

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

FISHERIES DIVISION

JOB PROGRESS REPORT

State: Montana

Project Number: F-46-R-5 4?

Job Number: II-d

Project Title: Statewide Fisheries Investigations

Study Title: Survey and Inventory of Cold Water Lakes

Job Title: Southwest Montana Major Reservoirs Investigations

Period Covered: July 1, 1990 through June 30, 1991.

JOB OBJECTIVES

Clark Canyon Reservoir

1. Maintain shoreline in a state of minimal development to satisfy access needs of recreationists and maintain shoreline integrity and water quality.

Discussed waste disposal and weed control programs with the U.S. Bureau of Reclamation.

2. Maintain wild brown trout populations at densities reflected by an average sample of ≥ 2.0 adult brown trout per surface 125 ft. gill net set.

Spring gill net sets were made to determine the relative densities of wild brown trout. Data will be included in a future report.

3. Maintain successful stocking program of Arlee rainbow trout to attain densities reflected by an average spring sample of 4.0 per 125 ft. surface gill net set. Maintain growth rates that produce 15 inch rainbow trout at age I+.

Arlee rainbow trout have been discontinued in favor of wild Eagle Lake and DeSmet rainbow trout strains. Data from 1990 gill netting has been collected and will be included in a future report.

4. Establish the wild, spring spawning DeSmet strain of rainbow trout to augment the planting program of Arlee rainbow and provide a longer lived, reproducing segment to the rainbow fishery.

Data has been collected and will be included in a later report.

5. Evaluate the comparative success of the DeSmet and Arlee strains of rainbow regarding catchability, longevity, survival, growth and recruitment to the Clark Canyon fishery.

Data will be included in a future report.

6. Maintain fishery for large (20-25 inch) wild burbot sustaining a catch rate of 0.25 fish/hr.

No activity was scheduled for this objective until 1991.

Hebgen Reservoir

1. Maintain shoreline in a state of minimal development while providing sufficient access for anglers. Protect spawning streams from impacts of development.

No FAS activities in report period. Major emphasis was placed on identifying the timing and magnitude of spawning runs and fry emigration in the reservoir tributaries so that future land use decisions and development impacts can be routed away from important watersheds. Hebgen Lake Fry Recruitment Study final report published during this report period.

2. Establish wild, self-sustaining rainbow populations at densities reflected in a sample of ≥ 10 adults per 125 foot surface gill net set in spring of year.

Data to be included in a future report.

3. Maintain wild brown trout populations at densities reflected in a sample of ≥ 18 adults per 125 ft. bottom gill net set in spring of year. Maintain averages of 16 inches in creel with opportunity of catching large, trophy brown trout (≥ 3 pounds).

Data to be included in a future report.

4. Collect the information necessary to accurately assess fishing pressure, catch rates and harvest (State Project).

The 1989 fishing pressure according to the FWP mail survey was 33,217 anglerdays. Surveys will be repeated in odd numbered years. A creel survey was conducted of over 2500 angler hours during 1990 with an overall catch rate of 0.26 trout per hour.

5. Provide rainbow to anglers without jeopardizing the establishment of self-sustaining populations.

Creel limits for the 1988-89 fishing season reduced the daily possession limits from 10 trout or 10 lbs. and one trout to a 5 trout limit. In addition an extended fishing closure was placed on all the spawning tributaries to protect the spawning rainbow trout. Biannual monitoring of lake populations as well as assessment of spawning runs in continuing.

Willow Creek Reservoir

1. Attempt to reduce magnitude of reservoir drawdown in fall of year.

Numerous visits with the dam operator were made to try to minimize fall drawdown.

2. Determine time of out-migration of rainbow trout fry from spawning streams (State Project).

Data has been obtained and will be presented in a future report.

3. Maintain a spawning run of at least 2500 adult wild rainbow trout in Willow Creek as the state brood stock of DeSmet rainbow.

The 1991 spawning run of approximately 3200 DeSmet rainbow trout was observed with a total egg take of 1,300,000 for the state hatcheries.

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