

Nonnative Fish in Grand Canyon – Summary of Nonnative Fish Control Options and Recommended Monitoring and Research Activities

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Overview

1. Technical Report Background
2. Major Components
3. SA and TWG Comments
4. FY10-11 Projects
5. Nonnative Fish Workshops
6. Next Steps



Background

1. 2004 AMWG motion

GCMRC and TWG make a recommendation on warm water species studies including a plan

2. 2004 TWG motion

GCMRC to develop process, schedule, budget for suppression and control of non-native fish (warm water species)

3. Biological Opinion components (Dec 2007 – Oct 2009)

Conservation measure = implement nonnative control

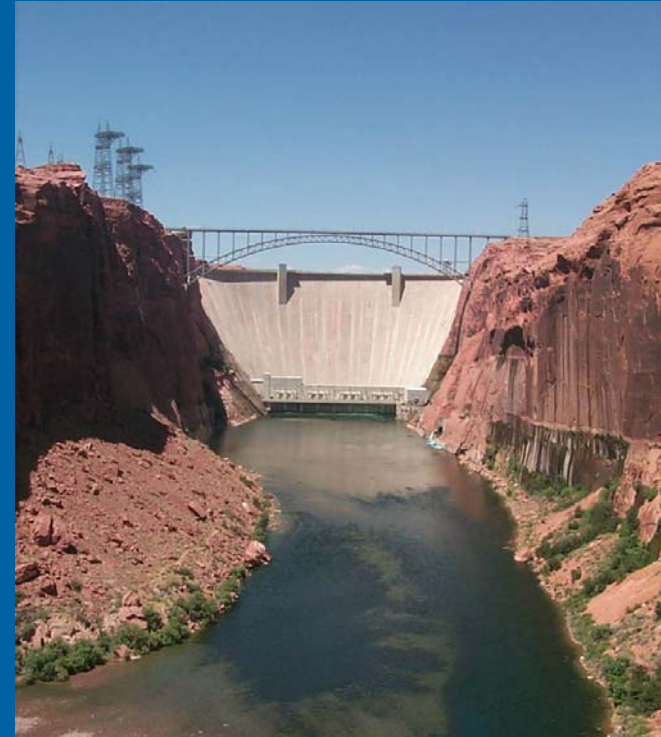
Reclamation forecasted cooling water temp therefore include cold water species

References GCMRC nonnative fish report as guidance for implementing nonnative control

4. Ecosystem approach – including tributaries, Lake Powell

Nonnative Fish Technical Report Components

- Review
 - Directives and past GCDAMP efforts
 - Grand Canyon fish monitoring and data
 - Literature
 - Upper Basin Recovery Program
- Recommendations
 - Monitoring and research
 - Annual nonnative fish workshop
- Identify nonnative removal options
- **Prevention**
 - Grand Canyon has few nasty nonnative fish
 - Public outreach
 - Source identification



Nonnative Fish Technical Report Components

- **Identify needs for control implementation**
 - Management Agency involvement
 - Management vs. experimental action?
 - Define roles and management objectives
 - Desired Future Conditions
 - Rapid Response Plan to facilitate immediate nonnative fish control response when needed
- **Contingency Planning**
 - Available removal methods very limited
 - Uncertain which species poses greatest risk
 - Triggers evaluated at annual workshops
(Distribution, catch rate, size structure, species composition)
 - Contingency Fund



