FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
December 10, 2009
Ariel, WA

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:

January 14, 2010	ACC Meeting	Merwin Hydro
February 11, 2010	ACC Meeting	Merwin Hydro

Assignments from December 10 2009 Meeting:	**Status:**
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.	**Complete – 12/14/09 (comments due 12/21/09)**

Assignments from November 12, 2009 Meeting:	**Status:**
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.	**Pending**
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.	**Complete – 11/12/09 & 12/2/09 LCFEG attended on 12/10/09**

Assignments from April 9, 2009 Meeting:	**Status:**
ACC: Further investigate WDFW carcass survey methods established in 1978 and determine "next step" regarding modifications needed, if	**Pending as of 12/10/09**

any, to the 1978 methods.	

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.

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

The following were *not* selected to proceed to full proposal:

Project Number	Applicant	Project Title
1	Olympic Resource Management	9015/30 Rd Fish Passage Upgrade
2	USDA Forest Service	Sheep Bridge Removal

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

<Lunch 12:00pm>
<Reconvene 12:20pm>

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

January 14, 2010 (possible conference call)	February 11, 2010
Merwin Hydro Control Center	Merwin Hydro Control Center
Ariel, WA	Ariel, WA
9:00am – 3:00pm	9:00am – 3:00pm

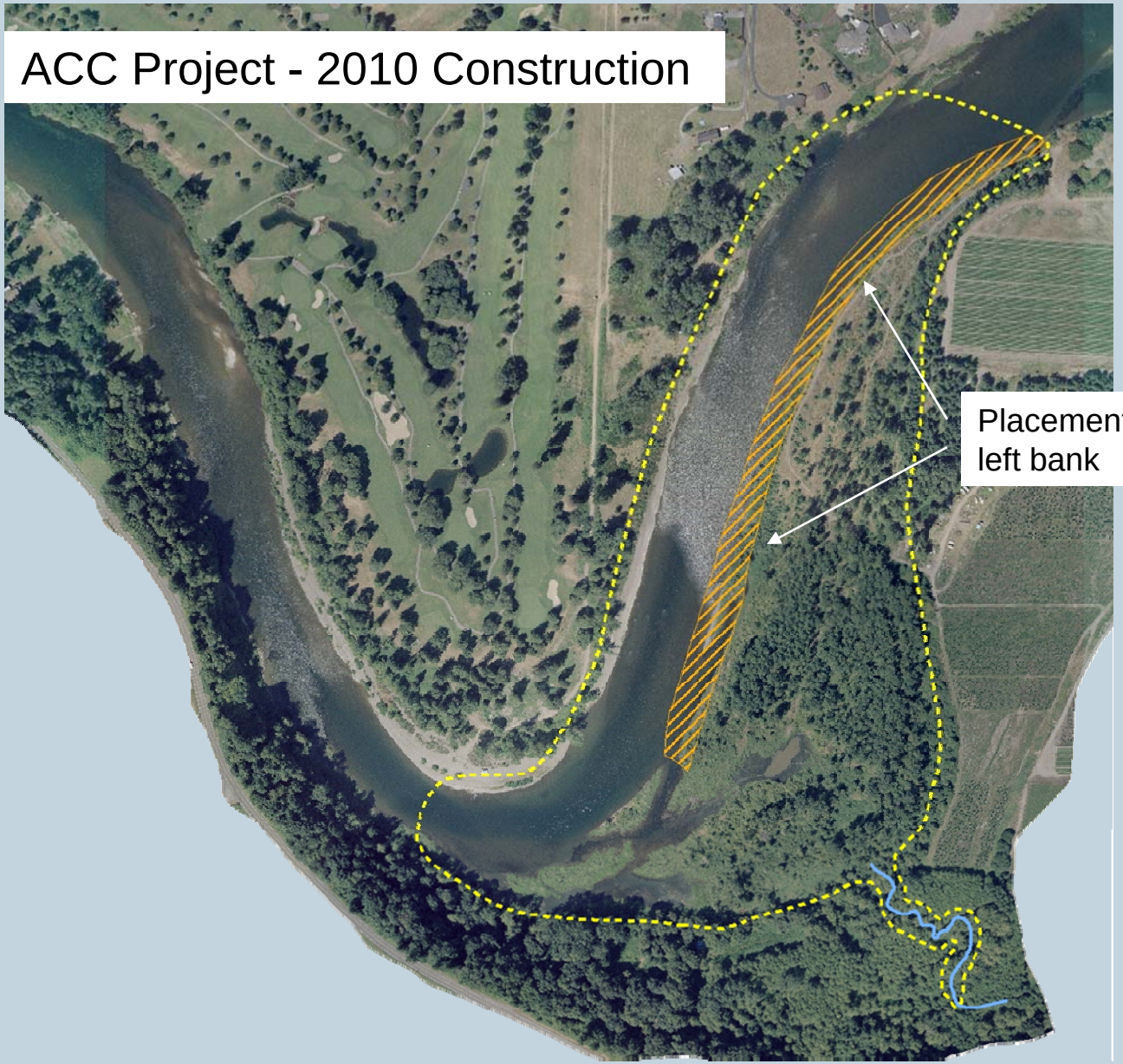
Meeting Adjourned at 1:30 p.m.

Handouts

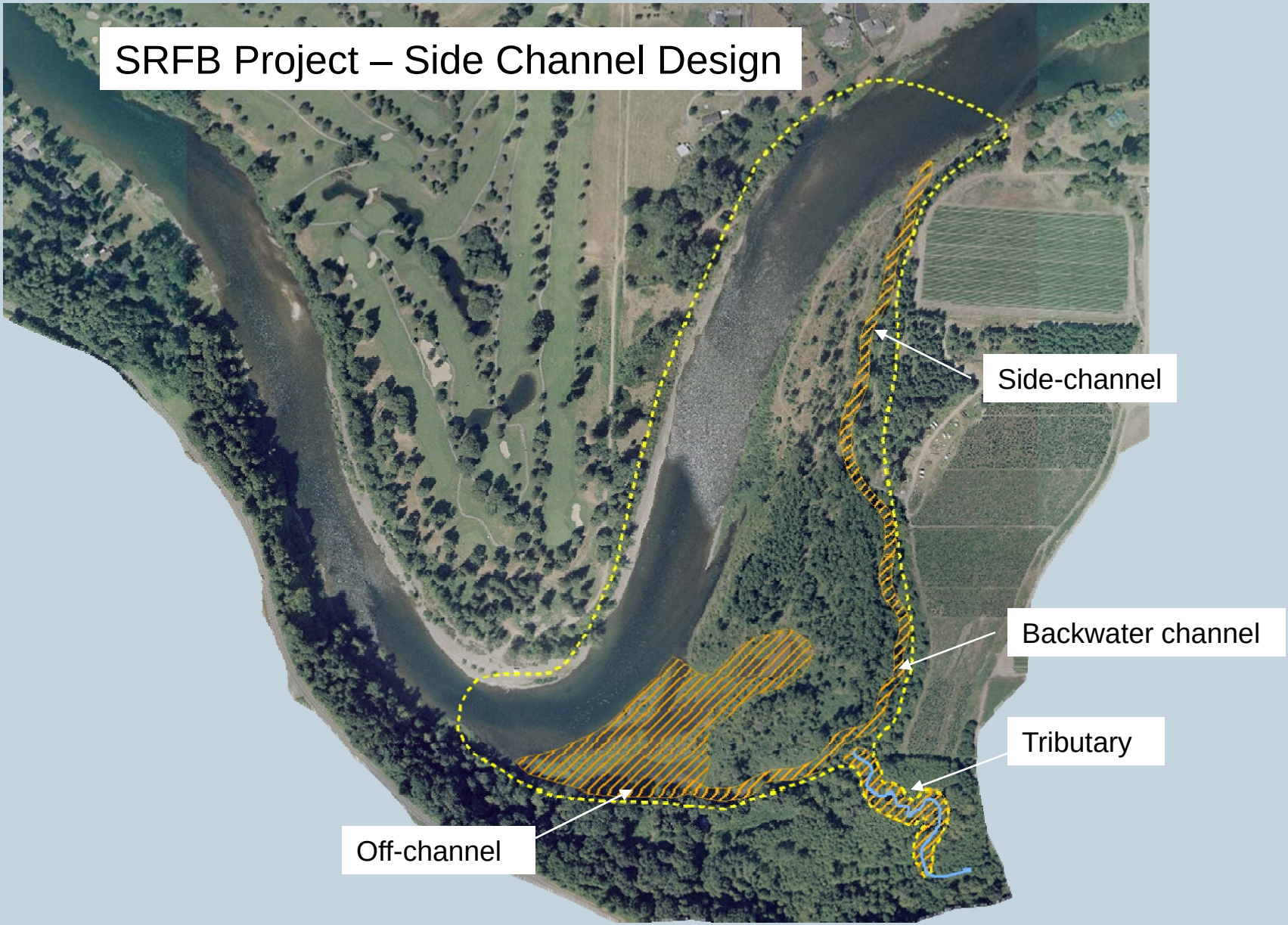
- Final Agenda
- Draft ACC Meeting Notes 11/12/09
- Attachment A - LCFEG North Fork Lewis RM 13.5 Habitat Enhancement PowerPoint presentation, dated December 10, 2009
- Attachment B – Lewis River Aquatic Fund Evaluation 2009/10, dated December 8, 2009

- Attachment C – 2009 North Fork Lewis River Baseline Assessment - Field Activities Overview & Next Steps, dated December 10, 2009

