UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM
TECHNICAL REPORT REVIEW PROCESS
Revised August/September, 2001; June 2002; April 2006; March 2010; May 2011; April 2012; February 2013; January 2015

INTRODUCTION

All technical reports developed in accordance with Upper Colorado River Endangered Fish Recovery Program scopes of work and funding are subject to the report review process described in this document. Technical reports developed with other funding that are seeking Recovery Program approval are also subject to this process, with possible process modifications identified herein. These procedures apply to reports submitted for review by either/both the Recovery Program's Biology Committee and/or the Water Acquisition Committee, including flow recommendations reports. Flow recommendations reports are subject to additional requirements described herein.

DEPARTMENT OF THE INTERIOR SCIENTIFIC INTEGRITY POLICY

The Recovery Program complies with the U.S. Department of Interior policy entitled "Integrity of Scientific and Scholarly Activities", as updated (Departmental Manual 305 DM 3, Department of the Interior, 1/28/11) (Resolution, Recovery Implementation Committee, Upper Colorado River Recovery Implementation Program, September 9, 2012.) Technical reports submitted in accordance with these procedures must comply with that Interior policy.

NON-RECOVERY PROGRAM REPORTS

Authors of non-Program technical reports requesting Recovery Program approval should discuss the review process with Recovery Program staff prior to submitting reports for review. Parties submitting non-Program reports to the Program for review are asked to make clear what they want the Program to do with the report, e.g., approve the report, consider the recommendations, etc. Recovery Program staff will determine whether the technical review process is appropriate and make a recommendation to the appropriate technical committee(s). In making the recommendation, Program staff will consider the relevance of the report to the Program's mission and the significance of the time commitment required of Program staff, peer reviewers, and technical committees to review the report. Technical reports developed outside the Program work planning process that are accepted by the Program for review will be subject to these procedures. The review time frame may be extended for non-Program reports, based on staff workloads and technical committee commitments.

REPORT FOMAT REQUIREMENTS

Recovery Program reports and non-Program reports submitted for review are required to comply with the report format requirements developed by the Program (Appendix 1).

Authors are to provide drafts for review in electronic versions which can be commented on directly via track changes in Word. (Tip: if a Word file is too large, embedded Excel and picture files can be compressed).

SUMMARY OF REVIEW PROCESS AND GENERAL TIME FRAME

The review process includes the following steps:

1. Informal internal agency review.
2. Program Director's office review.
3. Peer review and technical committee review.
4. Technical committee final review.
5. Recovery Program Management Committee review if needed.

The general time frame for the last four steps of the review process is about five months given the times allotted for each step, but may vary. A sample time frame is provided below:

SAMPLE REPORT REVIEW SCHEDULE

* Principal Investigator (PI) submits report to coordinator	January 1
* PI submits report to peer and technical committee(s) review	February 1
Peer reviewers return comments	March 1
Technical committee members return comments	March 15
* PI revises report for technical committee(s) consideration	April 15
Technical committee(s) consider report for approval	June 1

*At minimum, these three dates for report review should be incorporated into Recovery Program scopes of work.

DESCRIPTION OF THE TECHNICAL REPORT REVIEW PROCESS

STEP 1 – INFORMAL INTERNAL AGENCY REVIEW. Principal Investigator (PI) submits a draft report for in- house/agency review.

Objectives: The purpose of this step is to provide the author with initial input on the rough draft prior to initiating the formal review process by the Program. Specific objectives of this step include:

- Initial scientific and editorial review of the product.
- Provide the opportunity for the responsible agency or other entity to see the report prior to formal submission to the program.
- Initial check for compliance with format requirements, statement of work, and objectives.

Responsibilities:

Principal Investigator:

- Initiates in-house review in a timely manner to meet project completion deadlines and revises the draft report based on comments received.

In-house/agency staff:

- Provide initial review so that a quality product is available for the formal review process. Please refer to the final draft report evaluation form for review criteria (see **Appendix 2**).

STEP 2 - PROGRAM DIRECTOR'S OFFICE REVIEW (30 days). The PI submits the revised draft report from Step 1 to the appropriate coordinator in the Program Director's office along with names of a minimum of three recommended peer reviewers whom the PI has contacted to make sure they agree to review the report ***in the necessary timeframe***. The reviewers must be outside of the PI's immediate office and two of the three reviewers must be outside the PI's agency. Naturally, none of the subject report authors may be included among these peer reviewers. The coordinator reviews the report to make sure it meets Program requirements, fully carries out the scope of work, and has no major problems that would preclude adequate peer and technical committee review. The coordinator tells the PI which technical committee(s) need to be included in the review process from this point forward. The coordinator approves the selected peer reviewers or works with the PI to select other acceptable reviewers. In the case of flow recommendations reports, the recommended peer reviewers must include experts qualified to review the biological, hydrologic and geomorphologic bases for the recommendations. (Therefore, flow recommendations reports may require more than three reviewers.)

