Meeting Notes
Bi-State Executive Committee

Monday August 6, 2018
1 – 4PM

Tahoe Center for Environmental Sciences, first floor, Rm 139
291 Country Club Drive
Incline Village, NV 89451

Executive Committee Attendees: John Laird (CNRA), Brad Crowell (NDCNR), Joanne Marchetta (TRPA), Paul Dodd (UCD), Helene Dillard (UCD), Lawrence Buja (DRI), Mark Sogge (USGS), Alex Friend (USFS-PSW), Todd Ferrara (CNRA), Jim Lawrence (NDCNR)

1. Welcome, introductions, agenda review

Secretary Laird explains to anyone unaware that there is an MOU between two states that established the Tahoe Science Advisory Council and the Bi-State Executive Committee. This is the committee's 4th meeting, and potentially last meeting chaired by John and Brad. He acknowledged the hard work of Zach Hymanson, who may also be leaving at the end of the year. Discussion last meeting piqued curiosity, first time hearing that Tahoe was heating faster than any other Alpine lake, and combined with 2017 decline in clarity, makes for excellent timing for regenerating action at the lake as everyone is in a collaborative mode.

Director Crowell says this his second meeting. He has been in his position a little over 1.5 years. He has gotten up to speed on Tahoe issues. He wants to make sure actions are tailored to what the science says to do. The focus remains on what needs to be done. He supports a science to action model. Want to make sure decisions are made by the best experts so we can defend policy actions. Scientists can have confidence in the policy makers.

2. Public Comment

The co-chairs asked for comments from the public on issues/items not on the agenda. No comments were received.

3. Update on Council Operations, funding, and contracting (Discussion item)

Zach Hymanson provided an overview of Council operations:

- Maintained a full membership roster of council members over the last year. Council membership is a nice blend of scientists who have worked in

the Tahoe basin, with several scientists who have not worked in the basin. Adam Watts from DRI and Joshua Wilson from USFS-PSW are both new members. Ed Parvin from USGS is being replaced.

- Co-chairs Schladow and Heyvaert have done so well, no one wants to replace them. The time commitment is large, something to keep in mind wiht future appointments. He asked executive members to remember that Council participation requires a time commitment.
- Zach's last year. Todd Ferrara is working on finding a seamless transition to replace Zach as the program officer.
- Council funding comes exclusively from submerged lands lease fees collected in the California areas of Lake Tahoe. Alan Heyvaert has led the pursuit of some Southern Nevada Public Lands Management Act (SNPLMA) funding that has become available to fund Tahoe science projects on the secondary list. A couple have been approved for funding.
- Annual California appropriation is $150k/year. Work plan assumes that appropriation will continue.
- TRPA contract was renewed and allows the funds that are appropriated to become available for Council use.
- Thanks to Alison, we have a fully functioning website, mainly sharing with the public information about of on-going projects and what the Council is currently doing (e.g., meeting notes and work plan). It will continue to be a tool used to share information. The website also provides a way for any member of the public to contact the Council.
- The Council continues to meet every other month additionally there are sub-committees in place to deal with specific issues. Upcoming Lake Clarity presentation has a subcommittee.
- A peer review committee was created this year as a standing committee. It is chaired by Scott Tyler (UNR). Purpose is to fulfill the Council's peer review commitments. Documents or work products from the basin can be reviewed by committee or find appropriate reviewers. Active work may start this year.
- Question: Jim Lawrence asked about the SNPLMA funding for new science projects? Is that funding from the original $30 million set aside as the science portion? Alan explains Science funds were spent out. This is a collaboration happening in Tahoe, the federal advisory committee worked together to see which projects had priority that had not been spent in the first round. In the second round with the monies that were returned, they carved out specific science funding. Collaborative nature definitely builds a better representation.