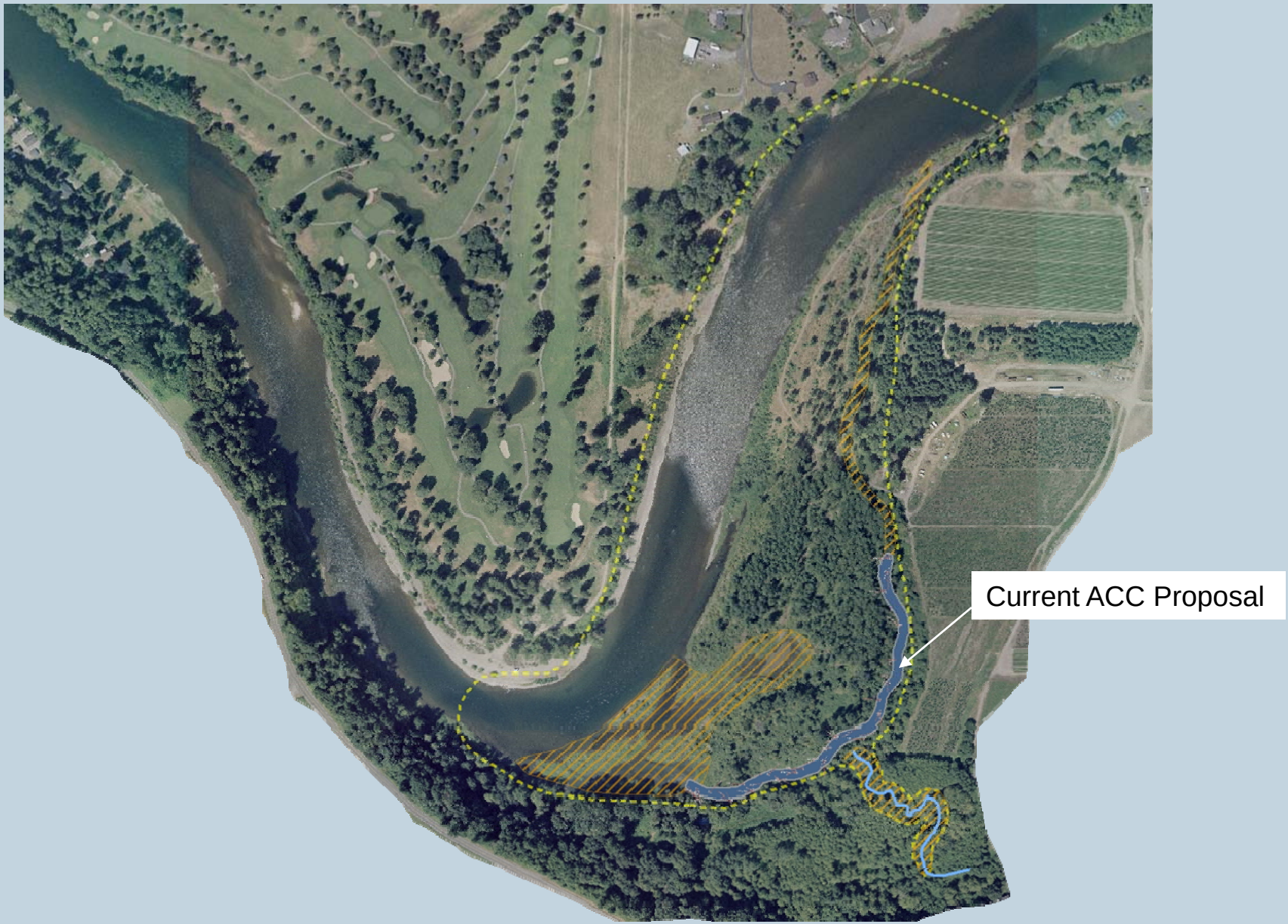
Lewis River RM 13.5



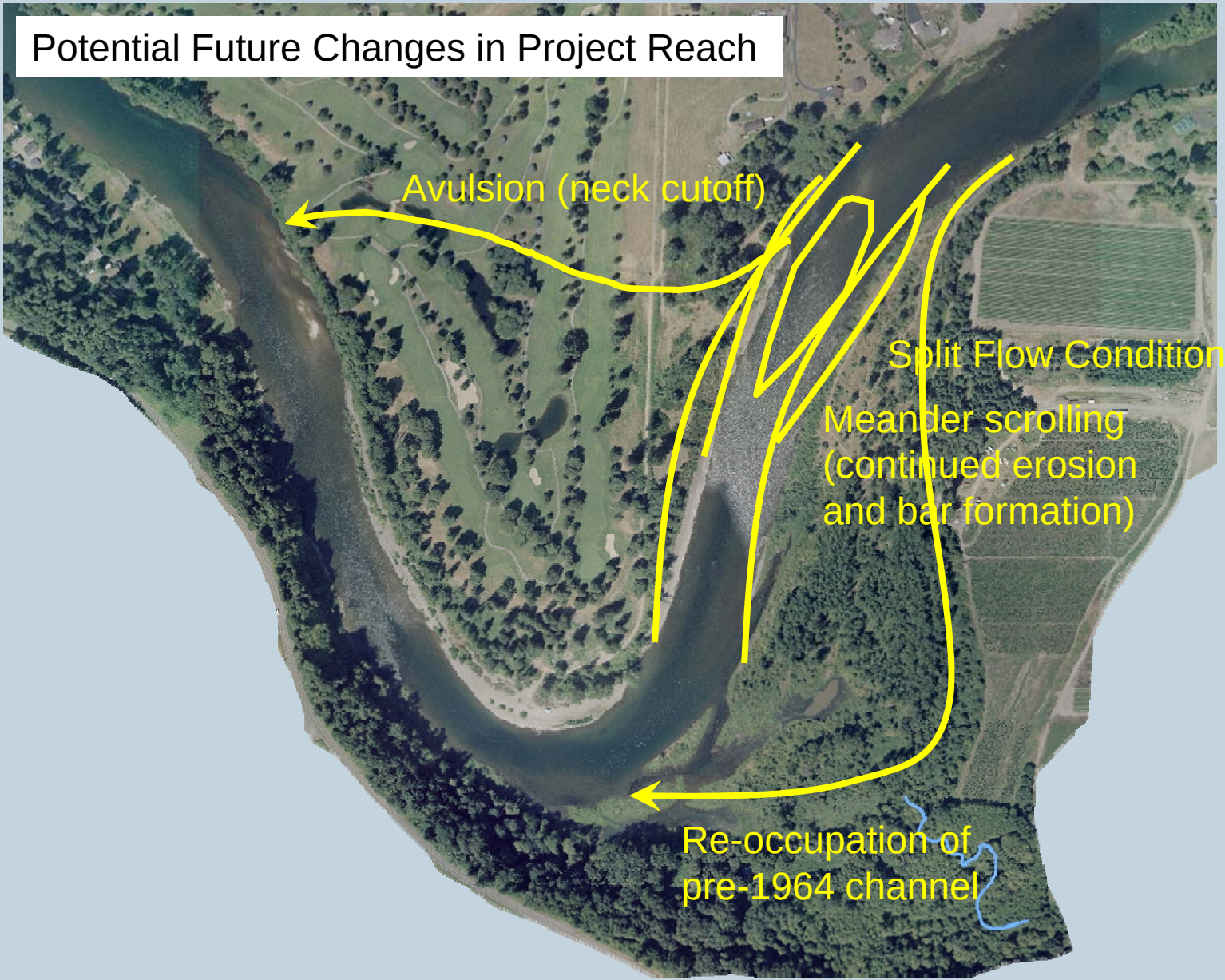
Lewis River RM 13.5



Lewis River RM 13.5

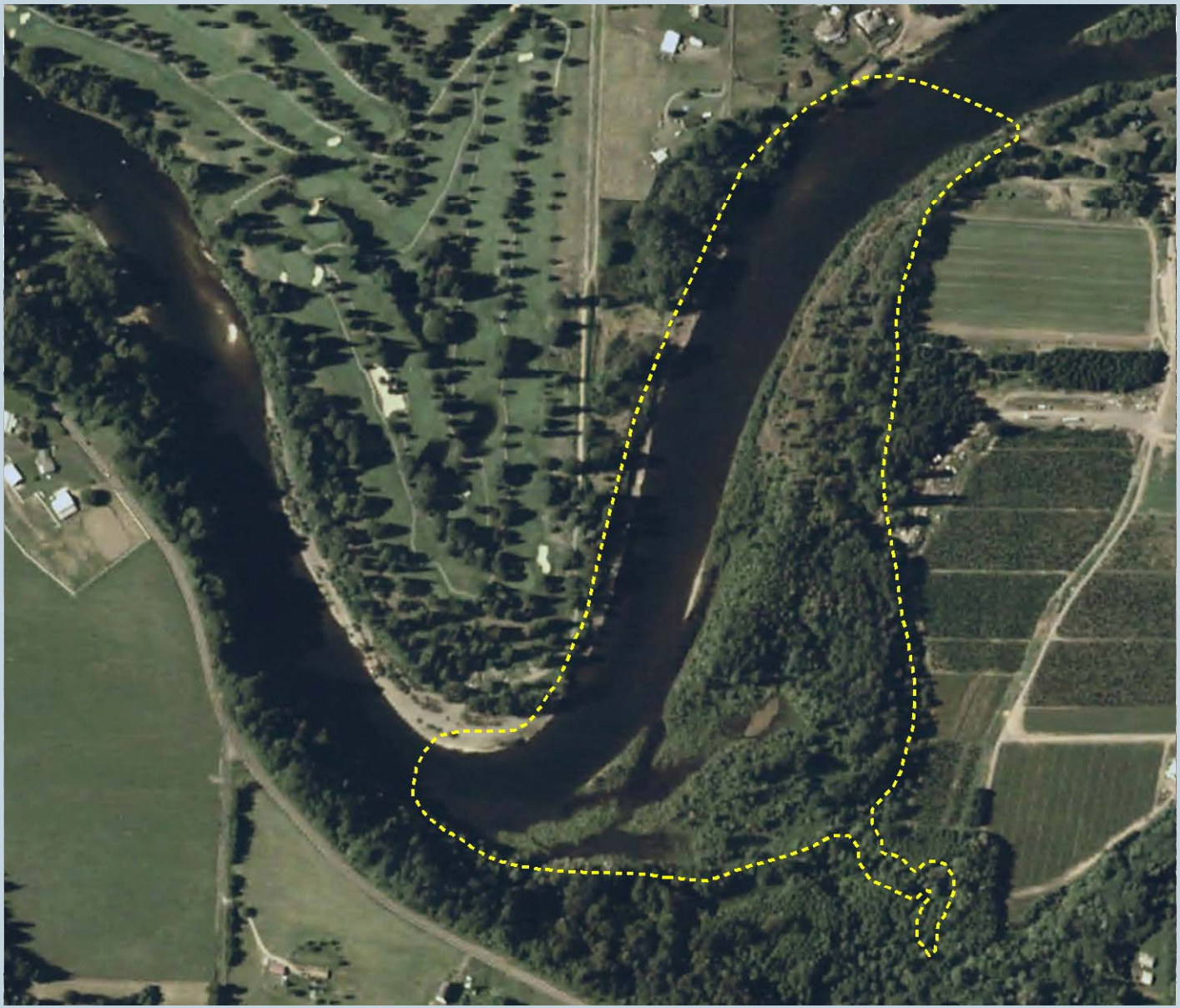


Lewis River RM 13.5



Lewis River RM 13.5

2006

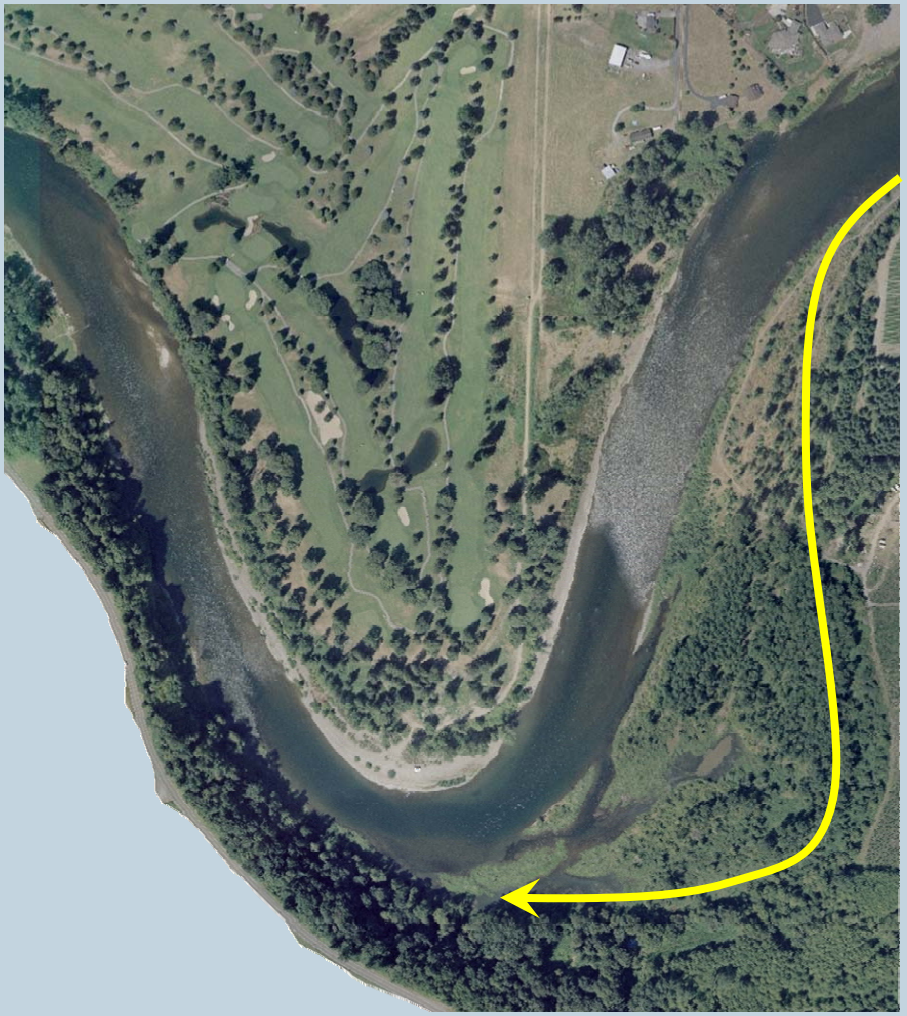


Avulsion (neck cutoff)

