evaluate needs of the McKay Creek watershed and propose a list of priority projects. Key partners are US Forest Service, ODFW, DRC, and 10 private landowners.

2- OWEB's Deschutes Special Investment Partnership that includes the CRWC as one of four formal members, works together to coordinate basin-wide projects. This coordination means (and value is derived from) that one of the four members will take the lead on a specific project depending on type and location. For example, most water conservation projects are directed to the DRC as this type of work is their specialty and their staff and board have extensive experience in this arena.

3- The CRWC is part of the Deschutes Habitat Conservation Plan development group and while not a founding member, in a coordinated manner the CRWC will be assigned the lead role in implementing projects in the Crooked River watershed where appropriate and acceptable.

4- The Council is also a collaborator on the City of Prineville's wetland project along the Crooked River. We are assisting with project coordination, landowner recruitment and agency outreach, expansion of public involvement, and designs. Beyond the City of Prineville, other important collaborators on this project include ODFW, USFWS, ODEQ, Crook County Vector Control Agency, and Crook County School District.

5- For the Conant Creek watershed restoration project, the CRWC has collaborated with the USDA-NRCS, US Forest Service, ODF, Crook County Soil & Water Conservation District, Crook County Weed Management Area, and four private landowners to propose, design, and fund a comprehensive plan that addresses both instream habitat needs and upland conditions. Both water quality and quantity are expected to improve following completion scheduled for 2014.

Criteria D: Watershed Group/Landscape Conservation Cooperatives (LCC)

D1. Active Participation in an LCC- the CRWC is not currently a formal member of an LCC in our region. While our mission and goals line up completely with such groups, we also have some local and unique perspectives that may have precluded a formal application to such collaborations. For example, global warming is not an issue the CRWC will ever address to any meaningful level and little to no consideration is given to these issues in our project planning. For some design work and where applicable to a project, forecasted water levels are used that factor indirectly the effects of global warming.

Our focus has always been and remains to work with private landowners on projects implemented on their lands that address our mission statement and comprehensive watershed health. We attempt to add resiliency to the system so that regardless of disturbance level or form of disturbance, the watershed will be in a condition that allows it to hold together and not be tipped over a theoretical threshold that would not allow full recovery.

D2. Direct Relationship to an LCC- As mentioned above, the CRWC has no direct relationship to an LCC. This lack of a direct relationship should not detract from the long list of project successes we have experienced in the past and will experience in the future. We concentrate

on improving our 2.9 million acre service area while leaving the larger region of several hundred million acres to larger, more financially supported organizations.

We quietly make our contributions at the watershed scale and focus on just the Crooked River within the context of the entire Deshutes Basin, meaning we coordinate work with inter-basin counterparts and other like-minded organizations but rarely, if ever, stray beyond the geographic confines of the Crooked River watershed first and the Deschutes River watershed second.

D3. Goals of Watershed Group Complementary to LCC Goals or Activities- Complementary goals of the Great Northern LCC that overlaps our service area include a basic need for the best scientific information and research results available and the desire to apply adaptive management philosophies to natural resource management. At a higher level of detail, the common issues we are addressing include fragmented habitat, water use in drought years, ecosystem resiliency, and best conservation practices for private landowners. Watershed health and function are also clearly complementary to the efforts of the Great Northern LCC.

Potential Environmental Impacts

This project proposal will not create any environmental impacts because the funds are used to support an expansion of projects developed over the next two years rather than implementing any direct ground-disturbing activities. The work completed with these funds will ultimately lead to on-the-ground projects and some level of associated disturbance, but the intent is to address natural resource issues to improve them. Much like removing a dam, there will be short term impacts that must be traded to meet long term restoration and improvement objectives. Any impacts associated with project implementation and directly related back to projects developed with grant funds will have to go through the conventional permitting, review, and compliance requirements, including any stipulated mitigation identified by regulatory agencies.

Environmental and Regulatory Compliance

This section follows in detail the information requested in the FOA. As this proposal focuses solely on project development up to the point of permit application (pre-implementation activities), no ground-disturbing activities are contemplated or expected. The CRWC provides the following responses to the environmental and regulatory screening questions posed in the grant solicitation materials.

1) Will the proposed activities impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

CRWC Response- Under project development activities no ground disturbance is anticipated to occur. Surveys that support project design are the most likely to create any disturbance at all, but it is expected that surveying work will only have very minor, if any, impact on animal habitat, air, or water resources. We could minimize any potential impact by scheduling these activities appropriate to the habitat needs and species preference for time of use.

2) Are you aware of any endangered or threatened species in the work area? If so, would they be affected by any activities associated with the proposed work?

CRWC Response- There are several listed species that reside either full time or part time in the Crooked River watershed. Notably, fish species Chinook salmon, steelhead, and bull trout inhabit waters in the Crooked River watershed. There are no proposed activities in this application that are expected to affect these fish species. Upland species listed will not be affected by any activities proposed in this application. Reviews and clearances will be requested in the future for implementation of any projects developed with these funds.

3) Are there wetlands inside the project boundaries? If so, please estimate how many acres of wetlands there are and describe any impact the proposed activities will have on the wetlands.

CRWC Response- There are approximately 12,000 acres of classified wetlands in the Crooked River watershed. None of these are targeted for work in our priority system. In fact, several of our projects that are in conceptual phase will actually increase wetland acre totals by adding artificial and mitigation wetlands to the inventory. Some projects that increase and improve riparian habitat in strips may also create or recreate wetlands.

4) Are there any known archeological sites in the proposed work area?

