

Spirit Lake/Toutle-Cowlitz River Collaboration

DRAFT Meeting Summary: October 14th, 2021 | 9:30am - 12pm (via WebEx)

Facilitators - William D. Ruckelshaus Center (Chris Page, Kara Whitman, and Maggie Counihan)

Meeting materials: <https://ruckelshauscenter.wsu.edu/projects/current-projects/spirit-lake/>

(Meeting chat notes included as [Appendix A](#))

Meeting Goals: Share Information; Discuss Revised Declaration of Cooperation & Process for Finalizing; Brainstorm Issues the Group Might Discuss Working on Together

Meeting Attendees

Representing Sovereign State, Federal, and Tribal Governments

- Tom Iverson—***Confederated Tribes and Bands of the Yakama Nation***
- James Gordon, Seth Russell, Rudy Salakory, Erik White—***Cowlitz Indian Tribe***
- Amanda Gillen, Tom Hausmann—***National Oceanic & Atmospheric Administration (NOAA)***
- Karl Ahlen, Chris Budai, John Morgan, Valerie Ringold, Paul Sclafani, Liza Wells—***US Army Corps of Engineers (USACE)***
- Ted Perkins—***US Federal Emergency Management Agency (US FEMA)***
- Matt Gerlach—***WA Dept. Of Ecology (WSDE)***
- Dave Howe—***WA Dept of Fish and Wildlife (WDFW)***
- Steve Ogden—***WA Dept. of Natural Resources (WADNR)***
- Angie Elam, Gordon Grant, Rebecca Hoffman, Ted Huffman, Sue Ripp, Eric Veach—***US Forest Service (USFS)***

Representing Local Governments

- Dave Vorse—***City of Castle Rock***
- Andrew Hamilton—***City of Kelso***
- Ken Hash—***City of Longview***
- Jim Mallett—***Cowlitz County***
- Darin Haupt—***Cowlitz Conservation District***
- Bill Fashing, Brandon Robinson—***Cowlitz-Wahkiakum Council of Governments (CWCOG)***

Representing US Congressional Offices

- Colin Swanson—***US Representative J. Herrera-Beutler's Office***
- Sarah Kohout—***US Senator M. Cantwell's Office***

Representing other Interested Stakeholders

- Dan Tormey—***Catalyst Environmental Solution***
- Molly Whitney—***Cascade Forest Conservancy***
- David Hodges—***CFM Advocates***
- Steve Manlow—***Lower Columbia Fish Recovery Board (LCFRB)***
- Dena Horton—***Pacific Northwest Waterways Association (PNWA)***
- Mark Smith—***Public, Owner of EcoPark***
- Dan Weinberg—***Public***
- Susan Saul—***Washington Native Plant Society (WNPS)***
- Jessica Shafer—***Wildlands Network***

Introduction & Agenda Review

The meeting facilitator, Chris Page, reviewed the meeting agenda, logistics, and ground rules. He reiterated the purpose for this stage of the process: to determine whether the governments with

management responsibilities in the system are willing to commit to a long-term collaboration and, if so, provide the participants the tools to do so. Chris reminded the group of the work it has done to date and explained that the collaborative could augment the initial Declaration of Cooperation framework by developing and agreeing to a set of operating protocols. The collaboration is emergent and must be adaptive moving forward. Chris also reviewed the drafts of the group's shared vision, values, and goals for this convening phase.

Presentation—Army Corp of Engineers (Chris Budai, Paul Sclafani, Karl Ahlen, Valerie Ringold)

[Presentation slides online in Oct. 14th, 21 meeting tab [here on project website.](#)]

Liza Wells—Liza explained that the presentation will cover the history of the Army Corps' work in the region, their currently authorized work, and how they plan to operate in the basin under current mandates. As the US Army Corp of Engineers (USACE), they do their work under authorization and appropriation from Congress. They also work with the Forest Service.

