

## NFPR WATERSHED SUMMIT, SESSION 1 QUESTIONS AND ANSWERS

1. **Question:** How do I ask a question? **Answer:**
2. **Question:** I'm sorry if I missed this already, but will these sessions be recorded?  
**Answer:** *yes, and will be posted to [www.valleyswcd.org](http://www.valleyswcd.org)*
3. **Question:** Is there an agenda for the summit? Don't see anything on the meeting invite. Maybe I'm looking in the wrong place.  
**Answer:** *[www.valleyswcd.org](http://www.valleyswcd.org) or I can email you directly, plz provide email. Agendas were sent as an email attachment*
4. **Question:** How can we get a copy of David's slides?  
**Answer:** *Slide presentations and the recording will be made available on the website <https://valleyswcd.org/watershed-summit/> a few days after the meeting.*
5. **Question:** Great to have so many on this call! Thank you everyone. Great to be a part of this today.
6. **Question:** Thank you Ken Roberts! Great information and ideas!  
**Answer:** *There is so much more information and ideas I did not have time to share.*
7. **Question:** for David Simmonds. You stated in your presentation that better lake management plans were needed. Could you explain/expand on that need and on steps that are being taken through the County RFP process and the pending North Fork Payette Watershed legislation both of which are pending right now?  
**Answer:** *The last citizen-driven WQ plan for Payette Lake was 1997. We see new and different challenges today, and we have new knowledge. That's particularly true in the near-shore environment on Payette Lake where algae blooms are being observed. Also, a two-pronged approach to lake management would be effective. One side is where local jurisdictions have authority and primary interests. That's largely in the area of land management and how people interact with lakes. The other "prong" looks at specific water quality issues and objectives. Water quality tends to be under the jurisdiction of State and Federal agencies. So, when local stakeholders focus on water quality and provide feedback and support to those agencies, more can get done to protect water quality. Having local stakeholders engage local government for land and people management helps backstop local officials in making tough decisions. Healthy lakes require both good water quality programs and good local control.*
8. **Question:** Can someone define "TMDL"?  
**Answer:** *Total maximum daily load of a pollutant.*
9. **Question:** Hey Chase, can you describe how you measured vegetation cover on streambanks in tributaries?  
**Answer:** *Hi Michael, when looking at sediment and bank erosion we use a methodology we refer to as Sediment Erosion Inventory (SEI). I'm happy to send you a description of the method, but it essentially requires us to walk a section of the stream/river; identify and measure bank erosion within bank full water line; plug data into algorithm that estimates erosion and load. We don't measure vegetation cover really, more area or eroded banks.*
10. **Question:** Might also address why the stress on temperature and nutrients...how many on the seminar realize this is all tied to harmful algal blooms? Clarify jargon...

**Answer:** *It's a great point. Water temperature and nutrients are significant for many reasons, but very important to harmful algal blooms. Blooms typically occur in warmer, shallow water with high nutrient content. Cascade Reservoir is a nitrogen limited waterbody, meaning there is more phosphorus than nitrogen available. This benefits cyanobacteria (harmful algal blooms) greatly, because they have seemingly unlimited sources of phosphorus and many of them can sequester or obtain nitrogen from the atmosphere. The combination of warm water and high nutrients can set the stage for harmful algal blooms.*

11. **Question:** There are more tributaries on west side of lake, can you identify sources of greatest contamination of phosphorus?

**Answer:** *We do have data for some of the West Mountain tributaries; but not all. Two things to know: the first is that all of those tributaries are categorized as a single "unit" by the state. Essentially this means that data collected from Poison Creeks is representative of the conditions in all of those creeks. This makes it difficult to pinpoint concentrations for each creek, but allows us to write TMDLs for a larger area using fewer resources. Looking more at individual creeks come into play more when the implementation plan is formed. At that point the Soil and Water Conservation district can focus in on areas that need more attention individually. Ultimately, we don't identify any of those West Mountain tributaries as being worse than others, but look at them as one large unit. The second thing to consider is, though there are more tributaries on the west side of the reservoir, they typically have much smaller sub-watersheds and therefore contribute less of a load individually.*

12. **Question:** Chase: Are there graphs for nutrients v. depth at these locations?

**Answer:** *that's a great question. When we collect nutrients we don't collect individual samples from every depth that other samples are taken. The reason for this is because nutrient samples are expensive. Our methods require us to take three equally spread samples and essentially mix them together into a single representative sample. You could think of it like an average of the total sampling area. So the nutrient concentrations we report are assumed to be representative of the entire column of water we are sampling.*

13. **Question:** What is the human safety implication of the cyanobacteria presence at depth year round?

**Answer:** *thank you for your question. There are a few reasons this is significant. The first is, it tells us that these bacterial cells are alive and well; even though we can't see them. This relates to the second reason, which is that we don't fully understand how toxins spread in the water. If we were to have a toxic bloom 8 meters down, for example, then we might find toxin in the water with no visual source. This could make managing blooms and human health risk very difficult. The third reason, which falls mostly near the dam, is that cells or toxin at depth could be transported through the dam and into the river depending on where the intake is located. If this occurs with no visual clues on the surface it could be difficult for downriver water users to prepare.*

14. **Question:** A few years ago we were told that cattle grazing in and near the lake was a major source of contamination

**Answer:** *Thanks for the question. Cattle grazing, among other sources are considered non-point source. This means it is extremely difficult to measure the impact it has. Having said that, we don't have any data that points directly at cattle grazing as a major source of contamination. We do have data that suggests non-point sources are a major source of contamination; which comes into the tributaries and lakes in the form of runoff. However, there are many other contributors to non-point sources in the watershed, but it is difficult to point at one over the other.*

15. **Question:** What is your reasoning for using median concentrations vs. mean? Does mean TP differ from median TP?

