Tahoe Science Advisory Council

# NOTES | September 2023 COUNCIL MEETING

**Date:** Thursday September 21, 2023

**Time:** 10:00 AM – 11:45 PM

**Location:** [Zoom](https://ucdavis.zoom.us/j/95640562276)

**Participants:** Sudeep Chandra (UNR), Adrian Harpold (UNR), Monica Arienzo (DRI), Geoff Schladow (UCD), Max Moritz (UCSB/DANR), John Melack (UCSB), Pat Manley (PSW), Jonathan Long (PSW), Ramon Naranjo (USGS), Joe Domagalski (USGS), Jason Kuchnicki (NDEP), Jim Lawrence, Laura Patten (KTB), Melissa Thaw (Lahontan), Chris Fritsen (???), Caitlin Meyer (Tahoe Fund), Ben Letton (Lahontan), Mary Fiore-Wagner (Lahonton), Phoebe Song (EPA), Dan Segan (TRPA)

Robert Larsen (CNRA), Alison Toy (UCD), Caelan McGee (Facilitator)

# Meeting Goals:

* Review the October Science to Action Conference Program
* Review the September draft Science to Action Plan

# Welcome and Agenda Review (Council Chairs)

# Water Quality Working Group update (John Melack)

## Meets about 1/month. Productive discussions with good attendance from agencies, council members, and former council members. Over the next year or two, review. Come up with priorities and will need a subgroup. Will bring some outside perspective as well and continue to mitigate. Nearshore updated, allocated 15k, update of the 2013 review processes with new results. 3rd topic is the semi-annual clarity status, DSA, Jason does an annual TMDL, and this is need in further clarification. More focus because 35k does not cover the work. As a group, need to keep track of wanting mechanistic understanding and what is feasible. Distinction between new areas before and after monitoring activities.

## Very functional work group and should be how the council continues to work in this way. There will be need for additional work groups moving forward, invasive species etc.

## Invasive species working group – Press release about the New Zealand mud mussels found on 9/15, part of the Lahontan funded macrophyte monitoring. 3 mile stretch in South Lake Tahoe in 90 feet of water. Rapid response protocol from TRPA, notifies partner, getting an idea of extent, then looking for a technical advisory committee. Current data survey protocols needed, some advice given, what should be prioritized now? Literature also needed, control or eradication methods? Risk assessment as to what we think will happen to the lake. All this needed quickly. The expertise might be outside of TSAC. Willing to consider multiple partnerships. (Dan)

## See who would like to participate from the Council and then get feedback going and then work through what we think should be done. Then go external. If Council members don’t have time, that’s fine, we go external (Sudeep).

## It would be great for broader input for external people. Currently doing range assessment, are they also looking at density or simply presence? Look at the AIS group, UCD is in the water looking at Periphyton and Metaphyton, may be able to contribute to efforts as researchers are already in the water (Geoff)

## TRPA open to any external recommendations. In the one confirmed location in the South Shore, transects looking at density, other survey is just detection, those are presence/absence. Will loop back with Geoff about how UCD team can contribute to data collection.

## Are there folks on the Council that want to participate with Dan? Pass nominations to Bob and John. Bob to send an email out to the entire Council with background text from Dan solicitating involvement/interest.

# Plastics Working Group (Monica Arienzo)

## Generated a charter between Monica, Bob, and Jen. Circulated charter with different invited individuals, a smaller group. Invited groups as experts to serve as reviewers. Every other month meetings. Third group of stakeholders, 5-6 responses to surveys. First meeting will be in October following the S2A conference. Happy to share the charter. Part of the goal is to summarize the state of knowledge.

# SNPLMA Project Update

## Zooplankton (Sudeep) – What is the horizontal and vertical distribution, composition, and density of macro- and microzooplankton in Lake Tahoe? What is the role of zooplankton on particles affecting clarity in Lake Tahoe? (to be completed in summer 2024) – laboratory mesocosm experiment at UNR to evaluate the effects of nearshore and offshore zooplankton communities on particle size distribution.

## State of the Basin (Sudeep) – Jim Lawrence brought in to assist. T1 - Project coordination. T2 – Draft a report outline. T3 – compile available information sources. T4 – Final State of the Basin Report. T5 – Web-based story map and video, produced for the council to be shared with the general public. Seeking a task committee. Seeking feedback and any additional ideas.

### Taking this large wealth of information and organize it, a lot of the work in the basin is cross-category work. Set the tone for why Tahoe is such a unique place but also why there are global applications. The thought is that under each section there will be a summary of existing data and gaps and then identify a path forward. This is the framework throughout.

