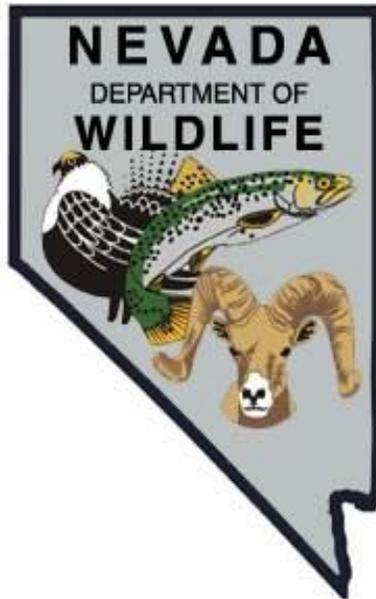


NEVADA DEPARTMENT OF WILDLIFE  
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-50  
2014

WALL CANYON RESERVOIR  
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 .....	4
RECOMMENDATIONS .....	5

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

List of Tables

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Wall Canyon Reservoir Stocking Summary - 2014 .....	3
2	Wall Canyon Reservoir Stocking History 2009 - 2013 .....	3

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

**State:** *Nevada*  
**Project Title:** *Statewide Fisheries Program*  
**Job Title:** *Wall Canyon Reservoir*  
**Period Covered:** *January 1, 2014 through December 31, 2014*

**SUMMARY**

No volunteer angler surveys from the drop-box were received from Wall Canyon Reservoir in 2014.

The Mail-in Angler Questionnaire Survey estimated use at 73 anglers that fished 171 days in 2013. Total catch was 413.7 fish and the success rate was 2.42 fish per angler day. The number of anglers estimated to have fished Wall Canyon Reservoir is just the second lowest since 1980.

Wall Canyon Reservoir was stocked on one occasion in 2014. On March 20, the reservoir received a total of 4,136 triploid rainbow trout.

Water levels in Wall Canyon Reservoir were exceedingly low throughout the warmest part of 2014 and the effects on the fishery are unknown at this point.

**BACKGROUND**

Wall Canyon Reservoir is located 60 mi north of Gerlach off Nevada State Route 447 in a sagebrush-steppe habitat type. The dam consists of earth-fill and has a crest length of 822 ft. The reservoir covers 133 SA, can store up to 2,200 acre-ft of water, and has a maximum depth of approximately 55 ft.

The dam was constructed in 1960 by Lewis Cockrell. As the reservoir filled, it was realized that a portion of the reservoir was on private land while the remaining was situated on land administered by the Bureau of Land Management (BLM). The storage on BLM land necessitated a storage permit and led to an agreement between Mr. Cockrell and the Nevada Department of Wildlife (NDOW) stating, in part, that NDOW would manage the fishery in the reservoir. In 1992, Wall Canyon Reservoir and the ranch downstream were purchased by R.C. Roberts. In 1998, Sam Jaksick purchased this property. Water stored in Wall Canyon Reservoir is used for agricultural irrigation downstream at Duck Lake Ranch, which is also owned by the Jaksick family.

In 2008, the Bureau of Land Management acquired lands adjacent to Wall Canyon Reservoir and Wall Canyon Creek as part of the "Granites" SNPLMA (Southern Nevada Public Lands Management Act) Land Acquisition Proposal (Round 5). However, the associated water rights for a minimum pool were not included in the final proposal and were still held by Duck Lake Ranch. This acquisition may prove to be a positive change for the management of Wall Canyon Reservoir and its surrounding lands.

The Wall Canyon Reservoir fishery is comprised of hatchery-maintained populations of rainbow and bowcutt trout and wild, self-sustaining populations of brown trout, smallmouth bass, and green sunfish. Wall Canyon Creek, the only tributary to Wall Canyon Reservoir, supports a wild population of introduced brown trout and wild, endemic populations of Wall Canyon sucker and speckled dace. The reservoir is managed under coldwater and warmwater General Fishery Management Concepts, which establishes an objective for angler success rates of 0.30-1.25 fish per hour and 2.0-3.5 fish per angler day.

## OBJECTIVES

- Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts, return of angler drop-box surveys, 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.

