A Review of the Glen Canyon Dam Adaptive Management Program (GCDAMP) Effectiveness

By
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Technical Work Group Meeting
April 2-3, 2007

COMPLETION DATE DELAY

- From spring 2006 to winter 2006

REVIEW CONSTRAINTS

- Budgeted time of SAs and Executive Secretary
- SA program commitment to science planning in 2006

AREAS OF INQUIRY

- Organizational effectiveness (purpose, mission, goals, roles, responsibilities)
- AMP Processes (adaptive management, collaboration)
- Science and management planning and implementation (GCMRC, AMWG, TWG, SAs)
- Program resources (AMP resource capabilities, external resource opportunity)
- Operational effectiveness (science program, management programs)
- Outcome effectiveness (science issues, management issues)

REVIEW PROCEDURES

- Evaluation of AMP program documentation to determine effectiveness
- Strategic Plans (AMWG, GCMRC)
- Operational Plans (MRP, HBCCP)
- Work/Action Plans (BAHG, GCMRC)
- Reports, memoranda (GCMRC, SPG, SD, TWG, SA)
- Agendas, meeting notes (AMWG, TWG, SPG, HBCCP, CRAHG, BAHG)

ORGANZATIONAL EFFECTIVENESS (Goals, Roles)

Findings

- Mission, Goals, Information Needs documented and utilized; need support for common purpose
- Objectives documented but not utilized
- INs used but cumbersome; too extensive
- Science and management questions (2006); some use in planning
- Roles have organizational clarity, but lack operational clarity

ORGANIZATIONAL EFFECTIVENESS

Recommendations

- Establish support for common AMP purpose
- Establish focus on priority elements of critical goals to gain defined outcomes in explicit time periods
- Delete use of objectives
- Reformulate INs into focused science and management questions to guide long and short term program efforts
- Develop operational clarity for roles and responsibilities of each AMP entity

GCD AMP PROCESSES
(Adaptive Management and Collaboration)

Findings

- Progressive example of large AM experiment
- Successfully cycled science/management with increased learning and limited resource improvement
- Relative good success in adaptive governance
- Collaboration is being utilized; needs improvement
- Leadership changes, planning accomplishments and renewed AMP commitments demonstrate resilience

GCD AMP PROCESSES (Adaptive Management and Collaboration)

Recommendations

- Comparative evaluations with other AM programs for social learning and exchange
- Conduct AMP workshops to evaluate and improve AM and collaboration effectiveness
- Commitment to pursue AM cycle to appropriate conclusion resolving risk with greater certainty
- Improve specification of when, where and how to use collaboration in differing entities to gain outcome effectiveness

SCIENCE AND MANAGEMENT PROGRAM PLANNING AND IMPLEMENTATION

Findings

- Significant past criticism of GCMRC and TWG productivity, performance of appropriate roles
- Increased cooperative efforts of TWG/GCMRC in 2006 and associated increase in accomplishments and leadership
- Improvements needed to make science and management planning more integrated
- Management provides limited and support in specifying dfc, priorities, criteria for management action, etc.
- Science provides limited guidance in targeting timely science outcomes and resolving resource interdependencies with systems approaches

SCIENCE AND MANAGEMENT PROGRAM PLANNING AND IMPLEMENTATION

Recommendations

- Science and management planning and implementation processes should utilize more effective integrated collaborative approaches (TWG and GCMRC)
- Science needs to implement interdisciplinary approaches and target timely outcomes to critical goal focus areas
- Management should provide timely resolve to key management issues such as dfcs, critical priorities, management actions, TCD implementation, etc.

PROGRAM RESOURCES

Findings

- Current budget will sustain core programs but is limiting factor for many program challenges
- Program prioritization not effective
- Reduced investments in technology
- Explicit 2 year and longer term strategic budget plans do not exist

PROGRAM RESOURCES

Recommendations

- Develop improved project prioritization
- Develop 2 year and out year budget plans
- Develop process to provide flexibility to shift budgets year-to-year
- Develop supplemental budget plans and programming

OPERATIONAL EFFECTIVENESS

Findings

- AMP has operational effectiveness: i.e., decade of AM operation; accomplishment in planning, experiments, management guidelines, etc.
- Science program needs more operational management integration to improve: timely resolve on focus areas; system model for interaction; LTEP; interdisciplinary science
- Management needs improved operational effectiveness including; program priorities; dfc; management actions; tradeoff analysis; etc.

OPERATIONAL EFFECTIVENESS

Recommendations

- AMP entities should develop workshop (s) to determine most critical improvements needed in science and management operational effectiveness
- Revise strategic plans to reflect these efforts
- Draft action plan to accomplish improvements
- Redesign AWP to incorporate all AMP entities integrated schedule of activities to accomplish programs

EFFECTIVNESS OF OUTCOMES

Findings

- AMP has accomplished significant outcomes in learning with less success on resource improvements
- Significant uncertainty exists for several resources, especially biotic resources. Greater certainty exists in physical resources.
- Structured 5 and 10 year science programs are planned to resolve uncertainty

EFFECTIVNESS OF OUTCOMES

Recommendations

- To increase outcome effectiveness evaluate recommendations from AMP entities recent reports
- Completing MLFF assessments (2-3 years) would increase outcomes
- Near term outcomes would result from Lake Powell assessment and additional BHBF test
- Management workshop (s) to resolve dfc, priorities, management actions, objective decision processes would increase outcomes