I. Project Title: Wahweap State Hatchery - Operation and Maintenance

II. Bureau of Reclamation Agreement Number: R09AP40850

Project/Grant Period: Start date: 10/01/2008
End date: 9/30/2015
Reporting period end date: 9/30/2012
Is this the final report? Yes _____ No ____X____

III. Principal Investigator(s):
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IV. Abstract:
Wahweap State Fish Hatchery, located at Big Water, Utah, rears bonytail for stocking in the Upper Colorado River Basin for the Upper Colorado River Endangered Fish Recovery Program (Recovery Program). Wahweap also maintains a refuge population of razorback sucker brood stock for the 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 2012 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

- Wahweap Hatchery staff 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.

- Wahweap Hatchery personnel assisted the Bureau of Reclamation and National Park Service with a Native Fish Aquarium display at the Carl Haden Visitor Center at the Glen Canyon Dam. This tank displays razorback sucker and bonytail chub.

- Wahweap Hatchery stocked/transfered 11,373 bonytail during the fall of 2012. These fish were as follows:
  1. 2,695 PIT tagged and stocked in the Upper Green River, Jensen Bridge*
  2. 2,732 PIT tagged and stocked in the Lower Colorado River, Cisco Beach*
  3. 5,966 PIT tagged and transferred to Ouray National Fish Hatchery, Vernal, UT*
*Fish averaged 242.61mm and 145.75g. Abundance of natural reproduction was observed in ponds this year.

- Fish stocked from Wahweap, enumerated above, were PIT tagged in September 2012. The fish were stocked/transfered in accordance with the Recovery Program and the State of Utah Stocking plan. Fish were also treated for Asian tapeworm with Praziquantel @ 2.5 mg/L for a 24-hour static bath before stocking.

- Wahweap has plans to transfer 25,427 Bonytail YOY 2012 to sister hatcheries for next year’s production. These individuals were natural reproduction from adult fish located in ponds. All fish on station were sampled monthly for growth and feed adjustments. Fish were captured with a combination of minnow traps, seining, and cast net.

- Wahweap used 60 bonytail (BT YOY2009) for the yearly Fish Health Inspection. During this year’s inspection we again observed Asian Tapeworm (*Bothriocephalus acheilognathi*). Wahweap is working closely with Dr. Chris Wilson (State of Utah Fish Pathologist) in developing a plan to eradicate this parasite from hatchery ponds. Until the eradication, Wahweap has been instructed to treat each individual pond as a different rearing unit and treat prophylactically, with praziquantel all fish stocked from the hatchery. Fish stocked after treatment received Fish Health Approval number DWR12-102.

- Wahweap hatchery conducted Health Condition Profiles (HCP) on all fish stocked into the Colorado River Basin. Fish stocked were in great shape with a mesentery fat of 3.85, conditioning factor of 3.006 and very little deformities. Fish sampled were 70% male and 30% female.
• Reconstruction of “Old Well” located on Wahweap Hatchery property and the main water supply for fish production.

Colorado River fish remaining on the station in the fall of 2012:

<table>
<thead>
<tr>
<th>Species</th>
<th>Year class</th>
<th>Number</th>
<th>Average Size</th>
<th># Ponds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonytail</td>
<td>2010</td>
<td>40,972</td>
<td>185.4mm</td>
<td>7</td>
</tr>
<tr>
<td>Bonytail</td>
<td>2011</td>
<td>38,087</td>
<td>138.56mm</td>
<td>4</td>
</tr>
<tr>
<td>Bonytail (WW)</td>
<td>2012</td>
<td>25,427</td>
<td>96.02mm</td>
<td>1</td>
</tr>
<tr>
<td>Razorback Brood</td>
<td></td>
<td>253</td>
<td>471mm</td>
<td>1</td>
</tr>
</tbody>
</table>

VIII. Recommendations:
Continue rearing bonytail at Wahweap to meet the stocking needs of the Recovery Program. Maintain razorback sucker backup brood stock. Supply either species as requested by the Recovery Program. PIT tag bonytail and stock in the fall. Work on the eradication of Asian tapeworm from the Wahweap Hatchery rearing facility.

IX. Project Status:
Ongoing fish culture, propagation, and development at the Wahweap State Fish Hatchery.

X. FY 2012 Budget Status

A. Funds Provided: $200,000
B. Funds Expended: $200,000
C. Difference: $ 0.0
D. Percent of the FY 2012 work completed: 100%
E. Recovery Program funds spent for publication charges: $ 0

XI. Status of Data Submission (Where applicable): PIT tag data will be submitted to database manager by January 1, 2013

XII. Signed: Zane Olsen, Principal Investigator Date 10/15/2012