

1. Proposed Priority Description:**a) What is the native fish or wildlife habitat to be conserved or other natural resource issue to be addressed?**

Rehabilitating damage done to aquatic ecosystems in the Upper Klamath Basin (UKB) is the primary goal of the proposed Upper Klamath FIP. Loading of nutrients into our waterways, damage to riparian corridors, channelization of streams and rivers, disconnection of river channels and floodplains, insufficient in-stream flows, impediments to fish migration, and other ecosystem damage has profoundly impacted the Upper Klamath Basin. Over the years, these problems have caused water shutoffs to agriculture, fisheries shutdowns for commercial fishermen, and massive die-offs of important tribal fish species, which all add up to basin-wide conflicts centered around water.

The recent signing of the Klamath Basin Restoration Agreement (KBRA), the Klamath Hydropower Settlement Agreement (KHSA) and the Upper Klamath Basin Comprehensive Agreement (UKBCA) are important stepping stones toward reversing ecosystem damage and setting the UKB on a path to recovery and an end to this bitter divide over water. Together these agreements include provisions to remove four hydroelectric dams that block anadromous fish passage, re-introduce anadromous salmonids to the UKB, and implement a restoration strategy for the ecological health of Upper Klamath Basin river systems through the Water Use Program (WUP) and the Riparian Management Program (RMP). The provisions of these agreements are broadly congruent with a number of other currently active conservation and restoration initiatives in the UKB, including the Upper Klamath Basin Keystone Initiative (National Fish and Wildlife Foundation, 2008), the Klamath River Basin Fish Management Plan, which authorizes efforts to re-establish anadromous fish in the UKB (Oregon Department of Fish and Wildlife, 2008, Klamath Basin Anadromous Fish Reintroduction Plan, OAR 635-500-3890), anadromous fish re-introduction plans sponsored by the Klamath and Yurok Tribes (Huntington et al. 2006) and the Oregon Department of Environmental Quality's Total Maximum Daily Load (TMDL, 2010).

Poor water quality in the UKB is suspected to be the leading cause of population declines of two endangered sucker species living in Upper Klamath Lake. Water quality impacts from the UKB also affect other native species, including salmon and steelhead in the lower Klamath River. The ultimate goal of this proposal is to restore native fish populations to the UKB; this will be accomplished by restoring natural processes in the tributaries of Upper Klamath Lake and reducing the negative effects of phosphorus loads that have caused the hypereutrophication of Upper Klamath Lake. The partnership will focus on tributaries to Upper Klamath Lake within the Sprague, Wood, and Williamson basins. In each of these target areas, conversion to agriculture along with other anthropogenic impacts have increased the sediment transport ability, decreased the competence to create new habitat, decreased floodplain sediment storage, and increased summer water temperatures. Instead of treating symptoms of these water quality problems at individual sites, we will address the root causes of these poor water quality impairments within these tributaries, taking a much needed holistic approach. Partners will implement a suite of programs designed to reduce the external phosphorous loading to the Upper Klamath Lake, the primary contributor of poor water quality. Potential restoration actions include the development of grazing management plans, removal of levees to promote floodplain reconnection, and flow augmentation which all restore natural function and reduce phosphorus loading to Upper Klamath Lake.

b) What are the specific expected ecological outcomes to be achieved?

Ultimately the ecological outcome of this Upper Klamath FIP is the restoration of fisheries in the UKB, which includes recovery of the two endangered sucker species, redband rainbow trout and reintroduction of salmon and steelhead. The habitats these fish rely on will be restored through enhancing and rehabilitating natural processes to our valley bottom stream systems above Upper Klamath Lake. Reestablishment of natural process will produce and maintain the spatial and temporal diversity of

habitats (both physical and chemical) needed to recover native fish populations. The restoration of natural process will reduce phosphorus loading to Upper Klamath Lake that will perpetuate native fish and reverse or moderate hypereutrophication of Upper Klamath Lake ultimately improving water quality down the Klamath River.

c) What is the defined geographic location within which this proposed priority can be successfully addressed?

