

**FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
March 12, 2009
Ariel, WA**

ACC Participants Present (22)

Eli Asher, LCFRB
Clifford Casseseke, Yakama Nation
Michelle Day, NMFS
Jeremiah Doyle, PacifiCorp Energy
Pat Frazier, WDFW
David Hu, US Forest Service
Bernadette Graham Hudson, LCFRB
Adam Haspiel, USDA Forest Service
LouEllyn Jones, US Fish and Wildlife Service
Eric Kinne, WDFW
George Lee, Yakama Nation
Erik Lesko, PacifiCorp Energy
Jim Malinowski, Fish First
Kimberly McCune, PacifiCorp Energy
Todd Olson, PacifiCorp Energy
Frank Shrier, PacifiCorp Energy
Shannon Wills, Cowlitz Indian Tribe
Kate Miller, Trout Unlimited
Neil Turner, WDFW

Brad Caldwell, Washington Department of Ecology (WDOE)
Chris Maynard, Washington Department of Ecology (WDOE)
Eric Schlorff, Washington Department of Ecology (WDOE)

Calendar:

April 8, 2009	TCC Meeting	Merwin Hydro
April 9, 2009	ACC Meeting	Merwin Hydro

Assignments from March 12, 2009 Meeting:	Status:
McCune: Email Aquatic Fund Evaluation Matrix, 2008/2009 to ACC	Complete – 4/2/09

Assignments from February 12, 2009 Meeting:	Status:
Vigg: Provide formal comment to PacifiCorp regarding the Lewis River Spawning Gravel Evaluation - Final Report, December 2008	Complete – 3/4/09
McCune: Add Bernadette Graham-Hudson to the H&S Plan Subgroup email distribution list.	Complete – 2/13/09
McCune: Check availability of Woodland City Hall council chambers and the conference room at the Merwin Hydro Control Center and advise the H&S Plan Subgroup attendees.	Complete – 2/13/09

Doyle/McCune: Provide a copy of the Baseline Monitoring Subgroup 2/4/09 meeting notes and distribute to the ACC.	Complete – 2/20/09
McCune: Proceed with securing contract extensions with US Forest Service relating to the 2007 aquatic fund projects.	Complete – 2/20/09
McCune: Contact the appropriate individuals and request a closeout project report for 2008 aquatic fund projects.	Complete – 2/19/09

Opening, Review of Agenda and Meeting Notes

Frank Shrier (PacifiCorp Energy) called the meeting to order at 9:05am. Shrier requested a roundtable introduction for the benefit of new attendees. He also reviewed the agenda for the day and requested any changes/additions. No changes were requested.

Shrier requested comments and/or changes to the ACC Draft 2/12/09 meeting notes. No changes were requested. The meeting notes were approved at 9:15am.

Federal Energy Regulatory Commission (FERC) Update

Todd Olson (PacifiCorp Energy) informed the ACC that the Shoreline Management Plan was submitted to the FERC last fall. The FERC is still deliberating and PacifiCorp has not heard back from the FERC regarding the status.

In addition, the Amendment No. 1 to the Lewis River Settlement Agreement (SA) has been sent to all SA Parties for a 90-day review and comment period. Thus far PacifiCorp has received verbal approval from all parties that the amendment is acceptable and they plan to sign the document within the 90-day period. A follow-up meeting scheduled in May 2009 may not be needed.

Hatchery & Supplementation Plan Subgroup Update

Erik Lesko (PacifiCorp Energy) informed the ACC attendees that the wild winter Steelhead (WWSTH) Annual Operations Plan is nearly complete and collection has begun. So far three non-clipped males have been collected and waiting for genetic analysis. No females have been collected as of yet. Eric Kinne (WDFW) informed the ACC attendees that they are working on the Winter Steelhead HGMP update and resubmitting to the NMFS for approval.

H&S Plan needs to be submitted to the FERC on or before December 26, 2009. PacifiCorp will be requesting an approval from the FERC to submit at the end of this year due to conflicting dates in the FERC licenses where one license calls for the plan in June 2009.

The H&S Plan Subgroup still need to work through the spring Chinook and coho HGMPs.

Study Updates

Lesko and Shrier provided the following study updates:

Swift Constructed Channel Concept Design and Swift Upper Release Design – Bid meeting will take place soon which will include a visit to the site. PacifiCorp pushed the construction out to May 2009. The large woody debris required for the constructed channel is currently being collected at Merwin. Current design calls for approximately 140 pieces of large woody debris including root wads. The construction permits are in place.

