

**Glen Canyon Dam Adaptive Management Work Group**  
**Agenda Item Information**  
**August 24-25, 2011**

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Agenda Item

Survey Instrument Ad Hoc Group Report

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Action Requested

- ✓ This is an information item.

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Presenters

Dave Garrett, SIAHG Co-Chair; Executive Director, Science Advisors

Martha Hahn, AMWG Alternate for National Park Service

McClain Peterson, SIAHG Co-Chair; AWMG Alternate for State of Nevada

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Previous Action Taken

- ✓ By AMWG: On May 18, 2011, the Secretary's Designee appointed an ad hoc group chaired by Dave Garrett and McClain Peterson, with participation by NPS and TWG and interested members, to give feedback to NPS on its economic survey and how it could be enhanced for the purpose of providing information to the AMP that will assist in evaluating alternatives for the LTEMP.
- ✓ By TWG: The TWG heard a presentation on and had the opportunity to ask questions about the SIAHG report.
- ✓ By the Ad Hoc Group: On June 22, 2011 the SIAHG forwarded its report to the Secretary's Designee.

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Relevant Science

N/A

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Background Information

At the August 2011 AMWG meeting, the two co-chairs will present the work of the Ad Hoc Group. In addition, Martha Hahn will present on the integration of the information needs expressed in the SIAHG report into the NPS economic survey.

Please see the attached Survey Instrument Ad Hoc Group Report, as well as a PowerPoint presentation that will be made at the meeting.

**A REPORT ON THE SURVEY INSTRUMENT AD HOC  
GROUP (SIAHG) ACTIVITIES AND FINDINGS**

**SURVEY INSTRUMENT AD HOC GROUP**

**JUNE 22, 2011**

## A REPORT ON THE SURVEY INSTRUMENT AD HOC GROUP (SIAHG) ACTIVITIES AND FINDINGS

### SIAHG CHARGE

At the Adaptive Management Work Group (AMWG) meeting May 18, 2011, the Adaptive Management Program (AMP) Secretary Designee appointed Lawrence D. Garrett Executive Coordinator, Science Advisors, and McClain Peterson Colorado River Commission, Nevada AMWG Member, as Co-Chairs of a Survey Instrument Ad Hoc Group (SIAHG) to accomplish the following charge.

- “The Secretary’s Designee appoints an ad hoc group chaired by Dave Garrett and McClain Peterson with participation by NPS and TWG and interested members, to give feedback to NPS on its economic survey and how it could be enhanced for the purpose of providing information to the AMP that will assist in evaluating alternatives for the LTEMP”.

