

## **OWEB FIP COMMENTS – Rogue Basin, Capacity Building**

*Submitted by The Freshwater Trust*

*Contact: Alan Horton, [alan@thefreshwatertrust.org](mailto:alan@thefreshwatertrust.org); 503.222.9091 x22*

### **1. Proposed Priority Description**

***a) What is the native fish or wildlife habitat to be conserved or other natural resource issue to be addressed?*** The Rogue River basin is one of the most ecologically diverse and unique in Oregon. From the upper reaches of Little Butte Creek to the estuary complexes of the Rogue delta, it is home to some of the most resilient salmon and steelhead runs in the Pacific Northwest, and provides habitat for Pacific lamprey. However, past and on-going human impacts have severely degraded their freshwater and estuarine habitats. While the successful restoration efforts of recent years have stemmed some of the slide, much work remains.

***b) What are the specific expected ecological outcome(s) to be achieved after this priority is addressed?*** Addressing limiting factors through restoration actions will contribute to recovery of the Rogue River basin's native fish populations. The Freshwater Trust (TFT) recommends an anchor habitat-based approach to prioritizing restoration actions in the Rogue basin. The ecological outcome of implementing such a coordinated, inclusive strategy is the reconnection of fish strongholds leading to a measureable increase in population and range. This anchor habitat approach is supported by island biogeography theory that suggests that existing stronghold populations and the core habitat they depend on can become the source for maintaining and strengthening future populations. Restoration of anadromous fish habitat is expected to benefit other fish and riverine species, as well as water quality and riparian habitats.

***c) What is the defined geographic location within which this proposed priority can be successfully addressed?*** The Freshwater Trust (TFT) is advocating for the designation of the entire Rogue River basin as a Focused Investment (FI) priority for capacity building. This will enable the nascent Rogue Basin Partnership (RBP), of which TFT is a member, to coalesce around a coordinated plan for restoring and conserving anchor fish habitat to benefit federally listed Southern Oregon, Northern California Coastal Coho (SONCCC), as well as spring and fall Chinook, winter and summer steelhead and Pacific lamprey.

### **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 Rogue River provides critical habitat for iconic native fish populations and is the largest producer of Pacific salmon and steelhead outside of the Columbia River basin. The Southern Oregon, Northern California Coastal Coho is a federally listed endangered species. The Lower Rogue River, Illinois River and Middle Rogue/Applegate River coho populations are at high risk of extinction and the Upper Rogue River coho population is at moderate risk of extinction (NMFS 2014). The Rogue populations of spring and fall Chinook have also experienced population declines concerning enough to prompt the release of conservation plans for all Rogue Species Management Units (SMUs) of Chinook by the Oregon Department of Fish and Wildlife (2007, 2013). The basin also has some of Oregon's healthier runs of steelhead, and Pacific lamprey.

***b) Are there any social and/or economic considerations that the Board should understand regarding this proposed priority?*** The Rogue basin conservation community has the capacity and expertise to

lead the recovery of fish species of concern. Still, the lack of a well designed roadmap toward restoration impedes an earnest desire to make a measureable impact. Though there is much momentum and a fledgling partnership (the Rogue Basin Partnership or RBP) forming in the Rogue basin, confusion remains over the best way to harness this collective energy for the good of salmonids and lamprey. As a result, conservation interests are often found working where opportunities and funding present themselves, rather than collaborating and leveraging resources to target the highest ecological priorities.

The Freshwater Trust is advocating for the selection of the Rogue basin as a FI priority for capacity building to give the RBP the opportunity to consolidate and complete a comprehensive basin-scale strategic action plan. Existing planning documents, as well as the Rogue Restoration Action Plan (RRAP) being drafted by the RBP, offer a strong foundation, but are limited in their scope, approach and application. Having a comprehensive strategic action plan can significantly accelerate restoration on the ground by unifying conservation efforts and leveraging available funding.

The development of a comprehensive restoration plan in the Rogue also presents an opportunity to include uplift measurement with restoration actions. Not only does “quantified conservation” make sense intuitively, it allows funders like OWEB to better target investment to the highest priority projects and more accurately account for the ecological return investment. A number of conservation funders (including Oregon Watershed Enhancement Board, National Marine Fisheries Service, Pacific Power, etc.) have already identified the Rogue basin as a funding priority but have yet to invest at a level they’ve demonstrated in other, more organized basins.

