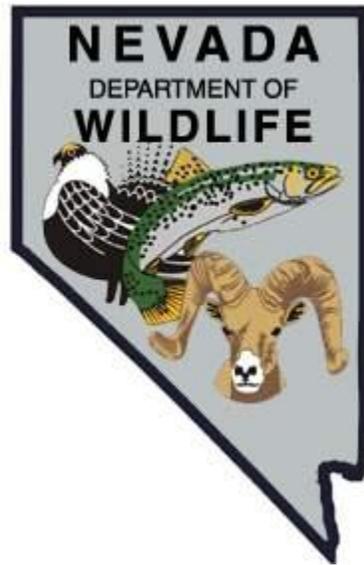


NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-50
2014

LANDER COUNTY
SMALL LAKES AND RESERVOIRS
EASTERN REGION



**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL PROGRESS REPORT**

Table of Contents

<u>Contents</u>	<u>Page</u>
SUMMARY	1
BACKGROUND	1
OBJECTIVES and APPROACHES	2
PROCEDURES	2
FINDINGS	3
Groves Lake	3
Willow Creek Pond	3
MANAGEMENT REVIEW	4
RECOMMENDATIONS	4

**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL PROGRESS REPORT**

State: *Nevada*
Project Title: *Statewide Fisheries Program*
Job Title: *Lander County Small Lakes and Reservoirs*
Period Covered: *January 1, 2014 through December 31, 2014*

SUMMARY

In 2014, Groves Lake received 2,062 rainbow trout in the spring, while Willow Creek Pond received 4,080 rainbow trout between the spring and fall stockings. The leak in Groves Lake is still having an impact on the fishery as only a small pool is maintained throughout the year. The electroshocking survey at Willow Creek Pond did not occur due to low water levels and an inability to launch the shocking boat.

BACKGROUND

Groves Lake

Groves Lake is located on the east side of the Toiyabe Mountain Range, three miles west of the town of Kingston. At maximum capacity, the lake covers 16 surface acres, with a maximum depth of 22 feet. Although the dam was resealed in 2000, leaking has hampered the water level from reaching its maximum capacity. As one of the few lakes in the area, it is heavily fished by locals, with annual angler days averaging around 3,000. Beginning in 2012, the water level at Groves Lake has been very low, with this being attributed to a new leak in the dam structure. Water levels have been further exacerbated by the below normal water years. Until the completion of a Fisheries Management Plan, the reservoir will be managed under a General Fishery Management Concept.

Willow Creek Pond

Willow Creek Pond is located 13 miles southwest of Battle Mountain and includes a reservoir and a lower pond. The lower pond was built in 1960. It covers one surface acre, with a maximum depth of about eight feet. The larger reservoir was built in 1988-89 by Battle Mountain Gold Corporation to supply water for the local mining operations. It has a maximum surface area of 11 acres, with a maximum dam height of 47 feet. Even with the small size of both ponds, the reservoir averages just over 2,000 angler days per year. The ponds are managed as seasonal put-and-take fisheries with limited carryover of stocked rainbow trout, while brown trout drift down from the inflow creek.

In 2003, yellow perch were illegally stocked in Willow Creek Pond and the population quickly expanded to levels where management action was needed. Largemouth bass were stocked in September of 2007 in an attempt to control the yellow

perch population, and both of these warmwater species will be managed under the Warmwater Panfish Fishery Management Concept.

Beginning in 2012, a recreational improvement project was initiated by Newmont Mining Company to improve the facilities around the reservoirs. Unfortunately, also beginning in 2012, below average water years have resulted in very low water levels at the main reservoir.

OBJECTIVES and APPROACHES

Groves Lake

Objective: General Sport Fisheries Management

Approaches:

- Conduct a pre-stocking evaluation of road conditions and water quality/quantity.
- Conduct a dye test to evaluate the leak in the dam structure.

Willow Creek Pond

Objective: Evaluate the health of the trout fishery and examine the success of largemouth bass on controlling yellow perch.

Approaches:

- Conduct a pre-stocking evaluation of road conditions and water quality/quantity.
- Conduct a general fisheries assessment through opportunistic angler contacts.
- Maintain and check for returns of volunteer, angler drop-box surveys during the course of other duties.
- Examine sport fish and non-desirable fish (perch) relative abundance, growth, size distribution, and trout carryover by electroshocking two established transects during a single night in summer or early fall.

PROCEDURES

Coordinating trout stocking with the hatcheries required checking the reservoir and evaluating water levels and water temperatures prior to stocking.

Angler creel was collected by means of personal contact or using angler drop-boxes. Information gathered included number of anglers fishing, number of hours fished, fish caught, fish released, and fishing method used.

Electroshocking surveys are conducted using an electroshocking barge with the fixed probes used as the anode and the barge serving as the cathode. A majority of the shoreline, approximately 90%, was shocked due to the small size and the need to evaluate the entire reservoir. Captured fish were to be measured, weighed, and released.

FINDINGS

Groves Lake

Due to low water levels in the reservoir, only 2,062 Shasta strain rainbow trout were stocked, versus the regular 3,000 trout. With a below average water year and a leak in the reservoir, spring water levels never really increased, but it was still felt that the recreational use required the stocking of fish to allow for a very small put and take fishery in 2014.

A dye test was not completed in 2014, due to busy and conflicting schedules. The dam is still a priority for repair and it is expected that this test will be completed in 2015.

Willow Creek Pond

There were 2,030 Shasta strain rainbow trout stocked in April, with an additional 2,050 Tahoe strain rainbow trout stocked in September. The spring stocking was reduced in 2014 to reflect low water due to drought conditions.

In 2014, several visits were made to the reservoir for completing multiple work objectives, with no anglers being contacted. The angler drop-box, installed in 2011, received 29 questionnaires, all of which were usable. Thirty anglers fished for 101 hrs to capture 327 fish, resulting in success rates of 10.9 fish per angler and 3.2 fish per hour. Species composition of fish caught was 267 trout (81.7%), 58 largemouth bass (17.7%), and two yellow perch (0.6%).

Due to low water levels in 2014, the electroshocking survey was not completed. The low water created an extremely muddy bank that made launching the electroshocking barge impossible. Although it was not expected there were any drastic changes in the fisheries health or assemblage, the impacts of continued drought may start playing a factor in this small fishery.

This reservoir has continually shown some level of fluctuation in species composition from year to year and it is still trying to find a balance with the recent addition of fish species. The general fisheries survey is expected to occur in 2015 and then will go on a two-year rotation so that this small evolving fishery can be monitored.

MANAGEMENT REVIEW

The pre-stocking evaluation Approach for Groves Lake was completed, which resulted in a reduced number of fish being stocked in 2014. The dye test was not completed.

Three of the four Approaches were completed for Willow Creek Pond in 2014, with the electroshocking survey not being completed due to low water levels. This survey will be pushed ahead to next year, or when water levels are conducive to launching the boat. Beginning in 2014, reductions in spring stocking numbers will be in effect and the impacts to the fishery will be monitored through bi-annual electroshocking surveys and angler creel surveys.

RECOMMENDATIONS

Groves Lake

- Continue to assess water conditions prior to trout stocking in the spring.
- Conduct a dye test to evaluate the leak in the reservoir/dam.
- Resample the fish population in the reservoir to evaluate survival and species composition following drought years.

Willow Creek Pond

- Continue to assess water conditions prior to trout stocking in the spring and fall.
- Evaluate the fish population and species composition in 2015 through electroshocking.
- Assess angler use through opportunistic angler contacts and the angler drop-box.
- Collect otolith and scales of yellow perch and largemouth bass to be aged for length/age relationships.

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