

SCIENCE ADVISORS REPORT ON
ACCOMPLISHMENTS AND PROPOSED FY 2009
AND FY 2010 PROGRAMS

L. DAVID GARRETT
EXECUTIVE COORDINATOR
SCIENCE ADVISORS

PHOENIX, AZ
TWG FALL MEETING
OCTOBER 15-16, 2008

1

GOALS OF SA REVIEW AND
ADVISORY SERVICE TO GCD
AMP

- SAs service is enlisted to increase the efficiency and quality of the science being developed by GCMRC and used by the AMWG and the Secretary
- SAs provide independent scientific oversight and technical advice to insure that GCMRC science programs are efficient, unbiased, objective and scientifically sound

2

SAs GENERAL CHARGE FOR REVIEW OF SCIENCE AND
TECHNICAL DOCUMENTS FOR THE GCD AMP

- Overall Adaptive Management Program effectiveness
- Evaluating overall program direction; i.e., experimental and management strategies
- Monitoring and research assessment approaches; synthesis; etc
- RFP process
- Protocols
- Strategic, Operational and Annual Plans
- Proposed new science programs
- Budget proposals

3

SAs GENERAL CHARGE FOR ADVISORY
SERVICE TO GCD AMP

- SAs and Executive Coordinator are to provide advisory services on science and technical issues as requested by GCD AMP entities and approved by GCMRC. This includes:
 - SA Executive Coordinator and SAs participation with AMP entities in meetings, conference calls, discussions etc. Assistance in workshops, planning, etc.

4

ACTIVITIES OUTSIDE THE GCD
AMP CHARGE TO SAs

- The SAs do not Evaluate Policy or Legal Implications of AMWG recommendations or Secretary Decisions

5

GENERAL ANNUAL TIME AND TRAVEL
REQUIREMENTS FOR SAs TO ACCOMPLISH
TASKS

SCIENCE ADVISORS

- 20-25 days of each SA/year; \$60-80K
- 3-4 review meetings; conference calls; \$20-30K

EXECUTIVE SECRETARY

- 90-130 days of Executive Secretary's time; \$60-70K
- 3-4 SA review meetings, logistics, conference calls; \$7K
- 8-12 GCMRC/AMWG/TWG or Ad Hoc meetings, conference calls, \$9K

Total Annual Costs: \$170,000 - \$190,000

6

SCIENCE ADVISOR GROUP 2008

- FISH ECOLOGIST – Dr. JIM KITCHELL, UW
- AQUATIC ECOLOGIST – Dr. HAROLD TYUS, UC
- LIMNOLOGIST – Dr. DALE ROBERTSON – USGS/UW
- ANTHROPOLOGIST – Dr. DON FOWLER, UNR
- ADAPTIVE MANAGEMENT SPECIALIST – Dr. LANCE GUNDERSON, EMORY
- SYSTEM SPECIALIST – Dr. VIRGINIA DALE, Oak Ridge Lab
- TERRESTRIAL ECOLOGIST – Dr. JILL BARON, USGS/ CSU
- GEOMORPHOLOGIST – Dr. ELLEN WOHL, CSU
- ECONOMIST – Dr. L.D. GARRETT, EXECUTIVE , COORDINATOR NAU/M3 RESEARCH

The Science Advisor Group has significant replacements every 3-4 years. Replacements will occur in 2009

7

SCIENCE ADVISORS GENERAL OPERATING PROTOCOL

- Annual report to AMWG on accomplishments and approval of two year program
- Maintain highest quality science review and advisory service
- Insure independent and unbiased science review and advisory service
- Formal written response to all GCMRC, TWG, AMWG, Secretary Designee requests for review or advisory service
- Formal written reports on all provided service
- Timely reviews and service that focus on recommendations on critical issues

8

COMPLETED FY 2007/2008 REVIEW SERVICE

- Review of 2008 Annual Research and Monitoring Plan and Budget
- Review of GCD AMP FY 08 – FY 11 RFP: Archeological Site Monitoring Research and Development Project
- A review of the Science Plan for Potential 2007 Beach/Habitat Building Flows Experiment
- Review of Chapter 3 of the 2007 Glen Canyon Dam (GCD) Environmental Impact Statement (EIS)

