ACC Participants Present (16)

Eli Asher, LCFRB (teleconference)
Jeremiah Doyle, PacifiCorp Energy
Pat Frasier, WDFW
Diana Gritten-MacDonald, Cowlitz PUD (teleconference)
Adam Haspiel, USDA FS
LouEllyn Jones, USFWS (teleconference)
George Lee, Yakama Nation
Erik Lesko, PacifiCorp Energy
Kimberly McCune, PacifiCorp Energy
Kate Miller, Trout Unlimited (teleconference)
Todd Olson, PacifiCorp Energy
Nathan Reynolds, Cowlitz Indian Tribe
Frank Shrier, PacifiCorp Energy

Gardner Johnston, Inter-Fluve
Peter Barker, LCFEG
Tony Meyer, LCFEG

Calendar:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 14, 2010</td>
<td>ACC Meeting</td>
<td>Merwin Hydro</td>
</tr>
<tr>
<td>February 11, 2010</td>
<td>ACC Meeting</td>
<td>Merwin Hydro</td>
</tr>
</tbody>
</table>

Assignments from December 10 2009 Meeting:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCune: Email the updated aquatic fund comment matrix to the ACC to include the full proposal selections and provide a 7-day comment period before the selection is finalized.</td>
<td>Complete – 12/14/09 (comments due 12/21/09)</td>
</tr>
</tbody>
</table>

Assignments from November 12, 2009 Meeting:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinne and Adams: Review fish trap daily return numbers and confirm best 30-day shut down period to address hatchery and construction needs specific to Merwin Trap.</td>
<td>Pending</td>
</tr>
<tr>
<td>McCune: Invite a representative from the LCFEG to attend the December ACC meeting and discuss river changes/movement impacts, if any, to the North Fork Lewis RM 13.5 Habitat Enhancement project.</td>
<td>Complete – 11/12/09 &amp; 12/2/09 LCFEG attended on 12/10/09</td>
</tr>
</tbody>
</table>

Assignments from April 9, 2009 Meeting:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC: Further investigate WDFW carcass survey methods established in 1978 and determine “next step” regarding modifications needed, if</td>
<td>Pending as of 12/10/09</td>
</tr>
</tbody>
</table>
Opening, Review of Agenda and Meeting Notes

Frank Shrier (PacifiCorp Energy) called the meeting to order at 9:10am. A roundtable introduction was conducted for the benefit of those on the conference call. Shrier reviewed the agenda for the day and requested any changes/additions. Nathan Reynolds (Cowlitz Indian Tribe) requested time to provide an update on the 2009 aquatic fund project called Plas Newydd RM 2.0 Off-Channel Habitat Enhancement Project.

Shrier requested comments and/or changes to the ACC Draft 11/12/09 meeting notes. No changes were requested. The meeting notes were approved at 9:20am.

Plas Newydd RM 2.0 Off-Channel Habitat Enhancement Project – Nathan Reynolds

Reynolds informed the ACC that the Cowlitz Indian Tribe and PacifiCorp Energy are working through a few remaining contractual issues, which has adversely affected the Tribe’s ability to complete the project during the summer 2009 ecological window. The contract issues are not specific to the Tribe but more global PacifiCorp requirements relating to liability and insurance requirements.

George Lee (Yakama Nation) and Kate Miller (Trout Unlimited) joined

Reynolds expressed that the Tribe still wants to do the project and there is no change in the funding or project details. He formally requested ACC approval to delay the project until summer 2010.

The ACC attendees agreed that the delay is acceptable and approved delaying the project to summer 2010 while PacifiCorp Energy and the Cowlitz Indian Tribe complete the contractual details.

Nathan Reynolds departed
Diana Gritten-MacDonald joined

Lower Columbia Fish Enhancement Group (LCFEG) Presentation to ACC – Gardner Johnston (Inter-Fluve)

LCFEG North Fork Lewis RM 13.5 Habitat Enhancement – In response to ACC concern expressed at the ACC meeting on November 12, 2009 relating to the approved 2009 project (LCFEG North Fork Lewis RM 13.5 Habitat Enhancement) Johnston provided a PowerPoint presentation (Attachment A) to address river changes/movement in the project area and to discuss impacts, if any, to the project.

