PROPOSAL FORM TEMPLATE AND SUBMISSION INSTRUCTIONS FOR THE CATEGORY REVIEW OF ANADROMOUS FISH HABITAT AND HATCHERY PROJECTS 2021-2022

Getting started:

1. This document is your template. Save it to your computer.
2. Work within this template and continue to modify and save your work as you would in any Word document.
3. In the Word template there are prompts about where to enter responses.
    a. In PART 1 there are fields to click where you can enter plain text.
    b. In PART 2, replace any of the colored areas marked "Your response goes here ..." Try to retain the Calibri 12pt font as much as possible.
4. Once the proposal template is complete and you are ready to submit your proposal, name your submission file using this format: **Project Number_Project Title**. *No hyphens are necessary for the project number, and you should shorten long project titles.*
5. Email your proposal and other important supporting files to both mfritsch@nwcouncil.org and kcoles@nwcouncil.org. *If you send additional supporting files, please ensure they are referenced in your proposal and not otherwise available in your project documents list in cbfish.org.*
6. All instructions, schedules, and background information for this review can be found at our Anadromous Review page.

Template version: 2.11

PROJECT PROPOSAL TEMPLATE

INTRODUCTION

Proposals need to demonstrate consistency with the Columbia River Basin Fish and Wildlife Program and that they *"are based on sound scientific principles; benefit fish and wildlife; and have a clearly defined objective and outcome with provisions for monitoring and evaluation of results.*" The following guidance and instructions are aimed at helping project proponents prepare logical proposals that meet these Council and ISRP criteria. Please provide strong continuity and connectivity between each section, so there is a clear logic path from the problem statement through the goals, objectives, methods, evaluation, and adaptive management.

PART I. COVER PAGE - Basic Project Information

a. Project number: 2000-031-00

b. Project title: Enhance Habitat in the North Fork John Day River

☐ Is this a proposed title change, different than the official project title?

c. Sponsor organization (submitting the proposal): Confederated Tribes of the Umatilla Indian Reservation

d. Other sponsor organizations (list partners): None

e. Primary contact:

The primary contact is the person who creates this proposal. This individual will need to be available over the next several months to field questions from proposal reviewers. The primary contact will also receive email notifications as their proposal advances through the review process.

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f. Proposal short description (500 words)

Provide a brief summary of the proposed project that includes the major problem being addressed, primary goal(s), proposed work, why the work is important, and major past accomplishments. This will later be used as your project summary on the primary project page in CBFish.

For more than 10,000 years, members of the Confederated Tribes of the Umatilla Indian Reservation (formed from the Walla Walla, Umatilla, and Cayuse tribes) used the North Fork John Day River basin seasonally for fishing, hunting, gathering, and habitation. Prior to Euro-American settlement, human population densities were low and peoples' seasonal subsistence use maintained ecosystems rich with self-sustaining wildlife and vegetative populations. Since the early 1800's, native flora and fauna have suffered under

intensive and extensive resource extraction and overuse. Summer steelhead trout, bull trout, spring Chinook salmon, Pacific lamprey, and resident aquatic species were directly affected by compromised physical and biologic process resulting from these activities. In support of tribal culture and the foods they are based on mitigation funding from Bonneville Power Administration was secured by the Confederated Tribes of the Umatilla Indian Reservation in 2000 to support habitat restoration in the North Fork of the John Day River. The North Fork John Day River Fisheries Habitat Enhancement Project bases all efforts upon the CTUIR Department of Natural Resources' mission statement of 'Protecting, restoring, and enhancing the First Foods - water, salmon, deer, cous, and huckleberry - for the perpetual cultural, economic, and sovereign benefit of the CTUIR. We will accomplish this utilizing traditional ecological and cultural knowledge and science to inform: 1) population and habitat management goals and actions; and 2) natural resource policies and regulatory mechanisms.' and all documents developed in support of the First Foods Policy'. This guidance forces analysis of physical and biologic process to identify core issues to be addressed and avoids developing actions which only address the symptoms of core issues. Since 2000 staff have worked with private, non-profit, state, federal, and interested parties in support of actions designed and implemented using the best available knowledge and techniques. Early actions consisting solely of riparian fencing and stock water developments have progressed to reach scale restoration efforts addressing stream channel, riparian, and floodplain process. Thus far, implemented actions have treated 507 Kilometers of stream channel and 8,137 acres of floodplain and upland habitats. Proposed actions for the 2023 – 2027 period continue reach scale actions in addressing the effects of historic placer mining (Bull Run Creek, 2.0 Kms and 22 acres), grazing management (Desolation Creek, 3.6 Kms and 60 acres), and transportation infrastructure (Desolation Creek , 2.0 Kms of road relocated). In addition, smaller scale actions consist of replacing one passage barrier (access returned to 1.5 Kms of Desolation Creek) and hand crew work in the Camas, Desolation, and Granite Creek basins. Collaboration occurs during all actions with most consisting of two or more partners. While early efforts were based upon a limited number of recovery and planning documents collaborators recently developed aquatic priorities for the entire John Day Basin and are currently developing terrestrial priorities through the John Day Partnership using Bonneville Power Administration's ATLAS framework. The partnership has become an important forum for basin organization, coordination, and mechanism for securing restoration funding.

PART II. PROJECT PROPOSAL

This part of the template is arranged into the following sections, which are described in detail below.

1. Problem statement and significance to the Program
2. Progress to date
3. Goals and objectives
4. Methods
5. Project evaluation and adjustment process
6. Potential confounding factors and/or major uncertainties
7. Timeline
8. Relationships to other projects
9. Response to past Council recommendations and ISRP reviews
10. References
11. Key personnel
12. Appendices
13. Proposed budget

Suggested proposal length: Reviewers request that proposals be concise addressing all key components. Page limits are recommended for each section with the understanding that these limits won't apply to every project or every section, but please use the recommended page limits as general guidance. Integrated programs with planning, restoration, production, and research components may require additional explanation. The Methods section for some projects may also require additional explanation. Note that all questions and sub-questions within the form do not apply to all types of projects, and we expect there will be differences in responses among projects.

1. PROBLEM STATEMENT (SUGGESTED LENGTH 2 PAGES OR LESS)

1A. Clearly state the overarching question, problem, or need that the project addresses, and explain why it is important. Provide the background, history, and location information critical for reviewers to understand the problem and the proposed goals, objectives, and methods described below. In particular, provide information on the focal species and life-histories, the identified limiting factors that this project addresses, and the sources of data and information used to support these determinations. For research or monitoring projects, include a thorough, but succinct, literature review that brings reviewers up to date on the scientific knowledge relevant to the problem. Provide a description of the critical knowledge or information gaps. For artificial production projects, please provide the conservation and mitigation factors that your program addresses.

For more than 10,000 years, the members of what are now the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) (formed from the Walla Walla, Umatilla, and Cayuse tribes) and the Confederated Tribes of the Warm Springs Indian Reservation (CTWSRO) (formed from the Wasco, Warm Spring, and Paiute tribes) used the North Fork John Day River (NFJD) subbasin seasonally for fishing, hunting, gathering, and habitation (CTUIR 2021a, CTWSRO 2014). Prior to Euro-American settlement, human population densities were low and peoples' seasonal patterns of subsistence use maintained ecosystems rich with self-sustaining assemblages of native fish, vegetation, and wildlife 'in synchrony with plant phenology and food availability' (Quaempts et al. 2018). While indigenous people used fire to manage resources such as huckleberries and forage for grazing their actions have not been attributed to detrimental interruption of physical and biologic process. Historically, undisturbed geomorphic processes in the NFJD consisted of intermittent disturbance regimes in which flows, sediment inputs, and large wood dynamically interacted to create successional states of critical habitat in which aquatic species evolved (Quaempts et al. 2018). These species included Endangered Species Act (ESA) listed summer steelhead trout *(Oncorhynchus mykiss),* Chinook salmon (*Oncorhynchus tshawytscha)*, and Pacific lamprey (*Entosphenus tridentatus*), critical "First Food" sources for indigenous people. Streams historically consisted of unconfined, forced alluvial channels with alternating pool-riffle and run bedforms and multithreaded, anastomosing channels that occupied nearly the entire valley floor. In more confined floodplain areas where large wood complexes currently exist large wood drives pool/riffle/run sequence formation and maintenance, especially where stream slopes fall into the 0.02 – 0.05 range. These habitats reflect findings in Beechie and Sibley (1997) suggesting large wood frequency throughout NFJD would have been an important factor in maitaining appopriate habitats within and outside frequently occuring meadows. Furthermore, data from Beechie et al. (2006) suggests that intermediate sized unconfined channels, similar to the NFJD, transport sediment primarily as bedload and retain wood long enough to establish erosion-resistant transitional points that generally favor island-braided patterns in forested mountain systems.

Euro-American influence upon local flora and fauna began in the early 1800s with explorers and fur trappers, including the party that included John Day in 1812, and intensified after discoveries of gold in the 1860s brought many immigrants to the area (NPPC 2005). Early and extensive beaver trapping nearly extirpated the local populations (NPPC 2005). Beaver, held a vital role in local wood delivery and diversification of off-channel and meadow habitats. Loss of floodplain

complexity, including simplification of hardwood prevalence and diversity have contributed to degraded instream and riparian conditions and decreased habitat suitability for beaver. Current beaver populations are thought to be extremely low, though we are unaware of a formal population census. Populations are now geographically limited with isolated colonies found in suitable locations, and sporadic small populations that appear to be transient groups using bank lodges. Where a food base exists in Granite Creek beaver attempt to inhabit primary channels although dams only last a year or two or beaver inhabit a limited number of smaller tributaries until their food base is depleted. In Camas Creek transient beaver are known to periodically cut all willows along the stream channel.

Intensive grazing further contributed to the simplification of floodplains, riparian zones, and stream channels. This occurred through active removal of native vegetation and moving stream channels to valley margins to improve grazing or hay production, Vegetation degradation and compromised channel stability and complexity occurred where stock had free access to sensitive habitats or through active flood control management. In higher elevation meadows early grazing was managed on a first come first serve stay as long as you want basis. Because of this meadows were extensively overgrazed and streams manipulated as they best suited a grazer's plans. Mining in along the NFJD and tributaries generally consisted of placer or lode mining. Small operation placer mining shifted to lode mining in many locations when it became more profitable. This again shifted to large scale placer mining using car to house size dredges which overturned floodplains from hillslope to hillslope in many locations. Tailings were left in place restricting streams to narrow bands lacking the diversity and floodplain access of pre-disturbance channels. Intensive fish harvest efforts, development of hydropower systems along the Columbia River and many of its tributaries (NPPC 2021b), and now a changing climate further impeded physical and biologics process, wildlife habitat, and population fitness.

As a result of this shift in land use and resource, streams are now composed of high energy, plain bed riffle-run channel types lacking appropriate channel plan form diversity that exists throughout much of the NFJD. Additionally, channel sinuosity, simplified hydraulic geometry, over-widened channels and bed armoring, altered flow velocity complexity and sediment mobilization and deposition with coarser streambed gravel, altered groundwater and hyporheic function, extensive loss of large pool and side channel habitat, and degradation of riparian and wetland plant communities reflect the core changes of stream and floodplain simplification.

Degraded process and resulting changes in habitat are reflected in the listing of ESA Threatened bull trout (*Salvelinus confluentus*) (USFWS 2015) and summer steelhead trout (NMFS 2009, ODFW 2021) and their critical habitat, loss of critical meadow habitats (USDA 1999), and exceedance of total maximum daily load (TMDL) water quality standards (ODEQ 2021). Degraded process is also reflected in ecologic concerns including but not limited to impaired fish passage, degraded water quality, degraded riparian and floodplain habitats, compromised stream channel habitats, altered sediment routing, and altered stream flow timing and groundwater storage capacity as identified in CTWSRO's John Day Basin Strategy (CTWSRO 2014), CTUIR funded Camas and Desolation Creek Geomorphic Assessments (Ecovista 2003, NSD 2013; Tetra Tech 2017), and recovery and planning documents noted in Section 1b. The effects of Euro-American management strategies are evident in the loss of Celilo Falls fishery in 1957 and significant reductions in anadromous populations as

Columbia River dams were completed (NPPC 2021a). Decreased runs are also evident in tribal fishing opportunities over the past 18 years where tribal summer Chinook salmon fishing opportunities are limited to the NFJD and Granite Creek. Since 2003 harvest in the NFJD has not occurred in 13 of the last 18 years along the NFJD and in the past four years along Granite Creek (CTUIR 2021b). For the most part the lack of harvest is due to closed fishing seasons in response to low returns as opposed to a lack of catch.

In spite of the disturbances, aquatic and many terrestrial habitats in the NFJD are healthier than other Columbia River Basin tributaries due in part to a lack of large dams in the John Day River basin and existing higher quality habitat in headwater areas under multidisciplinary management by public agencies. Tributary habitat has been identified as an important resource for juvenile and adult salmonids. In fact, essential bull trout and salmonid habitats have been identified in all focal areas identified by the CTUIR's North Fork John Day River Fisheries Enhancement Project (The Project) (Camas, Desolation, and Granite Creek subbasins). The NFJD supports populations of spring Chinook salmon, ESA listed summer steelhead trout, Pacific lamprey, ESA listed bull trout, and rainbow and redband trout *(Oncorhynchus mykiss sp.)*, as well as native dace and other non-game species. However, past fishery enhancement efforts and climate change have increased the presence and persistence of non-native brook trout (*Salvelinus fontinalis*) in headwater areas and smallmouth bass (*Micropterus dolomieu*) in the mainstem NFJD.

> 1B. Significance to Fish and Wildlife Program and other regional plans: Describe how the project relates to **regional programs or plans** including the Council's 2014 Columbia River Basin Fish and Wildlife Program, 2020 Addendum, and subbasin plans; Council's 2017 Research Plan; NOAA's Recovery Plans; or other regional plans and guiding documents, including local management plans (include relevant page numbers from those documents and be concise). Specifically identify the links between the focal species and limiting factors described in 1A and the issues identified in the relevant programs and plans.

Prior to creation of the CTUIR's Department of Natural Resources (DNR) access to and protection and enhancement of foods central to tribal culture were exercised through Supreme Court rulings, the Clean Water Act, and the Endangered Species Act. (Quaempts 2018). In 1982 the CTUIR's Board of Trustees formed the DNR which by 2005 contained Administrative, Cultural Resource Protection, Water Resources, Fisheries, Wildlife and Environmental Planning and Rights Protection programs. The First Foods Policy (Quaempts 2018) was introduced for CTUIR staff review in 2006 with the DNR reorganized to reflect the First Foods by program with the Fisheries Habitat program working provide sustainable harvest of the First Foods by protecting, conserving, and restoring native aquatic populations and their habitats. The First Foods consist of groups of natural resources (water, salmon, deer, Couse, and huckleberry) which represent aspects of tribal culture derived from the CTUIR's historic hunter gatherer lifestyle and roles, ceremonies, and rites of passage associated with the foods. In essence, the loss of a First Food constitutes a loss of CTUIR's culture. The First Foods Policy and guidance developed in support of the policy not limited to the Umatilla River Vision (Jones et al 2008), Upland Vision (Endress 2019), and climate change documentation (CTUIR 2015, 2021c) guide The Project's efforts in addressing ecologic concerns/limiting factors. It is through this lens that John Day Basin (JDB) specific guidance and larger scale regional planning and recovery documentation and their priorities addressed.

The Project has progressed from the use of early recovery and planning documents such as the 2002 Bull Trout Recovery Plan and Oregon's Plan for Salmon and Watersheds (ODFW 1997) supplemented with smaller scale, locally derived documents such as the Camas Creek Assessment (Ecovista 2003). Subsequent regional planning documents such as the John Day Subbasin plan (NPPC 2005), Mid-Columbia Steelhead Recovery Plan (NMFS 2009, ODFW 2021), and revised Bull Trout Recovery Plan (USFWS 2015) further improved our understanding of ecologic concerns of endangered species at the population level. Progressive documentation development increased our ability to tie small scale restoration and resource management actions to larger scale actions. Locally derived assessments and planning efforts such as the Bull Run Creek Action Plan (USDA 2012), The Camas Creek Assessments (Ecovista 2003, NSD 2016) and Desolation Creek Geomorphic Assessment and Action Plan (DCGAAP) (Tetra Tech 2017) developed by The Project, and the John Day Basin Partnership's (JDBP) completed Atlas framework. (JDBP 2021). Smaller scale plans and assessments supplement larger scale recovery and planning with reach specific information that complements and fine tunes larger scale guidance. Locally derived guidance is also more adaptable as habitat restoration occurs and new population information becomes available. More specific responses for The Project's ties to 'Fish and Wildlife Program and other regional plans' follows.

The 2014 – 2020 Columbia River Basin Fish and Wildlife Program's (NPPC 2017a) key strategies include and extend beyond The Project's activities. That is, the DNR's efforts through its administrative fishery, wildlife, water resource, first foods, range and forestry, and cultural resource programs support higher level tribal management echelons promoting the First Foods Policy and tribal culture through;

- Healthy Ecosystems – The Project directly supports this through management and protection of existing and restoration of degraded First Food habitats in coordination with other John Day River basin collaborators and informs larger scale activities. The larger DNR program and other CTUIR departments are responsible for influencing terrestrial and larger scale regional issues such as Columbia River mainstream dam operation.
- Wild Fish - The Project directly supports aquatic and associated terrestrial First Foods through the protection of existing and restoration of degraded habitats to promote native species over invasives. Other DNR programs and staff perpetuate the First Foods by exercising and enforcing treaty rights, input on Columbia River dam operations, and consulting with agencies as a co-manager in support of the CTUIR's First Foods.
- Hatcheries – The DNR's artificial propagation program is working to address this strategy outside of the John Day River Basin.
- Accountability – The CTUIR's Fisheries Habitat Program adheres to its Adaptive Management Strategy (Section 5), adoption and adherence to basin assessments and action plans, DNR's First Foods policy, and supporting documentation, restoration monitoring by the CTUIR's Bio-monitoring Project, development of progress reports and data entry into CBFish, CTUIR's Central Database Management System (CDMS), and the JDBP's Project Tracker, coordination with CTUIR's higher echelons, and contributions to the JDBP's SAP and Atlas prioritization development.

With regard to the 2020 Addendum to the Columbia River Basin Fish and Wildlife Program (NPPC 2020) The Project's efforts address aquatic and terrestrial habitats in priority NFJD subbasins (Camas, Desolation, and Granite Creeks). Cumulative efforts of The Project and CTUIR fully support goals related to mitigating wildlife losses created by hydropower dams, encourage ecologically and sociologically responsible program administration and public outreach, and positively influence environmental processes to improve habitats and in turn populations of native Endangered Species Act (ESA) listed and unlisted species.