Objectives: Step 2 initiates the formal review process within the Program. It is intended to assure that a high quality product is provided for peer and technical committee review. Step 2 includes:

- Technical and editorial review of the report by the appropriate coordinator in the Program Director's Office.
- Review of compliance with Program report format and conformity to goals and objectives outlined in the project scope of work.
- Identification of appropriate technical committee(s) that will be involved (concurrently) in the review process.
- Identification of peer reviewers.

Responsibilities:

Principal Investigator:

- Sends draft report and copy of most recently approved scope of work to the coordinator.
- Recommends at least three individuals of his or her choice for peer review (making sure they're willing to review the report in the necessary timeframe).
- Revises the report as necessary based on Coordinator's comments.

Coordinator:

- Within 10 working days:
    - Approves the peer reviewers or works with PI to agree on alternative reviewers.
    - Identifies technical committee(s) to be included in the review process.
    - Reviews report to make sure that project objectives have been met, the scope of work fully carried out, and the report has no major problems that preclude peer review. If major problems are detected, the coordinator will ask the PI to correct them before the report is sent out for peer review. If the coordinator finds that the goals and/or objectives of the most recent approved scope of work are not adequately addressed, the coordinator will provide a written statement to the PI identifying the deficiencies and actions that need to be taken to rectify the report.
- Provides a scientific and editorial review of the draft report before it is goes to peer and technical committee(s) review. Ensures that the report meets Program format requirements and addresses the goals and objectives in the most recent approved scope of work. Results of the coordinator review are documented on the report review form and in written comments provided to the PI.
- Tracks the review process beginning in Step 2 through final approval of the report.

STEP 3 - PEER (30 days) AND TECHNICAL COMMITTEE REVIEW (45 days). Once the coordinator and the PI have agreed the report is ready (Step 2), the PI sends the report to the peer reviewers and the appropriate technical committee(s) and interested parties concurrently, accompanied by the project's most recent approved scope of work, the Program's report evaluation form, and reviewer checklist. The PI also tells the technical committee(s) the names of the selected peer-reviewers.

Objectives: Step 3 is intended to provide the PI with a substantive technical review of his or her report. Objectives of this step include:

- Thorough technical and editorial review of the report by knowledgeable individuals.
- Recommendations for improvement and recommended level of revision ("accept with minor revision" etc.).

Responsibilities:

Principal Investigator:

- Sends the report, most recent approved project scope of work, report evaluation form and the reviewer checklist to peer reviewers and the technical committee(s) and tells the technical committee(s) who has been selected to peer-review the report. The report should be sent electronically (but not via the fws-coloriver listserver) in Word format.
- Asks the peer reviewers to return their comments, the review form and the checklist in electronic format to the PI within 30 days, with a cc: to the coordinator and the technical committee(s) and interested parties. A minimum of three peer reviewers must be willing to share their comments with the technical committee(s).
- Clearly identify the dates that peer review and technical committee comments are due.

- If two or more reviewers suggest that major revision is needed, the PI will make the necessary changes. The report will be sent back out for peer review after the author has made the necessary changes. If only one reviewer suggests major revisions, then it will be the coordinator's decision as to whether the report will be sent out again for peer review if the revisions are made by the PI. Any revisions suggested by peer reviewers and not made will be discussed in the "response to comments" provided by the PI.

Coordinator:

- Submits the draft report to any additional independent peer review panels (e.g., Genetics Management Panel, geomorphic experts review group, and other appropriate reviewers), depending on report content, as needed to ensure that appropriate technical expertise is applied to the report review in a timely manner during the report review process.

Peer reviewers and technical committee members:

- Provide primarily a scientific review of the report and submit comments electronically (but not via the fws-coloriver listserver), using the Recovery Program report evaluation form, directly to the PI with a cc: to the technical committee and interested parties and the appropriate coordinator in the Program Director's Office. If reviewers provide a marked-up draft in addition to their electronic comments, the mark-up only needs to go to the PI. All substantive comments should be contained in the electronically submitted Recovery Program report evaluation form.

Technical committee members:

- Have 45 days to submit their comment so they can first see the peer reviewers' comments. If technical committee members do not submit comments within the 45 day period, the PI may assume they do not have major concerns with the report or with peer reviewers' comments.