### Chapters for sustainable recreation/transportation is a catchall, plastics goes under this. Are there others? Wanted something out there for feedback. Will send the document out for feedback. 3 representatives from Council to be on the steering committee.

### What is the timetable for this? Started engaging on this and will want initial feedback in the next two weeks.

### Take advantage of the conference and lots of notes to get states of knowledge on this topical area. Conference will be used to gather knowledge. Timing will be a little give and take based on what is being done in the basin.

### Pat would like to contribute for feedback. Need scope of work.

## Particles (Alan) – Email from Alan to be distributed, project is moving forward.

## TEON (Pat) – Tahoe Environmental Observatory Network. Understanding of resilience of the basin to climate change. Design a monitoring system for the basin, activities to test the design features of a monitoring system.

### National Science Foundation Monitoring System

### Sampling up to 80 different sites, leveraging historic data sites, to help us understand what the change has been. Bird and vegetative sampling, setting AUVs and cameras, to look at affect size over time.

### Sentinel watersheds proof of concepts in Blackwood and Glenbrook, not in real-time yet.

### Need some advice for developing partnerships. Trying to reduce the bureaucracy, need some paths forward for putting instrumentation in the lake, could use help from the agency side. Dan can follow up but needs more information.

### Cutting green tape committee led by Kim Chevallier

### Suggest checking in with UCD and partnering onto nearshore sensors. Sudeep to add Geoff onto the list for looking into future partnership. Building out stream to lake connection was always there, pressing forward.

# Science to Action Conference (Robert Larsen/Caelan McGee)

## Program overview

### Day 1: Keynote speaker leading effort for the USFS out of DC with a nice social/networking/reception (4-7pm)

### Day 2: Panels, with presenters (2 scientists and 2 agency members) with small group discussions

### Day 3: Reports from various groups and small group discussions

## Council member engagement/participation

### Excited about this

### Poster sessions? A mid-conference session of new idea and new faces. No space for an explicit poster session. A potential unhosted poster session is there. Trying to avoid last minute requests.

### The planning of this conference has been a great collaborative effort between science and management. Encouraging having posters to see who is doing what. Look at posters unstaffed so I can review at own pace. Provide opportunity for people to know as much as possible. Publication of abstracts? Great opportunity for people to look later and continue the conversation at a later time. Late stage, but the call out is there. What are these abstracts covering? Abstract presentation? Could be that.

### Not a traditional science conference that everyone is used to. Want to be careful about not forcing in elements that we are used to seeing. Share participant list. Don’t think posters are necessary in this setting, too last minute, personal opinion from John. Appreciate that, difference of opinion for the value. Quite a lot of people are excited to have a poster there.

### Jonathon at last council had proposed poster highlighting what tribal council is doing in the forests. Lot of interesting things to put out there beyond a poster. Curious to see if there is still an interest in a 5pm poster session.

### If there is a subset of people that want to do this, we need to know how many by the end of the month. Pat is monitoring poster submissions. No time in the program for a poster session. There is no clear information about what students would get out of this. Some information would need to come out about the posters, guidance.

### Room in the Duke theater after the Wednesday reception for the posters. There is space in the panel area for the posters. There is no space in the program for posters. Two public spaces for participants to be in, unhosted space for people to put up posters.

### One suggestion that came up in the clarity group. Maybe within those sessions, there might be time for micro-presentations of the subject area students are working on for the audience to see. A way to bring the newest ideas to the audience. It’s a potential niche panel and it would be ok.

### Abstracts. A brief of key talking points. Way to keep people to 10 minutes and would be good takeaway for Sudeep who is looking for main points.

### Unhosted space is available for Wednesday and Thursday for posters. That is the call, add to the NWRA website.

# Science to Action Plan (Caelan McGee)

## Review current draft – latest draft distributed with agenda. Looking to finalize. On the TIE steering committee in November to get buy-in from executives and agencies, this is the science approach they agree with. Need feedback from Council members.

## Define steps to finalize – This isn’t that long of a document. In the spirit of it being an overall S2A plan, encourage everyone to read this. If there are substantive issues, bring those up, but we want some sort of consensus. What does TSAC do? What sort of resources are required for TSAC? This is missing. How explicit do we want to be?

## Have you responded to Whitney Brennan and Melissa Thaw? Would be worthwhile to have some sort of answer or address comments document.

## Some comments from Chris Fritzen. Page 3 Caldor spurred interest in S2A, does the council fund projects? Welcome any comments to send over to the Council.

## Calling out “supporting Tribal resources.” How do we do this? Did this get added because an agency wanted us to do this? Very open ended. But still trying to get to what is TSAC’s role. Minor comments, not understanding distribution of Asian clams, is that something we want to know or is it more about biological taxa. When we call out certain details, there was always a reason. A lot of open-ended comments are not helpful, more of “it should say this… instead of this…” Send out as a word document, then easier to make those comments.