Chris Budai—Chris serves as a project manager with USACE and has been working on Mt Saint Helens since 1985, just after the USACE built the tunnel and put it into operation. Chris presented this timeline of USACE work:

- 1980 Eruption: three billion cubic yards of debris
- 1980-1983 Emergency actions temporary structures, levees, dredging
- 1985 Long Term Plan finalized
- 1986 LCA Executed
- 1989 Sediment Retention Structure (SRS) constructed
- 1993 Fish Collection Facility turned over to Washington state (WDFW)
- 1998 to present Increased flow of sediment passing SRS
- 2005 Cowlitz River sediment build-up
- 2007-2012 Interim sediment management actions
- 2012 First SRS Crest Raise
- 2018 Limited Reevaluation Report (LRR) and Supplemental Environmental Impact Statement (SEIS) approved
- 2021 Design started on Second Crest Raise and Fish Collection Facility Upgrades

Mount Saint Helens erupted on May 18th, 1980, creating a huge landslide, blocking the Spirit Lake outlet. With no lake outlet after the eruption, Spirit Lake continued to fill, which created an emergency situation with potential to cause catastrophic damage downstream. Spirit lake, Castle Lake and Coldwater Lake were all filling up. This kicked the Federal Emergency Management Agency (FEMA) into action. FEMA contacted the US ACE to help in managing these lakes blocked by the eruption. One of the first things US ACE did was address Spirit Lake. The lake level rose 200 feet as a result of impacts from the eruption. The USACE put a barge on the lake with 20 pumps feeding 3500 feet of pipeline to maintain the elevation until a more permanent solution, the tunnel, could be built. The outlet tunnel went through Harry's ridge for 2.58km and a max depth of 360m. The area with the most issues is the shear zone between the tough basalt /andesite rock and the tuff with heavy overburden on top.

The area for work on (and control of) the Spirit Lake outlet has no road access, so it is incredibly challenging. The Forest Service uses boats or a helicopter (weather permitting) for access. They erected a debris barrier at the tunnel entrance to prevent wood and trash from entering the tunnel. Whenever they open the tunnel, they must do it in stages to ensure that they do not strand any aquatic biota.

The US Forest Service (USFS) and USACE signed a Memorandum of Agreement (MOA) for the maintenance of the tunnel and engineering consultation. USACE then built the Castle Lake exit channel and the Coldwater Lake exit channel. At one point, ships were stranded in the navigation channel. They had to dredge the channel and dispose the dredge material, but now there are no disposal sites available (that they know of). All this work was considered emergency actions.

More info: www.nwp.usace.army.mil/mount-st-helens/overview/ or www.nwp.usace.army.mil/mount-st-helens/

Q&A/COMMENTS

C. Dennis Weber of Cowlitz County noted that the owners of the dredge spoil disposal sites have been processing the soils and are open to more dredge spoil disposal. Three Rivers Golf Course was developed on the original debris disposal. The County is working on more disposal sites. The Cowlitz Public Works Department is in charge of this.

Paul Sclafani—Paul worked on the first USACE authorized actions and has a role at the Portland District office on long-term sediment management. A lot of the sediment has gone through the system, but a tremendous amount of material is eroding from the debris avalanche that the USACE continually monitors. The USACE deals with the debris avalanche and Spirit Lake, four levee systems (in Castle Rock, Lexington, Kelso, and Longview). Each one of these points slows down the river so allows some sediment to drop out of the water and settle to the bottom.

The debris avalanche erosion is still producing a lot of material that goes into the sediment plain. That which does not get trapped goes into the Toutle River, then to the Cowlitz River (which functions as a sink), and much of what does

not get deposited goes out to the Columbia River. This graphic shows the estimated average annual sediment load. On average 6.2 million cubic yards coming from debris avalanche. The SRS collects about 2.37 MCYs a year.



Figure 1: Sediment transport from debris avalanche (from USACE presentation, slide 32).

The Cowlitz River is a confined channel, so it does not have much room to absorb deposition. There is large uncertainty around the average; dealing with the tremendous amount of variability presents one of the biggest challenges facing the USACE Portland District.