STEP 4 - TECHNICAL COMMITTEE FINAL REVIEW. The PI revises the draft report based on comments received from peer reviewers and the technical committee(s) in Step 3. Within 30 days of the end of the technical committee review period, the PI submits a final draft report to the technical committee(s), interested parties and the coordinator along with a discussion of how comments were addressed. The technical committee(s) consider the report at their next scheduled meeting (assuming that meeting is at least 2 weeks after the technical committee members receive the report) and approve or reject the report.

If the technical committees reach consensus on approval or rejection of a revised report or recommendations, it is considered approved or rejected.

If the technical committees do not reach consensus on acceptance or rejection of a report and recommendations, i.e., one or more members of the committees do not agree with acceptance or rejection of the report and/or report recommendations, members disagreeing may file minority reports. If minority reports are filed, the report and the minority report(s) will be sent to the Management Committee (Step 5).

Objectives: The purpose of this step is to finalize the report. Specific objectives include:

- Provide a forum for discussion by the Program.
- Final review and approval of the report.
- Ensure that report recommendations are substantiated by the content of the report.

Responsibilities:

Principal Investigator:

- Revises the report as appropriate based on input received in Step 3 and submits it to the technical committee(s) and coordinator for approval along with a discussion of how reviewer comments were addressed.
- If the report is approved pending specific revisions, the PI makes the revisions and submits the final report back to the Program (Coordinator and technical committee[s])in a timely manner.
- If the report is rejected, PI will provide a revised report for discussion and approval by the technical committee(s) by a mutually agreeable date.

Technical Committee(s):

- Provides a final review of the report and either approves or rejects it within a 45 days from the time it is submitted in final draft form to the technical committee(s). If there are still any major outstanding concerns with the report, technical committee members will notify the PI at least one week prior to the technical committee meeting at which the report is to be considered for approval.
- If the report is rejected, the technical committee(s) will give the PI specific comments on changes required for approval.
- Consider the report recommendations separately, with the option to approve the report without accepting some or all of the recommendations. Committee members may request any recommendations not based in the data presented in the report be revised.
- If they do not reach consensus on approval or rejection of a technical report or recommendations in the report, technical committee(s) members dissenting may file a minority report or reports.

STEP 5 – MANAGEMENT COMMITTEE REVIEW. If a minority report is filed, the revised draft report is referred to the Recovery Program Management Committee. The Management Committee may engage in discussions to resolve issues or identify the process, participants, and timeframe needed to resolve issues.

ADDITIONAL REQUIREMENTS FOR REVIEW OF TECHNCIAL REPORTS ON FLOW RECOMMENDATIONS

This section describes additional requirements for review of technical reports on flow recommendations. Except for these additional requirements, flow recommendations reports are subject to the review procedures described above for all Recovery Program technical reports.

Initial flow recommendations are based on the best available information at the time the recommendations are developed. After flow recommendations are approved and implemented, results are monitored, and the recommendations will be evaluated and revisions made as necessary to ensure the recommended flows are achieving their intended role in endangered fish recovery. The process described below applies to initial flow recommendations and proposed revisions to flow recommendations based on continued research and evaluation.

1. The Service has primary responsibility for developing science-based (biology, hydrology, geomorphology) flow recommendations. The recommendations may be developed in coordination with appropriate parties that may include other Program participants and/or outside experts.

2. The flow recommendations report will identify the uncertainties associated with the flow recommendations with respect to the biology, hydrology, and geomorphology information applied in developing the flow recommendations. The Recovery Program will identify recommended monitoring and research activities needed to resolve the uncertainties and to evaluate whether the flow recommendations are achieving the intended objectives to support endangered fish recovery.

3. On completion of a final draft flow recommendations report by the Service, the report is submitted to both the Biology Committee and Water Acquisition Committee concurrently for technical review pursuant to Program's Technical Report Review Process described above. Members of the Biology Committee and Water Acquisition Committee are responsible for insuring full review by the agencies/interests they represent and submitting the consolidated comments of those agencies/interests as part of the report review process. The PDO is responsible for setting and managing the timeframes for completion of flow recommendation reports.

MANAGEMENT COMMITTEE'S ROLE IN APPROVING FLOW RECOMMENDATION REPORTS

The Management Committee will review and approve flow recommendation reports from an implementation perspective. Their review and approval process is separate from this technical report review process.

IMPLEMENTATION OF THE FLOW RECOMMENDATIONS

The PDO coordinates implementation of the flow recommendations with the appropriate state or federal action agency and other parties in a manner that demonstrates to the Service that sufficient progress is being made to recover the endangered fish. Program partners and/or outside experts and stakeholders may often be part of the implementation process. In the case of flow recommendations implemented through re-operation of Reclamation projects, Reclamation will be the lead agency for implementing flow recommendation and is responsible for NEPA

compliance that may be required for project reoperation.

