

FISH PASSAGE CENTER

9403300

SHORT DESCRIPTION:

Provide regional resource to successfully interface between fishery agencies, Tribes, and FCRPS operators. Analyze and report smolt monitoring data and recommend operations for fish passage. Implement specific actions required through ESA, provide data and analysis required for daily, weekly, and monthly fish passage mitigation management decisions. Collect migration data required for ESA measure implementation.

SPONSOR/CONTRACTOR: PSMFC

Pacific States Marine Fisheries Commission
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SUB-CONTRACTORS:

ct numbers below. Note: these contracts do not include cost of PIT tags)USFWS: Snake & Lower Columbia R. hatcheries (#8906500)IDFG: McCall, Rapid R., Pahsimeroi hatcheries (#9602000)ODFW: Lookingglass, Imnaha hatcheries (#8712700)WDFW: Cowlitz Hatchery (#8712700) Cost of PIT Tags only (#9008000): PSMFC-administered Non-federal SMP: PIT Tags onlyNez Perce Tribes: Imnaha River (#9008000)BPA-administered Federal SMP : PIT Tags onlyIDFG: Salmon, Snake R. (#9008000)USFWS: Snake R. & mid-Col. Drainages (#9008000)PSMFC & BPA-administered Hatchery PIT Tag Study: PIT Tags only (#9008000)

GOALS

GENERAL:

Supports a healthy Columbia basin, Maintains biological diversity, Increases run sizes or populations, Adaptive management (research or M&E), Program coordination or planning

ANADROMOUS FISH:

Hydro ops, mainstem passage, construction, Research, M&E

NPPC PROGRAM MEASURE:

5.1B.1

RELATION TO MEASURE:

Specific implementation of the FPC measure 5.1.B.1 and the Smolt Monitoring Measure 5.9.A.1. In addition, the project responds to review by the Independent Science Advisory Board review of the SMP Hatchery PIT Tag Study.

BIOLOGICAL OPINION ID:

NMFS BP RPA 13a

OTHER PLANNING DOCUMENTS:

2.1.a.2.

TARGET STOCK

Coho
Sockeye
Steelhead
Chinook

LIFE STAGE

Juvenile & adult
Juvenile & adult
Juvenile & adult
Juvenile & adult

MGMT CODE (see below)

P, L, W
P, L, W
P, L, W
P, L, W

AFFECTED STOCK

Sturgeon

BENEFIT OR DETRIMENT

Beneficial

BACKGROUND

Hydro project mitigated:

All of the projects in the Federal system.

Habitat types:

Mainstem Columbia and Snake rivers and tributaries and reservoirs.

HISTORY:

The Fish Passage Center (Water Budget Center) was established by the NPPC to design and implement a program to monitor smolt passage through the Columbia River. With this information it was to make recommendations as to how water stored for fish was to be released in order to increase smolt passage at the mainstem dams. In addition, the FPC was charged with design, analysis, and implementation of the Smolt Monitoring Program. Previous project number: 87-127.

BIOLOGICAL RESULTS ACHIEVED:

Analysis which have been utilized in determining the hydrosystem operation measures. Collect and compile data used in the in season management of the FCRPS and coordination of the regions smolt monitoring program, including Comparative Survival Rate Study of Hatchery PIT Tagged Chinook, long-term consistent migration characteristics data, and management of a regional data base.

PROJECT REPORTS AND PAPERS:

Annual Reports approved by CBFWA Members, Weekly updates on smolt passage numbers during the passage season, migration characteristics, dissolved gas symptoms, and System Operational Requests provided to Federal operators and regulators; issue specific technical analysis of fish passage; reporting to state water quality agencies.

ADAPTIVE MANAGEMENT IMPLICATIONS:

Smolt Monitoring Program design, Annual Reports, Weekly Reports, analysis, System Operational Requests provided to designated persons at the following agencies: Corps of Engineers, National Marine Fisheries Service, US Bureau of Reclamation, US Fish and Wildlife Service, and Bonneville Power Administration. FPC analysis over the years has provided the foundation for several major changes in hydrosystem operations for anadromous fish, such as summer flows and flow targets. Development of data, and analysis as a basis for fish passage mitigation decision path activities.