4. **Results from Council review of the 2017 Lake Tahoe Clarity data (Action item)**

Director Crowell tells everyone this agenda item is focused on the unfavorable conditions of lake clarity in 2017. What data don't we have that we should have to help inform decisions? Secretary Laird and Director Crowell sent a letter to the Council, with 10 scientifically charged questions. Looking for answers that will inform policy makers.

Alan mentions that Lake Clarity data is released in the year after the data is collected. The white paper accompanying the draft response to the 10 questions is not a definitive report. Subcommittee was formed to contribute initial review and comments to this report. We have engaged all TSAC members in the answer to these 10 questions.

Geoff, thanked John and Brad for their roles in supporting Council. He noted that stable funding has allowed us to develop an unbroken record of clarity data since 1968. With all the other parameters being measure, it comprises the greatest lake data set of the Western USA. 2017 clarity averaged 59.7 feet. The lowest value in the period of record, including 1997, which also had low lake clarity. Lots of effort and money has been spent since 1997 when the Environmental Improvement Program was launched. He then ran through a slide show. Summary points are as follows:

- A display of individual secchi readings for the last few years shows that the end of the year in 2017 is when things changed: 2017 was the first year to experience continuing loss in clarity into winter.
- Suggestions for the cause of 2017 clarity decline: Drought conditions followed by an extremely wet year. 2015 exceptional drought, then 2017, most of California realized an extremely wet year. 2016 would still be a drought, even though it was more of regular wet season. Perspective: 2017 was the year of Oroville spillway failure. There were an exceptional number of atmospheric rivers in 2017, a total of 68 occurring before April.
- Lake level in each year of the drought showed a net reduction. During the drought, while considered average water years, 2015 and 2016 still dropped below the rim. 2017 experienced a 6-foot rise in 6 months, surface levels rose within an inch of the upper limit.
- How does 2017 compare with 1997?
    - 1997 data from Upper Truckee River (largest inflow) was characterized by a huge New Year's Eve atmospheric river event. Tremendous amounts of water added tons of sediments downstream ~5,000 tons total that year, but half of that (~2,500 tons) literally came down during the week of the New Year's Eve event. After that point it gradually continued the rest of the year.

    - 2017 not a single huge storm, but a series of smaller storms with snowmelt period that lasted longer. Both have about the same amount of total sediment, but the timing is different. 2500-ton mark happened in April which in comparison usually occurs much later in the year.
- Date of the spring runoff, lot of inter-annual variability. Spring is starting sooner. 2017, broke the trend, snowmelt happened a lot later. This was anomalous, there was a lot of snow that persisted longer.
- Lake thermal stratification occurred early. Lake stratification occurs when there is warmer, less dense, surface water over cooler, more dense water. The earliest start of stratification occurred in 2017. This early set-up of the lake was followed by the late runoff, and coincided with exceptionally warm water temperatures. The average July surface temperatures were the warmest since 1999.
- What caused the clarity reduction in 2017? Since 2008 we've had an emergence of *Cyclotella*, it scatters light because it's so small, size of a clay particle. In years with high numbers of *Cyclotella* the summer clarity plunges. *Cyclotella* did not play a role in 2017, it was all sediment.
- There are other indicators that can be used to express the state of the lake. People's interest in clarity has been there for a while. Other data could be looked at like:
    - primary productivity (the rate at which algae grow) where a long-term increase indicates the Lake's inner workings are changing.
    - Summer clarity: the time when people are in the water. Summer clarity continue to show a declining trend.
    - Lake mixing depth: this is the deepest it has mixed in a while. Starting to enter a place we haven't been since we began collecting these data.
    - Phosphorus levels have been going down, but since 2009 phosphorus levels continue to build in the lake. Same with Nitrate.

Geoff noted this is Father Angelo Secchi 100th anniversary.

Question: Looking at the measurements of different things, is there a correlation that could be made as the trend lines appear to be the same, can you conclude there's a certain time when things happen, is there a correlation in the changes going back to the individual measurements?

