# Lake Ozette Sockeye Salmon Steering Committee (LOSSC) December 13, 2016 Meeting Summary

#### Final v 3-8-17

Action Items	Action Item Owner	Timeframe
Discuss how to implement Appendix C of	Bonnie Shorin and Ed Bowen	ASAP
the Recovery Plan.		
Set up public talk, in Forks, specific to the	Frank Hanson and Bonnie Shorin	Winter 2017
Lake Ozette sockeye and recovery efforts.		
Find someone from WDFW Wildlife	Dave Kloempken	Winter 2017
Program to participate in the Predation		
Workgroup.		
Call Ecology to discuss mercury/PCB	Pat Crain	For March meeting
studies and share outcome with group.		
Encourage park ranger for the Lake Ozette	Pat Crain	For March meeting
District to attend.		
Pursue meeting between Friends of Lake	Pat Crain	Winter 2017
Ozette and Olympic National Park.		
Ask ONP staff if they can help Makah with	Pat Crain Winter 2017	
ARIS data processing.		
Follow up with Ozzy Minard and David	Pat Crain, Jess Helsley, Joe Hinton	ASAP
Hahn with input on Boy Scout project.		
Develop proposal for a project with	Public Outreach Committee	For March meeting
volunteer/public engagement.		
Post future LOSSC meeting notices, as well	Deb Kucipeck	Ongoing
as agendas and summaries, on Clallam		
County website (two webpages).		
Make suggested distribution list edits.	Triangle	ASAP
Update draft suggested format of the	Triangle	Winter 2017
support letter and circulate to email		
distribution list.		

#### Welcome, Introductions, & Old Business

The facilitator opened the Lake Ozette Sockeye Steering Committee (LOSSC) meeting with introductions, and a review of the agenda and materials.

LOSSC reviewed and accepted the August 30, 2016 meeting summary with one additional action item.

Update on Predation Workshop proceedings report

Pat Crain and Bonnie Shorin are working with John Wullschleger to finalize the proceedings report from the Predation Workshop in April. The initial summaries of the presentations have been completed, but not reviewed by presenters. The summary will be sent to presenters by the end of December 2016. Pat will draft the introductory section for the proceedings, and Bonnie will create a summary of the breakout sessions. John, Pat and Bonnie will meet and continue their work in the new year. They hope a draft will be ready by the March LOSSC Meeting.

# Review & Updates to the Near-Term Priority List (NTPL)

Updates from project leads on current projects

Related Task ID	Project Title	Notes
PRA-5,6 RME-5	Predation Reduction Efforts	The predation reduction effort is pending the Predation Workshop proceedings report.  LOSSC asked WDFW if they could participate in the Predation Workgroup. Dave Kloempken will seek someone from the Wildlife Program to participate.
PRA-7	Data Collection (with DIDSON)	Angela Tetnoski let the group know that the DIDSON has been replaced with ARIS, which is dual purpose. The Makah Tribe is reviewing data. Olympic National Park has staff trained on ARIS; Pat Crain will ask his staff if they can help Makah with the data processing.
HRA-8	Noxious Weed Reduction	Cathy Lucero, Clallam County, is interested in a revised road management ordinance, which would allow landowners to set up an agreement to control their own roadside weeds. However, owner maintenance is sometimes not aggressive enough to quell invasives, which re-invade. The County looked for a mechanism to manage roadside frontages. If they do not control the weeds, Clallam County will notify the landowner in writing with ten days to manage invasive weeds. The County's proposed protocol incudes spot handheld herbicide treatment. A LOSSC participant noted that Clallam County had not always been clear in their communication with land managers or owners. The new ordinance would create an Integrated Plant Management system that would work with the Weed Board.  NOAA noted they would not oppose use of herbicides to remove invasive plants with appropriate protocols. NOAA eco-toxicologists reviewed the ordinance and compared it against the Biological Opinion, and suggested revisions of the ordinance to the County.
		It was noted that timber managers (both companies and the state) have been slow to control noxious weeds. Their land is typically higher in the watershed and knotweed travels downstream. A member suggested that LOSSC explore grants to manage noxious weeds on timber lands.  There has been an increase in tansy ragwort in the basin. This has been identified in the