PURPOSE AND METHODS

CRITICAL UNCERTAINTIES:

Risks are unintended project outcomes, such as damage to other stocks. Critical uncertainties are limited to emergency events which could render facilities inoperable, natural events, or mechanical events that would cause facilities to be inoperable.

ALTERNATIVE APPROACHES:

N/A

JUSTIFICATION FOR PLANNING:

N/A

PLANNED ACTIVITIES

SCHEDULE:

Planning Phase **Start** 12/1/97 **End** annual **Subcontractor**

Task Planning and design of the Smolt Monitoring Program

Implementation Phase **Start** 12/1/97 **End** annual **Subcontractor**

Task Data management, analysis, implementation of SMP

OUTCOMES, MONITORING AND EVALUATION

SUMMARY OF EXPECTED OUTCOMES

Present utilization and conservation potential of target population or area:

The entire migration corridor is utilized; the conservation and recovery potential is dependent on adequacy of mitigation measures.

Assumed historic status of utilization and conservation potential:

N/A

Long term expected utilization and conservation potential for target population or habitat:

Recovery of listed stocks and enhancement improvement of non-listed stocks.

Contribution toward long-term goal:

Data analysis which will be utilized in the long-term decision path.

Indirect biological or environmental changes:

Modification of hydrosystem operations.

Physical products:

Historical and real-time fish passage migration characteristics and passage conditions and environmental variables. Daily, weekly, and annual juvenile passage data and migration characteristics provided region-wide as a basis for short and long-term, as well as daily passage management decisions.

Environmental attributes affected by the project:

Water temperature, water flow, water spilled in the FCRHS.

Changes assumed or expected for affected environmental attributes:

Higher flows and water velocities, lower water temperatures, spill.

Measure of attribute changes:

N/A

Assessment of effects on project outcomes of critical uncertainty:

All data collected and analysis is subject to examinations of assumptions regarding sample rate, sample efficiency, and sample operations.

Information products:

Monitoring, evaluation, and decision analysis.

Coordination outcomes:

Implementation Team reports, Executive Committee reports, regional distribution of migration characteristics data, Smolt Monitoring Program design, Annual Reports, Weekly Reports, analysis, System Operational Requests provided to designated persons at the following agencies: Corps of Engineers, National Marine Fisheries Service, U.S. Bureau of Reclamation, U.S. Fish & Wildlife Service, and Bonneville Power Administration.

MONITORING APPROACH

Provisions to monitor population status or habitat quality:

By utilizing final and summary reports and assessing those against mitigation measure implementation, including historical comparisons of migration characteristics. Basin-wide passage monitoring program and smolt-to-adult return analysis.

Data analysis and evaluation:

FPC staff and other parties conduct a broad scope of analysis, presented in annual and other reports, and compared with historical data.

Information feed back to management decisions:

Daily reporting, weekly reports, daily updates to the FPC Internet home page.

Critical uncertainties affecting project's outcomes:

N/A

EVALUATION

Provision of real time data as a basis for daily passage management decisions, satisfaction of biological monitoring requirements for ESA purposes, provision of reporting requirements, real-time data, weekly reports, and annual reports.

Incorporating new information regarding uncertainties:

Review and approval by Salmon Managers.

Increasing public awareness of F&W activities:

Public distribution of data and response to specific requests, weekly reports, maintenance of the Internet home page.

RELATIONSHIPS

RELATED BPA PROJECT

RELATIONSHIP

9602000	key component
8906500 PSMFC & BPA-administered: Hatchery PIT Tag Study: (see individual contract numbers below. Note: the se contracts do not include cost of PIT tags)	
USFWS: Snake & Lower Columbia R. hatcheries	
IDFG: McCall, Rapid R., Pahsimeroi hatcheries (
9008000 PSMFC & BPA-administered Hatchery PIT Tag Study: PIT Tags only	key component
USFWS: Snake & Lower Columbia hatcheries	
IDFG: McCall, Rapid R., Pahsimeroi hatcheries	
ODFW: Lookingglass, Imnaha hatcheries	

