

Agenda and notes 10/9/2024 Rapid Response Tech Team

Purpose- biweekly technical call including management agencies & GCMRC to relay recent findings and discuss future sampling efforts, needs, and potential actions.

Participants:

Trammell, Melissa
Arnold, Jeff L
Willis, Carlos O
Leavitt, Daniel J
O'Neill, Matthew W
Shollenberger, Kurtis R
Hammen, Jeremy J
Omana, Emily
Dibble, Kimberly L
Eppehimer, Drew E
Hines, Brian A
Hedwall, Shaula
Rinker, Pilar N

I. Recent trips and findings

Last meeting/report out was 9/18/24. This meeting moved from 10/2 to 10/9 due to conflicts with other meetings.

Recent Capture Updates by agency:

GLCA

Special notes for Glen Canyon Reach – also see trip reports posted to group email.

1. 186 SMB have been captured since March 2024
2. Last week GLCA caught two additional adult SMB at -15.6 L.
3. All four adult SMB in 2024 have been captured at - 15.6L
4. Five walleyes were captured last week bringing the total to 31 captures since March 2024
5. Smallest walleye was 170 mm; largest 545 mm
6. Numbers of GSF and SMB during the last two sample weeks are about half of what captures were for most of the summer.

GRCA – since last meeting conducted eDNA RM 0 to 30, and then every 2.5 to RM65. Triplicate samples, 15 l, sent samples to NGC in MT – results expected by end of October. Running samples for SMB at this time. Can run samples for other species later, for quicker results. Also seined, 20 BW between RM 16 to RM70. No SMB in seines. 2 GSF. Some FHM and RSH near LCR. A few suckers and chubs. Currently doing PBR sampling this week. No SMB, some GSF. Numbers in catch are declining.

Dan Leavitt – sampling design for eDNA? What part of water column? Kurt - Generally collected a couple of feet below surface, near shoreline but flowing water

FWS- Pilar – completed July and Sept sampling - no SMB, few GSF. July isolated pool 3 stripers, about 180 mm, but in September it was slightly connected, full of GSF, no stripers. BW still cold through marble canyon due to cool mix. Did catch a few crayfish in hoop nets near RM165, not too unusual. GSF 104 and 145 mm at RM 219, and a few bullhead catfish near LCR, not too unusual.

AGFD –Downstream trip this fall 10/9-10/25 Lees Ferry to Pearce Ferry

Reclamation- Matt – talking offramps for SMB in recent P&I meetings, call Matt if you have input or questions. October 21st. Flows will be reduced to 4k CFS that Monday from 0700-1300. There are no planned flow reductions for the rest of the week, though bypass flows will likely not occur on Oct 22 (bypass flow will be replaced with penstock flow to keep flows constant). May be small flow changes as bypass is turned off and on. Temps out of dam right now are 17+ degrees, not matching model, Bryce is adjusting model. We are a couple of weeks out from adjusting cool mix.

GCMRC- Kim – JCM trip on the water, began Oct 7, to 17th. Did fish around House Rock on this trip. One in and out hiker did not report any SMB from early in the trip. Will have more on next RRTT trip. Worked with AGFD to add days to their trip from LF to Pearce Ferry to have more complete sampling. The JCM trip is the last JCM West. [Unless miracle funding is found.]

Brian H is working with Dan Keller, UDWR, to get genetic samples from SMB in the lake, fin clips for kinship study.

I. DISCUSSION OF NEW FINDINGS

a. General – see above

II. Upcoming trips and other future plans –

- a. GRCA – Kurt running another EF trip targeting warm water fishes - week of 21st (or later due to maintenance flows). Launching downstream on 23rd. Two nights between Badger and Soap. Two nights in Sheer wall to House Rock. 14.6 to 17.5 – in area where farthest downstream SMB was collected in 2023. Then Pres Harding to Saddle – 2 or 3 night. On layover days, will do additional seining, and backpack shocking. Fish crew hiking out at PR.
- b. Loaned eDNA kit to Glen Canyon.
- c. Pilar – seines? if you can reach isolated pool above Unkar on the left good place to check.
- d. Brian Hines – Reclamation working on SMB summary report. Will be asking for assistance with Data, annual reports, early analysis, please provide to Brian to incorporate into report. As needed from Strategic Plan. Brian working on outline now. Plan to have draft/presentation at ARM. So late winter is target date for completion. Emily recommends separating SMB workshop from ARM since time is tight.
- e. Matt – Jeff and Kurt planning to work through end of Nov – is that still the plan? Yes.