### SIAHG MEMBERS

Name	Affiliation	Status	E-Mail Address
<b>Dr. Dave Garrett (co-chair)</b>	M3Research / Science Advisors	Science Advisors	<a href="mailto:M3research@starband.net">M3research@starband.net</a>
<b>McClain Peterson (co-chair)</b>	Colorado River Comm./ Nevada	AMWG Member	<a href="mailto:mpeterson@crc.nv.gov">mpeterson@crc.nv.gov</a>
Jan Balsom	NPS-GRCA		<a href="mailto:Jan_balsom@nps.gov">Jan_balsom@nps.gov</a>
Brian Carey	NPS-GRCA	Deputy Supt.	<a href="mailto:brian_carey@nps.gov">brian_carey@nps.gov</a>
Martha Hahn	NPS-GRCA	Alternate	<a href="mailto:martha_hahn@nps.gov">martha_hahn@nps.gov</a>
Beverley Heffernan / Ann Gold	U.S. Bureau of Reclamation	Member Alternate	<a href="mailto:bheffernan@usbr.gov">bheffernan@usbr.gov</a> <a href="mailto:agold@usbr.gov">agold@usbr.gov</a>
Chris Hughes	NPS-GRCA	TWG member	<a href="mailto:Chris_hughes@nps.gov">Chris_hughes@nps.gov</a>
Leslie James / Cliff Barrett	CREDA	Member Alternate	<a href="mailto:creda@qwest.net">creda@qwest.net</a> <a href="mailto:cibarre@q.com">cibarre@q.com</a>
Sam Jansen Jerry Lee Cox	Grand Canyon River Guides	Member Alternate	<a href="mailto:smdjansen@gmail.com">smdjansen@gmail.com</a> <a href="mailto:jerryleecox@durango.net">jerryleecox@durango.net</a>
John Jordan	Federation of Fly Fishers	Member	<a href="mailto:iciordan@cox.net">iciordan@cox.net</a>
Ted Kowalski	Colo. Water Conserv. Board	Alternate	<a href="mailto:ted.kowalski@state.co.us">ted.kowalski@state.co.us</a>
Nikolai Lash	Grand Canyon Trust	Member	<a href="mailto:nlash@grandcanyontrust.org">nlash@grandcanyontrust.org</a>
Clayton Palmer	WAPA	Alternate	<a href="mailto:cspalmer@wapa.gov">cspalmer@wapa.gov</a>
Ted Rampton	UAMPS	Member	<a href="mailto:ted@uamps.com">ted@uamps.com</a>
John Shields Don Ostler	WY Interstate Stream Comm.	Member Alternate	<a href="mailto:jshiel@seo.wyo.gov">jshiel@seo.wyo.gov</a> <a href="mailto:dostler@usbr.gov">dostler@usbr.gov</a>
Sam Spiller	U.S. Fish and Wildlife Service	Member	<a href="mailto:sam_spiller@fws.gov">sam_spiller@fws.gov</a>
Bill Stewart	AZ Game and Fish	Alternate	<a href="mailto:bstewart@azqfd.gov">bstewart@azqfd.gov</a>
David Nimkin	National Parks Conserv. Assoc.	Member of public	<a href="mailto:dnimkin@npca.org">dnimkin@npca.org</a>

### ACTIVITIES DEVELOPED BY SIAHG

This activity and report stems from an offer by the NPS to receive review input from the AMP on an ongoing study of National Park System users. Specifically, the AMP was afforded the opportunity to provide input on an economic survey that will derive resource value information for several National Parks and National Recreation Areas, including areas of the Colorado River Ecosystem addressed by the AMP. The SIAHG expresses their appreciation to the NPS for providing this opportunity.

Several activities were performed by cooperators to accomplish this task. Thanks are due to Leslie James of CREDA, who scheduled rooms for this activity and the Salt River Project for providing room accommodations. A special thanks goes to Linda Whetton of USBOR for complete logistics support. Without her leadership we could not have accomplished this task on time.

The Co-Chairs want to applaud the efforts of the group members. A lot of information had to be evaluated in a short time to complete this project. All credit for the accomplishment is a result of their commitment. Following are the activities performed by the SIAHG.

- Committee charge, Secretary Designee request for action. 5/18/2011
- Whetton (USBOR) request for membership
- Garrett/Peterson request for meeting dates and issues
- Ad Hoc Group members established
- Garrett/Peterson request for review input for a draft report
- Meeting of SIAHG to develop final draft report. Members were provided a working report draft for the meeting which contained their input. 6/14/11
- Review of draft by all members. Revisions developed and filing of final report to Secretary Designee by SIAHG. 6/22/2011

#### **DEVELOPMENT OF FINAL REPORT DRAFT**

After input by members a meeting of the SIAHG was called for 6/14/2011 at Salt River Project offices in Phoenix to develop a draft of the final report. The following members attended the meeting by phone and in person: Jan Balsom, Cliff Barrett, Beverley Heffernan, Leslie James, Ted Kowalski, Jerry Myers, Ted Rampton, Larry Riley on behalf of Mike Senn, John Shields, Sam Spiller, Bill Stewart, McClain Peterson, and Dave Garrett.

Following the meeting Garrett was assigned to develop a second draft from member input and provide it to members by 6/15/2011. Members then provided input for a final report for the Secretary Designee to be developed and forwarded by Garrett by 6/22/2011.