Related Task ID	Project Title	Notes
		uplands of the basin.
		ONP funding is coming for the Noxious Weed Reduction assessment. Janet Coles, ONP's chief botanist, has been in touch with Cathy Lucero. ONP is waiting for their exotic plantmanagement position to be refilled in order to do more work on this project.
HRA-8	Noxious Weed Reduction	See Shannon Murphie's description of Makah's work, page 4.
PEA-4, 6, 11	Big River and Umbrella Creek	
	Watershed Restoration Project	
HRA-8 PEA-4, 6, 11	Noxious Weed Reduction Exotic Plants Mapping	The most recent exotic plant map for Lake Ozette is 25 years old. This project is important for the sockeye and will remain on the NTPL.
HRA-21	Noxious Weed Reduction NPS Lake Outlet Rehabilitation	The long-term ecological monitoring program in the Park includes a rapid habitat survey that identifies invasive or nonnative plants. It will cover the outlet of Lake Ozette, approximately 500 meters of habitat.
RME-17, 18	Egg Survival	Pat noted that the USGS funding source for a potential egg survival research study is water-quality related, so the proposal needs to relate to water quality. Pat is drafting a preliminary proposal for USGS and will work with the Habitat Subcommittee members to strengthen the proposal. LOSSC suggested to Pat Crain that he include kokanee sampling and water quality in his proposal.
RME-8	Water Quality	NOAA suggested learning more about mercury/PCBs in the basin. Ecology is planning to publish a report in the basin in October 2017. Ecology also has done research on dragonfly larvae, using them as indicators for hot spots in the watershed. LOSSC suggested asking Ecology to incorporate RME-8 in upcoming studies to include sediment traps for the presence of mercury, using Umbrella Creek and another creek that flows into Allen Slough, and include kokanee in their sampling.
HRA-14	Large Woody Debris (LWD)	Recent storms have provided a lot of naturally recruited LWD. It was noted that mobilized LWD can threaten houses. Landowners need to have confidence that engineered LWD is immobilized and maintained in place. A previous project was a success. Herrera (an engineering firm) is willing to discuss how they create an engineered log jam if requested. NOAA suggested holding an evening meeting so landowners can attend and learn about LWD.
	Fish Passage and Habitat Restoration	The Coal Creek bridge-to-culvert replacement is complete and photos were included in the meeting packet sent via email.

Big River and Umbrella Creek noxious weed inventory and treatment: 2016 work and plans for 2017 field season

Shannon Murphie, Makah Tribe, presented on the 2016 field season and plans for 2017. The entire length of Umbrella Creek was surveyed. Umbrella Creek had 154 sites found with noxious weeds. Big River was 30% surveyed (starting at the mouth) and had 268 sites found with noxious weeds. While Umbrella Creek has a lot of weed-free stretches, clear-cutting is currently occurring along the Creek and this may change the weed prevalence.

Knotweed was inventoried and treated on Big River (it was not found on Umbrella Creek). The Makah Tribe did not have landowner permission to survey all of the Big River. The Tribe will treat the same areas in 2017 and 2018.

2017-18 goals are to treat two acres of property on Umbrella Creek and Big River, which will require MOU with landowners by May.

#### Questions and discussion

- A LOSSC member suggested that Makah use the County's Road Management Plan to treat the
  County pit, and use the Park's nursery program to grow sedges at the wetland component of the
  county pit. These sedges would be used in restoration by the Tribe. The Park plans to continue
  their nursery program after the Elwha re-planting is complete.
- Another LOSSC member suggested that Makah might be able to use the North Olympic Land Trust parcel at milepost 16.5 as the private land; Shannon will investigate.

#### **Draft Letter of Support**

The LOSSC reviewed a draft letter of support that LOSSC project sponsors could use for funding applications for any project related to Lake Ozette sockeye recovery. This idea was suggested at the August meeting.

Potential hurdles may be 1) some state and federal LOSSC participants may not be able to be signatories; 2) LOSSC participants may need supervisor approval before signing; and 3) LOSSC could potentially accidentally support one competitor for a grant over another by writing letters of support.

It was noted that for those who have the time to write individual letters, that makes a more persuasive case than the draft letter of support. The draft letter can serve as guidance to writers.

Next steps: Triangle will circulate an updated draft letter based on LOSSC comments. LOSSC will keep the draft letter as a form letter and resource for future use. It is on the project sponsor to fill in the blanks, and any LOSSC member may enhance the form letter and send it under their own personal name.

