



Project Report December 8, 2006

Strategic Plan Objectives: Co-manage interjurisdictional fisheries.

32 projects found

13310-A-101 - U.S./Canada Marking and Technical Assistance Activities	
Facility	Columbia River Fisheries Program Office
Expended	\$110000
Objective	Support, facilitate, and/or lead collaborative approaches to manage interjurisdictional fisheries.
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)
Primary Benefited Population	Not specified
Plans	<p>Pacific Salmon Treaty of 1999</p> <p>2005-2007 Interim Management Agreement for Upriver Chinook, Sockeye, Steelhead, Coho, and White Sturgeon</p> <p>Spring Creek NFH Hatchery and Genetic Management Plan</p> <p>Conservation of Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy, 12/2000 (All H Paper)</p> <p>Columbia River Basin Fish and Wildlife Program (NPPC 2000)</p>
<p>Accomplishment Summary</p> <p>Index tagged 637,307 Chinook at Spring Creek and Leavenworth NFHs.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>The Pacific Salmon Commission is responsible for US-Canada west coast salmon stock status assessment, harvest sharing allocation, and fishery planning. Representative marking of index hatchery stocks is critical to west coast fisheries management and wild stock protection and recovery.</p> <p>The problem:</p> <p>West coast salmon fisheries catch a variety of ESA listed and other stocks of concern as they target healthy abundant hatchery and other productive wild stocks. A coast wide stock assessment program to monitor and evaluate the status of stocks and impacts of fisheries on various stocks of concern is critical to wild stock protection and recovery.</p> <p>The objective:</p> <p>The FWS, in conjunction with other state, tribal and federal management agencies, annually coded wire tags a representative group of index hatchery stocks that are used in the coast wide Pacific Salmon Commission</p>	

	1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.	fisheries and stock assessment program.
Keyword	Interjurisdictional	The method:
Need Number	N-002	The Columbia River Fisheries Program Office staff annually index tags approximately 450,000 Spring Creek tule fall Chinook and 200,000 Leavenworth spring Chinook and recovers tags from hatchery returns of these stocks to track exploitation rates of key indicator stocks for international west coast Chinook salmon fisheries.
Partners	Alaska Department of Fish and Game Columbia River Inter Tribal Fish Commission Confederated Tribes of The Warm Springs National Marine Fisheries Service Nez Perce Tribe Oregon Department of Fish and Wildlife Umatilla Tribe Washington Department of Fish and Wildlife Yakama Indian Nation	Further description: A total of 450,738 tule fall Chinook and 186,569 spring Chinook were tagged at Spring Creek NFH and Leavenworth NFH, respectively, in FY 2006. Monitoring exploitation rates of the indicator stocks allows the Chinook Technical Committee of the Pacific Salmon Commission to estimate impacts on stocks of concern and track fishery impacts relative to past fishery management actions and policies and current allocation objectives. Fishery impact analysis, which is enabled by the indicator stock tagging program, is critical to protection and recovery of depressed and ESA listed west coast Chinook stocks and ensuring that west coast fisheries stay within their prescribed limitations.
Accomplishments		
Number of marking and tagging targets met, as prescribed by Recovery plans	1	
Number of post-stocking survival tasks met, as prescribed by Recovery plans for hatchery propagated listed species. (PART)	1	
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	1	
Number of other Fishery Management Plan tasks implemented for populations of management concern.	4	

13310-A-102 - [Columbia River/West Coast Policy Level Harvest Management Activities](#)

Facility	Columbia River Fisheries Program Office	<p>Accomplishment Summary</p> <p>Assisted in the development of Columbia River and west coast salmon and steelhead fisheries that met Endangered Species Act (ESA) biological opinion jeopardy standards.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>The Pacific Fishery Management Council manages salmon fisheries in federal waters off the coasts of WA, OR and CA. The states of WA, OR and ID and Columbia River treaty tribes manage Columbia River fisheries under their individual and joint management jurisdiction, all of which fall under the US v. Oregon treaty Indian fishing rights court case.</p> <p>The problem:</p> <p>State, tribal, and federal fishery management agencies often have differing perspectives on management approaches and even the appropriate level of restriction to protect stocks of concern. These interjurisdictional management issues must be worked out in policy level forums that provide opportunity for all concerns to be addressed.</p> <p>The objective:</p> <p>The FWS, in cooperation and coordination with the other west coast fishery management agencies participated in regional management forums to address interjurisdictional fisheries issues.</p> <p>The method:</p> <p>The Columbia River Fisheries Program Office provided policy level representation for Columbia River and PFMC management</p>
Expended	\$30000	
Objective	Support, facilitate, and/or lead collaborative approaches to manage interjurisdictional fisheries.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	Not specified	
Plans	<p>2005-2007 Interim Management Agreement for Upriver Chinook, Sockeye, Steelhead, Coho, and White Sturgeon</p> <p>Pacific Salmon Treaty of 1999</p> <p>Pacific Salmon Plan (1999), and various amendments</p> <p>Conservation of Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy, 12/2000 (All H Paper)</p> <p>Columbia River Basin Fish and Wildlife Program (NPPC 2000)</p> <p>1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.</p>	
Keyword	Interjurisdictional	
Need Number	N-002	

<p>Partners</p>	<p>California Department of Fish and Game Columbia River Inter Tribal Fish Commission Confederated Tribes of The Warm Springs National Marine Fisheries Service Nez Perce Tribe Oregon Department of Fish and Wildlife Umatilla Tribe Washington Department of Fish and Wildlife Yakama Indian Nation</p>	<p>forums that develop harvest management options that meet the needs of critical salmon and steelhead species, the treaty rights of native Americans, and provide the greatest benefit to other users, consistent with applicable law.</p> <p>Further description:</p> <p>With the Endangered Species Act (ESA) listing of many west coast salmon and steelhead populations, it has become increasingly difficult to design fisheries that achieve all of the goals while meeting ESA constraints. Protection and recovery of the fisheries resource continues to be the top priority of the Service in its participation in these harvest management fora at both the technical and policy level.</p>
<p>Accomplishments</p>		
<p>Number of population assessments completed</p>	<p>17</p>	
<p>Number of other Recovery Plan tasks implemented for T&E populations</p>	<p>5</p>	
<p>Number of Fishery Management Plan production tasks implemented (PART)</p>	<p>1</p>	
<p>Number of other Fishery Management Plan tasks implemented for populations of management concern.</p>	<p>18</p>	

13310-A-103 - [Support the Pacific States Marine Fisheries Commission's Regional Mark Processing Center](#)

Facility	Columbia River Fisheries Program Office	<p>Accomplishment Summary</p> <p>The Service provided financial support for the Pacific States Marine Fisheries Commission's Regional Mark Processing Center to help maintain the west coast salmon and steelhead tagging and recovery database.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>A coast wide coded wire tag stock and fisheries database is critical to the management of west coast ocean fisheries for the protection of ESA listed stocks and setting appropriate regulations to harvest other abundant stocks.</p> <p>The problem:</p> <p>A centralized database is much more efficient and cost effective than individual state and federal regional databases. However, the centralized database requires financial support by the relevant management agencies to help fund its annual operation and maintenance.</p> <p>The objective:</p> <p>The objective is to partner with the other west coast fishery management agencies and contribute a fair share of the centralized database annual maintenance costs.</p> <p>The method:</p> <p>The Service was directed by Congress to undertake activities in 1990 to support the Pacific Salmon Treaty. Funding is provided to support and maintenance of the Pacific States Marine Fisheries Commission's Regional Mark Processing Center (Center).</p>
Expended	\$0	
Objective	Develop and improve long-term partnerships with States, Tribes, other Federal agencies, non-governmental organizations, and other Service Programs to develop collaborative conservation strategies for aquatic resources.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	Not specified	
Plans	<p>Pacific Salmon Treaty of 1999</p> <p>Columbia River Basin Fish and Wildlife Program (NPPC 2000)</p> <p>Pacific Salmon Plan (1999), and various amendments</p>	
Keyword	Interjurisdictional	
Need Number	N-002	
Partners	<p>Idaho Department of Fish and Game</p> <p>National Marine Fisheries Service</p> <p>Oregon Department of Fish and Wildlife</p> <p>Pacific States Marine Fisheries Commission (\$250000)</p>	

Washington Department
of Fish and Wildlife

Accomplishments

Number of other Fishery Management Plan
tasks implemented for populations of
management concern.

4

Further description:

The Center has served state, federal, tribal, and non-governmental fisheries entities of the entire Pacific Coast for many years by processing and exchanging coded-wire tag (CWT) release, recovery, and associated catch/sample information. The Center serves as the single U.S. database to exchange CWT information with Canada in Pacific Salmon Commission (PSC) format on a regular basis. This is the primary information needed by the Pacific Salmon Commission to assess harvest impacts and stock status, the two primary responsibilities of the PSC. The following agencies provide additional financial support to the Center: NOAA-Fisheries, Idaho Department of Fish and Game, Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife.

