

Agenda and notes 05/01/2024 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 (from Teams app):

Anderson, Mark M
Arnold, Jeff L
Epehimer, Drew E
Fazio, Buddy B
Gibney, Nicole (Nicki)
Hammen, Jeremy J
Hines, Brian A
Leavitt, Daniel J
O'Neill, Matthew W
Rinker, Pilar N
Scott R (Guest)
Shollenberger, Kurtis R
Trammell, Melissa

I. Recent trips and findings

Last meeting/report out was 04/17/2024

GLCA – have not sampled since 4/17 EF. Have set nets in Upper slough for salamanders – population of 8. Mark-recap. 4 GSF – 80-90 mm. Lower Slough – 10 GSF, 10 BG in hoop nets, also 8 FMS. Large block net to be shipped soon, should be in next week and will be installed asap.

Yesterday 4/30 at 2:20 pm it was 17.6 C. Still working on temp loggers, problem with software. Should be resolved soon. EF – lots of GSF and gravid carp. Will try to keep carp out to avoid spawning again. Also observed dead catfish floating downstream, appeared damaged, may have gone through dam.

GRCA – Kurt – no sampling since 4/17. Have done some boat maintenance to make sure they are operational. Boatman contract – closed last Friday, one company put in, likely to be awarded soon. Should be available for work by mid-May if all goes well.

GCMRC – Drew – no new data since 4/17. There is a JCM monitoring trip on the water now, so will report next meeting.

AGFD – Scott R – many calls the last two weeks. the rumor/fear is that there are 70 trips, all killing trout, all doing the whole LF reach – want to know schedule and protocols and data. Can we/NPS provide those details? When and where? Fish handling protocol?

Jeff – dead carp not coming from NPS. We don't handle the adult carp, and have done little electrofishing as yet. Will look at provide public facing website for schedules – one month out – need to discuss with Bud for approval. Bud – there are safety concerns, will need to discuss. **NPS does not handle RBT (>6 in) or Carp or FMS at all during the SMB electro fishing removal efforts.**

Scott – is there a monthly summary or trip report we could share? Jeff –mostly report in the RR TT meetings. Scott asked if we can provide catch totals in email form for Scott to provide. They are interested in trout mortality.

Kurt – we generate a monthly report submitted to reclamation on 15th of month following. Next on May 15th, summarizing April GRCA and GLCA sampling. Includes numbers of fish caught and where sampling occurred. We can share these reports if reclamation approves.

Matt – can AZ share Dave R’s presentation showing how little water is touched by the EF boats? Scott - Maybe, but not over the phone.

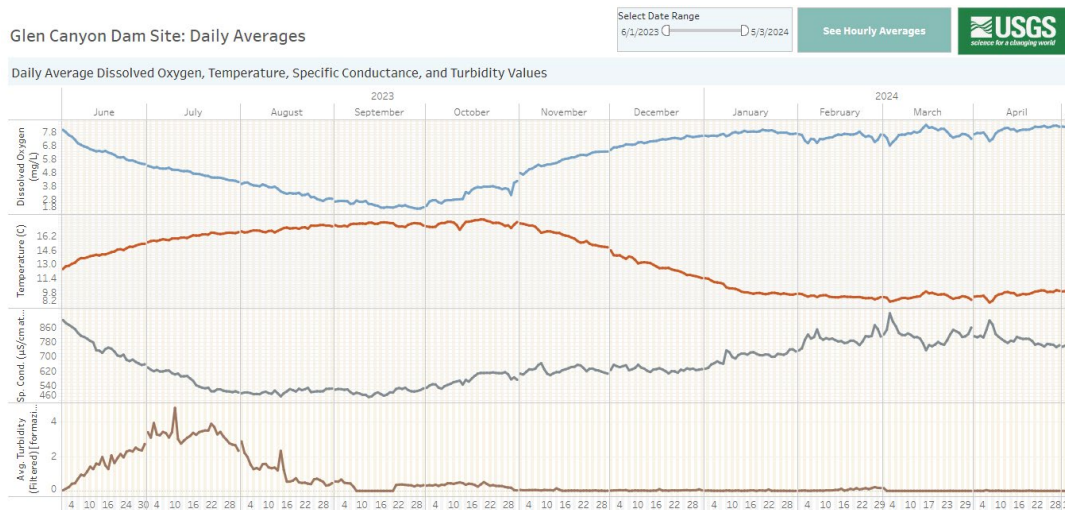
Jeremy – down the road – public affairs press on social media with reclamation and NPS – has helped in other states, helps bridge the gap between rumor and facts. What social media would be most likely to reach demographic? AZ fly and tie, maybe FB – but the anglers don’t do more popular sites, not the right demographic. Scott would like something easily shared by email – fact sheet per month with locations, times, recent catches, could link to Jeff’s site once developed.