Partners will focus on geographic locations covered by both the RMP and the WUP, two components of the UKBCA that was signed by the Tribes, irrigators, and other stakeholders in spring of 2014. The UKBCA is one significant component of the KBRA, which includes restoration activities and other economic development opportunities in both the Upper and Lower Klamath Basins. There are approximately 220 miles of stream that are eligible for the RMP, including significant portions of the Sprague, Sycan, Williamson and Wood subbasins. In Essence, riparian areas that are eligible for the RMP are valley bottom reaches that have been impacted by agricultural practices. The six WUP regions in the UKB encompass a much larger area within the Upper Klamath Basin; areas eligible for the program include irrigated acreage within the Wood, lower Williamson, and Sprague River valleys. The areas covered under the RMP and WUP overlap considerably with the priority geographies selected in the initial Upper Klamath SIP; however, Cascade tributaries and lake fringe areas will be excluded from this Focused Investment.

2. Significance to the State

a) Why is this proposed priority of ecological significance to the state, even though it may not be present everywhere in the state?

The KBRA and KHSAs were signed in 2008 by both California and Oregon and represent a holistic plan to improve water quality and restore native fisheries throughout the Klamath Basin. Specifically, these agreements included plans for dam removal, reintroduction of salmonids throughout the basin, and economic recovery for Tribes and other stakeholders. One component of the KBRA, the UKBCA, was signed in 2014. This agreement outlined a process and timeline for increasing stream flows and restoring riparian areas along tributaries to Upper Klamath Lake. With full participation among landowners, this agreement has the ability to significantly improve instream flows (through permanent water retirement), reduce external loading of phosphorous to Upper Klamath Lake (through actions carried out in Riparian Management Agreements), improve habitat for native fish, reduce conflicts among water users and other stakeholders, and bring economic stability to the UKB. A restoration undertaking this large has a high likelihood of meeting the long-term ecological metrics of the proposal, including increased survival of Lost River and shortnose sucker, increased distribution of redband trout, and stream systems capable of providing spawning and rearing habitat for Chinook salmon and steelhead following reintroduction. The Oregon Department of Fish and Wildlife (ODFW) have also prioritized the Klamath Basin as a location for salmonid reintroduction. In 2008, ODFW commissioners, with input from several stakeholders, approved a salmonid reintroduction plan for the UKB, which will occur even if the KBRA is not fully funded and implemented.

b) Are there any social and/or economic considerations that the Board should understand regarding this proposed priority?

A number of socio-economic concerns, if properly addressed, will yield significant conservation benefits. The strategies outlined in the Focused Investment Partnership address these socio-economic factors as both opportunities and challenges to achieve desired restoration outcomes. Some private lands targeted for conservation activity operate in conditions with a) tight economic margins; b) significant market pressure for land subdivision and sale; c) a history of community conflict driven by natural resource-related litigation, property rights uncertainty, and catastrophic events such as fish die-offs and curtailment

of water delivery; and d) widespread lack of landowner knowledge about ecology and conservation science. Within this context, a successful approach must overcome mistrust and create a relationship-based approach that cements strong partnerships with landowners for restoration implementation, engages the community in designing effective conservation strategies, provides incentives for landowners to temporarily or permanently lease irrigation water instream, and responds to the community's interest in retaining the rural and agricultural character of the area. With these approaches to the social and economic challenges, we will be able to achieve the ecological outcomes described in the KBRA, the KHSA, and the UKBCA.

c) In addition to its significance to the state, identify how the proposed priority fits within regional & local ecological priorities.

The priorities outlined within the Upper Klamath FIP tier to several past planning efforts completed by fishery and water quality managers. The actions that are anticipated to occur with this investment are consistent with needs described within the KBRA, the KHSA, the U.S. Fish and Wildlife Service's Sucker Recovery Plan, the Oregon Department of Fish and Wildlife's Salmon and Steelhead Reintroduction Plan, and the Oregon Department of Environmental Quality's Total Maximum Daily Load. More specifically to the UKB, the proposed priority geographies within this FIP proposal are congruent with the programs outlined in the Comprehensive Agreement (RMP and WUP). Partners will complete restoration projects in the areas eligible for the RMP, including the Sprague, Williamson and Wood River subbasins. These areas have been prioritized by several restoration planning efforts already undertaken in the Basin. In 2013, the Upper Klamath Conservation Action Network (UKCAN: a coalition of seven organizations engaged in restoration activities within the UKB) identified priority geographies and actions to improve water quality and riparian function.

