



THE CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON

BRANCH OF NATURAL RESOURCES

P.O. Box C, Warm Springs, Oregon 97761

October 10, 2014

Oregon Watershed Enhancement Board
775 Summer Street NE, Suite 360
Salem OR 97301-1290

Dear OWEB Board Members and Staff:

The Confederated Tribes of the Warm Springs Reservation of Oregon is submitting this letter to provide input for the OWEB Board Priority Consideration for the Focused Investment Partnership Program. The Tribes are proposing the OWEB Board select the John Day Basin, and its cold-water salmonid habitat as a Priority. The Basin supports the strongest wild runs of spring Chinook salmon (*O. tshawytscha*) and summer steelhead (*O. mykiss*) in the Columbia River Basin, and the John Day River is the third longest free-flowing river in the continental United States. Its spring Chinook salmon and summer steelhead populations are two of the last remaining intact wild populations in the Columbia River Basin.

The Tribes have been working with a long list of partners for the past twenty years to protect and restore this important aquatic resource. This collaborative work has resulted in the removal and improvement of passage barriers, the restoration of critical spawning and rearing habitat, the protection of dozens stream miles of tributary habitat, the conservation of stream flow through irrigation delivery canal piping and flow measurement devices, and the improvement of water quality through riparian planting and irrigation return flow projects. As a Focused Investment Partnership through OWEB the Tribes and their partners feel confident that they can increase this important collaborative effort and continue to build upon these measurable outcomes that will result in self-sustaining stocks of salmon, steelhead, bull trout, and Pacific lamprey within the John Day Basin. The outcomes will include the removal of the remaining significant passage barriers, the restoration and protection of core cold-water habitats in the upper reaches of the basin, and the restoration of stream flow through these critical reaches. These outcomes will be achieved while striving to strike a balance between rural agricultural values and communities within the Basin along with those of the ecological systems that support these iconic runs of anadromous fish.

It is important to include a large geographic area within the scope of this Focused Investment because the native salmonids of the John Day Basin have evolved with different and diverse life history requirements to survive and persist in the arid landscapes of the Columbia Plateau and Blue Mountain Eco regions. For example, studies in the basin have documented juvenile spring Chinook rearing in streams to find thermal refuge during the warm summer period miles from their origin on the spawning grounds upstream. Mid-Columbia summer steelhead range

throughout the basin, but due to variable stream flows may only be able to only rear in locations where base streams flows are present. These dynamic movements contribute to the spatial population structure that has allowed this species to persist through time during both wet and dry climatic cycles. A restoration and recovery strategy that acknowledges this ecological diversity, while providing a robust focused investment in paramount to successful outcomes. The proposed Focused Investment Partnership will allow for some opportunistic actions to accommodate these diverse biological needs while implementing a long-term strategic action plan that aims to protect and restore process and function in core cold-water strongholds that result in both immediate and lasting improvements in the habitat that will both increase abundance and productivity.

A Focused Investment in the John Day Basin is important to the State of Oregon for several reasons:

First, it will continue to maintain and execute the values of the Oregon Plan for Salmon and Watersheds initiated by Governor John Kitzhaber in 1997 by working to strike a balance between what are often the opposing values of agriculture and salmon recovery in eastern Oregon. The Tribes feel strongly that recovery of this important watershed can only be achieved when harmony is reached between these values. Currently, the Tribes are striving to lead by example and have initiated a riparian grazing program and monitoring study on their critical recovery lands in the upper mainstem John Day River near Prairie City. This program will demonstrate that valuable forage within a connected, dynamic floodplain environment can be utilized by ranchers, and yet still allow for appropriate floodplain revegetation, structural recovery, and stream channel migration that accommodates the needs for the salmonid lifecycle. The Tribes feel a Focused Investment Partnership will allow for growth of this program in a larger spatial context resulting higher production and survival of salmonids along with a river corridor that is more resilient to the erosive and destructive power of floods.

