

NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-49
2013

WASHOE LAKE
WESTERN REGION



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

State: *Nevada*
Project Title: *Statewide Fisheries Program*
Job Title: *Washoe Lake*
Period Covered: *January 1, 2013 through December 31, 2013*

SUMMARY

The Department of Wildlife's mail-in angler questionnaire data for Washoe Lake in 2012 estimated use at 335 anglers who fished for 883 days and caught 505 fish. This represents an average success rate of 0.57 fish per angler day.

Precipitation, well above average in the winter of 2010-2011, resulted in favorable water conditions at Washoe Lake throughout all of 2011. However, as occurred many times in the past, the below average moisture realized during the past two winters led to less than favorable water levels at Big Washoe Lake for much of 2013.

BACKGROUND

Washoe Lake is a eutrophic, shallow body of water located in western Nevada between Reno and Carson City. Washoe Lake covers an area of 5,800 acres at spillway stage and consists of Big Washoe Lake, Little Washoe Lake, and the marsh area connecting the two. The shallow depth of the big lake (maximum depth 12 ft) coupled with nearly daily winds in Washoe Valley account for its high turbidity.

Drought cycles and resulting low water conditions continue to negatively affect this fishery. More recent droughts have occurred during 1976-77, 1987-1994, 2000-2004, and 2012-2013. The fishery at Washoe Lake does not fare well during these periods and many drought cycles have dramatically reduced or nearly eliminated fish populations. Two fish eradication projects at Washoe Lake (1960 and 1991) targeted nongame fish species including yellow perch, bullhead catfish, common carp, and tui chub. Neither of these projects was successful and, with the exception of yellow perch, all species still occur in both Washoe Lakes.

The fishery at Washoe Lake is typically comprised of common carp, bullhead catfish, tui chub, Sacramento perch, white bass, and channel catfish. These species have the ability to reproduce in the lake and, under favorable water conditions, become self-sustaining. Due to fluctuating water levels and subsequent declines in fish populations, white bass and channel catfish are supplemented either with hatchery-produced fish or with wild fish collected from other local waters as needed to boost the fishery.

OBJECTIVES

General Management Objectives:

- Conduct a general assessment of angler use, success, and harvest through mail-in angler questionnaire data.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) when onsite.

PROCEDURES

Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts and mail-in angler questionnaire data. Angler use and success was assessed through the Mail-in Angler Questionnaire Survey data. Angler questionnaire data is derived from a survey that is mailed to 30,000 license purchasers.

Conduct a general habitat assessment through visual observations of water quantity (lake level) when onsite and using USGS gage data. General assessments of habitat conditions were completed throughout the year through visual observations of Big and Little Washoe Lakes.

FINDINGS

Conduct a general assessment of angler use, success, and harvest through mail-in angler questionnaire data. The Department of Wildlife's expanded mail-in angler questionnaire data for 2012 estimated angler use at Washoe Lake at 330 anglers. Anglers fished for 883 days and caught 505 fish. Resulting angler success was 0.57 fish per day. All estimates from the 2012 are well below estimates from the previous year and far below the 33-year average (1980 – 2012) for Washoe Lake. As evidenced by these estimates, the Washoe Lake fishery suffers significantly during periods of drought.

Conduct a general habitat assessment through visual observations of water quantity (lake level) when onsite and using USGS gage data. Visual assessments at Washoe Lake indicated water levels were much lower than those found in 2012. This was attributed to poor precipitation in the winter of 2012-2013. Nevertheless, water conditions still proved adequate to sustain a fishery as no fish kills were reported.

MANAGEMENT REVIEW

The angler use and success rates estimated from the Mail-in Angler Questionnaire Survey continued to be low compared to the long-term average and indicated that the fishery continues to struggle due to ongoing drought conditions. This fishery can be popular with anglers; however, multiple years of above-average snowpack are generally required for game fish populations to recover.

Between 2005 and 2008, water levels were sufficient to allow restocking of game fish and maintenance of the fishery. However, the third year of below average precipitation and snowpack in 2009 likely resulted in a near loss of Sacramento perch, white bass, and catfish. Although water conditions improved in 2010 and 2011, it appears that previous drought had a significant impact on the fishery. Current drought conditions are certainly of no benefit. It will likely take several years of good water conditions to allow the fishery to fully recover.

As conditions improve, a stocking program will be revived at Washoe Lake to include species such as white bass and channel catfish.

RECOMMENDATIONS

General Management Objectives:

- Conduct a general assessment of angler use, success, and harvest through mail-in, angler questionnaire data.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) when onsite.

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