13310-A-107 - [Columbia River Fish Management Plan and Annual Management Agreement Negotiations](#)

Facility	Columbia River Fisheries Program Office	<p>Accomplishment Summary</p> <p>Provided technical assistance on development of the Federal plan for utilizing hatchery production and fishery management strategies to conserve and rebuild depleted salmon and steelhead stocks.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>The states of WA, OR and ID and Columbia River treaty tribes manage Columbia River fisheries and hatchery production under their individual and joint management jurisdiction, all of which fall under the US v. Oregon treaty fishing rights court case, with oversight by NMFS and FWS relative to ESA compliance and their hatchery production obligations.</p> <p>The problem:</p> <p>State, tribal, and federal fishery management agencies often have differing perspectives on fishery and production management approaches and appropriate levels of restriction to protect stocks of concern. These interjurisdictional management issues must be worked out in policy level forums that provide opportunity for all concerns to be addressed</p> <p>The objective:</p> <p>The objective was to make a good faith effort to continue ongoing discussions towards renegotiation of a new long term fishery management plan.</p> <p>The method:</p> <p>The FWS, in cooperation and coordination with the other Columbia River states and tribes</p>
Expended	\$20000	
Objective	Support, facilitate, and/or lead collaborative approaches to manage interjurisdictional fisheries.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	Not specified	
Plans	U. S. vs OR Columbia River Fishery Management Plan (under renegotiation) 2005-2007 Interim Management Agreement for Upriver Chinook, Sockeye, Steelhead, Coho, and White Sturgeon	
Keyword	Interjurisdictional	
Need Number	N-002	
Partners	Columbia River Inter Tribal Fish Commission Confederated Tribes of The Warm Springs Idaho Department of Fish and Game National Marine Fisheries Service Nez Perce Tribe Oregon Department of Fish and Wildlife Shoshone-Bannock Tribe	

Umatilla Tribe
 Washington
 Department of Fish and
 Wildlife
 Yakama Indian Nation

Accomplishments

Number of population assessments completed	17
Number of Fishery Management Plan production tasks implemented (PART)	1
Number of other Fishery Management Plan tasks implemented for populations of management concern.	1

participated in a number of local and regional technical and policy meetings in an effort to further the discussions on outstanding harvest and production issues relative to reaching agreement on a new long term fishery management plan for the Columbia River.

Further description:

The federal fisheries agencies believe the status of many natural stocks in the Columbia River Basin requires the refocus of existing artificial production policies and programs, and in some cases developing new programs, to achieve conservation and rebuilding of the natural stocks while meeting ongoing mitigation responsibilities. This process requires deliberate planning on a sub-basin basis and species-by-species level; one that explicitly weighs various risks and benefits of alternative artificial production and corresponding fishery management strategies to achieve our primary conservation objectives. The federal, tribal, and state parties to the Columbia River Fish Management Plan are engaged in negotiations which will guide artificial production policies and programs for the Columbia River Basin. All existing federal, state, and tribal artificial production programs are being reviewed and are subject to reform to meet Endangered Species Act (ESA) constraints. In addition, fisheries impacts are being reviewed to determine their contribution to listed stock recovery. Columbia River Fisheries Office staff have taken the lead for the Service in the technical assessment activities of these negotiations.

13310-A-109 - [Service Funded Stock Assessment Marking and Evaluation at Service Facilities](#)

Facility	Columbia River Fisheries Program Office	Accomplishment Summary Marked and tagged a total of 5,858,783 fish at Winthrop, Entiat, Leavenworth, Dworshak, and Kooskia NFHs.
Expended	\$365500	
Objective	Utilize appropriate scientific and technologic tools in formulating and executing fishery management plans and policies.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	Not specified	
Plans	<p>Kooskia National Fish Hatchery HGMP Leavenworth Hatchery Genetics Management Plan Entiat Hatchery Genetics Management Plan Dworshak NFH Spring Chinook Salmon HGMP Dworshak NFH Steelhead HGMP 2005-2007 Interim Management Agreement for Upriver Chinook, Sockeye, Steelhead, Coho, and White Sturgeon 2000 NMFS FCRPS Biological Opinion - December 21, 2000 1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin. Columbia River Basin Fish and Wildlife Program (NPPC 2000) Conservation of</p>	Description
		The importance to the Resource:
		Marking and tagging of hatchery stocks is critical to west coast fisheries management and wild stock protection and recovery.
		The problem:
		West coast salmon fisheries catch a variety of ESA listed and other stocks of concern as they target abundant hatchery and other productive wild stocks. A coast wide tagging and stock assessment program to monitor and evaluate status of stocks and impacts of fisheries on various stocks of concern is critical to wild stock protection and recovery.
		The objective:
		Each year Columbia River Fisheries Program Office (CRFPO) staff conducts fish marking activities at Service facilities that do not have evaluation and fish marking programs funded by other reimbursable accounts.
		The method:
		For FY 2006, CRFPO staff marked and/or coded-wire-tagged 3,355,737 spring Chinook at Dworshak, Kooskia, Entiat, Leavenworth and Winthrop NFHs and 2,503,046 steelhead at Dworshak and Winthrop NFHs.
		Further description:
		This marking is done for the purposes of

	Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy, 12/2000 (All H Paper)	hatchery evaluation, estimating survival and contribution rates, stock assessment, brood stock management, fishery management, and compliance with NOAA Fisheries hatchery biological opinions under the Endangered Species Act. This marking supports the coast wide management data base of Columbia Basin stocks to assist in providing the maximum level of harvest opportunity for harvestable stocks while providing the necessary level of protection for depressed and listed stocks to assist in the rebuilding process.
Keyword	Monitoring and Assessment	
Need Number	N-002	
Partners		
Accomplishments		
Number of marking and tagging targets met, as prescribed by Recovery plans	2	
Number of post-stocking survival tasks met, as prescribed by Recovery plans for hatchery propagated listed species. (PART)	1	
Number of other Recovery Plan tasks implemented for T&E populations	2	
Number of post stocking survival tasks met as prescribed by Fishery Management Plans, for hatchery propagated depleted species (PART)	2	
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	12	
Number of other Fishery Management Plan tasks implemented for populations of management concern.	2	

13310-A-110 - [Columbia Basin Mainstem Fish Passage Coordination Activities](#)

Facility	Columbia River Fisheries Program Office	<p>Accomplishment Summary</p> <p>Represented the Fish and Wildlife Service on fish passage issues in the Columbia River Basin by participating in numerous regional interagency forums that address the recovery of listed fish species. Our technical expertise helps ensure adequate passage for both listed and un-listed stocks.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>The Columbia River Fisheries Program Office (CRFPO) serves as the focal point for FWS activities related to fish passage issues in the Columbia/Snake River Basin. The CRFPO coordinates fish passage issues and FWS responses to issues that affect Service operations or responsibilities through several regional forums in the Columbia/Snake Basin.</p> <p>The problem:</p> <p>In season, real time management decisions are the norm through regional Columbia Basin interagency forums that include the Fish Passage Advisory Committee, Implementation Team, Technical Management Team, System Configuration Team, Water Quality Team, Fish Passage Operation and Maintenance Committee, and Study Review Work Group.</p> <p>The objective:</p> <p>Thw FWS, in conjunction with other state, tribal, and federal agencies must coordinate the needs, under law, of various listed and non-listed fish populations as the operation of the Federal Columbia River Power System impacts those populations</p> <p>The method:</p>
Expended	\$85000	
Objective	Recover fish and other aquatic resource populations protected under the Endangered Species Act.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	Not specified	
Plans	<p>Conservation of Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy, 12/2000 (All H Paper)</p> <p>2000 NMFS FCRPS Biological Opinion - December 21, 2000</p> <p>2006 Fish Passage Implementation Plan (In accordance with the Court Order)</p> <p>2006 Fish Passage Plan - Corps of Engineers Projects</p> <p>2006 Water Management Plan</p> <p>Columbia River Basin Fish and Wildlife Program (NPPC 2000)</p>	
Keyword	Fish Passage	
Need Number	N-002	
Partners	Bonneville Power Administration	

Columbia River Inter Tribal Fish Commission
 Fish Passage Center
 Idaho Department of Fish and Game
 National Marine Fisheries Service
 Oregon Department of Fish and Wildlife
 U.S. Army Corps of Engineers
 U.S. Bureau of Reclamation
 Washington Department of Fish and Wildlife

Staff represent the FWS and their responsibilities and obligations at several multi-agency regional management fora to discuss data, coordinate, and reach consensus decisions, if possible, that affect daily and seasonal main-stem Federal Columbia River Power System operations as it impacts various ESA listed, and non-listed, fish populations.

Further description:

CRFPO input helps determine operations that allow for multiple uses as well as maintenance of significant trust resources. This includes: coordination of flow releases from Libby Dam for endangered Kootenai River white sturgeon spawning, with rearing flows for threatened bull trout, with flows for listed salmon and steelhead; scheduling releases of fish from Service hatcheries with requests for increased flows and spill at mainstem dams; coordinating flow releases for mainstem spawning fall chinook and chum.

Accomplishments

Number of population assessments completed	72
Number of other Recovery Plan tasks implemented for T&E populations	14
Number of other Fishery Management Plan tasks implemented for populations of management concern.	6
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	2

13310-A-151 - [Comprehensive Hatchery and Genetic Management Plan for Warm Springs National Fish Hatchery](#)

Facility	Columbia River Fisheries Program Office	<p>Accomplishment Summary</p> <p>Hatchery and Genetic Management Plan drafted and submitted for Section 7 ESA consultation and identify hatchery reform.</p> <p>Description</p> <p>The importance to the Resource: Provide harvest to tribal and sport fisheries while protecting ESA listed fish.</p> <p>The problem: Fisheries and populations impacted by habitat, dams, and hatcheries.</p> <p>The objective: Hatcheries need to provide fisheries and protect ESA listed fish.</p> <p>The method: ESA Section 7 consultation through development of a Hatchery and Genetic Management Plan.</p> <p>Further description: The Service is working with the National Marine Fisheries Service (NMFS) and our co-managers to develop a conservation management approach for Columbia River hatcheries, which includes development of Hatchery and Genetic Management Plans (HGMPs) for all hatchery programs as a consultation mechanism to evaluate risks and benefits to listed species. Performance standards will be developed for each specific hatchery program. . The Service is also developing comprehensive management plans</p>
Expended	\$3569	
Objective	Recover fish and other aquatic resource populations protected under the Endangered Species Act.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	Not specified	
Plans	Warm Springs Hatchery and Genetic Management Plan (draft) Comprehensive Hatchery Management Plan- Warm Springs NFH 2000 NMFS FCRPS Biological Opinion - December 21, 2000	
Keyword	Management	
Need Number	N-002	
Partners	Abernathy Fish Technology Center Confederated Tribes of The Warm Springs Lower Columbia River Fish Health Center National Marine Fisheries Service Oregon Department of Fish and Wildlife Warm Springs National	

Fish Hatchery

Accomplishments

Number of other Recovery Plan tasks implemented for T&E populations	1
Number of post stocking survival tasks met as prescribed by Fishery Management Plans, for hatchery propagated depleted species (PART)	1
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	1
Number of applied science and technology tasks implemented as prescribed by Recovery Plans. (PART)	1
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	1

for all National Fish Hatcheries in Region One (CHMP). Together, these plans will integrate Service objectives and priorities with those of our co-managers and public to provide a foundation for hatchery reform and review. CRFPO staff will develop plans for Warm Springs, Eagle Creek, Carson, Little White, Willard and Spring Creek National Fish Hatcheries. This project is shared with the above mentioned National Fish Hatcheries, Abernathy Fish Technology Center, and Lower Columbia River Fish Health Center.