Beyond funding committed to restoration, the Rogue River supports popular fisheries, and is a destination for hikers, rafters and kayakers. One recent economic study determined that rafting, fishing and other recreation along the Rogue annually generate \$30 million in economic output statewide, including 445 jobs (Helvoigt 2009). Restoration work also has a positive economic impact on the communities where it occurs: previous research on the economic impact of restoration in Oregon shows that 80% of restoration dollars are spent locally and over 90% are spent within the state. It is estimated that every \$1 million invested in equipment-intensive instream restoration generates 20 higher paying jobs, with total economic benefits of \$2.32 to \$3.9 million.

***c) In addition to its significance to the state, identify how the proposed priority fits within regional & local ecological priorities.*** This effort to restore and conserve anchor habitat in the basin is closely aligned with regional goals including the mission of The Pacific Coastal Salmon Recovery Fund (PCSRF) established by Congress in 2000 which was enacted “to reverse the declines of Pacific salmon and steelhead...The program is essential to preventing the extinction of the 28 listed salmon and steelhead species on the West Coast.” Additionally, National Marine Fisheries Service (NMFS) and Oregon Department of Fish and Wildlife (ODFW) both have recovery plans for coho and Chinook salmon in the Rogue River basin that speak specifically to a number of overlapping factors limiting salmonid recovery (ODFW 2007, 2013; NMFS 2014). While relatively healthy compared to most other West Coast runs, Rogue basin Chinook, coho, steelhead and lamprey are still fractions of their historical size and warrant continued recovery efforts in an area likely to see large and rapid expansion in the human population.

Further, water quality and salmonid health are closely related and recovery of salmonids is fundamentally consistent with fulfilling the prescriptions of a number of basin-wide and sub-basin

Total Maximum Daily Loads (TMDL): Upper, Middle and Lower Rogue, Bear Creek, Applegate, Illinois, Lower Sucker, and Lobster.

There is also wealth of agricultural land in the Rogue, especially in the Little Butte, Upper Rogue, Middle Rogue, Evans Creek, Illinois, and Applegate basins. The Agricultural Water Quality Management Plans for the Rogue describe actions that preserve riparian health and improve irrigation water management. The State Conservation Plan and the Oregon Plan for Salmon and Watersheds are both explicit in their need for local ownership of regional environmental issues.

### 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 and associated ecological processes and interactions (e.g., population size, habitat connectivity, water quality, water quantity, etc.) experienced by the habitat that may influence viable population parameters (i.e. abundance, productivity, spatial structure, and diversity).*** This strategic planning approach described in 2(b) will enable local experts to identify and prioritize fish strongholds throughout the basin. A basin-wide restoration plan will focus on addressing the factors that limit the recovery of anadromous fish and lamprey within and between anchor habitats, supporting spawning, rearing and migration to sustainably restore anadromy to the basin.

To effectively design and deliver such a strategy requires a rigorous planning phase that combines a comprehensive literature review (see 3 b) with local expertise and the latest science and technology. The Freshwater Trust has used this rubric to excellent effect in the Sandy River basin, and will advocate for something similar in the Rogue basin. While such an approach will require time to develop, once in place it will enable local experts to identify specific fish strongholds, and leverage expertise and funding to more effectively and efficiently address habitat in these geographies.

Limiting factors for target species in the Rogue Basin include:

- Altered hydrologic function/ water quantity – altered hydrograph from reservoirs and large diversions for agriculture, industry, and municipalities; high road densities and clear cutting in some basins; disconnected floodplains.
- Impaired water quality – agricultural irrigation runoff and reduced canopy for shade raises water temperature and upsets nutrient cycling. The Rogue River basin has TMDLs for temperature, bacteria, DO, ph and sediment.
- Degraded riparian forest – lack of shade contributes to high stream temperatures, potential sources of large wood inputs are lacking, and bank and channel stability are limited.
- Altered sediment supply – fine sediment inputs have been exacerbated by roads, timber harvest and removal of riparian vegetation. Spawning gravels are embedded with fine sediment; pool depth is limited by sediment deposition. Scour is reduced by lack of large wood and in some reaches channel widening.
- Lack of floodplain and channel structure – floodplain disconnection has disrupted the processes that form spawning and rearing habitat. Side channels, large wood accumulation, pools, and low velocity and shear stress reaches are limited.
- Fish passage barriers/habitat connectivity – barriers to fish passage include elevated culverts, road crossings, small agricultural dams, diversion structures, large dams without fish passage