#### **Boy Scout Project: Lake Ozette Temporary Emergency Salmon Shelters**

Ozzy Minard from Boy Scout Troop 1460 gave an overview of his proposed Eagle Scout project to create temporary emergency salmon shelters in Lake Ozette. He was connected to LOSSC through David Hahn, who participates in the Pacific Coast Salmon Coalition and North Pacific Coast Lead Entity and is a Sol

Duc River landowner. The emergency salmon shelters that Ozzy is interested in pursuing in Lake Ozette have been used on David Hahn's property.

Ozzy hopes to create spruce triangles to be placed in the water. These temporary structures will provide shelter, food and shade to salmon in the summer. Ozzy and his troop will fund, build, install and remove the triangles. He estimates a cost of \$500 for 10 triangles. He would like to start the project early next spring, and replace the wood yearly.

The wood is affixed to the triangles with zip ties. The plastic piping of the triangles provides buoyancy. The triangles are tied to a concrete brick with a rope. Currently, the triangles are constructed from one length of pipe (thus their size). These triangles could complement an invasive plant removal project.

Ozzy identified areas near the hatchery in Umbrella Creek and would time it for the triangles in place by the time fish are released from the hatchery.

## Input from LOSSC members included:

- Coordinate with landowners; LOSSC specifically suggested talking with Joe Murray at Merrill & Ring and the Makah Tribe.
- Consider whether the triangles will be used in high flow or slow-moving water, which will influence site selection.
- Pat Crain indicated interest in helping Ozzy place one or two triangles somewhere in the Park.
- Jess Helsley offered help in finding a site on the coast if it is too hard to find a place in Lake Ozette.
- Joe Hinton offered surplus pipe.

LOSSC members were asked to send other ideas or suggestions to Ozzy via email: Ozzyninja8@gmail.com. Going forward, the Boy Scout Troop 1460 is likely to be a reliable contact for projects of LOSSC and/or members.

#### Research Proposal Presentation: Lake Ozette River Otter Project

Shannon Murphie is looking to submit a grant proposal to USFWS for studying river otters and their predation on sockeye. She proposed a similar project in 2015, which was not funded. The Tribe has six partners on this proposal who are matching time or equipment.

Otter predation occurs in the mouth of Ozette River and near spawning beaches. It is a high probability limiting factor in the adult sockeye spawning stage of the beach-spawning sub-population. Otters have a large area of distribution, potentially out to the coast. The project will mark observed scat with glitter and gather DNA from scat and hair samples. Conservation canines can be trained to identify individual animals based on their scat.

The project will likely not include radio tagging, as it is time-consuming and not likely within budget parameters.

There is some flexibility in the timing of the scheduled beach surveys, in order to capture the peak of beach spawning. Otter latrine sites at the mouth of Big River are most available in the middle of October (then rising water levels erase them).

LOSSC suggested that if wildlife cameras are used near private property, the property owners should be notified.

#### **LOSSC Administration & Operations Review**

- LOSSC discussed how landowner participation might be productively promoted. Private landowners are essential to restoration.
  - Ed Bowen reminded LOSSC of a previous landowners' meeting at the Lions Club, where a very high percentage of landowners attended. He suggested LOSSC think more about convening meetings like that.
  - A previous knotweed newsletter was written in plain language and covered sockeye and asked for input from landowners.
- Night meetings may work; Frank Hanson's speaker series is well-attended and a good start. Clallam County has the information and capacity to send a postcard to the public. Public Education & Outreach: This subcommittee will be discussed in the afternoon. ONP has a new chief of interpretation, Lee Snook. LOSSC suggested scheduling a public talk in Forks through Frank Hansen. It was suggested that the speaker should be a biologist, Mike Haggerty or Tim Tynan. Possible topics:
  - o Sockeye listing history.
  - o Overview of recovery efforts.
  - o Unique aspects of Lake Ozette sockeye Evolutionarily Significant Unit (ESU) relative to other sockeye.
  - o Culminate with a call to action or invitation (for example, to see the smolt traps in June).
  - LOSSC may post notices, agendas and summaries to Clallam County website and ozettesockeye.com.
  - o Mike Libra is a good connection to the community.
  - Friends of Lake Ozette are a group to work with, though they do not have a regular meeting schedule. Pat Crain indicated interest in convening a separate meeting specific for the Lake Ozette watershed, with Park staff and property owners (modeled on the Park's meetings with Friends of Lake Crescent).
  - o LOSSC will conduct an evening meeting in June, 6-8 PM on a weeknight, with a meal/potluck. The Lions Club will be contacted to co-host. Sekiu is a good location.
- NOAA hopes that the LOSSC becomes a decision-making group that selects a project and gets it done. However, the informational function of the LOSSC is important, too.
- LOSSC discussed making meetings more relevant to landowners by working on a big, concrete
  action and asking landowners to participate (such as submitting information on wildlife
  spottings).