Second, the landscape of the John Day Basin is comprised of large blocks of both private and public lands. Due to the diversity in spatial structure and life history requirements of the salmonids in the Basin mentioned earlier it is imperative that ecological restoration crosses these political boundaries to address the needs of all the species and the watershed. To achieve this the Tribes feel a Focused Investment Partnership in the John Day Basin will continue the consistency set forth in the Oregon Plan for Salmon and Watersheds by relying on the strong spirit of volunteerism and stewardship present in the Basin by landowners who have opened their properties to restoration actions that are based on a balance of the local values. Our partners with local Soil and Water Conservation Districts, Watershed Councils, and non-profit groups are already successfully working with landowners across the Basin. Restoration and recovery within core cold-water habitats will simply not be possible without the voluntary support of local landowners.

Third, it has been widely shown that funds spent to implement restoration of habitat and watersheds provide a direct positive impact to the economy in small rural communities through both job creation and procurement of local goods and services. In an era of closing saw mills, declining employment opportunity, and reduced public funding it is important to develop a Focused Investment in the John Day Basin not only to protect and recover some of the last remaining wild salmon and steelhead populations significant to the State, but to help boost and reinvigorate the local economic engines of the small rural communities during at a time when

they need it the most. As an indirect benefit the Tribes feel this economic boost will only add positive feedback to the thought that healthy watersheds equal healthy communities. Additionally a healthy watershed that is more resilient to large-scale wildfire and harbors improved wildlife and fish populations can add to increased tourism and recreational economic inputs to the community.

There have been multiple planning efforts in the basin and the proposed priority fits into the regional plans and priorities listed in Table #1, specifically the Oregon Plan for Salmon and Watersheds, the Mid-Columbia Steelhead Recovery Plan, and the NPCC John Day Subbasin Plan. Not only do the listed plans and assessments identify species concerns, limiting factors, and priorities for restoration in the basin, but the Tribes are also finalizing our own Restoration Strategy based on existing information to guide our work and funding throughout the John Day Basin.

Table #1—Regional Plans and Priorities

Entire John Day Basin	
Oregon Plan for Salmon and Watersheds	ODFW Oregon Conservation Strategy
NMFS Mid-Columbia Steelhead Recovery Plan	Oregon Governors priorities
NPCC John Day Subbasin Plan	ODFW Native Fish Conservation Priorities
NMFS Bull Trout Recovery Plan	OWRD Integrated Water Resources Strategy
Federal Columbia River Power System BioOp	ODFW Oregon Mule Deer Initiative
U.S. Forest Service Aquatic Restoration Strategy	DEQ John Day River Basin Total Maximum Daily Load and Water Quality Management Plan
U.S. Forest Service Pacific NW Region Aquatic Restoration Strategy	ODF State Forest Assessment and Resource Strategy
USFWS Habitat Focus Areas	Whole Watersheds Restoration Initiative
Spirit of the Salmon	The Nature Conservancy Eco regional Priorities
Upper John Day	Middle Fork
Upper John Day Tributary Assessment	Camp Creek Action Plan
Instream Flow Assessment Selected Stream Segments-John Day and Middle Fork John Day River Sub-basins	Instream Flow Assessment Selected Stream Segments-John Day and Middle Fork John Day River Sub-basins
John Day Basin Flow Restoration Strategy	USDA North/Middle Forks of the John Day River Agricultural Water Quality Management Area Plan
Upper Mainstem and South Fork John Day River Agricultural Water Quality Management Area Plan	North and Middle Fork John Day River 7th Field Restoration Prioritization
Lower John Day	North Fork
Mountain Creek Watershed Assessment	USFS Wall Creek Action Plan
Rock Creek Assessment	USFS Granite Creek Action Plan
Thirtymile Assessment	Desolation Meadow Restoration Analysis
Hay Creek Assessment	North/Middle Forks of the John Day River Agricultural Water Quality Management Area Plan
Butte Creek Assessment	North and Middle Fork John Day River 7th Field Restoration Prioritization
Lower John Day River Agricultural Water Quality Management Area Plan	Fox Creek Assessment
Bridge Creek Assessment	Clear Creek Watershed Restoration Action Plan

Table #1—Regional Plans and Priorities

South Fork	
South Fork Aquatic Invertebrate Monitoring	Upper South Fork of the John Day River Watershed Assessment
USDA Upper Mainstem and South Fork John Day River Agricultural Water Quality Management Area Plan	

