



Page [Discussion](#)

Main Page

Internal Web-Page

Glen Canyon Dam Adaptive Management Program

STAKEHOLDERS CENTRAL



SEDIMENT



FISH



HYDROPOWER



CULTURAL



FOOD BASE



RECREATION



ECOSYSTEM



FISHERY



EXTIRPATED



Science

Administrative History Ad hoc Group
UPDATE

AHAG: Administrative History Ad-Hoc Group
Technical Work Group Meeting- GCDAMP
Update: June 26, 2013

THE A-TEAM

AHAG



- John Jordan
- Shane Capron
- Vineetha Kartha
- Bill Stewart
- Sam Jansen
- Lisa Iams
- Helen Fairley
- Mike Yeatts
- Larry Stevens

- Leslie James
- Chris Hughes
- Charley Bulletts
- Marianne Crawford
- Paul Harms
- Jan Balsom
- Linda Whetton
- Mark Van Vlack
- Jason Thiriot

What have you done for me lately?



www.GCDAMP.com

Meetings: Motion from the Feb. AMWG

- March 25th: AHAHG Meeting
- May 3rd: AHAHG Meeting -WebEx

Notables:

- Add. 1: Link to USBR AMWG web-site and Logo
- Add. 2: Web-site traffic (~5,300)
- Add. 3: Calendar addition –Ad-hocs, TWG, AMWG
- Add. 5: Learner's Kit started
- Add. 6: Tribal Monitoring Reports and TEK updated
- Add. 7: Learning Pages- AOP, GTMAX, M319
- Add. 8: History of TWG participants

Search Reclamation

Upper Colorado Region Home

Area Offices

About Us

Programs & Activities

Water Operations

Resources Management

Adaptive Management

Colorado River Storage Project

- Aspinall Unit
- Flaming Gorge Dam
- Glen Canyon Dam
- Navajo Dam
- Glen Canyon Dam Long-Term Experimental & Management Plan
- High Flow Experimental Releases at Glen Canyon Dam
- Navajo-Gallup Water Supply Project
- San Juan Recovery Implementation

Glen Canyon Dam Adaptive Management Program

Current Focus	Meeting Information
---------------	---------------------

- Glen Canyon Dam 2012 High Flow Experimental Release
- Glen Canyon Dam Long-Term Experimental and Management Plan Env. Impact Statement
- Environmental Assessment - Nonnative Fish Control Downstream - Glen Canyon Dam
- Environmental Assessment - Development and Implementation of a Protocol for High Flow Experimental Releases from Glen Canyon Dam, Ariz., 2011 through 2020

- AMWG Meeting: Aug. 8 - 9, 2013
- TWG Meeting: June 26, 2013 WebEX



Photo by: Gary Lattd

Links & Related Information

- Glen Canyon Dam Adaptive Management Program Outreach Website
- Grand Canyon Monitoring and Research Center Website
- Glen Canyon Dam Adaptive Management Program **WIKI** Site
- Desired Future Conditions
- Proceedings of the Colorado River Basin Science and Resource Mgmt. Symposium
- Final GTMax Model Report with Workshop + Expert Panelist Responses

In

- ▶ Back
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- ▶ Resc
- ▶ Budg
- ▶ Cont