The Project does not directly participate in implementation of the Columbia River Basin Fish and Wildlife Program 2017 Research Plan (NPPC 2017b). We do facilitate its implementation through contributions to organized research (Bonneville Power Administration's (BPA) Action Effectiveness Monitoring program, CTUIR's Bio-Monitoring Project, and BPA's Habitat Improvement Program (HIP) Monitoring and Adaptive Management Plans (MAMP) informing adaptive management strategies through the process identified in Section 5, contributions to BPA sponsored mitigation and reporting efforts, and participation in the ISRP review process which guides the Council's future project-funding recommendations to the BPA.

The Project participates in direct actions and supporting efforts according to priorities outlined in the John Day Subbasin Plan (NPPC 2005, Pg. 250). In fact, highly ranked restoration strategies of passage, fish screening, instream activities, riparian habitat improvement protecting existing habitat and education are consistently addressed by The Project. Of the seven ranked strategies The Project actively protects existing habitat, improves passage, addresses riparian habitat, improves instream, upland, and flow conditions, and provides educational opportunities. Fish screening opportunities have been initiated with landowners. The Project's development of basin specific assessments, and participation in the JDBP's restoration prioritization (JDBP 2021) using BPA's Atlas framework speak directly to focusing collaborator efforts upon priorities aligning with those of the John Day Subbasin Plan.

Threatened Mid-Columbia Steelhead trout and bull trout recovery plans have been and will continue to be supported through our efforts. The Project's development of assessments using BPA's Atlas framework align with goals, objectives and recovery strategies for steelhead trout and bull trout (NMFS 2009, USFWS 2015, Pg. 40 & 50 respectively). Locally derived assessments and plans consider life histories, limiting factors, and compromised process to align with the goals, objectives, and strategies of recovery plans.

2. PROGRESS TO DATE

(SUGGESTED LENGTH 2 PAGES OR LESS, PLUS SUMMARY TABLES AND GRAPHICS)

For ongoing projects, briefly describe the original goals and objectives, and the progress achieved to date. Sufficient detail is needed so that reviewers can understand what was done, what outcomes occurred, and what lessons were learned from the previous work.

Following are key components to include about the previous results of the project, which follow the basic cycle of adaptive management (see Figure 1).

A. Previous goals and quantitative objectives – what were the key desired outcomes and what was measured to evaluate them?

B. Results – what were the results of the actions implemented for each objective?

C. Lessons learned – what was learned from the results, to what degree were the objectives achieved, and how were objectives and actions modified as a result? Describe the broader impacts of the project, including how the project has influenced management, benefited society, informed other projects in the Columbia River Basin, or improved effectiveness and efficiency. Also describe how the results from your project could contribute to broader efforts including status and trend monitoring, life-cycle models, regional actions, and mitigation outcomes.

D. If any objectives were dropped, explain why.

Ensure that past data are fully analyzed using appropriate statistics, key metrics are presented in clear summary graphs and tables, and conclusions are summarized. Annual reports, scientific literature, and relevant technical documents must be cited and, where possible, hyperlinked.

If results were achieved through a coordinated effort with other projects or entities, distinguish the contributions of this project relative to the contributions from other projects. Use Section 8 Relationships to Other Projects to fully document relationships of the project to other ongoing programs/projects in the region.

Beginning in 2001 The Project identified and selected actions through conversation with local land owners, Soil and Water Conservation Districts (SWCD), and watershed councils with opportunities centered around Ukiah and Monument, Oregon as opportunities arose. Restoration actions consisted of smaller, one mile or less, riparian fencing and spring developments with regular maintenance to remove cattle from sensitive floodplain and stream channel habitats and structure maintenance (Appendix 1, Projects – John Day River Basin). During this time period The Project identified the need for increased landowner outreach and education and to increase planning efforts and communication with other collaborators in the JDB. For the 2002 ISRP review The Project set a long-term goal of restoring proper floodplain and channel function (Reports & Data – John Day River Basin). Objectives included identifying habitat impacts, attaining solutions to detrimental land use practices, and promoting support of habitat enhancement measures in the NFJD Subbasin and to plan and design habitat enhancement actions with associated tasks (Appendix 2; NPPC 2021b).

By the 2007 ISRP Review (Reports & Data – John Day River Basin & NPPC 2021b) The Project secured a dedicated CTUIR seat on the North Fork John Day Watershed Council (NFJDWC) board which facilitated local collaboration and outreach to the broader NFJD community. The Project continued to conduct its own outreach (public meetings, tours and presentations) to demonstrate accomplishments, provide educational opportunities, and solicit additional landowner and resource agency participation and input. Over time outreach efforts and coordination with the NFJDWC began to produce more robust and intensive restoration actions. On the ground activities (Appendix 1, Projects – John Day River Basin) continued with conservation agreement acquisition and associated floodplain improvements near Monument and Ukiah, Oregon, levee removal near Ukiah, Oregon, and addressing the effects of historic mining near Granite, Oregon. Monitoring

activities at the time were tied to stream temperature data collection uploaded to the National Oceanic and Atmospheric Administration's (NOAA) Fisheries access database as the CTUIR's nascent database was not yet available for use. Reports reflecting our accomplishments continued to be produced quarterly and annually (Reports & Data – John Day River Basin).

The DNR First Foods Policy developed in 2006 was in review by CTUIR staff and not readily available for use during the 2007 ISRP review. As such, The Project linked biological objectives for its 2007 IRSP Review (Appendix 2, Reports & Data – John Day River Basin) directly to strategies contained within the John Day Subbasin Plan which referenced the Mid-Columbia Steelhead Trout Recovery Plan. In fact, The Project's acceptance of the John Day Subbasin Plan, developed to guide the Northwest Power and Conservation Council's Fish and Wildlife Program for the next 10 to 15 years, has since reflected the connection between CTUIR's internally derived guidance and regional planning documents.

By 2013 past outreach and restoration efforts began addressing process over larger areas using more complex treatments (Appendix 1, Projects – John Day River Basin). Increased capacity, cumulative effects of outreach, and a growing list of completed restoration actions during the 2007 – 2013 period increased our ability to address stated goals and objectives (Appendix 2, Reports & Data – John Day River Basin). In 2012 The Project authored brief (Zakrajsek 2012) outlining readily available data and an approach to begin addressing excessive sediment deposition in and along Camas Creek near Ukiah, Oregon. The brief and associated outreach efforts of the NFJDWC and The Project's staff lead directly to completion of the CCGA. Meanwhile The Project continued to secure and maintain conservation agreements with private landowners and collaborate with the NFJDWC, Umatilla National Forest (UNF), and Wallowa Whitman National Forest (WWNF) to address aquatic passage issues, improve grazing management, improve irrigation efficiency, and address noxious weeds.

For the 2013 ISRP Geographic Review, The Project identified a goal of protecting, enhancing, and restoring functional floodplain, channel and watershed processes to provide sustainable and healthy habitat and water quality for aquatic species in the John Day River basin (Reports & Data – John Day River Basin). This goal would ultimately shape future refinement of objectives related to maintaining and preserving habitat, improving passage, increasing floodplain connectivity and complexity, improving stream channel complexity and morphology, positively influencing sediment mobility, improving water quality and storage, and reducing the influence of toxics sources as well as the development of quantitative measures associated with specific objectives (Appendix 2).

Proposed restoration deliverables identified in The Project's 2013 ISRP can be found in Table 1. Project planning, development, and interagency collaboration increased during this time period. As a result, all proposed actions, save one, have been completed or are in progress with The Project or collaborator acting as lead proponent. This was due to increased collaborator capacity and coordination which is especially evident in the Bull Run Creek basin. Proposed actions were completed through joint WWNF, NFJDWC, and The Project collaboration without regard to The Project's proposed sponsorship of all efforts. We believe that progress includes coordination among multiple parties and shifting roles according to relative capacity and restoration priorities

such as that shown in Table 1 in the Bull Run and Deep Creek basins. The Bull Run Mine Tailing, Granite Creek Instream Restoration, and Desolation Creek Instream efforts will continue through the 2023-27 period (Sections 4 & 7).

Table 1. Future fisheries restoration actions proposed in The Project's 2013 ISRP Geographic Review proposal. (* = Actions identified in the Bull Run Creek Action Plan (USDA, 2012).

Deliverables	Status
Manage and Administer Project	Ongoing Habitat Project – John Day River Basin
Outreach and Education	Ongoing through participation in NFJDWC meetings and JDBP Outreach Committee, attendance at the annual Ukiah Fishing Derby, and presenting information at the DNR's annual open house. Habitat Project – John Day River Basin
Maintain Structures and Native Vegetation	As of March 2021 six conservation agreements have ended. Three are currently being maintained.
Collect/Generate/ Validate Field Data	Ongoing
Fox Creek	NFJDWC & CTUIR instream and riparian fencing efforts are complete with 1.4 Km of riparian fence developed 25 large wood features, and developed 20 plugs. The CTWSRO sponsored the large scale suite of actions after The Project entered into a conservation agreement with Desolation LLC. on Desolation Creek. Habitat Project – John Day River Basin
Bull Run Creek Mine Tailing Removal*	Joint WWNF, NFJDWC, and CTUIR effort in progress. The Project has been successful in keeping multiple entities involved in the face of changing collaborator staff and shifting collaborator directives and progressing toward a holistic design acceptable to all. As of March 2021 the 50% design has been completed with cultural resource surveys and the 80% design expected by August of 2021. The 50% design includes 1.4Km of ~33 m wide inset floodplain containing a meandered channel and 165 large wood structures. Habitat Project – John Day River Basin
Granite Creek Instream Restoration	Streambank stabilization in 2013. An expanded effort over 0.8 miles of privately and federally managed lands, including the 2013 work area, has been designed and partially implemented as of March of 2020. The final design includes four meander bends0.6 Km of side channels developed, 189 large wood structures, four pools, two alcoves, 12 constructed riffles, and four wetland improvements. Habitat Project – John Day River Basin
Mud Creek Grazing Plan	The landowner developed in cooperation with a local resources.
Junkins Creek Culvert	In progress with implementation expected in 2021. Delayed due to UNF staffing issues and shifting priorities.
Desolation Creek Instream	A geomorphic assessment and prioritization using BPA's Atlas tool was developed for the entire Desolation Creek basin and incorporated into the JDBP's prioritization based on BPA's Atlas framework. Thus far the upper half of the Tier I Reach 6 reach has been designed and implemented. A potential road relocation, currently in design, pushed back design and implementation of lower Reach 6 until the road developed. The other Tier I priority, Reach 3, has been designed as of December of 2020 with implementation planned for 2022. Upper Reach 6 included 1.5Km of side channel improvements 0.8 Km of road obliteration, and 47 large wood structures. Habitat Project – John Day River Basin
Bull Run Creek Culvert*	Collaborative WWNF, NFJDWC, and CTUIR effort which realigned a portion of Deep Creep to facilitate physical and biologic process and replaced the Bull Run Creek and Deep Creek Culvert I as a single action. Access improved to 16 Km of habitat. Habitat Project – John Day River Basin
Camas Creek Instream Adjustment	The 2012 CTUIR brief, NFJDWC and CTUIR outreach culminated in community acceptance of the CCGA (NSD, 2016). The document will guide future restoration in the Camas Creek basin and has been made available to the community. Habitat Project – John Day River Basin
Bull Run Creek Wood Placement*	The NFJDWC and WWNF placed large wood in 2.0 Km of Bull Run Creek in coordination with the CTUIR.
Junkins Creek Culvert II	No progress. Awaiting development of the lower Junkins Creek culvert.
Sponge Creek Culvert	ODFW and UNF collaborated to improve access to 2.7 Km of habitat.
Desolation and Clear Creek Wood Placement	Incomplete due to staffing difficulties and other priorities of the UNF and CTUIR.

Deliverables	Status
Deep Creek Culvert I*	Collaborative WWNF, NFJDWC, and CTUIR effort which realigned a portion of Deep Creep to facilitate physical and biologic process and culvert replacements on Deep and Bull Run Creeks as a single action. Returned full access to 3.6 Km of Deep Creek. Habitat Project – John Day River Basin
Deep Creek Culvert II*	Completed as a joint WWNF and NFJDWC effort in coordination with the CTUIR. Returned full access to 0.9 Km of Deep Creek.
Deep Creek Wood Placement*	The NFJDWC and WWNF placed large wood in 3.6 Km of Deep Creek in coordination with the CTUIR.
UNF Fence Maintenance	Completed through a joint UNF and CTUIR effort whereby the UNF supplied materials and the CTUIR provided funding for UNF staff and contractors. In total 71.5 Km of riparian fence was improved protecting 2,958 riparian acres. Habitat Project – John Day River Basin

Since 2013 The Project has refined our guiding objectives. Development of basin specific assessments such as the CCGA (NSD 2016), the SAP, and Atlas prioritization dramatically improved restoration planning and The Project's ability to meet objectives. Monitoring data collection, management, and sharing also improved with the development of the Physical Habitat Monitoring Strategy (PHaMS) (USGS 2015) in collaboration with CTUIR, NOAA, and U.S. Geologic Survey. Statements of Goals and Objectives related to specific restoration actions and action specific MAMPs required under HIP improved our ability to tie objectives to measurable outcomes. For example, in 2020 and 2021 The Project developed a robust MAMP for the Desolation Reach 3 100% design submittal. BPA HIP review staff have approved the document and subsequently created a template from it as an exemplary document for our future actions and other actions within our organization. Continued development of the CTUIR's CDMS, The Project's website, development of the JDBP Project Tracker, and BPA's switch to a web based data management system improved staff capacity for reporting the outcomes of implemented actions and increased data sharing capacity to provide information to interested parties.

Objective refinement also contributed to The Project's incorporation of floodplain restoration treatments that more effectively enhance floodplain connectivity, channel complexity, and stream channel morphology with consideration of climate change effects. Improving groundwater storage and hyporheic complexity through these enhancements are more likely to support species of interest in the face of climate change. Our use of the best available science and up to date restoration techniques blend more traditional 'engineered' treatments with 'stage zero' techniques (Behan et al 2021) to encourage use of locally derived materials, natural process, and geomorphic evolution within the same treatment reach. The Project began incorporating this approach for the Desolation Creek Reach 3 effort to be implemented in 2022 and will continue to adapt our restoration strategy with lessons learned from previous and future actions.

3. GOALS AND OBJECTIVES (SUGGESTED LENGTH 2 PAGES OR LESS)

Projects must have clearly defined goals and specific objectives to meet ISRP review criteria (see examples in Figure 2). Proponents may consider a table format for this section.

A. **Goals** describe in qualitative terms, the ultimate desired outcomes of a project, and its expected overall benefits to fish and wildlife. One such goal might be: *To reintroduce coho salmon to a subbasin and establish a natural reproducing population that can support harvest.*

B. **Objectives** describe the steps needed to implement the project and the desired outcomes. They must be **SMART**: (1) **S**pecific and clearly defined, (2) **M**easurable (quantifiable), 3) **A**chievable and testable, (4) **R**elevant and applicable to the Program with benefits to fish and wildlife, and (5) **T**ime-bound with clear milestones and end dates.

1) **Quantitative biological, physical, or social objectives** describe the expected outcomes needed to achieve the goals and provide the metrics for effectiveness monitoring. For example, a quantitative objective for the goal stated above could be to: *Achieve returns of 2,000 natural-origin adult coho annually to the subbasin by 2040.*

Methods for monitoring will be described in detail in the next section. Monitoring may be conducted as part of the proposed project or in collaboration with another project. Coordination activities need not list quantitative biological and physical objectives.

2) **Quantitative implementation objectives** describe specific steps needed to achieve the quantitative biological, physical, or social objectives, and hence, the overall goal.

For example, for the goal and quantitative biological objective above, the implementation objective could be: *To acclimate and release 500,000 hatchery-origin coho smolts annually in the subbasin through 2027 and beyond, adjusting as needed to meet biological objectives.*

If the project includes research, monitoring and evaluation (RM&E) components beyond compliance monitoring, provide the specific hypotheses or key monitoring questions that are to be addressed, and demonstrate how they link to the objectives described above. Provide a description of how the RM&E components are filling a critical knowledge or information gap.

As it was in the 2013 ISRP Geographic Review, The Project's goal is to "protect, enhance, and restore functional floodplain, channel and watershed processes to provide sustainable and healthy habitat and water quality for aquatic species in the John Day River basin". This expression inherently speaks to goals and objectives of regional planning and recovery priorities. It reflects our desire to undertake collaborative actions that produce healthy and productive landscapes complementing the needs of diverse stakeholders and viable recovery of socially valued resources aquatic and terrestrial species, especially, summer steelhead trout, and spring Chinook salmon.

Focal Basins established by The Project in 2007 and carried forward reconcile The Project's capacity with the extensive NFJD footprint and collaborator distribution. The Project's adoption of Camas, Desolation, and Granite Creek focal basins continues to reflect guidance from regional planning and recovery documentation. Focal basin designations have proven to be wise considering the results of the JDBP's more recent focus upon the Upper North and Middle Forks of the John Day River and the 30 Mile/Butte Creek area in the Lower John Day River basin as a result of their Atlas prioritization. Since 2013 locally derived guidance has been adopted as the primary drivers when identifying restoration strategies and prioritizing restoration actions.

For the purpose of this proposal, The Project's stated restoration action level goal will be to "Develop, design, and implement fishery habitat restoration actions that contribute to DNR's support of its First Foods Policy and tribal culture". Actions developed and undertaken in support of this goal and related restoration objectives will be framed first through the CTUIR's First Foods

Policy and process based Umatilla River Vision, Uplands Vision and other CTUIR derived guidance. Other John Day River basin and larger scale planning and recovery documents will be supported through the CTUIR's framework. This goal will be implemented through the development, design, and implementation of individual aquatic restoration efforts within our focus basins.

Objectives for the 2021 ISRP proposal (Table 2) are based upon the 2013 ISRP proposal and incorporate those associated with project administration, coordination, and outreach. We also recognize that objectives tied to floodplain connectivity and complexity and stream channel morphology and complexity inherently consider multiple physical and biologic processes. Therefore reducing the number of objectives enhances our ability to develop and implement MAMPS and reflects staff capacity in the midst of ongoing restoration development and implementation activities. Objectives are tied to Umatilla River Vision Touchstones, CTUIR's First Foods, NOAA's Ecological Concerns (Barnas Torpey 2016) with expected outcomes assigned. Objectives are further tied to 'quantitative measures associated with individual objectives and outcomes' (Appendix 3) reflecting metrics The Project can reasonably track in a timely manner. Objectives are not intended to directly address aquatic habitat directly. Rather, The Project's intent is to address process as identified in the Umatilla River Vision. Reestablishment of appropriate process will result in site appropriate habitat which the CTUR's First Foods can inhabit and thrive

Derivatives of Table 2 are developed for each restoration action early in the development and design process and inserted into a 'Statement of Goals and Objectives' with the intent to guide collaborators through the design and implementation process. They have proven invaluable for guiding collaborators especially as restoration development, design, and implementation, occurs over several years and as staff changes.