14226-A-112 - [Health Monitoring at National and commercial Fish Hatcheries](#)

Facility	Idaho Fish Health Center	<p>Accomplishment Summary</p> <p>Provide fish health services to Kooskia National Fish Hatchery, and commercial facilities to produce healthy steelhead, rainbow trout, Coho, and spring chinook salmon.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>Idaho Fish Health Center programs strive to assist facilities in the production of healthy steelhead, rainbow trout, Fall Chinook salmon, Coho, and spring chinook salmon, thus minimizing the likelihood that hatchery fish may affect naturally producing fish after release and increase adult returns for Tribal and sport harvest.</p> <p>The problem:</p> <p>The public (and organizational) perception of fish hatcheries is that hatcheries pose a risk to wild and native populations by introducing disease to the wild. The major problem is ignorance of biology but by releasing healthy fish, we are helping difuse this idea.</p> <p>The objective:</p> <p>The Idaho Fish Health Center staff have responsibility for fish health inspections at five commercial hatcheries to insure interstate transport of healthy fish and eggs to prevent transmission to wild fish in surrounding areas.</p> <p>The method:</p> <p>At Kooskia National Fish Hatchery we conduct routine monitoring, fish health exams, and prerelease exams in support of their spring chinook salmon production program. Also Center staff provide fish health extension</p>			
Expended	\$166345				
Objective	Maintain diverse, self-sustaining fish and other aquatic resource populations.				
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)				
Primary Benefited Population	Not specified				
Plans	U.S. Fish and Wildlife Service National Aquatic Animal Health Policy U. S. vs OR Columbia River Fishery Management Plan (under renegotiation)				
Keyword	Fish Health				
Need Number	N-002				
Partners	Nez Perce Tribe				
<p>Accomplishments</p> <table border="1"> <tr> <td>Number of population assessments completed</td> <td>1</td> </tr> <tr> <td>Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation</td> <td>1</td> </tr> </table>			Number of population assessments completed	1	Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation
Number of population assessments completed	1				
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	1				

	<p>services, disease diagnoses and treatment recommendations, to state, commercial, tribal, and private fish propagation facilities.</p> <p>Further description:</p> <p>The overall aim of this program to insure success of the hatchery program and safety of fish released into the environment.</p>
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14226-A-118 - [The Investigational New Animal Drug \(INAD\) Initiative](#)

Facility	Idaho Fish Health Center	<p>Accomplishment Summary</p> <p>Identified and monitored the use of new drugs and chemicals for the treatment of fish at state, federal, and tribal fish hatcheries.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>Identified and monitored the use of new drugs and chemicals for the treatment of fish at state, Federal, and Tribal fish hatcheries.</p> <p>The problem:</p> <p>Approved drugs for aquaculture are very few. To o=prevent the inadvertant spread of pathogens to wild fish, hatchery fish must be as healthy as possible. While fish culture practices play a big role in this, the use of approved drugs adds another tool in the box.</p> <p>The objective:</p> <p>purpose of the INAD program is to identify drugs and treatments to control fish disease outbreaks, under strict laboratory guidelines, to gain approval for nationwide use from the U. S. Food and Drug Administration (FDA).</p> <p>The method:</p> <p>Idaho Fish Health Center serves as a Monitor Facility under the U. S. Fish and Wildlife Service's Investigational New Animal Drug (INAD) Program for Dworshak, Kooskia, and Hagerman National Fish Hatcheries, in addition to Idaho and Nez Perce Tribe fish propagation facilities.</p>
Expended	\$5121	
Objective	Maintain diverse, self-sustaining fish and other aquatic resource populations.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	Not specified	
Plans	U.S. Fish and Wildlife Service National Aquatic Animal Health Policy Lower Snake River Compensation Plan	
Keyword	Fish Health	
Need Number	N-002	
Partners	Idaho Dept of Fish & Game	
Accomplishments		
Number of surveys conducted for aquatic invasive species baseline/trend information	1	
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	2	

14226-A-121 - [Visitor Out reach](#)

Facility	Idaho Fish Health Center	<p>Accomplishment Summary</p> <p>Provide opportunity for volunteers to get field experience and learn something about fish health</p> <p>Description</p> <p>Further description:</p> <p>We have volunteers work during the summer, primarily, to assist with field work and laboratory work. These volunteers are often students but also have been members of the community who want a different experience.</p>
Expended	\$2000	
Objective	Provide support to States, Tribes, and other partners to identify and meet shared or complementary recreational fishing and aquatic education and outreach objectives.	
Primary Benefited Species	Rainbow trout (Oncorhynchus mykiss)	
Primary Benefited Population	North Fork Clearwater River	
Plans	<p>National Wild Fish Health Survey</p> <p>U. S. vs OR Columbia River Fishery Management Plan (under renegotiation)</p> <p>U.S. Fish and Wildlife Service National Aquatic Animal Health Policy</p>	
Keyword	Fish Health	
Need Number	N-002	
Partners		

14330-A-001 - [Steelhead evaluation studies](#)

Facility	Idaho Fisheries Resource Office	<p>Accomplishment Summary</p> <p>We continued propagation of fall returning broodstock, thereby improving the fall steelhead fishery in the Clearwater River. We also completed an evaluation of brood stock selection for B-run steelhead.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>Fall returning steelhead are an important part of the diverse life history of the Clearwater B steelhead run as well as comprising a valuable part of the Idaho sport and tribal harvest. As the sole repository for the Clearwater 'B' run steelhead it is important that Dworshak NFH preserves that life history characteristic through proper management.</p> <p>The problem:</p> <p>If the collection of broodstock does not occur throughout the entire spectrum of the run loss of particular genetic traits such as return timing or spawning timing may impact the overall fitness of the stock. Loss of these fish may jeopardize the long-term existence of the run.</p> <p>The objective:</p> <p>The objective is to include the entire spectrum of the run thereby protecting the genetic integrity of the Clearwater 'B' steelhead and providing a fall steelhead fishery for sport and tribal anglers.</p> <p>The method:</p> <p>We open the ladder at Dworshak NFH in October to ensure collection of any fall returning fish. We spawn these fish separately and then monitor and evaluate their return to</p>			
Expended	\$84000				
Objective	Maintain diverse, self-sustaining fish and other aquatic resource populations.				
Primary Benefited Species	Rainbow trout (Oncorhynchus mykiss)				
Primary Benefited Population	North Fork Clearwater River				
Plans	<p>A Review of Dworshak National Fish Hatchery Mitigation Record (Miller, 1987)</p> <p>Dworshak NFH Steelhead HGMP</p> <p>Columbia River Basin Fish and Wildlife Program (NPPC 2000)</p>				
Keyword	Mitigation				
Need Number	N-002				
Partners	Idaho Department of Fish and Game Nez Perce Tribe				
<p>Accomplishments</p> <table border="1"> <tr> <td>number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)</td> <td>1</td> </tr> <tr> <td>Number of other Fishery Management Plan tasks implemented for populations of management concern.</td> <td>7</td> </tr> </table>			number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	1	Number of other Fishery Management Plan tasks implemented for populations of management concern.
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	1				
Number of other Fishery Management Plan tasks implemented for populations of management concern.	7				

Number of mitigation tasks implemented as prescribed in approved plans. (PART)	1	the hatchery and the sport and tribal fisheries.
Number of mitigation production tasks implemented as prescribed in approved plans. (PART)	1	
Number of consultations conducted to support Tribal fish & wildlife conservation.	1	

14330-A-004 - [Monitoring the spawning population of Snake River fall chinook salmon](#)

Facility	Idaho Fisheries Resource Office
Expended	\$41440
Objective	Recover fish and other aquatic resource populations protected under the Endangered Species Act.
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)
Primary Benefited Population	Snake River Fall Chinook Salmon
Plans	2000 FWS Biological Opinion - Effects to Listed Species from Operations of the Federal Columbia River Power System
Keyword	Fish Technology
Need Number	N-002
Partners	Idaho Power Company Nez Perce Tribe

Accomplishments

Number of other Recovery Plan tasks implemented for T&E populations	5
Number of consultations conducted to support Tribal fish & wildlife conservation.	1

Accomplishment Summary

We monitored spawning in the Snake River by conducting nine aerial surveys and searching 18 deepwater spawning areas using submersible cameras. A total of 2,127 redds were counted, and the data were distributed to cooperators.

Description

The importance to the Resource:

This project provides spawning distribution data used to determine if recovery thresholds are reached, if spawners are in peril (e.g., redd de-watering), and if the goals of management actions are realized (e.g., supplementing in river reaches).

The problem:

Snake River fall Chinook salmon are listed as a Threatened Species. Spawning surveys are needed to assess their status.

The objective:

The objective of this project is to document the spawning distribution of fall Chinook salmon in a 100 mile reach of the Snake River in Hells Canyon. While working with our partners, all redd-count data collected in the Snake River basin are compiled and disseminated in a summary report prepared by staff at the Idaho Fishery Resource Office.