3) Limiting Factors

a) What ecological limiting factors exist that relate to the proposed priority identified? Limiting Factors are the physical, biological, or chemical conditions associated ecological processes and interactions experienced by the habitat that may influence viable population parameters.

Implementing the Upper Klamath FIP will contribute to chemical, thermal, and physical aquatic conditions that will benefit fish populations and water quality in the Upper Klamath Basin. The partnership will work collaboratively to re-establish, improve, and sustain the ecologic and hydrologic connectivity of aquatic ecosystems through riparian and habitat restoration and water transactions. Overall, the FIP will help to prepare the Upper Klamath Basin aquatic ecosystems to support re-establishment of anadromous salmonids, contribute to recovery of sensitive, threatened and endangered fish, and incrementally improve water quality. These outcomes will lead to improved hydrologic connection between riverine systems and their floodplains, reduced external loading of nutrients into Upper Klamath Lake (specifically phosphorous), and reduced summertime water temperatures. From a biological standpoint, our long-term goal is increased distribution of redband rainbow trout, viable populations of Lost River and shortnose suckers, and anadromous fish in the Upper Basin. Limiting ecological and abiotic factors stemming from disrupted ecosystem processes include degraded riparian areas, high nutrient loading to Upper Klamath Lake, presence of non-native species, and low in-stream flows, especially in summer.

b) Reference any frameworks(s) that exist (Recovery Plans, Implementation Plans, etc.)

A Framework for restoration of the UKB has been built around anadromous fish reintroduction, water quality improvements to streams and lakes, and native fish recovery. Salmonid reintroduction plans by the Klamath Tribes and Oregon Department of Fish and Wildlife describe specific objectives to reintroduce Chinook and steelhead to the Upper Basin, above the four dams on the mainstem Klamath River. The Oregon Department of Environmental Quality has listed Upper Klamath Lake and many tributary streams

as impaired through their TMDL process and uses their Water Quality Management Plan to guide efforts to address those impacts. The US Fish and Wildlife Service recently completed the Lost River and shortnose sucker Recovery Plan, which prioritizes recovery actions for those species. All of these plans contribute to the KBRA's Restoration and Monitoring Plan. The Monitoring Plan is currently under development by the Klamath Tribes and the US Fish and Wildlife Service and will standardize procedures and protocols around conceptual restoration models (fencing, levee removal, fish passage, etc.) which will allow partners in the Upper Basin to better plan, implement, monitor, and report restoration activities. The Restoration Plan in the KBRA lays the foundation for all restoration efforts in the Upper Basin. The UKBCA delivers the details of the KBRA and offers some specific vehicles (RMP and WUP) to get restoration actions on the ground. The Upper Klamath Conservation Action Network (UKCAN), a coalition of seven organizations engaged in restoring natural processes in the UKB, developed a restoration plan that tiers off of KBRA activities and ties nicely with activities in the Agreement. Since activities under multiple plans are not unique, there is potential to work inclusively and synergistically towards meeting the goals of multiple frameworks simultaneously. UKCAN efforts will be adapted to conform to the restoration plans developed under the KBRA and the UKBCA, specifically.

4) Threats and Benefits

a) What overall threats exist to the proposed priority identified? Threats are human actions or natural events that cause or contribute to limiting factors. Threats may be associated with one or more specific lifecycle stages and may occur in the past, present, or future.

