

NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORT
F-20-48
2012

STREAM FISHERIES MANAGEMENT
WESTERN REGION



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

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

State: *Nevada*
Project Title: *Statewide Fisheries Program*
Job Title: *Stream Fishery Management*
Period Covered: *January 1, 2012 through December 31, 2012*

SUMMARY

During the 2012 field season, the Stream Survey/Lahontan Cutthroat Trout Recovery Team surveyed two streams that are managed for sport fisheries. Both streams were located in the Jackson Mountains and 8.8 mi were surveyed at 17 sample stations.

BACKGROUND

Aquatic habitat management on public lands is primarily the responsibility of the appropriate federal agency mandated by laws to administer those lands. The management of fish is the responsibility of the state fish and game agency. In order for aquatic habitats, riparian zones, and fish to be managed properly, federal agencies and state agencies work together to monitor, survey, and carry out management objectives.

During the 1950s, Nevada Department of Wildlife (NDOW) conducted stream surveys on known fishable streams throughout the State. In 1983, a three-way interagency agreement between NDOW, the Bureau of Land Management (BLM), and the U.S. Forest Service (USFS) was signed, outlining a program with guidelines for determining the status of aquatic resources and associated habitats. Since 1986, with a cooperative agreement in effect, approximately 1,282 mi of streams in Humboldt County, 15.8 mi in Pershing County, and 104 mi in Washoe County have been surveyed. In addition, some 15.3 mi of stream in Churchill County, 6.4 mi in Lander County, 236.5 mi in Nye County, 11.7 mi in Lyon County, and 7.8 mi in Esmeralda County have been surveyed.

OBJECTIVES and APPROACHES

General Management Objective: To administer an annual fisheries program that assesses general fish population dynamics, angler use and success, annual stocking programs, habitat conditions, and maintains contact with necessary land management entities.

Approaches:

- Coordinate and perform stream habitat (GAWS Level III) and fish population surveys (electro shocking surveys) coordinated with land management agencies on the following streams: Singas Creek and Stonehouse Creek.
- Coordinate and perform stream habitat (GAWS Level III) and fish population surveys (electro shocking surveys) on any other western region streams as necessary to provide input on land use activities or actions.

- Monitor water quantity (discharge) through USGS stream flow data on Third and Incline Creek (Lake Tahoe basin).
- Conduct electro fishing transects twice monthly between the spring and fall to determine presence and relative density of native and non-native fish populations on Third and Incline Creek (Lake Tahoe basin).
- Electro fish Wall Canyon Creek upstream of the barrier to determine presence/absence of brown trout.

PROCEDURES

Coordinate and perform stream habitat (GAWS Level III) and fish population surveys (electroshocking surveys) coordinated with land management agencies on the following streams: Singas Creek and Stonehouse Creek. During the 2012 field season, NDOW carried out GAWS level III surveys on Singas Creek and Stonehouse Creek. Methodologies were outlined in the USFS Fisheries Habitat Surveys Handbook. In conjunction with the habitat surveys, single pass electroshocking surveys were performed on each stream. Sampling sites occurred approximately every half mile along the surveyed portion of the stream, electroshocking 100 feet at each site using ETS model AbP-3 backpack electro shockers.

Coordinate and perform stream habitat (GAWS Level III) and fish population surveys (electroshocking surveys) on any other western region streams as necessary to provide input on land use activities or actions. No other stream habitat (GAWS III) or fish population surveys were required on any other western region sport fishery streams during the 2012 field season.

Stream habitat and fish population surveys along with recovery work on native trout streams took priority over any other potential surveys that would have been completed on any remaining western region sport fishery streams.

FINDINGS

Coordinate and perform stream habitat (GAWS Level III) and fish population surveys (electro shocking surveys) coordinated with land management agencies on the following streams: Singas Creek and Stonehouse Creek. Singas and Stonehouse creeks were surveyed along 9.8 mi of creek that included 17 stations. Both streams were situated on lands administered by the BLM and USFS. Habitat Condition Index (HCI) results are listed in Attachment 1. Stream survey reports been completed and provided to cooperative agencies.

Fish population data was collected at 16 stations from both streams. Rainbow and brook trout were the only game fish found. Attachment 1 provides population averages for each of the waters.

Coordinate and perform stream habitat (GAWS Level III) and fish population surveys (electroshocking surveys) on any other western region streams as necessary to provide input on land use activities or actions. No other stream habitat (GAWS III) or fish population surveys (electroshocking) were required for any other streams in the Western Region.

Stream habitat and fish population surveys along with recovery work on native trout streams took priority over any other potential surveys that would have been completed on any remaining Western Region streams.

MANAGEMENT REVIEW

The stream habitat (GAWS III) and population surveys on Singas Creek showed a slight increase in habitat quality but a slight decrease in fish population size. The habitat quality was maintained above 70% HCI rating since the 2001 survey, which is considered excellent trout habitat. This maintenance of quality habitat can be associated with good overall management and grazing practices within the drainage. The slight decrease in fish population size could be attributed to the lower than average flow rate at the time of the survey.

Based on stream habitat (GAWS III) and population surveys on Stonehouse Creek, habitat conditions showed a slight decrease, but brook trout population size showed a slight increase. While the HCI rating remained above the 50 percent level (60.0%), it declined substantially from the 1998 survey (71.2%). Several factors can be attributed to the decline in habitat conditions within the drainage, but the most likely cause is the extremely dry conditions at the time of the survey. Ungulate use does not appear to be a factor. The slight increase in the brook trout population size can be attributed to the expansion of the fish into higher reaches of the stream.

RECOMMENDATIONS

1. To survey and resurvey various streams within the Black Rock Range, Santa Rosa Range, Montana Mountains, Jackson Range, Bilk Creek Range, and Pine Forest Range of Humboldt County to monitor management objectives of the Quinn River Management Plan and various allotment management plans.

STREAM FISHERIES MANAGEMENT
Stream Survey Summary 2012
Western Region – F-20-46

Stream	Mtn Range	Surveyed Miles	Stations	Past HCI	2012 HCI	Species	Avg. Fish/mile	Estimated Pop.
Singas Creek	Santa Rosa	4.2	9	70.5	71.2	RB/BK	119.9/413.4	503.6/1736.28
Stonehouse Creek	Santa Rosa	5.6	8	71.2	60	BK	74.1	414.96