The method:

The study reach is surveyed from a helicopter weekly, between mid-October and mid-December. In November and December, submersible cameras are used to locate redds in waters that are too deep to be effectively

	searched from the air. Effort to search deep-water areas is shared with our partners due to the large numbers of potential spawning sites.
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14330-A-013 - [Evaluation of a feeding strategy for steelhead for Hagerman NFH](#)

Facility	Idaho Fisheries Resource Office
Expended	\$7000
Objective	Meet the Service's responsibilities for mitigating fisheries.
Primary Benefited Species	Rainbow trout (Oncorhynchus mykiss)
Primary Benefited Population	Salmon River upper mainstem.
Plans	Vision Action Plan and the Hatchery Evaluation Action Plan 1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.
Keyword	Interjurisdictional
Need Number	N-002
Partners	Hagerman National Fish Hatchery Idaho Fish Health Office

Accomplishments

Number of other Recovery Plan tasks implemented for T&E populations	1
Number of other Fishery Management Plan tasks implemented for populations of management concern.	1
Number of techniques and culture technology tools developed.	1

Accomplishment Summary

The final report was reviewed, edited, and finalized for distribution.

Description

The importance to the Resource:

Restricting the size at release of hatchery steelhead smolts is important in order to limit interactions with listed wild stocks of steelhead.

The problem:

Warm water temperatures at Hagerman NFH make it necessary to control growth of steelhead reared for release in Idaho. If steelhead were allowed to eat as much as they wanted they would be too large at release time.

The objective:

The traditional way of controlling growth is to feed reduced rations to the fish throughout their rearing period. The objective of this project is to control growth using an alternate feeding strategy.

The method:

We evaluated a method in which the fish are allowed to eat as much as they want for a 2-week period, then not fed at all for the following 2 weeks. The cycle is repeated for 90 days. Fish are fed for the full month before release from the hatchery.

Further description:

Warm water temperatures at Hagerman NFH make it necessary to control growth of steelhead reared for release in Idaho. If steelhead were allowed to eat as much as they

wanted they would be too large at release time. The traditional way of controlling growth is to feed reduced rations to the fish throughout their rearing period. We evaluated a method in which the fish are allowed to eat as much as they want for a 2-week period, then not fed at all for the following 2 weeks. The cycle is repeated for 90 days. Fish are fed for the full month before release from the hatchery. All the adult returns and CWT's for four years of smolt releases are currently available. Adult CWT data was compiled and analyzed in 2005. Four separate progress reports were combined into a single completion report during FY '05.

14330-A-035 - [Assess impacts of unmarked hatchery steelhead on ESA-listed stocks](#)

Facility	Idaho Fisheries Resource Office	<p>Accomplishment Summary</p> <p>We coded-wire tagged and elastomer marked the last year of juvenile steelhead to be released in this study. A portion of these steelhead received PIT-tags. The final release was made. We radio-tagged 124 unmarked adult hatchery steelhead and tracked their movements throughout the Clearwater River basin.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>Managers are concerned that unmarked hatchery steelhead, out-planted as juveniles in areas managed for hatchery stocks, will stray and spawn in areas managed for wild stocks.</p> <p>The problem:</p> <p>Releases of unmarked hatchery steelhead were started in the Clearwater River basin in 2001. Prior to this management action, hatchery-origin steelhead were marked so they could be identified as hatchery fish, and thus be managed accordingly. It was not known how common it would be for unmarked hatchery fish to stray.</p> <p>The objective:</p> <p>Our objective is to determine if hatchery fish stray into areas managed for wild spawning.</p> <p>The method:</p> <p>We radio-tag unmarked adults as they pass the last dam they encounter on their spawning run. Fish origin is determined by dorsal-fin erosion (an unintentional result of hatchery rearing). Radio-tagged fish are tracked throughout the Clearwater River basin using fixed and mobile</p>					
Expended	\$148700						
Objective	Maintain diverse, self-sustaining fish and other aquatic resource populations.						
Primary Benefited Species	Rainbow trout (Oncorhynchus mykiss)						
Primary Benefited Population	South Fork Clearwater River						
Plans	<p>Clearwater Subbasin Summary</p> <p>Biological Opinion on Artificial Propagation in the Columbia River Basin.</p> <p>Draft Clearwater Subbasin Management Plan</p>						
Keyword	Interjurisdictional						
Need Number	N-002						
Partners	NOAA Fisheries						
<p>Accomplishments</p> <table border="1"> <tr> <td>Number of other Recovery Plan tasks implemented for T&E populations</td> <td>1</td> </tr> <tr> <td>Number of other Fishery Management Plan tasks implemented for populations of management concern.</td> <td>1</td> </tr> <tr> <td>Number of consultations conducted to support Tribal fish & wildlife conservation.</td> <td>1</td> </tr> </table>			Number of other Recovery Plan tasks implemented for T&E populations	1	Number of other Fishery Management Plan tasks implemented for populations of management concern.	1	Number of consultations conducted to support Tribal fish & wildlife conservation.
Number of other Recovery Plan tasks implemented for T&E populations	1						
Number of other Fishery Management Plan tasks implemented for populations of management concern.	1						
Number of consultations conducted to support Tribal fish & wildlife conservation.	1						

	tracking techniques in cooperation with the University of Idaho.
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13231-A-006 - [Fish Health Inspections and Certifications](#)

Facility	Lower Columbia River Fish Health Center	Accomplishment Summary Twenty-eight stocks of salmon and other fish used to fulfill mitigation and restoration plans in the Columbia River Basin were monitored for health, inspected for disease, and certified as fit and healthy for release.
Expended	\$338629	
Objective	Meet the Service's responsibilities for mitigating fisheries.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	White Salmon River fall run (tule) Chinook	
Plans	<p>U.S. Fish and Wildlife Service National Aquatic Animal Health Policy</p> <p>Carson NFH Spring Chinook Salmon Hatchery and Genetic Management Plan</p> <p>Spring Creek NFH Hatchery and Genetic Management Plan</p> <p>Little White NFH Spring Chinook Salmon Hatchery and Genetic Management Plan</p> <p>Little White NFH Upriver Bright Fall Chinook Salmon Hatchery and Genetics Management Plan</p> <p>1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.</p> <p>Warm Springs Hatchery and Genetic Management Plan (draft)</p> <p>Eagle Creek NFH Coho Salmon Hatchery and Genetic Management Plan</p>	Description
		The importance to the Resource:
		The fish at 6 National Fish Hatcheries and Abernathy Fish Technical Ctr. are regularly examined throughout their life cycle to ensure that healthy fish, meeting the requirements of National, State, and Tribal Fish Health Policies, are produced and released in the lower Columbia River Basin.
		The problem:
		Disease outbreaks reduce viability and survival of hatchery fish. The fish from these hatcheries are critical to help overcome the impaired habitat and obstruction from dams, and to allow harvest in the Columbia River Basin and ocean fisheries; unhealthy fish do not survive.
		The objective:
		Regular exams at each hatchery provides information necessary to manipulate the environmental/cultural conditions to maintain healthy fish and to avoid losses due to disease. We also provide technical and certification/diagnostic services to tribal, federal, state, and private biologists to improve health and conserve fish resources in the NW.
		The method:
		The Lower Columbia River Fish Health Ctr. uses veterinary technology to monitor health

	Eagle Creek NFH Winter Steelhead Hatchery and Genetic Management Plan	
Keyword	Fish Health	
Need Number	N-002	
Partners	National Oceanic and Atmospheric Administration, Fisheries	
Accomplishments		
Number of post-stocking survival tasks met, as prescribed by Recovery plans for hatchery propagated listed species. (PART)	6	
Number of other Recovery Plan tasks implemented for T&E populations	9	
Number of Fishery Management Plan production tasks implemented (PART)	1	
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	1	
Number of applied aquatic scientific and technologic tools shared with partners.	1	
Number of techniques and culture technology tools developed.	1	
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	2	
		and prevent disease in 5 salmon species, lamprey, steelhead and sturgeon. In FY2006, we conducted 220 exams on over 7000 fish at the hatcheries to monitor, inspect and certify the health of 16,500 adult fish and over 35 million juveniles.
		Further description:
		The fish at 6 National Fish Hatcheries and Abernathy Fish Technical Ctr. are regularly examined throughout their life cycle to ensure that healthy fish, meeting the requirements of National, State, and Tribal Fish Health Policies, are produced and released. The fish from these hatcheries are critical to help overcome the impaired habitat and obstruction from dams, and to allow harvest in the Columbia River Basin and ocean fisheries; unhealthy fish do not survive. The Lower Columbia River Fish Health Ctr. uses veterinary technology to monitor health and prevent disease in 5 salmon species, lamprey, steelhead and sturgeon. Regular exams at each hatchery provides information necessary to manipulate the environmental/cultural conditions to maintain healthy fish and to avoid losses due to disease. In FY2006, we conducted 220 exams on over 7000 fish at the hatcheries to monitor, inspect and certify the health of 16,500 adult fish and over 35 million juveniles. We also provided technical assistance for tribal, federal, and state biologists and certification/diagnostic services to private aquaculture facilities, all to conserve aquatic resources through improved fish health. Mitchell Act funding from NOAA helps support this work.