- 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

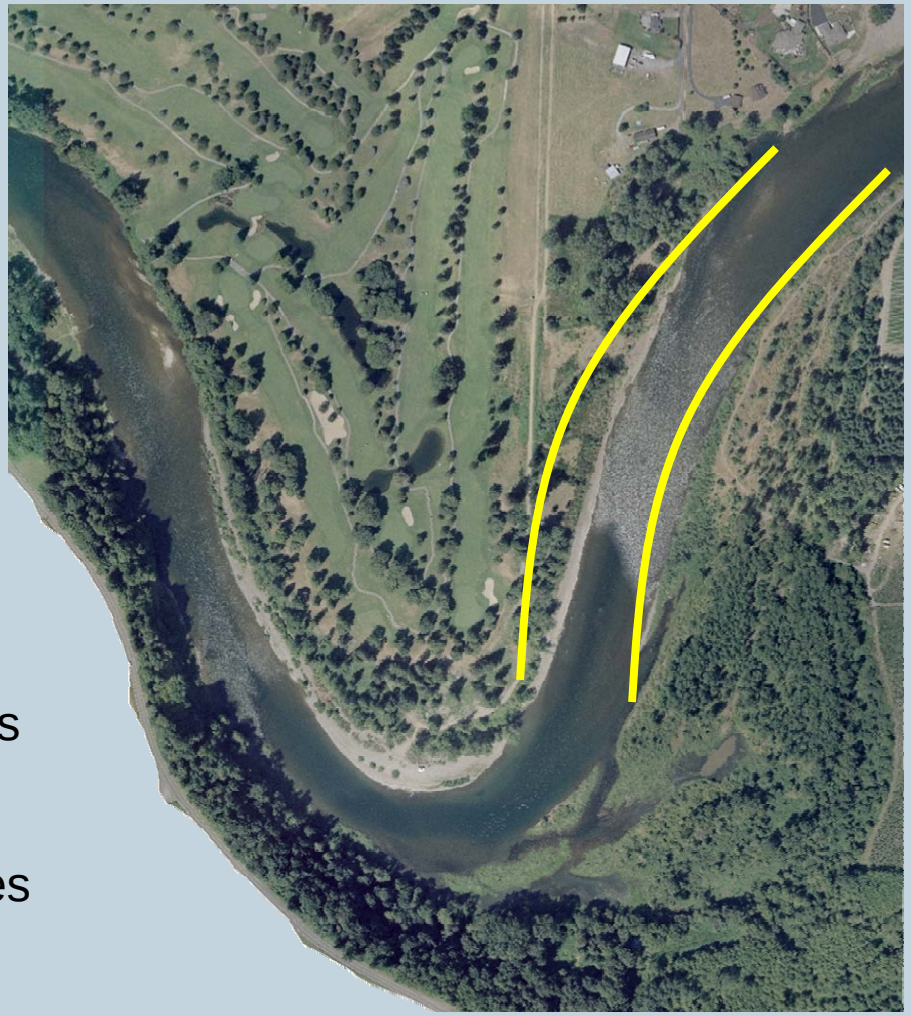
Re-occupation of pre-1964 channel

- 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



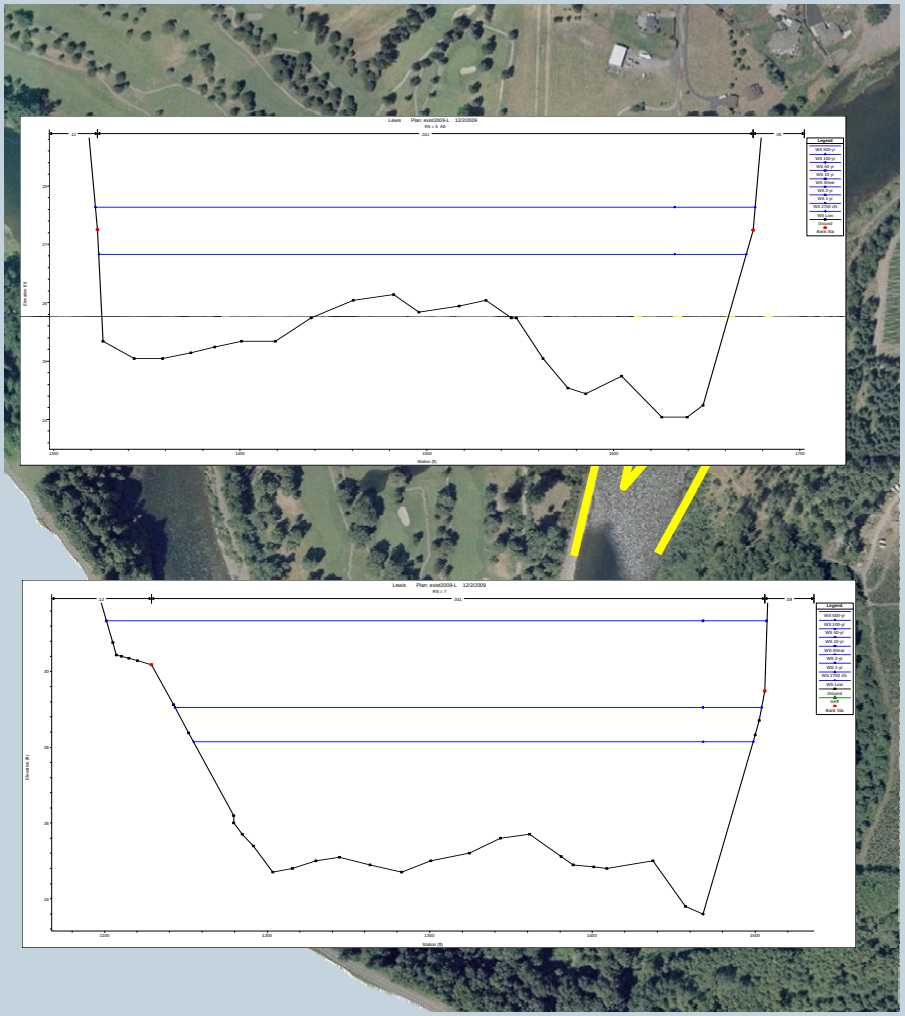
Continued Meander Scrolling

- 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

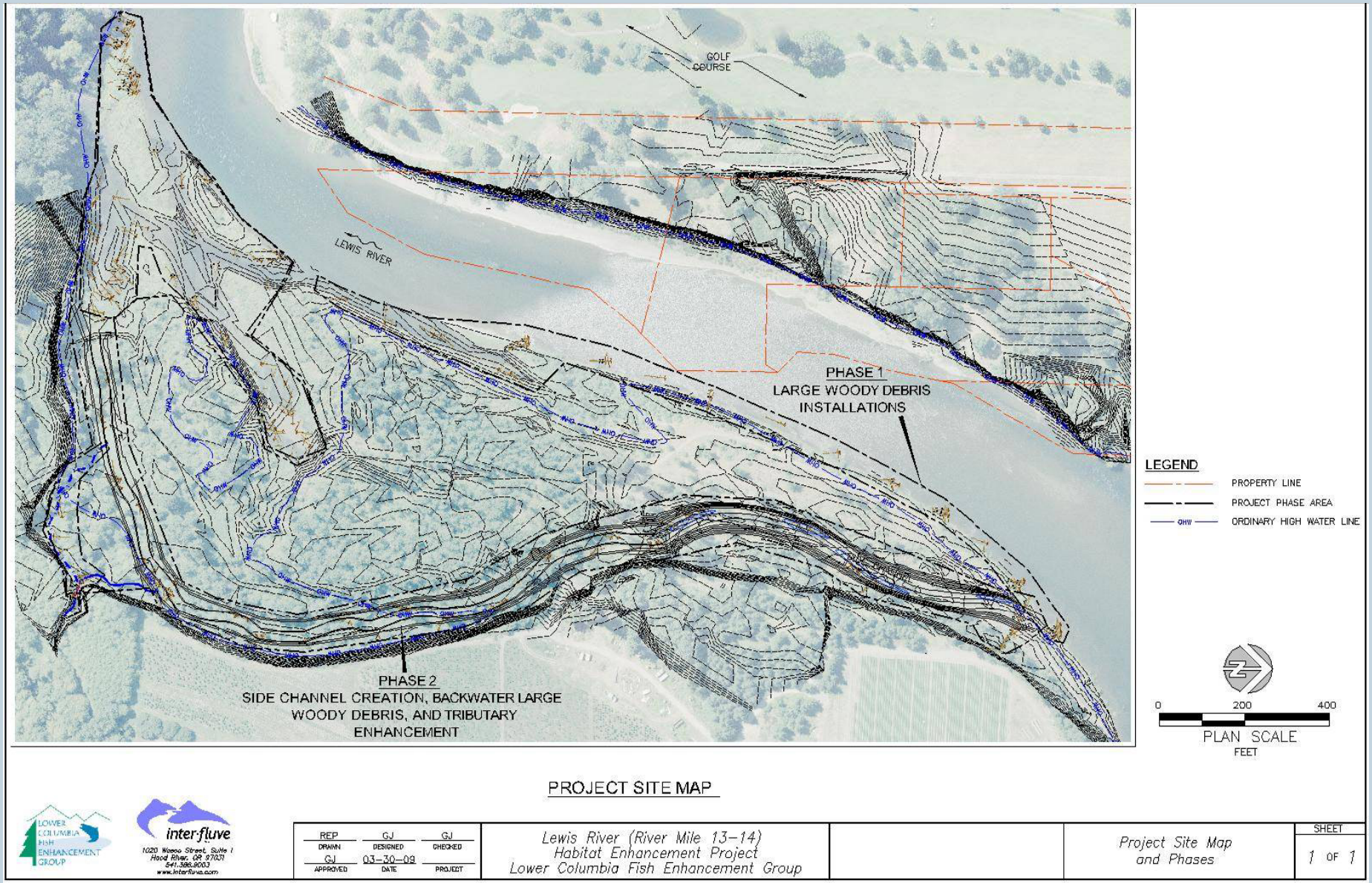
- Evidence for:
  - Observed mid-channel aggradation
  - Development of river-left thalweg
  - Vigorous river-left bank vegetation (resistant boundary condition)
  - Area of past island development
- Evidence against:
  - Limited material from upstream
  - Limited LWD in system
- Affect on the project:
  - 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



Stockpiled material

Lewis River Aquatic Fund - ACC Evaluation of 2009/2010 Project Proposals

ACC Decision		Applicant	Project Title	WDFW	Fish First	LCFRB	Yakama Nation	USFS	Cowlitz Indian Tribe	USFWS	Utilities
	1	Olympic Resource Management	9015/30 Rd Fish Passage Upgrade			From the legal description provided, these culverts appear to be on high-gradient headwater streams of P1, above the modeled anadromous fish zone. P1 is rated Tier 4, a relatively low priority for restoration according to the LCFRB 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 out of line with anticipated fish benefits. **We do not support a requesting a full proposal for this project.**		Agree with that project location may not provide the most benefit to ACC target resources. **Recommend no further ACC consideration**	The September 4, 2009 notification requesting submittal of pre-proposals for the Aquatics Fund clearly states: "To be considered, applicants must submit a completed Pre-Proposal Form". This project's manager did not complete the required form nor supply the required information in his brief letter. It would seem the project proponents have a legal obligation to deal with their own roads. Having said this, the Aquatics Fund Strategic Plan and Administrative Procedures references Section 7.5.3.1 b 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 by law to perform (not including obligations under this Agreement or the New licenses for use of the Aquatics Fund), unless by agreement of the ACC. The cost of this project is massive and the Tribe is in agreement with the Utilities that **this project should not move forward.** **Recommendation: Do not select for full proposal**	**No, do not feel this warrants a full proposal.** Agree with utilities comments.	
	2	USDA Forest Service	Sheep Bridge Removal			This project is located upstream of the EDT-modeled anadromous fish zone in the mainstem Lewis River. The actual gains if the project is completed are unclear, since much of the treated wood has already entered the system and would remain in the system regardless of this project. The need for this project is a direct outcome of poor road maintenance by the Forest Service, and should not be funded with habitat-related grant funds. **We do not support requesting a full proposal for this project.**		No further comments at this time. **Recommend no further ACC consideration**	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-the-ground habitat restoration 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**	Debris removal should be done by the Forest Service. Doesn't seem like it would greatly benefit fish. **No, does not warrant full proposal.**	
	3	USDA Forest Service	Pepper-Lewis Side Channel Instream Habitat Restoration			The Pepper-Lewis side channel is located in Lewis 19, a Tier 1 rated reach in the LCFRB Habitat Strategy. Instream wood placement and side channel habitat enhancement are high priority project types. We are interested in the sponsor's plans for stabilizing wood in this side channel, since it will be subject to high mainstem flows. The partnership plan should be more clearly developed, as should an entire project budget. **We support requesting a full proposal for this project.**		Agree project will also benefit juvenile spring Chinook as well as immature bull trout. **Recommend proceeding to full proposal for further ACC consideration**.	The Tribe agrees with the Utilities that this project may proceed to a full proposal. We also agree that the monitoring portion of the budget should be moved to an in-kind contribution by the USFS. In 2005, the ACC originally stipulated there would be no monitoring allowed under the Aquatics Fund. The 'no monitoring' rule has since been modified (in January, 2009) and is now on a case-by-case basis. Having said this, the Tribe feels monitoring as an in-kind contribution is the appropriate course of action for this project. **Recommendation: Select for full proposal**	**Yes, would like to see full proposal.**	