FWS – Pilar – did not catch any unusual ww invasives during spring LCR marking trip - no centrarchids. Next recap trip on May 21st. 18.4-22.2 C in the LCR while we were down there. that's [at] the salt reach

II. DISCUSSION OF NEW FINDINGS

Few new centrarchids throughout river.

LF temps still reasonably low, see graph below, too low for spawning in MC but warming up in sloughs.



The water quality data shown here are filtered raw values and are subject to revision through quality control / quality assurance procedures. These data are being provided to meet the need for timely best science. The data have not received final approval by the U.S. Geological Survey (USGS) and are provided on the condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the data. Please visit GCMRC's Discharge, Sediment and Water Quality web site to plot or download the processed measurements from this station: https://www.gcmrc.gov/discharge_gw_sediment/station/GCDAMP/09379901

III. Upcoming trips and other future plans –

2024 sampling and monitoring

GRCA – on track with schedule below – BW sampling May 7-8, PBR EF on May 20

GLCA – next week block net install, then will EF and Net all larger fish out of the interior slough and put outside the block net, and PIT tag all the fish put outside net to see if they get back in. If there's a flow spike, will have to pull and reset. Net may be subject to vandalism, will check weekly.

GCMRC – Drew – looking at experiment to test flow efficacy – put out artificial spawning beds for bass (pea gravel) – monitored weekly by Jeff and crew, paired with temp loggers, check for adults, eggs, larvae. 8 sites in LF. Will use visual observation and also if get larvae, can get genetics. Since GSF or other may also use beds. Also, looking at using side scan sonar mapping of fish spawning habitat at various flows. Brian Hines – can you use artificial beds to help you find good locations for other bass nests? Yes – the idea is to put them in good spawning habitat and if they get action, look for others in area, also map with side scan, and in post processing may be able to characterize habitat around nests. If find a 'wild' bass nest will also map that section to find other nests. Matt – nests are big structures, won't mistake them for wild. Weighed down with cinder blocks so should not move if flow increases. What will be done with a SMB found making a nest? Study or remove? Study - Dependent on the results of the LTEMP SEIS we want to see if the management action is effective at halting/interrupting/preventing successful spawning. We will remove SMB found spawning if certain proposed LTEMP SEIS flows are implemented or a no action, should prevent spawning, and if it doesn't, or if no action alt implemented, spawning may occur unless removed. This study will entail additional monitoring by GLCA – Drew and Jeff in good communication. Matt proposed side scan, and Conor idea for artificial spawning substrates. LTEMP SEIS ROD expected this summer [to determine which alternative may be implemented].

Dan – add details about why remove/study above (done).

AGFD – see below table

FWS – see below table

Reclamation – Jeremy – will be a release of IRA budget soon, so can move forward with hydroacoustics study – transducers on penstocks to monitor what's going through – in January, should be operational by next spring.

IV. Old Business –

- a. Concerns from anglers – trout fishery in GLCA.
 - i. dates and locations of electrofishing – Jeff will work with Scott
 - ii. need for more outreach – discussed above
- b. Does Jeff need help before staffed up? Probably in June. Jeff will contact David Ward and Jess about need and availability – now that we have better idea of schedules and may need additional help with monitoring. Matt and Brian Hines are also available – but need to know when/where ASAP.
 - i. Borrow a boat from Reclamation, in Moab, just need to find a way to transfer down to Page.