Table 2. Objectives identified by the Project in support of its stated action level goal.

CTUIR NFJD Restoration Level Objectives	CTUIR River Vision Touchstones	Primary CTUIR First Foods	NOAA Ecological Concern Sub-Category	Examples of Specific Outcomes and Timeline
NFJD Fisheries Enhancement Project Administration	Geomorphology, Hydrology, Aquatic Biota, Connectivity, Riparian Vegetation	Water, Salmon, Deer, Cous, & Huckleberry		Development of annual statements of work and budgets, coordination with BPA to manage and improve funding, permitting, and consultation activities.
Collaborate with John Day basin collaborators to facilitate restoration and funding opportunities				Participate in semi-annual meetings, participate as member of steering committee, and contribute to partnership proposal development and adaptive management activities
Provide public outreach and education opportunities				Contributions to JDBP Education Committee, Attendance at and contribution to NFJDWC Board Meetings and council outreach activities, Presentations/posters for the CTUIR CNR Annual Public outreach gathering
Restore site appropriate stream channel	Primary: Geomorphology - Secondary:	Water & Salmon	5.1 Side Channel Condition	Increase and reestablish site appropriate floodplain connectivity. 1 - 3 years

CTUIR NFJD Restoration Level Objectives	CTUIR River Vision Touchstones	Primary CTUIR First Foods	NOAA Ecological Concern Sub-Category	Examples of Specific Outcomes and Timeline
morphology and complexity	Aquatic Biota - Tertiary: Connectivity		6.1 Bed and Channel Form	Increase and reestablish dynamically stable site appropriate channel morphology, complexity, and the quantity and quality of habitat diversity. 1 - 3 years
				Increase and reestablish stream velocity diversity at both low and high flows. 1 - 3 years
				Increase and reestablish sit appropriate sediment mobilization and deposition. 1 - 3 years
			6.2 Instream Structural Complexity	Increase and reestablish dynamically stable site appropriate channel complexity through the development of large wood and/or rock structures. 1 - 10 years
				Increase and reestablish site appropriate areas suitable for juvenile salmonid rearing. 1 - 10 years
				Increase and reestablish areas suitable for adult salmonid spawning. 1 - 10 years
			7.1 Decrease Sediment Quantity	Increase and reestablish geomorphically appropriate sediment sorting and routing. 2 - 5 years
Restore site appropriate floodplain complexity and connectivity	Primary: Riparian Vegetation - Secondary: Geomorphology - Tertiary: Connectivity	Water, Salmon, Deer, Cous	4.1 Riparian Vegetation	Increase effective shade produced from site appropriate native vegetation within floodplain and off-channel habitats. 1 - 25+ years
			4.2 LWD Recruitment	Improve floodplain vegetative communities according to site potential for long term large wood entrainment by aquatic habitats. 1 - 25+ years
			5.1 Side Channel and Wetland Condition	Restore to site potential degraded floodplain habitats peripheral freshwater habitats, including side-channels and freshwater wetlands. 1 10+ years
				Increase and reestablish site appropriate areas suitable for juvenile salmonid rearing. 1 - 10 years
Restore passage to existing high quality habitat	Primary: Connectivity - Secondary: Aquatic Biota - Tertiary: Geomorphology	Water & Salmon	1.1 Anthropogenic Barriers	Restore passage beyond anthropogenic structures throughout all responsible flows. 0 - 2 years
				Restore passage to and through stream and floodplain habitats to reflect site potential where the effects of anthropogenic land use has prohibited passage. 0 - 3 years
Improve or preserve water quality	Primary: Hydrology - Secondary: Aquatic Biota - Tertiary: Connectivity	Water, Salmon	8.1 Temperature	Increase and reestablish in-stream thermal diversity throughout the year. 10 - 100+ years
			8.4 Turbidity	Decrease turbidity resulting from streambank erosion or inappropriate floodplain conditions during high flows
			9.3 Altered Flow Timing (Climate change)	Increase and reestablish groundwater storage to reflect or approximate to the extent possible, historic capacity. 10 - 100+ years

4. METHODS (SUGGESTED LENGTH 2 PAGES FOR MAJOR PROJECT COMPONENTS)

Summarize the methods that will be used to achieve objectives. Provide enough detail for reviewers to gain a clear understanding of what activities are proposed and to evaluate the scientific validity of those methods. For projects with monitoring objectives, this narrative should

complement the detailed study plans, methods, and protocols you provide in MonitoringResources.org. In this narrative, describe the following:

A. Proposed operations and activities (for implementation, e.g., restoration and production), or experiments and sampling programs (for research and monitoring), organized in a logical sequence. Include a map showing the specific locations of the work.

For implementation, describe the planning process, specific activities undertaken, best management practices employed, etc. Specifically describe your approach to planning, design, implementation, and administration of the project. For research and monitoring, ensure that the experimental or sampling design is described clearly and in detail sufficient for ISRP reviewers.

B. Methods used to measure the effects of the activities (for restoration and production), or the metrics evaluated in experiments or sampling programs (for RM&E), as applicable:

- For RM&E components, describe the temporal and spatial scale of the monitoring and explain the rationale.
- Describe the statistical methods, qualitative analyses, mathematical models (in standard short notation), and metrics that are being used to evaluate whether project objectives are being met. Provide enough detail to allow a thorough understanding of the analyses. Summarize the methods, and provide details of statistical models and analyses in appendices.
- Supplement your description by linking to detailed metadata in MonitoringResources.org including study plans, protocols, and methods. Only reference "finalized" MonitoringResources.org content.
- Reference publications that provide detailed descriptions of the methods that will be used.
- Describe in detail any methods that are new and likely unfamiliar to reviewers.

C. A plan for archiving and sharing data and metadata generated from the project, such as StreamNet.org, PTAGIS.org, or MonitoringResources.org (see the List of Environmental Information Repositories).

Part A: Proposed operations and activities:

CTUIR Habitat Program Structure

The CTUIR Fisheries Habitat Program Uses the "First Foods" Umatilla River Vision (Figure 1) approach (Quaempts et al 2018, Jones et al. 2008), to guide identification of physical and ecological processes ("key touchstones") of a highly functional and dynamic river system important for providing water quality and fish habitat that supports aquatic First Foods integral for Tribal ceremonies and traditions. An Upland Vision (Endress et.al. 2019) was recently completed which ties First Foods in the terrestrial landscape to a process driven approach as well. This process based approach is used in conjunction with local and regional plans and assessments in 1) protecting high functioning habitat, 2) removal of fish migration barriers, 3) restoration of watershed processes, and 4) enhancement of in-stream habitat. Roni et al. (2002) supports this

broadly applicable approach to sequencing stream and watershed restoration actions. Beechie et al. (2008) expanded on Roni et al.'s (2002) approach, incorporating it into a "General Protocol for Identifying and Prioritizing Restoration Actions", which includes:

Step 1: Define the restoration goal
Step 2: Choose prioritization approach
Step 3: Assess problems and identify restoration actions
Step 4: Prioritize restoration actions

Figure 1. Graphic Representation of the CTUIR DNR's First Foods and River Vision Touchstones

The CTUIR planning process integrates these criteria along with ecological concerns from the 2008 Fish Accords MOA, Mid-Columbia Steelhead and Bull Trout Recovery Plan documents, subbasin plans, TMDL reports, local assessments and strategies, and fish life history and habitat use. Designated high priority areas, with a preference for ecologically connected or contiguous action locations are the focus of the Fisheries Habitat Program, which addresses channel and floodplain function and aquatic habitat deficiencies through a systematic, holistic planning approach termed the Riverine Ecosystem Planning Approach discussed in Section 5.

This approach includes prioritization of focal areas and management practices based on key species limiting factors with a mechanism for adaptive management that utilizes scientifically defensible techniques. The approach includes the five basic stages of scoping, assessment, monitoring, implementation, and reporting. Scoping allows for the interface of community needs and issues with resource priorities. Issues and concerns developed from scoping direct defined assessment needs based upon existing and collected data, assessments are developed to prioritize issues, identify limiting factors, and define action objectives. Monitoring plans that utilize scientific knowledge and accepted methodology are then developed to measure action objective achievement. During the implementation stage, actions are designed to address limiting factors through means that restore natural channel and floodplain processes. The final stage of reporting

provides an opportunity to summarize restoration treatments, monitoring, and evaluate results. Changes can be made based on the outcomes or the approach to future work can be improved.

Managers of individual subbassins within the Fisheries Habitat Program have the ability to develop restoration actions within the geographic boundary of the subbasin selection and prioritize restoration action types and locations based on scientifically defensible strategies and the best available scientific information.

John Day Basin Partnership, Atlas Framework, and Action Prioritization

The Project employs the methods above in coordination with collaborators in planning and action prioritization. The CTUIR signed a Memorandum of Understanding with the JDBP and is a voting member, sits on its steering, finance and outreach committees, and serves on several working groups within its decision making framework. The JDBP outlined a detailed approach to partner collaboration in the SAP (JDBP 2018). This collaborative approach was developed with input from CTUIR program managers using the guiding principles outlined above, and therefore aligns well with First Foods, River Vision and Upland Vision's touchstones, and the Riverine Ecosystem planning approach. Specifically, the SAP (JDBP 2018) provides a partnership logic model, a fully vetted restoration approach with a clear set of goals, objectives and actions. A prioritization process and its results are clearly documented as well, using Atlas Framework to determine priority restoration opportunities and rank them based on best available science and information. The NFJD is one of three priority subasins within the Partnership's focus. Collaborators that focus specifically on the NFJD subbassin are listed in Section 8 of this document.

The Atlas framework was developed with consideration of CTUIR Fisheries Habitat Program's guiding principles and information from The Project's CCGA and DCGAAP. The prioritization process therefore fits The Project's goals, objectives and methodology. Atlas prioritization methods and current rankings are available upon request. It should also be noted that the JDBP is currently developing an Upland Atlas to compliment the current framework that focuses on aquatics. The Project is actively participating in this process and will use it to further guide restorations decisions. Regardless of the framework under which prioritizations are developed information gathered and analyzed will be based an evaluation of physical and biologic process outlined in the CTUIR's Umatilla River and Uplands Vision and consideration of, but not limited to past, present, and potential habitat condition, climate change effects, aquatic and terrestrial wildlife habitat use and population status, land use history, existing and potential land use evaluations, and larger scale planning and recovery document recommendations.

Proposed Projects

With the help of these collaborators, The Project developed a suite of upcoming actions that adheres to our program's guiding principles while meeting our goals and objectives, as well as those of our partners. Below are brief descriptions of actions and activities proposed for 2023 - 2027. These are considered potential actions and are subject to change if higher ranked Atlas opportunities become available. Action timelines can be found in Section 7 and ties to specific goals and objectives for each action are in Appendix 3 along with metrics associated with expected outcomes. Action locations are mapped in Figure 2.

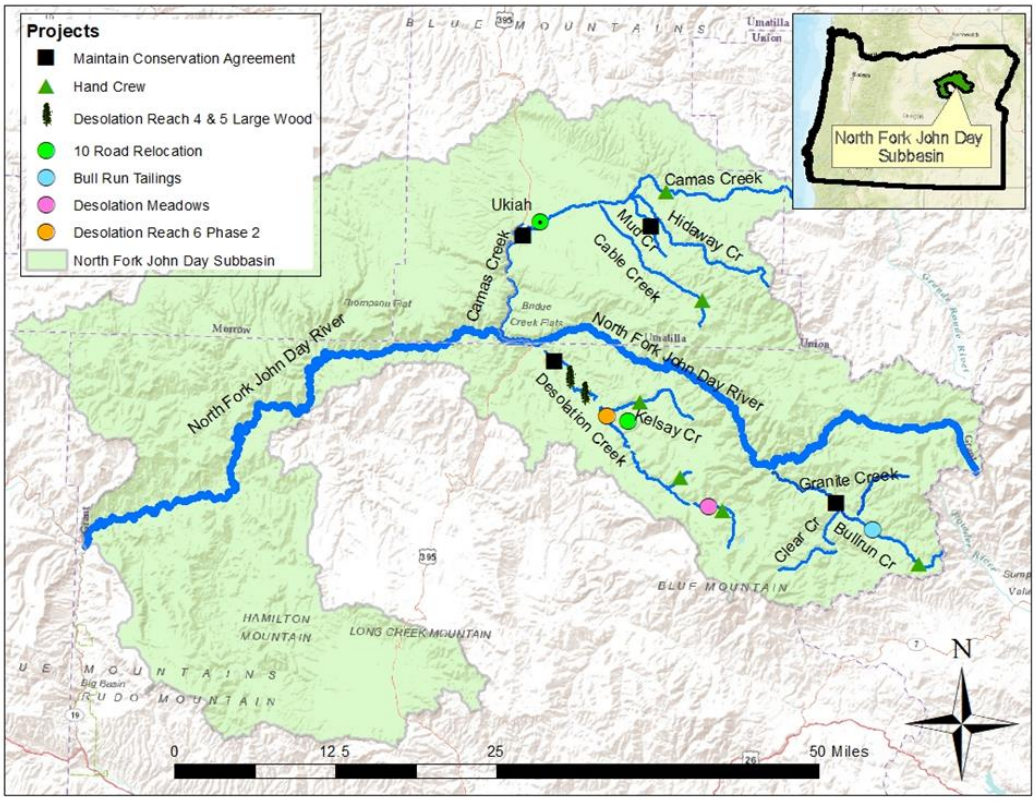

Figure 2. CTUIR NFJD Habitat Proposed Actions 2023-2027

Bull Run Tailings

Bull Run Creek is a tributary of Granite Creek that supports spawning and rearing habitat for spring Chinook salmon, and ESA listed Steelhead Trout and Bull Trout. Bull Run Creek is designated Critical Habitat for Steelhead and Bull Trout listed as 'Threatened' species under the Endangered Species Act (USFWS, 2010). It is part of the larger Granite Creek 'Priority Watershed' and its fishery is a component of the NFJD Major Population considered "Essential for Recovery" in the Mid-Columbia Steelhead Recovery Plan (NMFS 2009). Through the JDBP's Atlas prioritization this reach ranked as a Tier 1 area with a score of 83 (site's lower portions) and 74 (site's upper portions). The system also supports inland Redband Rainbow Trout (*O. mykiss gairdneri*) and Westlope Cutthroat Trout (*O. clarkii lewisi*). Under the U.S. Forest Service's Watershed Condition Framework (USDA, 2011), Bull Run Creek was identified as a priority sub-watershed for restoration by the WWNF. The result of this designation was the development of the Bull Run Creek Watershed Restoration Action Plan (USDA 2012) as a tool for identifying and implementing priority actions throughout the Bull Run Creek basin. Geomorphic processes, floodplain connectivity, and accompanying habitat for aquatic species within Bull Run Creek have been influenced adversely by beaver trapping, placer mining, tree harvest/clearing, and livestock grazing. Although we are unaware of specific and direct evidence speaking to the impacts of beaver trapping and their extirpation in the NFJD Beaver trapping likely had a disproportionate effect on floodplain connectivity and instream habitat quality due to the loss of stable dam complexes and the effects they had upon groundwater storage and flow celerity. Placer mining had a significant impact, where dredging and hydraulic mining practices resulted in channel straightening, widening, confinement and incision, loss of channel complexity, and loss of a functional floodplain/stream

and valley floor hydrologic connection. Cumulatively, these changes caused water temperature and fine sediment level degradation, where the stream has been listed as 303(d) water quality limited under the Clean Water Act (ODEQ 2021).

Since 2013 collaborators including the WWNF, NFJDWC, and The Project have removed five passage barriers and placed large wood in Deep and Bull Run Creeks as priority actions listed in the WRAP. Priority has now turned to removal of, or treatments to, tailings left in place from dredge mining activities along two miles of Bull Run Creek on the downstream end of lands managed by the WWNF. Thus far, The Project secured LiDAR data as part of the Granite Creek RM 7.5 restoration design and contracted R2 Resource Consultants to provide engineering design services, technical input for permitting efforts, technical oversight during implementation, and for as-built drawings for future reference of implemented treatments. A preferred design has been selected by collaborators including the WWNF, and the NFJDWC from a suite of alternatives in the 30% design phase. The selected design and treatment will improve channel, riparian, and floodplain morphology and geomorphic processes through the active manipulation of existing features and natural processes. Subsequent design iterations are in the works with 100% designs expected by the end of 2021. This action is currently slated for implementation in 2023 with The Project as the lead collaborator. The design has and will incorporate all relevant restoration actions identified in the JDBP's Atlas. Habitat Project – John Day River Basin

Desolation Meadows/400 Road Culvert

The Desolation Meadows/400Rd Culvert action will occur in a high priority salmon and steelhead stream in the John Day River basin. The restoration effort will occur on the North Fork of Desolation Creek ('Desolation Meadows'), on managed by the UNF. Desolation Meadows (DM) contains critical spawning and rearing habitat, and a high elevation cold-water source for ESA-Threatened Mid-Columbia Steelhead, ESA-Threatened Bull trout, State Sensitive Redband trout, Pacific Lamprey, and Mid-Columbia Spring Chinook. Through the JDBP's Atlas prioritization this reach ranked as a Tier 1 area with a score of 61.

Trout Unlimited (TU) is actively planning the initial stages of this high priority effort to address the effects of past beaver trapping, intensive grazing, and road construction that began in the late 1800s through an ecosystem-based approach to habitat restoration. Implementation will likely be sponsored by the CTWS or TU. The Project will contribute funding, technical review and input, and potentially some pre and post implementation surveys. Other primary collaborators include the UNF, and the NFJDWC. Collaborators will employ a mix of proven treatments including valley bottom road decommissioning, large woody debris (LWD) placement and beaver mimicry, channel design, and channel fill (Stage-0 approach), culvert replacement for passage, ditch decommissioning, and riparian planting. The Project will create clear measurable results for Mid-Columbia steelhead and other native fish species. The design will incorporate all relevant restoration actions identified in the JDBP's Atlas.

Trout Unlimited Hand Crew Work, North Fork John Day Resilience Project

To build climate resilience and restore hydrologic form and function in stream, riparian, and wetland habitats, TU and its collaborators will implement cost-effective, high impact approaches to increase floodplain connectivity and stream channel complexity while reducing flow celerity.

The net result of which will be increased aquatic and terrestrial complexity and groundwater storage capacity. Implementers will use site specific prescriptions to hand place High Density Woody Debris (HDWD). Hand crews will be employed to implement large wood placement and construction of small wood structures.