The channel at the debris avalanche still incises into the bed material on occasion and has lateral mobility that poses a risk of localized landslides. It has very steep slopes and could still see much incision and sediment load. The SRS is about 200 ft tall and creates a backwater on the sediment plain. The SRS reduces the energy, causing sediment to drop out. It is a diverse system; the channel moves across the sediment plain (like the formation of a delta). In 1999 they closed the top row of pipes in the SRS. In 2012 they took additional interim measures.

Downstream about a mile from the SRS sits the Fish Collection Facility. Water from the North Fork Toutle flows through the facility, where fish swimming upstream get trapped, then the water gets routed out. Fish enter, get trapped and put in trucks, then released upstream in native habitat. The

water deposits sediment in the Fish Collection Facility, creating ongoing maintenance needs, and some improvements are planned. They are currently working on design for improving the facility.

Q. What is the structure downstream from the aeration filter that looks like a sheet of concrete in the river? **A.** This is an issue that we need to rectify. This had broken off in the late 90s. The Fish Collection Facility was meant to be a temporary facility, but the plan now is a more permanent structure.

USACE relies on partnerships with the US Geologic Survey (USGS) for gages to monitor sediment loads and water volume, WDFW to manage the Fish Collection Facility, and partners with the USFS for work upstream and at the lake outlet.

Chris Budai explained that there is recovery happening in terms of the system becoming more stable, but significant spikes still happen. The SRS is not full and still plays an active role in sediment management. The USACE operates under two timelines:

- Long term plan for sediment management – USACE revised the 1985 plan to a phased plan and increased the ability to trap sediment. They plan to modify the spillway by raising it about 35 feet, but not all at once. They plan on staged raises while working on other options to decrease the energy. Dredging is also still a main component of emergency actions.
- Interim actions – monitor on an ongoing basis, partnering with USGS. The National Marine Fisheries Service (NOAA Fisheries) issued a Biological Opinion for the SRS crest raise, which identified species that need to be protected. USACE is working with its partners on increasing the efficiency of the fish collection facility, for example, looking at adding another fish plant site to increase the viability of the salmonids.

Karl Ahlen—Columbia River Navigation Channel is a deep draft channel that accommodates ocean vessels (bearing goods and commodities) for more than 100 miles. The channel is 600 ft wide and 43 ft deep, which plays a crucial role in the regional and national economy in transporting over 24 billion dollars in commerce annually. To maximize efficiency, they move in bulk by barge then get transferred to larger vessels. Maintenance of this navigation channel is extremely complex, with annual dredging of 6-8 million cubic yards. The confluence of the Columbia with the Cowlitz is a large and challenging shoaling area. Sediment from Mount St. Helens has closed one of the navigation channels. The moorage buoys are important for storm event safety, in allowing ships a place to ride out weather events. Channel maintenance plans are done on 20 years increments.

Valerie Ringold—USACE and Section 408 authority: requires permission for any modification to a federally authorized project. There is a lot of technical criteria and evaluation process, not part of our regulatory programs. This is not part of the US ACE section 10 and 404, but they are tied together. This is a rigorous process. There is a high degree of engineering information, environmental law compliance, and sometimes independent safety review for anything that involves life safety. US ACE provide some assistance (floodplain management, continuing authorities program, planning assistance, and technical assistance).

Q&A/COMMENTS

- **Q.** For those of us thinking about fish passage in the Toutle and issues around the SRS and fish collection, we wonder, what the long-term goal is for the SRS. Is it intended to be a permanent structure on the landscape? **A.** The SRS is the main part of the 1985 plan, and we operate and manage that structure as if it is a permanent structure. The Fish Collection Facility is part of this, but other options exist; however, we don't currently have the authorization to look at other options and would need that from Congress to do that. The SRS is intended to be a permanent landscape feature, at this time. In 2019 a limited re-evaluation report was completed (and

approved) that looked at the futures of the SRS and levees through 2035, the end point of the original 50-year planning horizon. The federal Office of Management and Budget (OMB) provides the federal administration's priorities for funding, and all federal agencies get scrutinized by OMB. In short, if the question of the SRS being permanent gets asked, the USACE was asked to look out to 2035 and this is where we are.