- f. Kim – asking Kurt what turnaround time for eDNA samples? Will it be useful for targeting remaining monitoring? Kurt – 3 to 4 weeks, prioritized first 20 miles, might have priority sites back in two weeks. Not sure we'll be able to redo itinerary of next trip based on eDNA results.

2024 sampling and monitoring

GRCA – See Table 1.

GLCA – See Table 2. – good on staffing through end of November. Jeff will be able to hire GS11, GS9, and 1 or 2 GS 7 terms. Will be working on that starting this week. Better staffing available for next year. New Ospreys will be outfitted for EF this winter, ready to go in the spring.

 [GLCA Help need Aug to Nov 2024.xlsx](#)

GCMRC – see Table 3 of GCMRC and cooperator trips

AGFD – see Table 3 –

FWS – see Table 3 –

Reclamation –

III. Old Business –

- a. Report out on slough channelization discussion. – NPS and Reclamation are proceeding with EA.
 - i. Out for public comment, comments due Oct 14th
 - ii. Dan requested an extension for comments to Oct 17th, not confirmed yet. May be available to others.
- b. Tom Gushue and Carlos are Seeking any and all feedback on the visualization, and other questions. – no updates. Backing up the NNF database. Should not be a problem for data entry. Problem with filters locked out even in downloaded copy. Carlos will work on that.

IV. Anything else?

- a. Let Melissa know if there is anything you'd like to see on next agenda. – nothing mentioned

Adjourn 4:15

Additional information – Temperature and other parameters from Glen Canyon Dam, downstream

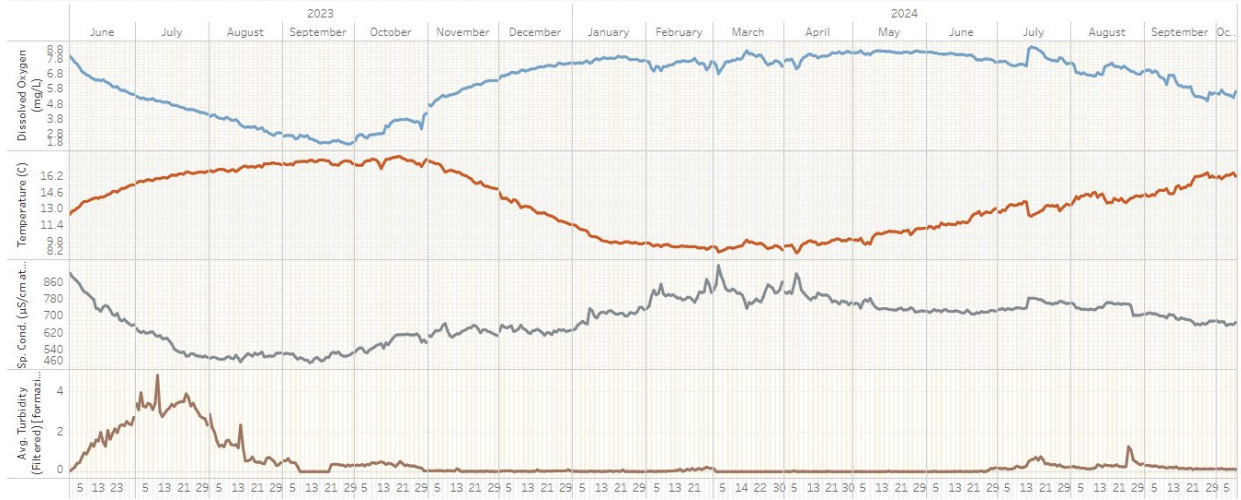
Glen Canyon Dam Site: Daily Averages

6/1/2023 - 10/9/2024

See Hourly Averages



Daily Average Dissolved Oxygen, Temperature, Specific Conductance, and Turbidity Values



