

Meeting Summary
Lake Ozette Sockeye Steering Committee
March 27, 2014 10:15 am – 3:15 pm
Location: Sekiu Community Center

Meeting Decisions List:

- Preliminarily accepted December 4, 2013 meeting summary with proposed edits, assuming the NOAA Resource Management Plan section on page 2 is accurate and no change is needed.
Note: After the meeting, NOAA confirmed that the language in this section of the December meeting summary should be modified, which has been revised and re-circulated.
- Triangle will ask the Friends of Lake Ozette to nominate anyone they suggest to be the “citizen at large” position for the Admin Team. LOSSC members can send any other nominations for this position to Claire Turpel.
- Predation Workgroup will flesh out the idea of a workshop on predation involving experts, and will develop a detailed cost estimate.
- LOSSC will decide what projects to add to the Near-Term Priority List at the next meeting.
- A subgroup will consider streams on the Olympic Peninsula for a study on turbidity and its effect on fish health. LOSSC will discuss this topic further at the next meeting.
- WCSSP will ask the Recreation and Conservation Office for increased funding next cycle, which would include funds for Triangle to continue facilitating LOSSC meetings and Public Outreach Subcommittee calls, as well as facilitate a Predation Workshop and ongoing Predation Workgroup calls. NMFS will also request funds for Triangle to perform these tasks.

Introductions, Agenda Review, and Meeting Summary Review

Sarah Saviskas, the facilitator from Triangle Associates, welcomed the Lake Ozette Sockeye Steering Committee (LOSSC or “the Committee”), and LOSSC members introduced themselves (*see Attachment I*). The facilitator reviewed the agenda and announced that she will be leaving Triangle at the end of April to attend graduate school, so this was her last meeting. Claire Turpel will take her place as the facilitator, and Megan Johnston will take the place of the note-taker and support. Bob Wheeler, the first facilitator from Triangle to work with the Committee, is involved behind the scenes as a historical resource for Claire and Megan. The Committee thanked Sarah for her work and commitment over the past three years.

The Committee reviewed the December 4, 2013 draft meeting summary. There were several minor edits proposed by some members, which were accepted by the full Committee. Jeff Fisher will check with Tim Tynan (NMFS) to confirm that the language on page 2 explaining the Makah letter of intent for the Resource Management Plan (RMP) process is accurate. The Committee preliminarily accepted the meeting summary with proposed edits, assuming the NOAA RMP section is accurate and no change is needed. This language will be corrected if it is inaccurate. [*Note: After the meeting, NOAA clarified the language and it was circulated to the Committee.*] It was noted that there were items in the December meeting summary that were not captured in the March agenda. The facilitator keeps a running list of agenda topics throughout every meeting, so everyone is encouraged to speak up at the end of the meeting if something is not on that list.

Citizen-At-Large Position

A LOSSC-appointed “citizen at large” serves on the Admin Team, and this position is currently filled by a citizen who is often unable to participate in the Admin Team calls or LOSSC meetings due to work conflicts. It was suggested that an alternate position be created to better enable participation on Admin

Team calls. The Committee liked the idea of having an alternate, and LOSSC members will check with their constituents and Triangle will check with the Friends of Lake Ozette to identify candidates for the role. There is no criterion for where the candidate must be from. If there are multiple volunteers, the Committee will select the alternate at the June meeting.

Announcements

- Bonnie Shorin will replace Rosemary Furfey as the NMFS support person on this project due to NOAA's reorganization and subsequent responsibility shift. Jeff Fisher and Tim Tynan will continue to work on this effort. The Committee thanked Rosemary for her long-term involvement and dedication to this project.
- Green Crow is scheduled to finish its RMAP requirements related to the DNR land exchange by the 2016 deadline. They are making good progress and staying on schedule.
- The Olympic National Park (ONP) recently released a fishing regulation proposal, which had no wording on Lake Ozette fish, but addressed limiting the trout fishery on the Pacific coastal stream to "catch and keep". One participant was disappointed that the group was not notified about the opportunity to provide comment.
- There are no major updates on the NOAA Fisheries 5-year status review since the December 2013 meeting, but NMFS is committed to involving LOSSC and the public early in the process. Bonnie Shorin will lead the update effort, which will focus on recovery efforts, new data, and progress relative to the recovery goals. NMFS requested that an update on this effort be an agenda item at the June meeting. One member requested NMFS to substantiate the need for tributary spawning population, including the reasoning for how they assume that there was historical tributary spawning. One member advised the Committee to start working with local groups as soon as possible to get any additional data on abundance and spawners so they can be reviewed against the recovery targets and develop a robust status review.
- LOSSC members are encouraged to send a note to Claire Turpel with any additions or revisions to the email distribution list.

Update from Predation Workgroup

The Workgroup met on March 11, and since they had not met for about a year, spent some time reviewing ideas discussed at their first meeting, such as the life history model for the Ozette sockeye. This meeting included some new participants, including individuals from the U.S. Geological Survey (USGS) and the U.S. Fish & Wildlife Service (USFWS).

The Workgroup focused on potential future projects that could be added to LOSSC's Near-Term Priority List (NTPL). They developed a list of several potential topics for projects/studies about marine mammal and fish predation on Ozette sockeye. Mike Haggerty will re-organize the underlying research questions based on the life history model in order to identify correct priorities, and then he, Pat Crain, and Jon Scordino will draft a prioritized list of projects to see which LOSSC is interested in adding to the NTPL. The hope is to have their prioritized list of projects complete by the next LOSSC meeting for consideration and prioritization.

USGS has a new process for collaboration, replacing their previous process where an agency would choose a USGS researcher to work with and then collaborate on the research plan. Now, when an agency wants to work with USGS on a project, they draft a research plan, like drafting a Request for Proposals. That research plan gets evaluated by USGS, and if it is a project that they can add value to, the research plan will be shared nationally through USGS and individual researchers can choose to apply to work on the research project. Interested researchers then go through a hiring process with the partnering agency. This is good for LOSSC to know since some of the potential projects brainstormed by the Predation Workgroup would include collaboration with USGS researchers.

Questions and Comments:

- *Did the Workgroup discuss harbor seals as predators?* Yes, the Workgroup discussed harbor seals in the lake and considered a project that would leave the Dual Frequency IDentification SONar (DIDSON) on the beach multiple days/nights to watch for seals (or other predation) on the spawning grounds.
- *What is an example of native piscivorous fish?* Bass.
- There could be a workshop that would have an expert panel discussion on fish predation. See the section below on “Potential New Projects to add to the NTPL” for more information.
- One Committee member suggested doing a citizen science project to assess the pike minnow population, another Ozette sockeye predator. ONP currently has a citizen science project on Olympic marmots and could potentially solicit volunteer help for pike minnow assessment work.

Review & Updates on Near-Term Priority List (NTPL)

PRA-5.6: Consider predation projects and *RME-5: Investigate each predator type*

See the Predation Workgroup summary above.

PRA-7: DIDSON

In the next few weeks, Makah will review the DVR and DIDSON footage to determine anomalies to watch for this year. ONP has a DIDSON in the Elwha, from which they have two good years of data. The spawning grounds surveys and the DIDSON have been within 5% accuracy of one another, which means it is promising for DIDSON data to suffice on its own. The difference between the Elwha DIDSON and the Ozette DIDSON is that there are more species in the Ozette than the Elwha, so confusion is more likely in the Ozette.

HRA-3: CMER Study

The soft rock study through CMER is happening on Type N (non-fish bearing) waters around the state, but does not include any sites in the Ozette watershed due to a lack of willing landowners for the study. CMER is currently scoping another study on fish passage barriers; this may be of interest to LOSSC in the future, and Harry Bell will keep LOSSC in the loop.

HRA-8: Weed Assessment and Mapping and HRA-21: Lake Outlet Rehabilitation

ONP was funded to do chemical treatment of reed canary grass for multiple years in the Quinault basin, which will hopefully free up funding to do exotic plant treatment at the outlet of the Ozette River. The funding will be available in 2018.

PEA-6: Public Outreach

See the Public Outreach Subcommittee section below for recent updates.

RME-18: Egg Survival Study

This was submitted for regional funding and received good reviews, but due to limited NPS funding, the reviewer suggested it should compete for USGS funding.

HRA-2: Hoko-Ozette Road Assessment

The project write-up on the NTPL will be edited to remove “not in this year’s Transportation Improvement Plan”. Clallam County believes the toe of this slide is in the lake, which would require snorkeling to confirm. This project is important to at least one Committee member, and in order to get funding for this assessment to go forward, the Committee will have to show the slide’s relation to fish issues. The County has been stretched for capacity, but committed to doing an on-site evaluation before the next LOSSC meeting.

HRA-2, HRA-10: Crooked Creek / Road 5800 bridge replacement

The bridge has been delivered to the site and is waiting to be installed.

HRA-10, HRA-20: Dunham Creek and Big River bridge removal/replacement

Makah and Merrill & Ring are getting ready to install the sign at the pullout site. The bridge is likely to be rebuilt, but that will be a longer-term project. Makah shared a photo of the site where they removed the old bridge; the photo was taken at a high water event and shows that the site is doing what it was engineered to do in high water.

Potential New Projects to Add to NTPL

Predation-related Projects

1. *Predation Workshop*

Many LOSSC members are interested in hosting a workshop focused on predation issues. Additionally, a wide range of people beyond LOSSC would likely be interested in this event. Several LOSSC members would like this workshop to be solely focused on predation at Lake Ozette. However, it was mentioned that if the scope is broadened beyond Lake Ozette, more entities could be involved, which could make more funding available for hosting the workshop.

Ideas discussed included the possibility of involving an expert panel; combining the workshop with one of the quarterly LOSSC meetings; providing facilitation services; funding experts' time, travel, and other expenses; and possibly hosting the event at the Olympic Natural Resources Center (ONRC). The workshop could also include a brief section to address intrinsic management. As a next step, the Predation Workgroup will flesh out topics to cover at the workshop, attendees, desired outcomes, cost, and how the workshop will relate to Near-Term Priority List projects.

2. *Strontium analysis of otoliths*

One benefit is that a special permit to do the tagging would not be required.

3. *Population Assessment*

One option mentioned was to utilize citizen science.

4. *Acoustic tagging of predators, such as fish*

One benefit is that there would be many potential project leads. The Predation Workgroup will explore this idea further.

5. *Additional fish passage studies*

Other Projects

1. *DNR slide and mass wasting at Redfish Creek*

Carl Chastain could potentially help with an initial assessment. There is a possibility to apply for SRF Board funding for the assessment, though they usually do not fund assessments. John Mahon will see if there is interest at the Quileute Nation to do the initial assessment.

2. *Project and/or subgroup regarding fish health and turbidity (NCASI presentation)*

LOSSC members were encouraged to think about sites on the Olympic Peninsula where turbidity could be studied. See the section below on the NCASI presentation for more information.

Presentation on Run Size Estimates

Mike Haggerty was hired to produce run size estimates for 2004–2012 using Makah's weir data to inform NOAA's 5-year status review, since the data utilized in the recovery plan is now outdated (1977–2003). Mike is analyzing data collected between April 15 and August 15 in these years. The 2010 and 2011

analysis is subject to change significantly, as Mike is still working on the evaluation, but the 2008 and 2009 analysis is complete. Mike will want to give a final presentation at a future meeting.

Makah collected video footage of sockeye passing through the weir for the period of interest. In order to estimate sockeye entry into the lake for periods of missing data, the first step is to compile all the video data, then determine where good, poor, and missing video coverage exists. The next step is to develop a matrix which includes all periods of missing video coverage greater than 5 minutes. Some years are relatively straightforward and are not missing significant amounts of data. Other years are more complicated. Next, Mike will calculate the hourly sockeye entry rate for each day of the run. Then, he will calculate the 2-sided 7 day moving average hourly sockeye entry rate. Finally, he will calculate the expanded hourly counts and sum by day. (If there is no missing time (i.e. 0), the expanded hourly count would be 0.) Mike is including several other attributes in his analysis, such as day versus nighttime entry, adipose fin clip status, sockeye scarring, predation events; etc. Mike concluded by showing DIDSON video footage.

Questions and Comments

- *Was data collected 24/7?* No, data was only collected at night.
- *What is purpose of looking at sockeye scarring?* It shows the portion of fish that have injuries as they enter the lake, which influences survival.
- *Are you studying individual fish or tracking the population in general?* Individual fish were tagged, so the results reflect the activities of individual fish.
 - The data that reflect the proportion of fish entering the lake per day and per year also depend on how reliable the equipment was that year.
- *Is there similar information for other sockeye runs?* The best data set available is Lake Washington. It would be interesting to see how it compares to Lake Ozette sockeye.
- There is a desire to get a better sense for data regarding out-migrating smolts and in-migrating adults.
- *What would it take for Makah to annually summarize the data?* Makah produced annual reports up to 2010, but is still working on more recent years. Annual reports have raw counts, but these are not comparable to estimates. Makah does not have the expertise to generate information for the missing data points without Mike.
- *Is the Elwha DIDSON the same?* It may be helpful to bring in a different type of equipment to help problem solve. Yes, it's identical, though it is in the river from January–October and only potentially available October–December. Mike strongly advised against using the 300LR.
- There was a request to post this data to Mike's website.

Presentation on Fish Health and Turbidity Study

Bob Danehy from the National Council on Air and Stream Improvement (NCASI) and Doug Martin from Martin Environmental presented about a study they are currently running in northern California to understand stream turbidity and its effect on fish health. They are interested in understanding biological significance of stream sediment, which is studied at two sizes: bedded sediment and suspended sediment.

Sediment comes from many sources, some natural and some human-caused. During winter months, stream banks erode and send sediment into the water. Also, fine sediment is deposited from road systems. To study sediment in streams, they developed a project called the "Biological Significance of Stream Sediment Levels" on Pudding Creek near Fort Bragg, California. They would like to replicate their study elsewhere to see how relevant the data is in other stream networks.

They utilized fish detection technology throughout the Pudding Creek watershed to determine where the coho are and their growth and survival rates. They record the number of events when turbidity changes,

and for each level of turbidity, they rank the events (e.g. what is the longest amount of time the fish were exposed to turbidity).

To replicate this study, they are looking for a region where there are two streams in the same general vicinity—one with a low turbidity regime and one with a high turbidity regime. The streams need to be geographically close, but there's flexibility in that; for example, the whole Olympic Peninsula is open to hosting these two streams for the study. LOSSC will consider potential locations and readdress the topic at the next meeting. Harry Bell will champion this effort and will work with Mike Haggerty, Jeff Fisher, Pat Crain, and potentially Rich Osborne and Ed Bowen to further flesh out this idea.

Facilitation Funding

There is facilitation funding for one more LOSSC meeting through the NOAA contract, which must take place before June 30, 2014. The WCSSP facilitation funding has already been used (fall 2013). LOSSC expressed a desire to continue supporting this project with Triangle's facilitation services, and WCSSP and NOAA intend to ask for facilitation funding again. WCSSP will know in May how much money was allotted for LOSSC facilitation, and Bonnie Shorin will develop a funding proposal to request future funding from NOAA.

There was a suggestion for WCSSP to ask for additional funds from the Recreation and Conservation Office (RCO) to cover the cost of facilitating a predation workshop, since the RCO has previously asked for feedback from LOSSC on what it needs. There was a brief discussion about the kinds of costs associated with the workshop, and then LOSSC agreed to have the Predation Workgroup develop a detailed cost estimate for the workshop (by the end of April). WCSSP will make the request for the normal facilitation funds plus the additional cost of the workshop facilitation, and NOAA will inquire about additional funds for a workshop. LOSSC can also consider acquiring funds through other sources.

Funding Sources

- It was announced that the Ozette watershed is no longer identified as a focal watershed through Ecotrust since they never received any applications. Funding is still available for Ozette projects, but they will no longer be prioritized.
- The Nature Conservancy formed the Washington Coast Restoration Initiative to work on high-priority restoration projects in the region. It did not receive funding from the legislature, but an additional request for funding will be submitted next legislative session. LOSSC members were asked to think about what projects they want to add to this list, as the Initiative plans to involve LOSSC in the process. It was suggested that Hoko-Ozette Road might be a good fit. A WCSSP representative will provide an update at the June meeting.
- There was question as to whether the NOAA Coastal and Marine Habitat Restoration funding was still available. It is, and NOAA will keep an eye out for information about the program and report back to LOSSC.
- Funding may be available for wayside exhibits/signs through Washington's National Park Fund. Pat Crain will speak with Kathy Steichen about if this is a potential funding source.

Update from Public Outreach Subcommittee

Salmon Viewing Event

On the last Public Outreach Subcommittee call, the group agreed to try to host two salmon viewing events in 2014—one in the summer that would highlight the collaborative work around the region to recover and restore sockeye, and one in the fall that would highlight the salmon return. Peggy Foreman from NOAA is working on logistics and will pull in members of the Subcommittee and LOSSC as the date nears and details solidify. Since a good time to view salmon spawning is at dusk, it was suggested that these events capitalize on the "Twilight" movie theme, especially if the salmon viewing event would be held at dusk.

Signs to Communicate Sockeye Salmon Information

There are two signs with current next steps; the others are currently on hold.

Other Subcommittee Work/News

The “hot point” sites that the Park is working on could relate to the big push on the West End for broadband capability, so it would be good if the people at ONP working on the hot point sites are looped in with those working on increasing broadband capability. Pat Crain will talk with Chris Eckar about this. An NPS intern has been assigned the task of updating the hot point sites and will draft Ozette sockeye language based on ONP’s website language. The draft hot point language will come to LOSSC for review before being posted to the hot point sites.

Triangle was asked to take notes for the March Predation Workgroup call, so they will not schedule, facilitate, or take notes for the next Public Outreach Subcommittee call. LOSSC agreed that NMFS and WCSSP would ask for additional funding for Triangle to offer ongoing scheduling and note-taking support for both the Public Outreach Subcommittee and Predation Workgroup calls.

RCO’s Responses to Questions on Landowner Liability Legislation

The facilitator introduced the RCO final Fact Sheet on the landowner liability legislation (House Bill 1194), as well as a handout responding to questions raised at the December 2013 meeting. There was some confusion about how questions asked at the September 2013 meeting were addressed. To address this confusion, Triangle agreed to compile all of RCO’s responses into one document.

Proposed Agenda Topics for Next Meeting (May or June):

- Presentation by NMFS on nearshore and offshore risk factors
- Turbidity study update and discussion of whether this can be done in the Ozette watershed
- Predation Workgroup update and discussion of expert panel workshop
- NOAA 5-year status review update
- RMP update
- WCSSP update on Washington Coast Restoration Initiative’s process for submitting a funding request in 2015 legislative session
- Summer salmon event
- If/how to respond to public comment
- Presentation from ONP about Wilderness Management Plan (later in 2014)
- Final presentation on run size estimates (later in 2014)

Attachment 1: Meeting Participants

	Name	Affiliation	Telephone	Email
1.	Ed Bowen	Ozette Citizen		rockypt@olyphen.com
2.	Pat Crain	Olympic National Park	360-565-3075	Patrick.crain@nps.gov
3.	Jeff Fisher	NOAA-NMFS	360-534-9342	Jeff.fisher@noaa.gov
4.	Rosemary Furfey	NMFS	503-231-2149	Rosemary.furfey@noaa.gov
5.	Joseph Hinton	Makah Tribe	360-963-2784	mtchoko@olyphen.com
6.	Cathy Lear	Clallam County	360-417-2361	clear@co.clallam.wa.us
7.	Roy Morris	Seki Citizen/Lions Club International	360-963-2442	able@olyphen.com
8.	Joseph Murray	Merrill & Ring	360-460-3733	jmurray@merrillring.com

	Name	Affiliation	Telephone	Email
9.	Rich Osborne	WRIA 20 / UW ONRC	360-301-2175	osborner@uw.edu
10.	Harry Bell	Green Crow		
11.	Shaelan Nickey	National Park Service	360-963-2725	Shaelynn_nickey@nps.gov (temp); shaelan_nickey@nps.gov
12.	Kim Clark	Makah Tribe	360-460-4811	Kim.clark@makah.com
13.	John Mahon	Quileute Tibe	360-374-5696	John.mahon@quileutenation.org
14.	Doug Martin	WFPA	206-528-1696	doug@martinenv.com
15.	Bob Danehy	NCASI	541-752-8801	bdanehy@ncasi.org
16.	Bonnie Shorin	National Marine Fisheries	360-753-9578	Bonnie.shorin@noaa.gov
17.	Mike Haggerty	Mike Haggerty	360-928-0124	mhaggerty@dypen.com
18.	Claire Turpel	Triangle Associates	206-583-0655	cturpel@triangleassociates.com
19.	Sarah Saviskas	Triangle Associates	206-583-0655	ssaviskas@triangleassociates.com

Meeting Summary
Lake Ozette Sockeye Steering Committee
June 12, 2014 10:15 am – 3:15 pm
Location: Sekiu Community Center

Meeting Decisions List:

- The Committee accepted the March meeting summary with proposed edits, and agreed to accept the December meeting summary as is, while capturing clarifying information related to December meeting summary questions in the June summary.
- The Committee agreed Susan O'Brien (current citizen-at-large representative for the Admin Team) should be consulted about how to identify an alternate citizen-at-large representative.
- The Committee will postpone adding more projects to the NTPL (beyond what was discussed related to HRA-8), until the Predation Workgroup provides a report about suggested projects for the NTPL. It will also wait until the next meeting to determine if the NCASI study should potentially replace the CMER study on the NTPL.
- The Committee agreed that if Triangle receives any public comments for LOSSC in the future, Triangle will review the comment and if the comment is a simple logistical question, Triangle will respond to the comment directly; however, if the comment relates to anything substantive, Triangle will send the comment to LOSSC.

Introductions, Agenda Review, and Meeting Summary Review

Claire Turpel, the facilitator from Triangle Associates, welcomed the Lake Ozette Sockeye Steering Committee (LOSSC or “the Committee”), and LOSSC members introduced themselves (*see Attachment 1*). The facilitator reviewed the agenda; there were no suggested additions to the agenda.

The Committee briefly discussed whether or not anyone has recently collected historical information about the local area. It was noted that that Olympic National Park (ONP) documented homesteader’s activities several years ago (likely focused on homesteads within the Park). The Committee also recognized that long-time community member, Emil Person, has significant historical knowledge of the area and has been a resource to many. Harry Bell will follow-up with Jacilee Wray with ONP to learn more about this effort and will report back to the Committee at the next meeting.

The Committee reviewed the March 27, 2014 draft meeting summary. Minor edits had been proposed by some members, which were noted in the meeting summary with track changes. Additionally, the Committee noted other edits: The Type N CMER study in the “HRA-3 CMER study” update on page 3 of the meeting summary will not take place in the Ozette Watershed. A question was raised about the accuracy of the second sentence regarding CMER scoping another study on fish passage barriers. A member suggested this may have referred to an annual report that is coming out from DNR (not CMER) in October 2016 regarding fish passage barriers. Harry Bell will track the DNR annual reports. The facilitator suggested removing the sentence in question, while capturing this discussion in the June meeting summary. The Committee agreed and accepted the summary with the changes discussed.

The Committee also discussed pending questions related to the December 2013 meeting summary. The December meeting summary was discussed at the March meeting and some comments were suggested which were initially accepted by the Committee. Additionally, a question was raised in March about the accuracy of the December notes related to the NOAA Resource Management Plan and a letter that would come from Makah to NOAA fisheries. After the March meeting, edits to clarify the December notes were much more than what actually said at the December meeting. To address this, the facilitator suggested leaving the December meeting summary as is, and adding a note referring to the June meeting summary for further clarification on the topic (to be discussed during the June meeting). The Committee agreed and will move forward with this plan.

Citizen-At-Large Position

Currently, Susan O'Brien serves as the citizen-at-large representative on the LOSSC Admin Team. The Admin Team helps to set LOSSC meeting agendas and dates, and typically holds a planning call 3-4 weeks prior to quarterly meetings. During the March meeting, it was suggested that an alternate position be created, since Susan is often unable to participate in the Admin Team call or LOSSC meetings due to work conflicts. Since the March meeting, two people have nominated themselves for the alternate citizen-at-large position: Rob Snyder and Mike Libera. The Committee discussed the process for choosing the person to fill the alternate position. A member noted that in the past, the Friends of Lake Ozette identified someone for the citizen representative position. Because of this, the member suggested that the alternate citizen-at-large position should also be from Friends of Lake Ozette (the Committee was uncertain if either nominees were part of Friends of Lake Ozette). The Committee agreed that Susan O'Brien should be consulted about selecting the citizen-at-large alternate.

A question was raised about expectations of the representative to attend the Admin Team and LOSSC meetings. The Committee agreed that it would be helpful to have a citizen representative actively involved in Admin Team and LOSSC meetings. If Susan cannot attend those meetings, it would be best to have the citizen alternate representative attend in her place so citizens are still represented. Bonnie Shorin will call Susan and ask her to identify an alternate representative either from the two individuals who have nominated themselves for this position, or from Friends of Lake Ozette, and discuss the expectations for this position. The status of this will be discussed at the next meeting.

Updates and Announcements

- The Committee discussed various issues related to invasive species in the area, with a particular focus on scotch broom. Members discussed current efforts to remove scotch broom in the Ozette Watershed, different removal techniques (such as spraying, mowing, wrenching, cutting, etc.), and methods to assess and map scotch broom and other invasive plants using GIS technology. Several members commented that in order to successfully reduce scotch broom, removal efforts need to be consistent and repetitive. Members also discussed issues related to pesticides application, including a County moratorium on roadside spraying and reinstatement of EPA buffer requirements. Committee members discussed that projects related to scotch broom management may fall under HRA-8 on the Near-Term Priority List (NTPL). See notes under the *Review and Updates on NTPL* section.
- The Makah hatchery representative noted that they released juvenile fish early this year. After a wet spring, the streams seem to be lower than normal, causing the need to release the fish early. *Note: After the meeting, it was clarified that the releases reported at this meeting were for the two Makah tribal hatcheries, Umbrella Creek and Stony Creek. No sockeye are released from the Makah National Fish Hatchery.*
- The Ozette Ranger position has been filled, and the new Ranger's first day will be August 2 (likely to be full-time in Ozette in September). This timeframe may have implications for outreach activities (there is currently a seasonal Ozette ranger, however seasonal staff is limited). The new Ranger will be invited to the next meeting.
- Bonnie Shorin shared an update regarding the Resource Management Plan (RMP), in order to clarify information discussed during the December 2013 meeting. She noted the Makah RMP is the approved Hatchery Genetic Management Plan (HGMP) and shared the following notes from Tim Tynan, and the Committee briefly clarified some questions regarding this process:

"The RMP includes research, monitoring and evaluation actions, and the sockeye hatchery supplementation programs on Umbrella Creek and Big River. Approved in 2003 under 4(d) rule limit 6—an open-ended authorization for take listed sockeye—included a provision that the hatchery programs would operate for a duration of 12 years as a means to minimize the risk of adverse genetic diversity effects on the propagated population, which is part of the listed evolutionarily significant unit (ESU). This 12-year limit has lapsed for Umbrella Creek; Big River has several years left. There are provisions in the NMFS Biological Opinion for the RMP allowing for an extension of the program beyond 12 years if the programs have not fully met their objectives of creating self-sustaining sockeye aggregations in the two tributaries over all brood years (which there are four, given nearly all sockeye return as 4s). One, and

potentially two brood years have not met this objective, especially for abundance of returning adults. So, the Makah Tribe plans to submit an extension in the proposed duration of the supplementation program on Umbrella Creek. NMFS awaits this request."

- The Committee discussed several methods for sockeye monitoring and genetics studies, particularly parental based tagging and thermal marking. A member shared that with parental based tagging, you can detect where gene pools came from, where fish are going, and which prodigy are more successful than others. Some members have found the parental based tagging method to be cost prohibitive. Many genetic data samples have been collected over the years, but they have not been analyzed due lack of funding. Questions were raised about how genetic data may be utilized to help inform resource management practices. The Committee is interested in exploring this issue further, particularly with regards to identifying the type of information that could be gleaned from genetic samples, how that information could be utilized, and if desired, how to fund certain genetic analyses. Bonnie Shorin will contact the Northwest Fisheries Science Center to see if someone may be able to attend the next meeting to address the Committee's questions and discuss possibilities for future genetic data analyses. It was also suggested to contact Adrian Spidle with Northwest Indian Fisheries Commission regarding this as well. Bonnie will see if they be available to join the next LOSSC meeting.

Predation Workgroup Update

- The Predation Workshop has not met since the last meeting in March. Mike Haggerty will reorganize the questions captured in the March meeting summary and then will work with Pat Crain and Jon Scordino to recommend projects for NTPL. Pat will follow-up with Mike about this and to clarify the life history model and research questions.
- An Associate Professor with the University of Washington, who specializes in predator/prey relationships, is interested in joining the Predation Workgroup. He has done some work with salmon and predators in Alaska. He is specifically interested in investigating sockeye and otter relationships. Pat thinks he would be a good fit for the Predation Workgroup, and will follow-up with Pat Gearin and Jon Scordino to see if there are any potential issues with this individual joining the Workgroup.
- With regards to the previously discussed predation panel/workshop, NOAA has requested funds (approximately \$8,000) to help facilitate a predation panel discussion for LOSSC. More money may be required to put on a workshop; however costs may depend on who participates and travel costs.
- Regarding the NTPL, Pat has been considering a potential citizen science project involving anglers doing voluntary work to document fish they catch in Lake Ozette to help identify predators. This work would be relatively low cost, but there are some challenges related to interviewing Park visitors for this type of project (special approval is required to collect data from park visitors). He is looking into the option of inviting people to sign up as park volunteers for the task of fishing and documenting what they catch. He will explore this more and will share an update at the next meeting.
- A member previously suggested LOSSC discuss nearshore and offshore risk factors. The Committee discussed that the Predation Workgroup will consider this complex issue, and the Committee will keep this in mind for a future meeting topic.

Questions and Comments:

- *Is the recent otter work ongoing, or has the effort concluded?* They have reached the end of the existing otter work, and completed the analysis of scat, looked at the genetics of fish bones, and identified species in the scat. Pat believes that Jonathon is working on a paper for peer review that will capture these results.

Predation Workshop

The Predation Workgroup has been considering three main issues: 1) otters, 2) ecosystem, and 3) predator fish. Also, there has been some discussion about pinnipeds. They have not explored issues with birds; however birds were not identified as a significant concern in the Limiting Factors Analysis. The Committee identified the following topics to potentially be discussed during a predation workshop/panel, or for the Predation Workgroup to look into:

- Identify what we know about predation in the Ozette area, and better understand what work has been conducted on predation related to otters, seals, sea lions, etc.
 - Also identify size of predator/prey populations. Are there too many predators and too little prey? Are there too many predators? Discuss the issues related to ecosystem balance.
- Share information about bite marks on fish (information collected at the weir).
- Identify impediments to solving predation issues. What are the impediments? How to reduce predation?
- Hear from experts about predator/prey relationships in order to understand the dynamic and context.
- Have we focused on the correct non-native species in the lake (such as bullheads)?

Review & Updates on Near-Term Priority List (NTPL)

PRA-5.6: Consider predation projects and RME-5: Investigate each predator type

See the Predation Workgroup summary above. Pat and Mike will provide an update regarding this at the next meeting. The possible citizen science option (described in the Predation Workgroup summary above) will be added into the status notes for RME-5.

PRA-7: DIDSON

The update in the NTPL is accurate and there is no additional information to add. They have completed the surveys and are in the process of reviewing the data. It was clarified that Keith Benton is still involved with this.

HRA-3: CMER Study

It has been confirmed that a Type N CMER study will not take place in the Ozette Watershed, or in other locations on the Olympic Peninsula at this time (there may be opportunities in the future). Since the CMER study is no longer viable, it was suggested that the CMER study be removed from the NTPL and possibly be replaced with the NCASI turbidity study, since that is still a potential option.

HRA-8: Weed Assessment and Mapping

During announcements, the Committee discussed different issues and remedies for assessment, mapping, and management of invasive species (with a strong emphasis on scotch broom). In addition to “assessment and mapping” the Committee discussed adding a management component to the NTPL project. A member shared that there has been some effort to do coast-wide GIS mapping of invasive species, but there are not enough GPS records available at this point. It would be helpful to have a GIS project that maps where invasive plants are located and when they have been removed. Cathy Lear will check in with Cathy Lucero at Clallam County about County efforts to map and manage invasive plants, and will invite her to speak about this at the next meeting. Rich Osborne will see if he can identify a GIS graduate student who may be interested in helping with an invasive plant mapping project and will report back at the next meeting. The Committee also discussed that in the past, ONP mapped plants along the Lake Ozette shore, specifically looking for exotic species. Pat Crain will contact the ONP botanist to learn more about the data collected through that process (though it may be dated). Pat will also see if the current effort to map all vegetation in ONP (mostly through aerial photography) will include Lake Ozette. The Committee also suggested adding “management and reduction strategy” to the HRA-8 project title. Key updates/actions will be listed in the status notes on the NTPL.

HRA-21: Lake Outlet Rehabilitation

The Committee discussed that previously, HRA-21 included a more extensive project related to an assessment of sediment accumulation at the Lake Ozette outlet, which was led by Jeremy Gilman with Makah (he is no longer working there or participating in LOSSC). Currently, the only active project under HRA-21 relates to canary grass removal, which is a very small project and likely does not warrant being listed on the NTPL unless it is accompanied by a more significant project. The Committee discussed the potential for continuing the sediment assessment project started by Jeremy, or conducting other significant work related to sediment and fill issues at the Lake Ozette outlet. The Committee noted that the larger sediment work will not move forward unless someone takes the lead. Larry Cooke will check with Stephanie Martin, the Makah Habitat Biologist, about this project. Bonnie Shorin will see if there may be any support for work to address sediment issues at the Lake Ozette outlet through the Floodplains by Design program. Harry Bell will share an addendum to the original Limiting Factors Analysis with the Committee, which is relevant to this issue.

HRA-2: Hoko-Ozette Road

The project write-up in the NTPL will be edited to remove “not in this year’s TIP.” This summer at mile 19.5 on the Hoko-Ozette Road, Clallam County will do a “repair in place” to open a second lane. By the end of the hydraulic season the road will have two lanes but there will be no reconfiguration of the landscape. A snorkel tour is planned for late summer to further examine the toe of the landslide. Moving the road is a more complicated, long-term issue since moving the road would likely have to go through Park land. The Committee discussed that there may be potential funding opportunities for this project in the future through the Washington Coast Restoration Initiative and Floodplains by Design. A member noted that prior to moving the road or engaging in construction, there will need to be significant community engagement, design, and (likely) acquisition activities. It is likely that multiple funding sources will be required to complete these activities.

PEA-6: Public Outreach

See the Public Outreach Subcommittee section below for recent updates.

RME-18: Egg Survival Study

No further updates beyond what is listed under the project status notes in the NTPL.

HRA-2, HRA-10: Crooked Creek/Road 5800 bridge replacement

The Road 5800 bridge contract is in place and the Wilson Brothers will complete the work to install the bridge, starting at any time. The bridge should be done by the end of the fish window this summer.

HRA-10, HRA-20: Dunham Creek and Big River bridge removal/replacement

Makah and Merrill & Ring are working on installing a wooden sign modeled after the Sol Duc sign. The culvert has been replaced with a bridge at Cab Creek.

Other Projects

The Committee will postpone adding more projects to the NTPL (beyond what was discussed related to HRA-8), until the Predation Workgroup provides a report about suggested projects for the NTPL.

National Marine Fisheries Service 5-Year Status Review

Bonnie Shorin provided an overview of the Endangered Species Act (ESA) 5-year reviews for listed West Coast salmon and steelhead. This is a formal process to review and identify if listed species should retain listing status, be removed from the list, or be upgraded or downgraded. The last 5-year review took place in 2010, and the next is set for 2015. In 2010, 27 species of salmon and steelhead were included in the review process and there have been some additions since then. During the last review process, NMFS received feedback that they did not involve stakeholders early enough in the review process. For the 2015 review, regional partners are being engaged early in the process, starting in early 2014. Regional partners will help build content regarding domain report criteria, which will then be provided to the Science Center for final packaging for the status review update. The status update, when finalized by the Science Center, will be posted in the Federal Register for public review.

NMFS suggested submitting recommendations for the 5-year status review update that highlight important limiting factors or key actions on the NTPL or master list. Once those issues/actions are identified in the status update, they have a higher likelihood of getting funding from NMFS in the future. If there are issues/actions that need high profile attention, they should go into the report to the Science Center, so they will be included in the status update report and posted for public notice in the Federal Register. The draft status update report will be based on internal information, and will be made available to the public through the federal registration notice. Bonnie presented a draft timeline for the review process (which begins now).

The Committee also reviewed the limiting factors table which needs to be completed and shared with the Science Center to include in the 2015 status update. This table will also capture information about the status of implementing the recovery plan, and accomplishments from the last 5-year review. LOSSC members are encouraged to assist with populating this table to make sure the most accurate information is provided to the

Science Center for the status review. Committee members should notify Bonnie Shorin if there is anyone else who should be involved in this process, or may be interested in participating. Also, if anyone has connections with the Olympic Coast National Marine Sanctuary or USFWS, they can encourage them to participate in this status review update. The Committee agreed that Bonnie will send an initial populated limiting factors table to LOSSC for review and edits, and they will review and discuss the draft table at the next meeting.

Questions and Comments:

- *Have any species been removed from the list?* No fish have been removed, but one marine mammal has (stellars).
- *What is DPS?* DPS stands for Distinct Population Segments and refers to breeding units restricted by geography.
- *Are there opportunities to update the recovery plan?* Yes, but the status review update process is focused on identifying whether or not a species is moving to a greater or lesser degree of risk. The recovery plans don't have the same statutory requirement to have plans noticed, reviewed, and revised. Recovery Plans can be revised and changed when revisions are deemed necessary.
- *Will there be a process to develop a monitoring and adaptive management plan for Lake Ozette (similar to what is occurring in the Puget Sound region)?* This may happen on a more informal level for Lake Ozette, due to the fact that for Lake Ozette all stakeholders are at the table, there is limited geography, one basin, and one particular species. This is not the case for the Puget Sound region which is why they have a more formalized process.
- *How do you recognize evolutionary changes that may naturally occur?* Biologists are trained in Section 7 of the ESA and evaluate projects regularly to look at impacts. The way we see extinction is loss of sub-populations, demographic structure, and spatial structure of diversity, among other factors.
- *Is there a period of time reserved for Tribal input?* Yes, Tribes are considered co-managers in this process. Bonnie will check to make sure NMFS has written formal requests to Tribal partners for their participation.
- *Is this an opportunity to reprioritize limiting factors?* The listing factors will remain the same, but they may be moved up or down the list.

Turbidity Study Update

NCASI is looking to establish the relationship between turbidity and fish production, and has a study in Fort Bragg, California to begin this effort. Harry Bell is organizing a meeting to discuss designing a similar turbidity study; he is interested in the possibility to set up a more intensive study on the Olympic Peninsula (as opposed to only 1-2 local sites as part of a broad western U.S. study). The next step is to hold the study design meeting, with the hope of having a fairly detailed study design by the next LOSSC meeting. Several LOSSC members plan to participate in the planning meeting. In terms of potentially replacing the CMER study on the NTPL with the NCASI study, the Committee agreed to wait until the next meeting to decide this, once there is more information on the study design. During the next meeting, Harry will provide an update on the study design, and the Committee will discuss potentially adding the NCASI study to the NTPL.

Public Outreach Subcommittee Update

Typically Triangle facilitates a public outreach call prior to each meeting; however, this did not occur before the June meeting due to Triangle facilitating a call for the Predation Workgroup. In the past, the Public Outreach Subcommittee has focused its efforts on signs, and last year started implementing salmon viewing events. The Subcommittee hopes to host two more events this year, one in the summer and one in the fall. A member shared some concerns about holding a viewing event this summer, such as lack of staff availability and possible road construction during the weekend chosen for the event. These concerns have been shared with Peggy Foreman and Kathy Steichen, who are involved with the Public Outreach Subcommittee. The status of this event is uncertain. If the summer event is not held, the hope is that there would still be a fall event which would focus on viewing the salmon as they return from the ocean.

The facilitator shared that Triangle occasionally receives public comments for LOSSC (two comments have been received in the last 24 months). After some discussion about developing a protocol to responding to public

comments, the Committee agreed that if Triangle receives any public comments for LOSSC in the future, Triangle will review the comment and if the comment is a simple logistical question, Triangle will respond to the comment directly; however, if the comment relates to anything substantive, Triangle will send the comment to LOSSC.

Funding Sources Updates

- Some of the funding sources listed in the NTPL document (starting on page 5) are out of date. Miles Batchelder will update the list with current information.
- A member suggested adding the Washington National Park Fund to the funding sources list. This funding source is specific to the Park and funds small projects (\$5,000-\$25,000 range) which vary in scope. In particular, these funds are geared towards projects to enhance visitor enjoyment. On an annual basis, the National Park Foundation solicits project proposals, and responds within several months.
- The State Department of Ecology is initiating Floodplains by Design, a state-wide program to identify a series of multi-objective floodplain restoration projects to seek dedicated funding through the state legislature (the RFP is closed, but this program is anticipated to be on-going). It is one of a few habitat restoration funding sources that allows for spending on infrastructure projects. The Hoko-Ozette Road and Lake Outlet projects on the NTPL may be potential candidates for this funding source in the future. Miles Batchelder will explore this further and report back to the Committee at the next meeting.
- Miles Batchelder provided an overview of the Washington Coast Restoration Initiative. This is a collaborative effort amongst NGOs, agencies, governments, and Tribes to develop and submit a package of projects to the State Legislature for funding (approximately \$10 million request) specific to habitat restoration and job creation on the Washington coast. Projects included on the list must be on-the-ground restoration projects that can be implemented within two years of obtaining funding (can include land acquisition). Anyone is eligible to submit projects for consideration. Members should send Miles any projects to be considered for this list. The planning group is selecting projects for inclusion by the end of August (projects for consideration may be submitted until this time). The next planning call for the Initiative is on June 27 at 10 am and will focus on the process for securing funding through the legislature, as opposed to the specific projects to be included in the request. The Committee discussed different projects that could be included in the list to be submitted to the legislature. Miles noted that there needs to be some vetting of the projects before they are put on the list, since the legislature wants to make sure the projects are supported locally. There may be projects on the NTPL and/or master list that could be included in this effort (potentially aspects of the Hoko Ozette Road project in the future). This will likely be an annual effort, and since no projects were identified by the Committee at this time, Miles will provide an update on this at the next meeting.
- WCSSP and NMFS jointly manage Triangle's contract to serve as the facilitator for LOSSC, and both organizations provide funding for facilitation of two meetings each year. WCSSP secured \$10,000 and NMFS received \$12,000 for the next year of facilitation.
 - The Committee discussed at the last meeting whether it would be helpful to have Triangle facilitate the Predation Workgroup. If this is the case, Triangle's scope of work will be adjusted.
 - Miles Batchelder explained the history of WCSSP managing the facilitation contract with Triangle, and how WCSSP took over the fiscal agent duties from Grays Harbor County. He is open to sharing and discussing the WCSSP/Triangle contract and scope of work with the Committee, and welcomes any comments or feedback regarding this. He had copies of the contract and scope of work available at the meeting for Committee members, and offered to send these to anyone individually as well.
 - NMFS also requested \$8,000 for facilitation of the Predation Workgroup (request pending).

Other Updates

- The Committee discussed the process for setting meeting dates, and that each Admin Team member is encouraged to seek input from their constituents when setting meeting dates. The Committee discussed members' availability for meetings, and that Thursdays are preferable for scheduling meetings, however Wednesdays will also be considered. The Committee noted that Thursday, September 11 worked for most

people present to hold the next LOSSC meeting, but per protocol, Triangle will check in with Admin Team about other dates as well.

- Pat Crain will see if someone from ONP can come to the next meeting to provide an update on the Wilderness Stewardship Plan.
- Pat Crain sent information to LOSSC about a notice for a research permit application for Lake Ozette looking at mercury in the lake. He did not hear back from anyone, and if there are no comments or concerns, that permit will be processed.

Proposed Agenda Topics for Next Meeting (September):

- Predation Workgroup update and discussion of planning a workshop/panel.
- Update on projects selected for the Washington Coast Restoration Initiative.
- Update on the status of the NCASI turbidity study, including a proposed study design.
- Review and discuss the limiting factors template for the 5-year status review.
- Discuss what information may be collected/how to use information collected through genetic samples (and potentially how to fund analyses). Update from the Science Center about this.
- Genetics analysis discussion regarding what can be gleaned from genetics analyses, what information would be most helpful, and how to go about completing/funding the task (potential presentations from Science Center and/or NWIF on this topic, and analyses conducted in the Lower Columbia).
- HRA-8 updates with potential presentation from Cathy Lucero and report-out from Rich Osborne
- Follow-up about historical documentation in the Ozette area (Harry Bell to talk with Jacilee Wray at ONP).

Attachment 1: Meeting Participants

	Name	Affiliation	Telephone	Email
1.	Miles Batchelder	WCSSP	360-289-2499	milesb@wcssp.org
2.	Harry Bell	Green Crow	360-417-3643	larry@greencrow.com
3.	Travis Butterfield	Makah	360-640-2471	Travis.butterfield@makah.com
4.	Chris Byrnes	WDFW	360-417-1426	Chris.byrnes@dfw.wa.gov
5.	Pat Crain	NPS- Olympic National Park	360-565-3075	Patrick_crain@nps.gov
6.	Larry Cooke	Makah	360-640-1144	Larry.cooke@makah.com
7.	Joe Hinton	Makah	360-963-2784	mtchoko@olympen.com
8.	Cathy Lear	Clallam County	360-417-2361	clear@co.clallam.wa.us
9.	John Mahan	Quileute Tribe	360-374-5696	John.mahan@quileutenation.org
10.	Joseph Murray	Merrill & Ring	360-460-3733	jmurray@merrillring.com
11.	Rich Osborne	UW ONRC/NPCLE	360-374-4560	osborner@uw.edu
12.	Bonnie Shorin	NMFS	360-753-9578	Bonnie.shorin@noaa.gov
13.	Roger Sorenson	USFWS	360-645-2521	roger_sorensen@fws.gov
14.	Claire Turpel	Triangle Associates	206-583-0655	cturpel@triangleassociates.com
15.	Megan Johnston	Triangle Associates	206-583-0655	mjohnston@triangleassociates.com

Meeting Summary
Lake Ozette Sockeye Steering Committee
September 11, 2014 10:15 am – 3:15 pm
Location: Sekiu Community Center

Meeting Decisions List:

- The Committee accepted the June meeting summary with proposed edits.
- The Committee agreed to add the Coal Creek culvert-to-bridge replacement project to the Near-Term Priority List (NTPL) with the caveat that additional information is needed (particularly regarding fill, gradient, culvert condition, and upstream loading, as well as how the project supports the recovery plan), and that this project could be removed from the NTPL in the future if that data does not provide sufficient support for this project.

Introductions and Agenda Review

Claire Turpel, the facilitator from Triangle Associates, welcomed the Lake Ozette Sockeye Steering Committee (LOSSC or “the Committee”), and LOSSC members introduced themselves (*see Attachment I*). The facilitator reviewed the agenda and suggested re-ordering the agenda to begin with the fish genetics presentation from Adrian Spidle, followed by the agenda as planned. The Committee agreed and no further changes to the agenda were suggested. Mike Libera was introduced as the citizen-at-large alternate representative and will participate in Admin Team calls and LOSSC meetings when Susan O’Brian (citizen-at-large representative) is unable to do so.

Fish Genetics Presentation

During the June 12, 2014 LOSSC meeting the Committee expressed interest in learning more about fish genetics analysis techniques, and posed the following questions: 1) What type of information can be gleaned from genetic samples? 2) How can genetic data be used to inform resource management practices? 3) How can we fund genetic analyses? Adrian Spidle with the Northwest Indian Fisheries Commission (NWIFC) shared a presentation on fish genetics and what information may be gleaned from genetics analyses for recovery purposes (particularly information related to abundance, productivity, and diversity). His presentation focused on using genetics to make inferences about fish kinship (identifying fish and how they are related), and provided examples of the types of decisions that can be made from that information

Adrian shared examples of current studies being conducted using genetics analyses to estimate abundance and productivity. For a project in Puget Sound, NWIFC is sampling one generation of Chinook to infer the abundance of a previous generation. Typically, abundance is assessed through stream surveys and carcass counts. Genetics sampling for abundance may be useful when traditional methods are unavailable. For this case, the two estimates (genetics vs. observation) will be compared for similarities and differences. NWIFC is also conducting a study using genetics analyses to look at productivity on the Nisqually and White Rivers. Using genetics sampling, it’s also possible to look at diversity, particularly hatchery and natural interactions. Committee members asked questions to clarify information related to techniques for estimating abundance and productivity using genetics sampling.

The Committee discussed how to use genetics analyses to reveal important information related to Lake Ozette sockeye recovery and assist with decision-making processes. Several members with knowledge and interest in this subject will meet and discuss this prior to the next meeting (Stephanie Martin, Mike Haggerty, Pat Crain, and Joe Hinton). They will consider different questions that may be addressed

through these types of genetics analyses (particularly those related to abundance and productivity), and determine if they think it may be feasible to pursue any genetics analyses and monitoring in the near future. Mike Haggerty will provide a status update regarding this at the next meeting.

Meeting Summary Review

The Committee reviewed the draft June 12, 2014 meeting summary. Some members had already provided minor edits and clarifications, which were noted in the draft with track changes. A member asked if any decisions were deferred during the June 12 meeting. The Committee confirmed that the only decisions made during the June 12 meeting were to accept the previous meeting summaries and to invite Adrian Spidle to speak at the next meeting. The Committee confirmed that the meeting summary reflects the activities of the June 12 meeting, and agreed to accept the summary with the proposed changes.