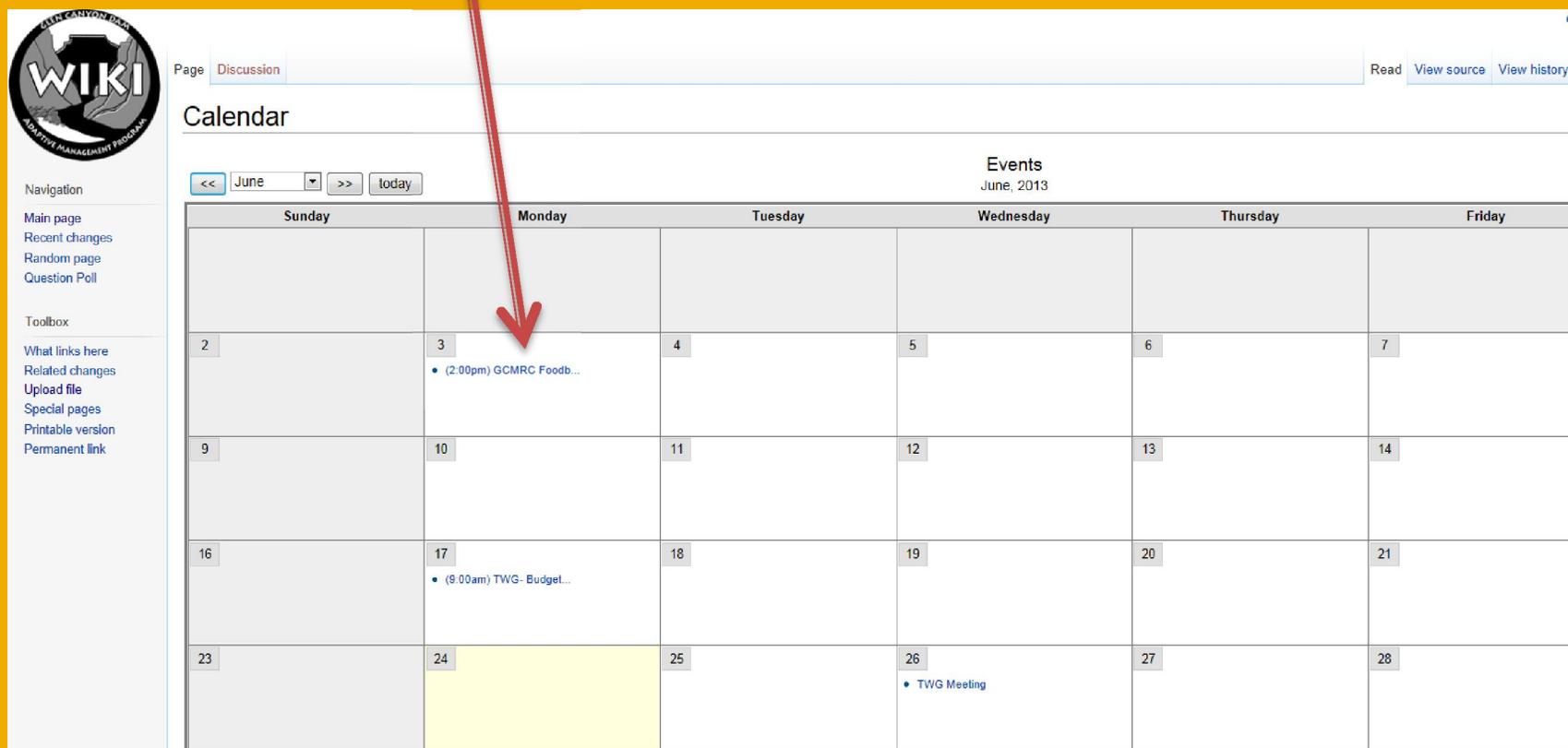
Website LOGO





CALENDAR

AMP WIKI CALENDAR



The screenshot shows the AMP Wiki Calendar interface. At the top left is the Glen Canyon Dam Wiki logo. Below it are navigation links: "Main page", "Recent changes", "Random page", and "Question Poll". A "Toolbox" section includes "What links here", "Related changes", "Upload file", "Special pages", "Printable version", and "Permanent link". The main content area is titled "Calendar" and shows a monthly view for June 2013. The calendar grid has columns for days of the week and rows for dates. A red arrow points from the word "CALENDAR" in the top left to the date "3" in the calendar grid. The date "3" has an event listed: "(2:00pm) GCMRC Foodb...". The date "17" has an event: "(9:00am) TWG- Budget...". The date "26" has an event: "TWG Meeting". The date "24" is highlighted in yellow. At the top right of the calendar interface are links for "Read", "View source", and "View history".

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
2	3 • (2:00pm) GCMRC Foodb...	4	5	6	7
9	10	11	12	13	14
16	17 • (9:00am) TWG- Budget...	18	19	20	21
23	24	25	26 • TWG Meeting	27	28



CULTURAL

- [USGS Cultural Resources Link](#) [USGS Cultural Resources Link](#)



CULTURAL RESOURCES--The lower reaches of Glen Canyon and the river corridor through Grand Canyon National Park contain more than 4,000 traditional cultural sites. Grand Canyon National Park contains more than 4,000 traditional cultural sites. The lower reaches of Glen Canyon contain an additional 55 sites. In addition to archaeological sites, historic properties, as well as biological and physical resources that are of traditional cultural importance to Native American Tribes claim traditional cultural ties to this area. Grand Canyon National Park contains more than 4,000 traditional cultural sites. The lower reaches of Glen Canyon contain an additional 55 sites. In addition to archaeological sites, historic properties, as well as biological and physical resources that are of traditional cultural importance to Native American Tribes claim traditional cultural ties to this area.

TBD (Motions)	TBD (TBD)
-------------------------	---------------------

GROUP MEMBERS

(CRAHG) [Cultural Resources Ad-Hoc](#)

News

Quick Facts

- Bigger sand bars during the windy season in spring provide a source area for sand to blow upslope to cover some archeological sites

CULTURAL RESOURCES BUDGET

Reclamation FY 2013-14 Budget Cultural Program Revised

CULTURAL PROGRAM	FY 12	FY 13	FY 14
Reclamation Administration and Travel	64,226	127,839	131,310
Cultural Program Implementation	519,500	473,008	373,077
Subtotal	\$583,726	\$601,747	\$504,387

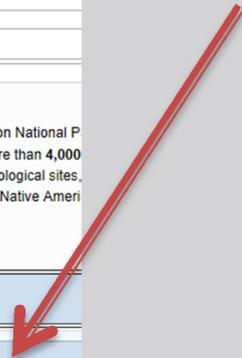
MONITORING REPORTS

- [Paiute 2012 Annual Monitoring Report](#)
- [Hopi 2012 Annual Monitoring Report](#)
- [Hualapai 2012 Monitoring Report](#)

Reports and Links

- [USBR Presentation to tribes- May 9, 2013.](#)
- [USGS-GCMRC Cultural Resources Link](#)

INFORMATION



Updates to Cultural and TEK pages



Tribal Ecological Knowledge

Integrating Tribal Ecological Knowledge

"TEK is a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment..." - Fikret Berkes



The term Traditional Ecological Knowledge, or TEK, is used to describe the knowledge held by indigenous cultures about their immediate environment and the cultural practices that build on that knowledge. Traditional ecological knowledge includes an intimate and detailed knowledge of plants, animals, and natural phenomena, the development and use of appropriate technologies for hunting, fishing, trapping, agriculture, and forestry, and a holistic knowledge, or "world view" which parallels the scientific discipline of ecology (Berkes 1993).

