

## STREAM MANAGEMENT PLAN

*Updated July, 2015 – Bill Baker and Brian Walker*

### **Water(s): Smalle Creek (Pend Oreille Co.)**

**Location:** The Smalle Creek treatment area is located approximately 5 – 9 miles west of Cusick.

	<b>Distance:</b>	<b>Max Depth:</b>	<b>Discharge:</b>
<b>Smalle Creek</b>	~7.5 miles	N/A	Up to 1.4 cfs

**Water Source:** There are numerous springs and seeps, along with rainfall and snowmelt run-off.

**Outflow:** Smalle Creek is a tributary to Calispell Creek (tributary to the Pend Oreille River).

### **Management History:**

Smalle Creek has been managed under Washington Department of Fish and Wildlife (WDFW) general stream regulations, including a 5-fish limit (no minimum size) for Eastern Brook Trout, and a 2-fish limit (8" minimum size) for all other trout species (Daily bag limit = 5 fish total). Smalle Creek was presumably inhabited by native Westslope Cutthroat Trout (WCT), but has received sporadic stockings of Eastern Brook Trout (1933 – 1938, 1980 – 1981) and Rainbow Trout (1946 – 1948). Only Eastern Brook Trout are found above Smalle Creek Falls at this time. With the decline of WCT abundance and range, cooperative efforts between WDFW and the Kalispel Tribe of Indians Natural Resource Department (KNRD) have begun in Pend Oreille County to restore native WCT to selected stream sections. Smalle Creek is uniquely suited to WCT restoration due to the presence of a natural barrier to prevent reinvasion by non-native fish, excellent habitat, and a monoculture of Brook Trout in the project area. It is anticipated that following the eradication of the nonnative fish in Smalle Creek, the reintroduced of WCT will establish self-perpetuating populations which will re-occupy the treated area.

*Threatened & Endangered Flora and Fauna:* Professionals from many resource agencies have visited this site countless times during the last 50 years. No known report exists that documents any threatened or endangered species habitually found in or near the project area. Occasional visits from both bald and golden eagles occur, although no nests of these two species are known in the area. Protected species of waterfowl and other birds frequently are found here at times, as well.

### Current Management Objectives:

This project has two objectives:

1. Eradicate non-native Eastern Brook Trout from upper Smalle Creek and its tributaries.
2. Re-establish a self-sustaining, healthy population of WCT in the treated area.

The successful achievement of Objective 1 would be readily apparent following the final rotenone treatment when no fish carcasses are observed by drip can operators or found in the block nets deployed in the treatment section. A reproducing population of WCT, expanding both in population size and spatial distribution, would indicate the successful completion of Objective 2. Successful achievement of Objective 2 may take 3+ years.

#### 1. Sport Fishery Objectives:

None - While this fishery may experience very light angling pressure, species restoration and conservation are the main goals of this action. Adult WCT size will likely be small (generally < 6 inches in length), and the fishery will not likely receive much interest from the general public.

#### 2. Sport Angler Use Objective: 0 days

#### 3. Fish Stocking Objectives:

<u>Stream</u>	Species	Number of Fish Stocked			Planting Month
		Total	/Acre	/Pound	
Smalle Creek	WCT	100 – 300	N/A	N/A	Spring 2018; translocation from wild source populations.
Smalle Creek	WCT	1000 – 15,000	N/A	Fry	Spring 2018; remote site incubation (RSI) of fertilized gametes.
Smalle Creek	WCT	TBD	N/A	N/A	Additional translocation or RSI production as needed from 2019-2024.

#### Management Strategy:

- Translocate 100 – 300 genetically pure, wild WCT from geographically proximate populations to Smalle Creek in the first year of stocking. If needed (depending on the number of donor fish available), produce WCT fry from fertilized gametes in Remote Site Incubators (RSI) to augment the number of translocated fish.

- Beginning the second year after translocation, monitor the restored WCT population through electrofishing to assess population size, spatial distribution, genetic measures such as heterozygosity and pedigree analysis, and to ensure that non-native fish have been eradicated (or have not been illegally reintroduced).