Lost River sucker, shortnose sucker, and redband trout exhibit complex life history strategies that depend on lake and stream systems, specifically on riparian and lake-fringe wetland habitats throughout the Upper Klamath Lake watershed. In the past century, over 40,000 acres of lake-fringe wetlands along the shore of Upper Klamath Lake were leveed, drained, and converted to agriculture. Nearly all of the tributary streams, riparian habitat, and floodplain wetlands in the Sprague and Wood Rivers and valleys have been altered or degraded from livestock grazing and associated irrigation practices. Habitat loss is one of the primary factors limiting the success of these species at all life stages. In many areas of the basin, irrigation diversions have disrupted fish movement between tributary and mainstem rivers, preventing expression of some life histories. Due to increased nutrient loading, primarily phosphorus, water quality is severely impaired in the lakes and tributaries, especially in the summer when algae are actively growing. Nuisance algae blooms raise the pH and reduce oxygen concentration which leads to chronic and lethal effects for fish. Over allocation of water in the Upper Basin has severely impacted the thermal regime of stream networks, and in some cases, completely dewatering whole stream channels. Climate change will only exacerbate these water quality and habitat related threats unless they are addressed.

b) What will happen if the threats aren't addressed?

If these threats aren't addressed, we could lose two endemic fish species because the extinction risk remains high for Lost River and shortnose suckers. The likelihood of successful reintroduction of anadromous fish will also diminish. Redband trout abundance and distribution will continue to decline. The hypereutrophication of Upper Klamath Lake remains unabated and perhaps worsens, which produces strong negative effects in the lower Klamath River. Additionally, the entire ecosystem is much less resilient to the effects of climate change and conflicts centered on natural resource and agricultural issues would escalate.

c) Describe the economic, social, iconic and cultural benefits of addressing the outcome and impacts of not addressing it.

In the past fifteen years, the Klamath Basin has become nationally known for both extreme environmental conflict and unprecedented cooperation. Conflict has centered primarily on water allocation and the often

competing interests represented by farmers, ranchers, tribes, hydropower, fisheries, as well as other interests.

The Klamath Basin has reached a crucial tipping point. It is a point where a lack of support could push the watershed back into a constant state of conflict, or where adequate support could trigger water allocation compromises and basin-wide restoration. Support of the work in the upper basin addresses the root of many of the problems that propagate downstream, including water quality and water shortages. It also sets an example for other contested basins where water is scarce and tensions between water users and other stakeholders are high, and shows them that successful compromise is, in fact, possible.

d) Briefly summarize how much has been done already, how much is remaining.

UKCAN has made substantial progress towards previously defined outcomes. Accomplishments include transfer of thousands of acre-feet of water from irrigation to instream uses, instream or riparian restoration along several dozen miles of stream, restoration of 5,500 acres of lake fringe wetlands, removal of several key fish passage barriers (opening up hundreds of miles of instream habitat), and pasture management changes to conserve additional water instream. Additional accomplishments in 2014 will include the installation of two diffuse source treatment wetlands, removal of two fish passage barriers, screening of one large irrigation diversion, and construction of more than two miles of riparian fencing.

In conjunction with UKCAN's accomplishments, progress has also been made through the Comprehensive Agreement. In 2014, approximately 5,000 acre-feet of irrigation water rights were transferred instream through the transitional Water Use Program. In 2015 or 2016, an additional 6,250 acre-feet will be transferred instream and ten landowners will be enrolled in the first Riparian Management Agreements, which will detail restoration actions to occur on each property. Prospective landowners have already been identified to fill the first ten enrollments (which will be completed by March 31, 2015), and the agreements will include plans for riparian fencing, instream habitat improvements, fish passage and screening, and grazing management prescriptions.

Future work will focus on reaching the goals set forth in the UKBCA. Specifically, the WUP requires the permanent transfer of 30,000 acre-feet of water instream, while the RMP requires enrollment of landowners covering 80 percent of the eligible stream miles.

e) What is your best estimate of cost to address the priority, and as a result, how economically feasible do you believe it is to address this priority over time?

Funding for restoration projects will come largely through the KBRA, signed in 2010. The overall cost of the KBRA as adjusted in 2012 is \$799 million in federal funding for 2012 through 2026. The cost revisions reflect a 15 year implementation plan rather than a 10 year plan as assumed in the original version of the KBRA and equates to approximately \$53 million per year in federal funding. Current federal funding in the Klamath Basin is approximately \$17 million per year, a rate which would cover about one-third of the total costs over the next 15 years. Non-federal funding to implement those activities in the KBRA that are non-federally funded, including dam removal, is another \$550 million.