TU is the action sponsor and The Project will contribute funding, technical input, as well as equipment and labor as needed. TU employs hand crews to implement large wood placement and the construction of small structures. Other primary collaborators include the UNF, the NFJDWC and its seasonal Veteran's Crew, and the CTWSRO in DM. Hand crew work in 2023-2027 will build upon previous hand crew efforts in Camas Creek and NF Cable Creek, and will include Kelsay, Cr, Howard Creek, N.F. Desolation Creek and Upper Bull Run Creek. Through the JDBP's Atlas prioritization these reaches identified as Tier 1 with different scores. Final designs will incorporate all relevant restoration actions identified in the JDBP's Atlas.

<u>10 Road Relocation / Desolation Creek Reach 6 Phase 2</u>

The Desolation Creek GAPP (2017) identified Reach 6 near the USFS 10/1010 Road junction as the highest ranked Tier 1 reach for restoration in the Desolation Creek basin. As collaborators moved through the design process questions arose as to the viability of moving the 10 road near the 10/1010 road junction out of the floodplain to eliminate future transportation management issues and improve habitat for listed and unlisted species. As a result, the lower half of Reach 6's design was put on hold at the 30% design level pending a determination of road relocation feasibility. Shortly thereafter the UNF, Desolation LLC, and The Project identified an acceptable road alignment. The UNF provided a topographic surface of the new road alignment and design culverts for Kelsay and Spring Creek, Grant SWCD undertook road design efforts, and The Project led permitting and consultation efforts for the road and culverts. The road designs are currently at the 30% level, and cultural resource surveys for the road alignment, existing road obliteration, and new road rock sourcing area have been surveyed by the CTUIR. The Project will serve as lead collaborator during implementation and final road design is expected to arrive in late 2021 with implementation expected in 2024. The 10 Road relocation and Desolation Creek Reach 6 Phase 2 is an example of preemptive adaptive management given lessons learned during past restoration efforts and in consideration of process where conflicting land uses create complex resource management issues.

Work in Desolation Creek Reach 6 will be a continuation of previous restoration implemented in 2016. As stated above, this reach is ranked as a Tier 1 reach for Restoration in Desolation Creek, but the portion of Reach 6 to be addressed first requires completion of the 10 Road's relocation. The intent for this action is to restore processes that create and maintain habitats and biota in an effort to return the site to its historic and normative state as described by Beechie et al (2010). The design alternative selected for upper Reach 6 was fully developed and implemented in 2016. The final upper Reach 6 design consisted of road decommissioning, floodplain excavation, floodplain enhancement, alcove and off-channel habitat creation, side-channel reconnection, channel realignment, wet meadow enhancement, and in-stream LWD placement. Design components were developed to function harmoniously, and intend to maximize increases in in-stream, riparian, and floodplain habitat quantity, complexity, and diversity.

Once the 10 road has been relocated, The Project will revisit the 30% designs for the lower end of Reach 6 and develop them further considering methodology incorporated into designs developed for Desolation Creek's Reach 3. The Reach 3 design combines aspects of a stage zero approach (Behan et al, 2020) with more traditional engineered structures reflecting specific site conditions and design constraints. Being entirely on private property, this reach will meet many of the criteria for stage zero restoration with no road or infrastructure to constrain the development of natural floodplain processes across the entire valley floor, ultimately providing all of the outcomes listed above. The Project will lead implementation efforts in conjunction with the CTUIR and Desolation Creek LLC conservation agreement. Collaborators will include the land owner, ODFW, and the NFJDWC, among others. Through the JDBP's Atlas prioritization this reach ranked as a Tier 1 area with a score of 67. The final design will incorporate all relevant restoration actions identified in the JDBP's Atlas. Habitat Project – John Day River Basin

Desolation Reach 4, and 5 Large Wood Placement

The DCGAAP (2017) describes the need for large wood in Desolation Creek to restore historic natural processes. Historic LWD conditions for were described as having included a complex mixture of single large pieces and log jams, while the current conditions are described as a moderate mixture (BLM 2008). Previous surveys of Desolation Creek by the USFS found an average of about 8 pieces per mile for the mainstem ranging from 6.1 to 9.3 pieces per mile (USDA 2006). The current quantity of LWD and log jams is low to moderate throughout mainstem Desolation Creek. During assessment reconnaissance surveys, LWD within the bankfull channel was inventoried in the areas surveyed. LWD was counted and size classes were measured for each reach in sample areas during field surveys, and an additional LWD inventory was done throughout Reach 4 and 5 using high-resolution aerial imagery. Only the LWD greater than 12 inches in diameter and 35 feet in length and larger than 20 inches in diameter and 35 feet in length were included in frequency estimates compared to the federal target of 20 pieces per mile.

The Project plans to pursue large scale LWD placement in 2025 through 2027 to address the need for instream structures and habitat complexity in Desolation Creek Reach 4 and 5, listed as Tier I/II in the DCGAAP. Access to the stream and canyon bottom in Reach 4 & 5 is extremely difficult for haul trucks heavy equipment, therefore, wood placement by helicopter will be the likely alternative. This action will employ any and all methods possible to keep the cost of implementation in line with the benefits of the wood placement.

Maintain Conservation Agreements

The Project will continue to maintain conservation agreements with landowners in 2023 -2027 including fence maintenance to keep livestock out of riparian areas, seasonal installation and maintenance of off- channel watering locations, and noxious weed control. All conservation agreements exist in floodplain areas although they contain or are related to upland management concerns. Save the Mud Creek agreement collaborators and The Project worked to improve grazing opportunities for cattle and spawning and rearing opportunities for spring Chinook salmon, Pacific lamprey, and listed summer steelhead trout. The Mud Creek agreement strives to improve water quality and potentially ground water storage passively by removing cattle from floodplain habitats and improving upland grazing opportunities.

Funding and Grants

In addition to The Project's operating and implementation budget provided by BPA Accord agreements, grants are often sought for cost sharing purposes for both technical assistance and implementation funding. Outside funding comes from a number of sources and a full list can be found The Project's homepage at John Day River Basin – CTUIR Fish Habitat Restoration Efforts in the John Day River Basin.

The largest grant contributor is the Oregon Watershed Enhancement Board (OWEB). OWEB funds are provided by Oregon State Lottery Dollars and Pacific Coast Salmon Recovery Fund (PCSRF), a NOAA Fisheries program. In addition to OWEB's regular grant process, the JDBP was awarded a Focused Investment Partnership (FIP) grant from OWEB providing $12,000,000 over 3 biennia, 2019 to 2024, across three priority subbasins, including the NFJD Subbasin. As a member of the JDBP, The Project is eligible to apply for technical assistance and implementation dollars through this program. These programs serve as an excellent resource for leveraging and maximizing the effects of BPA contributions. As we receive funding from OWEB, they also become valuable collaborators providing technical review and input.

Restoration Action Development

Prioritization schedules and local planning documents inherently rank aquatic and/or terrestrial wildlife benefit and thereby direct efforts to these areas. It is the responsibility of The Project and its collaborators to seek out cost effective approaches to restoration. This occurs through efforts to implement conjoining actions or those close enough in proximity to maximize the benefit to species of interest. It may also take the form of data acquisition sequencing such as the Bull Run Creek Mine Tailing Restoration effort where LiDAR was collected during data acquisition for another effort addressing the effects of placer mining nearby on Granite Creek. The 10 Road/Desolation Creek Reach 6 Phase 2 provides an example of how collaborators may address multiple considerations that don't necessarily coincide with the final solution that meets multiple objectives.

Efficiencies in design and implementation have been embraced by The Project in through the use of staff and collaborator capacity as restoration design should reflect the needs of an individual effort. While reach scale technically intensive efforts are of value less intensive smaller scale actions can contribute significant benefits for process based restoration. For example, The Project, with the help of BPA technical staff designed a large wood additions to be implemented on Hidaway Creek in 2022 and USFS technical staff will contribute to the Desolation Meadows/400 Road restoration design efforts. An example of design and implementation is the proposed 2023 – 2027 Hand Crew work which is currently occurring in the Camas and Desolation Creek basins. Given the level of effort in smaller headwater streams permitted designs require relatively little work as the final product is largely field fit. Equipment consists of chainsaws, Griphoists, and cable to source and place locally derived materials. Collaborators employ Veterans Crews which reduce cost and provide real world experienced to valued members of our community. The Project's staff also removed a passage barrier on Little Indian Creek to minimize cost and utilize existing staff skillsets.

Technical assistance for large scale restoration design is typically contracted to a design firm by The Project. Design firms are selected through a rigorous review process with input from collaborators and stakeholders. Our contracting procedures for design firms is described in Section 12 of this document. Design iterations follow HIP guidelines and design iteration milestones. A robust design set includes a clear and concise Basis of Design Report to track alternatives and the decision process and provide ample data to justify selected alternatives. If an in-house design is feasible The Project produces design elements and a BDR for an action and vet them through collaborators with review, approval and sign-off from BPA engineers and HIP review team.

Large scale actions are contracted to qualified construction firms with experience in river and riparian restoration through a process outlined in Section 12. Implementation typically requires heavy equipment for excavation, grading, pool/riffle construction, and placement of large wood and boulders. Because of the amount of disturbance, contractors are required to follow BMP's set forth by the permitting agencies and as outlined in the plan set by HIP reviewers and the design contractor. Daily construction oversight ensures the contractor adheres to those BMP's. Construction oversite is provided by a combination of CTUIR staff, partner staff, and design engineers. Implementation is confined to the corresponding in-water-work-window, with work outside of ordinary high water occurring outside that window, as weather and site conditions permit. Riparian planting, for example, often occurs in late fall to coincide with plant dormancy and is often implemented by CTUIR staff and partners. Contractor selection and CTUIR contracting protocols are further described in Section 12 of this document.

Restoration Permitting and Consultation

Permitting for restoration actions outside of Endangered Species Act and State Historical Preservation Office is typically performed in house unless time constraints or collaborator capacity requires our hiring contractors. Examples of permitting roles includes but is not limited to;

- CTUIR
    - Joint Permit Application to Oregon Department of State Lands (DSL) and the Army Corp of Engineers
    - ODF passage approval
    - Cultural resource Surveys
    - Oregon Department of Environmental Quality certifications
- BPA
    - ESA Consultation
    - SHIPO consultation

Part B: Methods to measure the effects of the activities

Monitoring occurs through multiple means and reflects guidance from BPA. This includes;

- Implementation Monitoring - Done under the MAMPs by The Project. Intent is to determine if developed habitat features are functioning as intended.
- Effectiveness Monitoring – Completed by the CTUIR's Bio-Monitoring Project to highlight feedback loops for how findings under that program are incorporated into the restoration actions.

- Action Effectiveness Monitoring - The Projects contributes to this program through the programs monitoring of select restoration sites to understand short-term and long-term results for implemented restoration actions using a multiple before-after control-impact or extensive post-treatment design.
- ODFW status and trends monitoring – The Project and collaborators contribute to ODFW spawning ground surveys, a comprehensive Desolation Creek monitoring effort, contributions to the bull trout working group, and efforts to understand bull trout and lamprey distributions in the NFJD. ODFW has responsibility for status and trends monitoring which action inform effectiveness at the basin level and how restoration is coordinated with that BPA funded program.

Part C: A plan for archiving and sharing data and meta data:

CDMS - CTUIR Central Database Management System

The CDMS is a web-based computer program designed as a client program for the CTUIR. A database server is used to manage this data and provides user access via the internet, within the CTUIR. This program works as a client in client/server interaction with the database. It allows data to be selected using queries and to analyze the data in tabular, map and graphical forms. The CDMS was designed and created by the CTUIR to aid in decision-making within the CTUIR. We have continued to develop the CDMS over the past several years, increasing its functionality and populating it with many datasets. The CDMS provides reliable and timely information to CTUIR employees and managers. The CDMS software is a dynamic and flexible web-based data management system includes:

- Data Standardization / Validation Import
- Data Entry
- Query
- Export
- Change Tracking
- QA/QC/Workflow
- Reports

Click Screenshots of The Project's interface with several facets of the CDMS.

NFJD Project website

The public interface for The Project and it's submissions to the CDMS is our website John Day River Basin – CTUIR Fish Habitat Restoration Efforts in the John Day River Basin.

CBFish.org

In addition to CDMS, project administration data and metrics are uploaded to BPA's CBFish.org website. CbFish.org is the public interface in which contracting, statements of work, work elements, and budgets are stored, monitored and tracked by managers, contracting officers, environmental compliance personnel and other BPA staff, in a manner that is transparent to the public. Important restoration management tools within CBFish.org include:

- Portfolio Tool – Enables the dynamic grouping of actions, so that people can construct their own custom portfolios for independent analysis and reporting.

- Search Tool – Allows people to search by different action attributes. Some examples are:
    - Benefitted species
    - Restoration location
    - Budget decisions and funding sources
    - Restoration purpose and emphasis
    - Custom action "tags"
    - Restoration performance indices
- Map Tools – Allows for review of progress based on geographic maps showing both action areas as well as individual sites where work is happening on the ground.
- Fund Management Tools – Provides a transparent view into how the program's budget is allocated.
- Budget Decision Tools – Allows financial analysts to ask and answer "what if" questions by building and comparing budget decisions before making decisions.
- Data Download - Enables independent analysis and ad hoc report building.
- Transparency Tools - Helps partner organizations such as the Biological Opinion Reporting team and the Columbia Basin Fish Accord teams track progress towards their obligations.

John Day Basin Project Tracker

The JDBP Project Tracker is a platform to coordinate basin-wide efforts across 30 partner organizations and track implementation of ridgetop to ridgetop restoration that help restore native habitats in the John Day River basin. Developed by the partnership, this platforms allows partners to submit funding applications, budgets, monitoring metrics, status updates and all action documentation.

Grant reporting

The Project adheres to reporting requirements associated with grant funding opportunities such as the Oregon Watershed Enhancement Board (OWEB) Oregon Grant Management System. This system is used to track proposals received and reporting documents required of OWEB's grantees. Data and reporting requirements and sharing are determined by the granting entity and are beyond The Project's control.

5. PROJECT EVALUATION AND ADJUSTMENT PROCESS

(SUGGESTED LENGTH 1 PAGE OR LESS)

Describe the process to retrospectively evaluate project outcomes and adjust goals, objectives, actions, and monitoring. The essential components of this process are described in Figure 1, the adaptive management cycle (also see ISAB 2018-3). Clearly describe how the results of the project(s) and any RM&E components will be used to inform and refine future related work within or beyond the project. Most of these components – e.g., plan development, objectives setting, implementation of actions, determination of action effectiveness, and reporting and synthesis of results – should be clearly documented in sections 1-4.

In this section, focus on the **process** for evaluation and decision-making steps needed to adjust the project and how the information will be applied. Describe:

- structured decision making, modeling, or other methods used
- explicit time schedules for when each step in the adjustment process will take place

- if public outreach will be used; for example, some project proponents schedule annual meetings open to the public to evaluate the effectiveness of past work and to consider the need for adjustments
- who will participate in evaluations and project decisions, and who makes final decisions
- how and what information from other related projects/programs is incorporated
- how decisions and evaluation results will be documented and disseminated

While The Project may have had a structured form of adaptive management in 2001 it was only mentioned once in the sense that it would be facilitated by monitoring data collection. The Project's 2007 ISRP Geographic Review proposal referred to adaptive management more frequently in the sense that 'We also interact with various resource agency and in-house habitat personnel to ensure that we are knowledgeable on the latest restoration techniques and practice adaptive management as described under goal (5) in the NPPC's 1994 FWP.'. Adaptive management also occurred through direct observation of treatments employed as a structured adaptive management strategy does not appear to have been adopted by The Project or the CTUIR's Fisheries Habitat Program.

For the 2013 ISRP Geographic Review, The CTUIR Fish Habitat Program developed its Riverine Planning Approach that includes an adaptive management feedback mechanism that allows and for that matter forces consideration of lessons learned and their incorporation into project administration and education and of all phases or fisheries habitat restoration and reporting (Figure 3). The Project also incorporates relevant ideas from other sources. All staff are responsible for seeking and evaluating available information and analysis with final acceptance thorough consultation with the lead biologist. For the 2021 ISRP review process the 2013 Riverine Planning Approach is being upheld.

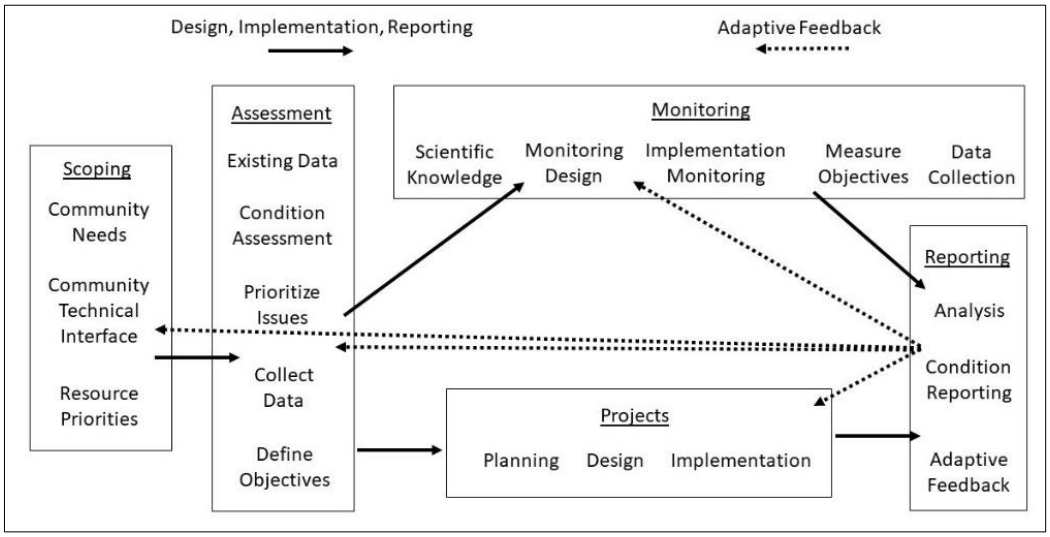

Figure 3. Graphic Representation of the CTUIR DNR's Fisheries Enhancement Program's Adaptive Management Strategy.