into historical spawning and rearing habitat. Continuity of available habitat is also low. Direct and indirect alterations to channel morphology has also created less obvious barriers by cutting off access to traditional side-channels, sloughs, and ephemeral streams, important spawning, rearing, and migration habitat.

- Impaired estuary/mainstem function – function of the Rogue River estuary has been heavily impacted downstream of Highway 101, affecting coho rearing habitat. Access to estuary tributaries, disconnection of wetlands and excess fine sediment all decrease the function of the Rogue River estuary.

**b) Reference any framework(s) that exist (Recovery Plans, Implementation plans, etc.).** A number of conservation plans and policies exist that support salmon, steelhead, and lamprey recovery in the Rogue. These documents highlight the extent and complexity of limiting factors for the long term survival of anadromous fish in the Rogue, and make for an excellent foundation on which to build a performance-based, basin-wide plan.

- Final Recovery Plan for the Southern Oregon/ Northern California Coast Evolutionarily Significant Unit of Coho Salmon (NMFS 2014)
- Endangered Species Act Biological Opinion for the Future Operation and Maintenance of the Rogue River Basin Project Rogue and Klamath River Basins (NFMS 2012)
- Rogue Spring Chinook Salmon Conservation Plan (ODFW 2007)
- Conservation Plan for Fall Chinook Salmon in the Rogue Species Management Unit (ODFW 2013)
- Oregon Plan for Salmon and Watersheds (1997)
- Southwest Oregon Salmon Restoration Initiative (RVCOG 1997)
- Rogue Basin Fish Access Team (RBFAT) Assessment of Inland Rogue Fish Passage Barriers (2000).
- Native Fish Conservation Policy (ODFW 2002)
- Bear Creek Watershed Riparian Canopy Assessment (Bear Creek Watershed Council, 2005).
- TMDLS: Upper, Middle and Lower Rogue River (2008), Illinois River (2008), Bear Creek (2008), Applegate River (2004), Lobster Creek (2002), and Lower Sucker Creek (2002)
- Inland Rogue and Curry County Agricultural Water Quality Management Plan(s)
- Restoring the Rogue: A Plan to Prioritize Restoration on Federal Lands in the Rogue River Basin (Klamath-Siskiyou Wildlands Center 2010).

It is important to note that in 2013 the RBP initiated the Rogue Restoration Action Plan (RRAP) document to develop a strategy for addressing limiting factors in the basin (complete draft anticipated in April 2015). This document will essentially provide a literature review of existing plans (see 3b), and seeks to bridge the gap between these plans and a coordinated restoration strategy via selective consultation with agencies. While TFT agrees that this is a necessary first step for basin-scale strategy, a literature review does not take the place of a more comprehensive, coordinated and peer-reviewed habitat restoration plan supported by all partners in the basin, including federal and state natural resource agencies (see 3a). The Freshwater Trust appreciates the urgency felt by some members of the RBP to maintain momentum, but ultimately believes that a science-based approach, inclusive of all conservation actors in the basin will improve long-term success. The Freshwater Trust's own experience in just this type of planning process in the Sandy River basin 10 years ago illustrates this point well.

#### 4. Threats and Benefits

***a) What overall threats exist to the proposed priority identified? Threats are the human actions (e.g., fishing, development, road building, etc.) or natural (e.g., flood, drought, volcano, tsunami, etc.) events that cause or contribute to limiting factors. Threats may be associated with one or more specific life cycle stages and may occur in the past, present, or future.*** The greatest threat to anadromous fish and lamprey recovery in the Rogue basin is human population growth and the stress it causes to the ecological integrity of the Rogue River and its tributaries. Human occupation of the valley has led to straightening of channels, conversion of native uplands and riparian forests to farm and ranch land, loss of channel complexity, decreased water quality, excessive withdrawals and a hydrograph determined by reservoir management.

