

# **Cowlitz Restoration and Recovery (CRR) Fund Implementation Strategy Final**

## **Introduction:**

The Cowlitz Restoration and Recovery (CRR) Fund Implementation Strategy (Strategy) expands on the guiding principles of the 2014 Cowlitz Restoration and Recovery Fund Implementation Plan (Plan). The Implementation Strategy documents FTC decisions and priorities to be incorporated into a system for solicitation and evaluation of potential activities to protect and restore listed salmonid populations in the Cowlitz River Basin upstream of Barrier Dam.

## **Purpose:<sup>1</sup>**

- Protect and promote restoration and recovery of upper Cowlitz River basin salmonid populations listed under the federal Endangered Species Act (ESA).

## **Goals:<sup>2</sup>**

- Achieve recovery viability targets set forth in the Washington Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (Recovery Plan).
- Achieve habitat impact reduction targets set forth in the Recovery Plan and presented in Table 1 below.

The Recovery Plan includes an assessment of baseline population viability at the time of listing and sets goals for improvement in population viability targets necessary to achieve minimum viability status. The Recovery Plan also identifies how different threats (i.e., Habitat, Dams, Fisheries, Hatcheries and Ecological Interactions) impact the productivity and viability of each ESA-listed population in the lower Columbia River system. Additionally, the Recovery Plan sets targets for each population to reduce the impact of each threat to assist in achieving its minimum viability goal.

Table 1 includes information from the Recovery Plan that is specific to all Upper Cowlitz basin salmon and steelhead populations. Fall Chinook originating from the Upper Cowlitz, Cispus, and Tilton Rivers are considered a single ESA-listed population. For spring Chinook, coho, and steelhead, each species has three designated populations: Upper Cowlitz, Cispus, and Tilton. Table 1 presents the baseline viability assessment and minimum viability goal (Recovery Objective) plus information regarding impacts

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<sup>1</sup> CRR Implementation Plan (1/7/14)

<sup>2</sup> Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (May 2010)

from the Habitat threat: 1) baseline impacts at time of listing, 2) reduction in impacts set forth by the Recovery Plan (Target Reduction), and 3) outcome of reduction that would allow the population to achieve minimum viability (Recovery Objective) for each population.

Table 1. Summary of population viability and impacts from the habitat threat for all populations in the Cowlitz basin upstream of Barrier Dam. Includes information regarding estimated status at time of initial listings (1998) and Lower Columbia Recovery Plan targets to assist in achieving minimum viability status. Targets for reducing habitat threats are based on desired population productivity improvements associated with improving manageable stream habitat conditions. Stream habitat target reductions are determined in balance with the five other manageable impact factors (estuary/mainstem habitat, hydropower, harvest, hatcheries, and predation).

Basin	Population	Designation	Population Viability**		Impacts from Habitat Threat		
			Baseline*	Recovery Objective	Baseline*	Target Reduction	Recovery Objective
Upper Cowlitz	Spring Chinook	Primary	Very Low	High+	0.90	50%	0.45
	Winter Steelhead	Primary	Very Low	High	0.40	50%	0.20
	Coho	Primary	Very Low	High	0.40	50%	0.20
Cispus	Spring Chinook	Primary	Very Low	High+	0.90	50%	0.45
	Winter Steelhead	Primary	Very Low	High	0.60	50%	0.30
	Coho	Primary	Very Low	High	0.50	50%	0.25
Tilton	Spring Chinook	Stabilizing	Very Low	Very Low	0.80	0%	0.80
	Winter Steelhead	Contributing	Very Low	Low	0.90	50%	0.45
	Coho	Stabilizing	Very Low	Very Low	0.95	0%	0.95
Upper Cowlitz***	Fall Chinook	Stabilizing	Very Low	Very Low	0.80	0%	0.80

\* Conditions in 1998 prior to federal ESA listings of lower Columbia steelhead, Chinook and chum salmon

\*\* Viability categories defined by National Marine Fisheries Service as described in Recovery Plan (Section 4.2.1)

\*\*\* Includes Tilton, Cispus and Upper Cowlitz basins

Source: Washington Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan

**Overview:**

The CRR fund is intended to support activities that will protect and promote recovery of listed species *in lieu* of construction and operation of volitional upstream passage facilities on the Upper Cowlitz River. Article 3 of the Cowlitz River Hydroelectric Project Settlement Agreement (Settlement Agreement) calls for the expenditure of the CRR Fund if it is determined that:

*“...expenditure of the escrow account on such additional measures in lieu of volitional upstream facilities is necessary and appropriate to achieve natural stock restoration, consistent with the express purpose of the license and the Settlement Agreement, and with applicable recovery plans for the listed Cowlitz River stocks...”*

Consistent with Project License Article 3, Tacoma Power established an account in the amount of \$15 million (plus annual interest) in July 2008 known as the Cowlitz Restoration and Recovery Fund (CRR Fund) to be used to promote restoration and facilitate recovery of Upper Cowlitz River basin salmonid populations listed under ESA. The intent of this program and funding source is to support actions not otherwise covered by specific resource protection, mitigation, and enhancement (PME) measures identified in the Cowlitz Hydroelectric Project License, Settlement Agreement, or the Biological Opinion (BiOp).

In keeping with the direction provided by Article 3 of the Settlement Agreement and the CRR Implementation Plan, the CRR Fund will be used to support the following activities:

- Conduct a Habitat Assessment (see Habitat Assessment section) to guide protection and restoration activities.
- Implement on-the-ground projects, or activities that lead to on-the-ground projects, aimed at protection or restoration of habitat for priority species within the geographic focus areas.
- Implement on-the-ground hatchery-associated production projects aimed at reintroduction and recovery of Spring Chinook in the Upper Basin (see Hatchery-Associated Production section).

The goal of the CRR Fund is to assist in the protection and recovery of listed populations consistent with the recommendations of the Washington Lower Columbia Salmon Recovery and Fish & Wildlife Upper Cowlitz Subbasin Plan (LCFRB 2010, Vol. II.F).

By focusing use of the CRR Funds on habitat protection and restoration projects in combination with other fishery-related activities (e.g. reintroduction efforts, hatchery and harvest reform actions), the benefits to the recovery of listed populations will increase. Use of the CRR Fund for other fishery-related activities will only be considered if that activity results in a direct benefit to the protection or recovery of listed populations originating upstream of Barrier Dam.

### **Fund Structure:**

This Implementation Strategy focuses on implementing habitat acquisition or restoration projects to benefit listed salmon and steelhead originating upstream of Barrier Dam. Partnerships and cost sharing opportunities will be pursued at the project level. The goal of this strategy is to build support and momentum for habitat restoration and population recovery actions by implementing visible projects that display a tangible benefit to listed salmon and steelhead populations and the habitat they depend on. As other entities observe the positive actions being implemented, it is expected that interest in these recovery activities will increase.

In the future, there may be opportunities to expand partnerships and cost sharing agreements beyond the project level to a program scale. Currently there is a lack of partnerships in the basin. Existing funding sources available to support habitat protection and restoration activities are focused broadly across the lower Columbia basin and limited funds are available to invest specifically in the Cowlitz basin upstream of Barrier Dam. Over time, possibilities of implementing a program that leverages funds from a variety of sources may be investigated to maximize the benefit of investments provided through the CRR Fund.

This CRR Fund Implementation Strategy provides priorities for on-the-ground projects, with respect to location and target species, to be supported by the CRR Fund (see Priorities for Restoration Projects and Land Acquisition section). Allocation of the CRR Fund between different project categories (e.g. acquisition, restoration) or activities (e.g. outreach) should not occur at this time. During this initial phase of the Implementation Strategy, the CRR Fund will be made available to implement projects that directly benefit salmon and steelhead recovery as described above. Priority will be given to those projects identified through the habitat assessment (see Habitat Assessment section). Broad support for this Implementation Strategy is expected to grow and future allocations between project categories or activities may be necessary as increased partnerships are developed.

## **Funding Cycle:**

A CRR funding budget will be developed and allocated on a biennial cycle, based on the calendar year. A long-term budget forecast will be developed every 10 years. Budget planning procedures will set an incremental spending plan one year prior to the beginning of the next biennium, due on January 1st of even years. Biennial spending plans will include a statement on the status and balance of the fund for review by the FTC. Funds allocated each cycle will likely vary based upon anticipated projects. Funds not allocated in each biennium, or not fully expended under each funding award, will revert back to the CRR Fund. All CRR account funds will be expended by the end of the License period in 2037.