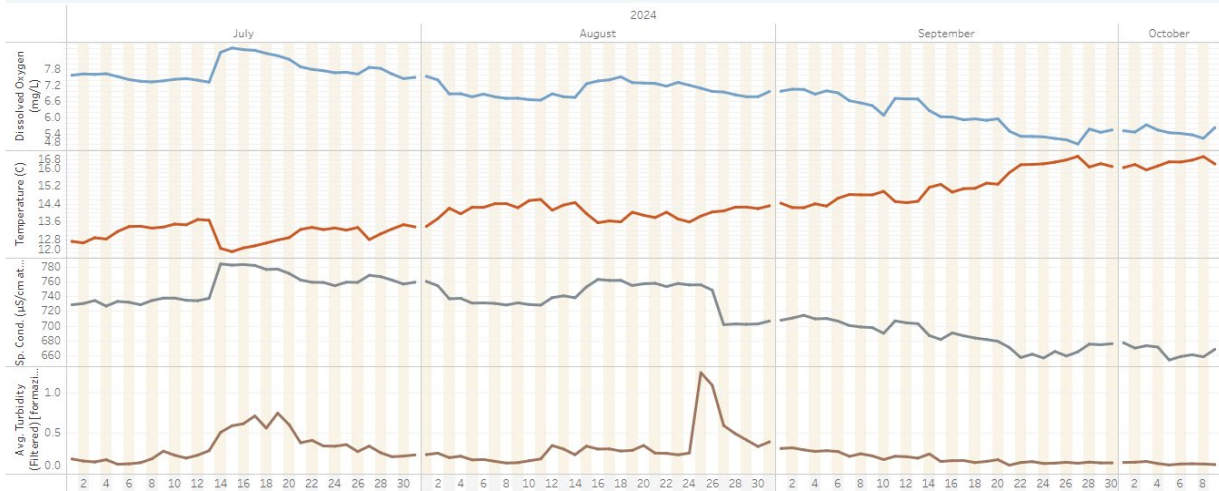
Glen Canyon Dam Site: Daily Averages

7/1/2024 - 10/9/2024

See Hourly Averages



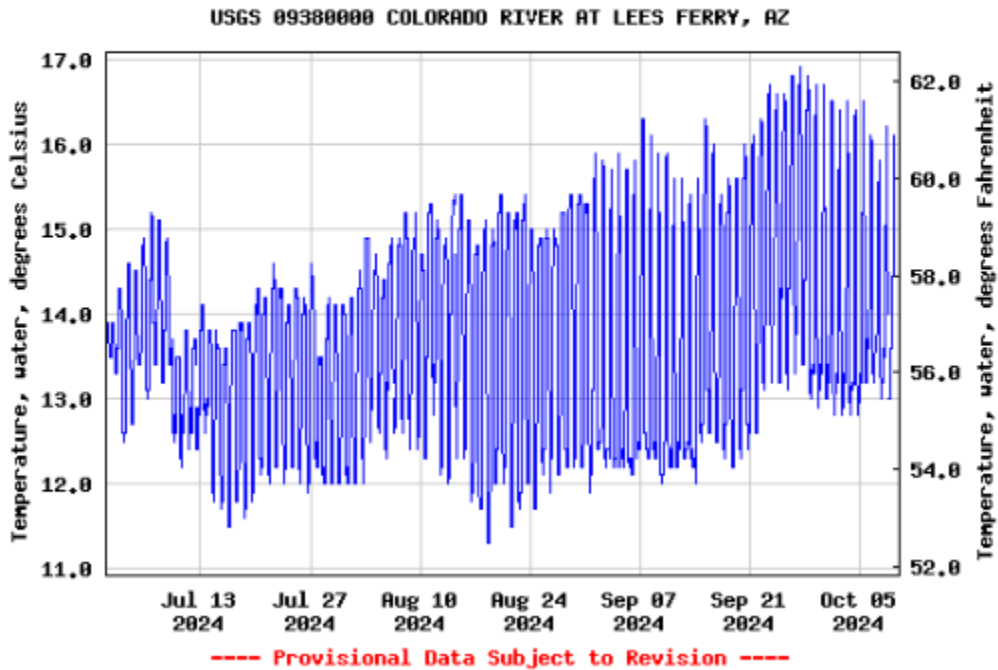
Daily Average Dissolved Oxygen, Temperature, Specific Conductance, and Turbidity Values