	4	USDA Forest Service	2010 Nutrient Enhancement on Pine Creek			This project is located in Pine Creek and P8. Portions of Pine Creek are rated Tier 2 according to LCFRB's Habitat Strategy, and LCFRB recognizes the importance of nutrient enhancement as a Medium priority project type. We echo the utilities' concern/request for monitoring information from the three previously funded nutrient enhancement efforts. **We support requesting a full proposal for this project.**		No further comments at this time. **Recommend proceeding to full proposal for further ACC consideration**.	The Tribe disagrees with the Utilities on this project and does not believe it should be forwarded for a full proposal. This is the fourth year money has been requested for this project. We (the ACC) had lengthy discussions in 2005 about the need for a project to be 'stand alone' and the need for project proponents to find other funding sources should they want a project to continue. The ACC did not want proponents returning to the ACC year after year requesting AF monies to continue a project. For this particular nutrient enhancement (NE) effort the benefits to fish, in terms of habitat enhancement, has not been realized. The amount of money being spent is not justified. Again, the Tribe would like to stress that Aquatic Fund monies are finite. Once they are gone there will be no more money added to the fund to help with future habitat enhancement efforts. The helicopter method of NE placement in this creek has been very expensive with no real gain in fish production. Unless there were huge improvements to fish habitat and fish production in the treated area, the justification for continued funding of this project is not warranted and the benefits are not worth the costs. Other successful NE efforts with loadings similar to the Pine Creek project are referenced in the pre-proposal. The success of this different NE project (with similar nutrient loadings) in the different watershed does not mean there has been success in this area with this project. The Tribe feels this proposal does not directly benefit fish recovery and fish habitat enhancement. 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 a full proposal**		
	5	USDA Forest Service	Pine Creek Instream and Floodplain Structures for Bull Trout and Steelhead			This project is located in Pine Creek and P8. Portions of Pine Creek are rated Tier 2 according to LCFRB's Habitat Strategy, and LCFRB recognizes the importance of nutrient enhancement as a Medium priority project type. We echo the utilities' concern/request for monitoring information from the three previously funded nutrient enhancement efforts. **We support requesting a full proposal for this project.**		Agree coho will benefit from this project as well. **Recommend proceeding to full proposal for further ACC consideration**.	The Tribe agrees with the Utilities that this project may proceed to a full proposal. Methodology for securing the structures needs to be elaborated upon. It seems unlikely the structures will be able to be secured. The budget shows 'Materials-Trees' as having a value of $30,000. It is assumed this amount is considered in-kind by the Forest Service (though not clearly indicated in the budget). Who determined the value of the trees? Are the trees being assessed at current market value? Are the trees going to be harvested or are they from a previously existing stockpile of dead trees? Overall, instream structures (that persist) are beneficial to fish recovery. **Recommendation: Select for full proposal**	Is there some way we can have a more limited construction project in order to answer some questions about doing this kind of work in Pine Creek. Can these types of structures collect sediment in such a high energy stream throughout the winter? What constitutes success for a LWD project in Pine Creek and how might you test that? I really support projects that can help us plan types of projects to fund in the future. **Yes, would like to see full proposal.**	

