

## LAKE MANAGEMENT PLAN

*Updated March 2017 – B. Baker & B. Walker*

### **Water(s): Williams Lake (Stevens Co.)**

**Location:** Williams Lake is located 14.5 miles north of Colville

	<b>Size:</b>	<b>Max Depth:</b>	<b>Volume:</b>
<b>Williams Lake</b>	38 acres	47 ft	988 acre feet

**Water Source:** Mostly groundwater seep, with limited overland flow. There is no defined intermittent or perennial inlet stream.

**Outflow:** Intermittent outflow leading to adjacent wetlands. Outflow will be dry during time of treatment.

### **Management History:**

Williams Lake has been historically managed as a production winter-season trout fishery, providing a consistent winter ice fishery which is popular with anglers located in the Colville/Spokane area. The number of winter-only fisheries in the greater Spokane area is limited to four production trout lakes. The limited amount of winter fishing opportunity renders Williams Lake highly desirable to provide wintertime recreation.

The presence of undesirable species of fish is the greatest impediment to maintaining trout fisheries in this water. For many years Williams Lake provided an excellent winter fishery with a fish population free of undesirable fish species. Until the 1990's the lake had not been treated with rotenone to eliminate undesirable fish. In the last two decades there appears to be a trend toward an increase in illegal introduction of undesirable fish species into Williams Lake. The lake has been treated with rotenone three times since 1996. In 1996, the lake was treated to eliminate Largemouth Bass *Micropterus salmoides* and Common Carp *Cyprinus carpio*; in 2002, the lake was treated for illegally introduced Goldfish *Carassius auratus*; and in 2008, the target species was Yellow Perch *Perca flavescens*. Currently, the lake is again inhabited by Goldfish and Smallmouth Bass *Micropterus dolomieu*. The increased desire by "bucket biologists" to confound fish management efforts on this lake has lead to a considerable loss of recreational and economic value for the greater Colville area. In an attempt to prevent repeated illegal stocking, WDFW has enacted the fishing regulation that precludes anglers from harvesting any species other than trout from this water. The intent of the regulation is to diminish the value of illegal introductions if the fish cannot be harvested.

*T&E Flora and Fauna:* Professionals from many resource agencies have visited this site countless times during the last 50 years. No known report exists of any threatened or endangered species habitually found in or near these lakes. Occasional visits from both bald eagle *Haliaeetus leucocephalus* and golden eagles *Aquila chrysaetos* occur, although no nests of these two species are known in the area.

**Current Management Objectives:**

Williams Lake is a winter opener, Friday after Thanksgiving through March 31, production fishery. It has a five trout limit with no size or gear restrictions. The target catch rate is 2-5 rainbow trout per angler trip with a carryover harvest rate of 10 to 15 percent. The fishery should generate a minimum of 960 angler-trips per season.

**1. Fishery Objectives:**

Species	Type	Category	Fish/Hour	Fish/Angler	Exploit. Rate
Rainbow	Production	Winter Season Opening Day	2	3 to 5	85%- 90% 1 yr cohort
Rainbow	Production	Remainder of season	1	2 to 3	85%-90% 1 yr cohort

**2. Angler use objective (# angler days):** Season – 960 angler days on water

**3. Stocking Objectives:**

<u>Lake</u>	Species	Number of Fish Stocked			Planting Month
		Total	/Acre	/Pound	
Williams	Rainbow	15,000	394	≤100	May
	Rainbow	3,800	100	≤ 2.5	March-April, <i>first year post rehabilitation</i>
Year 2	Rainbow	18,000	473	<100	May
Year 3	Rainbow	18,000	473	<100	May

**Management Strategy:**

- Plant rainbow fry and catchables in spring 2018.
- Check yearling growth; should be about 11 inches, adjust stocking rate as necessary.
- Harvest 85%-90% of yearling fish by end of season.
- Monitor all fish species periodically by electrofishing or netting.
- Control undesirable species with rotenone when trout survival is inadequate to produce an acceptable fishery.