[Workbook: colorado-river-water-quality-gcd](#)

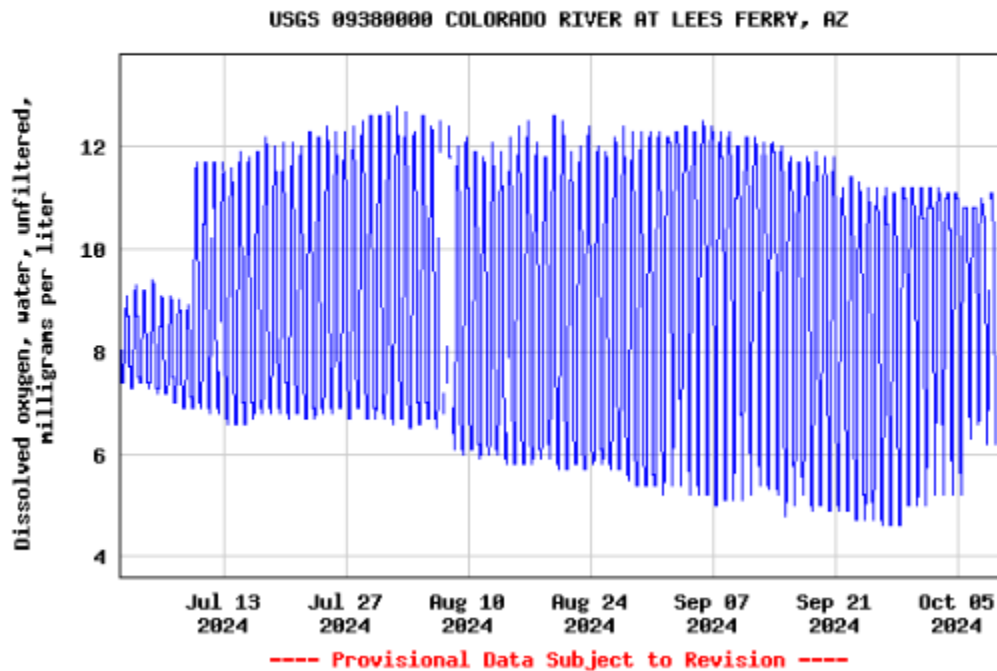
Temperature, water, degrees Celsius

Most recent instantaneous value: 16.1 10-09-2024 10:00 MST



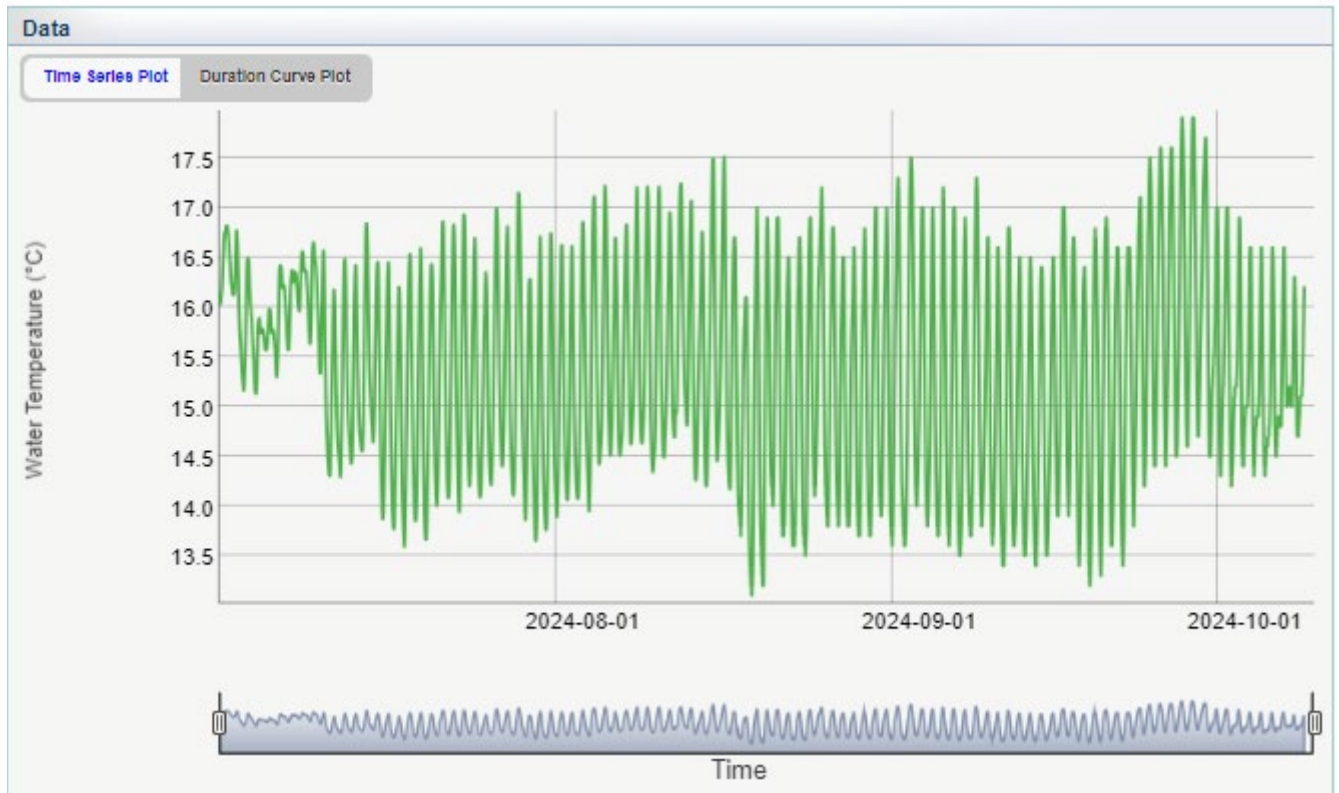
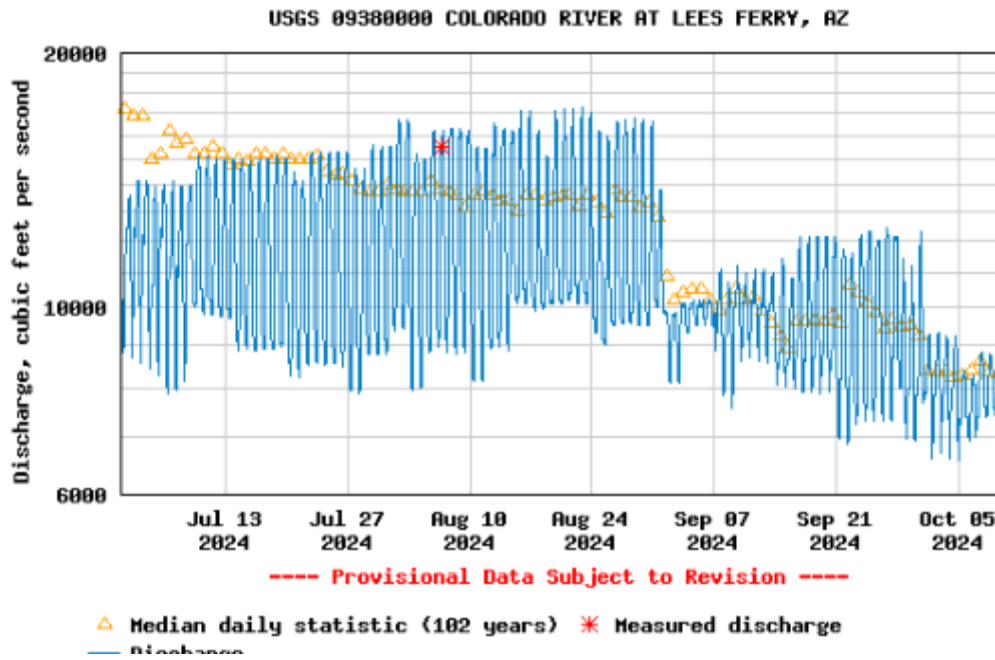
Dissolved oxygen, water, unfiltered, milligrams per liter

Most recent instantaneous value: 6.2 10-09-2024 10:00 MST



Discharge, cubic feet per second

Most recent instantaneous value: 7800 10-09-2024 09:00 MST



Colorado River Temperature at RM61.

https://www.gcmrc.gov/discharge_qw_sediment/station/GCDAMP/09383100#

Lake Powell is up 4.26 feet from one year ago. Lake Powell is at low for water year and down 0.44 feet from the high.