Decision		Applicant	Project Title	WDFW	Fish First	LCFRB	Yakama Nation	USFS	Cowlitz Indian Tribe	USFWS	Utilities
	6	Lower Columbia Fish Enhancement Group	NF Lewis RM 13.5 Off-Channel Habitat Enhancement			This project is located in Lewis 5, a Tier 1 reach according to LCFRB's Habitat Strategy. Enhancement of off-channel habitat is rated a High priority project type. The sponsor notes that designs are complete for this site, but they were not included in the pre-proposal. The sustainability of this project element as a stand-alone project is unclear; would other project elements be required to gain full benefit from the proposed element? **We support a full proposal for this project, but note that the high pre-proposal request amount may be a significant handicap.**		In full proposal, recommend proponent thoroughly address current site conditions, bank degradation and bank stability in context of larger restoration effort at site to justify low-risk and site stability of proposed side-channel actions and connectivity with mainstem. Cost is high and may affect project selection. **Recommend proceeding to full proposal for further ACC consideration**.	The Tribe feels this project meets the Fund's objectives and may proceed to a full proposal. What type of effectiveness monitoring will be implemented and could the monitoring component of the project be included as an in-kind budget item rather than being funded by the ACC? The monitoring component of any ACC project is to be considered on a case-by-case basis. Also include very clear language to indicate what work will be completed in which location with which funding source (ACC vs. SRFB). The Tribe agrees this project is beneficial to fish recovery. **Recommendation: Select for 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 to share costs. **Yes, would like to see full proposal.**	
	7	US Fish & Wildlife Service	Bull Trout Habitat Use in Tributaries to Swift Reservoir and the NF Lewis River			We acknowledge that the results of this project could significantly advance the state of knowledge of bull trout populations in the Upper North Fork Lewis, but are concerned that the benefits to habitat work are too minimal to justify the project costs. If the ACC chooses to request a full proposal for this project, the sponsor will need to document the state of knowledge on bull trout habitat needs and distribution, and make a stronger connection to future habitat restoration projects. Consistency with fund objectives is a concern. **We do not support requesting a full proposal for this project.**		Project's research focus is not 2010 ACC priority. **Recommend no further ACC consideration.**	The Tribe agrees with the Utilities that this 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. The AF is not an appropriate funding mechanism for this type of project though the Tribe will gladly discuss the project with the USFWS and help them search for an appropriate funding source. The proponent seems unclear about the Aquatics Fund guidelines. **Recommendation: Do not select for 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. This information could be valuable in prioritizing bull trout projects on the ground. We should get a full proposal to better understand the potential value to us. 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 a full proposal.**	
	8	US Fish & Wildlife Service	Bull Trout Population Structure in the Lewis River Basin			If conclusive, the results of this study could have long range implications in bull trout recovery efforts in the basin. The project does not, however, lead to on-the-ground improvements. Reliable results may require multiple years of study. Consistency with fund objectives is a concern. **We do not support requesting a full proposal for this project.**		Project's research focus not 2010 ACC priority. **Recommend no further ACC consideration.**	The Tribe feels this project does not meet the Funds objectives. It is not an on-the-ground effort and is once again, a large scale monitoring program. The AF is not an appropriate funding mechanism for this type of project though the Tribe will gladly discuss the project with the USFWS and help them search for an appropriate funding source. The proponent seems unclear about the Aquatics Fund guidelines. **Recommendation: Do Not select for full proposal**	Agree with the utilities that this is extremely valuable for us in terms of prioritizing on the ground projects, but I believe this is being funded through other channels. Part of the bull trout genetic baseline study. **No, do not feel this warrants full proposal.**	
	9	Gifford Pinchot Tast	Clear Creek Habitat Improvement Project			This project is located near Clear Creek, a Tier 2 reach according to LCFRB's Habitat Strategy. The location, number of culverts, and relative risk and benefit are unclear from the project description. Request amount is not stated. The need for monitoring funds is unsubstantiated. This may be a wise investment of aquatic fund monies if the road spurs pose imminent risk. **We support requesting a full proposal for this project.**		Project will contribute to improving short and long-term habitat conditions for reintroduced fish and habitats. **Recommend proceeding to full proposal for further ACC consideration**.	The Tribe disagrees with the Utilities and does not believe the project should move forward. The proponent states in their pre-proposal: "The GPNF has not had the capacity to invest in repairing and maintaining its road system at adequate levels for well over a decade now". The application also says the roads requesting funds are listed as 'high priority' by the GPNF and 'slated for removal' in the supporting NEPA documents. Why are the roads not being decommissioned with the huge sum of stimulus money given to the USFS for exactly this purpose? As written in the Tribe's comment to the Olympic Resources Management pre-proposal: To put this in context, the Aquatics Fund Strategic Plan and Administrative Procedures references Section 7.5.3.1 b 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 by law to perform (not including obligations under this Agreement or the New licenses for use of the Aquatics Fund), unless by agreement of the ACC. though there may not be a legal obligation per se by the Forest Service it does beg the question as to why they are not taking care of their own roads. They built the roads, logged the trees and then sold the trees. The Forest Service needs to meet its obligation to take care of its own inventory. The AF is not the appropriate funding source to continually meet these needs. The AF is a finite amount of monies and continued decommissioning of Forest Service roads each funding round will quickly deplete the fund. 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.	Yes. Agree with utilities that this should be the landowners' responsibility. That said, could consider it if they demonstrate how this will benefit fish.	
	10	Cowlitz Indian Tribe	Eagle Island Habitat Enhancement			This project is located in Lewis 4B, the highest priority reach in the entire basin. This reach has high potential for all four listed salmon and steelhead populations, and wood placement and side channel habitat enhancement are both high benefit project types for multiple species. This project has been informed by a SRFB-funded design project sponsored by the LCFRB. **We recommend requesting a full proposal for this project.**		Provided, additional funding is procured, project should significantly improve habitat conditions for targeted resources. **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. **Recommendation: Select for full proposal**	If habitat is already in good shape here, how will this provide additional benefit? Is the additional benefit worth the relative high cost? **Yes, would like to see full proposal.**	

Lewis River Aquatic Fund - Utilities' Evaluation of 2009/2010 Project Proposals

No.	Applicant	Project Title	Project Schedule	Benefit	Bull Trout	Project Partners	Funding	Cost Share?	Consistency with Fund Objectives	Benefit to Priority Fish	Scientific Validity	Success Potential	Cost Effectiveness	Total Score	Selected by Utilities for Full-Proposal	Comments
1	Olympic Resource Management	9015/30 Rd Fish Passage Upgrade	Summer 2010	This project involves removal of two culverts and installation of two bridges to allow fish passage which affects 2.3 miles of fish habitat on tributaries to Pine Creek/Lewis River/Swift Reservoir.	No	None	$ 235,000.00	No	Yes	9.33	13.33	3.33	1	26.99	N	Assume these improvements are required under RMAP. What is ORM's contributions to the project? They're required through forest practice laws to take care of problem culverts on their own. Proposal doesn't stipulate which tributary to Pine Creek, therefore do not know if the culverts are above natural anadromous fish barriers. Are there other options to building bridges? Only consider if culverts rather than bridges are installed. Streams do not justify that type of protection.
2	USDA Forest Service	Sheep Bridge Removal	2010/2011	Removal of remaining timbers to clean up river and remove hazardous material	Yes	Gifford Pinchot National Forest	$ 7,500.00	Yes	Yes, but benefit is low.	8	8	3.33	2.66	21.99	N	Hazardous material should be responsibility of landowner. Project is upstream of habitat accessible to anadromous fish. If this bridge is owned by USFS and the project is contributing hazardous material then the USFS should cleanup.
3	USDA Forest Service	Pepper-Lewis Side Channel Instream Habitat Restoration	2010/2011	LWD placement to create a pool capable of rearing a combination of juvenile coho salmon and steelhead trout.	No	Potential: Fish First, Swift community Action Team, WDFW, Salmon Recovery Board funds and FS Whole Watershed Joint Venture Fund	$ 58,000.00	Yes	Yes	13.33	12	3.33	2.83	31.49	Y	Concerns about LWD structures staying intact on mainstem. Need additional information on how LWD will be anchored. Low amount of habitat. Question the connectivity to the Lewis mainstem during late summer. Monitoring costs should be in-kind. Project will also benefit juvenile spring Chinook as well as immature bull trout.
4	USDA Forest Service	2010 Nutrient Enhancement on Pine Creek	2010	Adult carcasses from various hatchery reared and collected salmonids species will be distributed by hand in areas accessible to vehicles, inaccessible areas would be seeded by helicopter.	No	Gifford Pinchot National Forest, Clark Skamania Fly Fishers, Mt. St. Helens Institute and ORM	$ 41,000.00	Yes	Yes	16	12	3	3	34	Y	Would like to see previous efforts reported including observed benefits of carcasses.
5	USDA Forest Service	Pine Creek Instream and Floodplain Structures for Bull Trout and Steelhead	2010	LWD placement instream in Pine Creek to stabilize stream banks to capture suitable sized spawning gravel for adult bull trout and steelhead.	Yes	Gifford Pinchot National Forest and Title II Funds	$ 72,000.00	Yes	Yes	14.66	12	1.66	2.5	30.82	Y	No mention of coho in the write-up, they will benefit from this if project is successful as well. Redd superimposition concerns would not be between bull trout and STHD as they spawn in different habitat and STHD spawn 5 months later. Superimposition concerns would be between bull trout and coho as their spawn time directly overlaps and they dig redds in the same margin areas. Question the efficacy of placing LW into such a wide, unstable floodplain and stability of structures. Concerns over project success.
6	Lower Columbia Fish Enhancement Group	NF Lewis RM 13.5 Off-Channel Habitat Enhancement	2010/2011	Re-connection and enhancement of approx. 1,500 lineal feet of backwater/ off-channel habitat, riparian and wetland re-vegetation and reconnection of a perennial tributary to mainstem to restore fish passage.	No	LCFRB, Inter-fluve and Sam Kysar (landowner)	$ 214,695.00	Yes	Yes	13.33	12	2.33	1.33	28.99	Y	Funds should not be used for noxious weed control. Cost seem high, not much in-kind support. Support flow through (future) option, but habitat currently has inlet and outlet and is currently being used.
7	USFWS	Bull Trout Habitat Use in Tributaries to Swift Reservoir and the NF Lewis River	2010/2012	Expand network of radio telemetry receivers in tributaries to Swift Reservoir and NF Lewis River.	Yes	WDFW, PacifiCorp, USFS and Cowlitz Indian Tribe	$ 65,000.00	Yes	Maybe, project does not directly "enhance fish habitat".	10.66	12	4	0.83	27.49	N	Prohibitive costs and benefit is limited over existing knowledge or alternative methods. Data gathering. Only benefits bull trout - can't make the benefits connection to other listed species. Project does not provide tangable on-the-ground benefit. If the ACC did select for funding, ACC should consider not approving Bull Trout projects until this work is completed.
8	USFWS	Bull Trout Population Structure in the Lewis River Basin	2010/2011	Describe population structure of bull trout using genetic analysis to better prioritize recovery actions in the Lewis River.	Yes	WDFW, PacifiCorp, USFS and Cowlitz Indian Tribe	$ 33,000.00	Yes	Maybe, project does not directly "enhance fish habitat".	10.66	14.66	4	2.33	31.65	N	One year of data will not likely give enough information. Not a habitat improvement. Could be important for future actions, however it only benefits bull trout - can't make the benefits connection to other listed species. Is this the same as the request that Abernathy Lab is making to USFWS grant?
9	Gifford Pinchot Task Force	Clear Creek Habitat Improvement Project	2010	Removal of 1.2 miles of spur road, including culvert removal, slope shaping and stabilization, scarification of the roadbed and revegetation.	No	GP Task Force and GP National Forest	$ 73,725.00	Yes	Yes	10.66	9.33	2.5	2	24.49	Y	Need maps to verify road location in relation to Clear Creek. Benefits to fish is questionable. Clear Creek is too warm for bull trout. These roads should be managed, maintained, and/or removed by the owners.
10	Cowlitz Indian Tribe	Eagle Island Habitat Enhancement	2011/2013	Placement of medium to large jams and individual pieces of LWD through a 1,200 foot long side channel and restoration of riparian plant communities to restore vital spawning and rearing habitat along Eagle Island.	No	Cowlitz Indian Tribe, Interfluvve, Clark County WDFW and LCFRB	$ 74,300.00	Yes	Yes	14.66	10.66	2.5	2.33	30.15	Y	Note the funds would be returned to ACC if full funding is not secured from Salmon Recovery Funds. This is essentially a wood placement project. High value towards Lewis River recovery goals. Habitat in this side channel is already in decent shape, cost seems somewhat excessive considering not much needs to be done. Write-up from project applicant even states that "overall channel complexity is relatively high" and that "the reach already contains relatively high -quality aquatic habitat". Also, applicant states that this will not affect boat traffic which is questionable.
						Totals	**$ 874,220.00**									
						Bull Trout Funds	**$ 177,500.00**									

