



Project ID # 29017

Project Title: Prepare a Master Plan for Protecting and Restoring Salmon Habitat in Okanagan River

Submitted by: Okanagan Nation Fisheries Commission and the Colville Confederated Tribes

The Okanagan Nation Fisheries Commission (ONFC) appreciates the thorough review conducted by the ISRP. This has given us the opportunity to re-evaluate the proposal and comment on its potential shortfalls, resulting in a stronger submission for consideration.

What is the plan for continuing this project after year 1 (the initial planning stage)? There is insufficient detail about how the plan would be developed. Objectives, tasks and methods should all be expanded significantly.

The abbreviated timeframe for completion of the plan in a single year is a very valid criticism. We initially underestimated the time and resources required to undertake extensive research, consultation and design of a plan for restoration of channelized portions of the Okanagan River. Upon further review of the proposal, we agree with the ISRP suggestion that a plan of this magnitude could not be completed in one year. The ONFC and Chris Bull of Glenfir Resources have expanded the scope of the proposal to draft and complete the plan in years 1 and 2 and to undertake pilot restoration projects in year 3. We did not initially include in the original proposal a strategy for pilot project implementation because of the misguided impression that it would be better to delay submission until the year 1 work was complete to accurately determine the associated benefits, costs and risks of implementing the plan.

We will use a similar format as the 2000 Bull, Gaboury, and Newbury report (submitted to the ISRP after the proposal review meeting in February), which

evaluated an 8 km section of Okanagan River above VDS 13 downstream to VDS 5, but expand it geographically to encompass the Okanagan River from Okanagan Lake to Osoyoos Lake, which is approximately an additional 20 kilometers.

We have expanded the proposal objectives, tasks and methods as outlined below:

Objective 1: *Project Management and Administration*

Task 1 - Coordinate stakeholder and agency meetings

Task 2 - Facilitate meetings

Objective 2: *Compile relevant current and historical data on fisheries habitat.*

Task 1 – Create a list of studies and potential sources of information

Task 2 – Collect relevant studies and technical reports from relevant management authorities (ONFC, CCT, WDFW, Department of Fisheries and Oceans (DFO), Ministry of Water Land and Air Protection (MoWLAP))

Task 3 – Collect anecdotal information from Okanagan Elders and local historians etc.

Objective 3: *Develop prioritization of river reaches based on fisheries data for potential restoration options*

Task 1 – Identify river reaches that were historically utilized by anadromous fish

Task 2 - Facilitate fisheries management agency meetings (ONFC, DFO, MoWLAP)

Task 3 – Develop draft prioritization plan of river reaches for restoration and viable alternatives for each river section

Objective 4: *Develop prioritization of river reaches based on outcome of fisheries management meeting. Involve municipal government, landowners, non-government organizations and general public.*

Task 1 – Identify river reaches that were historically utilized by anadromous fish

Task 2 - Facilitate fisheries management agency meetings (ONFC, DFO, MoWLAP)

Task 3 – Develop draft prioritization plan of river reaches for restoration and viable alternatives for each river section

Task 4 – Identify and secure funding for project implementation

Objective 5: *Implementation of the plan*

Task 1 – Begin implementation of restoration techniques (land acquisition, setback dyking, riffle construction etc.) based upon the plan and available funding

Task 2 – Continue implementation of restoration projects

The plan for continuing is as tabulated below:

Year	Deliverables	Budget Breakdown	Amount (\$)
2003	Draft Restoration Plan	As submitted earlier	59,000
2004	<ul style="list-style-type: none">• Stakeholder consultation• Continued collection of technical and historical information• Plan revision• Partnering Agreements• Land Negotiation• Funding commitments• Agency Authorization• Monitoring & Evaluation Plan• Final Plan	Project Management (12 person months)	47,000
		Travel	8,000
		Consultant Fees	35,000
		Meetings	9,000
		Maps, Photos and Reporting	9,000
		Administration (10%)	10,000
2005	Land Purchase	Land Securement Contributed by Partners (\$750,000 in-kind)	0
	Pilot Project Implementation	Removal of Vertical Drop Structure	80,000
		Dyke relocation	150,000
		Riffle Construction	100,000
		Hydro-forming (meander construction)	106,000
		Project manager	65,000
Consulting fees	25,000		

What product comes out of this one-year effort?

The product of this one-year, now a proposed three year effort, will be a plan for river restoration that identifies specific river sections that can potentially be improved through a series of viable restoration options, which includes methods of set-back dyking, vertical drop structure removal, and riffle pool construction to re-establish a naturalized river channel. The plan would be similar to Bull et al (2000) report but would include more site specific information and expanded geographically to include the river between Okanagan to Osoyoos Lakes. The

expected outcome of this plan will result in more accurate cost estimates and viable options for restoration project implementation in Year 3.

How will these efforts be funded? Why weren't funds requested in this process?

Funds were not requested initially because it was hoped that partnerships could be developed to share in the costs. The Ministry of Water Land and Air Protection provided the initial funding for the 2000 Bull et al report. This report resulted in a pilot project funded by Douglas County Public Utility District in August 2001, to install three Newbury Riffles in the Okanagan River. The riffles were constructed to create hydrologic complexity in association with one vertical drop structure. In years prior to the installation of the riffles, anadromous fish were not observed utilizing habitat in the vicinity of the drop structures. However, after completion of the project in 2001, sockeye were observed spawning in gravel placed immediately upstream of two of the riffles.

Local non-government organizations (NGOs) have begun securing riparian parcels for threatened and endangered terrestrial species at risk. These groups (e.g. Ducks Unlimited, The Land Conservancy of BC, etc) have expressed their interest in partnering in projects that protect and restore riparian habitats that will benefit terrestrial and aquatic species of interest. Some NGOs have available resources to purchase riparian parcels if partners can be identified to undertake restoration projects. These NGOs are in the process of identifying and negotiating the purchase of land parcels that are currently on the market.

Requests for BPA funding will be limited to planning (Years 1 and 2) and restoration activities (Year 3). Partnering with NGOs will be pursued for land securement. While we are unaware of the specific quantity of restoration techniques that can be utilized at specific sites until the plan is finalized, we are aware of general costs for similar types of projects, as listed in the table above.

This planning effort should include specification of development of a monitoring and evaluation plan.

A monitoring and evaluation plan is now slated for development in Year 2 to evaluate and monitor restoration projects implemented in Year 3. The ONFC will determine the number of river kilometers that have been restored to a natural condition, what restoration techniques were implemented and how they are utilized by anadromous fish. Upon implementation of restoration projects, monitoring will be conducted annually. Expected monitoring techniques include: spawner enumeration, redds distribution and mapping, and fry migration

estimates. Based on the results of the monitoring and evaluation surveys, future restoration designs may be modified.

Is one year sufficient to ensure stakeholder participation?

As stated early, upon closer inspection of the original proposal, we agree with the ISRP concern that one-year does not allow for effective stakeholder participation in the planning process. The project has been expanded so that stakeholder participation will now be initiated in Year 1, accentuated in Year 2, and continued to a lesser degree in Year 3. Identified stakeholders include: federal, provincial, and municipal governments, landowners, general public, and First Nation communities.