Hatchery Upgrades

Lewis River Pond 15 – Demolition taking place now and construction completion is expected by September 2009.

Acclimation Pond Plan – A re-approval and redesigned request for proposal is needed, which will be submitted today or tomorrow.

Water Quality Management Plan – PacifiCorp submitted the second Draft to Washington Department of Ecology on March 11, 2009 for DOE review.

Monitoring and Evaluation Plan (ACC Review Draft) –The Draft Plan is due to the ACC within one year of license issuance (6/26/2009) at which time PacifiCorp will provide a draft and a 90-day review and comment period.

Baseline Monitoring Plan – If time allows the Baseline Monitoring Plan Subgroup will meet after the ACC meeting today. The subgroup is working toward finalizing a plan by June 2009.

Yale Entrainment Net – A contract was awarded; PacifiCorp requested an early construction window but now may need to request a late construction window for permitting related to fish enhancement projects. Permits may take as long as six months which creates significant delay in construction.

ACC/TCC 2008 Annual Report – Approximately 90% complete. The Utilities plan to send out to the ACC and TCC for review by late March 2009.

Merwin Upstream 60% Design Report – Is available for the 30-day review and comment period. Comments are due on or before April 2, 2009. See McCune if you would like electronic or hard copies.

Other Topics

Rainbow trout require special handling at the Swift Downstream Facility and the Engineering Subgroup requested that the ACC provide an opinion on the handling which involves a Braille system for removing large fish. The separator may allow smaller rainbows to go out with the smolts.

WDFW does not want Goldendale rainbows in the lower river

Shrier stated the Goldendale are fall spawners and would not interfere with native stocks. (Frazier) WDFW – if the Goldendales were to become established they could create competition-there are a lot of unknowns

Shrier – The separator is adjustable and will be set for smolt size fish; approximately 180 – 300mm. If WDFW were to plant only large rainbows, this could keep them out of the

lower river. Shrier stated that this would not be reliable if there were smaller rainbow present that were offspring of the Goldendales. WDFW is considering this issue and may sort rainbow planted fish according to size prior to release into Swift reservoir and focus on growing the fish to a larger size.

Eli Asher, Brad Caldwell, Chris Maynard and Eric Schlorff joined

Washington Department of Ecology (WDOE) – Eric Schlorff

Eric Schlorff (WDOE) provided a PowerPoint presentation titled, “*Water Quality Issues, 401 Certifications vs. Settlement Agreement* for ACC review and comment. A copy of the presentation has been included as [Attachment A](#) for additional detail, which may have not been addressed below. Schlorff provided an overview of water quality issues comparing the 401 certifications vs. the Lewis River Settlement Agreement. He discussed water quality issues such as temperature criteria, total dissolved gas (TDG) and spill control of oil. The PowerPoint contains maps of the Lewis River systems and areas of potential elevated temperatures. Schlorff discussed temperature monitoring and attainment to include that the 401 requires identification of reasonable & feasible methods for reasons such as:

- To ensure water temperature is low enough not to cause harm
- May need to model system and manage as system with cold releases
- May need temperature offsets
- Identify adaptive management to improve temperature fluctuations

Schlorff discussed in detail the spill TDG limits and that the standard does not apply if flows are > 7Q10 exceedance flow.

7Q10 = for 7 days of the highest flows out of every year for 10 years
TDG = when water plunges, the air that is entrained creates a gas, basically the fish will get the bends; nitrogen narcosis; embolism in the heart and could kill the fish

Furthermore, TDG exceedance (if any) requires a gas attainment plan. The Settlement agreement addresses this requirement as follows:

- *PacifiCorp shall obtain a 3-day river flow forecast...determine forecasted flow with 85% probability...If flood will use the 17 foot hole reserved for flood control then PacifiCorp must make a prerelease.”*

And the 401 certification indicates

- In 401 certification: During high flows > 7Q10, manage spill levels & gates to minimize TDG.

The attainment plan shall include:

- Description of standard operations to minimize TDG
- Description of how to minimize spills that produce TDG
- Evaluation of structural and operational ways to minimize TDG
- Timeline for operational adjustments
- Schedule for construction

- Monitoring plans to further evaluate TDG and test effectiveness of gas abatement controls

Schlorff also discussed the 401 requirements specific to oil spill prevention and control to include oil water separators, oil, fuel, chemical—no discharge to state waters, containment and removal of oils from water and immediately report and clean-up any oil spills to water, sumps, or ground.

