

## SCHALLOW POND PRE-REHABILITATION PLAN

### PROPOSAL

#### *Justification for Proposed Rehabilitation*

- Schallow Pond is a small water body that provides a quality hike-in experience for anglers, who want to get away from more crowded production waters. Smallmouth bass had leaked into Schallow Pond from Fish Lake prior to 2005 and have seriously compromised the trout fishery. Fingerling trout plants could no longer take place due to heavy predation losses from the smallmouth bass. Recently, largemouth bass have been illegally introduced into Fish Lake, which is just upstream of Schallow Pond and will eventually allow those fish to mix with the smallmouth downstream.
- Primary management of these waters is for trout only.
- Schallow Pond was successfully treated in 1982 to remove crappie that had migrated from Fish Lake

#### Physical Description of Water Proposed for Rehabilitation

- WATER: Schallow Pond
- LOCATION: Sec 22, T36N, R25E, 4 miles NE of Conconully in the Sinlahekin Wildlife Area in Okanogan Co.
- SURFACE ACRES: 10
- MAX. DEPTH: 10
- VOLUME: 60 acre-feet
- OUTLET: Intermittent
- STREAM: MILES (N/A) FLOW (None during treatment)
- PUBLIC ACCESS: Washington Department of Fish and Wildlife
- LAND OWNERSHIP: Public 100% (WDFW Sinlahekin Wildlife Area) and USFS
- ESTABLISHED RESORTS: None

#### Proposed Management Actions

- WATER: Schallow Pond
- TARGET SPECIES: Smallmouth and largemouth bass, brown bullhead
- DATE LAST REHABED: 1982
- PROPOSED TREATMENT DATE: Oct 2011
- REPLANTING DATE: Late-spring 2012
- SPECIES: Rainbow/Eastern Brook trout
- STOCKING: 1,000 fingerling trout
- PROPOSED TOXICANT: Rotenone (liquid)
- CONCENTRATION: 4 ppm
- AMOUNT (ROTENONE AT 5% ACT. INGRED): 79 gallons
- METHOD OF APPLICATION: ATV with sprayer; small boat with sprayer, backpack sprayers, drip can
- CREW DESCRIPTION: Leader Robert Jateff, Personnel 3-4

## **PURPOSE**

- Schallow Pond has been a good quality hike-in trout fishery since the early 1980's. Complete rehabilitation is the only feasible method of restoring this lake to the trout only management scheme. Removal of all competing species is the goal of the rehabilitation.

## **INTENDED OUTCOME/MEASURE OF SUCCESS**

- We intend to restore Schallow Pond to its historic trout fishery, and improve its popularity by maintaining good quality trout throughout the duration of the season. Success of this measure will be apparent during annual creel surveys and population sampling. Given a reasonable chance of eliminating the populations of undesirable species, the beneficial effects should be noticeable one-two years post treatment.

## **RESOURCE IMPACTS**

- Target species: smallmouth and largemouth bass, brown bullhead
- District and Regional Habitat, Wildlife and Non-Game biologists have been apprised of our rehabilitation plans and have no immediate concerns.
- 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 the population average 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.
- Participation in the trout fisheries should exceed that currently found for existing fisheries. The water in the lake is used for recreation. Dead fish along the shoreline will not be a public nuisance since the lake will be closed to fishing.

## **MITIGATING FOR ADVERSE IMPACTS**

- Trout survival and growth will be greatly enhanced. No removal of dead fish is planned as the nutrient base contained therein is best returned to the lake. Disturbance of waterfowl during treatment or by the anticipated fishery will be offset by increased food availability as the uncontrollable numbers of spiny-rayed fishes are eliminated in favor of easily balanced populations of trout.
- Water will be confined to the lake proper, and treatment will be conducted in the fall when the lake is at its lowest level and outlet creek is dry.
- Protective gear for the eyes, face, hands and clothes will be supplied on-site for all applicators of rotenone.
- The lake 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. The surrounding landowners will be notified of the rehabilitation and consequent exposure of livestock to rotenone.

## **RECREATIONAL IMPACT**

- Recreational angling opportunity will be increased if the undesirable species are removed from Schallow Pond. The level of participation will dwindle to almost nothing if no action is taken immediately. Given the success of the planned management action, as many as 100 fishing days are estimated for the season. Anglers should average 1-2 larger fish per day in the 12-14 inch range.

## **ECONOMIC IMPACTS**

- Rehabilitation would restore the fishery and associated economic activity. An estimated 100 angler trips will be made to Schallow Pond as a result of the proposed management action, with an economic impact of \$13,200 per year (2004 dollars; based on WDW estimate of \$132 per trip). Fingerling plants will cost the agency \$100, and can be easily accomplished under current hatchery programs.
- The cost of treatment will be approximately \$3,000, but the increase in license sales and subsequent boost to the local economy will more than offset that loss within two years after treatment.

## **RELATED MANAGEMENT ACTION**

- Approximately 1,000 fingerling rainbow and eastern brook trout will be stocked alternately each spring. Creel checks will be done annually on Schallow Pond, as well as monitoring for invasive species. Aggressive techniques will be employed when competing species are first noticed, to help in controlling the population and to reduce the possibility of any future rehab.

## **PUBLIC CONTACT**

- Public concern over the increasing number of lakes in Okanogan County with undesirable species infestations prompted this action.
- A public meeting will be held locally within Okanogan County to inform residents on the proposed rehabilitation. Letters will also be written to each individual landowner.

Initiated by: Region Two Fisheries Management