13231-A-007 - [National Wild Fish Health Survey](#)

Facility	Lower Columbia River Fish Health Center	<p>Accomplishment Summary</p> <p>Surveyed over 1500 wild fish from 21 watersheds in WA, OR, ID and the Columbia River to evaluate disease and to prevent spread of aquatic pathogens for improved aquatic ecosystem management.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>Initiated by Congress in 1997 because wild fish populations were being decimated by disease, the National Wild Fish Survey gathers health information for wild fish to ascertain the extent of disease problems and ways to manage disease in the wild.</p> <p>The problem:</p> <p>Disease disables and kills wild fish. A limited knowledge of disease sources and their environmental inducers inhibits better management of habitat problems for wild fish.</p> <p>The objective:</p> <p>The 9 National Fish Health Ctrs undertook this project to survey the health of wild fish and to make this information available to federal, state, and tribal fishery managers. Information is used to improve fisheries management and monitor specific populations. The national database (http://wildfishsurvey@fws.gov) is available for public use.</p> <p>The method:</p> <p>In FY06, the Lower Columbia River FHC examined over 1500 wild fish from 21 watersheds in WA, OR, ID and the Columbia River. We tested for 13 pathogens (virus, bacteria, parasites) using state-of-the-art</p>
Expended	\$64977	
Objective	Facilitate management of aquatic habitats on national and regional scales.	
Primary Benefited Species	Rainbow trout (Oncorhynchus mykiss)	
Primary Benefited Population	Wind River summer run steelhead	
Plans	<p>National Wild Fish Health Survey</p> <p>U.S. Fish and Wildlife Service National Aquatic Animal Health Policy</p> <p>Conservation of Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy, 12/2000 (All H Paper)</p> <p>1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.</p> <p>2000 NMFS FCRPS Biological Opinion - December 21, 2000</p> <p>Yakima Subbasin Plan</p>	
Keyword	Fish Health	
Need Number	N-002	
Partners	<p>Confederated Tribes of The Warm Springs</p> <p>Oregon Department of Fish and Wildlife</p> <p>U.S. Geological Survey</p>	

(\$5000)
 Washington
 Department of Fish and
 Wildlife
 Yakama Indian Nation
 (\$900)

technology to confirm presence/absence of disease in freshwater and seagoing fish.

Further description:

The National Wild Fish Health Survey was initiated by Congress in 1997 because wild fish populations were being decimated by disease and there was little information available on the extent of the problem and ways to manage disease in the wild. The 9 National Fish Health Ctrs undertook this project to survey the health of wild fish and to make this information available to federal, state, and tribal fishery managers. This year, the Lower Columbia River Fish Health Ctr, in cooperation with the Yakama Nation, extensively sampled over 10 fish species in Drano Lake, a popular fishing lake that also serves as nursery habitat for Chinook salmon, a resting area for salmonid adults migrating up the Columbia River and the inlet/outlet for the Little White Salmon Hatchery fish. In anticipation of Condit Dam removal, fish in the White Salmon River were sampled for future health comparisons. Information from the wild fish health surveys are used by state/federal agencies for Ecosystem Diagnosis models for improving aquatic resource management and by the various cooperators for monitoring specific populations of fish. The national database, a repository of all survey information, is available for managerial and public use.

Accomplishments

Number of population assessments completed	21
Number of post-stocking survival tasks met, as prescribed by Recovery plans for hatchery propagated listed species. (PART)	1
Number of other Recovery Plan tasks implemented for T&E populations	1
Number of post stocking survival tasks met as prescribed by Fishery Management Plans, for hatchery propagated depleted species (PART)	1
Number of other Fishery Management Plan tasks implemented for populations of management concern.	1
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	3
Number of applied aquatic scientific and technologic tools shared with partners.	1
Number of techniques and culture technology tools developed.	1
Number of applied science and technology tasks implemented as prescribed by Recovery Plans. (PART)	1
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	2

13231-A-008 - [Fish Health Certification for Mitigation of Salmon for John Day Dam](#)

Facility	Lower Columbia River Fish Health Center	<p>Accomplishment Summary</p> <p>The tule fall Chinook salmon, numbering over 15 million, were monitored for Enteric Redmouth disease using DNA technology to track disease progression during the stressful necessity of mass-marking. All fish were certified healthy for release to the Columbia River.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>The Spring Creek Hatchery provides over 15 million salmon for ocean and river fisheries to mitigate for the John Day Dam which interferes with upriver salmon migration. Besides providing commercial, tribal and recreational fisheries, this tule fall Chinook stock is genetically pure, reared for 100 yrs by the hatchery near their site of origin.</p> <p>The problem:</p> <p>John Day Dam interferes with upriver salmon migration so optimizing the health of fish released from the Spring Creek National Fish Hatchery helps ensure that fish can deal with the dam(n) obstacles.</p> <p>The objective:</p> <p>The Lower Columbia River Fish Health Ctr. ensures that the fish released for mitigation are healthy so that their survival to adulthood is optimized.</p> <p>The method:</p> <p>Modern clinical lab procedures were used to check the fish prior to release, following the Fish Health Policies established by the U.S. Fish & Wildlife Service, the states and tribes.</p>
Expended	\$15538	
Objective	Meet the Service's responsibilities for mitigating fisheries.	
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)	
Primary Benefited Population	White Salmon River fall run (tule) Chinook	
Plans	<p>U.S. Fish and Wildlife Service National Aquatic Animal Health Policy</p> <p>Spring Creek NFH Hatchery and Genetic Management Plan</p> <p>1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.</p> <p>2000 NMFS FCRPS Biological Opinion - December 21, 2000</p> <p>Conservation of Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy, 12/2000 (All H Paper)</p> <p>Comprehensive Hatchery Management Plan - Spring Creek NFH</p>	
Keyword	Fish Health	
Need Number	N-002	
Partners	U.S. Army Corps of	

Engineers

Accomplishments

Number of post-stocking survival tasks met, as prescribed by Recovery plans for hatchery propagated listed species. (PART)	1
Number of other Recovery Plan tasks implemented for T&E populations	5
Number of Fishery Management Plan production tasks implemented (PART)	1
Number of post stocking survival tasks met as prescribed by Fishery Management Plans, for hatchery propagated depleted species (PART)	1
Number of techniques and culture technology tools developed.	1
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	3

State-of-the-art DNA technology was used to track fish health during the stresses of the legally mandated mass marking.

Further description:

The Spring Creek National Fish Hatchery annually provides over 15 million salmon for ocean and river fisheries to mitigate for the John Day Dam which interferes with upriver salmon migration. Besides providing commercial, tribal, and recreational fisheries, the tule fall Chinook is novel in that it is a genetically pure salmon stock produced by a hatchery at the site from which the fish originated. In FY06, the Lower Columbia River Fish Health Ctr. ensured that the 15,000,000 fish released for mitigation were healthy so that their survival to adulthood would be optimized. For the second year, 100% of the fish were mass-marked, necessitating intensive handling, a problem because water is 90% reused and ERM disease is present. The FHC sampled 360 juvenile fish before, during and after mass marking to ascertain its effects on disease progression. This project is funded by reimbursable money from the Corps of Engineers.

13231-A-015 - [Wild Fish Health Information Management](#)

Facility	Lower Columbia River Fish Health Center
Expended	\$38089
Objective	Utilize appropriate scientific and technologic tools in formulating and executing fishery management plans and policies.
Primary Benefited Species	Rainbow trout (Oncorhynchus mykiss)
Primary Benefited Population	Wind River summer run steelhead
Plans	National Wild Fish Health Survey 1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin. Conservation of Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy, 12/2000 (All H Paper)
Keyword	Management
Need Number	N-002
Partners	

Accomplishments

Number of other Recovery Plan tasks implemented for T&E populations	3
Number of post stocking survival tasks met as prescribed by Fishery Management Plans, for hatchery propagated depleted species	1

Accomplishment Summary

Information on over 20 wild fish species in WA ,OR and ID has been inputted into the National Wild Fish Health Survey Database for use in fish management by states, federal, tribal and private entities. The Fish Health Ctr. helped assess the spread of Whirling Disease in the Clackamas watershed and in cooperation with researchers at Oregon State University, published a paper detailing the dissemination of the parasite. Other information is being used for management of fisheries in OR and WA.

Description

The importance to the Resource:

Data from wild fish health exams is used to provide information to help guide management decisions by the states, federal and tribal entities.

The problem:

The Lower Columbia River Fish Health Ctr. has collected over 13,500 wild/native fish for health assessment as mandated by the National Wild Fish Health Survey Initiative.

The objective:

To expedite completion of lab assays of microbial aquatic nuisance species, like the parasite causing Whirling Disease.

The method:

Using state-of-the-art technology for detection of DNA and standard lab assays, a backlog of fish samples were processed and the information entered into the National Wild Fish Health Survey database. This information is being used by state agencies and universities

(PART)		
Number of other Fishery Management Plan tasks implemented for populations of management concern.	1	
Number of applied aquatic scientific and technologic tools shared with partners.	1	
		<p>for management planning.</p> <p>Further description:</p> <p>The Lower Columbia River Fish Health Ctr. has collected over 13,500 wild/native fish for health assessment as mandated by the National Wild Fish Health Survey Initiative. Data from wild fish health exams is used to provide information to help guide management decisions by the states, federal and tribal entities. The Fish Health Ctr. was able to expedite completion of lab assays of microbial aquatic nuisance species, like the parasite causing Whirling Disease. The Fish Health Ctr. helped assess the spread of Whirling Disease in the Clackamas watershed and in cooperation with researchers at Oregon State University, published a paper detailing the dissemination of the parasite. Other information has and will be used in ecosystem diagnosis modeling to determine how to best manage fisheries in the Wind River, White Salmon and Klickitat Watersheds. This is FONS project 13231-2000-005, funded by the Columbia Basin Salmon Initiative.</p>

13245-A-002 - [Transfer coho eyed eggs and fish for Port Gamble tribal net pens.](#)

Facility	Quilcene National Fish Hatchery
Expended	\$53000
Objective	Provide fish for Tribal resource management.
Primary Benefited Species	Coho salmon or silver salmon (Oncorhynchus kisutch)
Primary Benefited Population	Puget Sound/Strait of Georgia ESU
Plans	Hood Canal Salmon Management Plan (Quilcene NFH) Puget Sound Salmon Management Plan Pacific Region Fisheries Outreach Action Plan
Keyword	Tribal
Need Number	N-002
Partners	Port Gamble S'Klallam tribe (\$1500) Washington Department of Fish and Wildlife (\$240000)

Accomplishments

Number of Fishery Management Plan production tasks implemented (PART)	2
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	2
Number of other Fishery Management Plan	3

Accomplishment Summary

Transferred 450,100 coho salmon eyed eggs to George Adams Washington State Hatchery (November 2006) with final destination of Port Gamble S'Klallam bay tribal net pens. Also transferred 108,000 coho fingerlings (4,046 pounds) directly to the Port Gamble S'Klallam bay tribal net pens on February 8, 2006. These transfers increased terminal recreational, commercial and tribal fishing opportunities.

