

PRE-REHABILITATION PLAN

No Name Lake (Pend Oreille County)

I. PROPOSAL

A. Justification for Proposed Rehabilitation

No Name Lake has historically been a popular Opening Day Westslope Cutthroat Trout fishery in the Newport area. An illegal introduction of Brown Bullheads has resulted in poor Westslope Cutthroat Trout fry recruitment to the fishery. Through the use of rotenone to rehabilitate the lake, it is anticipated that this lake will return to a productive trout fishery and restore its popularity.

B. Physical Description of Water Proposed for Rehabilitation

1. WATER: **No Name Lake**
2. LOCATION: Sec's 5 & 8, T32N R45E, Pend Oreille County
3. SURFACE ACRES: 18 acres with a maximum depth of 30 feet.
4. VOLUME: 270 acre-feet; 733,898,880.0 pounds of water.
5. OUTLET: None
6. STREAM: N/A
7. PUBLIC ACCESS: Yes
8. LAND OWNERSHIP: Public 90% (USFS), Private 10%
9. ESTABLISHED RESORTS: None

C. Proposed Management Actions

1. WATER: **No Name Lake**
2. TARGET SPECIES: Brown Bullhead
3. YEAR LAST REHABED: 1949
4. PROPOSED TREATMENT DATE: October 2015
5. REPLANTING DATE: Spring 2016
6. REPLANTING SPECIES: Westslope Cutthroat Trout with single planting of Rainbow Trout
7. PUT, GROW and TAKE: 1,800 FINGERLINGS: 7,000
8. PROPOSED TOXICANT: Rotenone, liquid CONCENTRATION: 4 ppm
AMOUNT (ROTENONE AT 5% ACT. INGRED): 0 pounds powder; 356 gallons liquid
9. METHOD OF APPLICATION: Helicopter spray
10. CREW DESCRIPTION: Leader(s) Bill Baker, Personnel ~ 6

II. PURPOSE:

The Washington Department of Fish and Wildlife (WDFW) provides many types of fisheries in response to public desires. WDFW manages both trout and warmwater recreational fisheries based on many different species of fish and levels of difficulty. Public demand for, and participation in, production trout fisheries is high. These fisheries are prized as opportunities for families to recreate together, as well as providing an appropriate challenge for occasional or novice anglers. Opening Day trout fisheries provide a relaxed recreational opportunity, give anglers outdoor opportunity during the summer months, and are also integral to the state and local economies.

Alternatives to rehabilitation are costly or impractical. To maintain a comparable fingerling-stocked trout fishery in these waters with catchable-sized fish would take 2,500 – 3,000 catchable Rainbow Trout, as no catchable Westslope Cutthroat Trout are currently produced in Region 1. Stocking catchable sized fish costs almost ten times the cost of a fry plant, and Region 1 lacks the hatchery space and water to institute a catchable fish-stocking program as a substitute for lake rehabilitation. Regardless of fish size at stocking, interspecific competition with Brown Bullhead limits fish growth and condition significantly. Ultimately, effects on trout recruitment and fish quality lead to an undesirable trout fishery.

III. INTENDED OUTCOME/MEASURE OF SUCCESS:

WDFW intends to restore No Name Lake to a popular, easily accessible trout fishery based on fry-stocked trout. The average catch rates should be 3 - 5 fish/angler on the opener with a sustained harvest of 2 - 3 fish/angler for the remainder of the Lowland Lakes trout season. Fall fry should be a minimum of 11 inches by Age-2, and carryover harvest should be 10 – 15% of the overall harvest. Success will be measured during Opening Day and random creel contacts and biological surveys. The beneficial effects of rehabilitation should last approximately 8 - 10 years under current management scheme. In addition to reasons listed under Resource, Recreational and Economic Impacts, to abandon this lake as a trout fishery is to invite other incursions across the state in trout-only managed lakes.