The model of allocating funds on a biennial cycle allows for a call for proposals, review and ranking of proposals, and funding decisions to be made every two years. Tacoma Power and the FTC prefer to retain flexibility in the process. By consensus, the FTC may elect to award the entire biennial budget in the first year, retain a portion of the allocated funds for award in the second year of the cycle, make funds not awarded in the first year available in the second year, or not fund any proposed projects based upon the quality and fit of projects to meet CRR Fund implementation goals. Retaining flexibility will also include early review of the award process by the FTC to evaluate effectiveness in achieving CRR Fund goals and objectives and assess the need to change the award process. At this time, no funding thresholds have been identified to limit the amount allocated in a given biennium, or to limit the amount awarded to an individual project. In addition, funding agreements may span multiple years, typically three years with a maximum of five years. Extensions for unforeseen circumstances may be possible if approved by the FTC.

## **Proposal Review and Funding Decisions:**

The FTC has committed to a stepwise rigorous and peer reviewed process to ensure that the best available science is used to select habitat acquisition and restoration projects funded through the CRR Implementation Strategy that provide recovery benefits for listed salmon and steelhead originating from the Cowlitz basin upstream of Barrier Dam (see Figure 1). Hatchery-associated production projects will be reviewed separately using a different process.

The FTC has developed a partnership with the Lower Columbia Fish Recovery Board (LCFRB) to assist in the proposal review process. A request for project proposals consistent with the goals and priorities of the CRR Fund Implementation Plan will be released concurrently with the LCFRB's regular funding round for Salmon Recovery

Funding Board (SRFB) projects. Review of project proposals competing for CRR Funds will be nested within the larger funding review process for the LCFRB Lead Entity.

The LCFRB will utilize their Technical Advisory Committee (TAC) and Board to provide an initial review of projects, using their standard ranking and review process with additional criteria set by the FTC to ensure projects considered for CRR Funds will meet the geographic and species specific goals of the program. The process will continue as follows and as outlined in Figure 1.

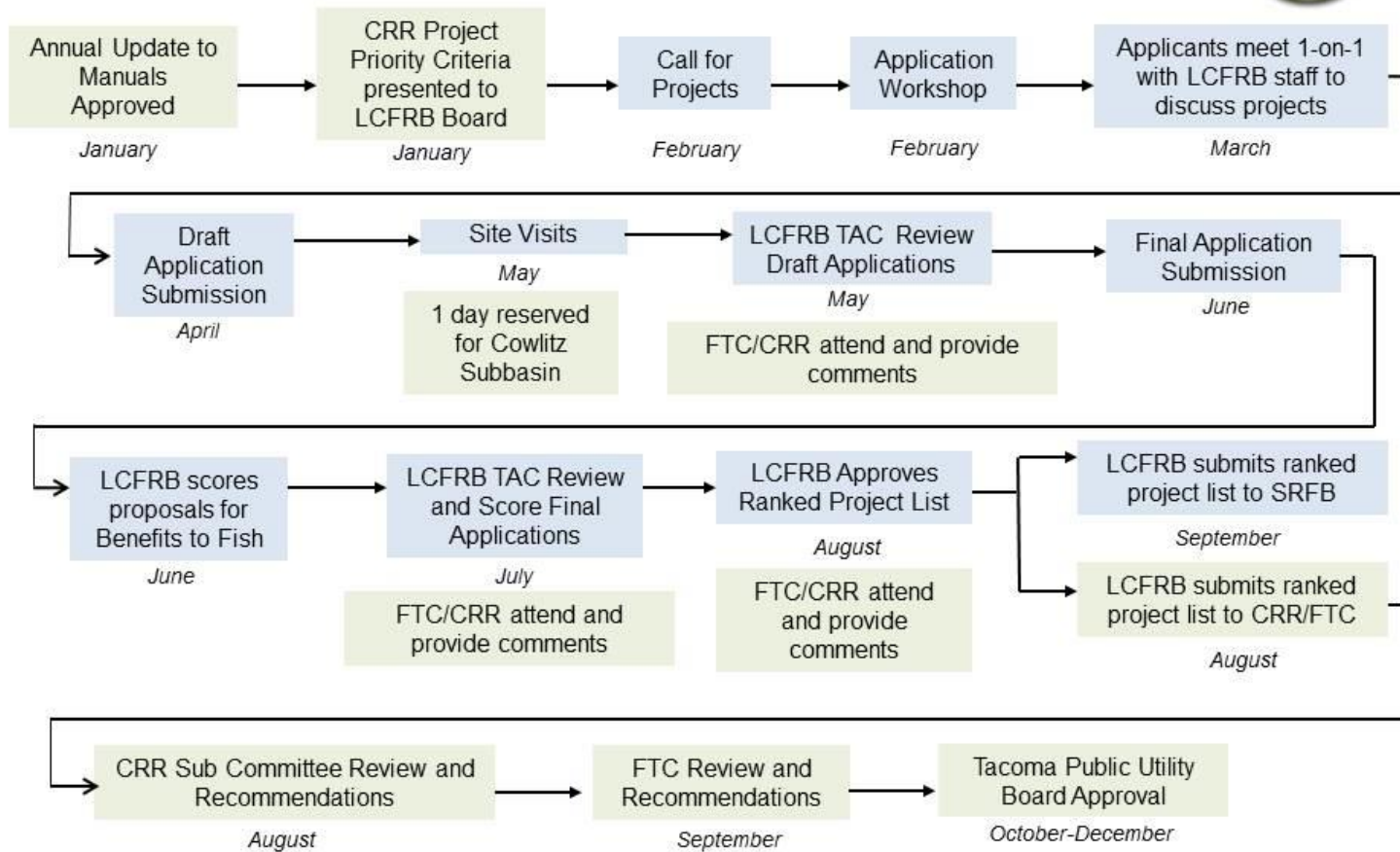
1. LCFRB and TAC complete initial review and ranking of projects. The FTC will be invited to observe and make public comments.
2. FTC/CRR Subcommittee completes review, and approves or modifies award list and makes funding recommendations to Tacoma Power.
3. Tacoma Power submits approved project list to Tacoma Public Utility Board for funding.