Description

The importance to the Resource:

This program provides hatchery fish for increased fishing opportunities and relieves fishing pressure on wild fish stocks

The problem:

Provide fishing opportunity for treaty / non-treaty; recreational, and commercial fishermen

If these hatchery fish were not there for fishermen, the fishing pressure on wild stocks would be increased.

The objective:

Increase fishing opportunity for the treaty / non-treaty; recreational, and commercial fishermen. The fish return to the Port Gamble Bay for the Port Gamble S'Klallam tribal fishermen and other fishermen.

The method:

Quilcene NFH will collect, fertilize, and incubate eggs from returning adult coho salmon. Then transferred as eyed eggs to George Adams State hatchery to be hatched and reared until final transfer to tribal net pens

tasks implemented for populations of management concern.

before release.

This year Quilcene NFH also transferred 108,000 coho fingerling to the Port Gamble S'Klallam tribal net pens.

Further description:

The fish will be raised in the Port Gamble S'Klallam tribal net pens for several months prior to release. The returning adult salmon are then targeted by tribal/non tribal, recreational and commercial fishermen in the terminal fishing area.

All adults used in spawning are inspected by US Fish and Wildlife Service fish pathologist prior to any egg transfers. The fish raised at Quilcene National Fish Hatchery are routinely inspected by a US Fish and Wildlife Service fish pathologist.

13245-A-004 - [Big Quilcene River on station release of coho salmon smolts](#)

Facility	Quilcene National Fish Hatchery	<p>Accomplishment Summary</p> <p>Released 488,080 coho salmon smolts (21,912 pounds) into the Big Quilcene river. The returning adult fish will provide increased fishing opportunity for tribal/ non-tribal; recreational and commercial fishermen.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>If these hatchery fish were not there for fishermen, the fishing pressure on wild stocks would be increased.</p> <p>The problem:</p> <p>Provide fishing opportunity for treaty / non-treaty; recreational, and commercial fishermen</p> <p>If these hatchery fish were not there for fishermen, the fishing pressure on wild stocks would be increased.</p> <p>The objective:</p> <p>Increase fishing opportunity for the treaty / non-treaty; recreational, and commercial fishermen. If these hatchery fish were not there for fishermen, the fishing pressure on wild stocks would be increased</p> <p>The method:</p> <p>Quilcene NFH will collect, fertilize, incubate eggs and hatch fry from returning adult coho salmon. The fish will be raised for 1 1/2 years at the hatchery prior to release as smolts into the Big Quilcene river</p> <p>Further description:</p> <p>Release of these coho salmon should result in</p>
Expended	\$275284	
Objective	Provide fish for Tribal resource management.	
Primary Benefited Species	Coho salmon or silver salmon (Oncorhynchus kisutch)	
Primary Benefited Population	Puget Sound/Strait of Georgia ESU	
Plans	Hood Canal Salmon Management Plan (Quilcene NFH) Puget Sound Salmon Management Plan Pacific Region Fisheries Outreach Action Plan	
Keyword	Tribal	
Need Number	N-002	
Partners	Jamestown S'Klallam tribe Lower Elwha S'Klallam tribe Point No Point Treaty Tribes Port Gamble S'Klallam tribe Skokomish Tribe Suquamish tribe Washington Department of Fish and Wildlife	
Accomplishments		

Number of Fishery Management Plan production tasks implemented (PART)	2	adult fish available for harvest by treaty and non-treaty commercial fisherman and recreational fishers. Quilcene NFH released 488,080 coho smolts into the Big Quilcene river at the end of April 2006. This amount exceeded the task of releasing 400,000 coho smolts.
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	2	
Number of other Fishery Management Plan tasks implemented for populations of management concern.	3	

13245-A-009 - [Coho salmon to Quilcene Bay net pens \(Tribal\)](#)

Facility	Quilcene National Fish Hatchery	<p>Accomplishment Summary</p> <p>Transferred 199,191 coho salmon fingerlings weighing 7,758 pounds to Skokomish tribal net pens in Quilcene Bay.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>Provide fishing opportunity for treaty / non-treaty; recreational, and commercial fishermen .</p> <p>If these hatchery fish were not there for fishermen, the fishing pressure on wild stocks would be increased.</p> <p>The problem:</p> <p>Provide fishing opportunity for treaty / non-treaty; recreational, and commercial fishermen .</p> <p>If these hatchery fish were not there for fishermen, the fishing pressure on wild stocks would be increased.</p> <p>The objective:</p> <p>Increase fishing opportunity for the treaty / non-treaty; recreational, and commercial fishermen. The fish return to the Quilcene Bay for the Skokomish tribal fishermen and other fishermen.</p> <p>The method:</p> <p>At Quilcene NFH, spawn coho salmon adults, incubate and hatch eggs, and raise fish for over a year until transfer to tribal net pens in Quilcene Bay. These fish are raised for several months before release. The returning hatchery adult salmon are targeted by all groups of fishermen</p>					
Expended	\$96721						
Objective	Provide fish for Tribal resource management.						
Primary Benefited Species	Coho salmon or silver salmon (Oncorhynchus kisutch)						
Primary Benefited Population	Puget Sound/Strait of Georgia ESU						
Plans	Hood Canal Salmon Management Plan (Quilcene NFH) Puget Sound Salmon Management Plan Pacific Region Fisheries Outreach Action Plan						
Keyword	Tribal						
Need Number	N-002						
Partners	Skokomish Tribe (\$4000) Washington Department of Fish and Wildlife (\$500)						
<p>Accomplishments</p> <table border="1"> <tr> <td>Number of Fishery Management Plan production tasks implemented (PART)</td> <td>2</td> </tr> <tr> <td>number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)</td> <td>2</td> </tr> <tr> <td>Number of other Fishery Management Plan</td> <td>3</td> </tr> </table>			Number of Fishery Management Plan production tasks implemented (PART)	2	number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	2	Number of other Fishery Management Plan
Number of Fishery Management Plan production tasks implemented (PART)	2						
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	2						
Number of other Fishery Management Plan	3						

tasks implemented for populations of management concern.

Further description:

Provided 180,582 coho salmon weighing 6,433 pounds to net pens in Quilcene Bay. This provides additional fishing opportunities to tribal and non tribal fishermen.

All adult fish used in spawning are inspected by US Fish and Wildlife Service fish pathologist prior to any fish transfers. The fish raised at Quilcene National Fish Hatchery are routinely inspected by a US Fish and Wildlife Service fish pathologist.

13250-A-008 - [Coho Salmon Production and Distribution](#)

Facility	Quinault National Fish Hatchery
Expended	\$240463
Objective	Recognize and promote the Service's distinct obligations toward Tribes within the Fisheries Program.
Primary Benefited Species	Coho salmon or silver salmon (Oncorhynchus kisutch)
Primary Benefited Population	Olympic Peninsula ESU
Plans	Quinault NFH Cooperative Agreement
Keyword	Tribal
Need Number	N-002
Partners	Quinault Indian Nation

Accomplishments

Number of Fishery Management Plan production tasks implemented (PART)	1
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	1
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	1
Number of consultations conducted to support Tribal fish & wildlife conservation.	1

Accomplishment Summary

Brood Year 2005: 649,573 Coho salmon were released into Cook Creek on April 24th, 2006.

Description

The importance to the Resource:

Adult coho salmon returning to the Quinault River and its tributaries provide important river commercial and subsistence fisheries to tribal members on the Quinault Tribal Reservation and offer quality tribal-guided sport fishing opportunities available to the general public

The problem:

Quinault NFH's coho salmon program was initiated in response to the low returns of adult salmon to the region beginning in the early 70's, due primarily to overfishing, habitat degradation and poor ocean survival conditions

The objective:

As part of Quinault NFH's Tribal Trust responsibilities, yearly releases of young coho salmon within the Quinault Reservation help to rebuild to harvestable levels, maintain or supplement runs of this unique species in order to maintain adequate harvest levels.

The method:

During FY2006, the hatchery reared and released 649,573 BY05 Coho salmon at 15 fish/pound into Cook Creek.

13250-A-010 - [Chum Salmon Production and Distribution](#)

Facility	Quinalt National Fish Hatchery
Expended	\$10930
Objective	Provide fish for Tribal resource management.
Primary Benefited Species	Chum salmon (Oncorhynchus keta)
Primary Benefited Population	Not specified
Plans	Quinalt NFH Cooperative Agreement
Keyword	Tribal
Need Number	N-002
Partners	Quinalt Indian Nation

Accomplishments

Number of Fishery Management Plan production tasks implemented (PART)	1
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	1
Number of consultations conducted to support Tribal fish & wildlife conservation.	1

Accomplishment Summary

Brood Year 2005; 1,027,187 Chum salmon were released into Cook Creek as part of Quinalt NFH's tribal trust responsibilities.

Description

The importance to the Resource:

Cook Creek adult Chum salmon contribute to regional salmon returns that support and contribute to international and domestic ocean commercial and sport fisheries. Adult Chum salmon returning to the Quinalt River and its tributaries provide important river commercial and subsistence fisheries to tribal members on the Quinalt Tribal Reservation.

The problem:

Quinalt NFH's Chum salmon program was initiated at the request of the Quinalt Indian Nation to develop additional fishing opportunities and the associated revenue.

