

**Glen Canyon Dam Adaptive Management Work Group**  
**Agenda Item Information**  
**August 12-13, 2009**

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Agenda Item

Stakeholders' Perspectives and Interest in the AMP: Arizona Game and Fish Department

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Action Requested

√ Information item only. We will answer questions but no action is requested.

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Presenter

Mike Senn, Assistant Director of Wildlife Management, Arizona Game and Fish Department

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Previous Action Taken

N/A

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Relevant Science

N/A

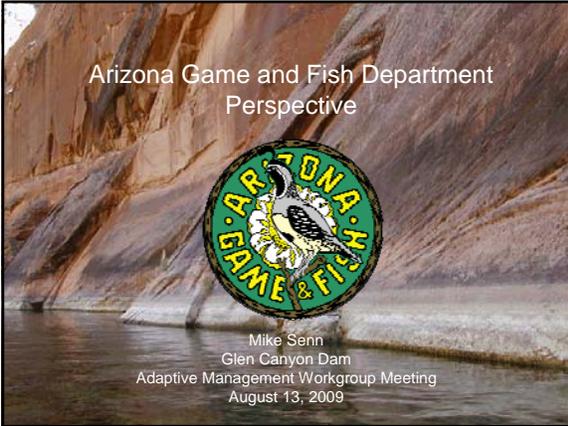
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Background Information

This item gives AMWG members an opportunity to inform the full AMWG about the people they represent and their connections to the Colorado River. They can also explain why they are interested in the AMP and what they hope to achieve through their participation.

Mike Senn will give a presentation about the Department's history and involvement with AMWG and TWG, and the Department's roles and responsibilities for management of fish and wildlife resources in Arizona. He will also discuss opportunities for partnerships and stakeholder involvement.




### Arizona Game and Fish Commission and Department

- The Commission, established by ARS § 17 is composed of five members appointed by the Governor pursuant to ARS § 38-211.
- Commissioners serve 5-year staggered terms and may only be removed for cause.
- Commission establishes policy and direction and appoints the Director of the Arizona Game and Fish Department, the action agency of the Commission.



### Game and Fish Commission is a Management Authority

ARS § 17-102. Wildlife as state property  
Wildlife, both resident and migratory, native or introduced, found in this state, ... are property of the state...

ARS § 17-231. General powers and duties  
A. The commission shall:  
2. Establish broad policies and long-range programs for the management, preservation and harvest of wildlife.



### AGFD is a Charter Member of GCD AMWG

- The Arizona Game and Fish Commission is the state trustee and authority for wildlife for Arizona.
- The Department has a vested interest in actions that affect wildlife and the habitat that it depends upon; as well as the recreation related to wildlife.
- The Department's role includes striving to meet the needs, wants, desires, and expectations of Arizonans.
- As an allied and concurrent authority, and because of its history of involvement with Glen Canyon Dam operations, The Department was specified as a member of the Federal Advisory Committee.




### Who Do We Work With Within AZ?

- Citizens of the State of Arizona
  - All of the Citizens of the State
  - Wildlife Recreationist (Anglers, Hunters, Wildlife Watchers, Wildlife Enthusiasts, Conservationists)
  - Watercraft Operators / OHV Operators
- Office of the Governor and sister agencies
  - AZ Dept Water Resources (statutorily)
- Federal counterpart and partner agencies
  - Fish and Wildlife Service
  - National Park Service
  - Reclamation
  - Others (USDA, BLM, BIA, DOD, ACOE, FERC...)





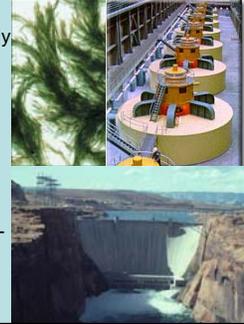
### Arizona Game and Fish Department: A Little History with Glen Canyon Dam

- Lake Powell and Lees Ferry identified as sport fisheries prior to construction of GCD by AGFD, USFWS, BOR and Utah DWR (late 1950's).
- Trout stocking was conducted from 1963 – 1998.
- Tailwater Fishery investigations began in the 1960's following closure of GCD.