The roles and responsibilities of the LCFRB, the FTC, and Tacoma Power for technical review of proposals will be fully described in a Memorandum of Understanding (MOU) between Tacoma Power and the LCFRB. The ranking criteria, proposal review, and funding process will be established in further detail in subsequent CRR program application manuals designed to guide applicants through the process.

In some cases there may be extenuating circumstances that arise and result in a need to modify the aforementioned review process. At the discretion of the FTC, modifications to the review process could be considered and addressed only on a case by case basis. Extenuating circumstances resulting in a project receiving streamlined review consideration are limited to emergencies or extremely time sensitive opportunities that unexpectedly arise, namely acquisition of at-risk properties, and cases in which completion of the regular, annual review process would prohibit a high priority project or action from being implemented. All eligibility requirements and ranking criteria will be consistently applied to proposals considered for a modified review process.



## Integration of CRR Habitat Restoration Project Review Process With LCFRB Grant Round Review Process



Note: The LCFRB grant round is subject to the WA Open Public Meetings Act. All materials will be available throughout the process.

Figure 1. CRR Fund Habitat Restoration Project Review Process

**Matching Fund Requirements:**

While proponents are encouraged to show matching or leveraged funds in their budget proposals to the CRR Fund program, a specific match amount will not be required. Tacoma Power and the FTC will coordinate with the LCFRB to incentivize leverage of CRR funds through the proposal scoring process. Project proposals should show total projects costs alongside the CRR funding request as well as the amount and status of other matching funds to facilitate FTC review and lend a whole-project perspective of the proposed project scope and budget.

**Priorities for Restoration Projects and Land Acquisition:**

The CRR Implementation Plan identifies priorities for habitat restoration and land acquisition activities that will support the restoration and recovery of Cowlitz listed salmonid populations originating in the upper basin, upstream of Barrier Dam. Spring Chinook are further prioritized over other species because of their importance to recovery. Recovery of the Lower Columbia Chinook Evolutionarily Significant Unit (ESU) requires that Upper Cowlitz and Cispus spring Chinook achieve Recovery Plan population viability goals. The Upper Cowlitz and Cispus basins are prioritized over other parts of the Cowlitz subbasin based on the 2010 Recovery Plan population viability recovery objectives for Upper Cowlitz and Cispus populations.

The geographic boundary of the CRR Program consists of the Cowlitz River basin upstream of the mouth of the Toutle River. This includes the main stem Cowlitz River, river mouths of the tributaries below Mayfield Dam, and the entire basin upstream of Mayfield Dam. By combining the species prioritization and the geographic boundaries, the CRR Program project priorities are listed in ranked order as follows.