- c. Report out on slough modification discussion. – NPS still discussing but moving forward.
- d. Jen Pelz from Grand Canyon Trust asking for data – thoughts? They would like data to create their own graphs/prepare background materials to educate people on smallmouth bass
 - i. GCMRC data releases discussion? Drew – Jen reached out to him as well after last call. Hoping to make a map to share with public. GCMRC can't share SMB location data without going through lengthy data release process. NPS may be able to share? But NPS only has partial data. Is there a difference in sharing process between big boy database and the NNF database? It would be up to Tom Gushue – process takes time, and might be too slow, and would have to be redone every time new data are wanted
 - ii. Reclamations maps that Katherine made? But that was based on GCMRC database. Drew will Check with Tom Gushue about whether map would be ok without underlying data, and if we had to do data release procedure how long it might take
 - iii. Matt and I will meet with Jen to explain. We want to be very transparent, and happy to share existing maps, but FOIA v data release timelines are both long.
- e. SMB panel report
 - i. NPS submitted comments to Reclamation under LTEMP SEIS comments
- f. Coordinated effort between NPS and GCMRC regarding sampling protocols for both GLCA and GRCA (email from Bill Stewart) – clarification
 - i. Kim and Drew chatted with Jeff and Kurt about SMB monitoring and removal this summer. Went over all the protocols and methods and sampling schedule etc. Potential to standardize the methods across the PBR and Lees Ferry effort (with some small exceptions) including standardizing datasheets. Backwater temperature loggers are important and are already installed. Preservation of SMB is important. Small fish can be used for otolith aging- to show hatch date in relation to potential SMB flows from GCD. All fish will have samples taken for genetics work (genetic samples need to be preserved in ethanol). Genetics can show parentage- how many nests, and if samples are taken from Lake Powell they could help tease out entrainment vs local reproduction below the dam. There is a need for systematic reporting of qualitative data, such as observations of SMB, including: nest sites or potential nesting activity, SMB that weren't able to get captured etc., potential sightings and/or catch from anglers. Maybe record on a separate sheet on nonnative database?
 - ii. Kurt, Jeff, Drew working on standardizing

- V. New Business
- VI. Anything else?

- a. Let Melissa know if there is anything you'd like to see on next agenda.

Adjourn 4:48

GCMRC, Cooperator, and Tribal River Trips and Field Activities

VII. **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"
27-Jun	8-Jul	LCR Juvenile HBC monitoring (3 camps)
3-Jul	18-Jul	Grand Canyon Youth-"Partners in Science"
3-Jul	4-Jul	TRGD
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	Juvenile HBC Monitoring in Glen Canyon

Yackulic, C.B., Bair, L.S., Eppehimer, D.E., Salter, G.L., Butterfield, B.J., Caster, J.J., Deemer, B.R., Fairley, H., Grams, P.E., Kasprak, A., Palmquist, E.C., and Sankey, J.B., 2024, Modeling the impacts of Glen Canyon Dam operations on Colorado River resources [presentation], LTEMP SEIS meeting (virtual), January 31, 2024: Flagstaff, Ariz., US Geological Survey, Southwest Biological Science Center, Grand Canyon Monitoring and Research Center, <https://www.usgs.gov/centers/southwest-biological-science-center/science/modeling-impacts-glen-canyon-dam-operations>

Dates	Trip
April 9-10	PBR-BW
April 15-19	PBR-EF
May 7-8	PBR-BW
May 20-24	PBR-EF
June 4-5	PBR-BW
June 10-13	PBR-EF
June 19-30	HBC AGG/NN Surveillance Downstream
July 8-12	PBR-EF
July 23-24	PBR-BW
July 29- Aug 2	PBR-EF
Aug 13-14	PBR-BW
Aug 19-23	PBR-EF
Sept 9-12	PBR-EF
Sept 23-30	NN Surveillance SN/eDNA Downstream
Oct 7-10	PBR-EF
Oct 21-Nov 1	NN Surveillance EF Downstream
Nov 11-15	PBR-EF
Nov 25-29	PBR-EF

GLCA Sampling Schedule 2024. Dates and locations may change in response to monitoring results to focus on high density areas.

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 and Slough Block Net Installation
May 13	GLCA electrofishing
May 20	GLCA Netting
May 27	GLCA electrofishing
June 3	GLCA Netting
June 10	GLCA electrofishing
June 17	GLCA Netting
June 24	GLCA electrofishing
July 1	GLCA Netting
July 8	GLCA electrofishing
July 15	GLCA Netting
July 22	GLCA electrofishing

July 29	GLCA Netting
Aug 9-12	Potential chemical treatment of slough if needed
Aug 5	GLCA electrofishing
Aug 12	GLCA Netting
Aug 19	GLCA electrofishing
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