Johnston addressed potential future changes such as meander scrolling (continued erosion and bar formation) and avulsion/split flow condition (neck cutoff). He also informed the ACC attendees that the right bank suffered 40 feet of bank loss from the January 2009 high flow event.
Johnston reviewed evidence for and against a mature meander to include the effects on the project if such an event were to occur. He also reviewed evidence for and against re-occupation of the pre-1964 channel and the potential effects of a split-flow condition, which is the more likely scenario. Much of the erosion is due to saturated soils, although he is not expecting any measurable effect on the left bank based on what is being seen at the project area in the past and present.

Johnston summarized by addressing if there is risk, what the risk is and is it significant. What the time-frame is (which depends on the hydrology), how the hydrosystem limits flood and sediment disturbance and what are the potential affects to the project?

Johnston further communicated how fish are currently using the area of the proposed projects. Steelhead, Chinook and coho are present according to surveys recently conducted.

Gardner Johnston (Inter-Fluve), Peter Barker (LCFEG) and Tony Meyer (LCFEG) departed

<Break 10:10am>
<Reconvene 10:20am>

David Hu (US Forest Service) joined and Diana Gritten-MacDonald (Cowlitz PUD) departed

Update from Hatchery and Engineering Subgroup

Erik Lesko (PacifiCorp Energy) informed the ACC attendees that the Subgroup met on November 19, 2009, to discuss completion of the first major hatchery project – Pond 15 Upgrade at Lewis River Hatchery to include lessons learned, what worked and what did not, how the coordination between PacifiCorp, contractors and WDFW was handled and whether changes need to be made. Also discussed was the 2010 construction activity for projects such as Ponds 13 & 14. Lesko communicated to the ACC attendees that the Subgroup reviewed the construction schedule to ensure there is a place for fish during construction work windows so tight coordination is needed in 2010.

Net Pens Update

Todd Olson (PacifiCorp Energy) informed the ACC attendees that by the end of June 2010 the net pens must be purchased and installed for use. PacifiCorp is moving forward with purchasing the net pens (similar to the high density polyethylene pens the State uses). When the complete design is available PacifiCorp will share with the ACC. Frasier suggested asking what the expected life span is for the polyethylene.

2009/2010 Aquatic Fund Pre-proposals – selection of pre-proposals for further consideration

Olson provided a cursory review of the Lewis River Aquatic Fund Evaluation 2009/10 Matrix, dated December 8, 2009, to include the ACC and Utility evaluation of pre-proposals (Attachment B) and which ones thus far have been selected to proceed to full proposal.
Upon review and discussion of each of the ten aquatic fund project pre-proposals submitted the following were selected by the ACC to proceed to full proposal.

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Applicant</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>USDA Forest Service</td>
<td>Pepper-Lewis Side Channel Instream Habitat Restoration</td>
</tr>
<tr>
<td>4</td>
<td>USDA Forest Service</td>
<td>2010 Nutrient Enhancement on Pine Creek</td>
</tr>
<tr>
<td>5</td>
<td>USDA Forest Service</td>
<td>Pine Creek Instream and Floodplain Structures for Bull Trout and Steelhead</td>
</tr>
<tr>
<td>6</td>
<td>Lower Columbia Fish Enhancement Group</td>
<td>NF Lewis RM 13.5 Off-Channel Habitat Enhancement</td>
</tr>
<tr>
<td>7</td>
<td>U.S. Fish &amp; Wildlife Service</td>
<td>Bull Trout Habitat Use in Tributaries to Swift Reservoir and the NF Lewis River</td>
</tr>
<tr>
<td>8</td>
<td>U.S. Fish &amp; Wildlife Service</td>
<td>Bull Trout Population Structure in the Lewis River Basin</td>
</tr>
<tr>
<td>9</td>
<td>Gifford Pinchot Task Force</td>
<td>Clear Creek Habitat Improvement Project</td>
</tr>
<tr>
<td>10</td>
<td>Cowlitz Indian Tribe</td>
<td>Eagle Island Habitat Enhancement</td>
</tr>
</tbody>
</table>

The following were not selected to proceed to full proposal:

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Applicant</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Olympic Resource Management</td>
<td>9015/30 Rd Fish Passage Upgrade</td>
</tr>
<tr>
<td>2</td>
<td>USDA Forest Service</td>
<td>Sheep Bridge Removal</td>
</tr>
</tbody>
</table>

For those ACC representatives absent at today’s meeting and in accordance with the Terrestrial and Aquatic Coordination Committees Structure and Ground Rules it states:

“The Coordinators will notify absent parties of the “informal” decision via email promptly after the TCC or ACC meeting and request a decision response by the end of the 7 day period. If a Representative fails to respond in the 7-day period, their silence will be considered as no objection to the decision”.

