

I. Project title: Operation of Old Charlie Wash to remove nonnative fishes and determine native fish use in floodplain wetlands of the middle Green River.

II Principal Investigator(s):

Tim Modde
U.S. Fish and Wildlife Service
266 W. 100 N. Suite 2
Vernal, UT 84078
Office (435) 789-0354 fax (435) 789-4805

III. Project Summary: Old Charlie Wash is a wetland on the Ouray National Wildlife Refuge. Since 1994, it has served as a pilot site for testing hypotheses on floodplain habitat and razorback sucker restoration. Water inlet and outlet control structures, fish screens, and a harvest kettle were installed. In 1995 and 1996, thousands of pounds of nonnative fish, primarily carp and black bullhead, were captured and removed from the Green River system. In addition, 12 adult razorback sucker, 73 juvenile razorback sucker, and 13 juvenile Colorado pikeminnow were captured from the site. The original goal for FY00 was to use Old Charlie Wash for trapping and removing nonnative fishes from the Green River and to return any native fishes, including Colorado pikeminnow and razorback sucker, to the river. The role of this scope of work was expanded to include both Johnson Bottom and Leota 7. In addition, both larval (9,599 larvae, 10 mm length, .005g weight, stocked 6/5/00) and juvenile (2,106 juveniles, 175 mm, 49g, 1999 year class, stocked 6/20-21/00) razorback sucker produced at the Ouray National Fish Hatchery were stocked into Old Charlie Wash. However, together with the relatively dry year of 2000 and the Ouray National Wildlife Refuge's decision to drain both Johnson and Leota 7 for construction work, only Old Charlie Wash was drained in the late summer of 2000. In an effort to maximize the growing season in Old Charlie Wash, we waited as long as possible prior to opening the drain (late August). However, a combination of low flows and heavy bird predation resulted in poor fish returns from Old Charlie Wash.

IV. Study Schedule:

a: Initial year: FY98
b: Final year: Ongoing

V. Relationship to RIPRAP:

Green River Action Plan: Mainstem
Activity II. Restore Habitat
II.A.1.a. Old Charlie Wash

Activity II.A.1.a.(3) Monitor and evaluate success
 III. Reduce impacts of nonnative fishes

VI. Accomplishment of FY 00 Tasks and Deliverables, Discussion of Initial Findings and shortcomings: Due to management decisions by the Ouray National Wildlife Refuge, two of the three impoundments to be monitored were drained in the spring. Johnson Bottom was drained to allow drying required to restore the drainage capacity of the wetland. Old Charlie Wash was maintained through the summer. The outlet structure at Old Charlie Wash was secured with a screen and draining commenced in late August 2000. Water elevation in the wetland was low and draining took only a few days. Fish were harvested between August 31 and September 1, 2000. During the draining process, four razorback sucker <300mm were captured. When fish were harvested on the last two days, no razorback sucker were collected. A summary of the fish captured is found below. Following that time, little water was drained from the wetland. A noticeable decline in small fish was observed in fish collected. While draining, low elevation was maintained during a three day holiday during which large numbers of pelicans and cormorants were observed on Old Charlie Wash. Based on the size of fish actually collected during this year (channel catfish, pike and carp, mean weight in excess of 5 lbs) and previous years collections, it appears that bird predation could have been a major problem during draining in 2000.

Table 1. Number and weight of fish collected from Old Charlie Wash in September 2000.

Species	Total number	Total weight (lbs)
Black bullhead -adult	46	25
Northern Pike	1	5
Channel catfish	8	41
Carp	1,004	5,618
Razorback sucker	4	
Small fish	1,000	33
Total =	2,063	7,785

Staff for the Ouray National Wildlife Refuge successfully scoured a drainage canal in Johnson bottom to allow effective draining in 2001. The drainage kettle in Johnson Bottom (with exception of the slot in the control structure dikes) and Leota 7 were installed and should function as expected. The refuge plans to manage Johnson Bottom and Leota 7 to maintain water during the spring and summer of 2001.

VII. Recommendations: Given the improvements in Johnson Bottom, we recommend the continuation of monitoring the use of both Johnson Bottom and Old Charlie Wash. Given the uncertainty of the impacts of the use of L-10 on the water elevation and ability to drain L-7, we recommend that monitoring emphasis on fish use in refuge wetlands be given to Johnson Bottom and Old Charlie Wash.

VIII. Project Status: This project is on track

IX. FY 00 Budget Status:

		Service, Vernal	Total
A.	Funds Provided:	34.0 K	34.0 K
B.	Funds Expended:	34.0 K	34.0 K
C.	Difference:	0	0
D.	Recovery Program funds spent for publication charges:		\$0.00

X. Status of Data Submission:

Data has not been submitted to the database manger. Findings of the 2000 draining presented are preliminary. A comprehensive report of findings from 2000 has been issued to the wetland restoration coordinator. Data is being entered in dBASE files and will be submitted to the program data base manager upon completion of the study.

XI. Signed: Timothy Modde
Principal Investigator

 December 7, 2000
Date