## PROCEDURES

**Conduct a general assessment of angler use, success and harvest through opportunistic angler contacts, the angler drop box and mail-in angler questionnaire data.** Opportunistic visits were made to Wall Canyon Reservoir throughout the year for the purpose of collecting creel survey data. Information on angler harvest, effort, and origin were recorded. Harvested fish were measured to fork length in millimeters.

During the course of other duties throughout the year, a volunteer, angler survey drop-box at Wall Canyon Reservoir was periodically maintained and restocked.

Angler use and success at Wall Canyon Reservoir was also assessed through the Department's Mail-in Angler Questionnaire Survey data. Angler questionnaire data is derived from a survey that is mailed to 30,000 fishing 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 during three trips to Wall Canyon Reservoir from July through September. Habitat assessment was based strictly on visual observations of lake level and clarity.

## FINDINGS

**Conduct a general assessment of angler use, success and harvest through opportunistic angler contacts, an angler drop box and mail-in angler questionnaire data.** Although three trips were made to Wall Canyon Reservoir in 2014, only one angler contact was made. One angler reported fishing from shore for a total of two hours and caught no fish.

Zero volunteer angler surveys were collected during the 2014 field season. The drop-box was still full of blank forms near the end of 2014, so it is unknown as to why no forms were filled out. Based on the three forms that were filled out in 2013, and that no forms were filled out in 2014, it may be prudent to look at the location of the drop-box and possibly relocate it to a more visible area.

The Mail-in Angler Questionnaire Survey estimated use at 73 anglers that fished 171 days in 2013. Total catch was 414 fish and the success rate was 2.42 fish per angler day. The number of anglers estimated to have fished Wall Canyon Reservoir was the second lowest since 1980. All other estimates fall well below the 33-year average as well. This is most likely due to the fact that the water level at Wall Canyon Reservoir spent most of 2013 below 50% capacity. Angling conditions were extremely difficult during 2013 at Wall Canyon Reservoir.

### Stocking Program

Early in the spring it was determined that due to drought conditions the region experienced it would be beneficial to stock all allotted fish for the year as early as possible. One stocking event occurred while water conditions remained favorable and the reservoir received a total of 4,136 triploid rainbow trout (Table 1).

**Table 1.** Wall Canyon Reservoir Stocking Summary – 2014

Date	Species	Number	Size (in.)	Strain
3/20/2014	Rainbow	4,136	9.8	Triploid

**Table 2.** Wall Canyon Reservoir Stocking History 2009 – 2013

Year	Species	Number	Size Range (in.)
2009	Rainbow	2,644	9.5
	Bowcutt	2,074	9.6
2009 Total		4,718	
2010	Rainbow	1,999	9.4
	Bowcutt	2,001	9.7
2010 Total		4,000	
2011	Rainbow	2,495	9.5 – 10.3
	Bowcutt	2,000	9.6
2011 Total		4,495	
2012	Rainbow	2,000	9.2
2012 Total		2,000	
2013	Rainbow	1,000	9.8
	Rainbow	999	10.2
	Rainbow	2,015	9.9
2013 Total		4,014	
Total (All Fish)		19,227	

**Conduct a general habitat assessment through visual observations of**

**water quantity (lake level) and water quality (clarity) when onsite.** Water conditions at Wall Canyon Reservoir have declined in recent history due to a combination of factors. Primarily, agricultural operations at Duck Lake Ranch have expanded and water management strategies appeared to have changed. Even during an above average precipitation year such as 2011, the reservoir was still left at 50% capacity by year's end. This situation has been exacerbated in the past three years as below average precipitation has occurred. Given the regularity of dramatic drawdowns, current water management practices downstream are not beneficial to the Wall Canyon Reservoir fishery. The reservoir was below 50% capacity during the first visit in July and continued to drop throughout the remainder of the year.

### **MANAGEMENT REVIEW**

The success rate of 2.42 fish per angler day from the mail-in questionnaire fell within the rate of 2.0–3.5 fish per angler day prescribed in the Coldwater, General Fishery Management Concept.

It is difficult to determine the overall trend of the fishery in Wall Canyon Reservoir due to the lack of angler data during the 2014 season. Due to downstream irrigation demands and lower than average precipitation for the last three years, water levels have been dangerously low. Adequate wintertime precipitation is needed to maintain the fishery in 2015.

### **RECOMMENDATIONS**

- Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts, return of angler drop-box surveys, 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.
- Set gill nets for two net nights in the fall.

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Date: February 8, 2014