KALISPEL TRIBE RESIDENT FISH 9500100

SHORT DESCRIPTION:
Cutthroat trout and bull trout habitat and population assessment and enhancement. Largemouth bass supplementation and habitat implementation.

SPONSOR/CONTRACTOR: Kalispel Tribe
Kalispel Tribe
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SUB-CONTRACTORS:
Washington Department of Fish and WildlifeNorthwest Marine Technology, Inc.Local contractors based upon lowest hourly rate

GOALS

GENERAL:
Supports a healthy Columbia basin, Maintains biological diversity, Maintains genetic integrity, Increases run sizes or populations, Provides needed habitat protection, Adaptive management (research or M&E), Project Implementation

RESIDENT FISH:
Habitat, Production, O&M, Research, M&E

NPPC PROGRAM MEASURE:
10.8B.8

RELATION TO MEASURE:
This is a resident fish substitution project as a partial mitigation for the loss of anadromous fish above Chief Joseph and Grand Coulee Dams.

TARGET STOCK	LIFE STAGE	MGMT CODE (see below)
S largemouth bass		A,RSH
S bull trout		(P),W
Westslope cutthroat trout		W

BACKGROUND

Stream name:
Pend Oreille River, LeClerc, CCA, Indian, Mill, and Browns Creek.

Subbasin:
Lower Pend Oreille Subbasin

Stream miles affected:
11

Land ownership:
USFS, Tribal, and associated private lands.

HISTORY:
Phase I Coordinator Position - Feasibility StudyPhase II Hatchery Component A) Designed warm water hatchery located near Kalispel Indian Reservation. Phase III Habitat Component A) Habitat assessment and status of bull trout and cutthroat trout in priority tributaries of Box Canyon Reservoir. B) Recommendations for habitat improvements. C) Implementation of recommendations.

BIOLOGICAL RESULTS ACHIEVED:
A) Assessed habitat within priority tributaries to Box Canyon Reservoir.
B) Assessed bull trout and westslope cutthroat trout populations within these tributaries.
C) Recommended habitat improvements within priority tributaries.

PROJECT REPORTS AND PAPERS:
1995 annual report (in press), 1996 annual report (in review), 1996 Stream survey technical document (internal document, Kalisp

el Natural Resource Department)

ADAPTIVE MANAGEMENT IMPLICATIONS:
Beginning year of implementation. Following implementation 1996, adaptive management will be utilized based upon annual monitoring and evaluation. Based on numbers from fish and habitat assessment, subsequent monitoring and evaluation will indicate types of enhancement measures that are cost effective and provide the greatest biological benefits. This data will be applied to monitor the goals of the biological objectives.

PURPOSE AND METHODS

SPECIFIC MEASUREABLE OBJECTIVES:
Increase largemouth bass from a current 6 lbs/acre to a final target of 12 lbs/acre by 2003 (NWPPC 10.8B). Increase 0+ largemouth bass overwinter survival from current 0.4-3.9% to approximately 15-20% (NWPPC 10.8B). Attain densities (all age classes) of 9.8 bull trout/100m2 in the upper 1/3 of each major tributary system (NWPPC 10.8B). Attain population of 242,212 adult fish in 500 miles of suitable cutthroat trout habitat in tributaries to Box Canyon Reservoir (NWPPC 10.8B).

CRITICAL UNCERTAINTIES:
Funding will be available for M & E, O & M, and implementation of projects.

BIOLOGICAL NEED:
To protect, mitigate and enhance resident fish populations within Box Canyon Reservoir and its tributaries to reach the biological objectives adopted by the Northwest Power Planning Council.

METHODS:
Habitat Component: Conduct habitat assessments on priority tributaries of the Box Canyon Reservoir, using a transect method. Identify limiting factors within the stream and determine stream restoration measures. Enhancement consists of riparian planting and fencing, and instream structures. Monitoring and evaluation of these enhancement measures will continue for at least 4 years. Through the bass habitat utilization study, determine which habitat structures are most conducive for bass overwintering survival. Hatchery Component: Begin the production of largemouth bass for release into Box Canyon Reservoir.

PLANNED ACTIVITIES

SCHEDULE:

OUTCOMES, MONITORING AND EVALUATION

SUMMARY OF EXPECTED OUTCOMES

Expected performance of target population or quality change in land area affected:
Increase the number of largemouth bass within Box Canyon Reservoir. Enhance the natural recovery process in disturbed reaches of streams, through riparian planting and fencing. Increase fish numbers through instream structures and riparian restoration.

Present utilization and convservation potential of target population or area:
Currently there is moderate recreational usage of the largemouth bass fishery within the reservoir and cutthroat trout in its tributaries. By providing more habitat of higher quality and supplementation, all targeted populations have high potentials for conservation.

Assumed historic status of utilization and conservation potential:

The historic usage of both the reservoir and its tributaries as subsistence fisheries was extensive, as evidenced by the Kalispel's elaborate fishing technology.

