

Recommendations to the Northwest Power and Conservation Council on the Grande Ronde Subbasin Fish and Wildlife Priorities to Guide the 2007-2009 Project Solicitation

Strategies for fish habitat, artificial production and wildlife apply to on-going and new projects.

Grande Ronde Subbasin Fish Habitat Priority Restoration Strategies (strategies 1-4 prioritized, sub-strategies are not prioritized)

Prepared for the Grande Ronde Subbasin Planning Team by Lyle Kuchenbecker, Planning Team Leader; reviewed by CTUIR, NPT and ODFW.

1. Restore watershed connectivity limiting key fish and wildlife populations	
Sub-Strategies	<ul style="list-style-type: none"> ◆ Restore natural stream flows in dewatered streams through improved irrigation efficiency projects and instream flow protection ◆ Restore fish passage to good habitats by restoring passage at man-made barriers
2. Build from strength	
Sub-Strategies	<ul style="list-style-type: none"> ◆ Work outward from high quality areas ◆ Protect habitat that supports existing populations that are relatively healthy and productive. ◆ Expand to adjacent habitats that have been historically productive or have a likelihood of sustaining healthy populations by reconnecting or improving habitat. ◆ Address stream and population connectivity in all subbasins
3. Restore watershed processes impacting the aquatic system, water quality-limited streams, and wildlife habitat (not prioritized)	
3a. Low Flow/ Irrigation Diversions	
Sub-Strategies	<ul style="list-style-type: none"> ◆ Identify flow deficient stream reaches caused by irrigation withdrawals. ◆ Improve riparian function and water storage where feasible by reconnecting floodplains through removal of confinement structures (roads, dikes), enhancing riparian vegetation, reestablishing beaver populations. ◆ Re-establish historic wet meadow complexes where feasible. ◆ Improve hydrologic function of forested watersheds through manipulation of tree species and density toward historic conditions and historic variability in time and space. ◆ Explore feasibility of water storage facilities (above or below ground) with primary objective of enhancing late season stream flow. ◆ Reduce irrigation withdrawals through an integrated program of irrigation efficiency improvements, diversion point consolidations, water right leasing and water right purchase, where applicable with willing landowners. ◆ Promote education and technical training in the efficient use of irrigation water. ◆ Facilitate research and development of less water-intensive agricultural crops and practices. ◆ Reduce water withdrawals through measurement to valid water rights quantities
3b. Sediment Reduction	
Sub-Strategies	<ul style="list-style-type: none"> ◆ Identify sediment sources ◆ Close, obliterate or relocate sediment producing roads where feasible. ◆ Improve drainage, culverts, sand, surface, on open sediment producing roads. ◆ Manage grazing in riparian areas following grazing plans designed to improve riparian condition; could include exclusion, partial season use, development of off-site water, herding, salting, rest-rotation, etc. ◆ Reestablish riparian vegetation by planting trees, shrubs, sedges (native species preferred)