### **MEMBER ISSUES ADDRESSED**

Two issues surfaced on this project that the members felt should be addressed in the report. They are as follows.

- Are information needs for the socioeconomic program fully developed, and can new information needs be added in this process?
- Explicit definition was requested in the report to clarify how input from the SIAHG and related future findings of the NPS should be interpreted.

### **CLARIFYING INPUT ON INFORMATION NEEDS**

The group felt the following statements on this issue should be filed with this report.

- The Socioeconomic Ad Hoc Group (SEAHG) had developed information needs from 2005/2006 work on the Core Monitoring Plan (CMP) and a Protocol Evaluation Panel (PEP) and included it in the SEAHG Report to the SIAHG.
- The group feels greater clarification and specification is required from the SEAHG process on information needs.
- The SIAHG did propose that the SEAHG developed information needs be used to guide review of existing survey questions, but members could add information needs and related survey questions if critical needs are identified.
- The AMP will conduct additional market and non-market assessments related to existing and expanded information needs. They will also be provided as proposed input to the LTEMP.

### **CLARIFYING COMMITTEE INPUT AND RELATIONSHIP TO OUTCOMES OF NPS RESEARCH**

The SIAHG members wanted persons reading their report and recommendations to understand the context of their recommendations. The following statements were drafted to provide this clarification.

- This is a NPS project which is permitting input by the AMP group directed toward recommending additional survey questions for the Angler and Boating Surveys.

- This AMP input is akin to input NPS receives from many other parties in the public involvement process.
- The NPS study and input from varied parties, including AMP, may all provide information that will assist the LTEMP process, and other related planning processes.
- The findings and outcomes of this NPS research can only be attributed to the NPS because they are the creators of objectives, research designs, analysis procedures and interpretation of findings.

### **INFORMATION NEEDS FROM SEAHG**

As noted, the SIAHG decided to utilize the SEAHG list of information needs to evaluate the questions in the Angler and Boating Survey instruments. Members were permitted to add to this list. Several areas of information needs developed by SEAHG are not represented in the Angler and Boating Surveys by design. As such the SIAHG has made minimal or no reference to these needs in the recommendations. Following is a summary of the SEAHG information needs.

- What is the economic value of the recreational use of the CRE?
- What are the use and non-use values of the CRE?
- Segregate and evaluate impacts of differing proposed dam operation policy experiments on power users, i.e. ramping, daily and monthly fluctuations, high and low flows, steady flows, base cases, etc.
- Develop real time capability to evaluate impacts of alternative scenarios on all values.
- Develop total economic impact on upper basin water users from alternative dam operations.
- How do use and non-use values change in response to policy experiments, unanticipated events or other management actions?
- What is economic benefit of river recreation to tribes?
- What is the socio-cultural impact of recreational use in the CRE?
- What are the non-use values for different resources?
- What are the socioeconomic benefits and costs of hydropower generation from HFE to tribal communities?
- What is the base case for optimal power generation?
- What is the baseline measure for resource integrity?

- What are traditionally important resources and locations for each tribe and other groups?

### **PROPOSED NEW QUESTIONS OR INFORMATION NEEDS FOR THE NPS SURVEY FROM THE SIAHG**

Based on member review of the surveys and discussions, the SIAHG offer the following proposed information needs and questions for consideration of the NPS. We understand that limitations of sampling designs and other study methods might obviate consideration of many of our recommendations, but do appreciate their consideration by the NPS.