#### General Announcements & Reports from the Lake

LOSSC participants shared general announcements:

- CSP will have a new website running soon. All proposed 2016 SRFB projects from the Coast Salmon Recovery Region were funded through SRFB.
- The next NPCLE meeting is January 17.
- A landowner noted that they have not seen as many predators recently. The lake level came up faster than usual this fall. Big River and Crooked Creek have been running very clean, turbidity is good. A lot of trees are falling.
- The County can send other people to the LOSSC. If there is a meeting where it would be more beneficial to have someone else, such as the Roads Department, let Deb Kucipeck know ahead of time so she can coordinate with that person's schedule.
- Makah noted that the Umbrella Creek Trap is still running. Numbers are down but fish are still coming in. 600 fish have been caught through the trap this year. There is quite a bit of chum spawn in Umbrella Creek, maybe a record high. Flows in Big River are allowing fish passage.
- The Park noted some staffing changes, including a new chief of interpretation, Lee Snook, and a new interpreter on the West End who will work out of Mora. Dan, the new Lake Ozette ranger, came to the last LOSSC meeting and Pat will encourage him to attend future meetings.
- Pat Crain reviewed new maps that use satellite imagery (spectral analysis) to remotely sense landscape change over time. This new effort will map the whole Olympic Peninsula, both in and out of the Park. The project lead on this is willing to give a presentation to LOSSC.

#### **Next Steps**

The facilitator summarized the action items (see page 1).

LOSSC participants discussed the March 2017 meeting. For scheduling that meeting, the Admin Team was asked to avoid the last week of March (spring break for many schools) and consider scheduling the meeting earlier in the month.

Participants discussed future meeting topics.

#### **DRAFT Meeting Topics for Upcoming Meetings**

#### March 2017 meeting:

Overview of NOAA Five-Year Status Review and overlap with LOSSC-Bonnie

Landscape mapping- Pat

Review and finalize draft letter to Ecology regarding sediment traps and kokanee in mercury/PCB study

Developing a proposal for a public engagement project- public outreach committee to develop draft

Continued discussion of LOSSC focus and structure

#### June 2017 meeting:

Things being done on the landscape- e.g. Shannon and Pat's proposals, status

Things with a need for a volunteer landowner- a recreational fishing/data collection survey that is clear about what will be done with the data?

LWD/invited speaker from Herrera

# Sometime in 2017 Natural Resources Area in south of Lake Ozette- DNR land- how that affects potential future spawning RMAP- DNR current RMAP status

The meeting was adjourned at 3:15pm.

### Attachment 1.

# Meeting Attendees

Name	Affiliation
Pat Crain	Olympic National Park
Joe Hinton	Makah Tribe
Deb Kucipeck	Clallam County
Jessie Hanawalt	Washington Department of Natural Resources
Dave Kloempken	Washington Department of Fish and Wildlife
Ed Bowen	Ozette Citizen
Angela Tetnowski	Makah Tribe
Frank Hansen	North Pacific Coast Lead Entity (NPCLE)/Olympic
	Natural Resources Center (ONRC)
Rich Osborne	Washington Coast Sustainable Salmon Partnership
	(WCSSP) / Olympic Natural Resources Center
	(ONRC)
Jess Helsley	Washington Coast Sustainable Salmon Partnership
Katie Krueger	Quileute Tribe, NPCLE, WCSSP
Bonnie Shorin	National Marine Fisheries Service
Shannon Murphie	Makah Tribe
Claire Chase	Triangle Associates
Rachel Aronson	Triangle Associates

## **Draft Meeting Summary**

Lake Ozette Sockeye Steering Committee August 30th, 2016// 10:15am-3:15pm Location: Sekiu Community Center

