

I. Project Title: Northern pike spawning exclusion assessment

II. Principal Investigator(s):

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III. Project Summary: The purpose of this investigation is to evaluate low-cost screening enclosures as a means of preventing adult northern pike from spawning in suitable flooded habitats connected to the Yampa River. This approach to nonnative fish control addresses the long term reduction in reproductive success of this introduced fish species on a large scale – from Stagecoach Reservoir above Steamboat Springs to Craig, Colorado. The success of this approach hinges on identification of all potential pike spawning habitat in the target reach, and gaining cooperation by landowners in the affected area through permission to access pike spawning habitats located on their property. To date, aerial video of the target river reach has been obtained for identification of spawning habitats. Contact information for property owners along the Yampa River is being collected. Pike spawning habitat locations and property owners are being matched up for later contact. Property owner contact is being coordinated through the water conservation district and local water user association representatives. Site visits and acquisition of needed equipment has begun.

IV. Study Schedule: FY 2001 – FY 2004

V. Relationship to RIPRAP: Green River Action Plan: Yampa and Little Snake Rivers

III. Reduce negative impacts of nonnative fishes and sportfish management activities.

A. Develop aquatic management plan to reduce nonnative fish impacts while providing sportfishing opportunities.

1. Implement Yampa Basin aquatic wildlife management plan

c. Reduce northern pike reproduction in the Yampa River

1. Identify and evaluate natural and artificial spawning /nursery habitats for northern pike in the Yampa R.

2. Implement remedial measures to reduce northern pike reproduction.

3. Develop guidelines for new structures to minimize creation of habitat suitable for pike spawning/ nursery habitats.

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

Task 1) Coordinate with the water conservation district and water user association representatives in the Yampa River basin to determine the number and location of all diversion and return flow sites between Catamount Lake and Craig for future assessment as pike spawning habitat.

Through the help of George Schisler and Kevin Rodgers at the Colorado Division of Wildlife we have obtained an aerial video of the Yampa River between Catamount Reservoir and Craig. The aerial video was recorded in conjunction with a GPS receiver; thereby allowing GPS coordinates to be identified for any site in the video. In addition the data from the GPS recorder can be input into a GIS program. In total, a particular location in the video can be identified on a map using the GPS coordinates. Black and White NAPP aerial photos have been purchased from the USGS to aid in identifying diversion and return flow in the Yampa River. A reconnaissance trip was made to become familiar with the area and also to identify possible study sites. During this trip a thorough investigation was made of one possible research location at the Carpenter Ranch near Hayden, Colorado. On a separate trip to Steamboat Springs an investigation was made at another possible research site just east of Steamboat Springs. Overall, multiple sites for research have been identified. The next step is to contact the landowners and obtain permission to conduct research on their property.

Task 2) Conduct site visits of all identified potential habitats to evaluate feasibility of control and estimate design, materials necessary to implement.

Site visits have begun and equipment needed for investigating spawning habitat has been purchased.

Task 3) Select sites and conduct pilot screening to test design and materials, and investigate operational constraints and effectiveness. (See 1 and 2 above).

Task 4) Prepare final report including feasibility of approach and screening materials, evaluation of results from pilot sites for effectiveness and operation requirements, and a proposed scope of work required to expand approach to proposed reachwide scale.

A rough draft of the research proposal including a literature review has been completed. Various parts of this proposal will be used in the final report.

VII. Recommendations: Continue project as planned.

VIII. Project Status: Consider “on track and ongoing.” This is the first year and progress is confined to preliminary tasks concerning access and habitat identification. No changes have been made to study design or the budget, and it is expected to be conducted as planned. Project success will be gauged by the success of pilot exclosure devices in reducing access and spawning by adult pike in suitable habitats, and by the magnitude of cooperation by private property owners in the target river reach with respect to implementing this control action on a reach-wide scale.

IX. FY 2001 Budget Status

- A. Funds Provided: \$20,000 (Program – capital funds); \$30,000 (CDOW)
- B. Funds Expended: \$50,000 has been encumbered in the CDOW contract with the Colorado Cooperative Fishery Research Unit in Fort Collins annually for the completion of this project.
- C. Difference: \$0
- D. Percent of the FY 2001 work completed, and projected costs to complete: DNA
- E. Recovery Program funds spent for publication charges: \$0

X. Status of Data Submission (Where applicable): DNA

XI. Signed: Thomas R. Nester 12-10-2001
Principal Investigator Date

APPENDIX: None