Salmonid populations in the John Day Basin have clearly defined ecological limiting factors that relate to the proposed priority and are clearly outlined in basin recovery plans. These include:

1. **Degraded floodplain connectivity and function:** Loss, impairment or degradation of floodplain connectivity; access to previously available habitats (seasonal wetlands, off channel habitat, side channels); and a connected and functional hypohetic zone. Includes reduced overwinter habitat and channel habitat. *Life stages affected:* egg-to-smolt survival, smolt migration, adult migration, pre-spawning.
2. **Degraded channel structure and complexity:** Loss, impairment or degradation of channels; a suitable distribution of riffles and functional pools; functional amounts and sizes of large woody debris or other channel structure. Includes reduced summer rearing habitat, degraded spawning habitat, reduced diversity and structure (wood, boulders, etc.), inadequate quantity or depth of pools, loss of side and braided channels. *Life stages affected:* egg-to-smolt survival, smolt migration, adult migration, pre-spawning.
3. **Degraded riparian areas and large woody debris recruitment:** Loss, degradation or impairment of riparian conditions important for production of food organisms and organic material, shading, bank stabilizing by roots, nutrient and chemical mediation, control of surface erosion, and production of large-sized woody material. *Life stages affected:* egg-to-smolt survival, smolt migration, adult migration, pre-spawning.
4. **Altered hydrologic processes:** Changes in the hydrograph that alter the natural pattern of flows over the seasons, causing inadequate flow, scouring flow, or other flow conditions that inhibit the development and survival of salmonids. *Life stages affected:* egg-to-smolt survival, smolt migration, adult migration, pre-spawning.
5. **Degraded water quality:** Degraded or impaired water quality due to abnormal temperature, or levels of suspended fine sediment, dissolved oxygen, nutrients from agricultural runoff, heavy metals, pesticides, herbicides and other contaminants (toxics). *Life stages affected:* egg-to-smolt survival, smolt migration, adult migration, prespawning.
6. **Altered sediment routing:** Altered sediment routing leading to an overabundance of fine-grained sediments, excess of course-grained sediments, inadequate course-grained sediments and/or contaminated sediment. Includes excessive fine sediment that reduces spawning gravel or increases embeddedness. *Life stages affected:* egg-to-parr survival.
7. **Impaired fish passage:** The total or partial human-caused blockage to previously accessible habitat that eliminates or decreases migration ability or alters the range of

conditions under which migration is possible. This may include seasonal or periodic total migration blockage. Includes dams, culverts, seasonal push-up dams, unscreened diversions, and entrainment in irrigation diversions. *Life stages affected*: smolt migration, adult migration, and juvenile upstream migration due to thermal blockage or water availability.

Existing threats to the proposed priority include both human action and natural events that contribute the above listed limiting factors. Historic land use in the John Day Basin has long been recognized as a threat to salmonids in the basin. Habitat degradation in cold-water tributaries is a key concern to salmonid population recovery. From *Oregon's Middle Columbia Steelhead Conservation and Recovery Plan*; “steelhead have been adversely affected by modified and reduced stream flows, impaired water quality due to elevated water temperatures and agricultural chemicals, impaired upstream and downstream fish passage, degraded channel structure and complexity (including riffles, pools and large woody debris), loss of riparian vegetation, reduced floodplain connectivity, and excessive levels of fine sediments caused by altered sediment routing. Threats contributing to these factors include agricultural, forestry and grazing practices that negatively impact steelhead growth and survival, dams and other barriers, water withdrawals, roads and channel manipulations. The Mid-C Expert Panel identified land use as having the most key concerns of any of the threat categories because, for most populations, the greatest impairment to viability has resulted from changes to the tributary spawning, rearing, and migration habitats.”