### **Action Items and Decisions**

#### **Action Items**

Action Item Owner	Timeframe	
Bonnie Shorin, NMFS		
Work with Pat Crain to review notes from the Predation Workshop in preparation for the proceedings report.	September 2016	
Send hard copies of the Lake Ozette Sockeye brochure to Jess Helsley, Frank Hanson, and Roy Morris.	ASAP	
Katie Krueger, Quileute Tribe		
Bring Lake Ozette Sockeye brochures to the Forks library.	When available	
Jenny Knoth		
Share photos of Coal Creek culvert-to-bridge project with LOSSC.	When available	
Reach out to Professional Education Institute (PEI) and/or NatureBridge to see if they can work with LOSSC to adapt school curriculum for Lake Ozette sockeye.	Fall 2016	
Connect Bonnie Shorin to NatureBridge.	<u>Fall 2016</u>	
Others		
Shannon Murphie will share Jon Scordino's recently published peer reviewed article on predation.	Fall 2016	
Triangle Associates		
Share example form letter to approve/support grants; add creation of LOSSC approval/support letter on December meeting agenda.	Fall 2016	
Send out LOSSC email distribution list to review and update.	For December meeting	
Invite representatives from DNR and WDFW to next LOSSC meeting.	For December meeting	

#### **Decisions**

- The Committee approved the draft December 9th, 2015 LOSSC meeting summary.
- The Committee agreed on some feedback for NOAA and NPS about the Predation Workshop proceedings report.
- The Committee agreed to various changes to the Near-Term Priority List; the updated list will be shared in advance of the December LOSSC meeting.

#### **Introductions and Agenda Review**

Claire Chase, facilitator from Triangle Associates, welcomed the Lake Ozette Sockeye Steering Committee (LOSSC, or "the Committee"), and LOSSC members introduced themselves (*see Attachment 1*). The Committee reviewed the proposed agenda and a member asked for an additional item: an initial check-in on the operation of the Committee's function and structure, including subcommittees.

#### **General Announcements**

Members shared information about the following:

- The surface of lake is cooler by 10 degrees while the water temperature remains about 60 degrees constant.
- There are more trout in the lake, but less observed on surface.
- There is a non-native invasive weed taking root near Swan Bay Landing.
- The Salmon Feed Poetry Read will be September 17 in Forks.

#### **Meeting Summary Review**

The Committee reviewed the draft December 9<sup>th</sup>, 2015 LOSSC meeting summary. A correction was noted to change a reference from Makah to Quileute. One member asked to check with Pat Crain about the reference to the Quinault basin. The Committee agreed to change "develop" a Floodplains by Design plan to "make inquiry into" a Floodplains by Design plan in the action items. The Committee accepted the meeting summary with the proposed changes noted above, and an update to Frank Hanson's contact information.

#### Review of April 28-29, 2016 Predation Workshop

Bonnie Shorin is working with Pat Crain and John Wullschleger to finalize the proceedings report from the Predation Workshop.

Some LOSSC members shared information learned from the workshop, primarily that fish productivity is key while properly addressing some predatory species is more complicated than originally thought. LOSSC will further discuss outcomes and information learned from the workshop once the proceedings report is finalized and shared.

The Committee's input for the proceedings report included:

- 1. Explain the connection between otters in Wyoming and Ozette/Olympic Peninsula otters; compare and contrast the information and how it can be useful to the Ozette.
- 2. Explain the connection between Lake Washington sockeye and Ozette Sockeye; compare and contrast.
- 3. Distinguish between different predators and their impact on sockeye.
- 4. Clarify non-lethal ideas presented by workshop speakers.
- 5. Include tribal needs from their presentations.
- 6. Be informative for people who could not attend.

After the proceedings report is finalized, this Committee will use it to target which work, projects, and funding to advance. LOSSC might reconvene the Predation Workgroup then.

#### Review and Updates to Near-Term Priority List (NTPL)

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

 Shannon Murphie did not receive the USFWS grant, and now is planning to apply for funding from another source. This grant would be multi-year and could add components to work beyond the abstract included in the NTPL. She welcomed

- LOSSC members to partner on the application, due in April 2017. Shannon agreed to bring more information about the grant and her application to the December LOSSC meeting.
- LOSSC agreed that it would be helpful to have a form letter for funding sources for any project that helps implement the Lake Ozette sockeye recovery plan. The facilitators offered to draft an example and LOSSC will review this at the December meeting.
- LOSSC agreed to change the wording in this section to "awaiting results of proceedings" to better reflect the current status of the predation report.
- The Committee discussed whether eDNA could be used to help investigate predators. The facilitators will follow up with Pat Crain to ask about that potential.