- What is the current total annual market value of the Lees Ferry trout fishery (market and nonmarket) to the regional community and what are its components, i.e. hotel and restaurant, guides, retail purchases, etc? What are its non-use values?
- What is the current total annual market value of the Glen Canyon Smooth Water Half Day Trips, private rafters, canoeists, kayakers, etc? What are their non-use values?
- How have total annual use and market values for the Lees Ferry trout fishery and recreational boating changed for Pre-Rod and Post-Rod periods?
- Do Lees Ferry recreational boaters and sports fishers express a significant difference in willingness to pay under differing flow conditions?
- How has demand for Lees Ferry and Grand Canyon recreational boating (including rafting to Lake Mead) and Lees Ferry sport fishing changed over the period Pre and Post Rod?
- How has crowding, camp size, multiple campsites in an area, etc affected the Grand Canyon experience and expressed values?
- How has Native American use of the Lees Ferry trout fishery changed from the period Pre and Post Rod?
- Regarding the Grand Canyon rafting experience, can questions be added to capture more clearly why people take this specific trip, isolating specifically trip attributes like unique wilderness experience, solitude, scenic beauty, etc?
- How does the social benefit of the Lees Ferry trout fishery differ for walk-in only and boating anglers?
- Should case scenarios for contingent valuation more closely approximate expected real variance in operations?

- Collect data on alternatives for the users. Questions should be included as to what are the responder's three favorite fishing locations in the southwest starting with the most favored. For those ranked above the Colorado River, have them list the major attractions to them.
- Have you considered survey information that should be collected from those not necessarily fishing the Colorado River? Surveys could include regional groups. There are at least 7 active fly fishing groups in Arizona. There are also other fishing and outdoor groups. This provides input on economic lost value.
- The sampling strategy for the Angler Survey appears to be exclusively focused on fishing users encountered on the water at Lees Ferry. Have you considered the value of adding a broader sampling frame component to include "licensed anglers" to help assess perceived opportunity value foregone?
- Should case scenarios for contingent valuation more closely approximate current on-the-water experiences associated with operations?
- The sampling strategy for on the water users should ensure that interviewers reach and qualify the walk-in angler, i.e. three types of anglers exist as follows.
  - Those that visit the walk-in areas only.
  - Those that boat up-river for angling only.
  - Those that both visit the walk-in areas and boat up-river for angling purposes.

# SIAHG ACTIVITIES AND FINDINGS

PRESENTATION TO ADAPTIVE  
MANAGEMENT WORK GROUP

PHOENIX AZ  
AUGUST 24-25, 2011

L. D. GARRETT AND M. PETERSON,  
SIAHG CO-CHAIRS

# COMMITTEE CHARGE BY SECRETARY DESIGNEE, 5-18-11

- THE SECRETARY DESIGNEE APPOINTS AD HOC GROUP CHAIRED BY DAVE GARRETT AND McCLAIN PETERSON with participation by NPS and TWG and interested members, to give feedback to NPS on its economic survey and how it could be enhanced for the purpose of providing information to the AMP that will assist in evaluating alternatives for the LTEMP.

# ACTIVITIES DEVELOPED BY SIAHG

- AD HOC CHARGE; SEC. DESIGNEE 5/18/11
- WHETTON REQUEST FOR MEMBERSHIP
- GARRETT/PETERSON REQUEST FOR MEETING DATES AND ISSUES
- AD HOC MEMBERS ESTABLISHED
- GARRETT/PETERSON REQUEST FOR SURVEY INPUT/QUESTIONS AND DRAFT PPT
- MTG/CONFERENCE CALL 6/14/11 TO DEVELOP DRAFT REPORT FROM PPT
- DRAFT REPORT REVIEW BY AD HOC
- AD HOC FILES FINAL REPORT TO SEC. DESIGNEE 6/22/11

# MEMBER ISSUES ADDRESSED

- ARE INFORMATION NEEDS FOR SE PROGRAM FULLY DEVELOPED, AND CAN INs BE ADDED
- DEFINITION IS NEEDED TO CLARIFY HOW INPUT FROM THE AD HOC AND RELATED FUTURE FINDINGS OF THE NPS SHOULD BE INTERPRETED