Transformer decks must be impervious, containment area must contain all spill fluids—resurface, fill and caulk, must use industry standards to protect water quality and snowy or icy conditions require daily inspections of transformer deck—inspect drains for freeze-up, remove pooling water. Also discussed was oil spill prevention from installation of oil sensors at the surface and set to a level that catches the top and bottom of each pumping cycle, weekly inspection, immediate repair of leaks in the turbine pit that cannot be contained (or greater than 1 gal/hr) and oil, fuel and chemical storage containment areas.

<Break 10:30am>

<Reconvene 10:40am>

Washington Department of Ecology (WDOE) – Chris Maynard

Chris Maynard (WDOE) provided a PowerPoint presentation titled, “*Lewis River Settlement Agreement and 401 License Conditions* for ACC review and comment. A copy of the presentation has been included as [Attachment B](#) for additional detail which may not have been addressed in the text below. Maynard presented a walk-through of the 401 water quality certification (401) *and a* detailed walk-through and discussion of the settlement agreement as it relates to the 401.

Maynard informed the ACC attendees that ecology was not part of Settlement Agreement (SA) and that WDOE developed the 401 conditions after SA, however it is the interest of WDOE to work cooperative with the ACC efficiently by way of good communication to ensure compliance with the 401 conditions as they are interwoven with the settlement agreement.

Maynard communicated that the 401 is in each License as Appendix B, although the conditions differ a bit in each but contain:

- General conditions
- Flow and habitat
- Water quality
- Construction and oil
- Monitoring and evaluation

The 401 addresses flow conditions to include below Merwin, the upper release below Swift 1 and the constructed Channel below Swift No 1. In addition, the 401 also addresses habitat improvements such as to the upper constructed channel, channel configuration and gravel.

Maynard further addressed the purpose of the Settlement Agreement is for the SA Parties to agree that the SA covers all 401 requirements and will not object through legal or

administrative proceedings in this regard. Ecology included additional conditions in the 401 as well as adaptive management requirements that are not in the SA. The 401 certification recognizes a potential for a disjunct between SA/PME conditions and 401 conditions.

He further discussed the goals, evaluation, program phases and adaptive management of the Lewis River fish reintroduction, fish passage measures, flow release of the constructed channel i.e., permitting and construction, interim flows and flow interruptions.

General discussion took place regarding water right timeline and any unforeseen delays with WDOE issuing permits in a timely manner. PacifiCorp was instructed by WDOE to allow a minimum of two years.

Maynard also discussed WDOE's areas of interest specific to the aquatic habitat enhancement projects such as the spawning gravel below Merwin, the aquatic habitat fund, the hatchery supplementation program and aquatic monitoring.

Lastly, Maynard reviewed the coordination and decision making of the Settlement Agreement specific to how could WDOE best coordinate with the ACC's implementation efforts.

PacifiCorp will notify WDOE of upcoming ACC meetings via email distribution and WDOE will participate from time to time when appropriate.

**Bernadette Graham-Hudson, Brad Caldwell, Chris Maynard
and Eric Schlorff departed**

<Break 12:10pm>

<Reconvene 12:40pm>

Kate Miller joined

Aquatic Funding Proposal Selection

Olson provided the following aquatic fund schedule clarification to the ACC attendees:

- Full Proposals due: January 2009
- Project Information Meeting: February 2009
- Proposal Evaluation from Utilities: March 2009
- Project Selection: April 2009

Olson requested each ACC representative in attendance to provide comment on the following remaining projects, which will be recorded in the *Lewis River Aquatic Fund ACC Evaluation Matrix 2008/2009*, dated March 17, 2009 ([Attachment C](#)).