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- [Tribal Liason PPT -February 2013 AMWG](#)
- [Tribal Liason PPT -August 2011 AMWG](#)
- [HFairley TEK Presentation at TWG- 4-16-2012](#)

Examples of How TEK has been used effectively

TEK & Endangered Species Conservation - Sarah Rinkevich_USFWS_Fe

TEK Pilot Project

5) Traditional Ecological Knowledge Pilot Project.

- This project would support the development of a pilot TEK project with the tribes for monitoring and/or treatment in the canyons.
- Reclamation and the GCDAMP Tribal Liaisons are currently evaluating TEK proposals submitted by tribes.
- Proposed budget: FY13 develop this project with the tribes \$15,000; FY14 implement the pilot project \$50,000.

[AMWG Feb 2013 Meeting- USBR PPT](#)



GCDAMP Stakeholders List

[Contents](#) [\[show\]](#)

Navigation

FEDERAL AGENCIES

STAKE HOLDER	AMWG Member	AMWG Alt	TWG Member	TWG Alt	Other Links
Arizona Game and Fish Department	Larry Riley	William Stewart BIO	William Stewart BIO	Vacant	NA
Bureau of Indian Affairs	Amy Heuslein	Garry Cantley	Amy Heuslein	Garry Cantley	NA
Bureau of Reclamation	Ann Gold	Beverley Heffernan	Glen Knowles	Marianne Crawford BIO	NA
National Park Service	David Uberuaga	Martha Hahn	*GCNP & GCNRA	*GCNP & GCNRA	NA
*National Park Service GCNRA			Chris Hughes BIO	Mark Anderson	NA
*National Park Service GCNP			Jan Balsom	Todd Chaudhry	NA
Fish and Wildlife Service	Janet Bair	Randy VanHaverbeke	Kirk Young	Lesley Fitzpatrick	NA
Western Area Power Administration	VACANT	Shane Capron BIO	Shane Capron	Craig Ellsworth	NA

• **Specific to Technical Work Group*

State Agencies (Colorado Basin States)

STATE AGENCIES

STAKE HOLDER	AMWG Member	AMWG Alt	TWG Member	TWG Alt	Other Links
State of Arizona -ADWR	Perri Benemelis	Vacant	Vineetha Kartha BIO	Evelyn Erlandsen	NA
State of California -CWR	Vacant	Chris Harris	Chris Harris	TBD	NA
State of Colorado -CWCB	Jennifer Gimbel	Ted Kowaski	Ted Kowaski	Randy Saaholm	NA
State of Nevada -CRC	Jayne Harkins	Jason Thiriot BIO	Jason Thiriot BIO	McClain Peterson	NA
State of New Mexico -NMISC	Estevan Lopez	Don Ostler	Paul Harms	Don Ostler	NA
State of Utah -UDWR	Dennis Strong	Robert King	Robert King	N/A	NA
State of Wyoming -WY	John Shields	Don Ostler	John Shields	Don Ostler	NA
*Upper Basin Colorado River Commission			Don Ostler	N/A	NA

• ** Specific to Technical Work Group*

Native American Tribes

NATIVE AMERICAN TRIBES

STAKE HOLDER	AMWG Member	AMWG Alt	TWG Member	TWG Alt	Other Links
Navajo Nation	Frederick White	Alan Downer	Tony Joe	N/A	2nd Alt - Tony Joe
Hopi Tribe	Leigh Kuwanwisilma	Michael Yeatts BIO	Michael Yeatts BIO	N/A	NA
Hualapai Tribe	Loretta Jackson-Kelly	Kerry Christensen	Kerry Christensen	Loretta Jackson-Kelly	NA
So. Paiute Consortium	Charley Bullets BIO	LeAnn Skrzynski	Charley Bullets BIO	LeAnn Skrzynski	NA
Pueblo of Zuni	Arden Kucate	Kurt Dongoske	Kurt Dongoske	N/A	NA

Environmental Groups

ENVIRONMENTAL GROUPS

STAKE HOLDER	AMWG Member	AMWG Alt	TWG Member	TWG Alt	Other Links
Grand Canyon Trust	Nikolai Lash	Vacant	Nikolai Lash	Kevin Dahl 2nd Alt	Meghan Trubee
Grand Canyon Wildlands Council	Larry Stevens BIO	Vacant	Larry Stevens BIO	N/A	NA

Recreational Interests

RECREATIONAL INTERESTS

STAKE HOLDER	AMWG Member	AMWG Alt	TWG Member	TWG Alt	Other Links
Federation of Fly Fishers	John Jordan BIO	Gerald Myers	Gerald Myers	John Hamil	NA
Grand Canyon River Guides	Sam Jansen BIO	Jerry Cox	Jerry Cox	Sam Jansen BIO	NA

Federal Power Purchase Contractors

FEDERAL POWER PURCHASE CONTRACTORS

STAKE HOLDER	AMWG Member	AMWG Alt	TWG Member	TWG Alt	Other Links
Colorado River Energy Distributors Association -CREDA	Leslie James BIO	William Davis	William Davis	Leslie James BIO	NA
Utah Associated Municipal Power Systems (UAMPS)	Ted Rampton	Clifford Barrett	Cliff Barrett	N/A	NA

ADDITIONS



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Wiki logo and navigation sidebar on the left. The main content area is titled "Sam Jansen- BIO PAGE".