Kimberly McCune (PacifiCorp Energy) will email the updated matrix to the ACC to include the full proposal selections and provide a 7-day comment period before the selection is finalized.

Diana Gritten-MacDonald joined

All ACC attendees agreed with George Lee (Yakama Nation) and Pat Frasier (WDFW) that ACC representatives must be in attendance or appoint a proxy for pre-proposal selection meetings also. The same rules that apply for funding selection meetings should apply at the meeting to decide if a project is to proceed to full proposal.
David Hu (US Forest Service) departed

Monitoring and Evaluation Plan (M&E) – Update from Subgroup

Shrier communicated to the ACC attendees that the M&E Plan needs to go to the Commission in final form on or before June 26, 2010. Shrier further expressed that the Subgroup is talking about upper river monitoring efforts, spawning distribution, abundance and incorporating methods that coincide with the recommendations identified in the National Marine Fisheries Service (NMFS) draft guidelines for monitoring. The Subgroup is making progress with valuable and necessary discussions.

Study Updates

Shrier and Lesko provided the following study updates:

*Swift Upper Release* – On schedule; everything will soon be ready at the upper release, however PacifiCorp is waiting for watering up the system until a vacuum valve arrives from the factory. Flows are expected to be initiated soon after the first of the year.

*Hatchery and Supplementation (H&S) Plan* – Currently on schedule and working with NMFS to file the H&S Plan on or before December 26, 2009. Lesko informed the ACC attendees that the genetic piece has been expanded; fish do not have to be exclusively North Fork Lewis River pedigree fish (though this remains the preference), although the fish must be wild winter. The fish still have to reach a certain level of assignment before being used and we won’t keep them if they assign to areas outside the Cascade strata. The monitoring piece will be discussed after the first of next year.

*Release Pond Design* - PacifiCorp working on property issue with the church for easement or fee simple purchase. Recently discovered that the subject property is zoned for 5-acre parcels and the church has a 3-acre parcel available. An easement is the likely approach at this time due to time constraints in requesting a variance to the zoning. PacifiCorp requested an extension from the Commission to allow time for the property acquisition.

*Acclimation Pond Plan* – Self-imposed deadline of June 2010; no official Commission deadline.

*Stranding Study* – Coordinating with WDFW’s salmon surveys. Consultant is working on next steps; gathering information after flow change in January 2010; they will be making observations of different flow changes over the winter and next spring.

Yale Entrainment Net – In place and operating; discovered a drag on the net in a couple of areas so PacifiCorp has installed some more robust floats.

LouEllyn Jones (USFWS), Kate Miller (Trout Unlimited), Diana Gritten-MacDonald (Cowlitz PUD), Adam Haspiel (US Forest Service) and Pat Frasier (WDFW) departed
Baseline Monitoring Presentation to ACC (next steps) – Jeremiah Doyle

Jeremiah Doyle (PacifiCorp Energy) provided a PowerPoint presentation (Attachment C) titled, “2009 North Fork Lewis River Baseline Assessment - Field Activities Overview & Next Steps, dated December 10, 2009, as an overview of initial results and background of what was accomplished, why the work was done and what is left to complete.

The background includes:

- Concern was raised about the possible lack of knowledge of the aquatic baseline in the basin and that this information would be needed to assess changes to the aquatic community after full anadromous fish reintroduction.
- No requirement in the Settlement Agreement or Licenses for the Utility to solely perform these activities prior to anadromous fish reintroduction.
- Baseline Assessment Subgroup was formed in late 2008 and is comprised of representatives from the USFWS, USDAFS, CIT, WDFW, and PacifiCorp. Subgroup members agreed Baseline activities would be a collaborative effort.
- Early 2009, subgroup put together a working Plan complete with identified index sites, objectives, methodologies, and schedule of activities.

