

NEVADA DEPARTMENT OF WILDLIFE  
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-48  
2012

WASHOE LAKE  
WESTERN REGION



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

Table of Contents

<u>Contents</u>	<u>Page</u>
SUMMARY .....	1
BACKGROUND .....	1
OBJECTIVES .....	2
PROCEDURES .....	2
FINDINGS .....	2
MANAGEMENT REVIEW .....	3
RECOMMENDATIONS .....	3

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

**State:** *Nevada*  
**Project Title:** *Statewide Fisheries Program*  
**Job Title:** *Washoe Lake*  
**Period Covered:** *January 1, 2012 through December 31, 2012*

**SUMMARY**

The Department of Wildlife's mail-in angler questionnaire data for 2011 estimated angler use at Washoe Lake at 350 anglers that fished for 1,045 days and caught 1,349 fish. This represents an average success rate of 3.85 fish per angler day. Washoe Lake's performance appears to be fulfilling the Warmwater General Fishery Management Concept.

Precipitation, well above average in the winter of 2010-2011, resulted in favorable water conditions at both Big and Little Washoe Lakes throughout all of 2011. However, as with many times in the past, below average moisture realized this past winter led to less than favorable water levels at Big Washoe Lake for much of 2012.

**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 feet) coupled with winds nearly daily in Washoe Valley account for its turbidity.

Drought cycles and resulting low water conditions continue to negatively impact this fishery. Recent droughts have occurred during 1976-77, 1987-1994, and 2000-2004. The fishery at Washoe Lake does not fare well during these periods and many of these 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, their populations are 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.
- Coordinate fisheries management activities with the Nevada Division of State Parks.

## 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 about 10 percent of 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.

**Coordinate fisheries management activities with the Nevada Division of State Parks.** Assistance and coordination in matters related to fisheries management was accomplished with the Nevada Division of State Parks as needs arose.

## 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 2011 estimated angler use at Washoe Lake at 350 anglers. Anglers fished for 1,045 days and caught 1,349 fish, which is nearly identical to the 303 anglers, 1,539 angler use days, and 1,709 fish caught in 2010. Angler success from the questionnaire was 3.85 fish per angler day, which is more than double the success rate of 1.11 fish per angler day reported in 2010.

**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 2011. This was attributed to poor precipitation in the winter of 2011-2012. 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 meets the guidelines in the Warmwater General Fishery Management Concept. 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 maintaining 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 populations. Water conditions improved in 2010 and 2011; however, the direct impact on the fishery is largely unknown. 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.

Prepared By: Chris Crookshanks  
Biologist III  
Western Region

Date: February 13, 2013