

TITLE: Implement the Habitat Restoration Program for the lower Columbia River and Columbia River Estuary

1. The proposed property acquisitions need to be better justified

The proposal identified 6 habitat restoration projects. Of those six, three include substantial land acquisition: Grays Bay - 1000 acres; Channel Islands - 1700 acres; and the Scappoose Lowlands - 800 acres. The remaining three projects; Skipanon Slough, West Sand Island, and Rooster Rock are located on government lands and no acquisition will be required. In each of the three acquisition projects, the opportunity exists to acquire fairly large parcels of potentially prime wetland habitat. The 3500 acres of wetland habitat encompassed by these three projects represents a very significant addition to the highly depleted wetland habitats of the lower Columbia River.

The best way to ensure that these lands are never developed is to acquire them outright. Conservation easements are a possibility but acquisition provides the best protection and the most flexibility for undertaking needed restoration work. In particular, removing dikes and altering or removing tide gates or culverts is most easily accomplished when ownership rests with the government or a land trust. In these three situations, buy out also appears the most attractive option for the specific landowners. The project specifics are discussed in more detail in our response to question #2 below.

2. How did these specific projects meet the selection criteria?

The Science Work Group originally looked at a long list of over 100 projects, most of which were just ideas. That list was winnowed down to a short list of viable projects and those projects were evaluated by the Science Work Group using the selection criteria described in our proposal. An all day meeting was held on September 18, 2001 with the Science Work Group and others involved in projects on the lower river. Fifteen projects were described by the project proponents, discussed by the group, and then judged relative to each of the criteria. Because the projects had been pre-screened for viability, most adequately met the criteria although not all received high marks (see the ranking chart below). Four projects were dropped due to lack of firm support: Swash Lake, Jetty A, LCREP study area, and Hayden Island. Of the remaining eleven projects, this proposal addresses six of them.

Note that several of the projects evaluated during the meeting are addressed in separate proposals under this solicitation: Blind Slough (30004), some of the Channel Islands (30011), I-205 Chum salmon (31006), and Steigerwald Lake (31033).

The six projects identified in this proposal were selected because they all scored well during the ranking process and had good local and scientific support, but needed funding to move forward. All have the potential to restore high quality habitat at key points along the entire lower river

ecosystem. In addition, at least three of the projects are far enough along in the development/planning process that they could be implemented immediately.

HABITAT PROJECT RANKING CHART

From LCREP Science Workgroup Meeting on September 18, 2001.
 Rankings based on consensus. Ranking levels: high, medium, low.

PROJECT	HABITAT CRITERIA					
	Connectivity	Historic Loss	Reference Site	Passive	M & E	Support
Swash Lake	High	High	High	High	High	Med / High
Jetty A	High	High	High	Medium	High	Med / High
West Sand Island	High	High	High	High	High	Med / High
Skipanon Slough	Medium	High	High	Medium	High	High
Brownsmead /Blind Slough	Medium	High	High	Medium	High	High
LCREP study area (multiple sites)	High	High	High	High	High	Very low w/o incentives
Fort Clatsop	High	High	High	High	High	Unknown
Chinook River	High	High	High	High	High	High
Grays, Deep, & Crooked Rivers	High	High	High	High	High	High
Channel Islands	High	High	High	High	High	High
Scappoose Bay	High	High	Medium / high	Medium	High	High
W. Hayden Island	High	High	High	Medium	High	High
205 Bridge Chum salmon	High	High	Medium / high	High	High	High
Steigerwald Lake / Gibbons Creek	High	High	Medium / Low	Low	High	Unkown
Rooster Rock	High	High	High	High	High	High

The following is a brief discussion of the unique qualities of the 6 selected projects;

- West Sand Island: Provides an opportunity to restore a small piece of wetland habitat in an area of the river where little such habitat exists today.
- Skipanon Slough: Located within the town of Warrenton, this site not only would provide good wetland habitat low in the river system but would also be an opportunity to showcase habitat restoration due to its close proximity to HWY 101.
- Grays Bay: Adding an additional 1000 acres to an already large project provides an opportunity to secure the largest area of restored habitat in the lower river. This area near the transition zone from fresh to saline water is recognized historically as one of the more important wetland habitat areas of the lower river.

- Channel Islands: Acquiring as many of these islands as possible will provide a very important string of refugia sites for more than 20 miles of the middle lower river. An area where there are currently few viable refugia.
- Scappoose Lowlands: By connecting the proposed 800 acres of land acquisition with already existing Oregon Fish and Wildlife parcels, this project will provide important wetland habitat in the middle area of the river and protect the mouths of two small but historically active salmonid streams.
- Rooster Rock: This small project would restore access to off river wetlands in an area of the river where virtually none exist at present. It is important to have salmonid refugia all along the lower river so outgoing migrants have numerous opportunities to rest, feed and escape predation.