Long term expected utilization and conservation potential for target population or habitat:
To provide a sport and recreational fishery and partially mitigate for the loss of anadromous fish above Chief Joseph and Grand Coulee Dams.

Contribution toward long-term goal:
It will provide missing habitat components that have been determined to limit the target populations, which will in turn increase those populations toward achieving the biological objectives. In addition to providing missing bass habitat components, the project will also provide supplemental bass toward reaching the biological objectives.

Indirect biological or environmental changes:
Revegetation of the riparian area is as beneficial to the terrestrial fauna as the aquatic.

Physical products:
10 kilometers of fence to exclude cattle from the stream and riparian area, 10 kilometers of reforested black cottonwood and western redcedar riparian, 150 instream structures for trout habitat in the tributaries, 400 bass habitat structures in the reservoir and the production of 150,000 largemouth bass annually.

Environmental attributes affected by the project:
Decrease in water temperatures throughout replanted riparian areas, increase in vegetation of riparian areas, decrease in bank erosion and the increase in habitat diversity.

Changes assumed or expected for affected environmental attributes:
Same as H

Assessment of effects on project outcomes of critical uncertainty:
The project outcomes will be measured by the quantified change in habitat quality and by the sampled estimates of fish populations.

Information products:
The project produces annual reports that detail habitat and population assessments, the recommendations for enhancement and the M & E of those recommendations after their implementation.

Coordination outcomes:
With the location of many stream enhancement measures being conducted on federal, state and private property, the project requires the involvement and coordination with the USFS, private timber companies, DNR, WDFW and private landowners.

MONITORING APPROACH
Habitat Component: Monitor the increase in habitat diversity and quality and its correlation to the increase in target populati ons toward reaching the biological objectives.
Hatchery: Monitor the hatcheries annual stocking numbers and their correlation to population in the reservoir.

Provisions to monitor population status or habitat quality:
The post assessment of habitat enhancement's affect on habitat quality, as well as, an ongoing population assessment component are included in the project's design.

Data analysis and evaluation:
The habitat enhancement pre-assessment data and fish population estimates will be compared to the post implementation assessm

ents and population estimates to evaluate the effectiveness of each enhancement measure.

Information feed back to management decisions:
Measures that provide the best cost/benefit for target populations can be applied beyond this pilot project.

EVALUATION
The increase in target populations and the increase in habitat diversity and quality.

Incorporating new information regarding uncertainties:
As this is a pilot project, the information gathered is itself new information. An adaptive management strategy has already been adopted into the management plan to facilitate the incorporation of any new information into the decision process.

Increasing public awareness of F&W activities:
Through our continued cooperation with local groups such as; Public Schools, The Rocky Mountain Elk Foundation, Fish Americ

RELATIONSHIPS

RELATED BPA PROJECT	RELATIONSHIP
5522300 Box Canyon Watershed Project (Kalispel Tribe Resident Fish Project)	Cooperative development and implementation of projects to protect and/or restore fish habitat and water quality in the watershed.
5522300 Joint Resident Fish Stock Status Assessment (Kalispel Tribe Resident Fish Project)	Improve knowledge of fish stocks to manage those species more efficiently.
9990059 Yellow Perch Aquaculture Facility (Kalispel Tribe Resident Fish Project)	Unfunded resident fish substitution project.
9106000 Kalispel-Pend Oreille Wetlands Acquisition (Kalispel Tribe Wildlife Project)	The bass rearing sloughs, homesite, raceway and hatchery building are on the premises.

OPPORTUNITIES FOR COOPERATION:
Cooperating with USFS for removal of exotic brook trout from Cee Cee Ah Creek. Opportunity for cooperation with local Trout Unlimited Chapter for help in installing instream structures. Cooperation with local bass club for structure placement in Box Canyon Reservoir. Cooperation with Rocky Mountain Elk Foundation for planting trees.

COSTS AND FTE

1997 Planned: $645,300

FUTURE FUNDING NEEDS:

FY	$ NEED	% PLAN	% IMPLEMENT	% O AND M
1998	$511,000	0%	77%	23%
1999	$286,000	0%	58%	42%
2000	$297,000	0%	59%	41%
2001	$303,000	0%	60%	40%
2002	$309,000	0%	60%	40%

PAST OBLIGATIONS (incl. 1997 if done):

FY	OBLIGATED
1979	$306,000
1995	$239,901
1996	$212,544
TOTAL:	$758,445

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

OTHER NON-FINANCIAL SUPPORTERS:
USFS, Trout Unlimited, Spokane Bass Club, Rocky Mountain Elk Foundation, Stimson Lumber Co., DNR, Spokane Fly Fishers,

USFWS and several local private landowners.

LONGER TERM COSTS: $311,000.00
Both continued implementation and O & M.

1997 OVERHEAD PERCENT: 28.7%

HOW DOES PERCENTAGE APPLY TO DIRECT COSTS:
portion

CONTRACTOR FTE: 7

SUBCONTRACTOR FTE: 1.1