



Initial Investments Made/Needed at State, Tribal and Federal Facilities

WDFW INVESTMENTS

Information below provided by the Washington State Department of Fish and Wildlife

The State of Washington provides legislative appropriations to WDFW to implement hatchery reform. For budget period 2003–05, WDFW received one million dollars in operations funds and \$6.5 million in capital funds to implement hatchery reform (WDFW received an additional \$300,000 in capital funds for planning a proposed new Deschutes Hatchery). Capital projects included retrofits, fish passage, pollution abatement, water quality, hatchery infrastructure, critical salmon recovery actions (like a new acclimation pond on the Nooksack), etc. WDFW has spent current capital funds on facility improvements at Whitehorse and Samish hatcheries, along with planning and permitting activities for a slate of other capital projects. These projects are ranked according to a set of approximately six criteria, including compliance with legal standards, whether a listed stock is involved, whether they implement HSRG recommendations, and geographic distribution.

For budget period 2005–07, WDFW is requesting \$1.1 million in operations funds for implementation of the *Hatcheries 2020: A Clear Vision for the Future* strategic plan for hatchery reform in Washington. Building upon emerging work to improve hatchery practices including Hatchery and Genetic Management Plans (HGMPs), Artificial Production Review and Evaluation (APRE), HSRG recommendations, recovery planning, etc., *Hatcheries 2020* provides a prioritized and scheduled series of actions that transform hatcheries from an “all-H risk factor” to a productive tool for restoring salmon and enhancing fishing opportunities. These actions include: 1) collection of natural-origin broodstock and rearing programs that emulate natural conditions; 2) supplementation programs to accelerate the restoration of critically depressed stocks; and 3) adaptive management of programs to maximize survival rates, meet ESA permitting requirements, and minimize the likelihood of third party lawsuits. In addition, WDFW is requesting \$16.55 million in capital funds for renovations and upgrades to existing hatchery complexes in the areas of water quality and fish health, along with the removal of barriers that currently restrict natural stocks from reaching their spawning areas.

The HSRG recommendations associated with operating funds can be divided into three broad categories related to the time span of funding required: 1) one-time costs (e.g., equipment purchases, baseline assessment of pathogens); 2) short-term projects of two to six years (e.g., collection of a new broodstock, assessment of survival rates and catch distribution); and 3) long-term costs associated with the ongoing, improved operation of hatchery programs. To date, WDFW has addressed approximately 35% of the HSRG recommendations that fall into the first two categories. Prioritized actions targeted for implementation in 2005–07 are summarized below.



Science Foundation

The development of scientifically defensible hatchery programs is critically dependent on monitoring the incidence of hatchery-origin adults in natural spawning areas. WDFW hatchery performance measures, HSRG guidelines and NMFS best management practices all are reliant on monitoring this statistic. Funding of this program provides staffing to collect, analyze and report the incidence of hatchery-origin adults in the following areas: 1) Chinook in the Nooksack, Stillaguamish, Snohomish, Lake Washington, Green, Puyallup, mid-Hood Canal, and Dungeness rivers; and 2) coho in the Naselle and Willapa rivers.

Immediate Risk Reduction Measures

Priority program modifications emphasize reducing risks through improved broodstock management and initiating an artificial production program to accelerate the restoration of a critically depressed stock. Funding of this program provides staffing and services to: 1) integrate natural-origin fish into hatchery broodstocks for listed Chinook at the Wallace River and Voights Creek hatcheries; 2) integrate natural-origin coho into the broodstock for the Willapa River and Naselle River hatcheries; and 3) initiate restoration programs for the critically depressed and listed Cedar River and South Fork Nooksack Chinook populations.

Performance-Based Management

Continued review, evaluation and modification of hatchery programs is essential to assure that fishing-related economic benefits are maximized, while ensuring risks to natural populations are at or below acceptable levels. WDFW is identifying goals and performance measures for each program which, when paired with the monitoring associated with the science foundation, will provide a powerful force for continued enhancement of hatchery programs. WDFW proposes to collaborate with Mobrاند Biometrics, Inc. to develop and implement a readily accessible, computerized and unified performance-based management system driven by a set of questions, linked to performance measures, which will evaluate the success of hatchery programs.

In addition, the engineering assessment of hatchery facilities identified the need for \$34 million to comply with intake/passage and abatement regulations, \$67 million to implement HSRG recommendations, and \$52 million to continue to operate facilities at existing production levels, a total of \$152 million. Additional funding is badly needed, since current funding of three to four million dollars per year puts hatchery renovations on a 50 year cycle. Since concrete at hatcheries has a 30 year life expectancy, most facilities are falling into extreme disrepair and/or becoming out of compliance with federal and state regulations long before they can be renovated.

NWIFC INVESTMENTS

Information below provided by the Northwest Indian Fisheries Commission

The majority of the hatchery reform funds received by member tribes and their Northwest Indian Fisheries Commission (NWIFC) from FY 2000–04 have been used to implement 68 projects at tribal facilities that cost a total of \$2,889,372. Tribes developed a science-based, competitive project



application and ranking process for awarding contracts to individual tribes to implement hatchery reform activities. A list of projects funded in FY 2004 is included as Appendix C.

Federal appropriations are the only avenue available to the tribes for hatchery management and reform funding. Hatchery reform is an ongoing process, and consistent federal funding is critical to enable tribes to conduct hatchery-specific studies that provide information leading to progressive modifications of hatchery programs and facilities. Tribes are continually re-evaluating their programs to address the most pressing salmon related issues. Significant portions of tribal programs and resources have been refocused to address salmon recovery issues such as ESA and hatchery reform. The member tribes of the NWIFC continue to contribute to the technical expertise regarding changes needed in hatchery programs. They have jointly completed resource management plans for Puget Sound hatcheries. They will also continue to contribute technical expertise in genetics and hatchery management and, to the degree feasible, use extremely limited hatchery maintenance funds provided through the Bureau of Indian Affairs (BIA) to assist in implementation of hatchery reform.

For FY 2006, the tribes are requesting that \$400,000 be added to existing BIA 638 contracts to support existing scientific staff positions necessary for ongoing hatchery reform implementation. The tribes also are requesting that Congress place five million dollars per year, for ten years, in the BIA Hatchery Rehabilitation and Cyclical Maintenance line item, to fund implementation of hatchery reform projects at tribal facilities.

USFWS INVESTMENTS

Information below provided by US Fish and Wildlife Service

The following needed facilities improvements have been identified at National Fish Hatcheries (NFH) in western Washington, in order to implement hatchery reform strategies:

- Add water chilling capability at Makah NFH (\$75,000)
- Fish pumps at Quinault NFH (\$20,000)
- Water pre-settling chambers at Quinault NFH (\$1,500,000)
- Improve adult handling facilities at Quinault NFH (\$1,500,000)
- Expand hatchery building at Quinault NFH (\$1,000,000)
- Add water chilling capability at Quinault NFH (\$75,000)
- Rehabilitate electric weir and improve upstream passage at Quilcene NFH (\$750,000)

In order to meet these identified needs, USFWS is seeking funding through Department of the Interior maintenance and construction appropriations in 2007 and beyond.