A secondary threat is a lack of coordination around restoring and reconnecting anchor habitat in the Rogue. While attempts to strategically plan for such an effort do exist, they are limited in their potential to restore the Rogue River basin by a number of important factors:

1. *Limited scope.* For example, the Rogue Basin Fish Access Team (RBFAT) assessment focused purely on fish passage barriers. While it is almost certain that passage barriers are in many cases a priority for certain reaches of the Rogue, they are only one piece of the puzzle. The efficacy of barrier removal depends greatly on the habitat quality of the newly accessible reaches of stream. ODFW recently prioritized barriers most in need of removal with consideration to habitat currently excluded by barriers (2007) but a fully scoped strategic plan would also consider passage barrier removal in context with all other limiting factors to ensure a sustained response in fish population.
2. *Single species approach.* While other regions of the country have experimented with some success in using a multi-species approach to endangered species recovery, Rogue basin plans focus on single species. There have been three efforts to document the status of and plan recovery for the federally-listed Southern Oregon Northern California Coastal (SONCC) Coho:
  - a. The Southwest Oregon chapter of the Governor's Salmon Recovery (RVCOG 1997)
  - b. The 2012 Biological Opinion – SONCC Coho Salmon (NMFS 2012)
  - c. Recovery plan for SONCC Coho (NMFS 2014) that includes the Rogue Basin. Separate plans also exist for spring and fall Chinook.
3. *Lack of peer review.* The use of a technical advisory team to prioritize anchor habitat reaches and then restoration actions proved successful for coordinated restoration in the Sandy River basin. The Sandy River Basin Partners have made great progress in their efforts due to the continued coordination of the member organizations and their alignment on a restoration strategy prepared by a technical advisory team. Such review is critical for defusing the parochial and political nature of stakeholder groups and for building credibility with funders and regulators.

There is a delicate balance to strike when incorporating technical expertise into a stakeholder group and planning effort. The nuanced understanding possessed by first hand users is also an essential ingredient. Yet without peer reviewed science, trust in the outcomes is jeopardized with a tendency for one group's perspective to only be considered at the expense of another's. There is history with this problem in the Rogue, and evidence that some of the old divisions are not far below the surface.

4. *Limited application of quantified conservation metrics.* The development of new metrics for measuring the ecological benefits of restoration work are making it possible to model, monitor and track progress towards restoration goals. While these methodologies exist, they are not broadly implemented. The Freshwater Trust advocates for using these new metrics of quantified conservation in any strategic action plan developed for the basin.

**b) What will happen if the threats aren't addressed?** If the described threats are not addressed, the challenge to recover anadromous fish will only steepen as we enter an era of climate change and unprecedented population growth. Time also plays a significant role in the equation. Considering SONCC coho are now federally listed as endangered, and Chinook has the potential to be listed, there is a real possibility that the continued degradation of habitat, coupled with the lack of strategic restoration action could result in extinction of these populations and drive the decline of currently healthy fish and wildlife populations. Considering the political mandate and ecological imperative to save these species from such a fate, action cannot be delayed. Deploying the anchor-habitat approach now is essential to effectively rebuilding resilient ecosystems.

**c) Describe the economic, social, iconic and cultural benefits of addressing the outcome and impacts of not addressing it.** Since natural watershed processes have been eliminated, altered or reduced in many areas, habitat restoration activities are the primary method for reintroducing the necessary functions to the Rogue basin's rivers and streams. A comprehensive restoration planning document for the Rogue basin will facilitate strategic and quantified restoration benefits that will provide substantial environmental, cultural and economic benefits to the region, as well as the state of Oregon. Ecosystem inhabitants will benefit from cleaner, healthier water – including the iconic salmon species that are central to our region's cultural and economic identity. Restoration of aquatic and riparian habitat will enhance economic opportunities on a renowned fishery and recreation destination. Riparian and instream restoration will build resilient ecosystems while reducing flood risks and increasing land value for private landowners. As previously described, restoration work also has a positive economic impact on the communities where it occurs.