- **Q.** Can WDFW approach Army Corp leading up to the 2035? **A.** WDFW and the State are active partner with USACE now.
- **Q.** Would we be able to get Fish and Wildlife to give a presentation on history of the Fish Collection Facility and success? **A.** Yes.
- **Q.** The presentation mentioned that the upper pumice plain gets unstable; have you looked at the possibility of a channel through here to stabilize it? **A.** We have looked at stabilization of some of those channel banks and bed, but the scale at which it occurs is too large to do anything meaningful. It is always going to migrate to an area of more erodibility. Whatever vegetation you use to stabilize, the roots only go so deep. Whatever we choose to do it also has to coordinate with the goals of the monument.
- **Q.** Presumptive path forward till 2035 is the Fish Collection Facility. Does this preclude a general investigative study? **A.** Congress gives the USACE money to investigate and the authority to study a specific area. OMB are the money folks, and they ask very specific questions. What are the funding requirements in Mount St. Helens? This does not mean that USACE can't look at other things, they have looked at restoration in the past, but there was not a non-federal sponsor willing to cost share at the time (may be interest now?). Valerie Ringold is the point of contact for this kind of request.
- **Q.** What does a study like this cost and what is the cost share split? **A.** 50/50 federal and nonfederal funding. \$3M normally, but if more complicated they can get a waiver for projects over \$3M. Must be completed in three years, whenever possible (just the study part to get to a recommendation for congress). The cost share during design and construction = 65% federal/35% nonfederal.
- **C.** Tribes can get a cost share waiver (of \$511,000 during the study, and another during implementation). **Q.** Could this be cumulative, with multiple tribes? **A.** One time waiver, even with multiple tribes, so would only be \$511,00 for each phase. It could fund technical work or data collection to begin/inform a future study (planning assistance to states and tribes, can look at some data collection and analysis, can get a waiver on this as well). Val is happy to talk more about this. Congress has passed a resolution to start calculating inflation so it will be higher than \$511,000.
- **C.** What are the sources of money that could be used for cost sharing? What is the funding and partnership landscapes—what can and cannot be accomplished? Maybe we could form a workgroup from a subset of interested parties in this collaborative for this or host a workshop to develop a long-term plan.
- **Q.** What is the cost estimate for rebuilding the current Fish Collection Facility? **A.** There is an estimate in the limited re-evaluation report. Army Corp is funded annually.
- **Q.** Who calculates the inflation factor that the Corp uses? **A.** Done by OMB.

Declaration of Cooperation

Chris Page explained the status of the Declaration and outlined a process to move towards signing.

- **Q.** Since the USACE presentation shows that the Columbia River should be part of the discussion, can wording be added to include the Columbia River connection extending beyond the confluence of the Cowlitz and Columbia, as the dredging efforts extend beyond the confluence? **R.** Wording to include the impacts to the Columbia of the sediment from the Toutle and Cowlitz rivers added to the Declaration.

Chris Page went over the changes in the draft Declaration of Cooperation from previous version and the group discussed other edits/changes.

- **Q.** Can we reorder the interests to place “tribal natural and historical resources” and “fish and wildlife recovery” as the first and second bullets? Tribes often get put as the last bullet. If we are going to have an unranked list it is not a hard lift to move some of them around a bit.
- **C.** Could do a random sort on the list.

The group accepted a compromise proposal to have sediment management first, then tribal historical second while stating that the bullets are not in ranked order.

- **C.** The Spirit Lake-Toutle/Cowlitz River Collaborative is a long and involved title. **Q.** Is there a different name that also does not sound like it is in ranked order. This is about us as partners in a system with a lot of issues/interests etc.
- **C.** Might help if the group develops an aspirational vision statement.