IV. RESOURCE IMPACTS:

1. The population of the target species, Brown Bullhead, will be severely and negatively impacted. Brown Bullhead is an exotic species that is not desired for a fishery under the current lake management plan.
2. Regional Lands, Habitat, Wildlife and Non-Game managers have been apprised of the proposed No Name Lake rehabilitation. No unmitigated concerns have been expressed on the potential impacts to non-targeted species.
3. According to Bradbury (1986), the effects of rotenone on benthos are variable, depending on the concentrations and species. Crustaceans are most tolerant while the smaller insects are most affected. Immediate reduction of populations averages 25%, and survival doubles when access to bottom sediments exists. Benthic communities generally recover to at least pretreatment levels within two months. Zooplankton is more severely impacted, and communities generally take two to twelve months to fully recover. While relatively tolerant of even heavy doses of rotenone, amphibians (especially larval) are at risk, and herptiles are affected somewhat less so. Almost no chance of eliminating an entire population exists.
4. Professional biologists and other naturalists have visited these sites frequently over the past 50 years. To our knowledge, no endemic, rare, threatened or otherwise listed species will be impacted by the rehabilitation.

V. MITIGATING FOR ADVERSE IMPACTS:

1. Trout fry survival and growth for the proposed water will be greatly enhanced, and the future

trout fishery will attain the previous status. No removal of dead fish is planned as the nutrient base contained therein is best returned to the lake.

2. Fall rehabilitation will not interfere with waterfowl spring nesting. The eradication of Brown Bullhead will also benefit waterfowl through increased production of invertebrates.

3. Livestock use of the waters to be treated will not be significantly affected. The concentration of rotenone used in the treatment will be far below that considered harmful to mammals or birds. The landowners will be notified of the rehabilitation and consequent exposure of livestock to rotenone.

4. No endemic, rare, threatened or otherwise listed species are known to inhabit this area.

5. Appropriate respirators and other personal protective equipment (PPE) will be utilized by staff involved with mixing and distributing liquid and powder rotenone per the American Fisheries Society Rotenone Standard Operating Procedure (SOP) manual.

6. Lakes will be posted according to Department of Ecology guidelines to notify the public of the treatment and discourage the public from possessing or consuming dead fish.

VI. RECREATIONAL IMPACT:

See Section III.

Angler success should reach 3 - 5 fish per trip on the opener and 2 - 3 fish/angler sustained harvest for the duration of the season. Two year-old trout should average about 11 inches. Carryovers should be expected to be about 10 - 15 percent of the catch and average 14 inches.

VII. ECONOMIC IMPACTS:

An estimated minimum of 2,500 trips made to No Name Lake as a result of the proposed management action would result in an increased economic impact totaling \$95,000 per year (1991 dollars; based WDW estimate of \$37.90 per trip). If the project is successful for 8 years it will generate a minimum of \$760,000 in economic activity. The total annual cost to plant these lakes with Westslope Cutthroat Trout fry is less than \$2,000. The rehabilitation will cost the Department about \$30,000 (including costs of rotenone, time, travel). The investment by the state is realized more than 10-fold in economic activity after the second year following treatment.

Estimates for the cost of the enforcement action necessary to curtail the activity of the individuals responsible for illegal fish plants are not available. However, this cost might be looked upon as a statewide expenditure since some preventive benefit would certainly occur as perpetrators find out the Department takes illegal transport and planting of fish very seriously.

VIII. RELATED MANAGEMENT ACTION:

See I.C.6. for fish planting data

Increased penalties and enforcement activities are desirable if WDFW is ever going to dissuade illegal stocking of state managed waters. Educating the public about the costs in Department dollars and time with emphasis on what WDFW might be able to accomplish with those resources would be a very worthwhile activity for O & E. This may result in stemming recruitment to this ill advised group and turning local opinion against the offenders.

IX. PUBLIC CONTACT:

Public meetings will be held during July 2015 in Okanogan, Cheney, Cusick, and Olympia to explain WDFW's 2015-16 rehabilitation proposals, assess public opinion, and address local concerns.

Initiated by: Region 1, District 1 Fisheries Management