Answer: The common factor is that many of the factors measured are controlled by the same physical processes. There's that trend line in nitrate, does it have to do with the clarity in 2017? Probably negligible because in 2017, clarity was primarily driven by sediment delivery. But next year, with that growing body of nutrients it could be more of a controlling factor.

Brad asks about the heavy sediment load. Is it possible to tell if it's from the nearshore, urban upland, or nonurban upland? What makes up the sediment load? Geoff's response: We cannot really parse the sediment contributions from different land uses or locations. The location and number of gauging stations is a major limiting factor. Fewer streams monitored and those that are monitored are gauged only at the mouth. We can see what's coming out but can't attribute that pollution to a specific factor.

Going back to circulation slide, Brad is wondering, given the huge sediment load, would the mixing have affected it? Geoff's response: No, because mixing usually happens in March. The exchange of cold stream water intermixing with warmer surface waters causes greater mixing.

Brad notes the last 4 bars of nitrate concentration are really high, what are the cause? Does it correlate to clarity, what does it mean? Response: Largest cause is atmospheric deposition from last TMDL study in the early 2000's. Surprising because would've thought with car efficiency and water quality BMPs, it would be lower. In the last few years with the absence of mixing (last 8 years), there is nitrate trapped at the bottom that is being released. Climate change is likely a factor: Remove the last 8 years, and there isn't as strong an upward trend.

Question: Last 4 years is there a thought about in-basin transport of atmospheric nitrogen? Studies conclude it's mostly in-basin sources. What about the role of smoke from wildfires? Geoff says his gut feeling is that they don't have much of a role in the buildup of nutrients. During studies of Rim Fire and Angora fire, the measured change in algal growth was negligible.

John says the carbon input from the Rim Fire equal to some million number of car emissions. Saying that fire contributes little to the nitrate inputs. Geoff says in comparison to cars, yes, but the studies are limited.

Joanne notes the secchi depth is recovering now. What is accounting for that recovery? You see improvement in January and February. Geoff says the sediment in the Lake naturally aggregates over time, and these larger particles settle to the bottom. If the fine particles did not aggregate then the lake would eventually turn black. The average secchi depth for this year, 3rd best in the last 10 years. It's recovered to what we would expect from that original line of best fit.

Question: Can you talk about the physical measurement sites, the frequency, and how you collect? Answer: The secchi depth is useful because it incorporates lots of other factors: size of sediment, biological factors, nutrients, sediment load etc. Doesn't tell you which one specific factor is most responsible for the observed clarity, but incorporates all factors. 26 measurements last year, 450 feet of water, visit twice a month, sample at two locations.

Question: Where do you measure nitrates and phosphorus? Answer: Close to the NV/CA border, maybe a quarter way down the lake, 13 depths. Full chemical QA, QC.

Total suspended solids data is still provisional, but 99 times out of 100 it turns out to be final data, although initially appeared that 2017 had 2.5 times the sediment load compared with 1997, leading to conclusion that warm temperature may have played a role and might have been the largest factor. However, values were later corrected. 2017 load was about the same as the 1997 load. So it wasn't the total load of sediment, it was some type of physical interaction with the timing of the load and in-lake processes.

Any effects on the ecology in the lake? TERC does not do any active fish monitoring. Sudeep explains there is no active fish monitoring, however plankton are being monitored by UC Davis. Mickey Daniels captain of charter fishing says it's the worst fishing he's ever experienced, anecdotal evidence that the fish are being adversely affected by changes.

Alan noted the 10 question were good, well-developed, and the subcommittee provided draft answers worked on with the advisory council. Lots of different perspectives helped us prepare more thoughtful answers. Cannot just look at sediment loads, but changes in terms of Lake thermal structure, stream hydrology, and other changes in the lake that account for 2017 clarity.