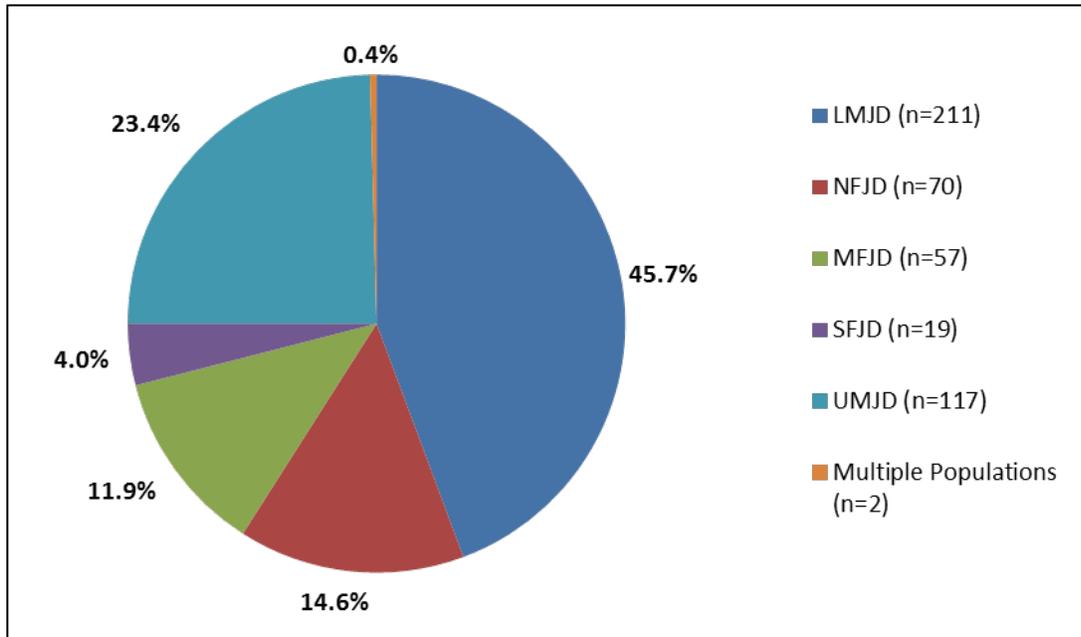
Climate change is expected to increase the loss and degradation of salmonid habitat and have profound effects on cold-water species of freshwater fish. The factors already impacted by land use such as increased temperature and low summer stream flows are expected to pose significant threats to salmonid viability. A. Ruesch et al. 2012 specifically modeled climate change impacts to the John Day River system and noted that, “the spatial distribution of stream temperature extremes during summers from 1993 through 2009 was largely governed by solar radiation and inter-annual extremes of air temperature. For a moderate climate change scenario, estimated declines by 2100 in the volume of habitat for Chinook salmon, rainbow trout, and bull trout were 69–95%, 51–87%, and 86–100%, respectively. Although some restoration strategies may be able to offset these projected effects, such forecasts point to how and where restoration and management efforts might focus.” Oregon’s Middle Columbia Steelhead Conservation and Recovery Plan identifies climate change as a limiting factor that will “alter environmental conditions across the entire life cycle for all life stages of Oregon’s Mid-Columbia River steelhead”. A climate change potential vulnerability risk index for Mid-Columbia River steelhead was developed from springtime water availability change risk, summer temperature change risk, and historical variation in precipitation, and calculated at the 6th field hydrologic unit level. All of the 6th field HUCs within the North Fork John Day, Middle Fork John Day, and Upper Mainstem John Day summer steelhead population areas and most of the 6th field HUCs within the Lower Mainstem John Day summer steelhead population area are rated moderate to high risk for climate change vulnerability (Figure 8-25, Carmichael and Taylor 2010). Natural threats such as climate change make the cold-water salmonid habitat refugia in the John Day Basin a critical need for restoration and a Focused Investment.

Table #2—John Day Basin Completed Habitat Protection and Restoration Activities, 2010-2012

Metric Estimates	Value
Total number of activities completed	476
Total number of implementing entities	1,714
Total land acquisition acres [permanent conservation easement]	5,101
Total miles of fish habitat made accessible (# barriers addressed)	570 (95)
Total fish screens installed on diversions (water flow, cfs, screened)	88 (173)
Total # of irrigation systems improved	19
Total streamflow (cfs) conserved or protected (stream miles protected)	83 (32)
Total instream miles treated for channel structure/complexity	71
Total riparian acres treated or protected	4,579
Total wetland acres treated	993
Total upland acres treated	63,606
Estimated Total Implementation Costs (minimum)	\$18.5 M