The objective:

As part of Quinalt NFH's Tribal Trust responsibilities, yearly releases of young chum salmon within the Quinalt Reservation help to support this unique and important fishery.

The method:

During FY2006, the hatchery released 1,027,187 BY2005 Chum salmon at 447 fish/pound into Cook Creek.

13250-A-011 - [Steelhead Production and Distribution](#)

Facility	Quinault National Fish Hatchery
Expended	\$238354
Objective	Provide fish for Tribal resource management.
Primary Benefited Species	Rainbow trout (Oncorhynchus mykiss)
Primary Benefited Population	Not specified
Plans	Quinault NFH Cooperative Agreement
Keyword	Tribal
Need Number	N-002
Partners	Quinault Indian Nation

Accomplishments

Number of Fishery Management Plan production tasks implemented (PART)	1
number of marking and tagging targets met, as prescribed by Fishery management plans. (PART)	1
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	1
Number of consultations conducted to support Tribal fish & wildlife conservation.	1

Accomplishment Summary

Brood Year 2004: 248,687 winter Steelhead trout were released into Cook Creek on the Quinault Indian Reservation.

Description

The importance to the Resource:

Cook Creek winter Steelhead trout returning to the Quinault River and its tributaries provide important commercial and subsistence fisheries to tribal members on the Quinault Tribal Reservation and offer quality tribal-guided sport fishing opportunities available to the general public

The problem:

As part of Quinault NFH's Tribal Trust responsibilities, yearly releases of young steelhead trout within the Quinault Reservation help to rebuild and maintain harvestable levels of fish needed for commercial and subsistant fisheries.

The objective:

Rear and release at least 190,000 Steelhead smolts into Cook Creek, a tributary of the Quinault River.

The method:

Eggs from returning adults will be collected and fish from these eggs will be reared on station for 15-16 months and then released into Cook Creek.

13250-A-016 - [Quinault National Fish Hatchery Outreach Activities](#)

Facility	Quinault National Fish Hatchery
Expended	\$6000
Objective	Provide fish for Tribal resource management.
Primary Benefited Species	Coho salmon or silver salmon (Oncorhynchus kisutch)
Primary Benefited Population	Not specified
Plans	Pacific Region Fisheries Outreach Action Plan
Keyword	Outreach
Need Number	N-002
Partners	Quinault Indian Nation

Accomplishments

Number of other Fishery Management Plan tasks implemented for populations of management concern.	3
Number of visitors to service facilities.	3576
Number of aquatic outreach and education activities.	2

Accomplishment Summary

Quinault NFH continued its goal of providing quality outreach activities for the visiting public and students of educational programs. Volunteers contributed 1600 hours of time providing tours and assistance to hatchery operations.

Description

The importance to the Resource:

Volunteers assist fish hatchery personnel with tours of the facility, spawning operations, egg care, fish culture, Kid's Fishing Day, light maintenance, and cleaning of public facilities.

The problem:

Due to continued and anticipated budget and staffing deficits, volunteers have become essential in efficient operation of the hatchery and for informing publics of the hatchery, regional and agency missions.

The objective:

Quinault National Fish Hatchery welcomes approximately 3,500 tourists annually. The staff and, primarily volunteers, offer and conduct tours, provide outreach materials and structures in order to accommodate the visiting public.

The method:

Station volunteers are recruited, interviewed and invited to participate in daily outreach activities at the facility. Their primary roles is to provide quality visits to the public via tours and information. Volunteers also maintain areas accessed by the public, restrooms, gardens and brochures.

13255-A-005 - [Broodyear 2005 - Fish Production.](#)

Facility	Spring Creek National Fish Hatchery	<p>Accomplishment Summary</p> <p>Collected 17.56 million eggs from 6,167 adult broodstock selected from a total adult return of 34, 291. Released 15.1 million tule fall Chinook salmon smolts. Returning adults contribute to tribal, sport and commercial fisheries in the Columbia River and Ocean.</p> <p>Description</p> <p>The importance to the Resource:</p> <p>The tule stock of fall Chinook that the hatchery has propagated for over 100 years originated from the White Salmon River just East of the hatchery. This stock is an index stock for the US/Canada Salmon Treaty and is a major contributor to the commercial and sports ocean fishery as well as sport and tribal fishery in the Columbia River</p> <p>The problem:</p> <p>Hydroelectric projects on the Columbia River have inundated much of the spawning habitat for this stock. There is little natural reproduction of this tule stock above Bonneville Dam. Hatchery propagation of this stock is essential to maintain this population and to provide harvest benefits.</p> <p>The objective:</p> <p>The hatchery program mitigates for lack of natural reproduction by propagating and releasing sufficient numbers, 15 million, to provide escapement back to the hatchery and harvest benefits. The hatchery has propagated this tule stock of fall Chinook for over 100 years using the White Salmon River population as the founding stock.</p> <p>The method:</p>			
Expended	\$836849				
Objective	Meet the Service's responsibilities for mitigating fisheries.				
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)				
Primary Benefited Population	White Salmon River fall run (tule) Chinook				
Plans	Spring Creek NFH Hatchery and Genetic Management Plan Comprehensive Hatchery Management Plan - Spring Creek NFH 1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.				
Keyword	Mitigation				
Need Number	N-002				
Partners	National Marine Fisheries Service U.S. Army Corps of Engineers				
<p>Accomplishments</p> <table border="1"> <tr> <td>Number of marking and tagging targets met, as prescribed by Recovery plans</td> <td>1</td> </tr> <tr> <td>Recovery Plan production tasks implemented (PART)</td> <td>2</td> </tr> </table>			Number of marking and tagging targets met, as prescribed by Recovery plans	1	Recovery Plan production tasks implemented (PART)
Number of marking and tagging targets met, as prescribed by Recovery plans	1				
Recovery Plan production tasks implemented (PART)	2				

Number of post-stocking survival tasks met, as prescribed by Recovery plans for hatchery propagated listed species. (PART)	1	<p>Sufficient number of returning broodstock, 7,000 adults are necessary to meet our mitigation goal of 15.1 million smolt release. The hatchery has been monitoring 21 quality indicators for the last 15 years to improve survival and adult return rates.</p> <p>Further description:</p> <p>Spring Creek NFH has raised the Tule fall Chinook stock for more than one hundred years which has helped maintain the genetic integrity of this an indigenous population. The hatchery mitigates for loss of spawning habitat due to Federal water projects on the Columbia River. The stock is an index stock for the US/Canada Salmon Treaty and is a major component for the commercial and sports ocean fishery as well as a major contributor to the in-rive tribal and sport fishery. More than 34,250 tule fall Chinook returned to the hatchery last year. The adult return consisted of 20,545 females, 12,478 males and 1,268 jacks. A representative sample of adults collected through out the spawning run, 6,167 fish, were used to meet our production goal of 17.5 million eggs . The remaining fish were surplused through the Federal Prison System. Spring Creek NFH released more than 15 million tule fall Chinook Salmon smolts this spring. Three distinct groups beginning in March and ending in May were released directly into the Columbia River and coordinated with water releases from dams to assist with downstream migration.</p>
Number of other Recovery Plan tasks implemented for T&E populations	3	
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	1	

13255-A-012 - [Ladder Pulsing Project](#)

Facility	Spring Creek National Fish Hatchery
Expended	\$500
Objective	Meet the Service's responsibilities for mitigating fisheries.
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)
Primary Benefited Population	White Salmon River fall run (tule) Chinook
Plans	Spring Creek NFH Hatchery and Genetic Management Plan Comprehensive Hatchery Management Plan - Spring Creek NFH
Keyword	Mitigation
Need Number	N-002
Partners	U.S. Army Corps of Engineers

Accomplishments

Number of applied science and technology tasks implemented as prescribed by Recovery Plans. (PART)	1
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	1

Accomplishment Summary

Determine effects of ladder pulsing on brood stock collection and straying of tule fall Chinook.

Description

The importance to the Resource:

The tule stock of fall Chinook contributes to sport commercial and tribal fisheries both in river and ocean. Collection of sufficient broodstock fish from the entire run is essential to maintain the genetic integrity of this native stock.

The problem:

Adult fish returns to the hatchery have far exceeded escapement needs producing large surplus of fish. Handling and disposal of surplus fish is man power intensive and costly. Limiting the number of adults that enter the facility by closing the ladder would allow the hatchery to better manage surplus fish

The objective:

Determine if behavior changes of tule fall Chinook salmon during intermittent ladder closure increases straying. Ensure ladder closures do not compromise the ability of the hatchery to collect a representation portion of the run for broodstock. Leaving more fish in the river could contribute to harvest, nutrient enrichment and natural spawning.

The method:

To assess straying during ladder closures, 180 fish were collected from the ladder and marked. All fish received a Peterson disc tag and were released back into the Columbia

River upstream from the ladder entrance. Tag recoveries were made from fish returning to the hatchery or from carcass surveys on the White Salmon River.

Further description:

Spring Creek NFH staff worked collaboratively with the Columbia River Fisheries Program Office to evaluate fish ladder management during the 2005 tule fall Chinook salmon run. Ladder operation at the hatchery began August 29th and ended on October 1st, 2005. The ladder was closed for two separate time periods for a total of 96 hours. To assess straying of Spring Creek tule fall Chinook salmon during ladder closure, 180 fish were collected from the ladder and marked. All fish received a Peterson disc tag and were released back into the Columbia River upstream from the ladder entrance. Of the 180 tagged fish, 122 tags were recovered. The major, over 95%, of the recovered tags were from fish that returned to the hatchery while less than 1% were recovered from the White Salmon River, 3 miles upstream from the hatchery. Preliminary results suggest that ladder pulsing does not cause Spring Creek NFH tule fall Chinook to stray into other tributaries and the hatchery can effectively collect a representative sample of the run. This study was completed in 2005 with final report scheduled for completion in 2006.