One of the last questions asked TSAC for recommendations of what else needs to be done. There are a lot of factors going on that aren't necessarily monitoring. Some existing monitoring may not be as effective as it could be. We need to look at this and look at the lake and watershed more holistically. Where are our knowledge gap? There is a whole list of things missing. We want an integrative framework for how the Council' recommendations can be accomplished. The work plan the Ex Comm will review today includes a project to develop recommendations for water quality management programs. In the process of doing this work, we need the Ex Comm's help to find additional revenue sources to support a broader science base. Science in the Tahoe Basin has been dealing with a lot of cuts: fewer monitoring stations, or less frequent monitoring. Now we can't answer fundamental questions like where is the sediment that reduces lake clarity coming from? We are not trying to create a huge organization but it's time for TSAC to work with agency partners to look at what we're doing and how to build up a framework that includes monitoring, applied research, data analysis, and reporting, all aimed at allowing us to answer questions confidently. We are not comfortable with scientists saying this is the best hypothesis in the absence of the necessary data. An important aspect of this integrated approach: we can address questions that are becoming more important because of climate change. Shifts in the way we get our storms, or more early-season rain and less snow pack in the mountains definitely affects how much sediment is going into the lake. Taking this more integrated approach puts us in a better position to answer questions likely to be asked going forward.

What amount of funding would be required? This sort of science work requires a long-term funding commitment. Alan suggests we start with the $150K the TSAC receives

annually. There are other potential funding sources including monitoring funds the agencies currently expend on water quality monitoring.

John says we've gone onto a different agenda item. What about the indicators of lake health? You can analyze problems all you want, but we need to know the potential solutions or policy direction to be helpful. Last year the example was when we funded the ocean acidification project and the deterioration of shellfish shells. It was an early action to take, and it seemed so overwhelming to me, but the results helped to informed policy options. In the case of Lake Tahoe, I am not sure what to do for the long-term. Raising the questions of what can we do would be helpful? Can we do anything? We need to figure that out. Sometimes it's hard to justify the additional science until we better know the policy options.

Alan says that's what we are trying to do. Develop a framework of what to do in anticipation of climate change and increased variability. Do we need to change the way that we are implementing our water quality best management practices, or erosion control practices? Should we expect SEZs to deal with increased urban run-off. Not looking at an all-inclusive monitoring program, but instead identify the primary data needs that will allow us to make recommendations for management action, and that will better anticipate the type of responses needed.

John says we are fully aware of climate impacts, and we have accepted the fact that fires start 30 days earlier. We know our fire management strategy is antiquated. We get the fact that we need to bring people along to get the support for doing some of the things we are doing.

John says that we spend so much time incorporating science, and working toward solutions. Aggregated every existing piece of science and then already have it in here. Need to get it in gear earlier and do the implementation. Wants to be true to the science, but these events and political situations are moving faster than what we can churn out. Currently in an economic expansion and there will be a downturn, is there a way we can use it before. Anxious to move and lobby for meaningful things.

Alan infers it sounds like you are asking for recommendations of actions that can be taken in the immediate, to the extent that you're able to do that.

John says that sometimes you don't know what the action is until you have the data.

Geoff shows the depth of mixing and declares it is very scary. Oxygen gets consumed at the lake, decomposers using oxygen. Extend time to replenish that critical oxygen layer. Reduce nutrients that are going in and stimulating algal growth. Maybe there are different projects, aimed towards reduction of nutrients, what is happening with oxygen in 10 years? In 15? Eventually it will mix and what do we expect to see. Direction on issues that we see that could be monitoring issues recommendations that is something TSAC could handle. Measuring things that we anticipate as short and immediate-term issues.

Brad states, when trying to design a monitoring program, we try to shape science findings into actionable alternatives. Having a model to go off of is very helpful. We have to understand what works. To what degree do we have an agreed upon model for how the lake works?

Geoff says we have a model for how it works but some of the qualifications aren't there, especially the watershed, not sure how everything gets there, we don't have mass balance. Part of the work plan will be figuring out a conceptual model, especially incorporating nitrogen and phosphorus.

Brad suggests there are data gaps because things have evolved. I don't want to spend thousands of dollars monitoring, it has to be a blend of information gathering leading to actionable items. Like the appropriate time for street sweeping. I would rather spend more funds on targeted street sweeping.