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

**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?**

*(Combined response, 4d and 4e)* In the last biennium \$2,431,216 (2012-2013) OWEB funds were spent on restoration, assessment, technical assistance, monitoring and outreach in the Rogue, attracting close to this amount in match funds and leveraged companion projects. The bulk of this has been spent on restoration projects such as barrier removal, large wood placement and riparian plantings by local watershed councils and Soil and Water Conservation districts. Technical assistance has also been procured for partner organizations like WaterWatch and the Geos Institute. In addition, since 2012 The Freshwater Trust has implemented \$600,000 in riparian restoration projects as part of the City of Medford's water quality trading program, with plans to spend \$9,400,000 more on riparian and instream projects for offset and mitigation programs over the coming several years.

Not only has TFT's work included reach scale programming (Upper Bear Creek, South Fork of Little Butte Creek, Lower Applegate) but it has helped create contiguous restoration by aligning with other restoration projects in these areas. For example on Lone Pine Creek, a tributary of Bear Creek, The Freshwater Trust's riparian project at river mile 0.5 has complemented a wetland mitigation project on the opposing bank, and extended riparian vegetation further upstream from two other partner

managed riparian projects near the confluence. Not only will this improve steelhead spawning and rearing habitat but it will dramatically improve shade on one of Bear Creek's warmest tributaries.

Thanks to Governor's Salmon Restoration Initiative and the Oregon Plan for Salmon and Watersheds of the late 1990s the OWEB funding model for salmonid recovery has achieved much in the way of stream restoration and habitat recovery. Many stressors to wild salmon, steelhead, and lamprey have been alleviated with stems planted, miles salvaged and acres restored. What remains elusive is a credible measure of resulting ecological uplift. Without these measures, it is difficult if not impossible to accurately assess how much work is left to do, how much will it cost, and how feasible is it to hit the targets. This is, in fact, TFT's key concern with any proposal to start implementation through an FI Partnership in the Rogue now, prior to a formal and comprehensive planning process. The development of a strategic plan as described here – an approach with demonstrated success in the Sandy, Deschutes and Klamath basins – will help define the scope of basin wide recovery and its approximate cost. A systematic roadmap to recover the Rogue, complete with uplift measures, is essential to ensuring maximum return on OWEB's future investment in the basin.

## 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)?** Basin-scale ecological success measures have yet to be defined by the RBP or the broader conservation community for the Rogue basin. Without a central planning document, such measures remain elusive. The Freshwater Trust is recommending the Rogue basin be designated a FI priority for capacity building to allow for a planning effort. This effort must include a comprehensive assessment of past and current project status, in addition to developing well defined metrics for success and how they will be measured – prior to committing significant resources to implementation.

Once a strategic restoration plan is in place, TFT expects a high likelihood of ecological success in the short, medium and long-terms in the Rogue basin. For example, as a member of the Sandy River Basin Partners (SRBP), TFT played a lead role in completing a basin-wide assessment and restoration strategy which included monitoring programs for establishing biological response. This plan, and an engaged partnership, have guided over \$10 million in restoration investment to the basin since 2007, and made it possible to complete a significant amount of on-the-ground work with a measured increase in fish response where work has been completed. The Rogue is similar to the Sandy in that it has a strong base population of salmonids and lamprey; once the habitat is created, the fish will quickly find and use it.

**2. What types of voluntary conservation actions could be undertaken to address the proposed priority?** Landowners and local governments have already been incentivized through local, state and federal programs for riparian and upland conservation actions, as well TFT's water quality trading program for the City of Medford. Outreach and incentives to participate in these programs could be expanded to include incentives for riparian landowners. For example, greater participation in irrigation upgrades, riparian conservation and livestock exclusion programs would help address habitat and water quality concerns affecting anadromous fish in the Rogue River basin.

**3. Should the proposed priority be divided into geographic areas that are appropriate for partners to address?** A planning effort will help to clarify the appropriate target geographic areas. To gain widespread acceptance of a plan, the entire Rogue River basin should be included initially. Conservation communities in the Rogue River basin have been divided between the lower and the inland Rogue, however an effective planning effort should commence with the entire watershed.

**b) Social:**

**1. Do partnerships exist to address the proposed priority? If so, briefly describe. If not, note why this proposed priority is important enough that partnerships may form to address it.** There are partnerships in the Rogue, including the recently formed RBP that is using the Rogue Basin Coordinating Council's (RBCC's) 501(c)(3) registration (i.e. "doing business as"). While motivated and enthusiastic about the potential to recover the Rogue if amply funded, this is a nascent group that has yet to consolidate its structure. Its primary struggle is consensus on a restorative approach at the basin level.