USDA Forest Service	Pine Creek Instream Nutrient Enhancement
USDA Forest Service	Clear Creek Instream Habitat Restoration
USDA Forest Service	Pepper Creek Instream Habitat Restoration
Lower Columbia Fish Enhancement Group	North Fork Lewis River RM 13.5 Habitat Enhancement
Cowlitz Indian Tribe	Plas Newydd RM 2.0 Off-Channel Habitat Enhancement
USDA Forest Service	Spencer Peak Road Decommission

Kate Miller, George Lee and Clifford Casseseka departed

Public Comment

None

Agenda items for April 9, 2009

- Review March 12, 2009 Meeting Notes
- **Aquatic Funding Proposals Selection – ACC Decision Required**
- Blue Ridge Timber Cutting, Stream Restoration Presentation
- Update from H&S Plan Subgroup
- Update from Baseline Monitoring Subgroup
- Study/Work Product Updates
- FERC Update

Next Scheduled Meetings

April 9, 2009	May 14, 2009
Merwin Hydro Control Center	Merwin Hydro Control Center
Ariel, WA	Ariel, WA
9:00am – 3:00pm	9:00am – 3:00pm

Meeting Adjourned at 3:00 p.m.

Handouts

- Final Agenda
- Draft ACC Meeting Notes 2/12/09
- [Attachment A](#) – WDOE PowerPoint: Water Quality Issues, 401 Certifications vs. Settlement Agreement, presented by Eric Schlorff
- [Attachment B](#) - WDOE PowerPoint: Lewis River Settlement Agreement and 401 License Conditions, presented by Chris Maynard

- [Attachment C](#) – Lewis River Aquatic Fund ACC Evaluation Matrix 2008/2009, dated March 17, 2009

Water Quality Issues

401 Certifications VS Settlement Agreement



Big issues for Certification (Covered under SA too)

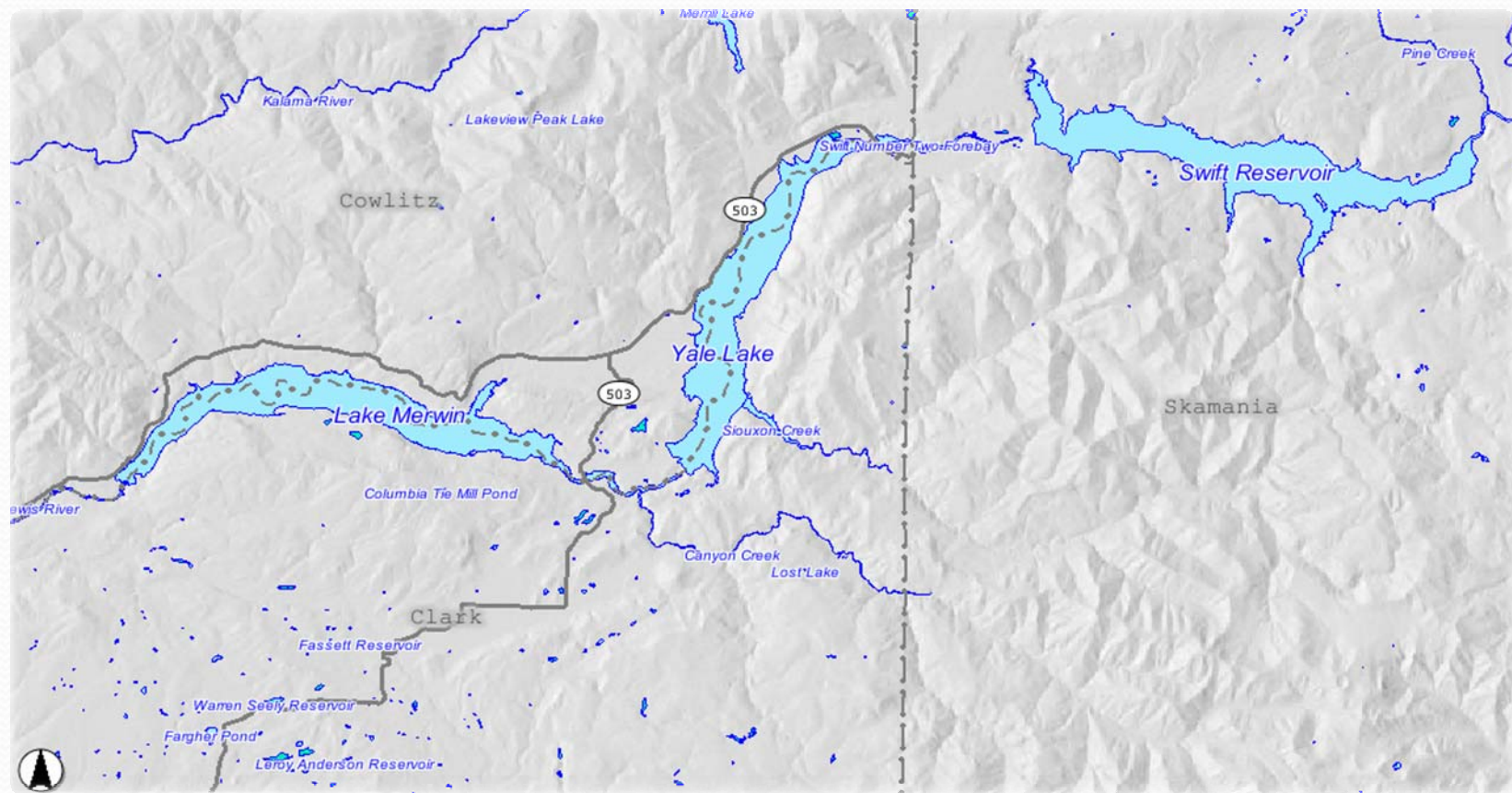
- Temperature
- Total Dissolved Gas
- Spill Control of Oil (No detail in SA)