Alan says I think you will find that what we worked on with TRPA allows us to link lake conditions directly to action. We are interested in achieving impact, and cut out extraneous monitoring. Assess progress towards specific management goals. If we have clarity as an indicator, do we have the required base information to interpret that information? Is there some low hanging fruit that we could go after to get a better understanding of what is happening? Have some faith that we aren't developing these things in isolation, we work with agency partners and with stakeholders.

John says any new science is useless unless it's synthesized, explained in an understandable way, and actionable. We can't get the support without that. Wants a clear understanding. This is not an attack, but we have to do what we have to get to an end. Alan agrees.

John says it is always a priority of figuring it out. Need to synthesize clearly. I'm trying to get to the greatest hits that you are providing for me, but it needs to be clear, synthesize it. I'm looking for this, synthesize it into some sort of action and explainable in an understandable way. Recommends reading the New York Times Story of the time we almost stopped climate change. What we almost did, that would've had a different place for climate considerations now.

It was noted that the Lake Tahoe Restoration act calls for programmatic science. With the support of the states, we can potentially use that funding.

BREAK

5. TRPA Threshold update: Progress and next steps (Discussion item)

Alan provides a brief overview: The TRPA Threshold System was initiated in 1982. It needs modernization, and it needs to better account for new stressors such as a changing climate. How do we take existing threshold system, and create a dynamic responsive system that can be used to track our progress, and doesn't take a lot of

resources to implement? In 2017 the Council reviewed a proposed assessment process. In addition, the Council completed a review of natural resources systems around the country. We found that all the programs have similar problems, trying to do too much to deal with limited funding. What are the good practices to achieve your goals? One thing that was found was a need to review the existing standards, and look for redundancies and overlap.

In 2018, TSAC took on 5 projects to support the threshold update:

- Criteria for identifying redundancy in the existing standards
- Examination of stream environment zone standards
- A literature review to identify the ecological impacts of sustainable recreation
- Examination of the vehicle miles travelled standards
- Data specifications to support adaptive management.

Dan Segan (TRPA) has been working with the Council on the Threshold Update Initiative over the last two years. He notes that Alan briefly touched on several items that the council has worked on. TRPA is operating under a two-year work plan to update the threshold standards. He briefly touched on how some of the Council products have been used:

An assessment of best practices identified nine questions, which after application led to the identification of 43 overlapping standards that caused confusion. TRPA approached council to do two things: 1) categorize that overlap, and then 2) recommend solutions to address overlap and prevent overlap from being introduced into the system. Narrow scope of exercise, leading to technical corrections to the system. TRPA wanted to make sure any changes still maintain environmental protections. The aim was to make the intent of each standard clear. These efforts resulted in a seven-part proposal that went to the TRPA governing board last May for approval. The approved changes were relatively simple, but radically improved the overall threshold evaluation system. For example, all the standards were numbered. The document describing the standards was converted into a stand-alone document, rather than having to refer back to other documents produced in the Mid-70's. T governing board agreed to the recommended changes. It was the first time in six years that changes had been made to the standards. The number of standards was reduced to 152, but the real improvement is the greater understandability.

The second project Dan mentioned was the review of resource programs across the country. The Council's work resulted in a review document of other organizations given to TRPA. The aim now is to drive towards something better, how do we effectively and efficiently share information with our partners. Move toward a system with a more limited set of outcome based standards. That's driving the process now, how information flows, trying to increase understanding and move to standards that inform

management and drive toward actions that improve the quality of the lake and its watershed.

Alan asks Dan and Joanne whether or not the TSAC work has been of use to the TRPA to complete the Threshold Update Initiative? We want to provide actionable products. Joanne responds this has been a productive process. It has helped defined how we will work through the update. The products have help TRPA focus on how we attack the questions. We have been defining very specific questions, with the idea of reorienting the overall threshold evaluation system around a smaller number of standards that actually reflect action. It will take some heavy lifting to bring people through this process.