### Continuing History with Glen Canyon Dam

- Involved in GCD "Up-rate and Rewind" in the late 1970's – early 1980's.
- Glen Canyon Environmental Studies 1982-1995
- Cooperating Agency for preparation of 1995 EIS on Operations (1990-1996)
- Adaptive Management Work Group / Program member 1996-Present



### Perspectives on Adaptive Management

- AGFD has been involved and committed as a charter member of AMWG to the Adaptive Management approach.
- Adaptive Management Work Group is our preferred forum for collaboration and problem solving on shared goals associated with operation of Glen Canyon Dam.
- Recognize that the cooperative spirit of Adaptive Management is fragile, based on shared goals across all resources.



### AMP GOALS

1. Protect or improve the aquatic foodbase so that it will support viable populations of desired species at higher trophic levels.
2. Maintain or attain viable populations of existing native fish, remove jeopardy from humpback chub and razorback sucker, and prevent adverse modification to their critical habitat.
3. Restore populations of extirpated species, as feasible and advisable.
4. Maintain a naturally reproducing population of rainbow trout above the Paria River, to the extent practicable and consistent with the maintenance of viable populations of native fish.
5. Maintain or attain viable populations of Kanab ambersnail.
6. Protect or improve the biotic riparian and spring communities, including threatened and endangered species and their critical habitat.

### AMP GOALS

7. Establish water temperature, quality, and flow dynamics to achieve the Adaptive Management Program ecosystem goals.
8. Maintain or attain levels of sediment storage within the main channel and along shorelines to achieve the Adaptive Management Program ecosystem goals.
9. Maintain or improve the quality of recreational experiences for users of the Colorado River ecosystem, within the framework of the Adaptive Management Program ecosystem goals.
10. Maintain power production capacity and energy generation, and increase where feasible and advisable, within the framework of the Adaptive Management ecosystem goals.
11. Preserve, protect, manage, and treat cultural resources for the inspiration and benefit of past, present, and future generations.
12. Maintain a high quality monitoring, research, and adaptive management program.

### AZGFD Perspective:

- Our wildlife mission is conservation of resources and the habitat that it depends upon for the benefit and enjoyment of present and future generations of Arizonans.
- Our focal interests in AMWG have included:
  - Recreational (blue ribbon) trout fishery in Glen Canyon
  - Vibrant native wildlife community in Grand Canyon - conservation and enhancement of wildlife resources.
  - Safe and enjoyable wildlife-related and watercraft recreational experiences



### Schizophrenia and Balancing Interests

- Recreational fishery
- Native fish community
- Terrestrial wildlife
- Enhancement of wildlife – including restoration
- Watercraft recreation
- Invasive species



### Adaptive Management Program Participation

- Glen and Grand Canyon Monitoring and Research Program
  - Lees Ferry Core Monitoring
    - Status and trends recreational fishery community
  - Downstream fish community monitoring
    - Status and trends of fish community, both native and non-native
  - Mechanical removal
    - Non-native removal near LCR
    - Investigating warmwater removal methods
  - Remote PIT tag antennas
    - Development and implementation
  - Parasite monitoring
  - LCR Monitoring
    - Status and trends lower 1200m
  - Translocations
    - Chute Falls
    - Shumoo Creek
  - Protocol Evaluation Panels
  - Near Shore Ecology Study
  - Kanab Ambersnail monitoring
    - Population assessment
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- Adaptive Management Work Group
  - Public Outreach Ad Hoc Group
  - Roles and Responsibilities
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- Technical Work Group
  - Planning activities:
    - Humpback chub comprehensive plan
    - Science Planning Group
    - Monitoring and research plan
    - Long term experimental plan
    - Core monitoring plan
    - Temperature Control Device
  - Partnerships:
    - USGS Grand Canyon Monitoring and Research Center
    - US Fish and Wildlife Service
    - Bureau of Reclamation
    - National Park Service
      - Grand Canyon National Park
      - Glen Canyon National Recreation Area
    - Grand Canyon Wildlands Council
    - Tribes (Hualapai Tribe and Navajo Nation)
    - Academia
    - USGS National Wildlife Health Center