CRWC Response- No. There are no known archaeological sites within any proposed work areas under this proposal. All completed project designs will be submitted for review through the conventional permitting system which includes a review of NAGPRA, SHPO, and NHPA issues for compliance and mitigation purposes.

5) Will the proposed activities result in any modification of, or effects to, individual features of a water delivery system (e.g., headgates, canals)?

CRWC Response- No. This proposal does not include project implementation that will modify any physical features of irrigation delivery systems.

6) If you answered yes to the previous question: N/A

(a) State when those features were constructed and describe the nature and timing of any alterations or modifications to those features.

(b) Are any buildings, structures, or features in the area of the proposed listed or eligible for listing on the National Register of Historic Places? The local State Historic Preservation Office can assist in answering this question.

(c) Are there any known archeological sites in the area of the proposed project? Would they be affected by any activities associated with the planned work? The State Historic Preservation Office can assist in answering this question.

Required Permits or Approvals

As the CRWC is currently only applying for Phase I, Task B funding through this solicitation, permitting and environmental compliance does not directly apply to the activities proposed. We are obligated and committed to seek and secure all the applicable and appropriate permits, local land use approvals, and any other pertinent clearances before implementing any project that would derive or be related to activities funded by this grant, including necessary landowner agreements for projects occurring on private property. If any project identified or developed under this grant moves to implementation, the Council is committed to securing all the applicable permits and approval prior to on-the-ground work.

Funding Plan

BUDGET TABLE-Summary of Non-Federal and Federal Funding Sources.

Funding Sources	Funding Amount
Non-Federal Entities	
1. Oregon Watershed Enhancement Board (OWEB)	$40,500
2. Crooked River Watershed Council (CRWC)	$3,800
3. Oregon Community Foundation (OCF)	$2,244
Non-Federal Subtotal:	$46,544
Other Federal Entities	0
Other Federal Subtotal:	0
Requested Reclamation Funding:	$39,500
Total Project Funding:	$86,044

Budget Proposal

Narrative

Our proposed budget (details in table below) represents a relatively simple request under this grant solicitation in that we are not requesting support from USBR-WaterSMART for items and activities necessary to fully implement projects on the ground, but rather we are requesting (and matching up with other) funds to meet our specific needs of project development excluding equipment and indirect costs. These will be borne by the CRWC utilizing other capacity support funding in place, or do not fully apply for a Phase I application.

Salaries and wages will be split between USBR grant funds and funds provided to the applicant by OWEB for project pre-implementation. Combined, these two sources of funds will provide the necessary support and fill funding gaps currently preventing the Council from expanding its' output as defined by projects completed over a specific time.

Fringe benefits for the Project Manager position will be borne by the grant and backfilled when necessary by applicant funds in hand. Vacation and sick leave will be supported by the

applicant, while insurance costs at a flat rate of $200 per month will be funded by the USBR WaterSMART grant.

Travel costs cannot be attributed to single events as indicated in the budget table template provided, although we have identified $800 total for travel support to and from potential project sites over the two year period. This total will be used to cover costs to our existing vehicle at the current approved federal mileage rate of $0.55 per mile.

Supplies and materials will be addressed by applicant funding secured through other sources. Grant funds and donations will cover these expenses that support the office supply needs of the position.

Reporting obligations under this grant will be fulfilled by the Project Manager assigned the primary role of leading the watershed expansion relative to work plan details. Grant reporting hours necessary will be covered by and are contained in the total hours for this position over the two year period. Any additional reporting required and not directly covered by the Project Manager will be backfilled by the CRWC Director who ultimately provides all administration oversight and management of the Council.

No Indirect Costs are requested as the CRWC has no approved indirect rate to apply. These actual costs will be absorbed by the CRWC as part of the overall total indirect costs associated with administering and supporting a watershed group. For example, the Council will have the same electricity bill each month with or without this grant award. We declined to include these values in the budget as they would likely have a confounding rather than clarifying effect.

BUDGET PROPOSAL- Crooked River Watershed Council Expansion

BUDGET ITEM DESCRIPTION	COMPUTATION		RECIPIENT FUNDING	RECLAMATION FUNDING	OTHER FEDERAL FUNDING	TOTAL COST
	$/Unit and (Unit)	Quantity				
SALARIES AND WAGES						
Employee FTE (Garry Sanders)	$30/hour (hours)	2673 hours	$45,500	$34,700	0	$80,200
FRINGE BENEFITS	$200/month (flat contribution)	24 months		$4,800	0	$4,800
TRAVEL	$0.55/mile (miles)	1454 miles	$800			$800
SUPPLIES/MATERIALS						
Office supplies			$244			$244
TOTAL DIRECT COSTS			$46,544	$39,500	0	$86,044
INDIRECT COSTS - _0_%						0
TOTAL PROJECT COSTS						$86,044

[1]Environmental and regulatory compliance should be at least 1percent unless a justification is provided for a lesser amount.

Funding Restrictions

There are no known restrictions on any of the funds provided by the applicant to complete the work described in this proposal with the exception of the standard grant agreement restrictions related to funding sources like OWEB. In the case of OWEB funds, restrictions are confined to timing of work completed as no funds can be expended on activities that occurred prior to a grant agreement signature, and implementation funds cannot be used for project development of a different project. Other funds, such as those identified from Oregon Community Fund donations to the CRWC are not restricted and are intended to support similar capacity building at the Council to promote expanded productivity.

Appendix

(The items listed below can be found on following pages)

A- Crooked River Watershed Council Charter containing the organization's Mission Statement

B- Map of the Crooked River Watershed, Crook County, Oregon
(map image can be expanded for viewing by dragging the lower right corner)

C- Copies of Support Letters Received

D- CRWC Board Membership List