Nonnative brown trout
with humpback chub

Nonnative Fish Technical Report Components

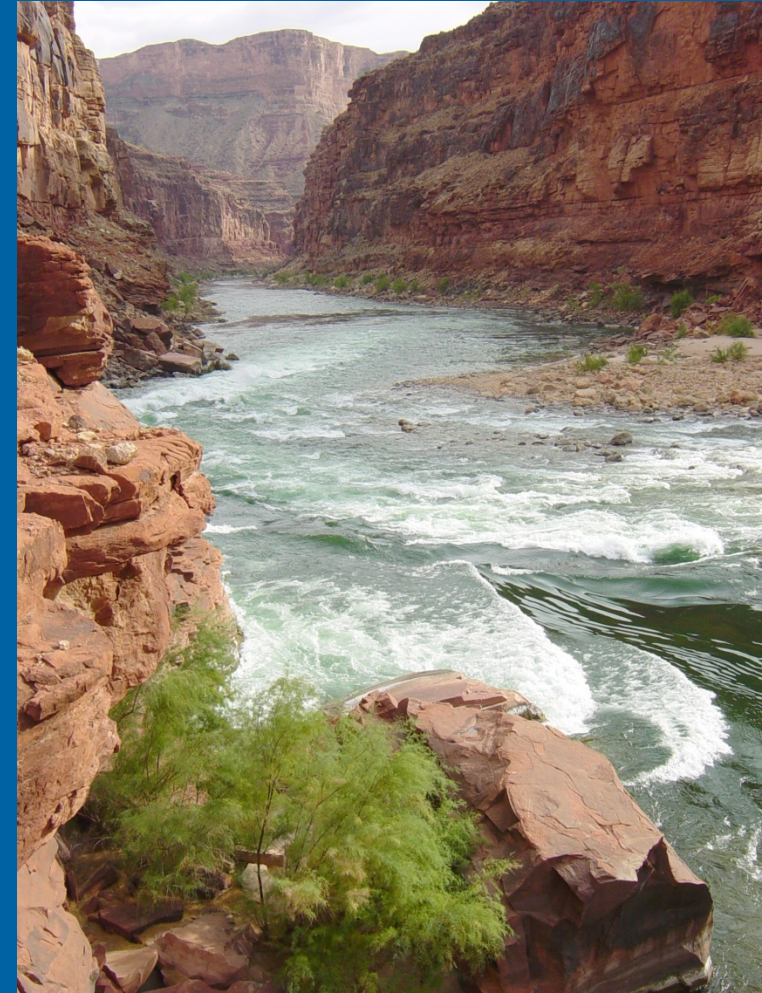
- **Contingency Fund**
 - Nonnative fish control can be expensive
 - Nonnative control is largest Upper Basin program cost
 - Address critical nonnative fish control needs without impacting monitoring and research efforts
 - Recommend contribution \$300K annually
 - Not to exceed \$900K
 - Estimated from minimum of 2 trips/yr (Mech. remov. \$150k/trip)
 - GCDAMP has spent \$800K/year in past
 - Source of funding not clear

SA and TWG Comments

- **Need for integration of science and management**
 - Desire for assignment of agency roles
 - Clarified scope and intent of document
 - Technical foundation for implementation plan
 - Examples provided for rapid response plans, project prioritization processes
 - Annual nonnative fish workshops
- **Need for risk assessment**
 - Identify and prioritize dangers nonnative fish pose to natives
 - Incorporated Valdez and Speas (2009) temperature assessment
 - Progress in ecosystem modeling
- **Tribal concerns**
 - Acknowledged concerns and need for tribal consultation

TWG Comments

- **Scientific justification for Mechanical Removal**
 - Triggers
 - Uncertainty
- **Perceived obligation of Management Agencies**
 - Clarified technical report not intended to obligate
 - ‘plan’ changed to ‘document’
 - ‘recommendation’ changed to ‘option’ in the context of removal



National Park Service

FY10-11 Nonnative Fish Projects

Monitoring:

- Develop protocols to detect rare nonnative fish and monitor expansion in Lees Ferry and mainstem

Research:

- Complete investigation of nonnative sources (FY11)
- Complete risk assessment (FY11)

Control:

- Nonnative fish removal – subject to consultation

NNF Workshop

- Prioritization process, define agency roles, other?

Annual Nonnative Fish Workshop Objectives

- Involves Scientists and Management agencies
- Develop science driven approach to management
 - Review monitoring data
 - ID critical nonnative fish issues
 - ID and prioritize new nonnative fish recommendations
 - Data driven decisions for annual planning
- Identify agency responsibilities
- March 30-31, 2010 in Flagstaff, AZ

Next Steps

- Resolve tribal and other policy related issues
- TWG and AMWG recommendation of technical report to Secretary of Interior
- Focus GCMRC staff time on risk assessment and source identification



Questions?