#### PRA-7: DIDSON

- NOAA's new BiOp to be released in December assumes that the weir is removed and the DIDSON replaced with Aris. NOAA is looking for funding to help install the device and train users. The sonar device will use finer images to show fish, and will still use a deflection weir.
- The Makah Tribe acquired the boat needed to perform data collection.
- The new Aris system is used multi-seasonally; April through July it is in-stream, then in winter it can be removed and boat mounted.

# HRA-8: Ongoing basin-wide invasive weed assessment and mapping, and management and reduction strategy

- A Committee member suggested the use of student volunteers from Huxley College for weed assessment help.
- There is a possibility for future funding from the Washington Coast Restoration Initiative (WCRI).

#### HRA-8/PEA-4, 6, 11: Lake Ozette watershed restoration project

- The knotweed assessment is proceeding on schedule.
- All requests have been sent to landowners for permission for inventory; many but not all had been approved at the time of the meeting.
- The Committee clarified that Clallam County participates in the work in an advisory capacity, not as a co-sponsor.

#### HRA-8/PEA-4, 6, 11: Exotic Plants Mapping

• There was not much information shared on this potential project at this meeting except that Janet Coles, plant ecologist with ONP, could be a potential partner.

#### HRA-21: NPS Lake Outlet Rehabilitation

- Existing LIDAR data needs to be evaluated for invasive plants.
- A Committee member thought that tribal staff might be able to help.
- Mike Haggerty will reach out to Andy Ritchie before he leaves his Olympic National Park assignment to return to USGS to see if they can take a day to walk the river and catalogue the weed species.

<u>PEA-6: Public Education and Outreach</u> See Public Outreach Updates on Page 5.

# RME 17-18: "Understanding Effects of Upwelling and Fine Sediment on Egg Survival of Lake Ozette Sockeye, Olympic National Park"

- The Committee discussed a proposal to remove invasive plants, create pocket beaches, and remediate Olsen's Beach and along Umbrella Creek, to see if conditions are good to support natural spawners.
- It was clarified that at Olsen's Beach, the plan is to rehabilitate the habitat (no eggs placed) and let the Lake Ozette Sockeye (LOS) spawn naturally. At Umbrella Creek, the plan is to remediate the habitat and then put egg incubators in to see if the smolt survive. This plan would not include egg release, and is subject to landowner engagement.
- A description was given for how the incubators work. Some members expressed concerns that the smolt are not being released. It was explained that a separate permitting process is needed if surviving smolt from incubator eggs can be released.

### Coal Creek Culvert-to-Bridge Replacement

 The bridge was set in place during this meeting; photos will be made available to post.

# HRA-14: Add LWD accumulations in the mainstem of Umbrella Creek to re-activate its floodplain where disconnected and store suitably sized spawning gravels where absent (Section 7.2.2.3.1 and 7.2.2.5)

- The Committee discussed large woody debris installation (LWD) for identified beach areas where the sediment is cemented in place. A member explained how LWD can allow for waves to prevent sediment cementing, leaving more desirable spawning habitat. It was noted that where wood is recruited naturally, beaches are in much better shape for spawning.
- Another member noted that lake residents are often nervous about the placement of LWD due to potential property flooding. The facilitators will correct the NTPL to refer to the Lower Ozette River instead of system which could imply the southern portion of the lake.
- The Committee agreed to change the reference to "evaluating placement of LWD."

#### **LOSSC Operations Review**

Committee members discussed a new agenda topic for the next meeting. They asked that the discussion incorporate questions such as:

- How is the overall functionality of LOSSC working?
- How has the role and composition of the Admin Team changed? Does it need updating and clarification?

The Committee asked the facilitators to frame these questions in the next agenda and provide materials; including a re-affirmation of Admin Team, tasks, and other subcommittees, and how to build in feedback for NOAA and WCSSP.

The Committee also agreed there needs to be a new effort to bring in more participants, especially landowners. The facilitators will send out the email distribution list with the

December meeting materials. The Committee also agreed to discuss at the next meeting whether it make sense to have a LOSSC meeting in evening, even if once every 2 years.