### Our Future with AMWG

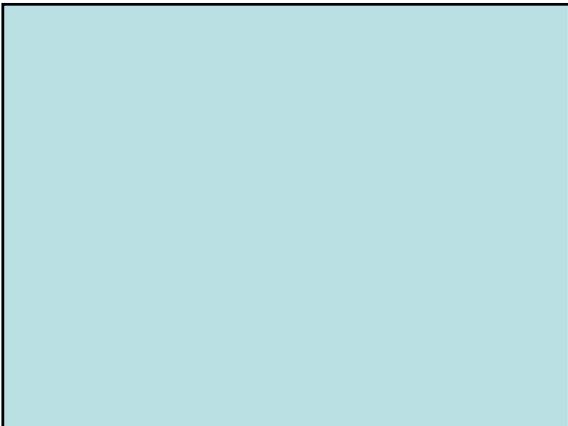
- Seeking and refining our sense of “balance” among all resources.
- Focus on Adaptive Management Goals.
- Seeking strategies and tools for targeted management and control of nonnative fishes in Grand Canyon.
  - Based on good science,
  - With realistic and mutually acceptable targets,
  - Triggered by real criteria
- Recovery Implementation? for humpback chub, and other listed fishes.
- Use dam operations to maintain habitat for a broader wildlife community and ecosystem, in balance with all resources.



### Thank You



Questions?

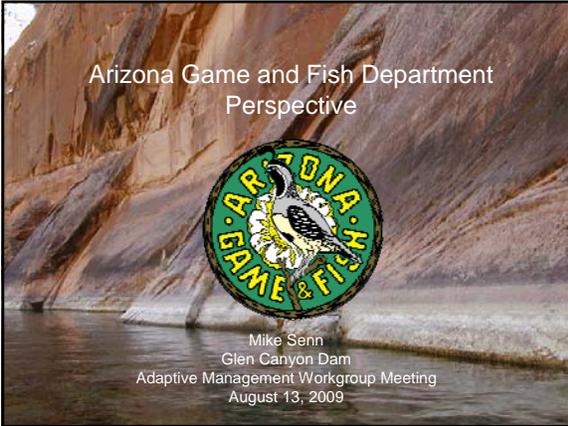


### AGFD Interests: Recreational Fishery

- Recreational fishery (Lees Ferry, 16 miles)
  - Cold water releases allowed creation of a rainbow trout fishery.
  - Lees Ferry was maintained through stocking 1964-1998.
  - Currently a self-sustaining wild trout fishery.
  - Internationally recognized blue-ribbon tailwater fishery recognized in 1970's.
  - Supports local economy (motels, restaurants, fly shops, fishing guides) and contributes to regional economy.

AGFD Interests:  
Native Fish Community

- Native fishes
  - Endangered species
    - Humpback chub
    - Razorback sucker (likely extirpated from Canyon)
    - Colorado pikeminnow (extirpated from lower basin)
  - Other native fishes
    - Flannelmouth sucker
    - Bluehead sucker
    - Speckled dace




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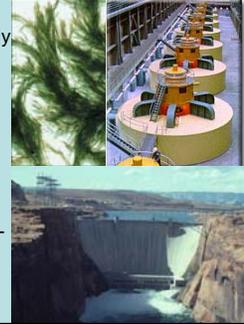
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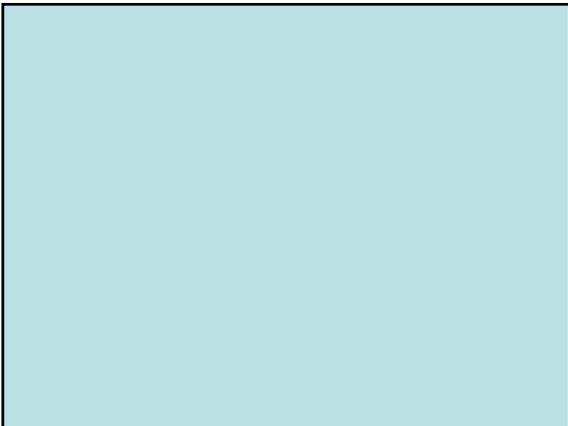
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