Fund Objectives:
1. Benefit fish recovery throughout the North Fork Lewis River, priority to federal ESA-listed species
2. Support the re-introduction of anadromous fish throughout the basin
3. Enhance fish habitat in the Lewis River Basin, with priority given to North Fork Lewis River

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.

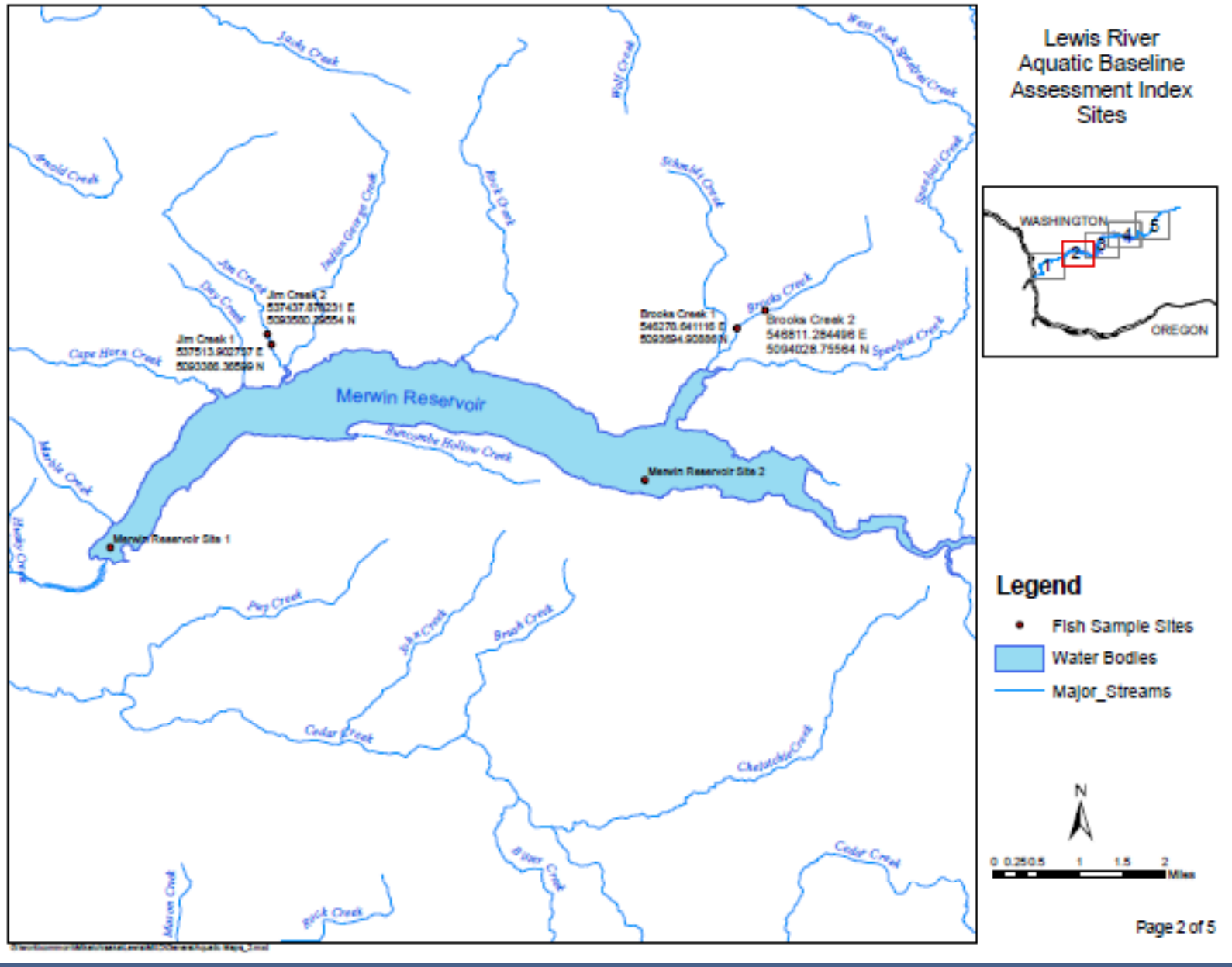
Study Area

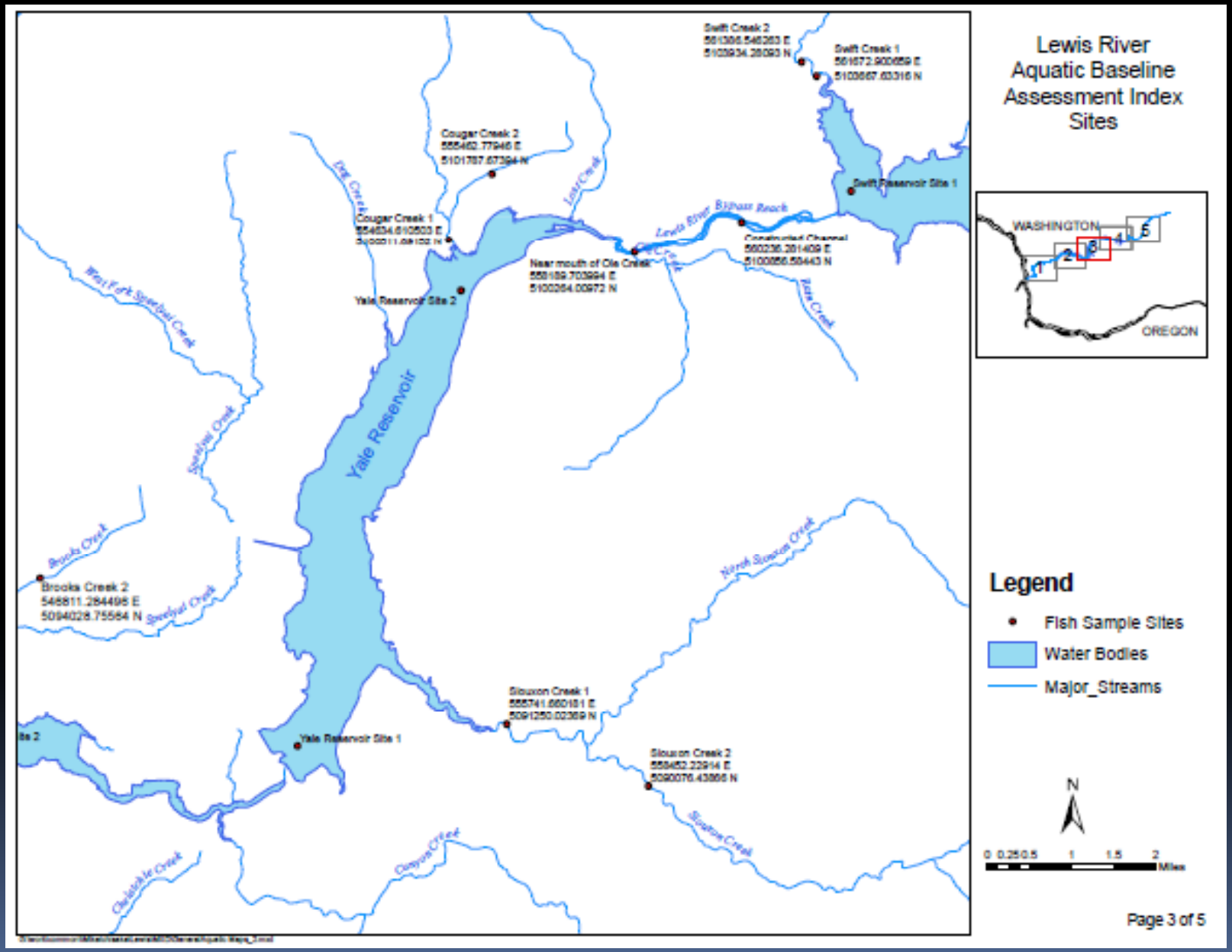
Subgroup identified 14 study streams and reservoirs within the North Fork Lewis River Basin