Ideas for Crosscutting Issues or Topics the Group can Discuss Working on Together

Chris Page asked the group to do a short brainstorming activity to identify crosscutting issues that the collaborative could potentially work on together moving forward. The following is a compiled list of the ideas, put into general categories, that came out of the brainstorming session (using the Padlet software app and the WebEx Chat). The facilitators have made a few notes on each of the topic areas. These will be further examined at future meetings of the collaborative.

Risk/Sediment Management

- Better understanding of the economic impacts associated with sediment movement through the system (impacts to downstream communities, Col R. navigation, ecosystem goods and services) (*Of interest to at least a subset—perhaps an analysis that could occur via WSU or UW?*)
- Consider de-development planning to move people and businesses out of the floodplain and most dangerous areas and create sustainable communities. (*Workgroup/Subset*)
- Flood risk management as a flood risk reduction mechanism presentation topic (*of interest to all—who presents, maybe FEMA & USACE?*)
- Public Safety and downstream community safety (*underpins most management actions—could use more specifics*)
- I would like to see the annual budget numbers of what all government agencies are spending currently on sediment management. (*Ruckelshaus Center compile & present?*)

General

- Comprehensive EIS that values all alternatives and possibilities in a transparent manner (**Needs clarifying**: *Spirit Lake Outflow Safety Improvement Project or other (e.g., programmatic EIS for different project)? This collaborative is meant to assist w/that transparency*)
- Transparent public process and input (**For what?** *Could be a guiding principle or operating protocol to guide collaborative and participants’ work with each other*)
- Non-profit group to convene and unify thoughts and priorities. (*For a set of issues, or emerging collaborative? **Needs clarifying**; all or subset*)

Access:

- Public access (*To what part/s of the system? Workgroup/Subset*)

- TRADEOFFS, CONSIDERATIONS BETWEEN Valuing and protecting ongoing research (subset) & Open more public access to allow visitors to see the sediment plain up close to get a better idea of what we are dealing with (*Workgroup/Subset*)

Ecological Restoration/Processes

- Reducing impacts to the unique pumice plain recolonization (*Subset—existing NEPA process*)
- Restore the Toutle River to a more normative river, allow natural processes to proceed. (all—*element of vision statement?*)
- Ecosystem restoration / Watershed Restoration (*all—how to make this manageable?*)
- Ecosystems, fisheries, and tribal first foods (all/subset?... *connect to presentation from Cowlitz Indian Tribe or Yakama Nation?*)
- Salmon and Steelhead Recovery (*likely of interest to all, maybe ends up as a workgroup/subset*)
- Risk analysis of our current man-made solutions verses more natural restoration solutions (*likely of interest to all, maybe a UW/WSU/other scientist study?*)
- Assist the re-vegetation of the sediment plain to help accelerate natural recovery (*likely of interest to all, may suit a workgroup*)

ACTION ITEM: The Ruckelshaus Center to incorporate all edits/comments into the Declaration of Cooperation and send out a final draft to the collaborative participants for final steps toward signing. (COMPLETE)

The next meeting of the Collaborative will be Wednesday November 10th from 9:30 am to 12:00 pm via WebEx. WebEx information to be sent out one week prior to the meeting.

Appendix A: WebEx Meeting Chat

October 14, 2021 9:35 AM from Kara Whitman to everyone: Good morning all!

October 14, 2021 9:35 AM from Molly Whitney CFC to everyone: Molly Whitney, Executive Director, CFC

October 14, 2021 9:35 AM from Paul Sclafani Corps-Portland to everyone: Paul Sclafani (Portland District Corps of Engineers)

October 14, 2021 9:35 AM from Colin Swanson to everyone: Colin Swanson - Congresswoman Jaime Herrera Beutler

October 14, 2021 9:35 AM from Tom Iverson to everyone: Tom Iverson, Regional Coordinator, Yakama Nation Fisheries

October 14, 2021 9:35 AM from Liza Wells to everyone: Liza Wells - USACE Portland District, Deputy District Engineer

October 14, 2021 9:35 AM from Seth Russell, CIT THPO to everyone: Seth Russell, the Tribal Historic Preservation Officer for the Cowlitz Indian Tribe.