Projects directly benefiting:

1. Upper Cowlitz and Cispus Spring Chinook
2. Upper Cowlitz and Cispus Steelhead and Coho
3. Tilton salmon and steelhead listed populations and Upper Cowlitz Fall Chinook
4. Lower basin listed salmon and steelhead having a high proportion of matching funds

While this Implementation Strategy prioritizes activities focusing on spring Chinook in the Upper Cowlitz and Cispus basins, it does not exclude activities occurring in other geographic locations (e.g. Tilton River) as long as proposed activities also benefit other listed species (e.g. coho and winter steelhead) originating upstream of Mayfield Dam. Proposed habitat activities downstream of the Barrier Dam will be evaluated based on



their benefits to populations originating upstream of Mayfield and Cowlitz Falls dams. The initial prioritization presented above may be re-evaluated upon completion of a habitat assessment and/or changes in the Recovery Plan.

### **Habitat Assessment:**

A habitat assessment will be conducted to identify high priority restoration or protection projects. Under the direction of the FTC, CRR Funds will be used to hire a qualified professional to conduct a habitat assessment that will guide the location and types of habitat restoration projects and incorporate high priority locations for acquisition previously identified<sup>3</sup>. Tacoma Power will consult with the FTC regarding the specific elements that will be included in the request to conduct a Habitat Assessment.

The assessment will be restricted to the Upper Cowlitz and Cispus basins above Cowlitz Falls Dam and focus on spring Chinook priority life history stages. Given that projects addressing spring Chinook limiting factors will likely benefit other species, the assessment will describe how identified restoration projects or land acquisitions will also benefit other species.

The habitat assessment should include an analysis that builds upon the limiting factors identified in the Recovery Plan and other previous habitat reviews completed for the upper Cowlitz (e.g. Upper Cowlitz River Basin Reach Characterization Project – Identifying Reaches Suitable for Protection<sup>3</sup>). In addition this analysis should incorporate potential future changes in river flows and hydrograph when identifying long term benefits of potential restoration projects or acquisitions. The habitat assessment should also build upon the Recovery Plan assessments regarding the potential change in population performance resulting from restoration or protection activities.<sup>4</sup>

The habitat assessment should focus on identifying priority reaches for protection and restoration that provide the most benefit to Upper Cowlitz and Cispus spring Chinook and identify the limiting factors and priority life stages that need to be addressed in each location. The habitat assessment should focus on landscape scale restoration activities to be implemented (e.g. instream structure, floodplain reconnection, riparian restoration,) and site locations in priority reaches where limiting factors can be addressed, natural process can be restored or protected, and self-sustaining habitat can persist.

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<sup>3</sup> Upper Cowlitz River Basin Reach Characterization Project – Identifying River Reaches Suitable for Protection, prepared for Tacoma Power by CardnoEntrix, Project Number 4285004, April 2, 2014.

<sup>4</sup> Washington Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan, Volume II.F – Upper Cowlitz Subbasin (Potential change in populations performance with degradation and restoration ladder diagrams)

## **Hatchery-Associated Production:**

Article 3 of the Settlement Agreement provides for the expenditure of funds from the escrow account that serves as the CRR Fund (see Overview section). Article 5 of the Settlement Agreement provides general guidance regarding the expenditure of the CRR Fund on hatchery production:

*“... unless a decision has been made pursuant to Article 3 to not construct volitional upstream passage during the remaining term of the license, at which time hatchery production may be considered as part of the plan to expend the funds in the escrow account for the purposes of protection and promoting recovery of listed stocks...”*

Article 3 of the Settlement Agreement clearly states that the CRR Fund (escrow account) was specifically established as a measure to be implemented *in lieu* of volitional upstream passage to benefit natural recovery of listed stocks. Article 5 specifically states that expenditures from the CRR Fund (escrow account) need to be consistent with protection and recovery goals of listed stocks. Consistent with the direction provided by the Settlement Agreement, any expenditures of the CRR fund for hatchery-associated production must achieve the purpose of protection and facilitate recovery of listed populations originating in the Cowlitz basin upstream of Barrier Dam.

Use of CRR Funds for hatchery-related fish enhancement projects will be considered; however, evaluation will depend solely upon how proposed efforts will protect and promote recovery of listed populations originating in the Cowlitz basin upstream of Barrier Dam. The limiting factors identified in the Recovery Plan (LCFRB 2010) should be used to identify the types of actions proposed, such that projects constructed and/or operated address limiting factors to promote recovery of listed populations originating from upstream of Barrier Dam.