Doyle informed the ACC attendees that the subgroup identified 14 study streams and reservoirs within the North Fork Lewis River Basin and provided maps which illustrated the Lewis River aquatic baseline assessment index sites.

Doyle identified two main objectives:

- Aquatic Species Composition and Relative Abundance within each selected site
- Stable Isotope Analysis (SIA) from a sub-sample of captured species

He discussed the methods for capturing fish and macroinvertebrates from within the different study areas as well as the background and methodology for performing stable isotope analysis.

Eli Asher (LCFRB) joined

Doyle also provided detailed results of total fish handled, as well as total SIA and macroinvertebrate samples collected.

The next steps identified include analyzing the SIA samples and obtaining the funding needed, analysis of macroinvertebrate samples for species composition, analysis of fish species composition, operation of a screw trap at the head of Swift reservoir, and the final report preparation.

New Topics
None
Agenda items for January 14, 2010

- Review December 10, 2009 Meeting Notes
- Update Monitoring and Evaluation Plan Subgroup
- Fish Passage Designs
- Study/Work Product Updates

Rhidian Morgan (Plas Newydd, LLC) joined

Public Comment

Rhidian Morgan informed the ACC attendees in attendance that he is representing Plas Newydd LLC as an interested party of the Lewis River habitat enhancement efforts. He joined the ACC meeting today because of the 2009 approved Cowlitz Indian Tribe project called, “Plas Newydd RM 2.0 Off-Channel Habitat Enhancement Project”, which was scheduled for the summer of 2009 but the work did not take place.

Shrier informed Morgan that earlier in the meeting today the ACC approved an extension of the Cowlitz Tribe project to summer 2010 due to additional time needed to complete contractual requirements between the Tribe and PacifiCorp Energy.

Morgan expressed that he is in support of getting the project done as soon as possible without unnecessary overhead expense. Shrier suggested scheduling an ACC site visit of the Cowlitz Tribe 2009 approved project in approximately March 2010 to see where the project will be completed and the work that will be done. Morgan agreed that this was a good suggestion.

In addition, McCune informed Morgan that he has been included on the ACC email distribution list for not only upcoming meetings but to keep him informed of ACC activity.

Next Scheduled Meetings

<table>
<thead>
<tr>
<th>January 14, 2010 (possible conference call)</th>
<th>February 11, 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merwin Hydro Control Center</td>
<td>Merwin Hydro Control Center</td>
</tr>
<tr>
<td>Ariel, WA</td>
<td>Ariel, WA</td>
</tr>
<tr>
<td>9:00am – 3:00pm</td>
<td>9:00am – 3:00pm</td>
</tr>
</tbody>
</table>

Meeting Adjourned at 1:30 p.m.

Handouts

- Final Agenda
- Draft ACC Meeting Notes 11/12/09
- Attachment A - LCFEG North Fork Lewis RM 13.5 Habitat Enhancement PowerPoint presentation, dated December 10, 2009
- Attachment B – Lewis River Aquatic Fund Evaluation 2009/10, dated December 8, 2009
- **Attachment C** – 2009 North Fork Lewis River Baseline Assessment - Field Activities Overview & Next Steps, dated December 10, 2009
Lewis River RM 13.5

ACC Project - 2010 Construction

Placement of logs on river left bank
Lewis River RM 13.5

SRFB Project – Side Channel Design

- Side-channel
- Backwater channel
- Tributary
- Off-channel
Lewis River RM 13.5

Potential Future Changes in Project Reach

- Avulsion (neck cutoff)
- Split Flow Condition
- Meander scrolling (continued erosion and bar formation)
- Re-occupation of pre-1964 channel
Avulsion (neck cutoff)

• Evidence for:
  – “Mature” meander
    • Small radius of curvature
    • Signs of increased aggradation
  – Terrace overtops during 50-100 year events
• Evidence against:
  – Hydraulic control at bend apex
  – Legacy incision
  – Filling of flood overflow channels
  – Potential future bank protection
  – Limited material from upstream
  – River location over past 150+ years
• Affect on the project:
  – Potential abandonment
  – Potential split-flow condition (enhanced complexity)
  – Old channel likely to remain active as high flow side-channel
Re-occupation of pre-1964 channel