Although Figure 3 refers to lessons learned through restoration development, multiple avenues exist for incorporating lessons learned and new information into The Project's activities. Since 2001 a number of lessons learned have been incorporated into The Project's activities and in general the following descriptions are adhered to;

- Lessons learned during administrative and coordination is documented in meeting notes, communication with CTUIR and collaborator staff and presented in annual and progress reports, posters, and in direct communication with CTUIR, BPA, and other collaborator staff.
- Adaptive management related to education and outreach most often occurs during restoration scoping and reporting. Public meetings, site tours, the DNR's annual Resource Fair, and the UNF's Ukiah Fishing Derby are valuable visual and conversational outreach tools for the public and a direct avenue for addressing specific questions. Where larger scale restoration opportunities require input from municipalities attendance at city council or county commissioner meetings has proven useful. The NFJDWC and JDBP's regular meeting provide valuable opportunities for staff to interact with local residents and restoration practitioners thereby increasing the potential for exposure to approaches and ideas. The JDBP's Outreach Committee has developed site tours The Project has hosted providing direct exposure to staff and restoration site's to public from within and outside individual basins.
- Assessments are valuable for identifying readily available information and data gaps and existing conditions not necessarily tied to physical or biologic data. In fact, these efforts may outline needs which were not identified during project scoping or regulated coordination with collaborators. Where significant data shortfalls occur and prioritization will facilitate restoration activities watershed assessments such as the Camas Creek Watershed Assessment (Ecovista 2003), CCGA, and DCGAAP are developed. These documents inherently identify relevant factors and criteria for consideration and create feedback mechanisms for incorporating relevant information, including lessons learned as restoration progressively occurs. Such documents are updated every eight to ten years.
- Restoration planning, design, and implementation all require clear communication and documentation to ensure collaborators are consistent in their intent and scope. This requires acknowledgement and documentation of information garnered through past scoping, assessment, design, monitoring, and reporting processes. Relevant information is documented in Statements of Goals and Objectives, meeting notes, regular communication, and design iterations and is evaluated throughout the 'Projects' phase of Figure 3. Past efforts have brought about early development of action specific Statement of Goals to document, ties to existing planning and recovery documentation, and define expected outcomes and monitoring metrics.
- Monitoring has evolved according to BPA guidance with the development of the CTUIR's PHaMS, and will continue to evolve as new guidance becomes available. Past monitoring by The Project's staff evolved into monitoring by the CTUIR's Bio-Monitoring Project for the 2013 ISRP review and more recently use of Statements of Goals and Objectives and MAMPs. These documents and their resulting information is incorporated into reports reviewed by The Project's staff and incorporated into future design efforts.

6. POTENTIAL CONFOUNDING FACTORS

(SUGGESTED LENGTH APPROXIMATELY 1 PAGE)

Describe how potential confounding factors and major uncertainties could affect the success of the management or research project. Examples in the basin include changes in regional climate that affect temperature and flow, nonnative species, increasing predator abundance, changes in land and water management, or increases in toxic chemicals. How will those factors be detected? How will the project address the effects or influence of likely confounding factors?

a. Climate change (See Attachment A for useful information and data sources)

   - How will climate change potentially impact your project in the future and what information sources were used to identify those impacts?
   - What adaptation measures were taken to adjust your project for these impacts? Please reference the sources used to identify potential measures.
   - How could you evaluate the success of your adaptation measures to inform future projects?

b. Other confounding factors

Multiple factors confounding restoration activities were noted in The Project's 2013 ISRP Proposal's Explanation of Performance including changing landowner priorities, permit delays, cost share, shifting collaborator roles, and contract amendments. Over the past eight years we've improved our ability to proactively manage contracts, secure permits, and adjust to shifting collaborator cost share although complications occasionally arise due to changing collaborator staff and comment by permitting agencies. Although our experience and capacity for outreach and education has improved landowners still shift their priorities.

Invasive species have and will remain a confounding factor throughout the foreseeable future. The Project addresses invasive weeds where conservation agreements exist for the agreements term and in cooperation with collaborators as invasive weeds are treated as a stand-alone actions such as cooperative noxious weed treatments with the City of Ukiah. Oregon Department of Agriculture's State A & B weed lists are used to identify species of primary focus. We, as are many landowners, are awaiting developing treatments for species such as Ventenata (*Ventenata dubia*) which have or are becoming a significant land management issue. The Project was called upon during the 2013 ISRP Review to coordinate with ODFW and others to actively eliminate invasives such as brook trout and smallmouth bass. As stated during the 2013 ISRP review this lies beyond The Project's purview and capability. Their presence has and will continue to be addressed through the cumulative effect of prioritized fishery restoration actions that address core process in prioritized areas within our focus basins. This does not preclude contributions to collaborative efforts such as the John Day River's Bull Trout Working Group in their detailing bull trout presence which also bolsters our understanding of invasive species.

Changing atmospheric conditions and related factors are expected to alter environmental conditions throughout the Pacific Northwest affecting all life stages of listed and unlisted flora and fauna through changes in precipitation distribution, form, and rates. These changes result in altered hydrographs, drought, altered fire regimes exacerbated by past fire prevention practices, and shifts in wildlife habitat and its use among others. The extent to which changes may occur will vary spatially, reflect elevation, and will become more severe where past land management reduced a watershed's ability to buffer changing conditions. Beechie et al. (2013) climate modeling found that by 2070–2099 stream temperatures will increase between 2 and 6 degrees centigrade across most of the Columbia River Basin. This is supported by the more recent CTUIR Climate Change Vulnerability Assessment (CTUIR 2015) which identified investigated climate results for the CTUIR Aboriginal Title Lands. The assessment suggests that average warming is projected to be 2.4 to 3.1 °C by 2050 and 3.2 to 6.3 °C by 2100, depending on greenhouse gas emissions when compared to current conditions. Winter precipitation may increase and include more rain although the extent to which this may occur is not clear.

The Mid-Columbia Steelhead Recovery Plan (NMFS 2009; ODFW 2021) generally describe changes to steelhead trout's life histories in marine and freshwater (by 6th field HUC) and marine environments which can also be applied to other aquatic species save perhaps marine influences for resident species. Modeling results for The Project's focus basins suggests these effects are somewhat mitigated by each basin's higher elevations relative to areas downstream. A good example predicted change and potential mitigation is in Camas Creek where the lower basin will suffer the effects of climate change more so than upper reaches unless significant headcuts though large lower basin meadow systems are mitigated.

The NorWeST Stream Temp website (USDA 2021) displays existing data and modeled 2040 and 2080 conditions. Results for the Camas, Desolation, and Granite Creek basins suggest warming will occur through 2080. In all cases the lower elevations warm considerably with temperatures in the 8 – 10^{o} Celsius range existing only in the Granite Creek tributary headwaters draining Mount Ireland and Junkins, Beeman, Battle, and Howard Creeks and the South Fork of Desolation Creek of the Desolation Creek basin. These predictions are disheartening for Camas, Desolation, and Granite Creeks although they presume existing conditions will persist. These basins contain significant potential for improved floodplain and stream channel condition and groundwater storage. The Project's ongoing and proposed restorations supports a determination outlined in Beechie et al. (2013). Therefore The Project is prepared to address this confounding factor through process-based restoration actions that improve floodplain connectivity, restoring streamflow regimes, and re-aggrading incised channels are likely to ameliorate streamflow and temperature changes associated with climate change, thereby increasing salmonid habitat diversity and population resilience.

7. TIMELINE (SUGGESTED LENGTH 1 PAGE OR LESS)

Prepare a table or chart (e.g., Gantt chart) that shows the project schedule for activities during relevant seasons or time periods beginning FY2023 and extending for a time period of 3-5 years. Show year specific and within-year schedules as well as schedules across the entire project period.

Show clearly what work has already been started and the sequence of tasks and products planned. Clearly state the timeline and end date for RM&E components beyond compliance monitoring.

Table 3 below describes the annual timeline for upcoming actions. Within-year scheduling will depend on several factors. Restoration implementation will be scheduled around the 15 July to 15 August in-water-work window with preparation and clean up, work outside of the ordinary high water mark, may occur before and after the work window. Preparation typically starts as soon as access is available, and often depends on snow and flow conditions. Clean up and planting often lasts into the fall as weather permits reflecting fall rains. Within-year timing of design and permitting are dependent on funding cycles and can occur throughout and across calendar years. Work that has already started is outlined in Section 4's action descriptions.

Table 3. Proposed restoration actions for the 2023 – 2027 period.

Work Element	2023	2024	2025	2026	2027
Large Scale Implementation	Bull Run Tailings	10 Road Relocation	Desolation Reach 6 Phase 2	Reach 4 Large Wood	Reach 5 Large Wood
	Desolation Meadows/400 Rd Culvert		10 Rd Relocation Phase 2		
Design	Desolation Reach 6 Phase 2		Reach 4&5 Large Wood		
Permitting		Desolation Reach 6 Phase 2	Reach 4&5 Large Wood		
Hand Crew With TU	Camas	Camas	NF Desolation	Kelsey	Kelsey
	NF Cable	NF Cable	Kelsey	Howard	Howard
	NF Desolation	NF Desolation	Howard	Upper Bull Run	Upper Bull Run
Maintain Conservation Agreements	Desolation Creek, Lower Camas Creek, Mud Creek, Granite Creek Sites	Desolation Creek, Lower Camas Creek, Mud Creek, Granite Creek Sites	Desolation Creek, Lower Camas Creek, Mud Creek, Granite Creek Sites	Desolation Creek, Lower Camas Creek, Mud Creek, Granite Creek Sites	Desolation Creek, Lower Camas Creek, Mud Creek, Granite Creek Sites

8. RELATIONSHIPS TO OTHER PROJECTS (SUGGESTED LENGTH 1 PAGE OR LESS)

Summarize how the project is related to other projects in the Program and to projects or actions outside the program. Provide specific information including Program project names and numbers. Describe any coordination, collaboration, overlap, or redundancy between this and other projects, such as for work involving sturgeon, lamprey, hatcheries, or tagging. Describe relationships to those projects that are integrated with and contribute to other major programs that are not included in this review, such as the Lower Snake River Compensation Plan, Federal Agency habitat restoration, Upper Columbia River PUD mitigation, and Tribal Management Plans.

Regional relationships are primarily the purview of Tribal governance/management and DNR program management staff such as Eric Quaempts, Gary James, and Mike Lambert and CTUIR's Legal Department and Board of trustees. The Project works with higher echelons by providing information as requested in support of advancing relationships with regional entities involved in

supporting treaty rights, First Foods, and other efforts as required. When interagency coordination is required The Project consults with Audie Huber the DNR Interagency Coordinator.

Within the DNR Program The Project consults with other staff during the development and implementation of restoration actions and shares resources and knowledge to benefit management and restoration efforts. In the past, consultation with the DNR's Range and Forestry and Water Resources Programs has occurred. While there may not be a direct working relationship between all actions there are active collaborative efforts between The Project and the CTUIR's Bio-Monitoring Project, Instream Flow Acquisition and Protection Project, Grande Ronde River Fisheries Enhancement Project, and Instream Flow Restoration Project and the DNR's Cultural Resource Program. The Project's staff interact with other DNR staff as needed and during annual all staff meeting. We also contribute to DNR Fisheries Habitat Program meetings held twice a year. CTUIR's BPA funded actions we work with include but are not limited to;

- BPA Project #1987-100-01; CTUIR's Umatilla River Basin Fish Habitat Enhancement Project
- BPA Project #1996-046-01; CTUIR's Walla Walla Basin Habitat Enhancement Project
- BPA Project #1996-083-00; CTUIR's Grande Ronde Basin Habitat Enhancement Project
- BPA Project #1996-083-00; CTUIR's Protect and Restore Tucannon Watershed Project
- BPA Project #2009-014-00; CTUIR's Bio-Monitoring of Fish Habitat Enhancement Project
- BPA Project #1994-026-00; CTUIR's Pacific Lamprey Research and Restoration Project
- BPA Project #2002-037-00; CTUIR's Freshwater Mussel Research and Restoration Project
- BPA Project #2007-252-00; CTUIR's Hyporheic Flow Assessment in Columbia River Tributaries Project
- BPA Project #2008-206-00; CTUIR's Instream Flow Restoration Project
- BPA Project #2008-207-00; CTUIR's Acquisition and Protection Project
- BPA Project #2008-201-00; CTUIR's Ceded Area Juvenile and Adult Passage Improvement/Culverts

John Day Geographic Region – The primary tool for basin wide organizing and collaboration has become the JDBP. While the JDBP does not receive funding from BPA it makes available opportunities for members to regularly meet to discuss and strategize restoration efforts across the John Day River basin. Because of these opportunities, JDBP members and its related operational committees are better able to develop educational resources (Outreach Committee), identify available funding opportunities (Finance Committee), and communally secure funding for the larger John Day River basin (OWEB FIP funding) than a single organization could alone. Byproducts of the JDBP's efforts also increase member resources and improve the effects of restoration actions such as the development of a Memorandum of Understanding, the SAP (JDBP, 2018), aquatic Atlas prioritization, terrestrial Atlas prioritization now under development, and Project Tracker repository (JDBP 2021). That said, the JDBP will not become a basin wide coordination entity in the form of the Grande Ronde Model Watershed as it will enhance rather than replace member coordination. Nor has the JDBP replaced The Project's adherence to CTUIR derived policy and guidance through which the JDBP's products and large scale planning and recovery guidance is filtered. Collaborators funded by BPA include;

- BPA Project #1984-021-00; ODFW John Day Habitat Enhancement

- BPA Project #1993-066-00; ODFW Oregon Fish Screens Project
- BPA Project #1998-016-00; ODFW Escape and Productivity of Spring Chinook and Steelhead
- BPA Project #2000-015-00; CTWS Upper John Day Conservation Lands Program
- BPA Project #2002-034-00; Wheeler SWCD Riparian Buffers in Wheeler County
- BPA Project #2002-035-00; Gilliam SWCD Riparian Buffers in Gilliam County
- BPA Project #2007-397-00; CTWS John Day Watershed Restoration Program

North Fork John Day River Basin - The Project developed subbasin specific guidance documents that complement regional planning or recovery documents. These include the CCGA and DCGAAP which the CTUIR and collaborators use to develop and implement effective restoration actions. Guidance provided by these documents and those developed by other collaborators such as the WWNF's Bull Run Creek Assessment (USDA 2012) provides a stable and consistent foundation that all collaborators have access to. More recent establishment of the JDBP and development of products such as the Atlas prioritization tool incorporated the DCGAAP's findings in their entirety. While the JDBP's Atlas tool have become the primary prioritization tool for the JDB it will not supplant other previously developed planning documents. Rather, it will complement those documents and provide a mechanism for periodic review of existing conditions and progress toward meeting goals and objectives.

The Project will continue to work with NFJD cooperators beyond private landowners and citizens when the opportunities arise. This has and will continue to include collaborators not limited to the UNF, WWNF, Malheur National Forest, NFJDWC, Grant SWCD, Monument SWCD, ODFW, and City of Ukiah. Relationships are also maintained and built through the CTUIR's participation in the local community as a member of the NFJDWC's board.

The Project develops and implements several large scale restoration actions, the scale of which is enhanced by the JDBP's involvement. For instance of the five reach scale restoration actions currently in development or being implemented (Hidaway Creek RM 1.3, Desolation Creek Reach 3, Desolation Creek 10 Road Relocation, Granite Creek RM 7.5 and the Bull Run Creek Tailing Restoration) all have three or more collaborators and three (Hidaway Creek RM 1.3, Desolation Creek 10 Road Relocation, and Granite Creek RM 7.5) received OWEB FIP funding from the Partnership. Funding will also be sought for the Desolation Creek Reach 3 and Bull Run Creek Tailing Restoration from the JDBP as well.

9. RESPONSE TO PAST COUNCIL RECOMMENDATIONS AND ISRP REVIEWS (SUGGESTED LENGTH 1 PAGE OR LESS)

In a brief summary, please demonstrate how the project proponents have responded to the most recent Council recommendations and ISRP review, even if it received favorable ratings. If the project has not responded to recent Council recommendations and ISRP recommendations, explain why. Careful responses are especially important if the project received a "Qualified" or "Conditional" rating from the Council. The most recent Council recommendations and ISRP comments from past Category Reviews have been imported into cbfish.org under your project's

summary page. Responses to standalone Step and follow-up reviews should be described as well (e.g., see the ISRP's report webpage).

Prior to the 2013 Geographic Review comments received from ISRP regarding activities undertaken by The Project were answered resulting recommendations for funding. Through the 2013 ISRP Geographic Review Process the NFJD Fisheries Enhancement Project received a "Meets Scientific Review Criteria (Qualified)" rating though the ISRP determined additional clarifications were needed associated with major findings and lessons learned from past actions, roles and responsibilities of various entities, and data management. The Project responded to these concerns in the annual reports for the 2015, 2016, 2017, 2018, and 2019 (Reports & Data – John Day River Basin) performance periods as required. However, the Roles and Responsibilities and Data Management are revisited below.

Qualification 4 (roles and responsibilities of various entities) - *Given the scope and complexity of the NFJD project, additional emphasis on coordination is likely to reduce project costs and to make the best use of the wide array of skills available to the project—both within the subbasin and from the region. It would be particularly useful to have a written, initial framework that identifies broad roles and responsibilities among key partners and players. It could start by addressing the CTUIR organization, with a focus on Natural Resources, and then progress through discussions/agreements with key partners. These discussions should be useful for the long term success of the project. Documentation does not need to be detailed but should be sufficient to capture major agreements and responsibilities among participants. It should be included in the next annual progress report to BPA.*

With regard to the CTUIR's organization, the DNR department is organized to reflect its First Foods Policy with Water covered by the Water Resources Program, Deer by the Wildlife Program, salmon by the Fisheries Program, and Cous and Huckleberry by the Range and Forestry Program while DNR Administration and Cultural Resources reflects human aspects of the First Foods. Each program has a lead person assigned to it, Gary James in the case of the Fisheries Program and dedicated administrative staff, with one or more leads assigned to sub-programs or sub-disciplines such as Gene Shippentower for fisheries M&E, Mike Lambert for fisheries habitat enhancement and an unfilled lead position for fisheries production. Project leads assisted with subordinate staff within each program conduct on the ground efforts and are responsible for responding to requests from program management. They also have the ability to develop and maintain relationships which benefit implemented management and restoration actions. These relationships develop as needed or proactively. However, they are facilitated by meetings within and across DNR programs (i.e. twice yearly fisheries habitat coordination meetings, once yearly DNR meeting, and once yearly DNR Open House). All CTUIR staff respond to tribal directives and committees such as the Fish and Wildlife Committee as needed or when invited. Program level staff and committees are the primary way project level staff interact with the larger tribal organization. Directives and coordination with collaborators at the tribal and DNR Program level occurs to assist project level staff. Examples include but aren't limited to MOAs & MOUs such as those entered into by JDB collaborators for the JDBP and collaborative master agreements as those between the UNF, WWNF, and MNF and CTUIR which streamlined agreement requirements to reduce redundancies when developing project level agreements between collaborators. The three national forests also

entered into similar agreements with other John Day River basin collaborators such as the NFJDWC.