Congressional approval of the KBRA and appropriations tied to its programs is needed for the long term sustainability of the program. However, activities under the Comprehensive Agreement are currently being conducted and those activities will continue with support from OWEB (through Focused Investment, and other investments in the Klamath), NFWF's Klamath Keystone Initiative, the USFWS's Partners Program, and various NRCS programs. In the event that federal appropriations are not secured, it is expected that federal and state agencies will try to reallocate funds from other programs to support this important investment in the Klamath.

5) Opportunities

a) Ecological:

1. What are the measures of ecological success? What's the likelihood of ecological success in the short (6-year), medium and long-term (define the term lengths).

The overarching goal in the Upper Klamath Basin is to recover populations of Lost River sucker, shortnose sucker, and redband rainbow trout over a twenty-five year period. Another overarching goal of restoration activities in the Upper Basin is to prepare aquatic ecosystems for the reintroduction of anadromous species. In twenty-five years, and with significant involvement by fishery managers (U.S. Fish and Wildlife Service and ODFW), we expect an increase in the distribution of juvenile and adult sucker and redband trout. For Lost River and shortnose sucker, our 25-year targets are annual rates of population change $\lambda > 1$ and an increase in the distribution and abundance of adults and juveniles. For redband trout, our 25-year target is doubling the number of reference reaches that pass ODFW assessments.

We expect a biological time lag between improvement in the habitat and water quality conditions and population level responses for both suckers and redband. We propose to use three metrics that will serve as our short-term (6-year) and medium-term (12-year) ecological objectives. In the next 6 to 12 years, we will measure ecological success in terms of miles of riparian corridor that meet or are trending towards proper functioning condition (PFC), quantity of water added permanently instream, and watershed specific loading rates of phosphorus (P) in kg/ha. By 2020 the WUP will have permanently protected 30,000 acre feet of water instream (as measured by net consumptive use) and at least 80% of the 220 eligible stream miles will be enrolled in the RMP and be trending towards PFC.

Restoration of natural function is an essential component for fisheries health in the Upper Klamath Basin. This is especially true for endangered sucker populations in UKL which are severely impacted by poor water quality, including high pH, low dissolved oxygen and high ammonia. These lake water quality conditions are driven by the cycling of massive algal blooms that are directly linked to watershed inputs (loading) of phosphorus (P). The reduced algal biomass is then directly linked to improved water quality conditions, without which endangered fish have little chance of recovery.

The measurement of P in tributaries to UKL provides the means to monitor watershed restoration projects intended to reduce nutrient loading to UKL. While the TMDL targets 40% of the external P load as its overall goal and represents the estimated anthropogenic load, reasonable short term water quality improvements in UKL may occur at external P load reductions of 10-20%. Unit area loading rates (watershed specific loading rates in kg/ha) and trends can be used determine the P loading trajectory for specific areas, especially those that tend to have high unit area loading rates. Continued long-term monitoring in the major tributaries since 2010 provides the means to assess the significance of declining long-term trends expected to occur as restoration projects are implemented and become functional. Such long-term nutrient monitoring as well as specific pre- and post-project implementation monitoring provide a quantifiable means of determining the effectiveness of watershed restoration activities and the response of fish populations.

2. What types of voluntary conservation actions could be undertaken to address the proposed priority?

Voluntary conservation actions that are anticipated to be implemented include activities that will be outlined in individual RMAs. Depending on location within the UKB and past impacts to riparian and instream habitats, riparian agreements can include vastly different activities and long-term management scenarios. Although these restoration plans cannot be completed until a multidisciplinary team thoroughly assesses each property, we anticipate the following actions to be included in many riparian management plans:

-Grazing management plans in riparian areas and adjacent pastures. Grazing management plans and related monitoring will assess the riparian area to see if they meet or are trending towards PFC criteria. It is anticipated that many miles of riparian fence will need to be installed to manage grazing in these sensitive areas.