13255-A-014 - [Mass Marking](#)

Facility	Spring Creek National Fish Hatchery
Expended	\$1000
Objective	Meet the Service's responsibilities for mitigating fisheries.
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)
Primary Benefited Population	White Salmon River fall run (tule) Chinook
Plans	Comprehensive Hatchery Management Plan - Spring Creek NFH Spring Creek NFH Hatchery and Genetic Management Plan 1999 NMFS Biological Opinion on Artificial Propagation in the Columbia River Basin.
Keyword	Mitigation
Need Number	N-002
Partners	National Marine Fisheries Service U.S. Army Corps of Engineers

Accomplishments

Number of marking and tagging targets met, as prescribed by Recovery plans	1
Number of post stocking survival tasks met as prescribed by Fishery Management Plans,	1

Accomplishment Summary

Mass marked more than 15 million tule fall Chinook Salmon

Description

The importance to the Resource:

Mass marking distinguishes hatchery from wild or naturally produced fish, providing the opportunity for selective fisheries which would protect listed populations. Also complying with a congressional mandate to mass mark all federally funded hatchery fish that are produced primarily for the purpose of harvest,

The problem:

Not all fall Chinook released from Spring Creek NFH were mark so we have not been able to distinguish hatchery from wild or naturally produced fish.. Mass marking of all hatchery fall Chinook Salmon will provide the ability to distinguish hatchery from wild Chinook during broodstock collection and provide management options.

The objective:

Mass marked all 15.1 million tule fall Chinook salmon released from Spring Creek NFH this year by removing the adipose fin. A representative number also received a coded wire tag to evaluate hatchery success.

The method:

Using state of the art mass marking trailers and conventional hand tagging trailers mark all 15 million fall Chinook salmon between January and May for each year prior to scheduled releases..

for hatchery propagated depleted species (PART)		Further description:
Number of applied science and technology tasks implemented as prescribed by Fishery Management Plans. (PART)	1	

13320-A-007 - [Pacific Salmon Treaty Data Reporting](#)

Facility	Western Washington Fisheries Resource Office
Expended	\$246198
Objective	Co-manage interjurisdictional fisheries.
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)
Primary Benefited Population	Not specified
Plans	Pacific Salmon Treaty of 1999
Keyword	Service Lands
Need Number	N-002
Partners	

Accomplishments

Number of other Fishery Management Plan tasks implemented for populations of management concern.	3
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Accomplishment Summary

We provided data to the coastwide database for 43 million salmon that were reared and released from Region 1 National Fish Hatcheries. We also provided data to the coastwide database representing 22,000 tag recoveries of adult salmon returning to Region 1 National Fish Hatcheries in FY 2006.

Description

The importance to the Resource:

Hatchery production and coded-wire-tag recovery data are essential to meet the goals of the Pacific Salmon Treaty, which are to: 1) conserve the salmon resource, and 2) equitably allocate salmon harvest between the United States and Canada.

The problem:

Timely and accurate data on hatchery production and tag recoveries are needed to manage the salmon fisheries under the purview of the Pacific Salmon Treaty. The FWS is a major contributor of data used in this process.

The objective:

To monitor progress of salmon restoration and harvest sharing under the Pacific Salmon Treaty, management agencies share data on hatchery fish production and recovery of tags from adult salmon recovered at the hatchery racks and in the fisheries.

The method:

We report Fish and Wildlife Service data for all USFWS hatcheries releasing and recovering anadromous fish in Region 1.

13320-A-008 - [Olympic Peninsula National Fish Hatchery Evaluation](#)

Facility	Western Washington Fisheries Resource Office
Expended	\$188021
Objective	Co-manage interjurisdictional fisheries.
Primary Benefited Species	Chinook salmon or king salmon (Oncorhynchus tshawytscha)
Primary Benefited Population	Not specified
Plans	<p>Quinault NFH Cooperative Agreement Makah NFH Cooperative Agreement Hood Canal Salmon Management Plan (Quilcene NFH)</p> <p>FY 2003 Omnibus Bill and H.R. 2361--Department of the Interior, Environment, and Related Agencies Appropriations Act, 2006 (Reported in House)</p>
Keyword	Monitoring and Assessment
Need Number	N-002
Partners	<p>Makah Indian Nation Point No Point Treaty Tribes Quinault Indian Nation</p>

Accomplishments

number of marking and tagging targets met, as prescribed by Fishery management plans.	8
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Accomplishment Summary

At the Quilcene, Quinault, and Makah National Fish Hatcheries on the Olympic Peninsula, we evaluated survival and fishery contribution. We continued fish marking and tagging, and collected biological data on fish production and adult returns. Approximately 4.5 million juvenile fish were tagged or marked in FY 2006. Most returning adults to these stations were sampled for tags and marks. Over 1,200 adults were aged to relate adult returns to the original broodyear releases.

Description

The importance to the Resource:

Fish produced at Quilcene, Quinault, and Makah National Fish Hatcheries provide important contributions to Chinook, coho, chum, and steelhead fisheries on the west coasts of the United States and Canada.

The problem:

Tagging and marking of juvenile fish, and sampling of adult salmon returns at the Olympic Peninsula National Fish Hatcheries are needed to effectively assess whether the Service is meeting its obligations to support fisheries and conserve the resource.

The objective:

Fish produced at Quilcene, Quinault and Makah NFHs on the Olympic Peninsula are needed to meet Pacific Salmon Treaty and local fishery obligations.

The method:

Coded-wire tagging and fin clipping of juvenile fish are the primary methods used to evaluate

(PART)		fish production. At adult return, tags, marks, and other biological data are collected that yield information on salmon survival and contribution to fisheries.
Number of technical assistance requests fulfilled to support Tribal fish and wildlife conservation	2	

13320-A-018 - [Hatchery Reform Project](#)

Facility	Western Washington Fisheries Resource Office
Expended	\$70016
Objective	Recover fish and other aquatic resource populations protected under the Endangered Species Act.
Primary Benefited Species	Coho salmon or silver salmon (Oncorhynchus kisutch)
Primary Benefited Population	Not specified
Plans	Shared Strategy for Puget Sound and Recovery Plan, Draft Puget Sound and Coastal Washington Hatchery Reform Project
Keyword	Recovery
Need Number	N-002
Partners	

Accomplishments

Number of other Recovery Plan tasks implemented for T&E populations	1
Number of post stocking survival tasks met as prescribed by Fishery Management Plans, for hatchery propagated depleted species (PART)	1
Number of other Fishery Management Plan tasks implemented for populations of management concern.	2

Accomplishment Summary

We continued to support the Western Washington Hatchery Reform Project by participating in multiple co-manager meetings on hatchery reform; monitoring Quilcene River summer chum salmon recovery by mark and scale sampling carcasses throughout the run; and by collecting northern Hood Canal coho salmon for DNA analysis in order to determine an appropriate Quilcene NFH coho brood stock.

Description

The importance to the Resource:

As part of the Endangered Species Act recovery process for several Puget Sound and coastal salmon and steelhead stocks, the State, Tribal and Federal managers of Washington's salmon and steelhead resources must ensure that their hatcheries do not present a risk to listed species.

The problem:

Hatcheries may cause adverse impacts to wild salmon through competition, predation, and interbreeding with wild cohorts.

The objective:

The hatchery reform process is intended to help recover naturally-spawning salmon, while providing sustainable fisheries. FWS hatcheries in western Washington were reviewed by the project's Hatchery Scientific Review Group, which developed a series of recommendations for FWS hatcheries to meet the objectives of hatchery reform.

The method:

	<p>The Western Washington Fish and Wildlife Office is specifically working to implement hatchery reforms recommendations for Quilcene, Quinault and Makah National Fish Hatcheries.</p>
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13320-A-036 - [Chehalis Fisheries Restoration Program - Quinault Indian Nation Salmon Spawning Survey](#)

Facility	Western Washington Fisheries Resource Office
Expended	\$33493
Objective	Recognize and promote the Service's distinct obligations toward Tribes within the Fisheries Program.
Primary Benefited Species	Coho salmon or silver salmon (Oncorhynchus kisutch)
Primary Benefited Population	SW Washington Coast ESU
Plans	Chehalis River Basin Fishery Resources Study and Restoration Act of 1990 (P.L. 101-452) Chehalis Fisheries Restoration Program - Quinault Indian Nation Salmon Spawning Survey - FY2006
Keyword	Tribal
Need Number	N-002
Partners	Quinault Indian Nation Washington Department of Fish and Wildlife

Accomplishments

Number of population assessments completed	2
Number of other Fishery Management Plan	3

Accomplishment Summary

Collect spawning information on coho and fall Chinook salmon within the Chehalis Basin that is sufficient to estimate the annual spawning escapement of both species. Data will be used to estimate the adult spawning escapement of coho and fall Chinook salmon in the Chehalis Basin. This data is critical for the management and monitoring of Chehalis Basin salmon stocks.

Description

The importance to the Resource:

The Chehalis Basin is the second largest in Washington. It has unlisted stocks of Chinook, coho and chum salmon and cutthroat and steelhead trout. The lower Chehalis Basin is designated foraging, migration, and overwintering habitat for bull trout. These resources are important for sport and commercial, tribal, and interjurisdictional fisheries.

The problem:

Numerous habitat degradations, along with other factors including overfishing, have caused a decline in Chehalis Basin salmonid populations. This has diminished the fisheries opportunities and economic benefits for all users and the rural communities that depend on them.

The objective:

To provide an accurate estimate of the adult spawning escapement for coho and Chinook salmon and thus determine optimal harvest in tribal, commercial, and recreational fisheries while protecting sufficient numbers of adult

tasks implemented for populations of management concern.

spawners.

The *method*:

Crews will walk spawning stream reaches and count the number of adult coho and Chinook spawners. This data will be used in conjunction with Washington Department of Fish and Wildlife survey data to estimate the adult spawning escapements.