General Core Monitoring Plan for the GCD-AMP

TWG Meeting
March 15, 2010

John Hamill, Chief
USGS GCMRG
Flagstaff, AZ

Overview

- Background and Rationale for Plan
- General Framework
- Major Elements
- Staffing and Cost

Past TWG/AMWG actions

- TWG, AMWG and SOI approved the 4-step core monitoring approach described and included in the FY 07-11 MRP

An Adaptive Core Monitoring Process (from 2007-2011 MRP)

- Annual Information Needs Workshop
- Protocol Evaluation Panel Reviews
- Detailed Core Monitoring Plans for each Resource Area
What is Core Monitoring

- Consistent, long-term, repeated measurements using scientifically accepted protocols to measure status and trends of key resources to answer specific questions. Core monitoring is implemented on a fixed schedule regardless of budget or other circumstances affecting target resources (AMP Strategic Plan).
- Addresses monitoring of resources and CMINs associated with GCDAMP goals

Programmatic Plan

- Outlines the general scope and objectives of the core monitoring program
- Identifies where we are headed and how & when to get there
- Plan will be incrementally implemented and modified based on experience, PEP reviews, and new information
- Estimates yearly $$$ and staffing needs
- Plan will be incorporated into 2012-2017 MRP

GCD AMP Strategic Goals

- Recreational Experience
- Habitat Restoration
- Native Fish
- Macroinvertebrate Communities
- Acoustic Food Availability
- Downstream Quality of Water
- Sediment
- Hydropower
- Archaeological Sites & TCPs
- Glen Canyon Dam Operation
- MRRIY

Planning Context

- 5-year Analysis
- SCORE Project
- R1A Report
- Annual Reports
- Annual Work Activities
Why is a Core Monitoring Plan Needed

- Fundamental to Adaptive Management
- Meet the requirement of Grand Canyon Protection Act
- Core Monitoring R&D consumes large portion of budget (~65%)  
- Needed to support long term budget and staff planning
- Needed to resolve fundamental issues about the scope and direction of core monitoring

Foundational Elements

- AMP Strategic Plan and Core Monitoring Information Needs (Identify What, Where, When)
- Various TWG deliberations (core monitoring team, SPG, etc.)
- Independent reviews and guidance
  - NRC review of 1995 monitoring plan
- Inventories and Extensive R&D—Protocol development and testing
- Missing element: Desired Future Conditions (work in progress)

General Core Monitoring Plan
Table of Contents

Chapter 1. Introduction and Background

Chapter 2. General Framework and Process for developing a Core Monitoring Program

Chapter 3. General Core Monitoring Proposals by AMP goal

Chapter 4. Data Management, Quality Assurance and Reporting

Chapter 5. Management Strategy, Staffing and Budget

Program Cost

- Cost: $6.3M/year
  - Consistent with independent estimates
  - Consistent with current Monitoring R&D expenditures and direction
  - Based on existing or anticipated work
  - Refined in detailed core monitoring reports/TWG deliberations
  - Suitable for general budget planning
Staffing

- 25 full time equivalents by 2015
  - Program management
  - Contracting/agreements
  - Data collection/analysis
  - Data Management
  - Reporting and publication
  - Logistics and survey support
- Shift in staff expertise
- Shift to permanent positions (19 to 26)

Review/Approval Process

- Blue Review—July 2005
- TWG Review—December 2009 Workshop
- AMWA Update—February 2010
- TWG Review/Recommendation—March/April 2010
- AMWA Recommendation—Summer 2010