Temperature Criteria

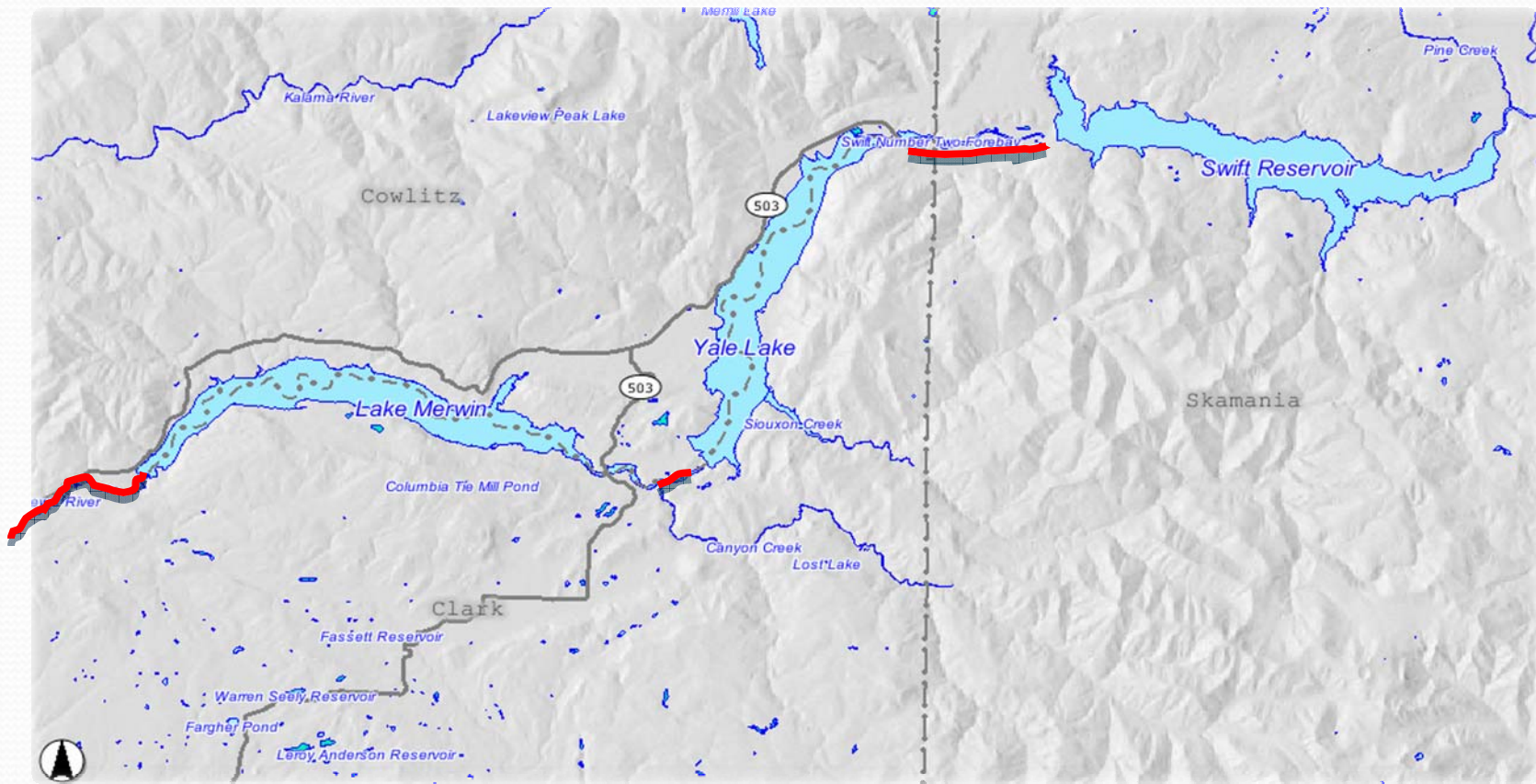
- 16°C In Main Stem and Most Tributaries
- 13°C Below Merwin (Sept 1 – June 15)
 - (16°C June 16- August 31)
- Temperature Fluctuations (Yale, Merwin)

