

**COLORADO RIVER RECOVERY PROGRAM
FY-2010/2011 PROPOSED SCOPE OF WORK for:
Operations and Maintenance Mumma**

Project No.: 29d

Lead Agencies: Colorado Division of Wildlife
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<u>Category:</u>	<u>Expected Funding Source:</u>
<input type="checkbox"/> Ongoing Project	<input checked="" type="checkbox"/> Annual Funds
<input checked="" type="checkbox"/> Ongoing-revised project	<input type="checkbox"/> Capital Funds
<input type="checkbox"/> Requested New Start	<input type="checkbox"/> Other(In-kind Services)

I. Title Proposal: Operation and Maintenance of the Mumma Native Aquatic Species Restoration Facility (NASRF).

II. Relationship to 2009 RIPRAP:

General:

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

Green River Action Plan: Yampa and Little Snake Rivers:

- IV.A. Yampa River in Dinosaur National Monument
- IV.A.1. Augment or restore populations as needed.
- IV.A.1.a. Develop State stocking plan for bonytail in the Yampa River
- IV.A.1.a.(1) Implement stocking plan.

Colorado River: Mainstem:

- IV.A.5. Develop State stocking plan for bonytail in the Colorado River from Palisade to Loma.
- IV.A.5.b. Implement bonytail State stocking plan.

III. Study Background/Rationale and Hypotheses:

Since 2001, the Mumma Native Aquatic Species Restoration Facility (NASRF), Alamosa, Colorado, in a closed basin, has been put into operation by the Colorado Division of Wildlife, and offered to the Recovery Program as an alternative resource for meeting Colorado River endangered fish production needs. The NASRF offers up to six separate ponds and six large tanks as available for grow-out production purposes. Mumma NASRF has been identified to annually produce approximately 5,400 bonytail and receive humpback and roundtail chubs to investigate rearing and production techniques and potential.

IV. Study Goals, Objectives, End Products:

Goal: To provide bonytail in numbers and sizes sufficient to meet the annual stocking plan (Nesler et al 2003). To raise and humpback and roundtail chubs removed from the Yampa River for approximately one year.

Objectives: To receive early life stage progeny of bonytail from Dexter National Fish Hatchery and Technology Center grow-out these fish in numbers, sizes, and time frames necessary to meet the annual stocking requirements for these fish species in Colorado Rivers.

To transport these fish from Mumma NASRF as necessary, and assist in the stocking of these fish in designated river reaches in Colorado.

To transport, treat, and take in young-of-year *Gila* species from the Yampa River to determine survival and culture techniques.

End Product:

- Production of Colorado River endangered fish species required to meet revised stocking plan objectives for designated rivers/river reaches in Colorado.
- Maintaining (via culture) *Gila* spp. brought in from Yampa River.
- An annual report providing details of fish received, propagated, transported off station, and maintained on station; mortalities; and propagation and treatment actions required.

V. Study Area:

Mumma Native Aquatic Species Restoration Facility (NASRF), Alamosa, Colorado.

VI. Study Methods/Approach:

The Mumma NASRF has available up to two 0.1 acer-lined ponds, two 20' round tanks and six 8' round tanks for propagation of any feasible combination, number and size of the two listed fish species requested by the Recovery Program. The Mumma Hatchery has a construction project under way which includes 20 (45" X 45") new ponds and will

be able designate up to 4 for bonytail and/or humpback chubs as needed. Depending on the requirements for maintaining separate family lots and the flexibility of marking polyculturing marked fish from multiple lots and different species (e.g. razorback sucker, humpback chub and bonytail), production capability of the NASRF will vary with annual Recovery Program objectives and expectations. Endangered fish received at the unit as larvae, fry, or fingerling-size fish will be grown using accepted culture techniques and expected annual mortality rates to produce a desired number and size of fish product for Program stocking purposes. These products will be transported to stocking or transfer locations as planned. Assistance will be provided in preparing the fish for release and distribution in target river reaches if requested and budgeted by the Recovery Program.

VII. Task Descriptions and Schedule:

1. Raise bonytail to produce 5,400 to 200 mm total length fish by fall 2010.

VIII. FY 2010 Work:

Budget:

Labor	47,100
Equipment maintenance/repair	3,900
Travel/training/phone	1,250
Feed	4,700
Stocking/vehicle use/maintenance	2,950
Utilities	15,200
Building/grounds	2,500
Discharge chlorine	<u>4,300</u>
Total	\$81,900

FY 2011 Work

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IX. Budget Summary:

FY-10	81,900
FY-11	<u>81,900</u>
Total	\$163,800

X. Reviewers: Various Colorado Division of Wildlife and Program staff

XI. References:

Nesler, T.P., K. Christopherson, J.M. Hudson, C.W. McAda, F. Pfeifer, and T.E. Czapla. 2003. An integrated stocking plan for razorback sucker, bonytail and Colorado pikeminnow for the Upper Colorado River Endangered Fish Recovery Program, Addendum to State stocking plans. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.