Sam Jansen- BIO PAGE

Page Discussion

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TWG BIO SUMMARY

Sam Jansen (Grand Canyon River Guides)

- began his Grand Canyon career as a Hydrologic Technician for the U.S. Geological Survey in 1990. During the Glen Canyon Environmental Study (GCES), from 1992 to 1996, he worked as a Hydrologist on sediment transport and other projects in the Canyon. He became a Grand Canyon river guide in 1993 and started working full seasons, April through October, in 1996.
- Sam has come to know the levels and turns of the Colorado River, and its beaches and side canyons, very well. He has also spent a part of each summer guiding on wilderness rivers in Alaska, and has boated a variety of rivers in Washington, Idaho, California and Arizona.
- Sam is a past president and board member of Grand Canyon River Guides, a non-profit organization dedicated to protecting the Grand Canyon and helping people have the best possible river experience.
- Sam has filled the off-river seasons with work as a computer programmer, database developer, and ski patroller. He graduated from the Zaki Gordon Institute for Independent Filmmaking in 2006 and is currently a documentary filmmaker specializing in movies that explore the spaces where the natural world meets human history and politics. Sam studied Creative Writing and Geology at the Massachusetts Institute of Technology and the University of Arizona, and received a bachelor of science degree in Geosciences from the University of Arizona.

Last Updated-Additional Bio, March 22, 2013

- Sam Jansen (Grand Canyon River Guides)
- Sam's been the AMWG representative for GCRG since February of 2010.
- Grand Canyon River Guides is a non-profit organization dedicated to protecting the Grand Canyon and helping people have the best possible river experience. Sam was president of GCRG from 9/07-9/08 and a member of the board for two years before that.
- Sam has been a guide in the Grand Canyon since 1993. He currently rows boats for Canyon Explorations/Expeditions, and has at times worked for Grand Canyon Youth and OARS.
- Sam is also a long-time Alaska river guide, mostly working on the Alesek and Tatshenshini Rivers for Mountain Travel Sobek.
- Sam began his Grand Canyon career as a Hydrologic Technician for the U.S. Geological Survey in 1990. He worked as a Hydrologist on sediment transport studies and other projects in the canyon and elsewhere in Arizona from 1992 to 1996.
- Over the years, Sam has filled the off-river seasons with work as a computer programmer, database developer, and ski patroller. He graduated from the university that natural world meets human history and politics. His company is Rocketbox Productions, LLC.
- Sam grew up in Flagstaff, Arizona. He studied creative writing and geology at the Massachusetts Institute of Technology and the University of Arizona

Start Date with the Grand Canyon River Guides

- 1993 (20 Yrs.)

Sam Jansen photo: Born Alma mater Grew up in Flagstaff, Arizona Massachusetts Institute of Technology- University of Arizona

AUDIO Sound Bytes-- TESTING

NAME	AUDIO	SCRIPT	LINK	IMAGE
Colorado River Otter	AUDIO	Script		
Humpback Chub	AUDIO	Script		
Kanab Ambersnail	AUDIO	Script		
Southwestern Willow Flycatcher	AUDIO	Script		
Razorback Sucker	AUDIO	Script		
Bonytail Chub				
Colorado Pikeminnow				
LCR Spinedace				
Roundtail Chub				
Northern Leopard Frog				
Lowland Leopard Frog				

Wiki logo and navigation sidebar on the left. The main content area is titled "Stakeholder Page- Nevada".

Stakeholder Page- Nevada

Page Discussion

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Under Construction

What Should Other Stakeholders Know About US?

1. Southern Nevada is 80% contingent on the Colorado River. Our water portfolio is not very diversified.
2. Our community has made significant conservation achievements.
3. Our community lead the nation in population growth for many years.
4. CRC's energy portfolio only consists of 5-7% CRSP/Glen Canyon hydropeaks-- the majority is Hoover, Parker, Davis power.

Southern Nevada's water portfolio

- **Q: What is the CRC/ SNWA connection? A:** The CRC is a state authorized agency responsible for securing and protecting Nevada's rights and interests in the Colorado River and in electric power generated by the river. The SNWA is political subdivision of the State of Nevada and is responsible for addressing Southern Nevada's water needs on a regional basis. The CRC and the SNWA work cooperatively to effectively manage Colorado River water resources for the State of Nevada and water users in Southern Nevada.
- **Q: What environmental programs is CRC involved in? A:** GCDAMP and the LCIRSP.
- **Q: What are the Nevada's local interests in the Program? A:**
- **Q: What are the Recreation interests in the Program? A:**
- **Q: How many people does the CRC provide water for? Hydropower? A:**

- February 2010- AMWG- Stakeholder's Perspective- State of Nevada
- State of Nevada Link
- Misconceptions of Nevada Water Use

Navigation sidebar on the left includes: Main page, Recent changes, Random page, Question Poll, Toolbox, What links here, Related changes, Upload file, Special pages, Printable version, Permanent link.

