

LAKE MANAGEMENT PLAN
updated April, 2019 – M. Schmuck

Water(s): Burke Lake

Location: Quincy Wildlife Area, Sec 14, 15, 23 T19N R23E; approximately 6 miles south southwest of Quincy, Grant County, WA

| | | | |
|-------|----------|-------------|-----------------|
| | Size: | Mean Depth: | Volume: |
| Burke | 70 acres | 15 feet | 1,050 acre feet |

Water Source: surface and subsurface seepage springs

Outflow: small creeks, eventually subsurface

Management History: Burke Lake is located on the Quincy Wildlife Area and has been managed as a trout fishery since the mid-1950s and continues to be a popular opening day fishery. Two lakes in close proximity to Burke Lake (Stan Coffin and Evergreen Reservoir) are managed as warmwater fisheries. The greatest complicating factor in the management of Burke Lake is recurring illegal introductions of yellow perch, largemouth bass, black crappie, bluegill and pumpkinseed sunfish—likely from one of these two lakes. Burke Lake has a long and colorful history of public involvement in management. The Department was brought to court in 1983 by several Quincy area sportsmen over the planned rehabilitation of Burke Lake. WDW prevailed.

The fishing season on Burke Lake is March 1 – September 30 and statewide lake daily bag and size limit regulations apply. Boat access is available at Burke Lake via two public boat launches. Columbia Basin Hatchery stocks fingerling rainbow trout annually each spring. These fish typically grow to 10–12 inches in length by opening day of the following year. More recently we have also been stocking 3,000 11-13 inch catchable rainbow trout from Trout Lodge Hatchery to mitigate against losses of fingerlings. When competing species (e.g. pumpkinseed, yellow perch and bluegill) are controlled, Burke Lake is capable of providing excellent fishing from the opener through late spring.

Burke Lake is a statewide resource. WDFW surveys since the early 1980's indicate less than 20% of the anglers attending this fishery were from Grant County. Over 45% were from western counties. At least 9,000 angler trips per season were conservatively estimated on Burke Lake in 1983 in 1988.

Rehabilitation and total fish eradication are not difficult enterprises for Burke Lake; however, the re-introduction of spiny-rayed fishes will likely be a problem because Burke Lake is easily accessible and lies in close proximity to several waters managed for spiny-rayed fishes. Angler participation in the trout fisheries make these projects worthwhile relative to the amount of effort and cost involved in treatment even if required every five years.

T&E Flora and Fauna: Professionals from many resource fields have visited this site countless times during the last 40 years. No known report exists of any threatened or endangered species habitually found in or near this lake. Occasional visits from both bald and golden eagles occur, although no nests of these two species are known in the area. Waterfowl and other birds frequently are found here at times, as well.

Current Management Objectives:

March 1st through September 30th, production type fishery. Five fish limit, no size or gear restrictions. Provide ≥ 2.5 yearling rainbow trout per angler on opening day, and 3 trout per angler for the remaining part of the season.

1. Fishery Objectives:

| <u>Species</u> | <u>Type</u> | <u>Category</u> | <u>Number of Fish</u> | | <u>Avg.Size</u> | <u>Exploit.</u> |
|----------------|-------------|-----------------|-----------------------|----------------|-----------------|-----------------|
| | | | <u>/hour</u> | <u>/Angler</u> | | <u>Rate</u> |
| Rainbow | Prod | Opening Day | 2-3 | ≥ 2.5 | 11 inches | 90% 1-yr-olds |
| | | Season Average | 2 | 1-2 | 12-14 inches | 90% 1-yr-olds |

2. Angler use objective (# angler days): Opening Day – 250–500; Season - 15,000

3. Stocking Objectives:

| <u>Lake</u> | <u>Species</u> | <u>Number of Fish Stocked</u> | | | <u>Planting Month</u> |
|-------------|----------------|-------------------------------|--------------|---------------|-----------------------|
| | | <u>Total</u> | <u>/Acre</u> | <u>/pound</u> | |
| Burke | Rainbow | 18,000 | 257 | <80 | March |

E. Management Strategy:

- Plant rainbow fry in spring.
- Check yearling growth; should be about 11 inches, adjust stocking rate as necessary.
- Harvest 80% of yearling fish by end of season.
- Monitor all fish species periodically by electrofishing or netting.
- Substitute fall fingerlings for at least a portion of the spring fry when competing species begin to impact trout fry survival.
- Control spiny-ray species with mechanical removal (e.g. gill/fyke nets, electrofishing) OR rotenone when trout survival is inadequate to produce an acceptable fishery.