The PDO ensures that approved flow recommendations are evaluated and revised as necessary based on the best available information.

REVISING FLOW RECOMMENDATION REPORTS

After initial flow recommendations are approved and implemented, results are monitored, the recommendations are evaluated and revisions made as necessary to ensure that flows are achieving the intended objectives to support endangered fish recovery. Proposed revisions to flow recommendations, (which may be presented as specific technical addendum), are subject to this Recovery Program Report Review Process.

APPENDIX 1
UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM
FORMAT FOR TECHNICAL REPORTS

Draft and final reports submitted to the Recovery Program will contain:

1. Cover page stating the title of the report, Recovery Program project number, Reclamation agreement number(s), author and organization, submittal date, and designation of draft, final draft, or final report. When the report is finalized, it should have a cover with the Recovery Program logo and agency logo on the front. PI's will submit an electronic copy to the Program Director's office in PDF format.

2. Standard acknowledgment statement regarding Recovery Program:

   "This study was funded by the Upper Colorado River Endangered Fish Recovery Program. The Recovery Program is a joint effort of the U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, Western Area Power Administration, states of Colorado, Utah, and Wyoming, Upper Basin water users, environmental organizations, the Colorado River Energy Distributors Association, and the National Park Service."

   Where trade names or commercial products are mentioned, the following disclaimer also should appear: "Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the authors, the Fish and Wildlife Service, U.S. Department of Interior, or members of the Recovery Implementation Program."

3. Table of contents.

4. List of tables.

5. List of figures.

6. List of key words.

7. Executive summary, generally limited to three pages, that includes a statement of the objective of the effort, an assessment of whether or not the objective was achieved, a brief description of methods, a statement of conclusions, a statement of recommendations, and other pertinent summary information.

8. Report contents including objectives, methods, results and discussion (combined or separate, per the author's preference), conclusions, and recommendations.

9. Bibliography.

10. Appendices

11. All pages should be numbered (except the cover page). Until a report is finalized, it also should have line numbers to facilitate review.

12. Units of measure should be metric except for water volumes and velocities and river miles, which should be reported in English. Authors are encouraged to report water volumes, velocities, and river locations in both English and metric units.

13. Species common names should *not* be capitalized, except words that are proper names; e.g., Colorado pikeminnow (per policy in Attachment 1).

14. Authors are to provide drafts in Word which can be commented on directly via track changes (tip: if a Word file is too large, embedded Excel files can be compressed).

15. All other standards of style should generally follow the most recent American Fisheries Society publication guidelines (unless the report topic suggests following guidelines from another professional journal). If a report contains chapters from different disciplines (e.g., fisheries and geomorphology), all chapters should adhere to AFS guidelines for consistency. These guidelines are published in the first issue of each volume of the Transactions of the American Fisheries Society, and are available online in PDF format at http://www.coloradoriverrecovery.org/committees/biology-committee/reportformat/TAFS.pdf

Reports which do not conform to these format requirements will be returned to the author without further consideration until they are revised.

Attachment 1

January 15, 2015

Upper Colorado River Endangered Fish Recovery Program
Policy Regarding Capitalization of Common Names of Fishes

Upper Colorado River Endangered Fish Recovery Program Policy

After reviewing conflicting policies and conventions (described below), the Recovery Program established policy *not* to capitalize species' common names. This policy was approved by the Biology Committee on January 15, 2015.

- Common names will not be capitalized in general publications (e.g., meeting agendas and summaries, Recovery Action Plan materials, sufficient progress memos, or outreach materials such as newsletters, briefing book, news releases, social media posts, etc.).

- Common names will not be capitalized in annual reports, scopes of work, or technical reports.

Background

In keeping with scientific and journalistic style conventions, the Recovery Program has never capitalized common names of fishes in any of its documents. This practice came into question when the seventh edition of the *Common and Scientific Names of Fishes from the United States, Canada, and Mexico*, published in 2013, included a major change: capitalization of English common names of fishes and the American Fisheries Society's guide to publication style was changed to match. The statement/rationale for this decision was:

> "The **American Fisheries Society** and **American Society of Ichthyologists and Herpetologists** Joint Names Committee (the governing committee in North America that determines the scientific and common names of fishes), has decided that the first letter in each word in the common names of fishes will now be capitalized. The decision to capitalize common names was made to better facilitate communication, particularly to a lay audience. For example, clarifying adjectives vs. common names. In the sentence, "I caught a spotted gar.", is it referring to one of many species of gar with spots, or a *Lepisosteus oculatus*(Spotted Gar)? This decision has been accepted by the AFS Executive and will be reflected in the upcoming seventh edition of *Common and scientific names of fishes from the United States, Canada, and Mexico*, AFS Special Publication. The Committee recommends that the use of capitalization be adopted now."