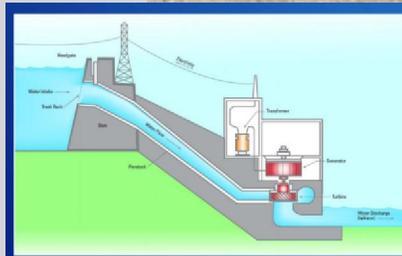
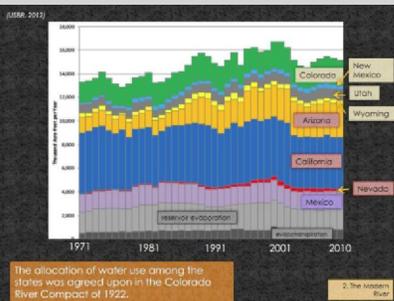
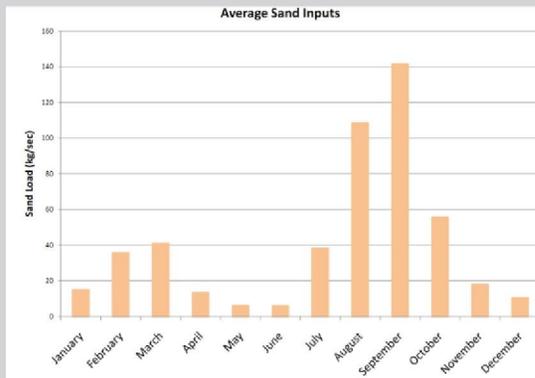
Footer of the page shows several small images and captions: Southern Nevada's water portfolio, So. Nevada labor water use, Las Vegas Review Journal- Population Graph, Colorado River Orograph- Nevada Perspective- Jhantal, 102th CRC- Stakeholder perspective- GCaan, Conservation by year.



Various people are now uploading

1. ADDED

- Pictures
- Links
- Presentations
- Reports





MAPS Gallery

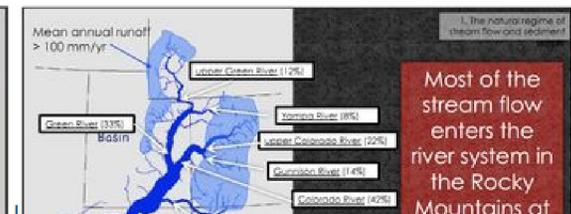
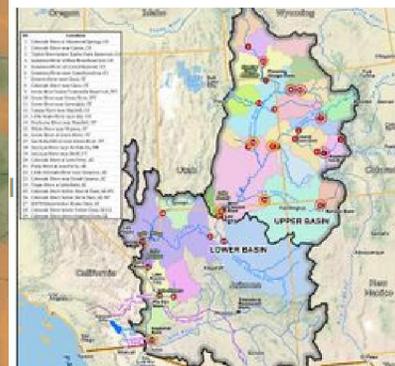
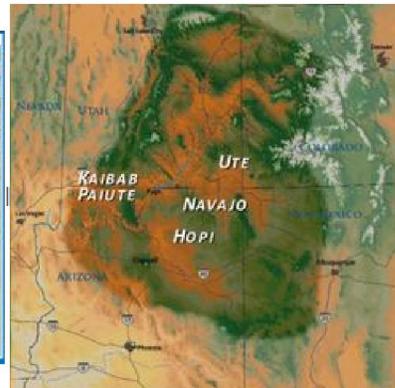
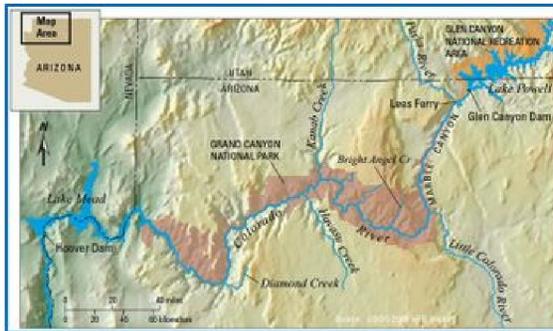
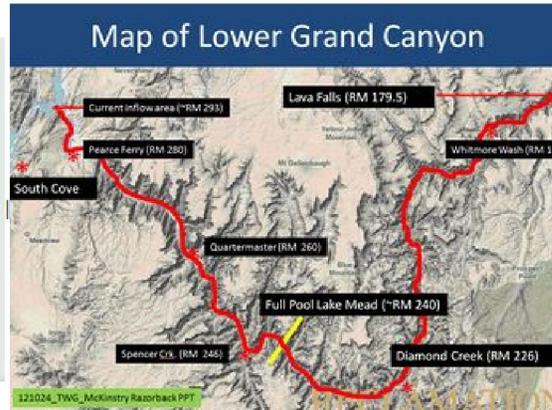
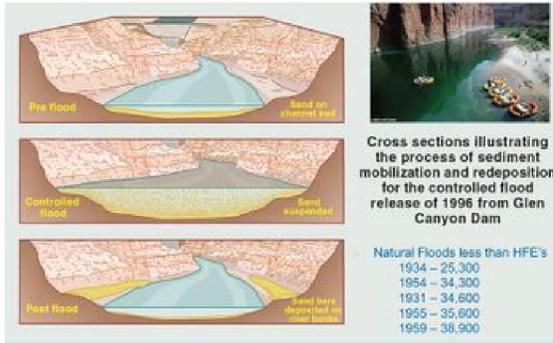
DIAGRAMS

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RECREATION PAGE



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RECREATION

Recreation Types in GCDAMP Planning Area

- [RAFTING--](#) | [HIKING--](#) | [FISHING--](#) | [CAMPING--](#) | [BOATING--](#) | [KAYAKING](#)



- More than 20,000 rafters run the river each year.
- According to the *Basin Study (2012)*] results suggested that ecological and **recreational** metrics were amongst the most vulnerable to future conditions...[Sou

RECREATION PAGE

continued



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Rafting Folder

Data Source: Sam Jansen_April 25, 2013 Also refer to Links on NPS information on whitewater-rafting [NPS Information on Whitewater-rafting](#)

Recreation and the AMP: Grand Canyon River Running [\[edit\]](#)

- **OVERVIEW** A river trip through the Grand Canyon is a unique and special experience. It can be a life-changing event, full of grandeur, wonder, new challenges, profound encounters and tiny moments of joy. It's a time of self exploration and bonding with family and friends.