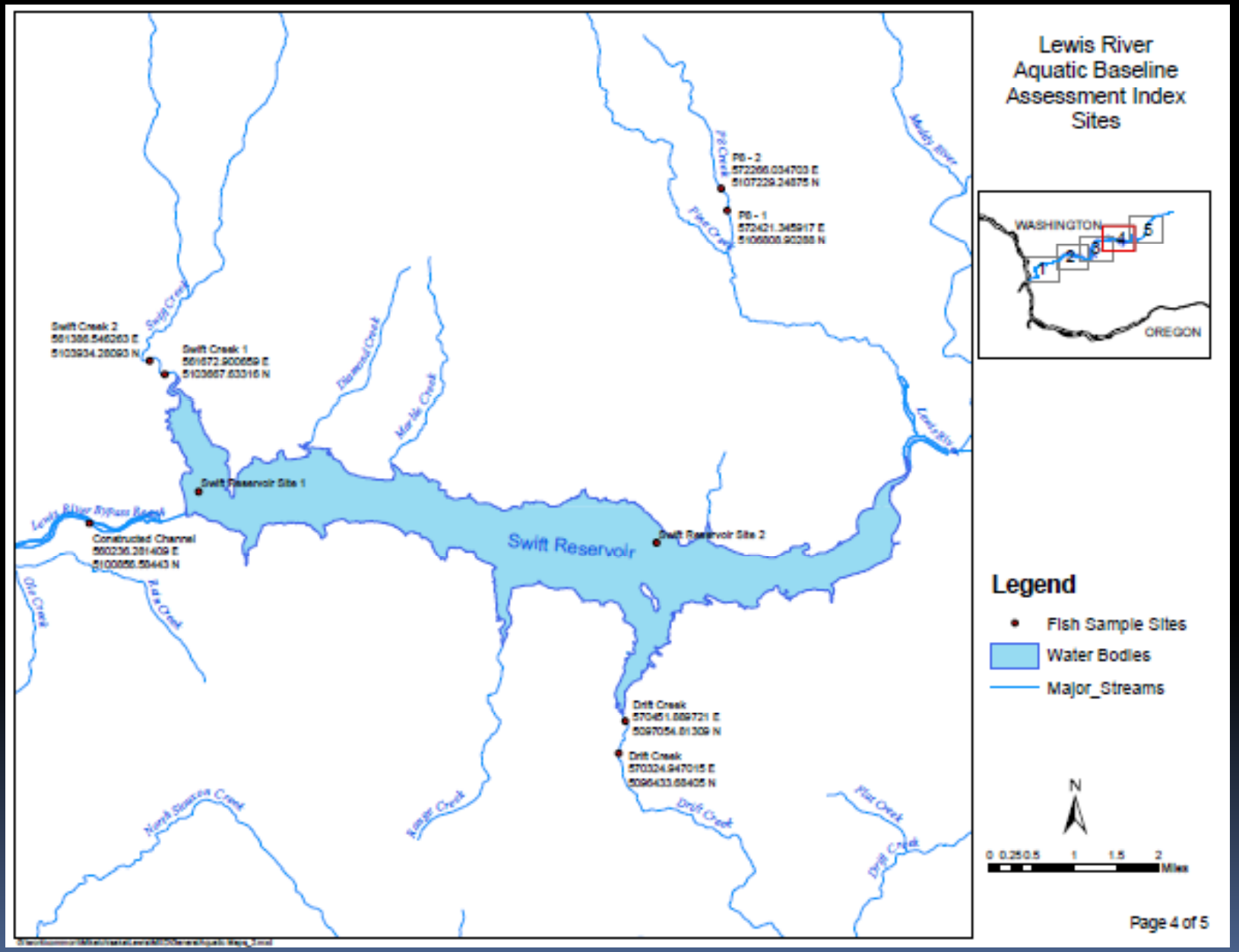
Each stream had two 100 meter index sites. Each reservoir had two index areas, one site mid-reservoir and one site in the vicinity of the dam.

-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)


Lewis River
Aquatic Baseline
Assessment Index
Sites
Merwin Reservoir
Jim Creek 2
537437.878231 E
5093560.26554 N
Jim Creek 1
537513.902797 E
5093366.36599 N
Brooks Creek 1
546270.641116 E
5093894.90886 N
Brooks Creek 2
546811.284498 E
5094028.75564 N
Merwin Reservoir Site 2
Merwin Reservoir Site 1
Jacks Creek
Arnold Creek
Indian George Creek
Jim Creek
Dairy Creek
Cape Horn Creek
Marble Creek
Buncombe Hollow Creek
Wolf Creek
West Fork Speelyai Creek
Speelyai Creek
Siouxhill Creek
Brooks Creek
Speelyai Creek
Hockey Creek
Peg Creek
John Creek
Brush Creek
Cedar Creek
Cheldelin Creek
Cedar Creek
Riley Creek
Mason Creek
Brick Creek
WASHINGTON
OREGON
1
2
3
4
5
Legend
Fish Sample Sites
Water Bodies
Major_Streams
N
0 0.250.5 1 1.5 2
Miles
Page 2 of 5


Lewis River
Aquatic Baseline
Assessment Index
Sites
Swift Creek 2
561366.546263 E
5103934.28093 N
Swift Creek 1
561672.900659 E
5103667.63316 N
Cougar Creek 2
555462.77946 E
5101787.67394 N
Cougar Creek 1
554634.610503 E
Yale Reservoir Site 2
Near mouth of Ole Creek
558189.703994 E
5100264.00972 N
Swift Reservoir Site 1
560236.261409 E
5100656.50443 N
Lewis River Bypass Reach
Lost Creek
Ole Creek
Yale Creek
Dog Creek
West Fork Speelyai Creek
Speelyai Creek
Yale Reservoir
Brooks Creek
Brooks Creek 2
546811.284495 E
5094028.75564 N
Speelyai Creek
North Siouxon Creek
Siouxon Creek 1
555741.660181 E
5091250.02369 N
Yale Reservoir Site 1
Siouxon Creek 2
555452.22914 E
5090076.43866 N
Siouxon Creek
Chelatchie Creek
Canyon Creek
WASHINGTON
OREGON
Legend
Fish Sample Sites
Water Bodies
Major_Streams
N
0 0.250.5 1 1.5 2
Miles


Lewis River
Aquatic Baseline
Assessment Index
Sites
WASHINGTON
OREGON
1
2
3
4
5
Swift Creek 2
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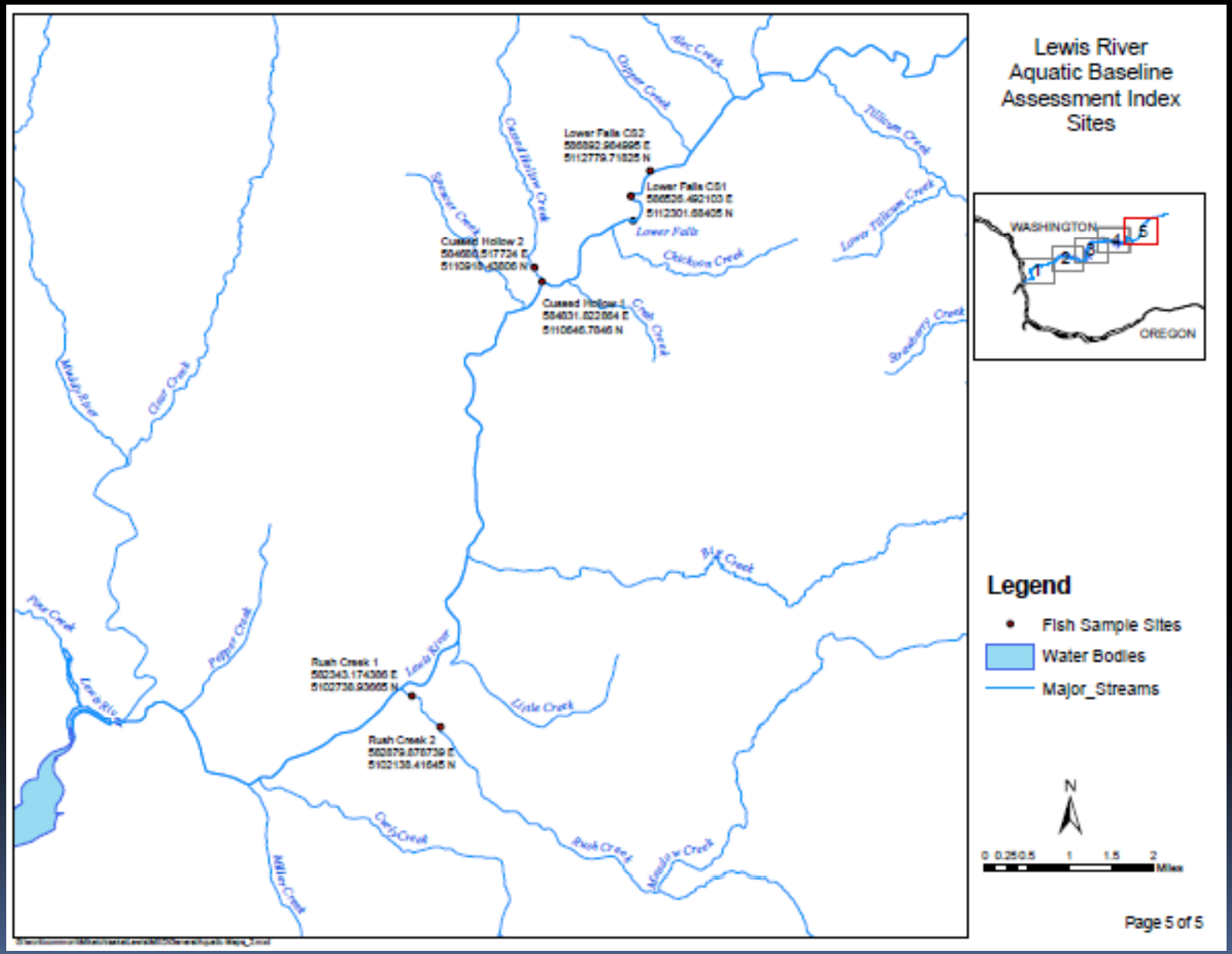
5103934.28093 N
Swift Creek 1
561672.900659 E
5103667.63316 N
Swift Reservoir Site 1
Swift Reservoir Site 2
Swift Reservoir
Lewis River Bypass Reach
Constructed Channel
560236.281409 E
5100956.59443 N
PB - 2
572266.034703 E
5107229.24875 N
PB - 1
572421.345917 E
5106808.90288 N
Drift Creek
570451.689721 E
5097054.81309 N
Drift Creek
570324.947015 E
5096433.68405 N
Swift Creek
Diamond Creek
Merle Creek
Lewis River
Muddy River
Pine Creek
Pine Creek
Otter Creek
Lake Creek
North Siouxon Creek
Kalama Creek
Drift Creek
Flat Creek
Drift Creek
Legend
Fish Sample Sites
Water Bodies
Major_Streams
N
0 0.250.5 1 1.5 2
Miles
Page 4 of 5