Brad asks if having TSAC along assists with getting everyone on board? Joanne says that working through this with TSAC assistance has provided rational science. This has been helpful with outside reviewers, and serves as a watchdog.

Jim notes the threshold update is a long process. Personally getting presentations from Alan is very helpful. Do you see questions in the future that TSAC can engage on? Joanne says yes, the priorities may adjust as circumstances adjust. We see several topic areas over the next several years.

Mark asks if the program review helped to identify how to best organize data and communicate results for the threshold standard system? Alan responds that the review showed no program had it all figured out. The approaches of how they organized information or shared data did vary somewhat, but there are common themes. We are looking at bringing the best elements together. For example, a better overall structure that will link across standards. This approach could help us see the interactions. Work in forest health can impact water health. Based on our literature review, lots of research on this, but no one has actually put it together.

Alan says that he learned a lot working with Dan and the TRPA. Linking science with resource management is not trivial, and is very difficult. Bringing lessons-learned here to Tahoe and implementing them, gets us down the road a lot quicker. This could definitely help to streamline the number of standards, and get to a more manageable program.

Dan mentions this is a multi-year process. We are working through the update category by category. Hoping to have the first update in the forest health to the TRPA Governing Board, in the first quarter of 2019.

Brad asks if we can we leverage the TSAC more overtly? Joanne thinks so, but not all the information needs are from science. For example, we to develop better metrics of recreation quality.

Alex asks if next year we will see another triangle for decision making at the top of the overall structure? Alan says the current approach is to structure data to inform progress

towards outputs. He would like to see a structure that informs outcomes. This approach would have direct relevance to decision-making.

6. TSAC work plan review and approval (Action item)

Geoff notes that all Ex Comm members have received a copy of the proposed TSAC work plan. He then provided some highlights.

- This is the Council's third annual work plan. This work plan describes Council efforts through June 2020.
- Like the work plan provided to the Executive Committee last year, this work plan proposes funding for the Council's three major tasks: (1) Operations, (2) Technical Assistance, and (3) Substantive Projects.
- TRPA and CA Natural Resources Agency support activities are also described in the work plan.
- The work plan allocates a total of $450,000 of California State funding over two years.
    - Approximately 75% of this funding is allocated to technical assistance and substantive project work.
    - Approximately 25% of this funding is allocated to support activities.
- The work plan proposes allocation of these funds as follows:
    - $52,000 for ongoing Council operations.
    - $28,0000 for the Science Council Program Officer
    - $40,000 for TRPA Administrative services
    - $40,000 for technical assistance.
    - $290,000 for substantive projects over two years.
        - Priority substantive projects in year one include (1) initial development of a decision support framework for the upper Truckee River, (2) initial development of a comprehensive research and monitoring framework, and (3) provide targeted research and analysis to support the TRPA Threshold Update Initiative.

- Year two efforts are less well-defined, but generally continue and/or complete the work started in year one. We expect to come back to the Executive Committee with more details about year-two substantive projects at the committee meeting next year.

Alan mentions that the TSAC met with representatives of the Environmental Improvement Program (EIP) working groups, to learn about the program areas each group is responsible for. Upper Truckee, nearshore, stormwater, etc. We discussed what they are doing, what science questions they might have, and what their challenges are. TSAC members thought it was useful to learn about the EIP, and what the agencies are doing. All working group representatives also get to hear about what the other working groups are doing. This provided a forum to hear what they are doing and compare thoughts and strategies. TSAC is proposing to do that again in Fall or next Spring.

Brad wants to know more about number two under substantive projects: initial development of a comprehensive research and monitoring framework. Geoff says there is not a lot more to gain by fine-combing the 2017 data. The proposed project is more a stepping back and looking more holistically. When the basin gets this kind of shock, what is it that we are missing? What are the contributions of fine sediment from the urban areas and the forested areas? Which of those various things are most critical, rather than just presenting a lot of interesting science results. How do we reliably answer those questions? We also need to utilize the appropriate academic expertise most efficiently. All council members have a full time job. As we refine things and balance with our agency partners, we will want to bring results back here.

