ProjectID: 31001

Artificial production facilities improvements to support Lower Columbia chum salmon reintroduction into the Chinook River

Responses to ISRP Questions

1. What is the firm schedule for removing the tidegate and/or the causeway?

The sum of funding secured to date for the restoration project is nearly $4.2 million. The major land acquisition transaction has been complete (872 acres) and the project is currently in the engineering and design phase. Foster Wheeler Environmental Corporation is completing tasks related to hydrologic and hydrodynamic model required to complete project design tasks. The project objective is to maximize ecological benefit for salmon within existing funding constraints and minimizing flooding risk for adjacent landowners. Several planning meetings have been held as modeling results have become available. We anticipate that a design will be complete early this summer at which point the permitting process will begin. The earliest any construction could begin would be during the summer of 2004.

2. How is it justified to begin reintroduction before the tidegate has been removed?

Returning adult salmon successfully negotiate the tidegate in its present condition (adult and juvenile) and chum salmon have successfully spawned in the Chinook River in the past. The more important result of the tidegate removal will be the restoration of estuarine habitats important for juvenile rearing of naturally produced fish – and to a lesser degree increase access.

3. When, under what status of natural production, would Chinook hatchery production be terminated? Can this occur within the 9-year life of the project?

The simplest means to determine the capacity of the watershed to support natural production will be to allow a proportion of the returning fish to spawn naturally and measure the result of that production. We will accomplish this by utilizing our migrant traps and marking schedule. This should be especially successful for production that occurs upstream from the hatchery as we will be able to handle and count all returning adults. Our upriver screw trap has been very successful in monitoring emigration of naturally produced juveniles for all species occurring in the watershed.

We will work with WDFW to set specific measurable benchmarks that will trigger changes in the hatchery's role in this reintroduction effort. Other activities we are engaged in that will influence the success of the program include negotiations for acquisition and protection of upper watershed timberlands, refining the watershed assessment to better characterize habitat, and design and implementation of other habitat restoration activities.

4. What is the plan for apportioning returns to Chinook Hatchery between natural and hatchery spawning?

This project is an extension of WDFW's Lower Columbia chum reintroduction program. Any activity we undertake related to chum salmon would be done in very close consultation with WDFW research scientist, Steve Schroder. We will use protocols described in the WDFW Duncan Creek reintroduction proposal as a starting point to develop brood stock selection, spawning, and rearing methodologies. The fall of 2002 will be a good opportunity to test methods and protocols as adult returns will be small (three year old fish - the majority of Lower Columbia chum salmon return as four year olds).

5. In general, what is the tactical plan for restoring chum in the estuary? How does the plan fit into any recovery plan for chum salmon in the Columbia River?

Planning for recovery of Lower Columbia chum salmon is currently underway at the federal and state level. This is part of the ESA process and to our knowledge specific goals and objectives with regards to a

recovery plan have yet to be formalized. It is likely that the Chinook River population will play an important role in recovery of the species.

6. ***Experience and qualifications of investigators isn't given; expertise in salmon conservation genetics and in chum salmon behavioral ecology will be important to the success of re-establishment of chum in the Chinook basin; we encourage Sea Resources to seek expert collaborators.***

We are fully aware of our lack in experience and qualifications with regards to conservation genetics and chum salmon behavioral ecology. As stated above we will work intimately with WDFW staff to ensure that we use the best scientific understanding regarding these issues. Additionally, we will seek advise from others outside of WDFW, as we do for most of our undertakings related to salmon restoration. We have been very successful in gaining support and assistance in all our salmon recovery efforts from a variety of state and federal agencies, academia, and the private sector.