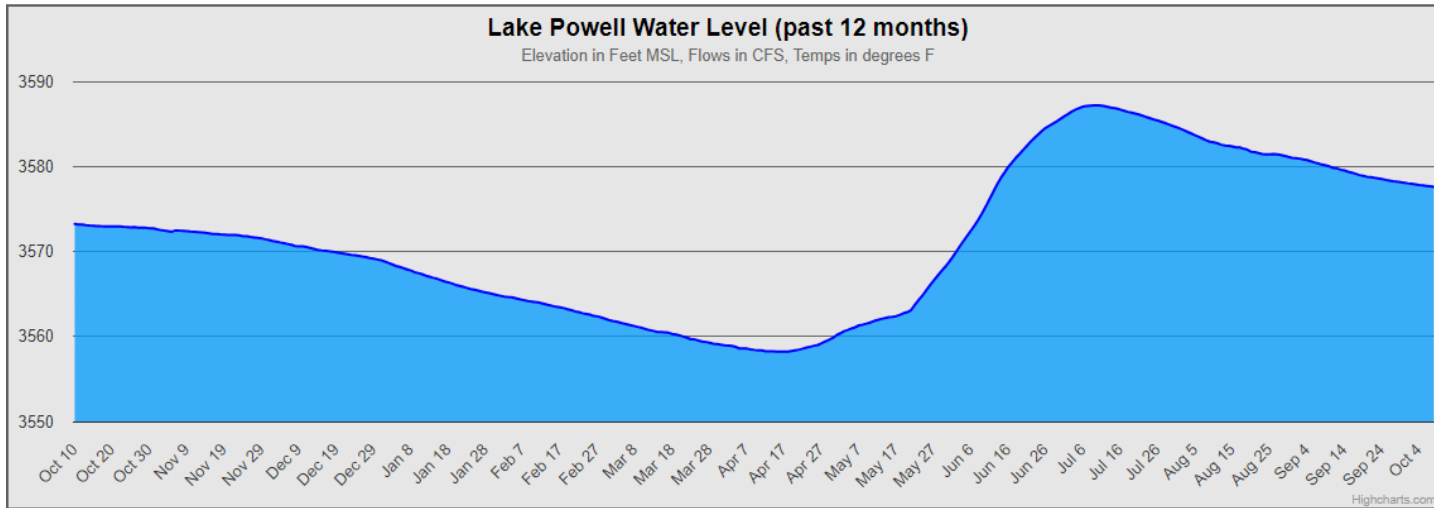


Table 1. Grand Canyon NP Sampling Schedule 2024

Dates	Trip	Location
April 9-10	PBR-BW	Paria to Badger
April 15-19	PBR-EF	Paria to Badger
May 7-8	PBR-BW	Paria to Badger
May 20-24	PBR-EF	Paria to Badger
June 4-5	PBR-BW	Paria to Badger
June 10-13	PBR-EF	Paria to Badger
June 19-30	HBC AGG/NN Surveillance Downstream	Lees Ferry to Diamond Creek
July 8-12	PBR-EF	Paria to Badger
July 23-24	PBR-BW	Paria to Badger
July 29- Aug 2	PBR-EF effort transferred to LF	Paria to Badger
Aug 13-14	PBR-BW	Paria to Badger
Aug 19-23	PBR-EF	Paria to Badger
Sept 9-12	PBR-EF	Paria to Badger
Sept 23-30	NN Surveillance SN/eDNA Downstream	Lees Ferry to LCR
Oct 7-10	PBR-EF	Paria to Badger
Oct 21-Nov 1	NN Surveillance EF Downstream	Lees Ferry to LCR
Nov 11-15	PBR-EF	Paria to Badger
Nov 25-29	PBR-EF	Paria to Badger

Occurred, Canceled due to low water temperature

Table 2. Glen Canyon NRA Sampling Schedule 2024. Electrofishing occurs mostly at night. Dates and locations may change in response to monitoring results to focus on high density areas. Trip length is 3 to 4 days/nights. Netting trips focus on the sloughs. Nets are set overnight. Undesired warmwater fishes are removed for beneficial use (except for carp). Rainbow trout are not captured or handled during electrofishing. Brown trout are removed for beneficial use.

