NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT

FEDERAL AID JOB PROGRESS REPORTS

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2013

BOULDER 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: *Boulder Reservoir*
Period Covered: *January 1, 2013 through December 31, 2013*

SUMMARY

The Mail-in Angler Questionnaire Survey estimated use at just 25 anglers and 68 angler days in 2012, both of which are all-time lows for the reservoir. Total catch was 431 fish with a success rate was 6.34 fish per angler day. All estimates were far below the 33-year average of 217 anglers, 576 angler days, 2,165 fish, and 4.07 fish per angler day.

A total of 1,200 catchable Mt. Shasta strain rainbow trout was stocked in June of 2013.

Opportunistic visits were made throughout the year to assess habitat conditions at Boulder Reservoir. The reservoir was maintained at capacity and habitat appeared conducive to the reservoir's trout population.

The area biologist, in coordination with Habitat Division personnel, spent a considerable amount of time in 2013 providing technical guidance in the planning and design of the recreational improvement project at Boulder Reservoir. Funding for the project has been secured and implementation is scheduled for 2014. In recent years, the BLM acquired the reservoir, surrounding property, and associated water rights; this acquisition, along with the pending recreation enhancement project, funded by BLM and NDOW Conservation Fee funding, will undoubtedly be a tremendous benefit to sportsmen of Nevada.

BACKGROUND

Boulder Reservoir is located 190 mi north of Reno in Washoe County. It is situated at an elevation of 5,755 ft and is predominantly surrounded by sagebrush-steppe habitat. The reservoir covers approximately 4 acres with a maximum depth of 10 ft. The reservoir is fed by snowmelt and a perennial spring located in the reservoir's southwest corner.

Boulder Reservoir was constructed as an irrigation storage reservoir in 1950. It has been owned or managed by the Harris, Groves, Cockrell, and Jaksick families in the past. The reservoir has had a long history with riser structures and spillways washing out during periods of high water. Throughout much of the past, verbal agreements between NDOW and landowners have allowed public access in exchange for routine hatchery stocking.

In 2009, Boulder Reservoir, surrounding acreage, and associated water rights were acquired by BLM through Southern Nevada Public Lands Management Act (SNPLMA) funding. A comprehensive recreation enhancement project has been planned, funded, and construction is scheduled to begin in 2014. Among others, components of the project include dam repair, dredging, riparian fencing, as well as construction of picnic facilities, restrooms, boat-launching facilities, and a campground.

Boulder Reservoir supports hatchery maintained populations of rainbow and bowcutt trout. On occasion, low water coupled with siltation and an abundance of aquatic vegetation has led to late summer/early fall fish kills. Boulder Reservoir is managed under the coldwater Quality Fishery Management Concept, which establishes an objective for angler success rates of 0.30 to 1.25 fish per hour and 2.0 to 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), aquatic vegetation, and upland vegetation (cattle use) when on site.
- Work with BLM to coordinate a habitat and recreation improvement project for Boulder Reservoir.

PROCEDURES

Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts and mail-in angler questionnaire data. No opportunistic angler contacts were made at Boulder Reservoir in 2013.

Angler use and success at Boulder Reservoir was assessed through the Department's Mail-in Angler Questionnaire Survey. Angler questionnaire data is derived from a survey that is mailed to about 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), aquatic vegetation, and upland vegetation (cattle use) when on site. General habitat conditions were observed and reported by the Law Enforcement Division personnel on a number of occasions throughout the year. Habitat assessment was based on visual observations of lake level and clarity during a walk around the reservoir.

Work with BLM to coordinate a habitat and recreation improvement project for Boulder Reservoir. The area biologist, in coordination with Habitat Division personnel, spent a considerable amount of time in 2013 providing technical guidance in

the planning and designing the recreational improvement project at Boulder Reservoir, which is scheduled to commence in 2014.

FINDINGS

Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts and mail-in angler questionnaire data. No angler contacts were made at Boulder Reservoir in 2013.

The Mail-in Angler Questionnaire Survey estimated use at just 25 anglers and 68 angler days in 2012, both of which are all-time lows for the reservoir. Total catch was 431 fish with a success rate was 6.34 fish per angler day. All estimates were far below the 33-year average of 217 anglers, 576 angler days, 2,165 fish, and 4.07 fish per angler day.

Stocking Program

A total of 1,200 catchable Mt. Shasta strain rainbow trout was stocked in June of 2013 (Table 1).

Table 1. Boulder Reservoir Stocking Summary – 2013

Date	Species	Number	Size (in.)	Strain
6/3/13	Rainbow	1,200	10.1	Mt. Shasta
Total		**1,200**		

Table 2. Boulder Reservoir Stocking History 2008 – 2012

Year	Species	Number	Size Range (in.)
2008	Rainbow	3,997	9.2
	Rainbow	1,297	2.1
Total		**5,294**	
2009	Rainbow	1,198	9.9
Total		**1,198**	
2010	Rainbow	1,212	9.4
	Rainbow	1,260	3.1
Total		**2,472**	
2011	Rainbow	1,199	9.7
	Rainbow	1,224	3.4
Total		**2,423**	
2012	Rainbow	1,199	10.6
Total		**1,199**	

Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity), aquatic vegetation, and upland vegetation (cattle use) when on site. Visits were made throughout the year to assess habitat conditions at Boulder Reservoir. The reservoir was maintained at capacity and habitat appeared conducive to the reservoir's trout population.

Work with BLM to coordinate a habitat and recreation improvement project for Boulder Reservoir. The area biologist, in coordination with Habitat Division personnel, spent a considerable amount of time in 2013 providing technical guidance in the planning and design of the recreational improvement project at Boulder Reservoir. Funding for the project has been secured and implementation is scheduled for the spring of 2014.

MANAGEMENT REVIEW

Due to its remote nature, Boulder Reservoir does not receive a high level of angler use. It does, however, remain a popular fishery for those anglers willing to make the trip. This fishery is generally popular with anglers for producing suitable catch rates and an opportunity to fish in a semi-remote setting. Additionally, the area provides opportunities for dispersed camping, hunting, and wildlife viewing. The angler questionnaire data suggests the reservoir is currently meeting the requirements prescribed for the Coldwater Quality Fishery Management Concept.

The acquisition of the reservoir, surrounding property, and associated water rights by BLM, along with the pending recreation enhancement project, will undoubtedly prove to be a tremendous benefit to sportsmen of Nevada.

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), water quality (clarity), aquatic vegetation, and upland vegetation (cattle use) when on site.
- Work with BLM to implement the habitat and recreation improvement project for Boulder Reservoir using Habitat Conservation Fee funds.

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