## Is there a reason why urban science needs were not included in the document? Thought the comments had been merged. Will need to double check.

## What is the deadline for incorporating final comments? Track changes in the document in the next few weeks.

## “The Council could consider having official roles other than Council members where outside expertise could be…” Looking outside of the council for assistance. Don’t see a downside to formulating this more. TSAC advisor or something more official. Acknowledge that some official participation without changing the Council structure, something more formal, not sure how much formality is needed. Can/will improve the language. Maybe a role of someone outside the Council but within a Council institution and then a role for someone outside the council and outside of a Council institution.

## Science delivery, coordination, and communication. This is something fundamental potentially lacking in the Council. This is something that partners want to see from the Council.

## Decided to not include specific numbers and funding needs. It’s not just supporting the science and research, but the delivery elements as well. What will the presentation to the TIE steering committee look like? That’s the audience we want to get through to, this is why you should support the Council, when there are funding questions, this is where the Council comes into play. A reframing of how TSAC interacts with TIE and how TSAC can best serve the community.

## Seek a little clarity, is the question to add to the document, where the role of messaging and supporting, seeking funding was something the Council could do? Or this document would support seeking funding. Latter.

## Who is presenting to TIE? Will have to plan, the first Thursday of November. 11/2/2023.

## Requesting an action item recap following this meeting.

Meeting Chat Recap:

Melissa Thaw to Everyone 10:19 AM

Can someone put the press release in the chat, please?

Dan S, TRPA to Everyone 10:20 AM

https://www.trpa.gov/invasive-new-zealand-mudsnails-discovered-in-lake-tahoe/

Adrian Harpold to Everyone 10:21 AM

In our strategic planning session we talked about how to broaden the council beyond two member per institution. I think some process and recognition (and possibly money) needs to be developed.

Phoebe Song to Everyone 10:23 AM

I'm no expert but I am reaching out to internal EPA folks to see if there are experts that can join any future discussions on this.

Sudeep Chandra to Everyone 10:42 AM

1. We will send out the document and request feedback on the topical areas. 2. We want to request that 3 TSAC reps serve on the steering committee. One person that can represent the upland, water, and social/ economic sciences topical areas. Please volunteer your time for monthly meetings (30-60 minutes) starting in 2 weeks!

Here is a link to a paper about New Zealand Mudsnail invasion potential and impacts in Lake Tahoe and the Truckee River. https://www.dropbox.com/scl/fi/eb9simeig6wyp22u0txok/24.-Kolosovich-et-al-2012-Aqu-Inv-Truckee-R-NZMS-Surv.pdf?rlkey=ezc0uoxiviz9zjqifzkpjae2x&dl=0

Jonathan Long to Everyone 10:51 AM

Pat, I'll send you a query about tree canopy cover measurements in TEON to help coordinate with our riparian hardwood project.

pmanley to Everyone 10:51 AM

Jonathan - sounds great..

Max Moritz to Everyone 10:53 AM

Is there any opportunity/interest in sampling some beaver-influenced environments via TEON? In the fire context (ecohydrology and raised live fuel moisture) I've heard some questions about restoring beavers on different landscapes.

Sudeep Chandra 10:57 AM

Yes for sure. I think is very important. There is a new person at UNR/ USFWS COOP unit that is also interested in developing a sampling program around Beaver impoundments. Can we have a submitting to discuss?

pmanley to Everyone 10:55 AM

Max - definitely … would love to touch base with you and others you recommend to make sure that driver is accounted for in sampling.

Max Moritz to Everyone 10:55 AM

Sounds great

Ramon Naranjo, USGS 11:04 AM

Maybe the agencies should create posters discussing the way science is being used for decisions.

I've got to drop off, but if you want me to add to specific sections on the plan feel free to call it out.

Jason Kuchnicki to Everyone 11:40 AM

Was wondering if there was a discussion of whether to include a component regarding funding needs related to science and Council structure? WQWG has discussed the need for lobbying for funding since agency funds are tyupically restricted and not a lot of discretional funding exists? Could this serve that need for trying to gain additional funding?

Robert Larsen 11:44 AM

One of the primary purposes of this document is to clearly outline the value of the Council and the associated resource needs. I hope that it will be useful in advocating for funding

Jason Kuchnicki 11:49 AM

I think you need something documenting resource need

could be this document. Makes sense to me if targeted for execs.

Jason Kuchnicki 11:50 AM

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Sudeep Chandra 11:56 AM

Have to go teach a limnology class. A beautiful day in Tahoe, looking forward to seeing you in 3 weeks!