• Evidence for:
  – Past location of river at this site
  – Flood flows frequently overtop terrace

• Evidence against:
  – Would have to take a higher sinuosity / lower gradient path
  – High roughness throughout terrace
  – Backwatered condition at high flows
  – Legacy incision
  – Limited material from upstream

• Affect on the project:
  – Potential burial or abandonment
  – Potential split-flow condition
  – Structures may or may not continue to provide habitat value
Continued Meander Scrolling

• Evidence for:
  – Trends in air photo record
    • Avg of ~3.0 ft/year since 1939
  – Signs of increased aggradation
  – Highly erodible materials on river-right bank

• Evidence against:
  – Lack of bar formation on inside bend
  – Backwater impacts during large floods
  – Limited material from upstream
  – Potential future bank protection

• Affect on the project:
  – May take many years before structures are affected
  – Partial burial of LWD on point bar
  – High flow habitat provided by structures
Split Flow Condition

• Evidence for:
  – Observed mid-channel aggradation
  – Development of river-left thalweg
  – Vigorous river-left bank vegetation (resistant boundary condition)
  – Area of past island development

• Evidence against:
  – Limited material from upstream
  – Limited LWD in system

• Affect on the project:
  – Increased complexity
  – Logs likely to still function as intended
Summary

• Is there risk?
• What is the risk?
• Is it significant?
• What’s the time-frame?
  – Depends on hydrology
  – Hydrosystem limits flood and sediment disturbance
• What is the affect on the project?
Design Progress

PROJECT SITE MAP

Lewis River (River Mile 13-14)
Habitat Enhancement Project
Lower Columbia Fish Enhancement Group
Stockpiled material
## Lewis River Aquatic Fund – ACC Evaluations of 2009-2010 Project Proposals