Those who haven't yet had the chance to flowat the river first hand often have a number of questions about what it's like, and why we should care so much about taking care of the place. I've tried to answer a few of those questions here.

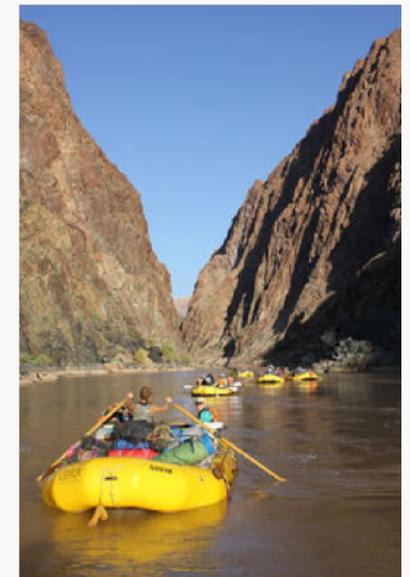
- **QUESTION: How many people raft down the river per year?**

About 22,000 people travel the Colorado River through the Grand Canyon each year. About half of these travelers go on commercial trips, and about half on private trips. A commercial trip is one where an outfitter is hired, and the outfitter provides professional guides, food, boats, and all the other necessities. A private trip is a shared expense, do-it-yourself expedition. River access is controlled by the National Park Service. Private trip permits are given out through a weighted lottery. The park service used to use a straightforward, first come first serve waiting list, but that list grew to be more than 12 years long. There are sixteen commercial river outfitters listed on the Grand Canyon River Outfitters Association web page. They offer trip lengths from 2 to 18 days, with a variety of motor, oar, and paddle powered craft to choose from.

- **QUESTION: What's the history of river running in the Grand Canyon?**

River runners in the canyon tend to think of John Wesley Powell as the man who started it all. He and his crew of nine ran the first (known) river trip through the canyon in 1869. This was a government sponsored trip of science and exploration. The Grand Canyon was the last big patch of unknown, unmapped land in the lower 48 states. Powell and his men actually ran from the

Granite Gorge- Sam Jansen





GCDAMP Representatives- History

- Original AMWG Charter was signed on Jan 15, 1997 by Bruce Babbitt and filed on Feb 4, 1997.
- Listed below are the secretaries who have served while the AMWG has been in existence:
 1. Bruce Babbitt 1993-2001
 2. Gale A. Norton 2001-2006
 3. Dirk Kempthorne 2006-2009
 4. Ken Salazar 2009-April 2013
 5. Sally Jewel April 2013 -

Here is complete list of past DOI secretaries: [Past DOI Secretaries](#)

SECRETARY'S DESIGNEE APPOINTMENTS

Adaptive Management Work Group

Secretary's Designee	Official Title	Dates of Service	Notes
Stephen Magnussen	Director, Operations for USVR in Wash, DC	Jul 1, 1997 - Feb. 8, 2002	TBD
Mike Gabaldon	Director, Policy, Management, and Technical Services in Washington DC	Feb. 8, 2002 - Mar. 21, 2006	TBD
Mark Limbaugh	Asst. Secretary - Water and Science	Mar. 21, 2006- July 17, 2007	TBD
Brenda Burman	Deputy Asst. Secretary - Water		
Kameran Onley	Acting Asst. Secretary - Water		
Anne Castle	Assistant Secretary - Water		

HISTORICAL RECORD of CHAIRPERSONS

CHAIR PERSON	ENTITY	YEAR	TIME FRAME	NOTES
Bruce Moore	USBR	1997	10/1/96 - 9/30/97	N/A
Robert A. Winfree	NPS	1998	10/1/97 - 9/30/98	Operating Procedures signed May 13, 1998
Bruce Moore	USBR	1999	2/18/99 - 3/16/99	N/A
Bill Persons	AGFD	1999	4/10/99 - 7/20/99	Operating Procedures signed June 21, 1999
Rick Johnson	SW Rivers	2000	10/1/99 - 9/30/00	Operating Procedures signed September 7, 2001
Rick Johnson	SW Rivers	2001	10/1/00 - 9/30/01	N/A
Kurt Dongoske	Hopi	2002	10/1/01 - 9/30/02	N/A
Kurt Dongoske	Hopi	2003	10/1/02 - 9/30/03	N/A
Norm Henderson	NPS	2004	10/1/03 - 9/30/04	N/A
Norm Henderson	NPS	2005	10/1/04 - 9/30/05	N/A
Kurt Dongoske	CREDA	2006	10/1/05 - 9/30/08	N/A
Shane Capron	WAPA	2009	10/1/08 - 9/30/12	N/A
John Jordan	USBR	2013	10/24/12 - 9/30/13	N/A

GCDAMP History PAGE

DASHBOARD CONCEPT



- The dashboard idea is nothing new, and is utilized by companies and businesses all the time
- How nice would it be to find out the mass sediment balance, the current science trips/projects, the lake levels, the snowpack, the latest news stories, the status of the guiding documents, hydropower unit availability, rafting, fishing info???
 - (With much of the inputs automated)
 - The Dashboard can automatically search out, and pull information from existing web-sites and trusted reports and display the information/ graphs on one page. (front and back)
- One click of the button and bam... all the latest and greatest GCDAMP related info on a printable page.
- *Still in protocol form, but you get the idea...