Lewis River System



Lewis River

Areas of Potential Elevated Temperature



Temperature monitoring and Attainment (401 cert. section 4.4.3)

- Swift Bypass Reach
 - Difficult to meet Criteria now, but added flows may cool
- Merwin Tailrace
 - Difficult to meet Criteria during early fall

401 Requires ID of Reasonable & Feasible Methods

- To ensure Water Temperature is Low Enough Not to Cause Harm
- May need to model system and manage as system with cold releases
- May need temperature offsets
- ID adaptive management to improve temperature fluctuations

Total Dissolved Gas (TDG)

- TDG Excursions Above 110 Percent
 - Does not count if flows are $> 7Q_{10}$ exceedance flow
 - $> 32,884$ CFS at Merwin & Yale
 - $> 21,322$ CFS at Swift No. 1
 - And $7Q_{10}$ exceedance occurs at Swift No. 1
(exceedance was formed outside of the system)

TDG Exceedance Requires a gas attainment Plan

- If exceedance occurs when flows $< 7Q_{10}$
- Or flow originates from within the system
- Or operations used to reduce TDG have not been followed

Control Over Qualifying 7Q10 Events (in the 401 & the SA)

- *“PacifiCorp shall obtain a 3-day river flow forecast...determine forecasted flow with 85% probability...If flood will use the 17 foot hole reserved for flood control then PacifiCorp must make a prerelease.”*
- In 401 certification: During high flows $> 7Q_{10}$, manage spill levels & gates to minimize TDG



TDG Attainment Plan Includes:

- Description of standard operations to minimize TDG
- Description of how to minimize spills that produce TDG
- Evaluation of structural and operational ways to minimize TDG
- Timeline for operational adjustments
- Schedule for construction
- Monitoring plans to further evaluate TDG and test effectiveness of gas abatement controls



Oil Spill Prevention and Control (401)

- Oil, fuel, chemical—no discharge to state waters
(Ch. 90.56 RCW and Ch. 90.48 RCW)
- Contain and remove oils from water
- Immediately report and clean-up any oil spills to water, sumps, or ground.

Oil Spill Prevention

- Oil-Water Separators (OWS)
 - Only admit rain and water run-off to the OWS
 - Maintenance plan—test oil stop valves and other maintenance
 - Total volume of all transformers plus 10 percent
 - Verify oil will not be “washed through” the OWS

Oil Spill Prevention

- Transformers

- Deck must be impervious, containment area must contain all spill fluids—resurface, fill and caulk
- Use industry standards to protect water quality
- Snowy or icy conditions require daily inspections of transformer deck—inspect drains for freeze-up, remove pooling water

Oil Spill Prevention

- Sumps
 - Oil sensors at surface and bottom of each pumping cycle
 - Inspect weekly (immediately if oil spill is suspected)
 - Immediately repair leaks in the turbine pit that cannot be contained (or greater than 1 gal/hr)

Oil Spill Prevention

- Oil, fuel and chemical storage containment areas
 - Provide proper containment (110%)
 - Provide external level gages (with translation of gage reading to volume & gallons)
 - Regularly check hoses, oil drums, fuel transfer valves and fittings for drips and leaks.
 - No refueling within 50 feet of rivers, creeks, wetlands or other waters
 - Keep records
 - Contain wash water with oils and grease



My Contact information

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Lewis R Settlement Agreement and 401 License Conditions

- *Background*
- Walk through the 401 water quality certification (401)
- A detailed walk through and discussion: the settlement agreement as it relates to the 401



Chris Maynard 360 407-6641
Hydropower and Instream Flows
Water Resources Program

The background image shows a large concrete dam with a spillway on the left. A steel truss bridge spans across the water in the foreground. In the distance, a tall tower is visible against a clear blue sky. The water is a calm, light blue color.

