

I. **Project Title:** Colorado non-native fish stocking regulation evaluation

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III. **Project Summary:**

The Procedures for Stocking Nonnative Fish Species in the Upper Colorado River Basin were adopted by the state wildlife agencies of Colorado, Utah and Wyoming, and the U.S. Fish and Wildlife Service, Region 6, in 1996. Colorado addressed the requirement to "ensure that all State and private stocking of nonnative fishes in the upper Colorado River Basin is in compliance with the Procedures" in 1999 by restricting fish stocking in waters below 6500 ft in elevation in the Colorado, Gunnison, White, Yampa, and Green river basins. These regulations, in conjunction with the existing lake license permit regulations, serve to meet the intent of the Procedures. The Colorado Wildlife Commission conditioned their approval of these new stocking regulations by requiring an evaluation of the regulation's effectiveness in achieving a biological response. The Division of Wildlife developed a Geographic Information System (GIS) approach and criteria upon which this evaluation will be based and entered into a contract with the Wyoming Geographic Information Science Center, University of Wyoming, Laramie, for spatial depiction and analyses of data sets.

IV. **Study Schedule:** 2000-2003

V. **Relationship to RIPRAP:**

III.A.2.c. Implement and evaluate the effectiveness of viable active control measures.

III.B.4.a.(1) Evaluate effectiveness of Colorado's stocking regulation.

VI. **Accomplishment of FY 2001 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:**

A computer, ARC-VIEW software, associated mass data storage peripherals, and available digital coverages within the intensive study area (Colorado and Gunnison river critical habitat) were purchased with GOCO dollars for this project. A temporary employee was hired to work for Pat Martinez, paid in part with GOCO dollars and Martinez's Westslope Warmwater Federal Aid Project to help amass available

riverine/pond sampling data (1997-2001), nonnative, nonsalmonid stocking data (1998-2001) for western Colorado, and perform digitizing/rectification of arial photos. The money spent for these project equipment and personnel costs were not Recovery Program dollars.

A contract was initiated and awarded via the State of Colorado's contracting process to the Wyoming Geographic Information Science Center (WGISC), University of Wyoming (functionally effective August 2001). This contract was funded by the Recovery Program dollars available for this project. Also accomplished to date was the coordination of project/contract components with WGISC to commence work on geographic, hydrologic, fishery, and stocking data sets. Other accomplishments to date include progress on all tasks listed below except for #7, which will be evaluated separately from the GIS contract. No initial findings are available at this time.

1. Determine number and distribution of pond, lake, and reservoir resources within 6500 ft elevation surrounding critical habitat reaches of Gunnison and Colorado rivers.
2. Determine the locations of ponds and riverine backwaters involved in nonnative fish control treatments.
3. Determine species composition and stocking records of these ponds lakes and reservoirs from available records.
4. Determine distribution and/or density of regulated species within Task 1 study area and mainstem rivers from available records.
5. Determine the location of waters and species stocked by private landowners receiving DOW lake license permits. Determine the location of waters and species requested by private landowners for which DOW lake license permits were denied.
6. Determine the change in backwater distribution and density of regulated nonnative fish species and native fish species in the Colorado River from river mile 185-152 via the backwater seining, nonnative fish control project (87B), electrofishing control project (89), and riverine monitoring of nonnative fish control in Colorado and Gunnison River floodplain ponds (CAP 18/19). (Years 2000-03)
7. Conduct a risk assessment of stocking as a significant pathway for introduction into Colorado River endangered fish critical habitat using the Generic Nonindigenous Aquatic Organism Risk Analysis Review Process (Risk Assessment and Management Committee. 1996. Generic nonindigenous aquatic organisms risk analysis review process. Report to the Aquatic Nuisance Species Task Force. 24pp.).

Project shortcomings involve ongoing efforts to acquire complete records of recent-past private sector stocking records for incorporation into this analysis framework. Further, there is an unknown rate of compliance with existing permitting requirements for stocking nonnative nonsalmonid fishes, cryptic stocking location information for some private records, and unconfirmed treatments to control escapement of stocked fishes.

VII. **Recommendations:**

Due to delays in the State's contracting process, project completion date and deadline for deliverables from the contractor was formally extended to 30 June 2002, instead of 31 December 2001. Additional scrutiny and accountability may be required for tracking stocking activity for nonnative nonsalmonid fishes by the private sector, including escapement control structures/strategies, to ensure compliance with nonnative fish regulations and to maximize capacity to evaluate effect of the regulations in contributing to control of nonnative fish.

VIII. **Project Status:** On track and ongoing.

IX. **FY 2001 Budget Status:**

- A. **Funds Provided:** \$53, 800.00
- B. **Funds Expended:** \$39, 500 encumbered for University of Wyoming contract, \$19,612.95 expended to date, remainder of contract amount to be spent by 30 June 2002.
- C. **Difference:** Remaining funds ($\$53,800.00 - \$39,500.00 = \$14,300.00$) are reserved for risk assessment, Task #7 above.
- D. **Percent of the FY 2001 work completed, and projected costs to complete:** Work 15% complete, remaining funds adequate for completion.
- E. **Recovery Program funds spent for publication charges:** None to date

X. **Status of Data Submission (Where applicable):** Not applicable, data used by project being acquired, in part, from database manager.

XI. **Signed:** Patrick J. Martinez 10 December 2001
Principal Investigator **Date**