Currently the group has a philosophy similar to the Rogue Basin Fish Access Team's (RBFAT's) plan of 2000: exclusively targeting barrier removal offers the best conservation "bang-for-the-buck". The Freshwater Trust firmly believes that while barrier removal is undeniably important, this limited approach fails to address the majority of the known limiting factors in the Rogue basin. The Freshwater Trust supports a restoration plan that focuses on enhancing anchor habitat to deliver the highest ecological benefit for the dollars invested.

A single action approach also excludes many key members of the Rogue conservation community from ownership of the results. Additionally, with the emphasis on one action, there is little room for conservation groups without barrier removal expertise to access future FI Partnership funding or have a say in how it is spent. Designating the Rogue as an FI priority for capacity building will allow RBP to solicit buy-in from all corners of the Rogue conservation community, while strategically planning for barrier removal alongside all aspects of anadromous fish and lamprey habitat restoration: riparian, instream and uplands.

There is also a Laird Norton funded conservation collaborative (Rogue Riverkeeper, Geos Institute, Waterwatch and Rogue Valley Council of Governments) focused on a restoration agenda for the Middle Rogue. Members of this group have also been participating in the RBP formation process but have been unsure how to split their time and commitment between the two groups.

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

The RBP members are well networked in the basin and have the ability to raise awareness and support from the community for programs the partnership chooses to pursue. Many of the watershed councils have a strong fundraising and volunteer coordination presence in their sub-basins. Their ability to draw on this grassroots social structure will lend important support to any Rogue basin capacity building or implementation efforts in the future.

Nonetheless, the RBP has struggled to realize support from a full spectrum of conservation organizations beyond watershed councils. A well coordinated planning process would not only ensure all interested groups have a part to play in the ultimate implementation phase but also provide them with a true sense of shared ownership in the basin's future. When this is achieved, stakeholders will be relieved to find consensus really can be the norm rather than the elusive cause

for isolated celebration. With more energy behind a common goal, restoration at a basin scale quickly becomes possible.

**3. Describe educational benefits, if any.** Salmon Watch program has a number of highly active chapters in the Rogue River basin. Since 1993, this statewide, place-based education program (founded by TFT but operating independently in the Rogue Basin) has been an important part of school outdoor curriculums and provided service opportunities for expert members of the community. Salmon Watch is closely aligned with salmon, steelhead and lamprey recovery. Restoration project sites are regularly used as outdoor classrooms to ensure the next generation appreciates the importance of retaining healthy anadromous fish populations in Rogue basin.

Local watershed councils and restoration groups like Lomakatsi are also highly adept at public education. Together with TFT, public agencies, and local governments, this community hosts multiple festivals and forums each year to promote understanding of basin health as it relates to salmonids and lamprey. It is expected that the RBP will provide a significant boost to public awareness on fish recovery as its identity is consolidated.

**4. Summarize the social, community, political, regulatory or other factors that will help lead to the success of this proposed priority.** The Rogue has a diverse, skilled, and passionate restoration community. It is not lacking in people power when it comes to recruiting resources for particular projects. This was particularly evident in the dam removal projects (Gold Ray, Savage Rapids, Gold Hill) that rallied immense amounts of social and political will, well paired with the expertise to navigate water rights, permitting and salvage required for such projects. These successes show that when efforts and expertise are well coordinated, rapidly tangible impacts can be made.

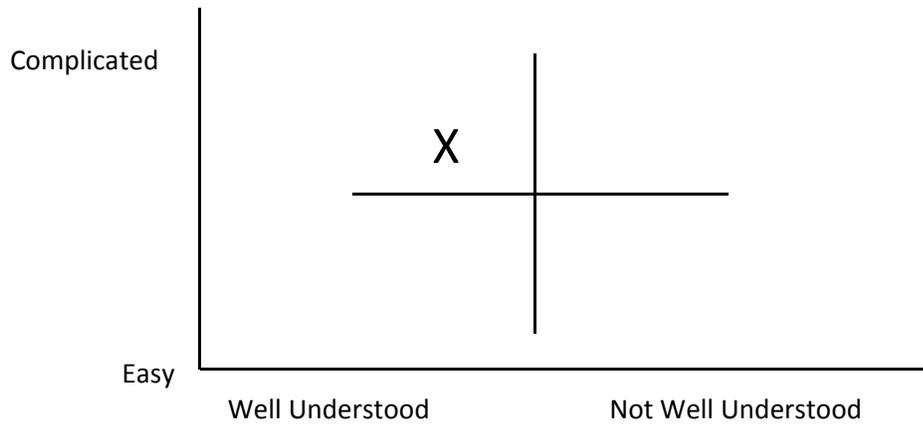
**5. What can be leveraged to address the proposed priority (funding, acreage impacts, other resources)?** The Freshwater Trust is completing large tracts of riparian restoration through about \$10 million in active contracts with the City of Medford and the Bureau of Reclamation (USBR). In the coming years this will include instream work (USBR) and the possibility of additional riparian work with the City of Ashland.

In addition, the RBP, with assistance from Bonneville Environmental Foundation, has spent the past 21 months successfully establishing itself. This is no small feat as the basin has consistently lacked a backbone group to act as forum for larger basin-wide initiatives. Once this group is consolidated and has a clear vision and strategic, science-based plan for restoring the basin, it will become the lead organization for effective basin-wide implementation.

### **c) Economic Benefits**

**1. Describe the economic benefits of addressing the ecological proposed priority, including ecosystem services.** As described previously, restoration of aquatic and riparian habitat will enhance recreational opportunities on a renowned fishery, and restoration will reduce flood risks and add improvements and increase land value for private landowners. More restoration work means more jobs, which translates into incentives for business growth in the stream restoration sector, ultimately resulting in the diversification and strengthening of local economies. Beyond direct employment benefits, in time, improved salmonid habitat and water quality will lead to improved commercial fisheries and improved recreational opportunities in the Pacific Northwest.

**6. FOR ALL SUBMISSIONS: Assess the proposed priority by locating the proposed priority in one of the quadrants below. Describe why the proposed priority falls in this quadrant. There is no wrong answer to this question and there may be multiple answers.** Development of a strategic restoration plan for the Rogue River basin is complicated yet well understood. As a member of the Sandy River Basin Partners, TFT has experience working within a diverse partnership to develop and implement such a plan (Sandy River Basin, 2007-present). This exercise is complicated only because it is a multi-stakeholder project that takes time. TFT recommends using an anchor-habitat prioritization approach using existing science and techniques that are well understood. The restoration community understands the limiting factors for target species and can implement the required restoration actions - we simply need a coordinated plan. This is complicated but by no means insurmountable.



**7. Is there other information the Board should know regarding this priority?** The Freshwater Trust is submitting a Technical Assistance Grant for beginning a basin-wide planning effort in the Rogue with a GIS –based riparian assessment and project prioritization. This project will consider all other aspects of anadromy (barriers, spawning, rearing, migration corridors, riparian health, floodplain connectivity, and stream gradient) to determine a list of priority projects. Included is a local technical review panel of independent fish biologists, riparian vegetation experts, and water quality specialists. The Freshwater Trust considers this an important step for planning all potential actions in the Rogue and could be used as a template process for completing a basin-wide strategic plan.

**8. In lieu of attaching letters of support for this proposal, please submit a list of other supporting individuals or organizations.** The Freshwater Trust is a member of the Rogue Basin Partnership, and looks forward to collaborating with the member groups to implement high quality restoration work in the region. However, TFT strongly believes that the development of a comprehensive, coordinated and peer-reviewed habitat restoration plan supported by all partners in the basin, including federal and state natural resource agencies is the prudent, critical next step. The following entities have voiced their support for a planning effort in the basin: of the type described in these comments: River Design Group City of Medford, Bureau of Reclamation

The Freshwater Trust has refrained from soliciting additional names since many of the conservation organizations we work alongside are planning to submit their own comments. The Freshwater Trust expects other organizations in the Rogue to have similar feelings about the approach recommended here. Some we know will be opposed, and some will be somewhere in between. This spectrum of opinions should add further weight to the idea that the basin needs time to develop capacity before OWEB will get full value from Focused Investment implementation dollars.