October 14, 2021 9:35 AM from Steve to everyone: Steve Manlow, Lower Columbia Fish Recovery Board

October 14, 2021 9:35 AM from angela.elam to everyone: Angie Elam - Deputy Forest Supervisor GPNF

October 14, 2021 9:35 AM from Tedd Huffman to everyone: Tedd Huffman, US Forest Service, Spirit Lake Safety Improvements

October 14, 2021 9:35 AM from Matt Gerlach-Ecology to everyone: Matt Gerlach, WA Dept. of Ecology

October 14, 2021 9:35 AM from Tom.Hausmann to everyone: Tom Hausmann, NMFS

October 14, 2021 9:35 AM from Jessica Schafer - Wildlands Network to everyone: Jessica Schafer, Pacific Program Director, Wildlands Network

October 14, 2021 9:35 AM from PW-MallettJ to everyone: Good Morning, Jim Mallett, Cowlitz County Land Reclamation Project

October 14, 2021 9:35 AM from Sue Ripp to everyone: Sue Ripp, Gifford Pinchot National Forest

October 14, 2021 9:35 AM from Dan Tormey to everyone: Hi everyone, Dan Tormey here, with Catalyst Environmental Solutions, supporting GPNF

October 14, 2021 9:35 AM from Rudy Salakory to everyone: Rudy Salakory Interim Director Cowlitz Indian Tribe Natural Resources Department

October 14, 2021 9:35 AM from Mark Smith to everyone: Good Morning, Mark Smith, Eco Park Resort

October 14, 2021 9:35 AM from Susan Saul she/her to everyone: Susan Saul, WNPS Conservation Committee

October 14, 2021 9:36 AM from Steve Ogden to everyone: Steve Ogden, WA DNR- Pacific Cascade Region - State Lands

October 14, 2021 9:36 AM from Amanda Gillen to everyone: Amanda Gillen, NMFS

October 14, 2021 9:36 AM from Bill Fashing to everyone: Bill Fashing, Cowlitz-Wahkiakum Council of Governments

October 14, 2021 9:36 AM from Val Ringold - USACE Portland to everyone: Good Morning - Valerie Ringold US Army Corps of Engineers, Planning Chief, Portland District

October 14, 2021 9:36 AM from Erik White to everyone: Erik White, Wildlife Program Manager, Cowlitz Indian Tribe

October 14, 2021 9:36 AM from John Morgan to everyone: John Morgan - Portland District , Public Affairs Specialist

October 14, 2021 9:36 AM from eric veach to everyone: Eric Veach, Forest Supervisor, Gifford Pinchot National Forest

October 14, 2021 9:36 AM from Sarah Kohout, U.S. Senator Cantwell- SW WA Outreach to everyone: Hi! Sarah Kohout- Senator Cantwell, SW WA Outreach Director. Email- sarah_kohout@cantwell.sen.ate.gov and phone- 360-773-8418.

October 14, 2021 9:36 AM from David Hodges to everyone: David Hodges, CFM Advocates. My firm helps the the City of Longview, Cowlitz County and Port of Longview with federal relations

October 14, 2021 9:36 AM from James Gordon to everyone: James Gordon - Cultural Resources Technician, Cowlitz Indian Tribe

October 14, 2021 9:36 AM from Andrew Hamilton to everyone: Andrew Hamilton Kelso City Manager

October 14, 2021 9:37 AM from Rebecca Hoffman - Gifford Pinchot NF to everyone: Rebecca Hoffman, Monument Ranger - MSHNVM - Gifford Pinchot NF

October 14, 2021 9:37 AM from Ted Perkins to everyone: Ted Perkins, FEMA, Mitigation Division, Risk Analysis Branch

October 14, 2021 9:38 AM from Brandon Robinson - CWCOG to everyone: Brandon Robinson, CWCOG Staff Planner

October 14, 2021 9:43 AM from cb to everyone: Chris Budai, USACE Project Manager

October 14, 2021 9:46 AM from Mark Smith to everyone: Are we going to include the Columbia River to complete the whole system?