With regard to interagency coordination DNR maintains a dedicated Interagency Coordinator, Audie Huber, who requests information from project level staff and responds to input or needs of project level staff as needed. Otherwise, project level staff communicate directly with that of collaborating entities directly. The form of this coordination is varied and may be conducted one on one or in small groups using verbal or written dialogue, or through presentations or attendance at meetings. Project level staff typically develop project level agreements in fulfillment of master agreements ensuring appropriate approvals are secured before work on an individual effort begins.

In the past, coordination with collaborators outside of the NFJD Project's focus basins was limited although coordination with John Day River basin did occur as a needed. These coordination efforts evolved into annual gatherings over time to discuss actions to be implemented which in turn became semi-annual meetings hosted by BPA to encourage collaboration amongst their sponsors. Semi-annual meetings then evolved into development of the JDBP in 2014 where all partners entered into a MOA. The partnership intended to bring together stakeholders interested in restoring and maintaining watersheds across the JDB and to realize more comprehensive ecological, economic, social, and cultural benefits for current and future generations. The partnership meets semi-annually in a general session and guided by a steering committee who meets monthly, finance and outreach committees which meet periodically throughout the year, and focal basin committees (North Fork, Upper, and Lower John Day River) meet semi-annually. Meetings provide an opportunity for collaborators to discuss topics of general or specific interest, collaborative opportunities, and strategy for restoration. The partnership also works to identify funding sources that benefit the larger group be it through notifications of funding opportunities and/or securing funding which is distributed amongst partners. An example is OWEB funding secured through its FIP program where the partnership has funding available for three biennia in priority focus areas that include the Upper NFJD, the Upper Middle Fork John Day, and Butte/30 Mile. A significant byproduct of the partnership's efforts has been and continues to be the adoption and development of restoration priorities for aquatic and terrestrial environments using BPA's Atlas process. This tool is available for use by all collaborators and updateable to reflect restoration work completed.

Qualification 6 (data management) - *The primary concern is how data will be managed during the 2-3 years while development of the CTUIR data management system is being completed. Additionally, it does not appear that there are contingency plans to deal with possible delays in full implementation of the data management system. Does the completion of the data management system by 2018 mean that temporal analyses cannot occur before then? Is there a priority list for bringing modules on line? These are important concerns from the perspective of program effectiveness. A written response to these concerns should be included as part of the project's next annual report to BPA.*

The CDMS's development did not preclude analysis during its development as priorities for development were dependent upon progressive system development needs. As of January

2021The CTUIR's CDMS is fully developed to specifications outlined by BPA. The CDMS's system back–up occurs twice a day to a separate server with a daily snapshot stored in a separate physical location. Data sets now reference to project and program level staff needs and evolve as new data sets needs are identified. The CDMS contains established QA/QC protocols, query protocols, digital data collection, and is accessible by the web. The system is protected by a firewall with multiple backup protocols and incorporates open source data on GitHub used by the CTWSRO, Confederated Tribes and Bands of the Yakima Nation, Nez Perce Tribe, CTUIR, and Columbia Inter-Tribal Fish Commission. Web pages associated with the CTUIR's Fisheries Enhancement actions are connected to the CDMS by workflow allowing individual actions to tailor websites to their needs, restoration actions, and messaging. The CDMS along with all data sharing and reporting methods described in Section 4 of this proposal thoroughly address the qualification proposed in the 2013 review.

10. REFERENCES (SUGGESTED LENGTH LESS THAN 1 PAGE)

Provide a list of only the references and technical documents *cited in the proposal*, including sufficient information to allow reviewers to retrieve the documents (e.g. URLs or weblinks).

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Behan, J., Fetcho, K., Davis, R., Gaines, L., 2021. River restoration to Achieve Stage 0 Condition: Summary of a Workshop Held November 5-6, 2020. Report to the Oregon Watershed Enhancement Board. Oregon Watershed Enhancement Board (Salem, Oregon) and the Institute for Natural resources (Corvallis, Oregon)

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11. KEY PERSONNEL (SUGGESTED LENGTH LESS THAN 1 PAGE)

List key personnel required to complete the project, including principal investigators, project managers, and administrative support. In a paragraph per person, list key personnel duties on the project, including the hours they will commit to the project (e.g. intermittent, FT or PT), and their expertise/qualifications for the proposed work.

Include degrees earned (list institutions), certification status, current employer, and list up to five key publications relevant to the project. DO NOT include any personal information for key personnel (e.g., past employment, age, phone number, and postal and email addresses).

Specify cases where staff or consultants need to be recruited and the qualifications required. If work from your project will be sub-contracted to others, briefly summarize the work to be sub-contracted. Describe your key subcontractors and the process you use for their selection including solicitation approach, minimum number of subcontractors required for a competitive process, and the details of your organization's selection criteria.

Gary A. James is the CTUIR's Fisheries Program Manager overseeing all aspects of the tribe's Fisheries Program including coordination with tribal policy, co-managers, funding agencies and the public in planning, implementation and monitoring of the tribe's water/fish actions throughout NE Oregon and SE Washington (40hrs\wk). Projects including instream flow restoration, fish passage, floodplain habitat enhancement, hatchery actions, lamprey and freshwater mussel research and restoration, fish harvest management, and monitoring and evaluation inform management and determine action success as a result of Mr. James efforts. He represents CTUIR on numerous Columbia Basin forums dealing with fisheries management and restoration actions. Gary received a BS Degree in Fisheries from Oregon State University in 1979.

Mike Lambert is the CTUIR Fisheries Enhancement Program's Supervisor since 2014 and is responsible for oversight of fisheries enhancement actions based in the Umatilla, Walla Walla, Tucannon, Grande Ronde, and North Fork of the John Day River sub-basins and one ceded area passage project (40hrs\wk). Mr. Lambert provides direct supervision, management and administrative oversight and direction of sub-basin field level staff and ensures protection and restoration integrated efforts support DNR First Foods and River Vision Policy and its mission of highly functioning and restored floodplains and habitats that support aquatic First Foods. Mr. Lambert has 26 years of experience in program and project level fisheries management with 18 years of direct work experience in floodplain/in-stream passage and habitat protection and restoration. He also has a broad research, monitoring and evaluation work experience relative to life history and habitat use of anadromous and resident fish and hatchery fish re-introduction programs in the Columbia River Basin. Mr. Lambert has worked for the CTUIR Fisheries Program since 2003, obtained a Bachelor of Science in Biology from Oregon State University, and completed Portland State Universities River Restoration Professional Certificate Program.

John Zakrajsek is the Project Lead for the CTUIR's NFJD Fisheries Enhancement Project (40 hours/week) responsible for leading the CTUIR Fisheries Habitat Project for the NFJD Basin. Mr. Zakrajsek is responsible for developing and maintaining a justifiable approach for restoration activities within the NFJD, developing and maintaining relationships with collaborators, developing, designing, and implementing assessments and permitted restoration actions, reporting, ensuring appropriate adaptive management decisions are made, and appropriate

project administration oversight and personnel management occurs. Mr. Zakrajsek has worked with anadromous and resident fish in Idaho and Oregon over the past 20 years with state and tribal entities contributing to efforts associated with hatchery production, fisheries research, hatchery monitoring and evaluation, and habitat restoration. Mr. Zakrajsek received an Associate's degree from Hocking Technical College in Fisheries and Wildlife Management and a Bachelor's of Science in Fisheries Management and a Master's of Science in Hydrology from the University of Idaho.

Mitch Daniel is Fisheries Habitat Biologist for the CTUIR's NFJD Fisheries Enhancement Project (40 hours/week). Primary duties on The Project include assisting the NFJD Fisheries Enhancement Project Leader in developing and implementing fish habitat restoration and enhancement actions in the NFJD Subbasin by providing technical support toward achieving project objectives. Mr. Daniel assists with various aspects of restoration implementation including developing restoration opportunities, conducting baseline analyses and field surveys, assisting in restoration development via action plans, completion of environmental compliance requirements, administration, conducting monitoring and evaluation, reporting, multi-agency and private landowner coordination and assistance with project administration and staff supervision. Mr. Daniel has worked on anadromous and native freshwater fisheries research and restoration actions for over 20 years in Idaho, Oregon, and Washington. Mr. Daniel received a Bachelor's of Science in Liberal Studies with an emphases in Biology and Business from Eastern Oregon University and competed graduate level coursework in plant ecology, geomorphology, conservation biology, herpetology, fisheries, and environmental law and policy at Southern Oregon University.

Fisheries Technician – Currently vacant. Expected to be filled during mid-2021.

Contractors

The CTUIR adheres to federal contracting provisions associated with 2 CFR Part 200 Cost Principles and Administrative Requirements. The DND's Fisheries Enhancement Program solicits bids from contractors through a competitive bid process as their services are required. As such, multiple contractors are/may be involved in a single action reflecting action needs and contractor skillsets. Contractors are eligible to receive bid packets from the CTUIR upon review of their qualifications by CTUIR Fisheries program management staff and their placement on an 'approved contractor' list. All contractors on this list receive a copy of all bid packets the CTUIR produces although any contractor who responds to advertisement will be considered. The CTUIR adheres to federal contracting procedures so projected restoration costs determine how a request for bids or proposals are advertised.

Bid packets are developed by project management staff as a need for contractor services is identified with review by program management staff prior to its advertisement. Bid packets are reviewed by project level staff with lowest bids accepted for a 'Request for Bids' process or the most qualified contractor where 'Requests for Proposals' are solicited. In the latter, proposal evaluation scoring is detailed in the bid packet for contractor review prior to development of their bid packet (Appendix 4). Bidding contractors are notified of tentative contractor selection followed by a two week period where the CTUIR and tentatively selected contractor will finalize contract details. After this a notice of final selection is sent to all bidding contractors. A notice to proceed is

sent to the winning contractor after the contract has been signed by the winning contractor and CTUIR.

12. APPENDICES

Other information or ancillary data that are important to the proposal may be included in one or more appendices. Ensure that each is cited in the appropriate place in the text (e.g., Appendix A) so that reviewers are aware of them.

APPENDIX 1

Limiting Factors	Code	Objectives	Code
Channel Characteristics	CC	Improve stream channel complexity and morphology	1
Habitat Diversity	HD	Preserve desirable or improve degraded aquatic habitat	2
Floodplain Confinement	FC	Improve floodplain connectivity	3
Riparian & Floodplain	RF	Improve riparian and floodplain complexity	4
Water Quality (non-sediment)	WNS	Improve or preserve temperatures and chemistry	5
Water Quality (sediment)	WS	Improve sediment routing and sorting	6
Stream Discharge	SD	Improve streamflow during base flow periods	7
Passage Barriers/Entrainment	P	Improve passage to existing high quality habitats	8

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
Owens Creek Conserv Agreemt 2001 - 16	CC, HD, WS, WNS	1, 2, 7	2001	0.5	5.2	- 481 meters of 4-strand barbed wire riparian fence constructed. - One stock well developed and with associated troughs. - Structure maintenance and noxious weed treatments for the life of agreement.	2 cross sections, 1 Photo Point	none
Upper Snipe Creek Conserv Agreemt 2001 - 16	CC, HD, RF, WNS, WS	1, 2, 3, 4, 5, 6	2001	1.3	34	- 2,218 meters of 4-strand barbed wire riparian fence constructed. - Two spring developments constructed. - Structure maintenance for the life of the agreement.	2 cross sections, 2 longitudinal profiles, 1 photo point	2 cross sections
Lower Snipe Creek Conserv Agreemt 2001 - 16	CC, HD, RF, RFC, WNS, WS	1, 2, 3, 4, 5, 6	2001	1.3	54	- 4,237 meters 4-strand barbed wire riparian fence constructed. - Three stock wells developed. - 7,000 native hardwoods planted. - Structure maintenance and noxious weed treatments for the life of agreement.	2 cross sections, 2 longitudinal profiles, 2 thermistors, 1 photo point	2 cross sections, vegetative survival count
Deer Creek Conserv Agreemt 2003-18	CC, HD, RF, RFC, WNS, WS	1, 2, 3, 4, 5, 6	2003	3.8	219	- 2,736 meters of 4-strand barbed wire fence constructed and 2,889 meters of fence refurbished. - 11 spring developments constructed. - Approximately 7,500 native hardwoods planted. - Structure maintenance and noxious weed treatments for the life of agreement.	2 cross sections, 2 longitudinal profiles, 2 thermistors, 1 photo point	2 cross sections

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
Lower Camas Creek Conserv Agreemt 2006-2021	CC, HD, RF, RFC, WNS, WS	1, 2, 3, 4, 5, 6	2006	1.6	40	- 335 meters of levee removed - 1.6 Km of riparian fence constructed - Three stock water ponds constructed - One stock water pond improved - One spring developments created - Approximately 5,500 native hardwoods planted - Structure maintenance and noxious weed treatments for the life of agreement	3 cross sections, 1 longitudinal profile, 2 thermistors, 3 pebble count sites, 1 photo point	Three cross sections
Upper Camas Creek Conserv Agreemt	CC, HD, RF, RFC, WNS, WS	1, 2, 3, 4, 5, 6	2009	1.3	256	- 2,450 meters of 4-strand barbed wire riparian fence and 3 water gaps constructed. - 3,090 meters of upland 4-strand barbed wire fence constructed. - One upland well developed. - Structure maintenance and noxious weed treatments for the life of agreement.	12 cross-sections, 1 longitudinal profile, 2 thermistors	3 cross sections
NFJD Conserv Agreemt 2005 - 2020	RF, WS	3, 6	2005	1.6	6	- 1.6 Kilometers of four strand barbed wire fence constructed to remove cattle from riparian areas. - One well installed to replace watering them the NFJD. - 250 native vegetative pilings	Photo points	none
NFJD Wildernes Survey 2010	HD	2	2010	0	0	- Surveyed of noxious weeds along 217 Kilometers of trail within the NFJD Wilderness area.	none	none
Battle Creek Culvert Replacmt	WS, P	6, 8	2010	13.7	0	- Removed complete barrier to high quality summer steelhead trout habitat.	UNF road inspections	Redd surveys for 2 years after replacemt
Granite Creek Culvert Replacmt	WS, P	6, 8	2010	4.3	0	- Removed partial barrier to high quality summer steelhead trout habitat.	UNF road inspections	Redd surveys for 2 years after replacemt
Bruin Creek Culvert Replacmt	WS, P	6, 8	2011	8.5	0	- Removed partial barrier to high quality summer steelhead trout habitat.	UNF road inspections	Redd surveys for 2 years after replacemt
Beaver Creek Connect	P	8	2010	0.18	1	- Removed 5 log drops, sealed the stream channel with bentonite, and reshaped the stream channel.	3 cross sections, 1 longitudinal profile	ODFW annual spring spawner surveys
Ten Cent Creek Culvert Replacmt	WS, P	6, 8	2011	9.6	0	- Removed partial barrier to high quality summer steelhead trout habitat.	UNF PIBO & road inspections	Redd surveys for 2 years

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
								after replacemt
Clear Creek Mine Tailing Distribut	HD, RF, RFC, WS	2, 3, 4, 5	2006	3.8	45	- Recontoured approximately 276,000 cubic meters of mine tailings. - Reestablished an inset floodplain to promote floodplain connectivity and sediment / debris deposition.	none	none
Kelsay Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2008	1.6	100	- 4,425 meters 'New Zealand' and one water gap along constructed.	4 photo points, 2 thermistors, USFS permttiee maintenance	none
Taylor Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2010	1.6	46	- 3,200 meters of 4-strand barbed wire fence constructed.	Photo point, USFS permttiee maintenance	none
Sugarbowl Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2010	0.8	18	- 1,600 meters of 4-strand barbed wire fence constructed.	Photo point, USFS permttiee maintenance	none
Morsay Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2010	3.2	100	- 11,747 meters of 4-strand barbed wire fence constructed.	Photo point, USFS permttiee maintenance	none
Bruin Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2010	0.8	19	- 695 meters of three strand 'New Zealand' fence constructed.	Photo point,	none
Butcherknife Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2012	1.5	1200	- 3,621 meters of four strand barbed wire fence constructed.	UNF PIBO	none
Five Mile Creek Fence Maintnce	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2012	2.5	90	- Heavy maintenance on 8 Kilometers of riparian exclusion fencing.	Photo point, USFS permttiee maintenance	none
Fox Creek Leafy Spurge Control	HD, RF	2, 3	2010	65	260	- Approximately 215 acres treated with herbicide and biological controls. - 45 acres survey for infestations and tracking the progress of previous treatment. - 45 acres survey for infestations and tracking the progress of previous treatment.	none	visual surveys of selected areas, 2 transects
Granite Creek Native	HD, RF	2, 3	2010	0	24.5	- Planted 8,400 native hardwoods in floodplain and riparian areas.	none	visual surveys of selected areas

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
Veg Plantings								
Clear Creek Native Vegetation Plantings	HD, RF	2, 3	2010	2	4	- Planted 5,040 native hardwoods in floodplain and riparian areas.	none	visual surveys of selected areas
Granite Creek Noxious Weed Control	HD, RF	2, 3	2010	4.8	40	- 40 acres of riparian and floodplain habitats surveyed for noxious weeds. - 28.5 acres of riparian and floodplain areas treated with herbicides	none	visual surveys of selected areas
NFJD River Push-up Dam Removal and Water Right Cert	WS	6	2009	145	80	- One irrigation point of diversion moved approximately 152 meters to a permanent scour hole. - One water gap removed. - Water right POD change completed.	4 cross sections, 4 pebble counts	Greenline survey
Lower Camas Creek Coord	CC, HD, RF, RFC, WNS, WS, SD	1, 2, 3, 4, 5, 6, 7	2012	9	1,000	- Completed brief detailing past and existing conditions, possible influences of existing geomorphology, and a strategy for developing appropriate treatments.	cross-sections and pebble count data collected as baseline information	none
Fox Creek Channel Enhancmt & Fencing	CC, HD, RF, WNS	1, 2, 3, 5	2013	0.6	8	- Placed 25 pieces of large wood in the original stream channel. - 20 plugs restricting flow through 700 meters of the Corps channel. - 600 meters of riparian fence constructed	Photo point	none
Corrigal Springs Culvert Replacmt	WS, P	6, 8	2013	5.8	0	- Removed partial barrier to high quality summer steelhead and bull trout habitat.	UNF road inspections	Redd surveys for 2 years after replacemt
Mud Creek Conserv Agreemt 2013 - 27	CC, HD, RF	1, 2, 3	2013	1.6	100	- 2,407 meters of six strand high tension wire fence constructed. - One water gap installed - One stock water well developed with associated solar pump, panels, and water trough.	Photo points	none
Red Boy Pipeline Replacmt & Signs	WS	6	2013	0.25	0.5	- Six inch PVC drain pipe between the mine audit and settling ponds was replaced with 250 meters of 12" HDPE pipe and the number of cleanouts increased from two cleanouts to five manholes and two cleanouts. - 2 information signs developed and installed	Pipeline and settling pond maintenance by landowner	none