**Answer:** *it is a good question. Those objectives were set back in the 90s, so I'm not sure on the exact reason they used median. My guess is they wanted to capture the central tendencies of the data and didn't expect normal distribution in the data. I will chat with Kati and Lance, because they may have some additional information.*

16. **Question:** You may have mentioned this, but is Payette Lake currently listed as a 303d impaired water? If so, for what impairments?

**Answer:** *thanks for the question. Currently Payette Lake is listed for a Mercury Impairment. This is likely due to natural background conditions and mining history in the area. DEQ is not currently working on the TMDL, and there are no other impairments in the lake.*

17. **Question:** Not a question: could have listened to Mr Cusack all day, thanks for your contribution. Thank you, much appreciated!

18. **Question:** Are there health advisories for consumption of fish from Payette River systems?

**Answer:** *You can view fish health advisories for Idaho on the Idaho Dept. of Health and Welfare Website at...<https://healthandwelfare.idaho.gov/health-wellness/environmental-health/fish-advisories>*

*There are not advisories specific to Payette or Cascade, but there are general advisories on species like Bass and Lake Trout. In general, any predatory fish will accumulate toxins throughout their lifetime, and the longer they live the more will accumulate. We have aged some Lake Trout in Payette Lake at 40+ years old.*

19. **Question:** Does a robust lake trout population also contribute to an unbalanced biomass?

**Answer:** *Yes. The Payette Lake fishery is currently unbalanced as well. The Lake Trout population increased in abundance to a point where the kokanee population crashed around 2005. We are working hard to reduce Lake Trout abundance to increase kokanee salmon abundance, and restore the balance. We are seeing great things so far, including a 3-fold increase in kokanee spawners above the lake.*

20. **Question:** What would happen to DO and other water quality like Hg if hypolimnetic water was withdrawn?

**Answer:** *I am not an expert on this, but from what I've learned in the literature it seems like there are several ways to do it based on various objectives.*

21. **Question:** Does weed management conduct toxins into the lake?

**Answer:** *Noxious Weed treatment, especially near riparian and aquatic environments are highly regulated by state and federal laws. Every attempt to prevent contamination is made by our contractors.*

22. **Question:** Do you believe there should be sagebrush reduction in the urban interface for fire protection or any other reason?

**Answer:** *All vegetation needs to be managed within reason in the wildland-urban interface. Me personally, I hate to see sagebrush removed, but that is just my view.*

23. **Question:** Are there still areas where cattle are allowed in the lake? I see them all summer at the North end, which does not seem to be within your fencing area.

**Answer:** *There are specific areas that are Reclamation lands, but have agricultural easements. This allows the use of the area for agricultural purposes. That being said, we can still work to provide off-site water or other BMPs to protect water quality.*

24. **Question:** What percentage of Bureau land actually fences off cattle back far enough?

**Answer:** *I don't know specifically. I can talk with our lands and realty group to find out.*

25. **Question:** I'm familiar with wetlands banking... is there any kind of 'cattle' banking? Perhaps State or land trusts could purchase land away from lake and offer that to cattle owners? Also- maybe offer reimbursement or something for lake side easements, on west side?

**Answer:**

26. **Question:** Again, cattle are IN the lake all summer on the Northeast end. Is someone in charge of this area?

**Answer:**

27. **Question:** Has there been discussions about maybe enlisting volunteer groups to pick up the cow manure along the reservoir? If the owners would allow it of course. Would that help to reduce some of the impacts? Make it a contest? :) I can see it looking like goat-head fest or something.

**Answer:**

28. **Question:** Are all algae blooms toxic to humans and animals?

**Answer:**

29. **Question:** My family & I have had lake properties on Cascade Lake since 1959. It appears the toxic algae blooms have only been a fairly recent occurrence. My take from the studies presented today (highly informative by the way) is the late summer lake drawdowns is the most significant reason for the blooms. Lower water levels, higher late summer temperatures cause these to grow until the temperature cools down late September. My suggestion is to address and challenge the wasteful policy of pouring water down the river to flush salmon smolts downstreams.

**Answer:**

30. **Question:** It is encouraging to see all the interest in this issue. The Southwest Idaho RC&D has had this as an adopted project for several years but little use of our capabilities.

31. **Question:** Great presentations!!! Thank you. We need to work together!

32. **Question:** Is there an audit that examines all water that is obligated to be released from Cascade Reservoir to ensure efficiency and conservation of use by irrigation and other consumers? **Answer:**

33. **Question:** After grazers have converted grasses to waste material are nutrients such as Nitrogen and Phosphorus made more transportable by runoff water? **Answer:**

34. **Question:** One presenter mentioned Salmon. Please explain. **Answer:**

35. **Question:** Thank you, Richard!

36. **Question:** After grazers have converted grasses to waste material are nutrients such as Nitrogen and Phosphorus made more transportable by runoff water?

**Answer:** *This article might answer the question:*

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