The John Day Basin has been a focus of work for several decades. The ODFW Mid-Columbia Steelhead Recovery Plan Implementation Coordinator has summarized the estimated John Day River Basin habitat restoration and protection activities completed during calendar years 2010 – 2012 in Table #2 and Figure #1. *Data source: ODFW as queried/received from BPA's Columbia Basin Fish and Wildlife Program Habitat Metrics Online Reporting Tool, Oregon Watershed Restoration Inventory (OWRI) Database and Land Acquisition Datasets, USDA Forest Service ARBO Project Database, Oregon Governor's Fund for the Environment website, Pacific Power Blue Sky Habitat Program website, The Conservation Registry Online Database, and American Rivers Dam Removal Online Mapping Tool*

Figure 1 Percent of total habitat restoration and protection projects completed within each John Day River Basin summer steelhead population area during calendar years 2010 – 2012 (n=476). LMJD = Lower Mainstem John Day population; NFJD = North Fork John Day population; MFJD = Middle Fork John Day population; SFJD = South Fork John Day population; UMJD = Upper Mainstem John Day population. Multiple populations represent projects that spanned more than one John Day summer steelhead population area. Source listed above.



This proposed Focused Investment Partnership will be centered around the core cold-water habitats in the upper reaches of the North, Middle, and Mainstem sub watersheds of the Basin along with select stronghold areas in the highly productive steelhead streams of the lower John Day sub watershed. The measures of ecological success will be tiered to a “protect and restore” philosophy where the Focused Investment Partnership will work collaboratively with existing programs like the Tribes John Day Watershed Restoration Program, ODFW’s Passage and Screening Program, ODFW’s Fish Habitat Program, and other partners to secure the long-term protection of large reaches of instream habitat through a variety of conservation agreements, while working on systemic problems of watershed function in the uplands of predetermined core cold-water habitat watersheds. Alongside the protection actions the Focused Investment Partners will be working in the same watersheds to address the passage, flow, and habitat factors that are limiting salmonid production. Measures of ecological success will be the removal of all passage barriers such that the entire length of valuable habitat is accessible in the selected core cold-water areas. Parallel to this fish passage effort will be the protection phase of the Focused Investment where a variety of conservation tools including easements, purchases, and agreements will be initiated to ensure the long-term protection of core cold-water areas. Improving the quality and quantity of stream complexity in the select core cold-water areas will be the final phase of the ecological improvements where ecological success can be measured. Due to simplification of habitat overtime, active instream restoration will be needed to provide an immediate uplift in habitat quality. Flow restoration will be used as an additional tool, where possible, to ensure added benefit to the habitat improvements made to address over all productivity.

The likelihood of success in the short term (6 years) is high to achieve the physical benefits mentioned above. It is important to understand that the average adult spring Chinook in the John Day Basin is four years old and summer steelhead range from three to four years in age. Measurement of biological success over one to one and a half generations is very difficult. The biological objectives of the Focused Investment will be measured through increases in survival, productivity along with advances in the spatial structure of the four sub watershed populations over decades. Any other horizon of biological success is simply unrealistic at this time. Existing long-term research and monitoring programs are well established in the John Day Basin and include, but are not limited to, the Middle Fork John Day Intensively Monitored Watershed, John Day Columbia River Habitat Monitoring Program (CHaMP) and the Integrated Status and Effectiveness Monitoring Program (ISEMP), and additional monitoring by CRITFC’s Fisheries Research Program, ODFW’s East Region Fish Research Program, CTWSRO, USFS, The Nature Conservancy, Ecotrust, and The Freshwater Trust. Subsequently, the John Day Basin is uniquely equipped to (1) implement habitat protection and restoration projects, and (2) evaluate restoration effectiveness at multiple spatial and temporal scales. Long-term measure of success over a ten to twenty year time frame will include metrics such as percent cover of stream shade, habitat metrics that include percent pools and instream cover to address improvements to rearing habitat. Increases to the length of habitat available through fish passage improvements are more immediate, but biological responses through increased productivity will be measured over the longer term.

