

**Review of the Grand Canyon Non-Native Fish
Control Plan: Short Term Monitoring and Research
Actions (1/09)**

**BY
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**L.D. Garrett SA Presentation
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Overview

- Review surfaced several issues and concerns and also cited important contributions of plan, i.e.
 - Plan strategy emphasizes science over management
 - Two step planning process does not appear necessary
 - Well developed assessment of knowledge for cold water fishes
 - Significant revision recommended

Review Context

- Addressed Plan as a part of overall GCDAMP biology management and science programs;
- SAs feel AMP management and science biology program integration is critical
- Evaluate Plan relative to AMWG request for “GCMRC to further develop warm water species plan with TWG”
- SAs assumed a management non-native fish control plan with requested science was desired.

Review Structure

- Executive Summary
- General Review Comments
- Specific Review Comments
- Recommendations

General Review Comments

- Overall “Control Plan Strategy” missing from documents
 - Listed tactical and operational elements important
 - But, tactical and operational elements should proceed from and clearly support “control Plan strategy”

General Review Comments

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- Length of process to develop plan too long
 - Process planning 2004-2010 to continually upgrade knowledge is commended now but too long
 - Alternative to formalize control Plan now on “best knowledge” should be considered

General Comments

Cont'

- Structure and balance of management programs and related science not effective
 - Management control program not well developed
 - Collaboration program of managers not well defined

General Comments

cont'

- Identify primary impactors (i.e. non-native fish) of concern now and in future
 - Strategy and structured process problem/objectives/criteria, methods etc. not clearly defined.
 - Limited strategy to address future threats if habitat/species changes occur
 - Limited reference to Upper Colorado control program

General Comments

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- Approval of effective plan in near term is needed
 - Development of significant increased knowledge could take several years
 - Approved plan is needed in near term to integrate with other critical fish biology efforts

General Comments

cont'

- Program integration
 - Plan lacks managers priority list of fish control actions or pilot actions for next 5-10 years
 - Actions should reflect more comprehensive and integrated management and science assessments of current knowledge

General Comments

cont'

- Schedule; budgets
 - An integrated management and science schedule is not presented
 - Budget information is insufficient to evaluate alternative approaches

General Comments

cont'

- Contingency Plan for non-native control not fully developed
 - Needs to respond to events that, although currently not predicted to occur
 - Contingency Plan should incorporate elements of the overall control plan

Recommendations

- Develop strategy that focuses on managers proposed control actions, and related science
- Plan should be revised to transition from the strategy to explicit management and science activities
- A plan should be completed in 2009, and updated annually by management and science with review in 2012

Recommendations

cont'

- Focus Plan on management control actions. Provide information on expected mitigation benefit, alternative control methods, science need, required collaboration and resource needs, etc.

Recommendations

cont'

- Define current and future science needs for each control action, with needed integration to ongoing programs
- Integration of GCDAMP management and science programs with other agencies/Tribes

Recommendations

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- Resource and budget requirements of managers and scientists
- More clarification; i.e. authorities, responsibilities, schedules, costs etc.