-Increase instream flows through permanent retirement of irrigation water rights. Funds directed through this effort may go towards the transitional WUP, but federal appropriations will be needed for permanent transfers.

-Eliminate the return of nutrient rich irrigation water to stream networks. A variety of activities could produce similar results, including reusing or recycling tailwater, or the wide application of diffuse source treatment wetlands.

-Address fish passage barriers to improve connectivity between habitats. In addition to providing upstream passage, downstream connectivity will be improved through screening large irrigation diversions. Diversions downstream of known spawning locations will be prioritized

-Remove or breach levees to improve floodplain connectivity

-Reconnect springs to adjacent river systems. Focus will also be paid to changing diversions on spring systems to river systems (to maximize thermal benefits)

Although not an exhaustive list, if the practices identified above are properly implemented on a large enough scale, these activities will have a measureable impact on external loading of phosphorous and habitat conditions for suckers and trout. The actions are not listed in order of importance or priority; rather, they should be seen as a menu of actions that may be appropriate to specific areas of the watershed. Also, the actions listed are not specific to a certain subbasin; restoration of watershed processes throughout the Upper Klamath Basin will be critical for improving hydrologic connectivity and recovering sensitive species.

We believe that focusing restoration efforts on the above action items over the next three biennia will incrementally improve natural ecological processes, reduce phosphorous loading, and improve native fish populations. The targeted approach through the RMP and WUP will address the largest limiting factors for juvenile suckers and native salmonids throughout the basin. Specifically, we are focusing efforts in sub-basins that are known to contribute large quantities of phosphorous-rich sediment to UKL (e.g., Sprague River valley bottom, Wood River, Sevenmile Creek, etc), where conservation actions have produced measurable water-quality benefits (Sevenmile Creek), and that currently or historically provided habitat for endangered suckers (areas of the Wood, Sprague, and Williamson). Restoration actions outside of the priority areas may also be critical for improving access to, and habitat conditions for, redband trout. However, these activities will not be a priority within this Focused Investment. UKCAN anticipates utilizing other funding sources for projects outside of the primary geographies that may also produce water-quality benefits in the lake and habitat for the endangered suckers. Over the next 25 years (the time-period estimated for the 'full lift'), we anticipate the cumulative impact of this approach to improve sucker recruitment and native trout distribution and abundance.

Executing coordinated restoration activities at the watershed scale is only possible with widespread cooperation and commitment from multiple stakeholders. Two-way communication between UKCAN organizations and other entities charged with implementing the UKBCA (e.g., the Joint Management Entity, and Landowner Entity), will be essential to establish and foster mutual understanding, encourage involvement, and influence behaviors, attitudes and actions. It is clear that these efforts will be most crucial in the early stages of our work and we are currently working towards developing documents and strategies that will address, among other things, who we are, what we do, and the benefits we provide to the UKB.

3. Should the proposed priority be divided into geographic areas that are appropriate for partners to address?

A diversity of talent exists in the Klamath Basin that could implement actions identified in RMAs and the WUP. Disciplines currently represented on the JME Technical Team and within UKCAN include: fisheries biology, wetland ecology, fluvial geomorphology, hydrology, agricultural engineers, rangeland specialists, soil scientists, and individuals skilled in the administration of implementing these programs. Currently, the partners are partitioning niches based on expertise rather than geography. For example, some partners are focusing on upland and pasture management changes, whereas other partners are focusing their efforts on restoring natural instream processes, flow augmentation, and monitoring. As the UKBCA continues to develop and be implemented, it is possible that some partners will focus the majority of their efforts in smaller geographic areas.

5) Opportunities**b) Social:****Do partnerships exist to address the proposed activity?**

The past few years have demonstrated significant growth in the strength and collaboration of partners in the Upper Klamath Basin. This FIP highlights these partnerships, both in the coalition of partners who have organized this proposal, as well as existing and potential funding partners. The Klamath Basin Coordinating Council is working to implement the KBRA and KHSA, which each contain over 40 parties representing Federal agencies, California and Oregon, three Indian tribes, two counties, irrigators, and conservation and fishing groups. There are 16 parties to the UKBCA and many parties actively participated in the Klamath Basin Task Force as well.