Updates and Announcements

- The Committee re-affirmed that a representative from the Washington Department of Fish and Wildlife (WDFW) serves on the Admin Team as a representative of the citizens of Washington State; WDFW re-confirmed that their representatives participate in Admin Team activities as available.
- Various updates and discussion on invasive weeds:
 - A member shared that there is an Herb Robert (invasive weed) infestation at Swan Bay Landing, and encouraged people to keep an eye out for it (a small plant: tiny, four leaf, purple pedestal with frilly leaves). This infestation is currently under control.
 - Another member mentioned that Cathy Lucero has updated books on noxious weeds, which can be available to those interested in learning more about invasive plants and eradication methods.
 - Olympic National Park's chief botanist recently resigned and the position is not yet filled. In terms of work related to the Park's invasive plant team, Louise Johnson is the person to contact for now until the chief botanist position is filled.
 - A member shared an update on current efforts to control scotch broom and asked if anyone else is worried about scotch broom in the watershed, and what is the current status of knot weed in the area. A member shared that there have been some outbreaks of knot weed on Big River, but the County is managing them. Makah is proposing to update the inventory of knot weed (collecting qualitative and quantitative information and GIS mapping). Another member noted that when inventorying knot weed and scotch broom, it is important to note the location, and if the infestation has been successfully treated, to re-visit those locations over time to ensure the weed has not been re-established. A member suggested recording the GPS coordinates for scotch broom, knot weed, and other invasive weeds and sharing them with the County (Cathy Lucero specifically) to add to the County's inventory.
 - A member confirmed that the vegetation mapping currently taking place in Olympic National Park (and discussed during the June 12 meeting) will not include the Ozette area. The vegetation mapping is taking place at course scale throughout the Park, primarily via aerial interpretation. A question was raised about the status of the Hoko-Ozette Road repair. Pat Crain confirmed that he did not see any aquatic issues associated with the road repairs, but there could have been some issues with cultural resources. The cultural resources team assessed this and road repairs have begun.
- NOAA is waiting for a request from the Makah to extend the supplementation program under the resource management plan. Makah has a draft letter regarding this which will go through internal processes to finalize and will be reviewed by the Tribal Council before sending to NOAA. A

member asked if the Committee will review the letter before NOAA takes action, or if there is a planned public process related to the extension and/or modification of the hatchery plan. Bonnie Shorin will look into this and respond to the Committee.

Predation Workgroup Update

- Workshop
 - NOAA secured \$10,000 to support facilitation of a predation workshop. Olympic National Park (ONP) will also try to provide funding to support the workshop (likely between \$5,000-10,000). The final amount will be confirmed once ONP's budget is solidified. The NOAA funds for the workshop must be used during the next fiscal year. The workshop will likely take place in spring or early summer 2015.
 - The Committee discussed preliminary plans and how to develop a scope for the predation workshop. The Committee will review the workshop agenda before it is finalized. The Committee recognized that the scope of the workshop may be dependent on the final amount of funding available. The NOAA funds (and any funds ONP is able to secure) will be used for convening the workshop, finding a space, and potentially inviting experts, as well as some funds for Triangle to facilitate the workshop. If additional funds beyond the \$10,000 are not available, then the workshop will likely be only one day. If more funds are available, it may be two days.
 - The Committee discussed background studies and papers that may be helpful for preparing for the predation workshop and outlining the scope, including: the "life history model" white paper, the Pat Gearin study (2005), and a completed scat study. It was noted that the "life history model" is a numeric model, as opposed to a conceptual model, and that it would be helpful to have an understanding of what can and cannot be done with the model. Pat Crain will review the next iteration of the life history model and questions developed by Mike Haggerty. Ed Bowen will share the Pat Gearin study and scat study with the Committee as background information.
 - A member suggested identifying a chair for the workshop and inviting them to the next meeting. The Committee discussed that the workshop is still in the early planning stages and there needs to be a more clear understanding of available funding and the scope of the workshop before moving forward with this.
 - The predation workgroup will meet prior to the next meeting and develop a draft scope for the workshop, and recommendations for speakers. One potential participant could be Aaron Wirsing from the University of Washington, who works on bear and sockeye predator/prey relationships.
- Ongoing Workgroup Discussion
 - The Makah Tribe, with the support of USGS (Kurt Jenkins) and ONP (Patti Happe), submitted a proposal for a U.S. Fish and Wildlife Service grant for an otter population assessment for the Ozette watershed. This will build on the previous otter study conducted by Jon Scordino. It will utilize a more systematic approach and sampling design and will also include using cameras and (potentially) genetics analyses to develop a more definitive abundance determination.
 - Makah has conducted similar analyses on the reservation regarding bear populations. This study would complement previous otter research and enhance understanding of the river otter population. This study will directly address one of the needs discussed by the predation workgroup: what is the abundance of predators? They will know if this project is funded by spring 2015.

- A member suggested that the responsible governments engage their respective citizens and notify land owners of any work going on in their neighborhoods related to this project, as residents can help identify information and locations.

Listing Factors Review

Bonnie Shorin presented a draft summary of recovery implementation and listing factors table that will be used to collect information relevant to the Lake Ozette sockeye 5-year status update. The table needs to be populated with information related to Lake Ozette sockeye recovery. Information included in this table will provide the Science Center with information regarding the execution of the recovery plan, and will help identify to what extent progress is being made on addressing listing factors. Bonnie asked for the Committee's assistance with populating the table with information about recovery projects that have been completed and the listing factors those projects addressed (both qualitative and quantitative information). Viability and numeric data will come from the final weir report. The table needs to be populated and shared with the Science Center before November. If through this process the Committee identifies any significant areas of concern related to the recovery process, they can add a footnote to the summary table to be highlighted in the Federal Register notice. The Committee discussed the types of information that will be included in the summary table, and several members shared examples of projects completed, or edits that need to be made to the table. Bonnie will call Committee members to assist with filling in the summary table and to make sure the table is reflective of all the recovery work accomplished.

It was clarified that the LOSSC master list includes everything in the recovery plan and the NTPL includes actions from the master list that the Committee has decided to pursue in the short-term. As projects on the NTPL are completed, additional projects from the master list will be added to the NTPL. Several members suggested coding or organizing the master list to clearly identify projects that have been completed.

Review and Updates on Near-Term Priority List (NTPL)

PRA-5,6: Consider predation projects and RME-5: Investigate each predator type

See the Predation Workgroup summary above. Pat Crain clarified that the potential citizen science project option added to RME-5 at the June 12 meeting would be similar to the marmot program, and would include a detailed study design with people catching fish according to that study design.

PRA-7: DIDSON

Work is ongoing for this project. Currently the focus is on formulating appropriate protocols for implementation and analysis (instead of discussing the growth curve or trend analysis). Due to technical issues, such as losing some comparison video data, Makah is unable to develop any hard assessments in terms of data comparisons at this time. This project was funded by the Salmon Recovery Funding Board (SRFB), and was originally one year but it was extended to two. Makah is currently working on a SRFB report, which will be an open-ended with no clear conclusions drawn (there is only one year of data, follow-on work is expected).

HRA-3: CMER Study

A member shared that CMER is working on another study (and has decided to fund the pilot, but not the study itself) regarding extensive monitoring of riparian vegetation, and it is likely that a characterization of riparian areas of the watershed will take place at some point in the future. For now, there is no CMER study that is directly relevant to the work of the Committee, but this project will stay on the NTPL in case this extensive monitoring project becomes relevant to LOSSC.

HRA-8: Weed Assessment and Mapping

The vegetation mapping currently taking place in ONP (and discussed during the June 2014 meeting) will not include the Ozette area because the vegetation mapping is taking place at course scale, primarily via aerial interpretation. A member shared that in the past, a federal agency approached Clallam County to sponsor a pilot project on the Olympic Peninsula using satellite imagery to map invasive plants, but the County was unable to sponsor the project at the time. It was suggested to reach out to Cathy Lucero at the County to see if this opportunity may still be possible. The Committee also discussed the need for greater education and outreach related to best management practices to prevent the import and spread of invasive plants (such as cleaning equipment, moving from weed to weed-free zones, issues with gravel pits).

Cathy Lear will invite Cathy Lucero to join the next LOSSC meeting to discuss what is feasible for invasive mapping and removal, resources needed, and County weed-free best management practices.

