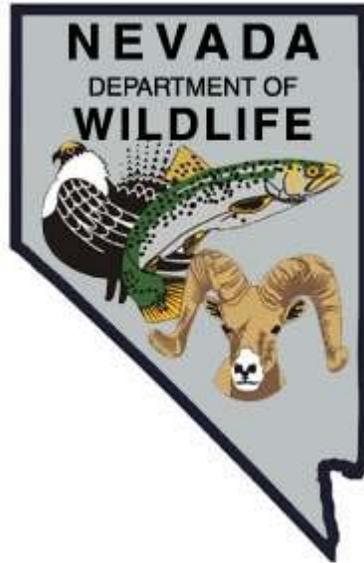


NEVADA DEPARTMENT OF WILDLIFE  
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-53  
2017

LANDER COUNTY  
SMALL LAKES AND RESERVOIRS  
EASTERN REGION



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

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**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, 2017 through December 31, 2017*

**SUMMARY**

In 2017, Groves Lake received 2,047 rainbow trout in the spring, while Willow Creek Pond received 4,100 rainbow trout between spring and fall stockings. The leak in Groves Lake still had an impact on the fishery, as only a small pool was maintained by fall. Electroshocking surveys were not done at either lake in 2017, but they are scheduled in 2018.

**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, a leaky bottom 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 use averaging around 3,000 days. 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. The reservoir is managed under a General Fishery Management Concept.

Willow Creek Pond

Willow Creek Pond is located 13 miles southwest of Battle Mountain and includes the reservoir and a lower pond. The lower pond was built in 1960 and 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 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, they average 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 wild brown trout drift down from the inflowing creek. Since the rainbow trout body condition continues to show poor ratings, the allocation of stocked trout has been reduced by 2,000 since 2014.

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 species will be managed under a Warmwater Panfish Fishery Management Concept.

## **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 single nighttime electroshocking survey during late summer.
- 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.

## **PROCEDURES**

Coordinating trout stocking with the hatcheries required checking the reservoir and evaluating the water level and water temperature 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.

## **FINDINGS**

### Groves Lake

A total of 2,047 Eagle Lake strain rainbow trout were stocked in Groves Lake on May 31. Even though a leak in the reservoir persists, a second year of good snow pack has maintained suitable reservoir levels to support stocking.

An electroshocking survey was not completed in 2017 due to prioritized AIS needs and conflicting schedules. This survey will be rescheduled for 2018 to document the current health of the fishery.

A dye test was not completed in 2017, due to busy and conflicting scheduling with engineering staff. The leak is still a priority for repair and it is expected that testing will be completed in 2018. A search is currently underway to locate documentation of work that was originally done in the 1990's to repair the leaking reservoir. Once located, it is expected that this data will provide direction and insight into the repair needs of the reservoir.

### Willow Creek Pond

After a second good water year, the reservoir was at maximum elevation by the spring stocking season when 2,066 Eagle Lake strain rainbow trout were stocked in May. In October, an additional 2,034 Kamloop strain rainbow trout were stocked, again under good water conditions.

In 2017, several visits were made to the reservoir for completing multiple work objectives, with nine anglers being contacted. These anglers fished for 22 hours to capture eight fish of which five were harvested. Success rates for these anglers were 0.9 fish per angler and 0.4 fish per hour. The angler drop-box received 12 questionnaires, all of which were usable. Eighteen anglers fished for 70.5 hrs to capture 53 fish, resulting in success rates of 2.9 fish per angler and 0.75 fish per hour. Species composition of fish caught was 51 trout (94.3%), two largemouth bass (3.8%), and one yellow perch (1.9%).

The fishing in 2017 appeared to be comparable with observed anglers and fishing success rates to past years. Contacted anglers appear to be relatively happy with the number of fish captured and had an overall good angling experience. Because the health of this small fishery is still a concern, an electroshocking survey is scheduled to occur in 2018 to document species composition and fish condition, at which point the reservoir will be put on a three-year monitoring schedule.

## **MANAGEMENT REVIEW**

The pre-stocking evaluation Approach for Groves Lake was completed, which resulted in a normal number of fish being stocked in 2017. The dye test and the electroshocking survey were not completed, but they are expected to occur in 2018.

All three approaches were completed for Willow Creek Pond in 2017. Beginning in 2014, spring stocking numbers were reduced by 2,000 trout 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 2018 through electroshocking.
- Assess angler use through opportunistic angler contacts and the angler drop-box.
- Collect otoliths and scales of yellow perch and largemouth bass to be aged for length/age relationships.

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