# CLARIFYING INPUT ON INFORMATION NEEDS

- ▶ SEAHG INFORMATION NEEDS DEVELOPED FROM 2005/2006 WORK ON CMP AND PEP
- ▶ IMPROVED CLARIFICATION AND SPECIFICATION OF SOCIOECONOMIC PROGRAM INFORMATION NEEDS ARE NEEDED FROM SEAHG PROCESS
- ▶ SIAHG USED SEAHG INs' TO GUIDE REVIEW OF EXISTING NPS SURVEY QUESTIONS, BUT MEMBERS ALSO PROPOSED NEW INFORMATION NEEDS AS WELL AS NEW QUESTIONS FOR THE NPS SURVEY

# CLARIFYING AD HOC INPUT AND RELATIONSHIP TO OUTCOMES OF NPS RESEARCH

- THIS IS A NPS PROJECT WHICH IS PERMITTING INPUT BY THE AMP COMMITTEE ON ADDITIONAL NPS SURVEY QUESTIONS AND PROPOSED REVISIONS TO SURVEYS
- THE AMP INPUT IS AKIN TO INPUT NPS RECEIVES FROM MANY OTHER PARTIES IN THE PUBLIC INVOLVEMENT PROCESS
- THE NPS STUDY AND INPUT FROM THESE PARTIES, INCLUDING AMP, SHOULD ALL PROVIDE INFORMATION THAT WILL ASSIST THE LTEMP PROCESS
- THE FINDINGS AND OUTCOMES OF THIS RESEARCH CAN ONLY BE ATTRIBUTED TO THE NPS BECAUSE THEY ARE THE CREATORS OF OBJECTIVES, RESERCH DESIGNS, ANALYSIS PROCEDURES AND INTERPRETATION OF FINDINGS

# COMMITTEE MEMBERS



- DAVE GARRETT
- McCLAIN PETERSON
- MARTHA HAHN
- LESLIE JAMES
- CLIFF BARRETT
- SAM JANSEN
- JERRY LEE COX
- JOHN JORDAN
- TED KOWALSKI
- NIKOLAI LASH
- CLAYTON PALMER

DAVID NIMKIN  
BILL STEWART  
SAM SPILLER  
DON OSTLER  
JOHN SHIELDS  
TED RAMPTON

# INFORMATION NEEDS FROM SEAHG

- ▶ WHAT IS THE ECONOMIC VALUE OF THE RECREATIONAL USE OF THE CRE
- ▶ WHAT ARE THE USE AND NON-USE VALUES OF THE CRE
- ▶ SEGREGATE AND EVALUATE IMPACTS OF DIFFERING PROPOSED DAM OPERATION POLICY EXPERIMENTS ON POWER USERS, I.E. RAMPING, DAILY AND MONTHLY FLUCTUATIONS, HIGH AND LOW FLOWS, STEADY FLOWS, POWER CONTRACTS, BASE CASES ,ETC.
- ▶ DEVELOPED REAL TIME CAPABILITY TO EVALUATE IMPACTS OF ALTERNATIVE SCENARIOS ON ALL VALUES
- ▶ DEVELOP TOTAL ECONOMIC IMPACT ON UPPER BASIN WATER USERS FROM ALTERNATIVE DAM OPERATIONS

# INFORMATION NEEDS FROM SEAHG



- **HOW DO USE AND NON-USE VALUES CHANGE IN RESPONSE TO POLICY EXPERIMENTS, UNANTICIPATED EVENTS OR OTHER MANAGEMENT ACTIONS?**
- **WHAT IS THE ECONOMIC BENEFIT OF RIVER RECREATION TO TRIBES?**
- **WHAT IS THE SOCIOCULTURAL IMPACT OF RECREATIONAL USE IN THE CRE?**
- **WHAT ARE THE NON-USE VALUES FOR DIFFERENT RESOURCES?**
- **WHAT ARE THE SOCIOECONOMIC BENEFITS AND COSTS OF HYDROPOWER GENERATION FROM HFE TO TRIBAL COMMUNITIES?**

# INFORMATION NEEDS FROM SEAHG

- WHAT IS THE BASE CASE FOR OPTIMAL POWER GENERATION?
- WHAT IS THE BASELINE MEASURE FOR RESOURCE INTEGRITY?
- WHAT ARE TRADITIONALLY IMPORTANT RESOURCES AND LOCATIONS FOR EACH TRIBE AND OTHER GROUPS?