If the FTC identifies utilization of remote site rearing/acclimation projects for fish enhancement as necessary for recovery of target populations, then these actions may be funded by the CRR. The scope of fish production activities will focus on projects that are small, temporary, and focused in areas that are underutilized, or where fish access was previously precluded by barriers that have now been addressed, to ensure utilization and increase spatial distribution of target populations. These enhancement programs will only be used to meet population viability goals and therein not be made available to the fishery. Hatchery programs whose purpose is to maintain or increase harvest will not be considered for funding through the CRR Fund. The hatchery

activities specifically required by the Cowlitz License Articles or Settlement Agreement (e.g. satellite rearing ponds) will not be eligible for funding through the CRR Fund.

The types of hatchery projects that could be considered for use of the CRR Fund include:

- Utilization of Remote Site Incubators (RSI) to address egg to emergence survival issues.
- Distribution of fry or fingerlings to colonize areas where adequate habitat exists, but is currently underutilized by anadromous salmonids.
- Acclimation of smolts to areas in the watershed where quality habitat exists but is underutilized, thereby expanding the geographic range of the natural origin population.
- Introduction of fish into areas where habitat restoration improvements have occurred or passage barriers have been addressed to ensure utilization of restored habitat.

Hatchery-associated production funded through the CRR Fund should be short term, with the intention to address limiting factors and benefit natural origin populations during the early time frame of the recovery program. It is important to note, recovery is a long term process. Remote site/acclimation projects should be designed to be consistent with natural processes, appropriately sited, and value-added to long term habitat restoration targets to support self-sustaining fish populations.

Review and ranking of hatchery-associated project proposals will be completed by the CRR Subcommittee and the FTC.

### **Project Eligibility Criteria**

As mentioned in previous sections, the CRR Fund will be awarded to projects that promote activities to protect and restore listed salmonid populations in the Cowlitz River basin upstream of Barrier Dam. Any conservation group registered as a non-profit, Native American Tribe, Regional Fisheries Enhancement Group, Conservation District, or local and state governmental entity, including Tacoma Power, may propose a CRR project. Private landowners are allowed to propose restoration projects on their own property, but not acquisition projects. Proposals will be considered as long as they are consistent with the solicitation process and meet the criteria and priorities listed in this Implementation Strategy.

Some projects or elements of projects are ineligible as match or for reimbursement. Activities that are ineligible for reimbursement or match include:

- Property acquisition through eminent domain.
- Mitigation projects, activities, or funds.
- Monitoring and maintenance as stand-alone projects.
- Effectiveness monitoring costs associated with a project, including purchase of equipment to monitor a restoration or acquisition project.
- Construction of buildings or indoor facilities.
- Capital facilities, public works projects, projects with a primary purpose of flood mitigation, and infrastructure elements, such as sewage treatment facilities, surface and storm water management systems, flood management structures, and water supply systems.
- Converting from septic to sewage treatment systems.
- Operation or construction of fish hatcheries.
- Operation of hydropower facilities.
- Fish harvest and harvest management activities.
- Fishing license buy-back.
- Lobbying or legislative activities.
- Indirect organizational costs.
- Costs to prepare or apply for a grant (or other grant funding).
- Projects that do not address an important habitat condition or watershed process, or that focus mainly on supplying a secondary need.
- Planning projects intended only for research purposes, stand-alone monitoring, or general knowledge and understanding of watershed conditions and functions.

Proposed resource projects must be consistent with Federal and State laws and policies in effect at the time the project is approved. Project eligibility criteria, application instructions, review and raking criteria, and contracting roles and responsibilities of the grantor and the grantee will be further defined in CRR application manuals for habitat restoration, acquisition, and hatchery associated projects. These manuals will be drafted and updated annually by Tacoma Power in coordination with the FTC.

## **Monitoring**

CRR Fund recipients will be required to monitor project implementation to ensure projects are completed as proposed. Project proponents will be required to report on the project implementation process and status as part of contract administration by providing as-built documentation and final reporting on project accomplishments and

metrics. Tacoma Power and the FTC will complete final project inspections prior to final payment and contract close out.

CRR funds are not available for project performance, effectiveness, or validation monitoring. Fund recipients are encouraged to monitor projects as they are able. If monitoring activities are completed, Tacoma Power requests copies of monitoring reports. Tacoma Power reserves the right, using their own funds, to evaluate CRR projects for performance, effectiveness, and validation metrics and fund recipients shall make reasonable accommodation to provide Tacoma Power staff access to project sites following implementation.