HRA-21: Lake Outlet Rehabilitation

The cabin AND the foundation have been removed (the archaeological work was complete). The Committee discussed that there are other issues and studies related to the lake outlet that need to be addressed in the future.

HRA-2: Hoko-Ozette Road

The road is currently being fixed so that it will be two lanes instead of one. A member asked if there were any fish impacts at the 19.5 mile marker slide. Pat Crain's inspection determined that the repair would not impact the shore or pose any fish impacts/risks (there is a large vegetation buffer between the hill slope and the lake).

RME-18: Egg Survival Study

There is potential for joint NPS/USGS grants for this, Pat Crain is going to communicate with his USGS partners to see if they are willing to take this on.

HRA-2, HRA-10: Crooked Creek/Road 5800 bridge replacement

The bridge is useable and finished. Instream work, except for the placement of wood, is complete. Some of the old bridge pilings were kept for historical value.

HRA-10, HRA-20: Dunham Creek and Big River bridge removal/replacement

Makah and Merrill & Ring are working on installing a sign at the pullout. The plan is to replace the bridge at some point, likely next year.

NCASI Turbidity Study

Harry Bell is hosting a meeting with a group of scientists on September 12 to discuss this study (scope, potential locations) and whether or not to move ahead with it. Anyone is welcome to join this meeting and discussion. Locations for the study have not been determined, but Coal Creek may potentially be a good location because there is access to the Creek and the Creek is small enough to place smolt traps in. NOAA is participating in this meeting because the questions to be addressed by this study go beyond Lake Ozette and are pertinent to other NOAA work. An update regarding this study will be shared at the next LOSSC meeting.

Weir Data Final Report

The Committee discussed the Weir Data Final Report and next steps for providing comments. Mike Haggerty gathered data from DIDSON and video imagery and compiled that information into a report

which will be shared with the Science Center for the purpose of developing current viability indicators for the 5-year status update. A draft version of this report has been shared with the Committee for its review and comments or questions. Once comments and revisions are addressed a final version of the report will be sent to the Science Center. The next iteration of the report will include a discussion about return year 2004 numbers, which are thought to be unreliable due to some issues with the weir that year (including gaps in the weir and fish getting through). Committee members should email any comments or questions regarding the report to Mike Haggerty (cc: Bonnie Shorin) by September 25.

Questions and Comments:

- *Why did we stop in 2012? What is the path forward? This does not seem to be discussed in the document.* Discussion regarding this will be included in the next iteration of the report. If anyone has any questions about the report they should contact Mike Haggerty directly.

Public Outreach Subcommittee Update

The Committee discussed the recent activities of the Public Outreach Subcommittee.

- Fall Salmon Viewing Event
 - This event is scheduled for November 1 (likely 10:00 am-2:00 pm), and the Subcommittee is working on event logistics. They are also working on outreach for the event, such as: outreach to schools, including curriculum ideas (Judy Lively and Roy Morris); updating agency websites and Facebook pages (Megan Morlock, Judy Lively, and Stephanie Martin); sockeye salmon fact “teasers”; flyers (updated flyer from last year, Peggy Foreman will lead); and newspaper articles. They are also working on making transportation available for the event.
 - All LOSSC members are encouraged to attend, participate, and help host the event. Contact Peggy Foreman for more information on how to participate.
- The Committee discussed the “Summary of Outreach Options” listed in the Subcommittee 8-25-14 Call Summary:
 - #7) A member suggested contacting the State Parks Commission if there is a barrier to posting information related to sockeye salmon recovery on the Cowan Ranch Heritage Site sign.
 - #9) Currently, it is not possible to post a sign at Umbrella Creek because that land is currently owned by Forterra but they are uncertain as to who might hold the land in the future, and Forterra is not interested in putting a sign up until that is resolved.
- A member suggested the Subcommittee consider ways to reach out and engage the local community regarding the Sockeye recovery plan and issues, noting that community outreach is a primary reason a portion of facilitation funding supports this Subcommittee. This member also noted the importance of making sure community members impacted by the recovery plan feel welcome to participate, and have access to the latest information about the recovery effort.
 - The Committee discussed opportunities and challenges for engaging local community members in the Lake Ozette Sockeye recovery work and discussed different ways to share information with the local community:
 - Host an annual picnic with the local community and share updates on recovery efforts.
 - Refer people to the Federal Register notice that will be posted in January with an updated status regarding the Lake Ozette sockeye recovery plan.
 - Make sure the Lake Ozette Ranger Station always has copies of the Lake Ozette sockeye recovery brochure.
 - Potentially develop a local webpage or e-mail newsletter specifically for LOSSC.

- Update the Washington Coast Sustainable Salmon Partnership (WCSSP) website with the latest LOSSC information (note that the WCSSP site is currently being redesigned).
 - Post the Lake Ozette Sockeye recovery brochure on each participating agency's web site.
- A member also suggested NOAA host a yearly meeting of Hoko-Ozette Road residents to discuss needs, interests, and concerns related to the recovery effort. NOAA will see if there are any resources available to assist with direct stakeholder outreach and engagement.

Funding Sources Update

An updated version of the funding sources list was included as an amendment to the NTPL document. Bonnie Shorin looked into funding available through Floodplains by Design for floodplain restoration projects, and clarified that this funding source is for multi-objective projects that address restoring functional floodplain processes (habitat) and reducing flooding damage/harm (human safety). Many projects on the master list include floodplain restoration, and if any of those are in areas that need restoration because flooding is also harming structures, then this funding source may be an option. The funding cycle is closed for this year, but there may be opportunities next year.

Coal Creek Culvert-to-Bridge Project Presentation

Carl Chastain with the Pacific Coast Salmon Coalition (PCSC) shared a presentation on the Coal Creek culvert-to-bridge project. PCSC is partnering with Green Crow on this project. The project would address two blockages and will replace an under-sized and degraded culvert with a 60-foot bridge. This culvert is a velocity barrier. This project would also include the removal (without replacement) of an additional fish blocking culvert on the same road. It was noted that Coal Creek is a tributary to Lake Ozette.

PCSC and Green Crow are proposing this project be included in the Washington Coast Restoration Initiative (WCRI) funding package request. WCRI projects must be publicly vetted before being added to the list. The project will be presented to the North Pacific Coast Lead Entity for consideration of its support for this project. The total project cost is approximately \$214,000, and PCSC is seeking \$161,151 of funding from the legislature. There is an approximate 25% match for this project from Green Crow and PCSC.

The Committee discussed the project proposal, and comments included:

- Some members expressed strong support for this project.
- Some members expressed concern that there was not enough information or data about how this project connects to Lake Ozette sockeye recovery, and there were some concerns about this project being utilized to advance private interests.
- A member suggested including information, such as the amount of increased habitat, would strengthen the proposal.
- After some discussion, a member proposed adding this project to the NTPL to demonstrate support from LOSSC for this project. The Committee agreed to add this project to the NTPL with the caveat that additional information is needed (particularly regarding fill, gradient, culvert condition, and upstream loading, as well as how it supports the recovery action plan), and that this project could be removed from the NTPL in the future if that data does not provide sufficient support for this project. This information will be shared at the next meeting.

Other Updates

- A member noted an update under HRA-27 on the master list regarding beach spawning at Umbrella Creek. The comments related to this task note a “no trespassing” request on record. The member noted that this parcel of land has a new owner who may be willing to compromise on this issue.
- The Committee discussed trying to schedule the next LOSSC meeting for the first two weeks in December. Triangle will check in with the Admin Team about potential meeting dates in those two weeks, and send a save the date once determined.
- A member shared a concern about current low-flow conditions in local streams and rivers and how this may impact December spawning. Another member mentioned that the Water Committee (a combination of federal and state entities) is doing a drought designation for the area, which could open up funds for the region to address issues with fish passage, water sources, hatchery operations, etc. If anyone has any drought-related concerns, they should contact their local government.

Proposed Agenda Topics for Next Meeting (December)

- Update on potential use of genetics analyses
- Local invasive weeds discussion (potentially with updates from Cathy Lucero)
- Update on the NCASI turbidity study
- Predation Workgroup update and presentation on draft scope for the predation workshop
- Update regarding NOAA’s 5-year status review
- Update from Carl Chastain about data gaps related to the Coal Creek culvert-to-bridge project
- Discussion about dry and low-flow conditions and impacts on stream hydrology

Attachment 1: Meeting Participants

	Name	Affiliation	Telephone	Email
1	Harry Bell	Green Crow	360-417-3643	larry@greencrow.com
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