Brad not happy with the balance of funding for TSAC coming only from California. What comes from number two and the TSAC response to our questions should provide good talking points to pursue funding from Nevada.

Joanne is concerned about number two as well. The basin partnership funds water quality monitoring at about $1.6 million per year. She suggests as a starting point, picking up the work program from last year, and assessing how that money is spent. Should we be monitoring the same things in the same way? Are there additional items that should be monitored? How do we evaluate the effects on climate? She also suggests the Ex Comm give a time frame for this project. For example, results before the end of the year. She also noted that we in this basin struggle with science management integration. We need to work on that. We have an opportunity to really think about the program coordinator role, and getting a skill set that can help us bridge these gaps between the general interest of science, and very real need to move to action that is grounded in the best science information.

Jim notes that for the threshold evaluation, the questions are very focused. This is not the case with project number two. He doesn't think having the Ex Comm meet every year for a couple of hours, moves the process forward as well as it could. How do we get the right people in the room before next august so we can start talking about the

data gaps or monitoring the right way? What are the specific ideas? We want to use expertise in the room toward specific management decisions. It would help a lot to be able to very crisply focus the science, and explicitly tie how it translates to management and action.

Alan does think the TSAC can do something useful. He would want to set some type of approach, where we give you something soon. It would not be comprehensive, but it could be integrative, and may something we would collective agree upon dealing with in the long-term. We can give you something for that deadline and then move forward over the next year. Alan is reluctant to commit to more, because TSAC members have a lot on their plate and have to shuffle timelines. We can work with you collectively to see what is the minimum that we can produce in the time we have. We want to provide quality work, and build on in the future.

Zach mentions there is a lot of inertia with the existing program, which can work against change. The TSAC will need help from Ex Comm on the agency side to gain support for change.

Alan asks: Do you want a comprehensive framework, or is it focused on water quality initially? We want to learn doing this for one program area, and then use it as the model for bringing everything else into place. In terms of making progress, if we learn to do it effectively and deliver products you need and we learn from that, then it will be a lot easy to attack other program areas in the future..

Geoff says we can't deal with water quality without dealing with atmospheric deposition, with watershed processes, etc.

John says TSAC must be trusted to be doing everything in the most strategic way. Forest health is a program area where we have taken a plunge in the last few months. The governor appointed a specialist to deal with this. There's so much more to do. You are not making a case if you are not doing anything with the funds that you are given. Show what you can do and develop confidence.

Geoff there is disconnect with many outsiders thinking that Tahoe has so much money, why do they need more? In fact, funds for science in the Tahoe basin are very limited. Monitoring isn't looking at answering fundamental science questions, nor is it providing much of the basis so that we can go to a place like NSF and getting additional funding. Regarding the timeline for this project: we can meet with agency representatives and get input, maybe by October. That's when we can talk more to, make sure we are aligning interests.

John says this something we can help with, but must move to approve work plan. Are there any changes?

Joanne is concerned with what is cited in year one and continued in year two, concerns with assumptions of year two plans. Zach says the TSAC will provide more definition about year two efforts, and the Ex Comm will have the opportunity to review and/or revise the proposed efforts if needed at its meeting next year.

John asks committee members if anyone objects or suggest changes to work plan? No response from any committee member… John takes that as a unanimous approval of the work plan.

7. **Public Comment**

An audience member asks about Wildfire threat in the basin. Is there something more that can be considered, is there a non-obvious solution? Geoff mentions that there is a request for SNPLMA funds to support a project that would look at water quality impacts of large-scale forest management. Alan mentions that this is not a current priority issue for TSAC. John wants to make sure that what's happening in Tahoe is benefiting the state.

Meeting adjourned at 4:10 PM.