

I. Project Title: NASRF Operation and Maintenance - Colorado

II. Principal Investigator(s):

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III. Project Summary:

The J. W. Mumma Native Aquatic Species Restoration Facility (NASRF), located at Alamosa, Colorado currently is rearing bonytail (BYT) for stocking in the Upper Basin system of the Colorado River. In the past we have also produced Colorado Pikeminnow (CPM) for the San Juan, the Gunnison and the Colorado Rivers. However, for 2006, 2007, 2008 and 2009 the Colorado stocking schedule for CPM was reduced to zero pending further evaluation by the recovery team. The remaining CPM at NASRF from the 2004 year class were stocked into the San Juan and NASRF did not request CPM fry from Dexter NM in 2006, 2007 2008, or 2009.

The NASRF did receive small humpback chubs (HBC) in 2007 and were held in two round tanks in building II. Because of space, the HBC were held in cooler water last winter and conditioned for the spring spawning season as were all our brooders. The HBC are mixed with roundtail chubs (RTC) and will be separated at a later date. As space became available during the summer of 2008 the HBC were move outside into a 12 foot round tank and are doing great. Although we have not inventoried them recently, they appear to be averaging between 4 and 7 inches.

IV. Study Schedule:

On going

V. Relationship to RIPRAP:

## General Recovery Program Support Action Plan

- IV Manage genetic integrity and augment or restore populations
- IV.C. Operate and maintain facilities
- IV.C.4. Mumma

### VI. Accomplishment of FY 2009 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

The Native Aquatic Species Restoration Facility (NASRF) received approximately 5,000 bonytail (BYT) fry in May 2007 and 10,000 fry on 5/06/06 from Dexter NM but did not receive any BYT fry from Dexter in 2005 or 2008. In 2009, NASRF received 10,000 fry and 7,500 (40/lb) year class 2008 from Dexter National Fish Hatchery. There was adequate survival from the 2003 and 2004 year classes to cover the 2005 stocking schedule and most of the 2006 schedule. Currently on inventory at NASRF are approximately 1,100 BYT (6.2/lb) from 2007, 7,500 BYT (25/lb) from 2008, and 10,000 BYT (250/lb) from 2009 year class. During 2009, NASRF stocked 451 (60.1/lb and 3.81") 199 (9.9/lb and 6.94") 913 (2.56/lb and 10.91") BYT into Butch Craig Pond, 2,707 (3.76/lb and 9.6") into Echo Park, 1,576 (2.76/lb and 10.64") were stocked into Colorado River #1 and 1,000 (2.95 and 10.41") into Colorado River #2 on 11/5/09 making the grand total of 6,846 stocked by NASRF in 2009.

There were no apparent diseases problems at the TSJC ponds or at NASRF in 2005, 2006, 2007, or 2008. However in 2009 BYT at NASRF tested positive for Asian Tapeworm (*Bothriocephalus acheilognathi*) Dr. Carolyn Gunn, DVM Colorado Division of Wildlife Fish Pathologist prescribed a new treatment regime based on work done in Utah using Praziquantal to flush the tapeworms from the BYT. This treatment appears to be effective as tapeworms flushed from the BYT's intestinal tract were observed in the treatment tank within four hours of start of treatment. The efforts to exclude tilapia from the TSJC ponds worked again this year. Tilapia appeared to have been the primary vectors of pathogens in 2003. The problem during 2006 was bird predation on the fish over-wintered at the TSJC ponds. There was considerable reproduction at the TSJC ponds during 2007 but not much during 2008 and none in 2009.

The NASRF received 10,000 Colorado Pikeminnow (CPM) fry from Dexter, NM on 6/03/04. We did not receive CPM fry from Dexter in 2005, 2006, 2007, 2008 or 2009. There was adequate survival from the 2003 and 2004 year classes to cover the 2005 stocking schedule and the 7,508 CPM remaining on station during 2006 were stocked into the San Juan drainage. The NASRF currently has only two CPM on station for display purposes.

We received a mix of HBC and RTC fingerlings (209) in 2007 and currently have 200 on station. They are doing great at the hatchery and will be separated once they develop

distinguishing characteristics.

Fish losses at NASRF and TSJC minimal during the year and were due to moving, lethal sampling for fish health inspection, and predation. Construction of the 20 small ponds was completed in May of 2009. A portion of these new ponds will be used for BYT production and should eliminate the need to lease the TSJC ponds near Hooper beyond 2009. The Lease with TSJC was not renewed and we anticipate that the total production for BYT and any request for HBC will be met at NASRF.

Fish Stocked from TSJC Ponds as Of August 12, 2009

<b>Species</b>	<b>Year Class 2006</b>	<b>Year Class 2007</b>	<b>Year Class 2008</b>	<b>Total</b>	<b>Destination</b>
BYT (natural reproduction in "08)			451		Butch Craig Ponds
BYT		199			Butch Craig Ponds
					650 <i>TOTAL</i>

Fish Stocked from NASRF Ponds as Of November 5, 2009

<b>Species</b>	<b>Year Class 2006</b>	<b>Year Class 2007</b>	<b>Year Class 2008</b>	<b>Total</b>	<b>Destination</b>
BYT	913				Butch Craig Ponds
BYT	2707				Green River
BYT	1576				Colorado River #1
BYT		1000			Colorado River#2
					6196 Total

**Fish remaining on station as of December, 1 2009**

<b>Species</b>	<b>YEAR CLASS</b>	<b>NUMBER</b>	<b>SIZE</b>	<b>POND/ TANK #</b>
BYT	2009	10,000	250/lb	POND 1 NASRF
BYT	2008	7500	25/lb	POND 3 NASRF
BYT	2007	1100	6.2/LB	POND 4 NASRF
RBS	2001	10	0.6/LB	POND 2 NASRF