Sub-Strategies	<ul style="list-style-type: none"> ◆ Stabilize active erosion sites, where appropriate, through integrated use of wood structures (limited use of rock if necessary) and vegetation reestablishment. ◆ Where appropriate and feasible, relocate channelized stream reaches to historic locations. ◆ Promote interaction of stream channels and floodplains by removing, where feasible and appropriate, channel confinement structures (roads, dikes). ◆ Encourage landowner participation in riparian management incentive programs, e.g. CREP, WRP, EQIP. ◆ Promote/implement minimum tillage practices. ◆ Promote/implement development of grazing plans to improve upland vegetative condition. ◆ Implement an integrated noxious weed management program including survey, prevention practices, education, treatment and revegetation. ◆ Create/construct wetlands and filter strips for livestock feedlots and irrigation return flows.
3c. Channel Condition	
Sub- Strategies	<ul style="list-style-type: none"> ◆ Improve the density, condition and species composition of riparian vegetation through planting, seeding, grazing management and improved forest management practices. ◆ Reconstruct channelized stream reaches to historic or near-historic form and location where appropriate and feasible. ◆ Remove or relocate channel confinement structures such as draw-bottom roads and dikes where appropriate and feasible. ◆ Maintain existing and potential LWD by promoting BMP's for forestry practices. ◆ Add LWD where deficient and appropriate to meet identified short term deficiencies. ◆ Reconnect channels with floodplain or historic channels where appropriate and feasible. ◆ Remove or relocate channel confinement structures such as draw-bottom roads and dikes where appropriate and feasible. ◆ Install in-channel structures (LWD, boulders, rock structures to improve habitat complexity in the short term where appropriate and feasible. ◆ Restore off-channel, side channel, and backwater habitats where appropriate and feasible
3d. Riparian Function	
Sub- Strategies	<ul style="list-style-type: none"> ◆ Improve the density, condition and species composition of riparian vegetation through planting, seeding, and improved land management practices. ◆ Reconnect channels with floodplain or historic channels where appropriate and feasible. ◆ Remove or relocate channel confinement structures such as draw-bottom roads and dikes where appropriate and feasible. ◆ Encourage/promote participation in agriculture and farm programs to enhance riparian vegetative condition and function (CREP, WRP, EQIP). ◆ Relocate developed recreational facilities, where appropriate, from riparian areas to upland sites.
4. Address the symptoms of disturbance that impact fish and wildlife populations and water quality-limited streams	
Rationale	<p>Addressing the symptoms of human-related disturbance can help provide important habitats while key watershed processes are recovering. Many functions that create habitat operate at very long time scales. In the short-term, habitat quality can be improved by implementing strategies including the following:</p>
Sub- Strategies	<ul style="list-style-type: none"> ◆ Place large wood in streams ◆ Create natural channel and bank structure in an altered stream reaches ◆ Install water / sediment control basins to protect the riparian area ◆ Constructing off-channel backwaters and alcoves <p>Note: These types of projects often have a short response time, but the costs can vary widely (potentially HIGH), and they are most effective when linked to watershed process improvement projects</p>

Grande Ronde Subbasin Geographic Priorities for Habitat Strategies

Watersheds listed in order of potential effects to steelhead and chinook populations resulting from comprehensive habitat restoration.

Watershed	Fish Population(s)	EDT Priority Geographic Area(s) highlighted areas are priorities for multiple pops.	Priority Attributes
Wallowa River (including Lostine River)	Wallowa Steelhead Wallowa-Lostine Chinook Lostine/ Bear Ck Bull Trout	Steelhead Priorities Prairie Creek Upper Wallowa River –Wallowa Chinook Hurricane Ck , Whiskey Ck Lower Wallowa (1-3) -Minam Steelhead <hr/> Chinook Priorities Lower Lostine – Wallowa Steelhead Mid-Wallowa – Wallowa Steelhead	<ul style="list-style-type: none"> • Key Habitat Quantity (reduced wetted widths) • Habitat Diversity (reduced wood, riparian function) • Sediment • Temperature • Flows
Upper Grande Ronde	Upper GR Steelhead Upper GR Chinook Upper GR Complex Bull Trout	Mid GR 4 (GR 37 - 44) - chinook Mid GR Tribs 4 (Whiskey, Spring, Jordan, Bear, Beaver, Hoodoo...) Phillips Creek Upper GR Ronde 1 (45-48) - chinook Mid GR 3 (GR – 34-36) Valley <hr/> Sheep Ck, Fly Ck, Lower Meadow Ck - chinook	<ul style="list-style-type: none"> • Sediment • Flow • Temperature • Key Habitat Quantity (reduced wetted widths)
Catherine Creek/ Middle Grande Ronde	Upper GR Steelhead Catherine Ck Chinook Catherine Ck Bull Trout Indian Ck Bull Trout	Mid Catherine Creek (2-9) – UGR Sthd SF, NF Catherine Creek Lower Grande Ronde R. 2	<ul style="list-style-type: none"> • Key Habitat Quantity (reduced wetted widths) • Habitat Diversity (reduced wood, riparian function) • Sediment • Flow • Temperature
Joseph Creek	Joseph Creek Steelhead	Lower Chesnimius Lower Joseph Creek Upper Joseph Swamp Creek, Crow Creek	<ul style="list-style-type: none"> • Sediment • Temperature • Key Habitat Quantity (reduced wetted widths)
Lower Grande Ronde	Lower GR Steelhead Possibly bull trout in tributary headwaters	Lower GR(1-12) – Wenaha Chinook Lower Grande Ronde Tribs Wildcat Creek , Mud Creek	<ul style="list-style-type: none"> • Habitat Diversity (primary pools, glides, spawning gravels) • Key Habitat Quantity (wood, hydromodifications to channel) • Sediment

