

NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

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2012

SQUAW CREEK RESERVOIR
WESTERN 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: *Squaw Creek Reservoir*
Period Covered: *January 1, 2012 through December 31, 2012*

SUMMARY

The Mail-in Angler Questionnaire Survey for Squaw Creek Reservoir estimated use at 860 anglers and 2,269 angler days in 2011. Total catch was 14,138 fish and the success rate was 6.23 fish per angler day. Although the number of anglers was lower than the 1,076 anglers found in the 2010 survey, angler days and fish caught were nearly identical to the 2,349 days and 12,769 fish reported in 2010. One visit was made to the reservoir for the purpose of collecting opportunistic angler contacts but no anglers were contacted.

Squaw Creek Reservoir received a total of 11,603 hatchery-reared trout in 2012. This includes 7,602 catchable Eagle Lake and Jumper strains of rainbow trout and 4,001 catchable Sheep Creek strain brown trout.

Water conditions (quantity and quality) were documented throughout the summer and fall at Squaw Creek Reservoir. The reservoir remained at or near capacity throughout 2012.

At this time, Squaw Creek Reservoir appears to be satisfying the coldwater and warmwater General Fishery Management Concepts.

BACKGROUND

Squaw Creek Reservoir is located in northern Washoe County, approximately 20 miles north of Gerlach. At maximum capacity, the reservoir is 47.5 surface acres, stores 1,200 acre-ft, and is 45 ft deep (spillway elevation). Of the two tributaries to the reservoir, the east tributary flows from a warm water spring.

The reservoir was constructed in 1952 as a private reservoir for water storage. The Nevada Department of Wildlife negotiated with the Holland Land and Livestock Company and agreed to manage the fishery as long as the reservoir would remain open to public fishing. Mr. Jaksick is the present owner of the land and water rights for the reservoir. A history of public abuse at the reservoir has prompted the landowner to post signs that notify the public of a set of 'regulations' for the reservoir.

The fishery at Squaw Creek Reservoir consists of hatchery maintained populations of rainbow, bowcutt, and brown trout. Tiger trout have also been stocked in recent years although carryover of the species is somewhat questionable. The reservoir also supports wild, self-sustaining populations of largemouth bass, Alabama

spotted bass, bullhead catfish, and green sunfish. The reservoir is managed under the coldwater and warmwater General Fishery Management Concepts which establish objectives for angler success rates of 0.30-1.25 fish per hour and 2.0-3.5 fish per angler day.

OBJECTIVES

General Management Objectives:

- Conduct a general assessment of angler use, success and harvest through opportunistic angler contacts and mail-in angler questionnaire data.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity) when onsite.
- Continue to support the establishment of a long-term conservation easement that allows public access and recreational opportunities at the reservoir.
- Pursue the installation of an angler survey drop box if the conservation easement is established.

PROCEDURES

Conduct a general assessment of angler use, success and harvest through opportunistic angler contacts and mail-in angler questionnaire data. Scheduled visits were made to Squaw Creek Reservoir throughout the year for the purpose of collecting creel survey data to contact the greatest number of anglers as possible. An opportunistic visit was also made. Information on angler harvest, effort, and origin were recorded. Harvested fish were measured to fork length in millimeters.

Angler use and success at Squaw Creek Reservoir was also assessed through the Department's Mail-in Angler Questionnaire Survey. Angler questionnaire data is derived from a survey that is mailed to 10 percent of license purchasers from the previous year.

Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity) when onsite. General habitat conditions were documented in July during an initial site visit and again throughout mid to late-summer during visits to other northern Washoe County reservoirs. Habitat assessment was based strictly on visual observations of lake level and clarity.

Continue to support the establishment of a long-term conservation easement that allows public access and recreational opportunities at the reservoir. NDOW personnel remain vigilant in exploring various opportunities pertaining to the establishment of a long-term conservation easement with the landowner at Squaw Creek Reservoir. At this juncture, the private landowner is not receptive to exploring options for a long-term agreement.

Pursue the installation of an angler survey drop box if the conservation easement is established. Attempts are ongoing to work with the landowner at Squaw Creek Reservoir to allow NDOW to install a volunteer, creel survey drop-box.

FINDINGS

Conduct a general assessment of angler use, success and harvest through opportunistic angler contacts and mail-in angler questionnaire data. Opportunistic angler contacts were attempted on one day at Squaw Creek Reservoir in 2012. On this occasion, no anglers were contacted.

The mail-in angler questionnaire data estimated use at 860 anglers and 2,269 angler days in 2011. Total catch was 14,138 fish and the success rate was 6.23 fish per angler day. Although the number of anglers was lower than the 1,076 anglers found in the 2010 survey, angler days and fish caught were nearly identical to the 2,349 days and 12,769 fish reported in 2010. The most recent catch rate data shows the fishery is satisfying the coldwater and warmwater General Fishery Management Concepts prescribed for the reservoir.

Squaw Creek Reservoir received a total of 11,603 hatchery-reared trout in 2012. This includes 7,602 catchable Eagle Lake and Jumper strains of rainbow trout and 4,001 catchable Sheep Creek-strain brown trout.

Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity) when onsite. Water conditions at Squaw Creek Reservoir typically remain stable from one year to the next and are not subjected to the usual annual drawdowns of other western reservoirs. The reservoir remained at or near capacity in 2012.

Continue to support the establishment of a long-term conservation easement that allows public access and recreational opportunities at the reservoir. At this juncture, the private landowner is not receptive to exploring options for a long-term agreement.

Pursue the installation of an angler survey drop box if the conservation easement is established. At this juncture, the private landowner is not receptive to allowing an angler drop box to be installed at Squaw Creek Reservoir.

MANAGEMENT REVIEW

Angler use and success rates documented in the Mail-in Angler Questionnaire Survey met the guidelines of a General Fishery Management Concept. This fishery is popular with anglers for producing high catch rates and an opportunity to fish in a semi-remote setting. In recent years, angler reports and fish population surveys indicated moderate to severe summer-kills with the reservoir's trout populations. However, summer-kill events have not been documented in the past two years, but anglers voiced concern over a lack of trout in the summer of 2012.

The remote location of this reservoir complicates the collection of angler data through opportunistic angler contacts. An angler drop-box would be useful for collecting specific angler data throughout the year and should be installed if a conservation easement is realized.

RECOMMENDATIONS

General Management Objectives:

- Conduct a general assessment of angler use, success and harvest through opportunistic angler contacts and mail-in angler questionnaire data.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity) when onsite.
- Continue to work towards establishing a conservation easement that allows public access and recreational opportunities at the reservoir over the long-term.
- Pursue the installation of an angler, creel survey drop-box if the conservation easement is established.
- Electrofish two established transects during one night in the fall.
- Set gillnets for three net-nights in the fall.
- Augment the reservoir with 2,500 channel catfish.

Prepared By: Chris Crookshanks
Biologist III
Western Region

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