9

COMPLETED FY 2007/2008 REVIEW SERVICE (CONT')

- A Review of the Glen Canyon Dam Adaptive Management Program Effectiveness
- A Review of a Comprehensive Plan for the Management and Conservation of Humpback Chub (Gila Cypha) in Grand Canyon, Arizona
- Science Advisors Review of "2008 Near Shore Ecology Pilot Project"
- GCD AMP Science Advisors Review of Three New Program Initiatives in the "Glen Canyon Dam Adaptive Management Program Budget and Annual Work Plan; Fiscal year 2009"

10

COMPLETED FY 2007/2008 REVIEW SERVICE (CONT')

- Review of Approaches to Synthesis of 2000 LSSF Test
- Science Advisors Review of the GCMRC RFP; "Near Shoreline Fish Ecology Program of Study"
- A Review of the "Science Plan for A Proposed 2008 High Flow Experiment"
- GCMRC Requested Review of "Low Sustained Summer Flows – Data and Research Compilation Synopsis and Synthesis Outline"

11

FY 2007/2008 REVIEWS IN PROGRESS

- A Review of the Archeological Treatment Approaches for CRE
- A review of the "Short Term Non-Native Fish Control Plan"

12

SELECTED SA ADVISORY SERVICE FOR 2007/2008

- Presentations of the Science Planning Group and SAs findings to TWG and AMWG
- Presentations of Science Advisors proposals on LSSF Synthesis; LSSF Workshop
- Presentations and discussions of selected 2007 Science Advisor reviews to TWG and AMWG
- Presentations and discussions of selected Science Advisor 2008 reviews to TWG
- Presentation and discussion of SA recommendations on LTEP
- Prospectus and conference calls; SAs and GCMRC discussion of ecosystem approaches to science 2007/2008

13

PROPOSED FY 2009 GCD AMP SCIENCE ADVISOR PROGRAM REVIEWS

- Assessment of general core-monitoring proposal (that is, proposed resources and time commitments, general approaches)
- Review of efficiency effectiveness of new proposed science programs and activities, and their integration into the existing Strategic Science Plan and Monitoring and Research Plan. Review of effectiveness of proposed budget.
- Review of Fall Steady Flow Science Plan
- Review of draft 2000 LSSF proposed synthesis procedure
- Reviews of the Humpback Chub Comprehensive Plan; Desired Future Condition document

14

PROPOSED FY 2009 SCIENCE ADVISOR SERVICES

- Assist GCMRC in designing and implementing ecosystem science approaches in research and monitoring programs, experimental options, modeling, sampling designs, etc.
- Working with GCMRC Chief, leadership team, and systems ecologist, access opportunities for greater integration and improved overall system assessments of major biological programs
- Input to AMWG/TWG workshops on Desired Future Conditions; Glen Canyon Dam Adaptive Management Program effectiveness; management actions
- Presentation and discussions at GCMRC 2008 Symposium

15

SA GENERAL SCIENCE AND MANAGEMENT RECOMMENDATIONS FROM REVIEWS

- Implement More Collaborative Workshops of AMP Entities to Improve Operational Effectiveness
- Concentrate Science and Management Time and Resources on the Most Critical Needs of the Resources and Public
- Increase Interdisciplinary Science Program Implementation and Integrated Resource Science Study and Assessments: Ecosystem Science Paradigm
- Develop and implement special programs (TWG/GCMRC) to insure improved science/management program plans and accomplishment
- Utilize assessments of knowledge, improved science synthesis and modeling to clarify best sediment management alternatives for CRE
- Focused assessments of knowledge and science synthesis to design improved interdisciplinary integrated science and management programs for CRE Native (HBC) and Non-Native fishes

16

RECOMMENDATIONS FOR SA PROGRAM CHANGES IN FY 2009/2010

- Evaluate opportunities for joint support activities to GCMRC/TWG
- Increase SA advisory contributions to GCMRC/TWG as possible
- Evaluate Science Advisor discipline balance: Revise to GCMRC/TWG/AMWG needs
- Refine the SAs focused rapid review strategy
- Pursue methodologies with GCMRC/TWG/AMWG to increase integrated science/management effectiveness in AMP

17