

I. Project Title: Wahweap Operation and Maintenance

II. Bureau of Reclamation Agreement Number: R09AP40850

Project/Grant Period: Start date (Mo/Day/Yr): 10/01/2015
End date: (Mo/Day/Yr): 9/30/2018
Reporting period end date: 9/30/2014
Is this the final report? Yes X No _____

III. Principal Investigator(s):

Zane Olsen
Utah Division of Wildlife
P.O. Box 410286
Big Water UT 84741
435-675-3714
zaneolsen@utah.gov

IV. Abstract:

Wahweap State Fish Hatchery, located in Big Water, Utah, rears bonytail for stocking in the Upper Colorado River Basin for the Upper Colorado River Recovery Program. Wahweap also maintains a refuge population of razorback sucker brood stock for the Upper Colorado River Recovery Program.

V. Study Schedule: On going

VI. Relationship to RIPRAP:

General Recovery Program Support Action Plan

IV	Manage genetic integrity and augment or restore populations
IV.A.	Genetic management
IV.A.4.	Secure and manage genetic stocks in refugia
IV.A.4.a	Razorback sucker
IV.A.4	Develop basin wide bonytail restoration plan and implement as approved
IV.C.	Operate and maintain facilities

VII. Accomplishment of FY 2016 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

- Wahweap Hatchery Superintendent assisted the Recovery Program in staffing the information booth at the Colorado River Water Users Association Annual Conference and the Utah Water Users Conference. Wahweap Staff provided live bonytail for the display and took care of them for the duration of the meetings and assisted in outreach.

- Wahweap had a great year in bonytail reproduction and was able to transfer 42,501 fish. Fish were in great shape averaging 112.04 mm and 13.62g. Fish had an average fat content of 2.3, a C-factor of 2,644, and no deformities were observed in our sub sample.

Wahweap also PIT-tagged 12,601 fish in October 2014 and then stocked them in May 2016. Fish were also in great shape coming out of the winter months with a fat content of 3.5, a C-factor of 2,728 a 35% male to 65% female sex ratio, and no deformities were observed in the sub sample. Fish averaged 252.5 mm in length and 123.4 g.

Colorado Fish Stocked/Transfer in FY-2016

Stock Date	Contact Name	Lot #	River Name	Stocking/Transfer Location	# Stocked	Tagged
3/14/2016	Zane Olsen	150515CBBTWW01	N/A	Ouray NFH	9,893	NO
4/6/2016	Zane Olsen	150515CBBTWW02	N/A	Ouray NFH	32,608	NO
Total Number of YOY 2013 Stocked:					42,501	

5/2/2016	Zane Olsen	100501CBBT-Dexter-01	Dolores	Rio Mesa Research Campground	4,247	Yes
5/3/2016	Zane Olsen	100501CBBT-Dexter-01	Green	Jensen Bridge	4,227	Yes
5/5/2016	Zane Olsen	100501CBBT-Dexter-01	San Rafael	Jensen Bridge	3,981	Yes
Total Number of Adult Fish Stocked:					12,455	

- Fish were also treated for Asian Tape worm with Praziquantel @ 2.5 mg/L for a 24-hour static bath before tagging, and no worms were observed. Fish will again be treated before stocking/transfer for confirmation.
- Wahweap used 60 bonytail (YOY 2010, 2011, 2015) for the yearly Fish Health Inspection. Fish over all were in great shape. During this year's inspection we observed no Asian Tapeworm (*Bothriocephalus acheilognathi*). Infection across the hatchery is very low and Wahweap is working closely with Wade Cavender (State of Utah Fish Pathologist) to eradicate this parasite from hatchery ponds. Until the eradication, Wahweap has been instructed to treat each individual pond as a different rearing unit. Wahweap will treat prophylactically, with praziquantel all fish being stocked or transferred. Fish were given the Fish Health Approval number DWR16-045, DWR16-046, and DWR16-049.
- Wahweap Hatchery has conducted Health Condition Profiles (HCP) on all fish stocked or transferred in FY-2016.
- PIT-tagged data was submitted to Amy Greenwell on Aug 10th, 2016 for the May 2016 bonytail stocking.

- Wahweap was able to provide school tours to over 1,000 students this year from Arizona, Utah, and the Navajo Nation.
- Wahweap Hatchery received 20,000 bonytail from the Dexter National Fish Hatchery on May 5th, 2016 for grow out and stocking in May 2020.
- On April 11th, 2016 70 BT YOY 2014 were placed in with the Brood lot of razorback suckers to be used as proxy for the Fish Health Inspection. Fish Health approval # DWR16-027 was assigned and clearance was given to stock them into the Upper Lake Powell. Stocking has been scheduled for spring 2017.
- Wahweap staff worked throughout the year on maintenance of the facility and equipment.

Colorado River fish remaining on station in the fall of 2016:

Species	Year class	Number	Average Size	# of Ponds
Bonytail	2010	4,793	251.28mm	1
Bonytail	2011	32,222	242.72mm	8
Bonytail (ww)	2014	11,813	166.53 mm	2
Bonytail	2016	20,000	84.20mm	1
Razorback	Brood	189	471.0mm	1
Razorback	Brood 1	634	279.53mm	1
Total Number:		69,651		

VIII. Recommendations:

Continue rearing bonytail at Wahweap to meet the stocking needs of the Recovery Program. Maintain razorback back-up brood stock. Supply either species as requested by the Recovery Program. PIT-tag bonytail in the fall and stock in the spring. Work on the eradication of Asian Tapeworm from the Wahweap Hatchery rearing facility. Evaluate some needed upgrades in facilities and fish culture equipment.

IX. Project Status:

Ongoing fish culture, propagation, and development will continue at the Wahweap State Fish Hatchery.

X. FY 2016 Budget Status

A. Funds Provided:	\$208,000
B. Funds Expended:	\$208,000
C. Difference:	\$ 0.00
D. Percent of the FY 2016 work completed:	100%
E. Recovery Program funds spent for publication charges:	\$ 0.00

XI. Status of Data Submission (Where applicable): PIT-tag data will be submitted to database manager after each stocking.

XII. Signed: Zane Olsen, Principal Investigator Date 11/15/2016