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
Taylor Creek Fence Mainten	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2013	1.6	10	- Heavy maintenance completed on 1.6 Kilometers of riparian fence constructed in the 1980s.	Photo points, USFS permttiee maintenance	none
Little Indian Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2013	1	25	- 2,103 meters of four strand barbed wire fence constructed.	Photo points, USFS permttiee maintenance	none
Smith Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2013	4	90	- 1,219 meters of four stand barbed wire fence constructed.	Photo points, USFS permttiee maintenance	none
Granite Creek Conservation Agreemt 2013 - 23	CC, HD, RF, RFC, WNS, WS	1, 2, 3, 4, 5, 6	2013	0.6	10	- Four large wood structures and one rock weir installed to reduce sediment entrainment in Granite Creek.	CTUIR Bio-Monitoring Project	CTUIR Bio-Monitoring Project
CTUIR Monitor Plan Develop	CC, HD, RF, RFC, WNS, WS, SD, P	1, 2, 3, 4, 5, 6, 7, 8	2013	0	0	- Developed a reached scale monitoring plan to standardize the CTUIR's Fishery Habitat Program's monitoring efforts.	none	none
Deep Creek Culvert Replacmt	WS, P	6, 8	2014	3.2	1	- Removed partial barrier to high quality summer steelhead and bull trout habitat.	UNF road inspections	Redd surveys for 2 years after replacemt
Bull Run Creek Culvert Replacmt	WS, P	6, 8	2014	16.2	0	- Removed partial barrier to high quality summer steelhead and bull trout habitat.	UNF road inspections	Redd surveys for 2 years after replacemt
Little Indian Creek Culvert Removal	WS, P	6, 8	2014	0.5	0	- Removed partial barrier to high quality summer steelhead trout habitat.	photo points	Redd surveys for 2 years after replacemt
Camas Creek Fence Maintain	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2014	35	230	- Heavy maintenance of riparian fence constructed in the 1980/90s protecting 35 Kilometers of stream channel and floodplain habitats	UNF PIBO, USFS permttiee maintenance	none
Camas Creek Geomorp Assessmt and Action Plan	CC, HD, RF, RFC, WNS, WS, SD, P	1, 2, 3, 4, 5, 6, 7, 8	2015	9	1000	- Geomorphic Assessment concentrating on the primary assessment area extending from river mile 12.0 to 17.8 A secondary assessment area included all portions of the watershed above river mile 17.8.	LiDAR, River Form Metrics, 1D & 2D Hydrologic Modeling,	none

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
							Aerial Photographs	
Desolation Creek Fence Maintain	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2015	18.9	33.7	- Heavy maintenance on 39 Kilometers of riparian fence constructed in the 1980/90s protecting 18.7 Kilometers of stream channel and floodplain habitats	USFS permttiee maintenance	none
Desolation Creek Stock Water Develop	CC, RF, WS	1, 2, 3, 6	2015	0	1	- One spring developed to include spring box, trough, and spring fenced off	none	none
Fox Creek Riparian Fence	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2015	0.8	1.7	- 800 meters of four strand barbed wire fence constructed to protect summer steelhead trout habitat from cattle.	None, Landowner maintenance	none
Battle Creek Refit	WS, P	6, 8	2016	13.7	0	- Restored passage through the baggier through washing in fine material and creation of an inset low flow channel	none	none
Five Mile Creek Fence Maintain	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2016	9.6	2693	- 26.5 Km of fence received heavy or general maintenance	UNF PIBO, USFS permttiee maintenance,	none
Camas Creek Fence and Stock Water Develop	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2016	8	1	- 1.2 Km of four strand barbed wire fence constructed - One stock water pond created and one existing stock water pond deepened	none	none
Camas Creek Fence and Stock Water Develops	CC, HD, RF, WNS, WS	1, 2, 3, 5, 6	2016	8	1	- 1.2 Km of four strand barbed wire fence constructed - one stock water pond created and one existing stock water pond deepened	none	none
Desolation Creek Geomorp Assessmt and Action Plan (GAAP)	CC, HD, RF, WNS, WS, SD, P	1, 2, 3, 4, 5, 6, 7, 8	2015	11	135	- Geomorphic assessment concentrating on the primary assessment area extending from river mile 1.2 to 11.8 with the balance of the basin considered the secondary assessment area - Desolation Creek basin wide Action Plan to guide restoration efforts	LiDAR, River Form Metrics, 1D Hydrologic Modeling, Aerial Photographs	none
NFJD eDNA	I	9	2017	58	0	- Understand distribution of bull trout, brook trout, and Pacific Lamprey in the Desolation, Camas, and Granite basins	none	eDNA
Desolation Creek Gauging Station	SD	7	2017	0.1	0	- Installation and monitoring of a gauging station on lower Desolation Creek at RM 1.0	Flow curve development	none

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
Desolation Creek Upper Reach 6 Design & Implemt	CC, HD, RF, WS	1, 2, 3, 4, 5	2016	0.4	6	- 45 large wood structures developed - 1.6 Km of side channel reactivated - Decommissioned 0.5 miles of unused road - Planted 50 Mountain Alder, 96 Red Osier dogwood, 100 Mock Orange, Black cottonwood, Chokecherry, and willow, and 75 Blue elderberry	CTUIR Bio-Monitoring Project	CTUIR Bio-Monitoring Project
Granite Creek RM 7.5 Design	CC, HD, RF, WS, WNS	1, 2, 3, 4, 5, 6	2017	0.8	0	- 168 large wood structures developed - 11 BDAs constructed - 9 side channels created - 4 alcoves created - 4 meander bends created - 10 riffles constructed - 3,000 willow plantings - 100 alder plantings	CTUIR Bio-Monitoring Project	CTUIR Bio-Monitoring Project
Bull Run Creek Mine Tailing Design	CC, HD, RF, WS, WNS	1, 2, 3, 4, 5, 6	2017	2	22	- Developed design to address the effects of historic placer mining in floodplain and stream channel habitats	CTUIR Bio-Monitoring Project	CTUIR Bio-Monitoring Project
Desolation Creek Meadow Study	SD	7	2018	0	13	- CTUIR technical input for a study providing information regarding wet meadow storage in ann area excluded from cattle grazing	6 piezometers instrumented with level-loggers and one baro-logger	none
Hidaway Creek Design	CC, HD, RF	1, 2, 3, 4, 5, 6	2018	2.9	12	- 198 large wood structures to be developed using wood sourced from adjacent hillslopes	Photo points	none
Camas Creek Hand Crew	CC, HD, RF	1, 2, 3, 4, 5, 6	2020	1.1	14	- 20 large wood jams constructed - 40 whole trees placed	none	none
N. Fk. Cable Creek Hand Crew	CC, HD, RF	1, 2, 3, 4, 5, 6	2020	2.9	17.5	- 29 large wood jams constructed - 0.27 miles of channel racking	none	none
Starveout Creek Riparian Fence	CC, HD, FC, RF	1, 2, 3, 4, 5, 6	2020	1.75	11	- 2.2 Km of four strand barbed wire fence constructed - 1 water gap constructed - Maintenance by ODFW and grazing permittees	none	none
Hidaway Creek RM 1.3 Large	CC, HD, RF	1, 2, 3,	2021	2.96	0	- 198 large wood structures developed	Photo points	none

Site	Limit Fact	Obj	Start Year	Km. Affect	Acres Affect	Metrics	Phys. Monitor	Bio. Monitor
Wood Placemt		4, 6						
Desolation Creek Reach 3 Restor	CC, HD, FC, RF, WS, WNS	1, 2, 3, 4, 6	2022	3.6	60	- 2 culverts replaced - 205 large wood structures constructed - 8 BDAs constructed - 10,000 native plantings - 20 floodplain acres opened for inundation	Photo points, longitudinal profiles, cross sections, aerial imagery, pebble counts	none

APPENDIX 2

Objectives	Tasks
Identify habitat impacts, attain solutions to detrimental land use practices and promote support of habitat enhancement measures in the NFJD Subbasin.	Utilize existing information, including historical documents, research and management plans and any available GIS Data, to determine locations of site-specific habitat impacts.
	Coordinate with landowners and local, tribal, state and federal entities to identify habitat impacts, determine remedial measures and obtain support of project efforts.
	Conduct local outreach efforts (public meetings, tours and presentations) to obtain input, address landowner concerns, provide educational opportunities, and promote stream habitat restoration and protection.
	Assist the North Fork John Day Watershed Council in development of a North Fork John Day Watershed Assessment.
	Coordinate with local, state and federal resource entities and prepare grant proposals to develop cost-share projects.
	Develop and secure riparian easements with private landowners for proposed habitat enhancements.
	Obtain necessary environmental clearances, including Section 106 National Historic Preservation Act cultural and archeological compliance, Sections 401 and 404 Federal Clean Water Act Permits and Section 7 U.S. Endangered Species Act consultations.
	Complete project design and layout.
	Solicit bids and award subcontracts for fence construction, operated equipment, native tree and shrub plantings and noxious weed control.
Plan and design habitat enhancement projects.	Coordinate with local, state and federal resource entities and prepare grant proposals to develop cost-share projects.
	Develop and secure riparian easements with private landowners for proposed habitat enhancements.
	Obtain necessary environmental clearances, including Section 106 National Historic Preservation Act cultural and archeological compliance, Sections 401 and 404 Federal Clean Water Act Permits and Section 7 U.S. Endangered Species Act consultations.
	Complete project design and layout.
	Solicit bids and award subcontracts for fence construction, operated equipment, native tree and shrub plantings and noxious weed control.
Objectives and Tasks associated with The Project's 2002 ISRP Proposal.	

Biological Objective	Strategy
Bring the stream channel in balance	Strategies: G: Protect Existing High Quality Habitat, I: Education & Outreach

Biological Objective	Strategy
Decrease gradient; restore sinuosity	Strategies: D: In-stream Activities, E: Riparian Improvements, G: Protect Existing High Quality Habitat, I: Education & Outreach
Enhance base flows	Strategies: E: Riparian Habitat Improvements, G: Protect Existing High Quality Habitat, H: Upland Improvement Projects, I: Education & Outreach
Enhance/restore/protect aspen	2. Work with public land agencies to implement the recommended conservation & management practices; 3. Encourage organizations & entities who work with private landowners to implement recommended conservation & management practices.
Increase pool habitat	Strategies: D: In-stream Activities, E: Riparian Improvements, G: Protect Existing High Quality Habitat, H: Upland Improvement Projects, I: Education & Outreach
Increase role and abundance of large woody debris	Strategies: D: In-stream Activities, E: Riparian Improvements, G: Protect Existing High Quality Habitat, H: Upland Improvement Projects, I: Education & Outreach
Maintain & improve quality & quantity of spawning	Strategies: A: Improve Fish Passage, D: In-stream Activities, E: Riparian Improvements, G: Protect High Quality Habitat, H: Upland Improvement Projects, I: Education & Outreach
Maintain riparian management obj	Strategies: G: Protect Existing High Quality Habitat, I: Education & Outreach
Minimize artificial fish passage barriers	Strategies: A: Improve Fish Passage, G: Protect Existing High Quality Habitat, I: Education & Outreach
Minimize fluctuations of dissolved oxygen	Strategies: E: Riparian Improvements, G: Protect Quality Habitat, H: Upland Improvement Projects, I: Education & Outreach
Moderate peak flows where appropriate	Strategies: E: Riparian Habitat Improvements, G: Protect Existing High Quality Habitat, H: Upland Improvement Projects, I: Education & Outreach
Moderate temperatures through improvements	Strategies: D: In-stream Activities, E: Riparian Improvements, G: Protect Quality Habitat, H: Upland Improvements, I: Education & Outreach
Provide habitat components for focal species	Strategies: G: Protect Existing High Quality Habitat, I: Education & Outreach
Restore and/or enhance wetland habitat	Strategy 2. Enhance degraded wetland habitat; Strategy 5. Work with federal agencies to target wetland conservation & development programs
Restore channel and floodplain connectivity	Strategies: A: Improve Fish Passage, D: In-stream Activities, E: Riparian Improvements, G: Protect Existing High Quality Habitat, I: Education & Outreach
Restore off-channel areas for high flow refugia	Strategies: D: In-stream Activities, E: Riparian Improvements, G: Protect Existing High Quality Habitat, I: Education & Outreach
Restore stream channel equilibrium	Strategies: A: Improve Fish Passage, D: In-stream Activities, E: Riparian Improvements, G: Protect Existing High Quality Habitat, H: Upland Improvement Projects, I: Education & Outreach
Trap sediment on the floodplain as appropriate	Strategies: A: Improve Fish Passage, D: In-stream Activities, E: Riparian Improvements, G: Protect Existing High Quality Habitat, I: Education & Outreach
Objectives and Strategies identified by The Project for the 2007 IERP Review.	

Objectives	Description
Preserve and Maintain Existing Habitat	Develop and implement conservation programs associated with active and passive restoration to protect and maintain physical, ecological, and biological processes that form and provide diverse and dynamically stable habitat.
Improve Passage to Existing High Quality Habitats	Improved passage through removal of anthropogenic barriers be they the result of structures or the result of a land management action which compromises in- stream, riparian, or floodplain habitat thereby preventing passage.
Improve Floodplain Connectivity	Reconnect channels with riparian or floodplain habitat or historic channels or remove/relocate channel confinement structures where appropriate and feasible.

Objectives	Description
Improve or Preserve Water Quality	Improve or preserve surface water and ground water quality to include consideration of temperature, toxics, or sediment as limiting factors dictate.
Improve Riparian and Floodplain Complexity	Protect and enhance riparian and wetland habitats to promote dynamic stability
Improve Stream Channel Complexity and Morphology	Where feasible and appropriate construct a dynamically stable and complex channel with appropriate floodplain connectivity during high flow events, and/ or enhance existing channel to reduce limiting factors and meet project objectives. Improve channel structural complexity (LWD, Pools, Boulders, Bank overhang, Cover, Substrate stability, and Habitat diversity) to benefit focal species.
Improve Sediment Routing and Sorting	Address channel, riparian, and floodplain structure and morphology to reduce the influence of sediment entrainment or deposition as appropriate given the influence of subbasin processes.
Improve Hyporheic Complexity	Improve Channel structure and morphology to promote or regain complex hyporheic flows and interaction with the stream channel and off-channel habitats.
Increase Floodplain Storage	Restore channel, riparian, and floodplain processes and conditions to the extent possible to improve floodplain storage.
Reduce the Influence of Toxic Sources	Reduce the influence of toxic sources upon stream channels and riparian and floodplain habitats.
Objectives identified by The Project for the 2013 ISRP Geographic Review process.	

APPENDIX 3

CTUIR NFJD Restoration Project Level Objectives	CTUIR River Vision Touchstones	Primary CTUIR First Foods	NOAA Ecological Concern Sub-Category	Examples of Specific Outcomes and Timeline	Estimated Quantitative Measures associated with Specific Outcomes
Coordinate with John Day basin collaborators to facilitate restoration and funding opportunities	Geomorphology, Hydrology, Aquatic Biota, Connectivity, Riparian Vegetation	Water, Salmon, Deer, Cous, & Huckleberry		Contribute to JDP steering, outreach, and finance committees, contribute to NFK & MFK working group efforts, contribute to partnership proposal development during 2023 - 2027. Develop annual statements of work and budgets to fulfill BPA obligations during 2023 - 2027.	Participate in 20 semi-annual partnership meetings, 60 Steering committee meetings, and 20 outreach and finance committee meetings. Upload information for the Granite Creek RM 7.5 Restoration Project in the JDP Project Tracker. Upload required information into funder data sets as required
Provide public outreach and education opportunities	Geomorphology, Hydrology, Aquatic Biota, Connectivity, Riparian Vegetation	Water, Salmon, Deer, Cous, & Huckleberry		Contribution to John Day Partnership Education Committee during 2023 - 2027. Attend 60 NFJDWC Board Meetings and council outreach activities during 2023 - 2027.	JDP – Attend or host 20 outreach committee meetings & one site visit/year. NFJDWC - attend 8-12 board meetings/year.