3. How much are the small acreage efforts going to benefit fish and wildlife?

We don't have a definitive answer for this question. Recent research has shown that juvenile salmonids will take advantage of opportunities to move out of the main stem for feeding and refuge purposes (NMFS, 2001). That same research indicates that juvenile salmonids need a continuum of habitat types. Thus even small projects that add to the mosaic of habitat needs, can help make up for the huge habitat losses that have occurred over the last 100 years. As an example, in projects where tide gates have been altered to allow better fish usage, even though only small backwater areas have been opened, salmonids have been found there (Matt Van Ess, personal communication). How big a benefit this is and what it means for overall survival is uncertain. This uncertainty suggests that we need much better monitoring and evaluation of these and other future projects so we can begin to answer this critical question.

4. What is the current fish use and what is potential fish use?

Current fish use of particular habitats, especially juvenile salmonid use, is poorly understood in the lower river and estuary. The most recent work, "Salmon and River's End" (NMFS 2001), suggests that juvenile salmonids do use shallow water wetland and marsh habitats available during high tide, but the extent of this use in the lower river and estuary is not well understood. It seems likely that opening up these type of habitats will provide more potential opportunities and enhance fish use. Again, this lack of knowledge indicates that we need to expend much more effort developing an understanding of these relationships and we need to ensure that all projects have monitoring and evaluation components so we can document changes resulting from restoration and protection efforts.

5. In Gray's Bay what is the sedimentation doing to that habitat?

The impacts of the Gray's River sedimentation problems on the lower reaches of the Grays River and its bay have not been assessed (Gary Wade, personal communication). The Gray's River is a flashy river and large amounts of sediment transport are common so it seems unlikely that the most recent event (viewed during the site visit) has caused large changes on the already much altered lower Gray's River and bay. The Grays Bay project proposed here entails recovering lost wetlands through dike removal and tide gate alterations or removal. The restoration of lost wetlands and wetland functions should help mitigate some of the impacts of the high sediment

load carried by this river by providing more opportunity for sediments to be captured on their way down the system. In addition, it will provide more floodplain area to accommodate high flows during storm events. Monitoring the rate of sedimentation over time will be an important element in the implementation and evaluation of this project.

6. Another proposal is for an assessment of the Gray's Bay subbasin (proposal 30005), why shouldn't that assessment include the bay?

Ideally, the assessment of the Gray's River should include the whole watershed and the bay however, that would be complicated due to tidal influences and expensive. It is certainly beyond the purview of proposal 30005 which is focusing on lost chum salmon habitat. In discussions with Gary Wade (personal communication 3/7/02) he made it clear that their long term intention is to assess the whole system but that the threat to the local chum salmon population was their highest priority.

7. Doesn't disruption of the upper watershed have a large effect?

We assume this question refers to the upper Gray's River which, as noted above, has been severely degraded by extensive logging in its upper watershed. This has resulted in a flashy system subject to much sedimentation and mass wastage. Whereas the disruption on the upper watershed has no doubt impacted the lower river and the bay, this is a system that has been disrupted and out of sync for some time. Restoring elements of the lower river flood plain habitat through dike removal and tide gate replacements or removals will help restore the balance of this system by providing additional high flow capacity and sediment absorption capacity.

8. What is the justification for the budgeted costs for FTE and fringe?

In Section 8: Estimated budget summary, we made a mistake. The allotted costs for personnel and fringe were actually supposed to be for 3.5 FTE rather than 2 FTE. That would include: a habitat coordinator, a habitat specialist, a technical assistant, and .5 office clerical.

9. How does the budget relate to particular tasks?

Based on the task based estimated budget laid out in Section 4: Estimated budget for Planning and Design Phase, the habitat coordinator would coordinate the development and implementation of the restoration program (tasks 1.1 – 1.5), the habitat specialist would coordinate project planning, design, implementation, and construction (tasks 2.1 – 2.6), the technical specialist would provide technical support to both of those activities, and the office clerical would provide office support.

Subcontractor costs identified in Section 8 would be for doing the actual project planning and design as detailed in Section 4.

REFERENCES

1. National Marine Fisheries Service. 2001. Salmon at River's End: The Role of the Estuary in the Decline and Recovery of Columbia River Salmon. Draft. January 2001.
2. Matt Van Ess, CREST, personal communication 3/7/2002
3. Gary Wade, Lower Columbia Fish Recovery Board, personal communication, 3/7/2002