<table>
<thead>
<tr>
<th>ACC Division</th>
<th>Applicant</th>
<th>Project Title</th>
<th>WDFW</th>
<th>Fish First</th>
<th>LC TRB</th>
<th>Yakama Nation</th>
<th>USEF</th>
<th>Cowlitz Indian Tribe</th>
<th>USFWS</th>
<th>Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Olympic Resource Management</td>
<td>9053/044 Fish Passage Upgrade</td>
<td>From the legal descriptions provided, these culverts appear to be on high-gradient headwater reaches of PL, where the modeled anadromous fish zone is PL 1. This is listed as a relatively low priority for restoration, according to the LCRB Habitat Strategy. From the description provided, the presence of anadromous fish is unclear. While improved sediment and large wood transport is desirable, the cost of the project seems unrealistic and the Tribe disagrees with the project. We do not support requesting a full proposal for this project.</td>
<td>Agree with that project location may not provide the most beneficial ACC target. Recommend no further ACC consideration.</td>
<td>The September 4, 2009 notification requesting submission of pre-proposals for the Aquatics Fund clearly states: “To be considered, applicants must submit a completed Pre-Proposal Form.” This project’s managers did not complete the required form nor supply the required information in the brief letter. It would seem the project proponents have a legal obligation to start with their own funds. Having said this, the Aquatics Fund Strategy Plan and Administrative Procedures reference Sections 7.5.5.1 of the Lewis River Settlement Agreement which specifically states: The Aquatics Fund shall not be used to fund Resource Projects that any entity is otherwise required to fund (or perform) including obligations under this Agreement or the New Economic use of the Aquatics Fund, unless by agreement of the ACC. The Tribe disagrees. The fund has been established to address the forest service procrastination. We support the recommendations of the Tribe. The Tribe is in agreement with the Utilities that this project should not move forward. Recommendation: Do not select for full proposal.</td>
<td>No, do not feel this warrants a full proposal. Agree with utilities comments.</td>
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<tr>
<td>2 USDA Forest Service</td>
<td>Sheep Bridge Removal</td>
<td>The project is located upstream of the 12/08-mapped anadromous fish area in the mainstem Lewis River. The actual gate to the project is completed and accessible, since much of the treated wood has already treated the system and would remain in the system regardless of this project. The need for the project is a direct outcome of poor road maintenance by the Forest Service, and should not be funded with habitat-related funds. We do not support requesting a full proposal for this project.</td>
<td>No further comments at this time. Recommend proceeding to full proposal for further ACC consideration.</td>
<td>The Forest Service needs to be responsible for its property. Since the inception of the Aquatics Fund there have been numerous projects submitted by them which they should be completing with their own funds. Though this project meets the Fund’s objectives, the benefits to fish are relatively low. The amount of Aquatics Fund money available for any on-ground habitat construction projects is finite. There are currently (and will be in the future) many other projects that are a much more appropriate use of the Lewis River Aquatics Fund. Recommendation: Do not select for full proposal.</td>
<td>No, would greatly benefit fish, does not warrant full proposal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 USDA Forest Service</td>
<td>Poplar-Lewis Fish - Channel Instream Habitat Restoration</td>
<td>The Poplar-Lewis fish side channel is located in Lewis River, a 2.5 mile reach in the LCRB Habitat Strategy. Instream wood placement and side channel habitat enhancement are high priority project types. We are interested in the response plans for stabilizing wood in this side channel, since it will be subject to high instantaneous flows. The partnership plan should be more clearly developed, as should an entire project budget. We support requesting a full proposal for this project.</td>
<td>Agree project will also benefit juvenile salmon as well as immature bull trout. Recommendation proceeding to full proposal for further ACC consideration.</td>
<td>The Tribe agrees with the Utilities that the project may proceed to a full proposal. We also agree that the monitoring portion of the budget should be reviewed as an added contribution by the USFWS. In 2009, the ACC sterilized the redfish and there will be no monitoring allowed under the Aquatics Fund. “The monitoring” role has been included in the future. We support requesting a full proposal for this project.</td>
<td>Yes, would like to see full proposal.</td>
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</tr>
<tr>
<td>4 USDA Forest Service</td>
<td>2010 Nutrient Enhancement on Pine Creek</td>
<td>This project is located in Pine Creek and PL. Portions of Pine Creek are Tier 1 according to LCRB’s Habitat Strategy, and LC TRB recognizes the importance of nutrient enhancement as a High priority project type. We will support the Utilities’ recommendation for monitoring information from the three previously funded nutrient enhancement efforts. We support requesting a full proposal for this project.</td>
<td>No further comments at this time.</td>
<td>Recommendation proceeding to full proposal for further ACC consideration.</td>
<td>The Tribe disagrees with the Utilities on this project and does not believe it should be forwarded for a full proposal.</td>
<td>No, would greatly benefit fish, does not warrant full proposal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 USDA Forest Service</td>
<td>Pine Creek Instream and Floodplain Structures for Bull Trout and Steelhead</td>
<td>This project is located in Pine Creek and PL. Portions of Pine Creek are Tier 1 according to LCRB’s Habitat Strategy, and LC TRB recognizes the importance of nutrient enhancement as a High priority project type. We will support the Utilities’ recommendation for monitoring information from the three previously funded nutrient enhancement efforts. We support requesting a full proposal for this project.</td>
<td>Agree the potential benefits of this project are well. Recommendation proceeding to full proposal for further ACC consideration.</td>
<td>The Tribe agrees with the Utilities that the project may proceed to a full proposal. Methodology for achieving the structure needs to be elaborated upon. It seems unlikely the structures will be able to be secured. The budget shows &quot;Material-Trees,&quot; as having a value of $38,890. It is assumed this amount is considered in the Forest Service (though not clearly indicated in the budget). It is also assumed the value of the trees? Are the trees being assessed at current market value? Are the trees going to be harvested or are they going to be salvaged? Overall, instream structures (if any) are beneficial to fish recovery. Recommendation: Select for full proposal.</td>
<td>Yes, would like to see full proposal.</td>
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</tbody>
</table>

In summary, we see a need to have a more limited construction project in order to answer some questions about doing the kind of work in Pine Creek. Can there be three or four types of structures in one sediment mobilization project? What determines construction (i.e., a SOD project in Pine Creek and how might any of the projects that are already proposed help us plan types of projects to fund in the future? Yes, would like to see full proposal. |
Agree with utilities that this is a lot of money. In the full proposal, I'd like to see a justification for the cost and also see if you can get more partners.