CTUIR NFJD Restoration Project Level Objectives	CTUIR River Vision Touchstones	Primary CTUIR First Foods	NOAA Ecological Concern Sub-Category	Examples of Specific Outcomes and Timeline	Estimated Quantitative Measures associated with Specific Outcomes
				Presentation/posters for the CTUIR CNR Annual Public outreach gathering during 2023 - 2027.	CTUIR - poster and/or presentation at five annual meetings.
Restore site appropriate stream channel morphology and complexity	Primary: Geomorphology - Secondary: Aquatic Biota - Tertiary: Connectivity	Water & Salmon	5.1 Side Channel Condition	Increase and reestablish site appropriate floodplain connectivity. 1 - 5 years	Bull Run Tailings – 22 ac Desolation Reach 6 Phase 2 – 23 ac TU Hand Crew Work – 45 ac Desolation Cr. Meadow/400 Road Culvert – 35 ac Desolation Creek Reach 4/5 – 10 ac Conservation Agreements – 75 ac
			6.1 Bed and Channel Form	Increase and reestablish dynamically stable site appropriate channel morphology, complexity, and the quantity and quality of habitat diversity. 1 - 5 years	Bull Run Tailings – 2.6 Km Desolation Reach 6 Phase 2 – 1.6 Km TU Hand Crew Work – 30 Km Desolation Cr. Meadow/400 Road Culvert – 6.4 Km Desolation Creek Reach 4/5 – 7.5 Km Conservation Agreements - 3.9 Km
				Increase and reestablish stream velocity diversity at both low and high flows. 1 - 5 years	
				Increase and reestablish sit appropriate sediment mobilization and deposition. 1 - 5 years	
			6.2 Instream Structural Complexity	Increase and reestablish dynamically stable site appropriate channel complexity through the development of large wood and/or rock structures. 1 - 10 years	Bull Run Tailings - 65 Desolation Reach 6 Phase 2 - 50 Reach 4&5 Large Wood - 140 TU Hand Crew Work - 160 Desolation Cr. Meadow/400 Road Culvert - 240 Desolation Creek Reach 4/5 – 145 Conservation Agreements – 160
				Increase and reestablish site appropriate areas suitable for juvenile salmonid rearing. 1 - 10 years	Bull Run Tailings – 2.6 Km Desolation Reach 6 Phase 2 – 1.6 Km TU Hand Crew Work – 30 Km Desolation Cr. Meadow/400 Road Culvert – 6.4 Km Desolation Creek Reach 4/5 – 7.5 Km

CTUIR NFJD Restoration Project Level Objectives	CTUIR River Vision Touchstones	Primary CTUIR First Foods	NOAA Ecological Concern Sub-Category	Examples of Specific Outcomes and Timeline	Estimated Quantitative Measures associated with Specific Outcomes
					Conservation Agreements – 3.9 Km
				Increase and reestablish areas suitable for adult salmonid spawning. 1 - 10 years	Bull Run Tailings – 2.6 Km Desolation Reach 6 Phase 2 – 1.6 Km TU Hand Crew Work – 30 Km Desolation Cr. Meadow/400 Road Culvert – 6.4 Km Desolation Creek Reach 4/5 – 7.5 Km Conservation Agreements 3.9 Km
			7.1 Decrease Sediment Quantity	Increase and reestablish geomorphically appropriate sediment sorting and routing. 2 - 5 years	Bull Run Tailings – 2.6 Km Desolation Reach 6 Phase 2 – 1.6 Km TU Hand Crew Work – 30 Km Desolation Cr. Meadow/400 Road Culvert - 6.4 ac Desolation Creek Reach 4/5 – 7.5 Km
			7.2 Increased Sediment Quantity	Reestablish geomorphically and site appropriate sediment inputs 1 – 5 years	Conservation Agreements 3.9 Km
Restore site appropriate floodplain complexity and connectivity	Primary: Riparian Vegetation - Secondary: Geomorphology - Tertiary: Connectivity	Water, Salmon, Deer, Cous	4.1 Riparian Vegetation	Increase effective shade produced from site appropriate native vegetation within floodplain and off-channel habitats. 1 - 25+ years	Bull Run Tailings – 22 ac Desolation Reach 6 Phase 2 – 23 ac Desolation Cr. Meadow/400 Road Culvert – 35 ac Desolation Creek Reach 4/5 – 25 ac Conservation Agreements – 25 ac
			4.2 LWD Recruitment	Improve floodplain vegetative communities according to site potential for long term large wood entrainment by aquatic habitats. 1 - 25+ years	Bull Run Tailings – 22 ac Desolation Reach 6 Phase 2 – 23 ac Desolation Cr. Meadow/400 Road Culvert – 35 ac Desolation Creek Reach 4/5 – 25 ac Conservation Agreements – 25 ac
			5.1 Side Channel and Wetland Condition	Restore to site potential degraded floodplain habitats peripheral freshwater habitats, including side-channels and freshwater wetlands. 1 - 10+ years	Bull Run Tailings – 22 ac Desolation Reach 6 Phase 2 – 23 ac TU Hand Crew Work – 45 ac Desolation Cr. Meadow/400 Road Culvert – 35 ac Desolation Creek Reach 4/5 – 10 ac Conservation Agreements – 75 ac

CTUIR NFJD Restoration Project Level Objectives	CTUIR River Vision Touchstones	Primary CTUIR First Foods	NOAA Ecological Concern Sub-Category	Examples of Specific Outcomes and Timeline	Estimated Quantitative Measures associated with Specific Outcomes
				Increase and reestablish site appropriate areas suitable for juvenile salmonid rearing. 1 - 10 years	Bull Run Tailings – 2.6 Km Desolation Reach 6 Phase 2.5 Km TU Hand Crew Work – 30 Km Desolation Cr. Meadow/400 Road Culvert 6.4 Km Desolation Creek Reach 4/5 – 7.5 Km Conservation Agreements – 3.9 Km
			5.2 Floodplain Condition	Reestablish lost flow access to floodplain habitats 0 – 3 years	Bull Run Tailings – 22 ac Desolation Reach 6 Phase 2 – 23 ac TU Hand Crew Work – 45 ac Desolation Cr. Meadow/400 Road Culvert – 35 ac Desolation Creek Reach 4/5 – 10 ac Conservation Agreements – 75 ac
Restore passage to existing high quality habitat	Primary: Connectivity - Secondary: Aquatic Biota - Tertiary: Geomorphology	Water & Salmon	1.1 Anthropogenic Barriers	Restore passage beyond anthropogenic structures throughout all responsible flows. 0 - 2 years	400 Road Culvert – 3.2 Km
				Restore passage to and through stream and floodplain habitats to reflect site potential where the effects of anthropogenic land use has prohibited passage. 0 - 3 years	Bull Run Tailings - 0.75 Km
Improve or preserve water quality	Primary: Hydrology - Secondary: Aquatic Biota - Tertiary: Connectivity	Water, Salmon	8.1 Temperature	Increase and reestablish in-stream thermal diversity throughout the year. 10 - 100+ years	Bull Run Tailings – 2.0 Km Desolation Reach 6 Phase 2 – 1.6 Km TU Hand Crew Work – 14 Km Desolation Cr. Meadow/400 Road Culvert - 6.4 Km Conservation Agreements – 3.9 Km
			8.4 Turbidity	Decrease turbidity resulting from streambank erosion or inappropriate floodplain conditions during high flows 1 – 2 years	10 Road Relocation – 0.5 Km TU Hand Crew Work – 14 Km Conservation Agreements – 3.9 Km
			9.3 Altered Flow Timing (Climate change)	Increase and reestablish groundwater storage to reflect or	Bull Run Tailings – 22 ac Desolation Reach 6 Phase 2 – 23 ac TU Hand Crew Work – 45 ac

CTUIR NFJD Restoration Project Level Objectives	CTUIR River Vision Touchstones	Primary CTUIR First Foods	NOAA Ecological Concern Sub-Category	Examples of Specific Outcomes and Timeline	Estimated Quantitative Measures associated with Specific Outcomes
				approximate to the extent possible, historic capacity. 10 - 100+ years	Desolation Cr. Meadow/400 Road Culvert - 35 ac Conservation Agreements – 75 ac

APPENDIX 4

Typical proposal evaluation requirements for design contracts.

PART III – PROPOSAL REQUIREMENTS

For the purpose of this RFP, each interested Contractor will submit a proposal package to the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources, Fisheries Program that includes the following sections and tabbed as follows:

I) Cover letter
II) Firm summary
III) Organizational structure
IV) Firm qualifications and experience
V) Proposed approach of scope of work
VI) Project Schedule and itemized cost
VII) References

1. COVER LETTER

A cover letter must express the Contractor's interest in the project and commitment to the obligations expressed in the RFP. This letter should include the original signature of an authorized representative of the Contractor and indicate that the Contractor accepts all of the terms and conditions contained in the RFP.

2. FIRM SUMMARY

The Contractor will provide general information regarding their particular firm. This should include information about the company size, location, contracting experience within the region, areas of expertise and types of services, staff longevity, staff capabilities and training, and experience with natural resource restoration work and associated construction.

3. ORGANIZATION STRUCTURE

Identify the individuals responsible for managing the project, conducting specific project tasks, and their experience conducting those tasks for your firm. The Contractor should also include an organizational chart showing lines of communication and decision-making hierarchy as well as any sub-contractors. If a team of individuals from multiple contracting firms are assembled, adequately describe the role of each team member.

4. FIRM QUALIFICATIONS AND EXPERIENCE

The proposal will list the qualifications and relevant project development experience of the Contractor and each team member in relationship to completing projects of similar nature and size. Contractor must demonstrate experience in stream restoration projects involving site assessment with data analysis, restoration planning, and multi-agency coordination and permitting.

Please identify a minimum of three stream restoration design projects that are similar to the proposed projects which have been successfully completed within the last five years, where the Contractor worked closely with stakeholders to reach a design consensus. Provide a brief description of each project, *including the complexity of the project, size and dollar amount of project, completion date of project, and references for each of the projects*. Reference information shall include the name and phone number of owner's representatives for the particular projects.

CTUIR will also consider past performance as a Selection Criteria. Therefore, please provide all of the information listed below in Past Performance (Part III, Section III), below. Failure to provide this information may result in zero points being awarded for this Selection Criteria.

5. PROPOSED APPROACH OF SCOPE OF WORK

Describe the approach the Contractor proposes to complete construction of the project as defined in the design drawings and specifications. The contractor should provide enough detail in the proposed approach to fully articulate the Contractors understanding of the scope and complexities of the project. Describe the method and approach the Contractor proposes in order to complete the tasks outlined below from conception through final design. This section should include a description of the steps used to collect necessary data and information and the analysis and summary that will be completed. A method for prioritizing alternatives based on a set of evaluation criteria derived through a cooperative effort with the Planning Team should be identified.

6. PROJECT SCHEDULE AND ITEMIZED COST

Provide a detailed schedule describing how the individual tasks will be completed, as well as a schedule for the overall project. Provide evidence that adequate management effort, support staff, technical compliance, and resources will be committed to the timely completion of the project. The total price and the cost per hour prices for individual work items will be considered as part of the evaluation factors. The lowest bid will obtain the full 30 points allotted for that portion of the price with each subsequently higher bid receiving 5 points less. The remaining 50 point allocation for cost is awarded based on novel approaches and a cost/benefit analysis. The CTUIR staff welcomes cost-effective alternatives to increase efficiencies and/or reduce costs; these alternatives must be provided as an additional line item listed below the original cost of the completed proposal. If approved the project design and specifications will be revised through design change and/or field change notices as applicable. *Each proposal must also include a detailed communications plan.*

7. REFERENCES

References are required from at least three (3) projects similar to the proposed project. Include project name, contact name, address, and telephone number, a description of the project, project completion date, and the relationship of the contact person to the project referenced.

PART IV – SELECTION CRITERIA

Proposal selection will be completed through a quality-based selection process (QBS) by a review team. Please note the Technical merit and Past Performance are more important than price in this solicitation. The following selection criteria will be used to evaluate the content of the written proposals based on a weighted scoring method:

I. COST: (80 points)
   a. The total potential price of all items combined and the prices for individual items will be considered as part of the evaluation factors (30); and,
   b. Cost is further evaluated through a cost/benefit analysis based on proposed work, technical compliance of the RFP project specifications, and technical expertise (50).

II. Adequacy of Technical Proposal: (135 points)
   a. Proposal content and applicability of the approach for addressing and completing tasks (30);
   b. Clear demonstration of an understanding of the project implementation, goals and objectives (30)
   c. Creative, efficient, and/or novel approaches presented (30);
   d. Approach explicitly connected to project goal/objectives (25); and,
   e. Adequacy of survey, modeling, and data proposals (20).

III. Contractor Qualifications and Experience: (180 points)
   a. Past Performance on similar projects (80);
   b. Qualifications of Contractor (prior experience with all aspects of stream restoration projects similar to the proposed project, project references and technical experience (40));
   c. Project management experience in planning, implementing and managing stream restoration projects of this magnitude (40); and,
   d. Company resources available (20); (organization of company, equipment and staffing, and abilities to meet budget and timelines).

IV. Personnel Qualifications: (60 points)
   a. Technical experience of principal project staff related to the project performance (30); (Priority will be given to contractors who demonstrate knowledge and experience of the integration of physical and ecological principles in restoration projects);
   b. Experience in similar design projects (20); and,
   c. Educational qualifications related to the project performance (10).

V. Indian Preference: (5 points)
   Must meet these factors in order to qualify for Indian Preference status;
   1. Membership in a Federally recognized Tribe;

2. Indian Ownership of 51% or more;
3. Indian Control;
4. Indian Management;
5. Financing obtained by Indian person;
6. Equipment obtained by Indian person.

13. PROJECT BUDGET

Complete this budget table with 3-5 years of projections. The general guidance for this review is to use Fiscal Year 2021 project budget as the sideboards for the work proposed. This aligns to Bonneville's Strategic Plan. Bonneville's statements have indicated that they intend to manage Fish and Wildlife Program costs at or below the rate of inflation, inclusive of any new obligations. Sponsors may wish to describe new work elements, phases, or objectives for their projects based on adaptive management or new priorities, within budget constraints.

Item	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	NOTES*
Personnel	$228,072	$232,633	$237,286	$242,032	$246,872	
Fringe benefits	$74,000	$75,110	$76,237	$77,380	$78,541	
Travel	$2,790	$2,790	$2,790	$2,790	$2,790	
Supplies	$14,000	$14,000	$14,000	$14,000	$14,000	
Equipment						
Land/Water Acquisitions						
Overhead	$130,733	$133,059	$135,428	$137,843	$140,303	
One-time budget needs	$477,904	$488,456	$499,228	$510,224	$521,447	
Budget totals (to refresh, select this row and hit F9)	$927,499	$946,048	$964,969	$984,269	$1,003,954	

* Provide details regarding annual costs. Also provide specifics on one-time budget items.

Budget narrative: Please describe the use of the funds in each budget categories. Also describe any budget match or leverage opportunities. If holding a project budget to FY 2021 project budget levels makes it difficult to continue existing activities and meet project objectives, sponsors should describe the situation and indicate what aspects of the project may be compromised.

<u>Personnel & Fringe</u>

- Funding supports the CTUIR Fisheries Habitat Enhancement Program staff including the Fisheries Habitat Program Lead (2 moths), NFJD Project Lead (12 moths), NFJD Project Biologist (12 moths), and NFJD Project Technician (12 moths). The CTUIR Fisheries Habitat Enhancement Program's Umatilla River, Grande Ronde, Walla Walla River, and Tucannon River basin project's all contribute to the Fisheries Habitat Program Lead's salary and fringe.
- As needed, allocations shall be made in support of CTUIR cultural resource staff for the completion of cultural resource surveys. This allocation will not remain consistent throughout the 2021-2027 period as surveys may also be completed by BPA staff or contractors when

CTUIR and BPA staff lack the capacity. Specific annual costs cannot be determined at this juncture.

- Allocations supporting the CTUIR's GIS Database Administrator and Coordinator will continue development and maintenance of the CDMS and related products as necessary. Approximately 80% of salary and fringe costs for these positions are provided by the CTUIR's Fisheries Habitat and M&E programs.
- Funding also supports CTUIR GIS Program staff in their development and maintenance of The Project webpages and similar materials that facilitate outreach and education. This expense is shared by the CTUIR's Fisheries Enhancement Program.

Travel

- In support of training and coordination efforts funding will be allocated annually to reflect permissible training opportunities for project staff. Specifically, funding will cover registration fees and travel per diem. Staff will take advantage of cost share opportunities as they arise.
- Travel funding also supports costs associated with vehicle rental and related expenses. The Project currently rents two vehicles from the U.S. GSA (monthly rental fee and mileage rate) and is awaiting the arrival of a third. A POV allocation was included in the annual budget during 2020 and 2021 and will remain until a third GSA vehicle can be secured. Insurance for GSA vehicles comes out of this allocation. Additionally, mileage expenses are provided to support efforts of the CTUR's cultural resources department as needed.

Equipment

Equipment expenses fluctuate over time while core expenses remain relatively consistent. Fluctuations are primarily related to the acquisition of equipment dedicated to specific tasks or acquisition of software to facilitate action development and design or data management and analysis. More specifically this includes;

- Although four conservation agreements have sunset over the last several years costs associated with their maintenance were primarily tied to personnel and fringe. As such, we do not anticipate costs for field materials will change significantly.
- Expense fluctuations over time have primarily been tied to this item. At this time we do not see a significant need to acquire additional software. Where possible, freely available software such as HEC RAS, FishXing, ARCMap applications, and the like are utilized thereby reducing expenses. The Project has secured or will be securing equipment in 2021 to be used by hand crews, equipment associated with stream discharge measurement. While data loggers for water temperature and water elevation have been purchased their replacement will be required over time as batteries need replacing or equipment is lost in high flows.
- Communications, postage, dues and subscriptions, permits, computer ease, supplies, printing, and insurance are all relatively consistent in need and cost.
- Potential fluctuations may occur annually as equipment rental reflects specific restoration needs or more expensive equipment maintenance needs. We have worked to use in-house expertise in the past to reduce costs and improve efficiencies and will continue to do so.

Overhead

Overhead expenses are dictated to The Project and therefore are beyond our influence. Over time they have fluctuated around 42% and there is no reason to believe this will not continue.

Utilities and Property Lease

The Project has a need to maintain these items. Storage and equipment access is facilitated by the storage in Ukiah, Oregon. Waste fees associated with disposal at the CTUIR's waste transfer station is the most efficient way to be rid of excess waste. This item will be reconsidered as any need arises.

Subcontracts

This item reflects restoration and conservation agreement needs and fluctuates annually. Efficiencies in The Project's ability to design, permit, and implement restoration actions would be reflected here although it's parse out here at this point in time.

Match and Leveraging Funding

Funding from BPA supports the Project's core function and provides match when seeking cost share. To date, the Project has work with collaborators to efficiently utilize the resources of each entity. As a result, the CTUIR may not be the lead for a specific restoration actions. Cost share isn't limited to staff time, materials, or cash although it may encumber a combination of these. Since 2013, $1,709,178 in in-kind and cash cost share has been secured to facilitate restoration actions (Table 4).

Moving forward The Project will continue to rely upon cost share from the collaborators noted above simply because they are the primary land managers and/or restoration implementers in the NFJD. Given the size and complexity of restoration proposed for the 2023 -2027 period we will need to collaborate more actively with others such as the CTWSRO where possible (i.e. Desolation Creek Meadows restoration). Additional cost share and collaborators will be sought as future restoration actions are identified. More recently developed the JDBP has become a core group facilitating collaboration and for securing funding for the basin. Two years ago the JDBP secured OWEB FIP funding for three biennia in three focal areas throughout the John Day RIVER basin. The Project works within the Upper NFJD Focal Area and has secured this funding for the Granite Creek RM 7.5 Tailing Restoration and Hidaway Creek RM 1.3 Large Wood Addition efforts.

Table 4. Cost Care per collaborator and type between 2013 and 2022. Note numbers units are $U.S. Dollars.

Cost Share Type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total Cost Share
USFS											
In Kind	52,550			20,500	5,000	10,000	20,500	70,500	9,000	5,000	**193,050**
Cash		182,000	17,000								**199,000**
NFJDWC											
In Kind			10,000			40,000	3,000	10,000			**63,000**
Cash				95,000					30,000	90,000	**215,000**
City of Ukiah											
In Kind											**0**
Cash			500	600				500	500	500	**2,600**
ODFW											
In Kind				8,000				4,700			**12,700**
Cash								17,389			**17,389**

Cost Share Type	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total Cost Share
OWEB											
In Kind											**0**
Cash						188,600	45,000	250,000	300,000		**783,600**
Grant SWCD											
In Kind								839			**839**
Cash											**0**
TU											
In Kind								20,000	20,000	20,000	**60,000**
Cash											**0**
Landowner											
In Kind									162,000		**162,000**
Cash											**0**
Cumulative Cost Share Total											**1,709,178**
Note *= projected cost share to be reported in late 2021 & 2022											