# PROPOSED NEW QUESTIONS OR INFORMATION NEEDS FROM NPS SURVEYS

- WHAT IS THE CURRENT TOTAL ANNUAL MARKET VALUE OF THE LEES FERRY TROUT FISHERY TO THE REGIONAL COMMUNITY, WHAT ARE ITS COMPONENTS, HOTEL AND RESTURANT, GUIDES, RETAIL PURCHASES, ETC. AND WHAT ARE ITS NON-USE VALUES?
- WHAT IS THE CURRENT TOTAL ANNUAL MARKET VALUE OF LEES FERRY RECREATIONAL BOATING INDUSTRY, AND WHAT ARE ITS NON-USE VALUES?

# PROPOSED NEW QUESTIONS FOR NPS SURVEYS

- HOW HAVE TOTAL ANNUAL USE AND MARKET VALUES FOR THE LEES FERRY TROUT FISHERY AND RECREATIONAL BOATING CHANGED IN THE PRE-AND POST-ROD PERIODS?
- DO LEES FERRY RECREATIONAL BOATERS AND SPORTS FISHERS EXPRESS A SIGNIFICANT DIFFERENCE IN WILLINGNESS TO PAY UNDER DIFFERING FLOW CONDITIONS?

# PROPOSED NEW QUESTIONS FOR NPS SURVEY

- HOW HAS DEMAND FOR LEES FERRY AND GRAND CANYON RECREATIONAL BOATING (INCLUDING RAFTING TO LAKE MEAD) AND LEES FERRY SPORT FISHING CHANGED OVER THE PRE- AND POST-ROD PERIODS?
- HOW HAS CROWDING, CAMP SIZE, MULTIPLE CAMPSITES IN AN AREA, ETC. AFFECTED THE GRAND CANYON EXPERIENCE AND EXPRESSED VALUES

# PROPOSED NEW QUESTIONS FOR NPS SURVEY

- HOW HAS NATIVE AMERICAN USE OF THE LEES FERRY TROUT FISHERY CHANGED FROM THE PERIOD PRE AND POST-ROD?
- HOW DOES THE SOCIAL BENEFIT OF THE LEES FERRY TROUT FISHERY DIFFER FOR WALK-IN ONLY AND BOATING ANGLERS?
- SHOULD CASE SCENARIOS FOR CONTINGENT VALUATION MORE CLOSELY APPROXIMATE EXPECTED REAL VARIANCE IN OPERATIONS?

# PROPOSED NEW QUESTIONS FOR NPS SURVEY

- REGARDING THE GRAND CANYON RAFTING EXPERIENCE, CAN QUESTIONS BE ADDED TO CAPTURE MORE CLEARLY WHY PEOPLE TAKE THIS SPECIAL TRIP, ISOLATING SPECIFICALLY TRIP ATTRIBUTES LIKE UNIQUE WILDERNESS EXPERIENCE, SOLITUDE, SCENIC BEAUTY, ETC?

# PROPOSED NEW QUESTIONS FOR NPS SURVEY

- COLLECT DATA ON FISHING ALTERNATIVES FOR USERS, FOCUSING ON ANGLERS THREE FAVORITE FISHING LOCATIONS IN THE SOUTHWEST
- CONSIDER ADDITIONAL SURVEY INFORMATION FROM REGIONAL FISHING GROUPS SUCH AS FLY FISHING GROUPS, OR LICENSED ANGLERS TO ASSESS OPPORTUNITY VALUE FOREGONE
- THE SURVEY SHOULD REACH AND QUALIFY ANGLERS THAT VISIT WALK-IN AREAS ONLY, BOAT UPRIVER FOR ANGLING ONLY, AND THOSE THAT DO BOTH