Yes, would like to see full proposal.

Disagree with utilities on this. One of the dilemmas of assigning funds to on-the-ground bull trout projects is that we don't know much about which tributaries bull trout are using, where, and how to make sure that our funding does not transfer to another species or habitat. Asking for a full proposal does not commit us to funding it, only to hearing a full proposal and justification. Yes, would like to see full proposal.

Agree with utilities that this is extremely valuable for us in terms of effectiveness monitoring will be implemented and could the monitoring component of the project be included as an in-kind resource? The Tribe agrees this project is beneficial to fish recovery.

The AF is not a large scale monitoring program and does not meet the Fund's objectives. The AF is not an appropriate funding mechanism for this type of project through the Tribe will gladly discuss the project with the USFWS and help them search for an appropriate funding source. The Tribe feels this project does not meet the Funds objectives. It is not an on-the-ground effort and is essentially a large scale monitoring program and does not meet the Fund's objectives. The AF is not an appropriate funding mechanism for this type of project through the Tribe will gladly discuss the project with the USFWS and help them search for an appropriate funding source. The Tribe urges the proponent to identify other funding sources.

Recommend: Do not select for full proposal.

Recommend proceeding to full proposal for further ACC consideration. The Tribe feels this project meets the Funds objectives and should move forward as a full proposal. The project fits very nicely into the LCFRB's recovery plan for the area.

Recommend proceeding to full proposal for further ACC consideration. The Tribe feels this project meets the Funds objectives and should move forward as a full proposal. The project fits very nicely into the LCFRB's recovery plan for the area.

Recommend proceeding to full proposal for further ACC consideration. The Tribe agrees with the Utilities that the project does not provided tangible, on-the-ground results. It is essentially a large scale monitoring program and does not meet the Fund's objectives.

Recommend proceeding to full proposal for further ACC consideration. The Tribe agrees this project is beneficial to fish recovery.

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Recommend proceeding to full proposal for further ACC consideration. The Tribe agrees this project is beneficial to fish recovery.
<table>
<thead>
<tr>
<th>No</th>
<th>Applicant</th>
<th>Project Title</th>
<th>Project Schedule</th>
<th>Benefit</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Lewis River Alliance</td>
<td>Lewis River Alliance Project</td>
<td>December 2010</td>
<td>Involves removal of two culverts and installation of two bridges to allow fish passage.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Columbia River Inter-Tribal Fisheries Commission</td>
<td>Columbia River Inter-Tribal Fisheries Commission Project</td>
<td>December 2010</td>
<td>Involves removal of two culverts and installation of two bridges to allow fish passage.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Lower Columbia Fish Enhancement Group</td>
<td>Lower Columbia Fish Enhancement Group Project</td>
<td>December 2010</td>
<td>Involves removal of two culverts and installation of two bridges to allow fish passage.</td>
<td></td>
</tr>
</tbody>
</table>
Field Activities Overview & Next Steps

2009 NORTH FORK LEWIS RIVER BASELINE ASSESSMENT
Background

- Concern was raised about the possible lack of knowledge of the aquatic baseline in the basin and that this information would be needed to assess changes to the aquatic community after full anadromous fish reintroduction.
- No requirement in the Settlement Agreement or Licenses for the Utility to solely perform these activities prior to anadromous fish reintroduction.
- Baseline Assessment Subgroup was formed in late 2008 and is comprised of representatives from the USFWS, USDAFS, CIT, WDFW, and PacifiCorp. Subgroup members agreed Baseline activities would be a collaborative effort.
- Early 2009, subgroup put together a working Plan complete with identified index sites, objectives, methodologies, and schedule of activities.
Study Area
Subgroup identified 14 study streams and reservoirs within the North Fork Lewis River Basin

Each stream had two 100 meter index sites. Each reservoir had two index areas, one site mid-reservoir and one site in the vicinity of the dam.