October 14, 2021 9:49 AM from angela.elam to everyone: Thanks for the re-cap of what has happened to date Chris.

October 14, 2021 10:09 AM from James Gordon to everyone: Could we please receive a copy of this presentation? The images and diagrams are excellent and would help in future reference. Thank you.

October 14, 2021 10:10 AM from David Hodges to everyone: Agree with James, it would be great to have this for reference

October 14, 2021 10:10 AM from Chris Page to everyone: We will request that and post it on the project website + email it (if not too large a file) if the USACE can distribute it.

October 14, 2021 10:11 AM from Val Ringold - USACE Portland to everyone: We will share it with you but it is a large file due to all the pictures so will have to figure out best way to get it to Chris and Kara

October 14, 2021 10:12 AM from Kara Whitman to everyone: thank you Val

October 14, 2021 10:12 AM from David Hodges to everyone: Thanks so much Val!

October 14, 2021 10:12 AM from James Gordon to everyone: Thank you. If you could e-mail an FTP link (or something to that effect) to all attendees, that would be greatly appreciated.

October 14, 2021 10:16 AM from Dave Howe to everyone: Thanks for that clarification Dennis!

October 14, 2021 10:18 AM from Erik White to everyone: The Three Rivers Mall and Three Rivers golf course were both dredge disposal sites. Both were built on dredge spoils after the emergency actions caused by the mountain.

October 14, 2021 10:31 AM from James Gordon to everyone: (previous slide) Out of curiosity, what is the structure downstream from the aeration filter (within the Toutle River FCF vicinity) that looks like a sheet of concrete in the river?

October 14, 2021 10:34 AM from Dave Howe to everyone: WDFW Paul
-Kara had an issue with WebEx and may have missed a bit from the chat between 10:34 and 11:41
October 14, 2021 11:41 AM from angela.elam to everyone: Can't hear Bill
October 14, 2021 11:43 AM from Tedd Huffman to everyone: maybe move the last line
further up in the list of interests
October 14, 2021 11:45 AM from PW-MallettJ to everyone: Please leave as is, it is
unranked.
October 14, 2021 11:50 AM from Kara Whitman to everyone:
<https://padlet.com/kmwhitman1/on2op2p3jzk2edi2>
October 14, 2021 11:50 AM from angela.elam to everyone: Thanks all. see you next time
October 14, 2021 11:51 AM from Andrew Hamilton to everyone: Thanks off to another
meeting Andrew
October 14, 2021 11:52 AM from Kara Whitman to everyone: Use the PPlus sign in the
lower right hand corner to add your comments. <https://padlet.com/kmwhitman1/on2op2p3jzk2edi2>
October 14, 2021 11:54 AM from Mark Smith to everyone: Assist the re-vegetation of
the sediment plain to help excellerate natural recovery
October 14, 2021 11:55 AM from Mark Smith to everyone: Open more public access to
allow visitors to see the sediment plain up close to get a better idea of what we are dealing with.
October 14, 2021 11:57 AM from Mark Smith to everyone: I would like to see the annual
budget numbers of what all governement agencies are spending currentlty on sediment management.
October 14, 2021 11:59 AM from Kara Whitman to everyone:
<https://ruckelshauscenter.wsu.edu/projects/current-projects/spirit-lake/>
October 14, 2021 11:59 AM from Mark Smith to everyone: Risk annalysis of our current
man made solutions verses more natural restoration sultions
October 14, 2021 12:01 PM from Brandon Robinson - CWCOG to everyone: Thank you!