There are existing partnerships to address this priority and achieve the ecological success outlined above. The John Day Basin Partnership was formed in September 2014 by a diverse group of basin stakeholders with the common interest of restoring and maintaining our watersheds for the ecological, economic, social, and cultural well being of local communities. We seek to maximize collective and coordinated action that accelerates realization of healthier and more resilient habitats, native species, and resource-dependent economies across the basin. The partnership pursues this goal by facilitating partner dialogue and learning, acting under a comprehensive basin-wide restoration plan that achieves shared interests, leveraging the partnership and plan to secure new project and organizational funding, and more fully engaging the community in the John Day recovery process. Participants in the John Day Partnership are provided in Table 3.

Bonneville Power Administration	Oregon Department of Fish and Wildlife
Bureau of Land Management - Prineville	Oregon Department of Forestry
Bureau of Reclamation	Oregon Parks and Recreation
Confederated Tribes of Umatilla	Oregon Association of Counties
Confederated Tribes of Warm Springs	Oregon Watershed Enhancement Board
Oregon Department of State Lands	Resource Specialists
Ecotrust	Sustainable Northwest
Gilliam Soil & Water Conservation District	The Freshwater Trust
Mid-John Day Bridge Creek Watershed Council	The Nature Conservancy
Monument Soil & Water Conservation District	Upper South Fork John Day Watershed Council
Wheeler Soil & Water Conservation District	U.S. Fish and Wildlife Service

Sherman Soil & Water Conservation District	U.S. Forest Service - Malheur
OR Department of Forestry	U.S. Forest Service - Umatilla
Gilliam-East John Day Watershed Council	U.S. Forest Service - Wallowa Whitman
National Marine Fisheries Service	Sherman County Watershed Council
North Fork John Day Watershed Council	Natural Resource Conservation Service

The Tribes John Day Watershed Restoration Program has been successfully implementing conservation projects since 1998 with a long list of partners. The program and its partners are well known in the basin and we annually have more projects than money available for addressing priorities. The program and partnership is also fully engaged in providing public outreach and education.

In looking at the proposed priority for the John Day Basin and how well understood this priority is, a workgroup of John Day Basin Partnership members came up with the following:

- The technical aspect of restoring aquatic and upland habitats is well studied and mostly understood. However, the science can be very complex and is constantly evolving as new learning takes place.
- The social aspect of restoration can range from ‘complex to easy’ and ‘well understood to not well understood’ depending on the knowledge of conservation science and programs, working landowner needs, and the benefits/threats of inaction held by the landowner, partners, and other decision-makers.
- A strong partnership with the capacity to develop and implement a strategic action plan and outreach program can help create opportunity for lasting progress in the face of these challenges and other limiting factors.

		Question #6: Place each priority in the proper quadrant.	
COMPLEX		Science X	
	EASY		Social X
		WELL UNDERSTOOD	NOT WELL UNDERSTOOD

The John Day Basin is prime for an OWEB Board Priority and Focused Investment for salmonid cold core water habitat. There is an emerging new basin-wide partnership and there are multiple partners with a history of working together to improve anadromous fish habitat for decades. Focused funding would have a significant impact with direct ecological and social outcomes.

The basin is also an important significance to the State with no hatchery influence or dams on the mainstem John Day River and is home to the only highly viable population of Steelhead in the Mid-Columbia basin. We appreciate your time to review these priorities and look forward to the announcement of the OWEB Board approved final priorities in April 2015.

The following organizations are in additional support of the above Priority submitted by The Confederated Tribes of the Warm Springs Reservation of Oregon:

1. Grant Soil & Water Conservation District
2. Malheur National Forest
3. Umatilla National Forest
4. Oregon Dept. of State Parks
5. Oregon Department of Fish and Wildlife

Sincerely,

A handwritten signature in black ink, appearing to read 'Amy Charette', with a long horizontal line extending to the right.

Amy Charette
Watershed Restoration Coordinator
John Day Basin Office

cc: Jason Kehrberg, Grant Soil & Water Conservation District
Steve Namitz, Malheur National Forest
Ian Reid, Umatilla National Forest
Greg Cianella, Oregon Dept. of State Parks
Adrienne Averett and Jeff Neal, Oregon Department of Fish and Wildlife