UKCAN has been functioning as an ad hoc group fostering collaborative approaches to restoration. As the KBRA and UKBCA develop restoration and monitoring plans for implementing those agreements, the role of UKCAN will change. While the nature of that change is uncertain at present, it will involve UKCAN adapting to the planning, monitoring, and adaptive management elements of the programs under these agreements. Regardless, we envision that the FIP will be focused on helping to achieve the ecosystem restoration goals contained in these agreements. If for some reason these agreements do not move forward, then UKCAN will have to adapt to that outcome as well.

What social opportunities exist to address the proposed priority? Is there momentum built?

Now is the most opportune time to develop a proposed priority and focused investment in the Upper Klamath Basin. With the Comprehensive Agreement gaining momentum, federal legislation proposed, and landowners ready to implement actions, the time is ripe. If this effort fails, there likely will not be another concerted effort of this magnitude for the foreseeable future.

What can be leveraged to address the proposed priority (funding, acreage impacts, other resources)

OWEB funds will be leveraged with a variety of federal and state dollars that are expected to assist in the implementation of the KBRA and UKBCA. Agencies and foundations that have already contributed a substantial amount of financial resources to the Klamath Basin over the last decade to support similar work include the National Fish and Wildlife Foundation, the U.S. Fish and Wildlife Service, Meyer Memorial Trust, the Turner Foundation, the Brainerd Foundation, and the Natural Resources Conservation Service. A Focused Investment from OWEB has the ability to continue to leverage additional funds, but also catalyze a collaborative approach to implementing a wide variety of restoration actions.

5) Opportunities

c) Economic Benefits: Describe the economic benefits of addressing the ecological proposed priority, including ecosystem services.

As described above in question 4c, there are clear direct economic benefits to irrigators and landowners by addressing this proposed priority. Irrigators who transfer their water rights instream will be compensated, and other irrigators will get the security of more reliable water rights for their crops and livestock. In addition, there are a multitude of ecosystem services created by the proposed priority. Instream water transfers improve water quality and decrease water temperature—outcomes that will enhance recreational opportunities both in the upper and lower basin. The increase of instream water also means that there is more available for downstream human uses. Riparian restoration improves habitat for wildlife and game species, reduces flood risk, reduces erosion of productive topsoil, increases carbon sequestration, and improves air and water quality. Instream restoration improves habitat for aquatic species, encourages appropriate sediment dynamics, and reduces flood risk.

6) How complex and well understood is this problem?

The proposed priority is in the complex and intermediate range between well and not well understood. Habitat, species, political, social, and human use in the Upper Basin is very complex and there is no one single answer to solving the problems associated with them. We are on our way to a much better understanding of the causes and solutions, however.

7) Is there anything else the board should know about this proposal?

The success of the UKBCA is hinging on a multitude of factors which need to all be in place in order to realize the ecological outcomes identified. The passage of the KBRA legislation and federal funding is just one of the factors. That said, restoration in the Upper Klamath Basin will continue, and needs to continue, regardless of the outcome of the KBRA. While the approach might need to be reconsidered, the framework for restoration is set and will continue to be moved forward.

8) In lieu of attaching letters of support for this proposal, please submit a list of other supporting individuals or organizations.

Organizations who are supporting this proposal include Klamath Basin Rangeland Trust, The Nature Conservancy, Klamath Soil and Water Conservation District, the U.S. Fish and Wildlife Service, Upper Klamath Water Users Association, Klamath Watershed Partnership, and the Natural Resources Conservation Service.

Section 15.3.5.C of the KBRA identifies restoration funding, among other things, which must be authorized and appropriated before the Klamath Tribes will relinquish certain claims against the United States. Support for this FIP by the Klamath Tribes is contingent upon the extent to which the Tribes agree with specific restoration actions, because extensive, effective restoration of the Upper Klamath Basin aquatic ecosystem is one of the most significant benefits for which the Tribes bargained in the KBRA, the KHSA, and the UKBCA.