Lewis River
Aquatic Baseline
Assessment Index
Sites
Lower Falls CS2
Lower Falls CS1
Lower Falls
Cussed Hollow 2
Cussed Hollow 1
Rush Creek 1
Rush Creek 2
Alec Creek
Tillicum Creek
Lower Tillicum Creek
Chickoon Creek
Cussed Hollow Creek
Spencer Creek
Cedar Creek
Muddy River
Pine Creek
Pepper Creek
Lewis River
Little Creek
Rush Creek
Meadow Creek
Cherry Creek
Miller Creek
Strawberry Creek
WASHINGTON
OREGON
Legend
Fish Sample Sites
Water Bodies
Major_Streams
N
0 0.25 0.5 1 1.5 2
Miles

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
- Indentifies 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

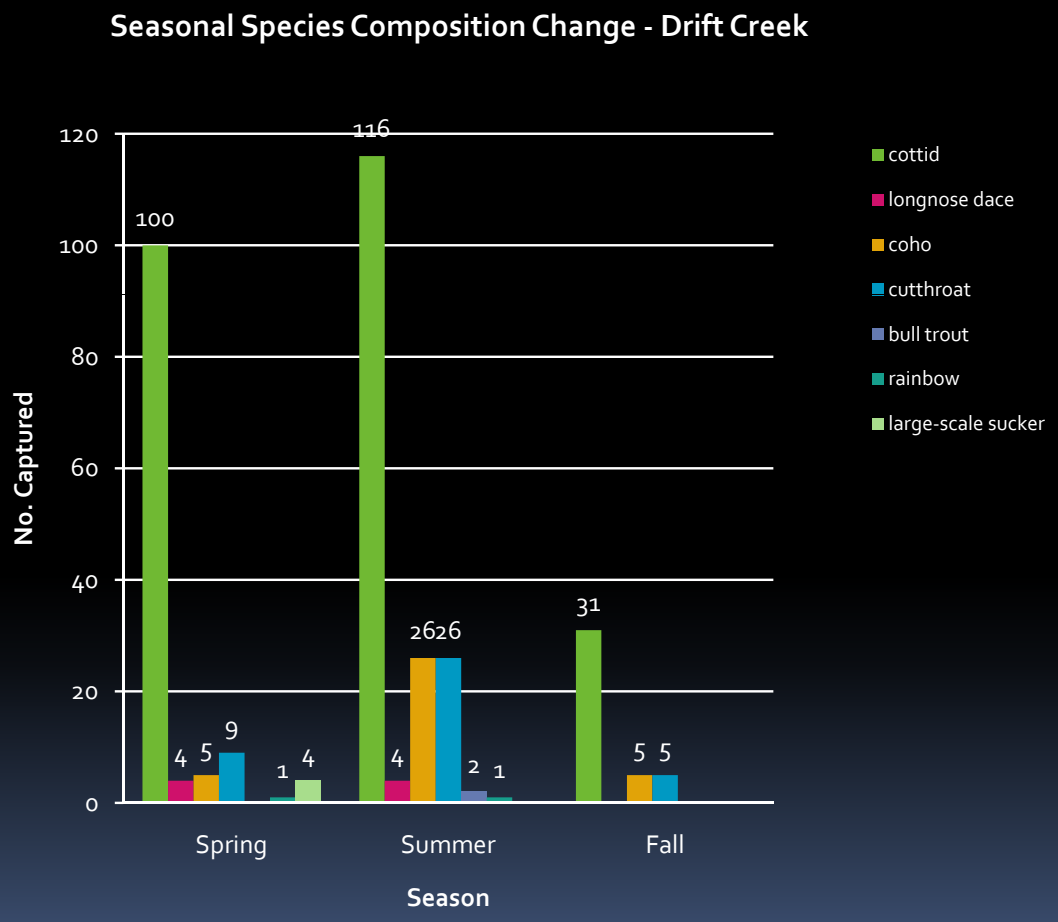
Methods-

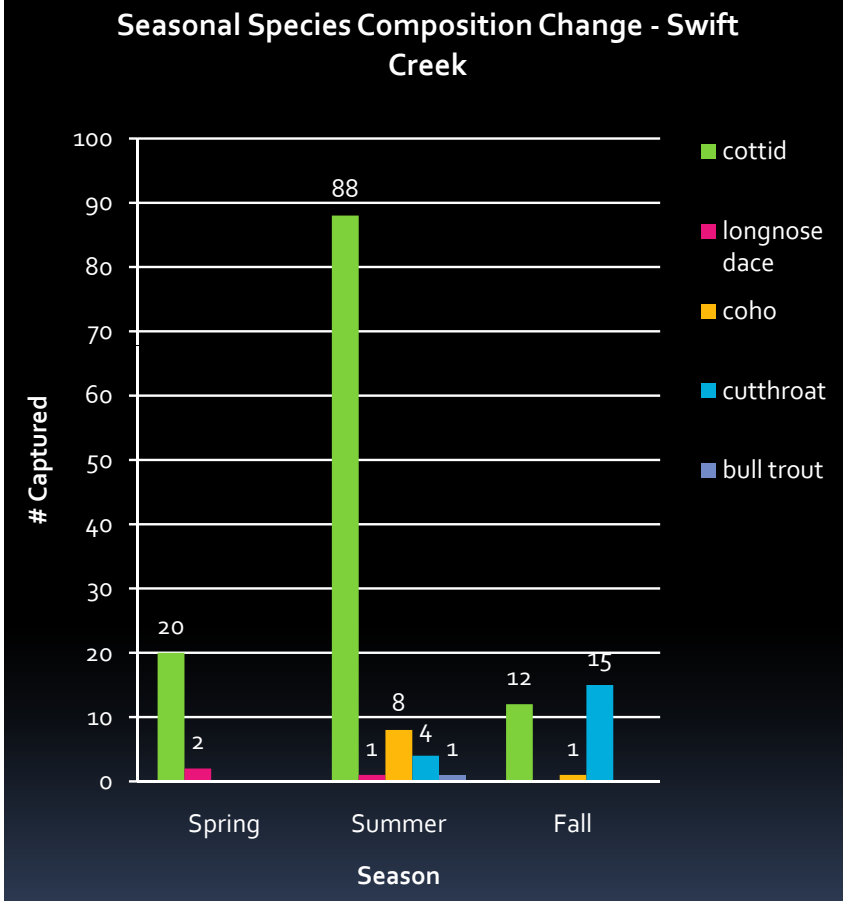
- Tissue samples taken from a sub-sample of individuals of all species encountered during electrofishing surveys
- Samples taken of differing size-classes to record ontogenetic changes
- 0.5 gram wet weight is needed for analysis
- Small individuals used in the analysis were sacrificed, fin clips were 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

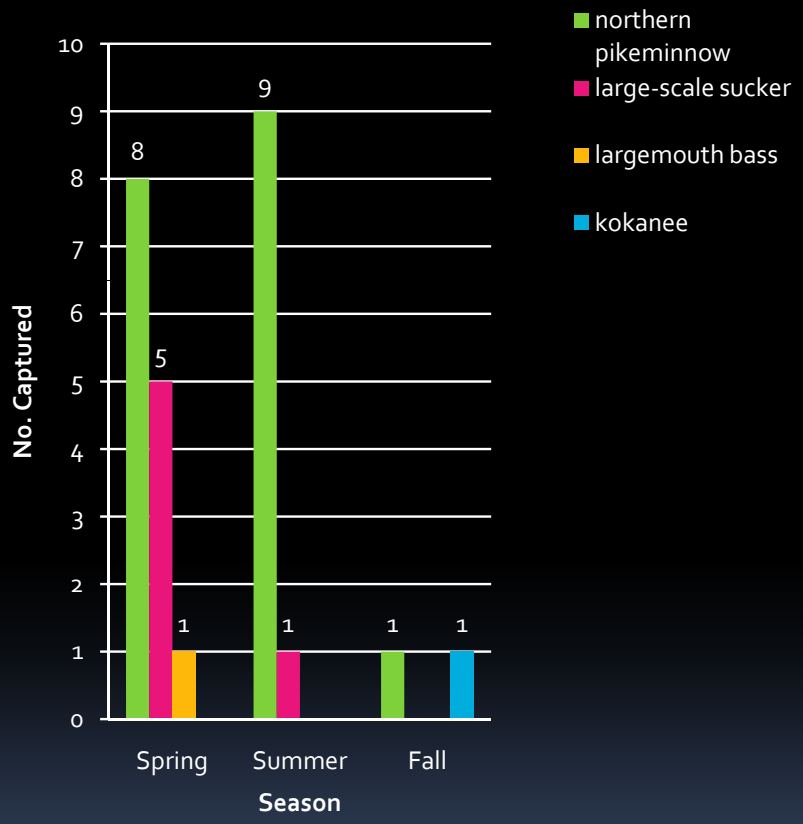
Species Composition/Relative Abundance and Stable Isotope Analysis

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




Seasonal Species Composition Change - Swift Creek
100
90
80
70
60
50
40
30
20
10
0
Captured
20
2
88
1
8
4
1
12
1
15
Spring
Summer
Fall
Season
cottid
longnose dace
coho
cutthroat
bull trout

Seasonal Species Composition Change - Merwin Reservoir



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