Conflicting Policies and Styles

In Recovery Program technical reports, authors have been directed to generally follow AFS Guidelines (with the exception of using English units for river location and water volume). However, the new AFS requirement to capitalize common names conflicts with the U.S. Fish and Wildlife Service's Journal of Fish & Wildlife Management guidelines for authors and its

media style guide with regard to capitalizing species common names[1].

State partners in the Recovery Program do not capitalize fish common names in their public materials.

Most English scholars advise not to capitalize common names and the broader trend in written English is toward not capitalizing (pers. comm., K. Winkler, Blue Ridge Community College, Flat Rock, NC). The AP Stylebook, says, “In general, avoid unnecessary capitals.” For example, the standard now is to write "president" when referring to the president of the United States.

[1] U.S. Fish and Wildlife Service guidelines not to capitalize common names apply to all taxa, including birds, despite the American Ornithological Union's decades-long direction to capitalize common names of birds.

APPENDIX 2
UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM
FINAL DRAFT REPORT EVALUATION

PEER REVIEWER RESPONSIBILITIES: Peer reviewers and technical committee members are responsible for providing primarily a scientific review of the report. Comments should be submitted electronically via this evaluation form directly to the principal investigator (PI), with a cc: to members of the appropriate technical committee(s) and interested parties and the appropriate coordinator in the Program Director's office. If you provide a marked-up draft in addition to your electronic comments, the mark-up only needs to go to the PI. However, please include all substantive comments on this electronically submitted evaluation form, so that those are available to the appropriate technical committee(s) and Program Director's office. Thank you.

PEER REVIEWER CHECKLIST:

____I received a copy of the report evaluation form.

____I received a copy of the project's most recent approved scope of work.

____I have addressed the questions on the report evaluation form.

____I am sending comments electronically:
____ to the PI with copies:
____ to the appropriate coordinator in Program Director's office, and
____ to the appropriate technical committee(s) members and interested parties.

REPORT TITLE:

AUTHORS:

PROJECT NUMBER:

RATING SUMMARY: (check one)
_Accept _Accept after minor revision _Reconsider after major revision _Reject

GUIDELINES FOR REVIEWERS

The attached report has been submitted to the Recovery Program for acceptance as final. The Program asks your assistance in judging this report's technical merit. Please include in your review both general and specific comments on the report's technical merit, strengths and weaknesses.

General Comments:
1. Scientific soundness
2. Degree to which conclusions are supported by the data
3. Organization and clarity
4. Cohesiveness of argument
5. Length relative to amount of information
6. Conciseness and writing style

Specific Comments:

Please support your general comments with specific evidence. Comment on any of the following matters that significantly affected your judgment of the report:

1. Presentation -- Does the report tell a cohesive story? Is a tightly reasoned argument evident throughout? Where does the report wander from this argument? Does the report address the objectives as presented in the scope of work? Do the title, abstract, introduction, and conclusions accurately and consistently reflect the major point(s) of the report? Is the biological or other technical significance of the results clearly stated? Are the objectives clearly stated? Is the writing concise, easy to follow, interesting? Are the findings well integrated with existing knowledge?

2. Length -- What portions of the report should be expanded? Condensed? Combined? Deleted?

3. Methods -- Are they appropriate? Current? Described clearly enough so that the work could be repeated by someone else?

4. Data presentation -- Are the results clearly presented? When results are stated in the report, can you verify them easily by examining tables and figures? Are any of the results counterintuitive? Are tables and figures clearly labeled? Well planned? Too complex? Necessary?

5. Statistical design and analyses -- Are they appropriate for the data and correctly applied? Can the reader readily discern which measurements or observations are independent of which other measurements or observations? Are replicates correctly identified? Are significance statements justified?

6. Errors -- Point out any errors in technique, fact, calculation, interpretation, or style.

7. Citations -- Are all (and only) pertinent references cited? Are they provided for all assertions of fact not supported by the data in this report?

8. Recommendations -- Are management implications identified? Are the recommendations technically sound? Are they supported by the results of this and other research? Would implementing the recommendations contribute to recovery?

COMMENTS:

This review will be considered by Recovery Program staff and the appropriate technical committee(s). If you desire anonymity, please do not enter your name below. The Recovery Program sincerely appreciates your assistance.

NAME:

DATE:

PLEASE RETURN BY: *(PI enters date here)*