- Study Sites

1. Merwin Reservoir
2. Brooks Creek
3. Jim Creek
4. Yale Reservoir
5. Siouxon Creek
6. Cougar Creek
7. Lewis River Bypass Reach
8. Swift Reservoir
9. Swift Creek
10. Drift Creek
11. P8 (tributary to Pine Creek)
12. Rush Creek
13. Cussed Hollow Creek
14. Section of the mainstem Lewis above Lower Falls (control)
Objectives
Two Main Objectives Identified

Aquatic Species Composition and Relative Abundance within each selected site

Stable Isotope Analysis from a sub-sample of captured species
Species Composition & Relative Abundance

Methods-

Fish
- Single-Pass Electrofish from downstream end of index site to upstream point in streams
- One 100ft x 10ft variable mesh tangle net set top to bottom to capture the limnetic profile and two 50ft x 6ft variable mesh tangle nets set perpendicular to the shore in reservoir sites
- Enumerate and measure to caudal fork ALL captured species
- Return captured fish to stream
- Surveys performed once in the spring, summer, and fall to capture seasonal change

Macroinvertebrates
- Kick-net used in place of Serber Sampler
- Plankton from Yale Reservoir captured via vertical plankton tows
- Macro samples preserved with alcohol, plankton samples preserved with formalin
- Surveys performed once in the spring, summer, and fall to capture seasonal change
Stable Isotope Analysis

Background-

- A measure of trophic interaction
- Identifies stable Carbon ($\delta^{13}C$) and Nitrogen ($\delta^{15}N$) isotopes unique to every individual specie and species
- When consumed, traces of these unique C and N isotopes are retained within the consumers tissue
- After each species unique $\delta^{13}C$ and $\delta^{15}N$ tracer isotopes are identified (baseline), an additional analysis can be done to determine the $\delta^{13}C$ and $\delta^{15}N$ composition of all samples
- The basis of this composition analysis indicates who recently ate who or what

Methods-

- Tissue samples taken from a sub-sample of individuals of all species encountered during electrofishing surveys
- Samples taken of differing size-classes to record ontogenetic changes
- 0.5 gram wet weight is needed for analysis
- Small individuals used in the analysis were sacrificed, fin clips were taken of larger individuals (upper or lower lobe of caudal, pelvic fins, portion of pectoral)
- To inhibit bacteria growth samples are required to be immediately frozen. All samples were put on dry-ice in the field and are required to remain frozen until analyzed
Initial Results
Species Composition/Relative Abundance and Stable Isotope Analysis

- 2,415 total fish handled
- 812 SIA samples taken
- 71 macroinvertebrate samples

![Seasonal Species Composition Change - Drift Creek](chart)

- **Spring**: 100, 4, 4, 5, 9, 1, 4
- **Summer**: 116, 2626, 4, 2, 1
- **Fall**: 31, 5, 5

Legend:
- cottid
- longnose dace
- coho
- cutthroat
- bull trout
- rainbow
- large-scale sucker
Seasonal Species Composition Change - Swift Creek

- Cottid: Spring 2, Summer 8, Fall 12
- Longnose dace: Spring 20, Summer 4, Fall 1
- Coho: Spring 1, Summer 1, Fall 1
- Cutthroat: Spring 10, Summer 14, Fall 15
- Bull trout: Spring 2, Summer 1, Fall 1
### Seasonal Species Composition Change - Merwin Reservoir

<table>
<thead>
<tr>
<th>Season</th>
<th>No. Captured</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>8</td>
<td>northern pikeminnow</td>
</tr>
<tr>
<td>Summer</td>
<td>9</td>
<td>large-scale sucker</td>
</tr>
<tr>
<td>Fall</td>
<td>8</td>
<td>largemouth bass</td>
</tr>
<tr>
<td>Fall</td>
<td>1</td>
<td>kokanee</td>
</tr>
</tbody>
</table>

#### Seasonal Composition
- **Spring**: 8 northern pikeminnow
- **Summer**: 9 large-scale sucker
- **Fall**: 8 largemouth bass, 1 kokanee
Next Steps

- Analyze SIA samples
  - 812 samples x $30.00 per sample lab fee = appr. $25k of additional funding needed
- Analysis of macroinvertebrate samples for species composition
  - Analysis to Order; plecoptera, trichoptera, ephemeroptera...
- Analysis of fish species composition
- Operation of a screw trap at the head of Swift reservoir
  - Spring 2010 (Cowlitz Indian Tribe)
- Final Report Preparation