9008000 PSMFC-administered Non-federal SMP: Col. Basin PIT Tag Info. System (Cost of PIT Tags only): Chelan PUD: Rock Island Dam WDFW: McNary/Lower Mon./Hanford Reach ODFW: Lower Grande Ronde R. Trap (#9008000) Nez Perce Tribes: Imn	key component
9008000 BPA-administered Federal SMP : (PIT Tags only) IDFG: Salmon, Snake R. USFWS: Snake R. & mid-Col. Drainages	key component
8401400 National Marine Fisheries Service	key component
8906500 US Fish & Wildlife Service	key component
9602100	key component
8740100 US Geological Survey (formerly NBS)	
8332300 Smolt Condition & Arrival Timing At Lwr Granite	key component BPA-administered Federal SMP Sub-contractors (see individual contract numbers below): Idaho Fish & Game
8712700 NEZ PERCE TRIBES: Imnaha R. Trap	key component
8712700 Oregon Dept. of Fish & Wildlife (ODFW): (A) Grand Ronde/Imnaha parr/analysis (B) Little Goose Dam (C) Lower Grande Ronde R. Trap (D) Construction at Grand Ronde Trap	key component
8712700 Washington Dept. of Fish & Wildlife (WDFW): (A) Lower Granite Dam (B) McNary/Lower Monumental/Hanford (C) Supplement: Ice Harbor GBT	key component
8712700	key component
8712700 Idaho Dept. of Fish & Game (IDFG): (A) McCall & Rapid R. Gas & Spill at Clearwater R. Hatcheries	
8712700 Rock Island Dam	key component
8712700 Non-Federal Smolt Monitoring Program: (see individual agency participants below) Chelan Public Utility District (PUD)	key component
<u>RELATED NON-BPA PROJECT</u>	<u>RELATIONSHIP</u>
NMFS Survival Study: #9302900	NMFS cooperation
Smolt Transportation Study: #9204101	COE cooperation

COSTS AND FTE

1997 Planned: \$1,002,500

FUTURE FUNDING NEEDS:

<u>FY</u>	<u>\$ NEED</u>	<u>% PLAN</u>	<u>% IMPLEMENT</u>	<u>% O AND M</u>
1998	\$1,066,101			
1999	\$1,132,199			
2000	\$1,202,396			
2001	\$1,276,944			
2002	\$1,356,115			

PAST OBLIGATIONS (incl. 1997 if done):

<u>FY</u>	<u>OBLIGATED</u>
1994	\$811,016
1995	\$867,617
1996	\$957,357
1997	\$212,028

TOTAL: \$2,848,018

Note: Data are past obligations, or amounts committed by year, not amounts billed. Does not include data for related projects.

<u>FY</u>	<u>OTHER FUNDING SOURCE</u>	<u>AMOUNT</u>	<u>IN-KIND VALUE</u>
1998	NMFS, IDFG,WDFW, ODFW, USFWS	\$35,567	
1999	NMFS, IDFG,WDFW, ODFW, USFWS	\$37,772	
2000	NMFS, IDFG,WDFW, ODFW, USFWS	\$40,114	
2001	NMFS, IDFG,WDFW, ODFW, USFWS	\$42,601	
2002	NMFS, IDFG,WDFW, ODFW, USFWS	\$45,242	

OTHER NON-FINANCIAL SUPPORTERS:

ODFW, WDFW, USFWS, IDFG, NMFS, CRITFC

LONGER TERM COSTS:

Year 2003: FPC funding: \$1,440,194 for continued implementation; Cost-sharing portion: \$48,047 (split between 5 agencies = \$9,609 each) for continued implementation

The above out-year figures include a proposed 6.2% increase per year .

1997 OVERHEAD PERCENT: 15% overhead to PSMFC, contract administrator;.

HOW DOES PERCENTAGE APPLY TO DIRECT COSTS:

These percentages apply to a portion of the total; they are not applied to capital outlay costs.

CONTRACTOR FTE: 11 staff members at the FPC

SUBCONTRACTOR FTE: none