GCDAMP SUMMARY--- DASHBOARD Technical Work Group- AHAHG

Provide quick insight to the status of the Colorado River as it applies to the Glen Canyon Dam Adaptive Management Program.



SCIENCE

1. GCMRC- LIDAR over-flight mapping of the river__ May 2013
2. PIUTE-CULTURAL RESOURCES MONITORING: May 30- June 7
3. GCMRC- LCR Aquatic Foodbase/Water Quality Monitoring_ 5-Jun 11-Jun
4. GCMRC- LCR HBC Chute Falls monitoring_ 11-Jun 19-Jun
5. NAVAJO- CULTURAL RESOURCES MONITORING: June 14-23

Change in Sand Mass

- Zero Bias Value: 190 Metric Tons
- Upper Uncertainty Bound: 870 Metric Tons
- Lower Uncertainty Bound: -500 Metric Tons

BACKGROUND

RECREATION-

- Boat Season: Motorized boats currently allowed on river. (May)

GUIDING DOCUMENTS-

- 2013 is year 2 of 10 for HFE protocol EA (2020)
- 2013 is year 2 of 10 for NN Fish Control EA (2020)
- 2013 is year 1 of 5 for Mexico to store water in U.S. reservoirs-- Minute 319

WATER-

1. Ave. water Temperature = 55 degrees
 2. Monthly Release = 8,000 cfs
 3. Water Year Release: 8.23 MAF
 4. HFE Scheduled: No
- Water quality= normal
 - CRSS: Lake Mead level predicted to be 1085' March 2015.
 - Forecasting: 55% chance of 8.23 for water year 2014. (Kgrantz-5-30-2013)
 - Forecasting: 45% chance of 7.48 for water year 2014. (Kgrantz-5-30-2013)
 - The observed unregulated inflow into Lake Powell for MAY was 48% of average
 - Forecasted unregulated inflows in Lake Powell:
 - June: 45% of average, July 29% of average, August 32% of average

FISH

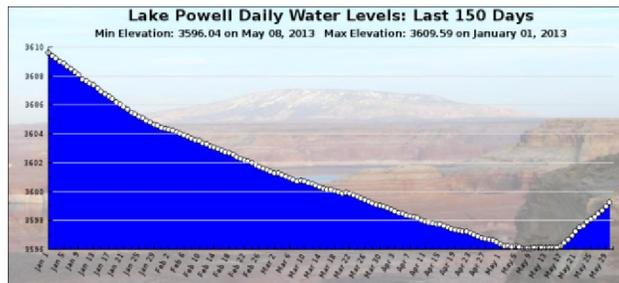
- Pop Estimate for HBC: Between 9,000 -12,000 (GCMRC 2013)
- Pop Estimate for RSBU:
- RBT Fishing @ Lees Ferry as of 6-7-2013 = Excellent

As of 6-7-2013

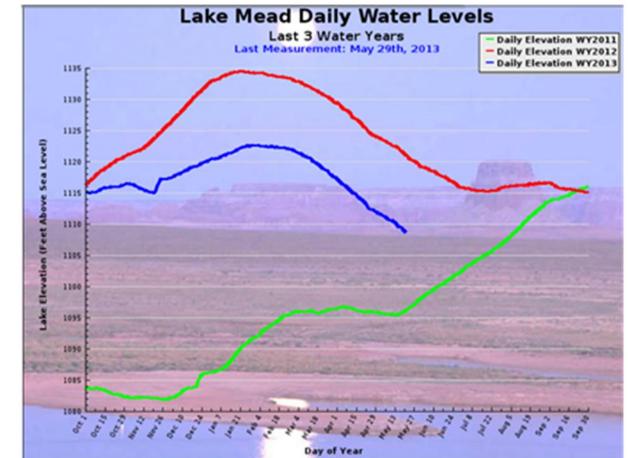
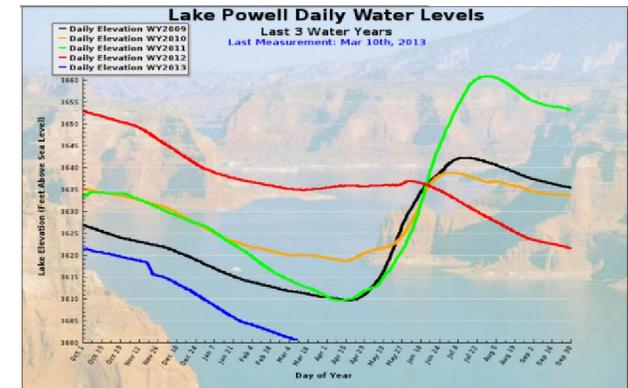


DETAILS

Lake Powell	3598	48% Full	May 27, 2013
Lake Mead	1108	48% Full	May 27, 2013
Reservoirs above Lake Powell	78%	Last Year: 82%	May 27, 2013
Total System Storage	32.28 MAF	Last Year: 62%	May 27, 2013
Total Precipitation			
Snowpack	56% of average		May 27, 2013
Day 240 of 365	66% through water year		May 27, 2013