#### **NOAA's 5-Year Status Update**

Bonnie Shorin provided a status update on the 5-year sockeye status review and summary chart. The status review was developed over the last 18 months, soliciting information on members, issues the habitat was facing, concerns, trends in habitats, and data on abundance/productivity. The Northwest Fisheries Science Center created trends which revealed that the LOS status is unchanged. Details including supplementation from the Makah showed concerns regarding habitat beach spawning and losing LOS in the lake to invasive species. Other factors, especially climate change, are pressing on the water temperature and amount, affecting hatcheries release timing and disease. A two year shift in the pattern of temperature and rainfall is a concern. There is a need to improve productivity, and the current restoration is insufficient, which makes recovery harder to achieve.

#### Public Outreach

The Public Outreach Subcommittee had met before the LOSSC meeting and brainstormed strategies to reach out to residents in the Lake Ozette basin, both community and school activities. Upon reviewing the Subcommittee's call summary, the Committee discussed several ideas about how to reach a broader community. The discussion included a review of the effort involved versus the success, and how best to engage students. The Committee agreed on these outreach goals:

- LOSSC members can attend existing community events to share information. For example, the Salmon Feed Poetry Read, September 17<sup>th</sup>.
- Wider Lake Ozette Sockeve brochures distribution.
- Outreach to K-8 teachers to incorporate information about LOS into their curriculum.
- Reach out to PEI/NatureBridge to adapt curriculum for LOS.

#### **Funding Sources**

- Jess Helsley is working on more funding from the Salmon Recovery Funding Board for nearshore projects and pocket estuaries. The WCRI funding package is included in the Restoration Conservation Office agency budget and includes 19 projects.
- The Committee can soon start to think about next WCRI funding cycle, and develop a strategy of how to seek funding for specific projects.
- One member encouraged others—in addition to Tribes—to apply for NOAA community grants for data gaps in shorelines for fish.

#### **Optional Reports**

Announcements or reports from spring/summer were given by Committee members, including:

- The Makah are pulling the adult weir out of the river this week and installing it in Umbrella creek weir before rains.
- September 20<sup>th</sup> is the next Lead Entity Group meeting, and on September 12th Patrick Macready will present on ocean acidification.

# **Next Steps**

The Committee reviewed action items from this meeting and potential topics for the December LOSSC meeting. The facilitators will work with the Admin Team to identify the next date in early December and will send out that date in a few weeks with the draft meeting summary. Future meeting topics:

- Predator report
- Shannon Murphie's research proposal
- Blank letter of support to discuss
- General administration/subcommittee talk
- Current email distribution list and potential new participants

# Attachment A: Meeting Participants

	Name	Affiliation	Telephone	Email
1	Ed Bowen	Ozette Citizen		rockypt@olypen.com
2	Duane Grego	NPS-Ranger Supervisor	360-460- 1654	duane_grego@nps.gov
3	Daniel Hall	NPS-Ranger	360-593- 2240	daniel_hall@nps.gov
4	Frank Hanson	NPCLE-OWNRC	360-640- 1861	fsh22@us.edu
5	Jess Helsley	Washington Coast Sustainable Salmon Partnership	208-413- 1120	jess@wcssp.org
6	Joe Hinton	Makah Tribe	360-963- 2784	mtchoko@olypen.com
7	Jenny Knoth	Green Crow	360-460- 2613	jenny@greencrow.com
8	Deborah Kucipeck	Clallam County	360-417- 2563	dkucipeck@co.clallam.wa.us
9	Katie Krueger	Quileute Tribe, Natural Resources	360-374- 2265	katie.krueger@quileutetribe.com
10	Mike Libera	Lake Ozette inholder	360-457- 5662	mikelibera@tfon.com
11	Roy Morris	Lions Int., local	360-963- 2442	able@olypen.com
12	Shannon Murphie	Makah Tribe	360-640- 5159	shannon.murphie@makah.com
13	Bonnie Shorin	NOAA's National Marine Fisheries Service	360-753- 9578	bonnie.shorin@noaa.gov
14	Tim Tynan	NOAA's National Marine Fisheries Service	360-753- 9579	timtynan@noaa.gov
15	Claire Chase	Triangle Associates	206-583- 0655	cchase@triangleassociates.com
16	Trina Blake	Triangle Associates	206-583- 0655	tblake@triangleassociates.com