Watershed	Fish Population(s)	EDT Priority Geographic Area(s) highlighted areas are priorities for multiple pops.	Priority Attributes
Minam River	Wallowa Steelhead Minam Chinook Minam/ Deer Ck Bull Trout Little Minam Bull Trout	Lower Minam Lower Wallowa (1-3) Lower Grande Ronde 2 (13-25) Chinook	<ul style="list-style-type: none"> • Key Habitat Quantity (reduced wetted widths) • Habitat Diversity (reduced wood, riparian function) • Sediment
Lookingglass Creek	Upper GR Steelhead Lookingglass Chinook Lookingglass Bull Trout	Lower GR 2 (GR 13 – 25) - Chinook No priority areas for steelhead	<ul style="list-style-type: none"> • Key Habitat Quantity (reduced wetted widths) • Habitat Diversity (reduced wood, riparian function) • Sediment
Wenaha	Wenaha Spring Chinook Lower GR Steelhead Wenaha Bull Trout	Lower GR 1**	<ul style="list-style-type: none"> • None

- The habitat quantity and habitat diversity attributes are a function of channel condition
- Temperature is largely a function of riparian condition and/or low flows

Grande Ronde Subbasin Priority Artificial Production Strategies

Strategy #1 provided by ODFW and reviewed by NPT and CTUIR.

Strategy #2 suggested by CTUIR.

- 1) Meet the artificial production goals as articulated in US v. Oregon.
- 2) Continue on-going LSRCP and BPA funded artificial production STS and CHS programs and implement new CHS facilities as per NPCC NEOH Master Planning process.

Grande Ronde Subbasin Priority Wildlife Strategies

Prepared for the Grande Ronde Subbasin Planning Team by Angela Sondena, Nez Perce Tribe and Reviewed by Carl Scheeler, Confederated Tribes of the Umatilla Indians, and Bob Mason, USDA Forest Service.

- 1) Protect and restore wildlife habitat within the four key cover types of ponderosa pine forest, eastside grasslands, wetland/riparian areas, and aspen/curl leaf mahogany communities through fee title acquisition, conservation easement, and ecologically appropriate management actions with an emphasis on continuing activities on Wildlife Management Areas currently funded by the Bonneville Power Administration as part of the Council's Fish and Wildlife Program.
- 2) Restoration of proper ecological functions within high priority cover types (ponderosa pine forest, eastside grasslands, wetland/riparian areas, and aspen/curl leaf mahogany communities) through the use of prescribed fire, noxious weed control, livestock management, vegetation manipulation, hydrologic improvements, re-establishment and/or protection of wildlife habitat corridors/links, and other management activities as appropriate to the cover type and current condition.

Grande Ronde Subbasin Priority Research, Monitoring and Evaluation

Prepared for the Grande Ronde Subbasin Planning Team by Jay Hesse, Nez Perce Tribe.

- 1) Monitor the status of focal species and quantify limiting factors with priority species being Chinook salmon, steelhead, and Pacific lamprey.
- 2) Evaluate the effectiveness of management actions being applied in-basin with priority to approaches with critical uncertainties (supplementation).
- 3) Implement full Monitoring and Evaluation plan contained in Subbasin Management Plan.