COLORADO RIVER RECOVERY PROGRAM

FY-2002/2003 PROPOSED SCOPE OF WORK

Lead Agencies: Colorado Division of Wildlife
Submitted by: Dave Schnoor (Lead) / Tom Nesler
Address: CDOW
6655 S. County Rd. 3 South
Alamosa, CO 81101
Phone: CDOW: (719) 587-3392
Fax: CDOW: (719) 587-3393
E-mail: dave.schnoor@state.co.us
Date: August 2, 2001
Revised: November 26, 2001

Category: Expected Funding Source:
<table>
<thead>
<tr>
<th>Ongoing Project</th>
<th>Annual Funds</th>
<th>Ongoing-revised project</th>
<th>Capital Funds</th>
<th>Requested New Start</th>
<th>Other (In-kind Services)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I. Title Proposal: Endangered fish grow-out at Mumma Native Aquatic Species Restoration Facility (NASRF).

II. Relationship to RIPRAP:

General:
IV.B. Conduct annual fish propagation activities.
IV.C. Operate and maintain facilities.

Colorado River: Mainstem:
>IV.A.2.a.(2). Implement razorback sucker augmentation plan.
>IV.A.2.b.(2). Implement Colorado pikeminnow augmentation plan.
>IV.A.2.c.(2). Implement bonytail augmentation plan.

Colorado River; Gunnison River:
IV.A. Augment or restore populations as needed.
IV.A.2. Colorado pikeminnow
>IV.A.2.a. Implement Colorado’s stocking plan for Colorado pikeminnow

Yampa and Little Snake Rivers:
IV.A. Yampa River in Dinosaur national Monument.
>IV.A.1.a.(1) Implement stocking plan
IV.A.2. Colorado pikeminnow
IV.A.2.a. Implement Colorado’s stocking plan.

III. Study Background/Rationale and Hypotheses:
A recognized limiting factor in the Recovery Program’s capability to implement endangered fish stocking plans is the ability to produce sufficient numbers of each species at a desired size and season. The Program is currently operating propagation
facilities at Ouray National Fish Hatchery and Wahweap State Fish hatchery in Utah; and at the FWS Grand Junction facility in Colorado. Within the land acquisition effort of the Floodplain Restoration Project, the Recovery Program is acquiring/leasing ponds to serve as ad hoc grow out waters for endangered fish needed for stocking plans. Recently, the Mumma Native Aquatic Species Restoration Facility (NASRF) near Alamosa, Colorado in the 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. Currently, 100,000 bonytail have been received at the unit for grow-out objectives.

VI. Study Goals, Objectives, End Products:

Goal: to provide bonytail and Colorado pikeminnow in numbers and sizes sufficient to meet the annual fish requirements of Colorado’s revised endangered fishes stocking.

Objectives:
1. To receive early life stage progeny of bonytail and/or Colorado pikeminnow, and grow-out these fish in numbers, sizes, and time frames necessary to meet the annual stocking requirements for these fish species in Colorado rivers.

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

End Product:
- Production of Colorado River endangered fish species required to meet revised stocking plan objectives for designated rivers/river reaches in Colorado.
- An annual report providing details of fish received, propagated, transported off station, and maintained on station; mortalities; and propagation and treatment actions required.

6. Study Area:

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

7. Study Methods/Approach:

The Mumma NASRF has available two large ponds (20 and 12 ac.), four 0.1 acre-lined ponds, and six 8 ft round tanks for propagation of any feasible combination, number and size of the two listed fish species requested by the Recovery Program. The NASRF has formed a partnership with Trinidad State Junior College for use of the 12 ac. Pond and it is expected a student labor force will be employed to assist DOW staff in care and maintenance of the fish populations. 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 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 24,000 200 mm total length fish by fall 2002.
2. Raise Colorado pikeminnow to produce 2,680 6-inch fish by spring 2003.

VIII. FY 2002/2003 Work:

<table>
<thead>
<tr>
<th></th>
<th>FY 2002/2003 Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries (½ FTE, Task 1)</td>
<td>12,000</td>
</tr>
<tr>
<td>TSJC Lease</td>
<td>25,500</td>
</tr>
<tr>
<td>Feed</td>
<td>4,000</td>
</tr>
<tr>
<td>Utilities</td>
<td>8,500</td>
</tr>
<tr>
<td>Total</td>
<td>50,000</td>
</tr>
</tbody>
</table>

FY 2003 Work

<table>
<thead>
<tr>
<th></th>
<th>FY 2003 Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries (1 FTE Tasks 1&amp;2)</td>
<td>27,000</td>
</tr>
<tr>
<td>TSJC Lease</td>
<td>25,500</td>
</tr>
<tr>
<td>Feed</td>
<td>7,500</td>
</tr>
<tr>
<td>Utilities</td>
<td>10,000</td>
</tr>
<tr>
<td>Total</td>
<td>70,000</td>
</tr>
</tbody>
</table>

IX. Budget Summary:

<table>
<thead>
<tr>
<th></th>
<th>FY-02</th>
<th>FY-03</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY-02</td>
<td>50,000</td>
<td></td>
</tr>
<tr>
<td>FY-03</td>
<td>70,000</td>
<td></td>
</tr>
</tbody>
</table>

X. References: