Glen Canyon Dam Adaptive Management Program <u>Science Advisors Program</u> <u>FY18-20 Work Plan; FY18 Activities;</u> <u>and FY19 Plan</u>

David P. Braun, Sound Science LLC GCDAMP Executive Coordinator for Science Advisors AMWG Meeting, Flagstaff, AZ, August 22, 2018

### Science Advisors Program in TWP

- Science Advisors Program (SAP) is administered by Reclamation
- SAP Triennial Work Plan for FY 2018-2020

 Chapter 1 (Reclamation)

 Section C. Program Administration, ESA Compliance, and Management Actions
 Budget Item C.4

### Science Advisors FY18-20 TWP

- Knowledge Assessment support (3-year process)
- Standing (aka "Expert") Panel
- Independent Review Panel(s) as needed
- Executive Coordinator routine responsibilities
- Budget: \$150,000/year + CPI

# Expert Panel, FY18-20 Plan

- Partial return to SAP functionality, FY 2001-2014
  - 5 members
  - 3-year terms of office, synchronized to TWP cycle
- Core functions:
  - 1. Provide independent reviews of:
    - GCMRC Annual Reports, Annual Reporting Meeting findings
    - Annual work plans
    - Triennial Knowledge Assessment (in FY 2020)
    - Draft TWP (in FY 2020)
  - 2. Provide advice for carrying out topic-specific independent external reviews (see next slide)

# Independent Reviews, FY18-20

- IRP capability provided to AMP in 1996 ROD
  - Topic-specific external, "neutral" reviews
  - GCMRC & SAP coordinated responsibility
  - Review matters of investigative methods, knowledge, understanding; not policy
- IRP topic selection
  - Reclamation requests (GCMRC, SAP-EC, TWG advice)
  - AMWG Action Items
- Panel procedures follow strict USGS & OMB peer review guidelines

#### FY18 Activities: Knowledge Assessment

- Knowledge assessment planned to follow 3-year cycle
- *Status*: Not active in FY18
  - Planning for FY2020 assessment begins in FY19

### FY18 Activities: Expert Panel

#### Identify spheres of expertise needed on panel

• *Status*: Completed

- Adaptive management of natural and cultural resources
- Aquatic ecology and food webs, possibly including the effects of upstream dams and reservoirs on downstream aquatic ecosystems (limnology)
- *Eco-hydrology*, especially impacts of flow alteration on aquatic ecosystems and potentially on adjacent riparian and upland ecosystems as well
- *Fish biology and ecology*, including interactions between native and nonnative fishes
- *Fluvial and alluvial geomorphology*, especially in regulated rivers
- *Native American perspectives* and their integration into adaptive management of natural and cultural resources

Need *multidisciplinary* experts for panel to cover all areas

### FY18 Activities: Expert Panel

- Develop charter and protocols
  - Status: Suspended
- Recruit and initiate first panel in time for 1/18 ARM
  - Status: Suspended

#### FY18 Activities: Independent Reviews/1

#### • Two reviews; one panel of four independent reviewers

- Dr. Phaedra Budy, Professor, Department of Watershed Sciences, and Unit Leader, USGS Utah Cooperative Fish and Wildlife Research Unit, Utah State University
- *Dr. Keith Gido*, Professor, Division of Biology, Kansas State University
- *Mr. Chris Kitcheyan*, Supervisory Fish Biologist, New Mexico Fish and Wildlife Conservation Office, U.S. Fish & Wildlife Service
- *Dr. Frank Rahel*, Professor, Department of Zoology and Physiology, University of Wyoming

#### FY18 Activities: Independent Reviews/2

- Review 1: "Bright Angel Creek Comprehensive Nonnative Trout Control 5-year Assessment, 2012-2017"
  - Report on Reclamation-funded, National Park Service study; part of work to re-establish humpback chub in Grand Canyon tributaries
  - Draft report received December 7, 2017
  - *Status:* Completed; review packet submitted to Reclamation and Brian Healy, NPS, January 26, 2018

### FY18 Activities: Independent Reviews/3

- Review 2: "Brown Trout in Lees Ferry: Evaluation of Causal Hypotheses and Potential Interventions"
  - Final report from September 2017 Brown Trout workshop
  - IRP review also served as peer review for USGS for publication in OFR series
  - Draft report received March 2, 2018
  - *Status*: Completed; reviews received and transmitted to USGS March 14-29 with summary report to Reclamation April 5, 2018

### FY18 Activities: EC Routine Duties

- ARM, TWG, AMWG meetings
  - Attend or listen (webinar)
  - Provide SAP updates as requested
- Maintain communications with Reclamation, GCMRC
- Seek advice and updates from TWG members
- Status:
  - Provided updates to 10/17 TWG, 02/18 AMWG meetings
  - Attended ARM (03), TWG (04), AMWG (05) webinars
  - Surveyed TWG members on IRP topical interests
  - Further work suspended

# Science Advisors FY19 Plan

- With TWG, GCMRC, begin planning FY20 Knowledge Assessment
- Establish and activate Expert Panel
- Organize IRP(s) as requested
  - Can coordinate with GCMRC if requested (worked well for FY16 Fisheries PEP)
- Continue EC routine responsibilities
  - Maintain currency with GCDAMP knowledge, plans, actions
  - Maintain close coordination with Reclamation