LAKE LEVELS



HYDROPOWER

- For the month of May, 6 of the 8 units are available at GCD
- Unit 6 scheduled outage estimated return on-line = ~ September 2014
- Objective 2
- Objective 3

NEWS

- **MAY 9_ National Park Service announces availability of Comprehensive Fish Management Plan EA- NPS**
- **MAY 23_ Feds find Quagga Mussels at Lake Powell_ Herald Extra**
- **MAY 23_ Global Warming: USGS study shows 20% decline in Rocky Mountain snow cover since 1980.**
- **MAY 28_ Amphibians disappearing at alarming rate_ Yahoo**
- **MAY 28_ Future of Colorado River on agenda in San Diego_ Yahoo**

ADDITIONAL

- Next Meeting: TWG: June 26 AMWG: Aug 7-9
- TBD
- **QUICK FACT:** 85% of the water that feeds the Colorado River water system comes from the snowpack that accumulates on the western slope of the Rocky Mountains of WY, UT, NM, CO.



GCDAMP SUMMARY--- DASHBOARD Technical Work Group- AHAHG

Provide quick insight to the status of the Colorado River as it applies to the Glen Canyon Dam Adaptive Management Program.

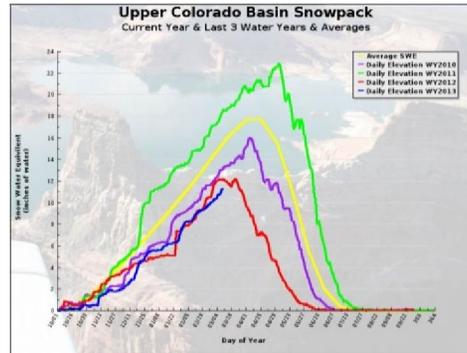


HYDROPOWER AND WATER

Glen Canyon Power Plant Planned Unit Outage Schedule for Water Year 2013

Unit Number	Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013	Sep 2013
1												
2												
3												
4												
5												
6												
7												
8												
Units Available	6	8	7	7	6	6	6	6	6	6	6	5
Capacity (cfs)	18,500	25,200	21,300	21,800	14,800	14,800	18,600	14,700	18,200	18,000	18,000	14,500
Capacity (acft/month)	1310	1390	1290	1290	920	1090	1110	980	1070	1110	1120	920
Max (kaf) ¹	--	--	--	--	--	--	600	800	800	850	800	600
Most (kaf) ²	494	730	801	801	600	600	551	600	800	850	800	600
Min (kaf) ¹	--	--	--	--	--	--	600	800	850	800	600	--

¹ Based on Apr 2013 Min / Max probable 24-Month Study
² Based on May 2013 Most probable 24-Month Study
(updated 5-15-2013)



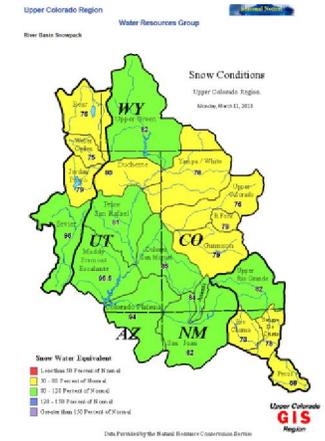
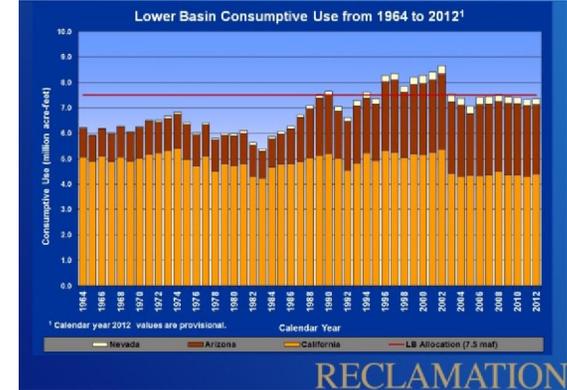
SEDIMENT MODEL



Glen Canyon Power Plant Provisional Unit Outage Schedule for Water Year 2014

Unit Number	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014	Mar 2014	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014	Sep 2014
1												
2												
3												
4												
5												
6												
7												
8												
Units Available	6	6	6	6	4	5	6	6	6	6	6	5
Capacity (cfs)	14,800	17,900	17,900	17,900	11,300	11,400	17,900	14,400	17,900	18,000	18,000	14,700
Capacity (acft/month)	1030	1070	1100	1100	710	1000	1040	1000	1090	1110	1110	950
Max (kaf) ¹	600	600	800	800	600	600	600	600	650	850	900	630
Most (kaf) ²	600	600	800	800	600	600	600	600	650	850	900	630
Min (kaf) ¹	480	500	600	800	600	600	500	600	600	800	800	600

¹ Based on Apr 2013 Min/Max probable 24-Month Study
² Based on May 2013 Most probable 24-Month Study
³ Total release during a HFE = Capacity + 115,000 cfs of bypass (e.g. Nov 2013 Total Possible Release = -32,900 cfs)
(updated 5-15-2013)



HYDROGRAPH

- USBR
- Summit-tech
- GCMRC
- USGS

STEPS Going Forward

- 1: Start to prioritize recommendations from the Administrative Prospectus
 - Consider budget type implications
- 2: Keep adding to the WIKI
- 3: January 2014 TWG

*Still have a long way to go, but we now have a start.