WEEK OF:	Description
March 5	GLCA electrofishing
April 1	GLCA electrofishing
April 8	GLCA Netting
April 15	GLCA electrofishing
April 22	GLCA Netting
April 29	GLCA electrofishing
May 6	GLCA Netting
May 13	GLCA electrofishing
May 20	GLCA Netting and Slough Block Net Installation
May 27	GLCA electrofishing
June 3	GLCA Electrofishing
June 10	GLCA Netting
June 17	GLCA Netting
June 24	GLCA electrofishing/Maybe only one boat
July 1	GLCA Electrofishing
July 8	GLCA Netting
July 15	GLCA Electrofishing
July 22	GLCA electrofishing/Maybe only one boat
July 29	GLCA Netting
Aug 5	GLCA electrofishing
Aug 12	GLCA Electrofishing/maybe only one boat
Aug 16-19	Potential chemical treatment of slough if needed
Aug 19	GLCA Netting
Aug 26	GLCA Netting
Sept 3	GLCA electrofishing
Sept 9	GLCA Netting
Sept 16	GLCA electrofishing
Sept 23	GLCA Netting
Sept 30	GLCA electrofishing
Oct 15	GLCA electrofishing
Oct 28	GLCA electrofishing
Nov 18	GLCA electrofishing

Table 3. GCMRC, Cooperator, and Tribal River Trips and Field Activities

V. **Occurred** or **Planned** 2024

Launch	Take out	Description
25-Jan	30-Jan	Lees Ferry trout population monitoring
14-Feb	1-Mar	Quality of Water/fine sediment monitoring
11-Mar	14-Mar	Lees Ferry fish population monitoring
3-Apr	17-Apr	Mainstem Fish, non-native (electro shocking)-AZGFD
4-Apr	9-Apr	Lees Ferry trout population monitoring
9-Apr	26-Apr	Aquatic Foodbase monitoring (drift)
16-Apr	26-Apr	LCR HBC, camps at three locations on Little Colorado River
20-Apr	29-Apr	Hopi Cultural Monitoring
23-Apr	12-May	Juvenile HBC monitoring-April 27 Launch downstream Lees Ferry
27-Apr	6-May	Navajo Cultural Monitoring
2-May	21-May	Survey Control Network
13-May	30-May	Cultural Resource Monitoring
17-May	31-May	Mainstem Fish, non-native (electro shocking)-AZGFD
21-May	31-May	LCR HBC, camps at 4 locations on Little Colorado River
25-May	3-Jun	Zuni of Pueblo Cultural Monitoring
6-Jun	20-Jun	Grand Canyon Youth-"Partners in Science"
8-Jun	17-Jun	Southern Paiute Consortium Cultural Monitoring
12-Jun	21-Jun	Hualapai Cultural Monitoring
26-Jun	5-Jul	Grand Canyon Youth-"Partners in Science"
13-Jun	17-Jun	TRGD – note dates changed from July 4th
27-Jun	8-Jul	LCR Juvenile HBC monitoring (3 camps)
3-Jul	18-Jul	Grand Canyon Youth-"Partners in Science"
5-Jul	24-Jul	Juvenile HBC monitoring
8-Jul	12-Jul	Lees Ferry trout population monitoring
18-Jul	30-Jul	Mainstem Fish, HBC-Seining
13-Aug	16-Aug	Lees Ferry-Terrestrial Vegetation Monitoring
14-Aug	30-Aug	Fine Grain sediment monitoring
24-Aug	9-Sep	Terrestrial Vegetation Monitoring
9-Sep	11-Sep	Terrestrial Vegetation Monitoring
28-Aug	16-Sep	Mainstem Fish, HBC-aggregations (netting)
5-Sep	10-Sep	TRGD (Cancelled due to likely high water temps and low DO)
*Aug 13		Phantom Ranch to Pearce Ferry Bio-West small bodied sampling
*August 27		Lees Ferry to Phantom Ranch Bio-West small bodied sampling
*Sept 10		Phantom Ranch to Pearce Ferry Bio-West small bodied sampling

*New Trips added by Reclamation