Background

Ecology was not part of settlement agreement (SA)

Ecology developed 401 conditions after SA

Involved SA parties in 401 development through meetings and formal public review

Still, need to work together

The background of the slide is a photograph of a large dam structure, likely a concrete gravity dam, with a spillway on the left. The dam is situated in a natural setting with trees and a body of water in the foreground. The sky is clear and blue. The text is overlaid on the left side of the image.

Background

Flow and water quality is our focus

Ecology is not bound by the SA

Required compliance with 401 conditions is interwoven with the settlement agreement. To avoid conflict we need to:

1. Work cooperatively with the ACC
2. Work efficiently: less meetings, good communication
3. Require compliance with the 401

The background of the slide is a photograph of a large dam and bridge structure. The dam is a concrete structure with a large spillway on the left. A bridge with a steel truss structure spans across the water in the foreground. The water is blue and calm. The sky is a pale blue. The overall scene is a large-scale engineering project in a natural setting.

settlement agreement/401 walkthrough

The 401 is in each license as 'appendix B'

Conditions differ a bit in each but contain:

- General conditions
- Flow and habitat
- Water quality
- Construction and oil
- Monitoring and evaluation

Let's walk through the 401...

settlement agreement/401 walkthrough

The 401 – general conditions

The 401 certification conditions are dynamic requiring continuing coordination to adapt to new information:

- The State retains authority to respond/adapt to changes in water quality standards
- adapt to new information
- Clearly retain State Authority in the federal license

settlement agreement/401 walkthrough

The 401 – general conditions

- 4.0 - 401 does not authorize exceedance of water quality standards
- 4.1.1 - Must comply with state water quality laws
- 4.1.2 - Future changes in standards apply to the licensee.
- 4.1.3 - Ecology approval for any discharge into water required
- 4.1.4 - Ecology approval for any significant change in operation
- 4.1.5 – Requires compliance with other state (and federal) laws
- 4.1.6 - WDFW Hydraulic approval required
- 4.1.7 - Ecology can issue Orders to modify schedules
- 4.1.8 - Ecology can issue Orders to modify monitoring and studies

settlement agreement/401 walkthrough

The 401 – general conditions (continued...)

- 4.1.9 - Ecology can amend the 401 conditions to meet state law
- 4.1.10 - Ecology can initiate state legal actions
- 4.1.11 - The Licensees can protect beyond the limits of the 401
- 4.1.15 – Access for inspection required
- 4.1.16 – Respond to Ecology for request for information
- 4.1.17 – If violations occur or work causes pollution, fix it
- 4.1. 18 or 19 - Keep Ecology informed and keep working on water quality issues through water quality management plans.

settlement agreement/401 walkthrough

The 401 – flow conditions

•4.2 Flows:

- Below Merwin
- Upper release below Swift 1
- Constructed Channel below Swift No 1

Habitat Improvements:

- Upper constructed channel
 - Channel configuration
 - gravel
- Constructed Channel
 - Gravel

Currently actively involved in design and construction of channel below Swift No 1.

settlement agreement/401 walkthrough

Settlement Agreement



settlement agreement/401 walkthrough

Settlement Agreement

Section 1. Purpose and Effect

§ 1.1 – Purpose. Parties to the SA agreed that the SA covers all 401 requirements and will not object through legal or administrative proceedings in this regard. Ecology included additional conditions in the 401 as well as adaptive management requirements that are not in the SA.

§ 1.1.6 - 401 certification. Recognizes a potential for a disjunct between SA/PME conditions and 401 conditions. Water rights needed, additional measures may be needed.

settlement agreement/401 walkthrough

Settlement Agreement

Section 3. Fish Reintroduction

§ § 3.1 – 3.5 Goals, Evaluation, Program Phases and Adaptive Management. Based on future fish use, success of reintroductions, in the bypass reach below Swift No. 1 and below Merwin, flows may have to be adjusted and habitat improvements adjusted—such as gravel enhancement .

settlement agreement/401 walkthrough

Settlement Agreement

Section 4. Fish Passage Measures

§ 4.1.3 – Permits. Construction permits from Ecology are already covered in the 401 issued in 2006. Short term water quality modifications are no longer required—unlike the license says in Appendix B § 4.5.1. Over the license, construction requirements may change through amendments to 401 if needed. Would talk to ACC about that.

Water rights are required for diverting water for fish passage, rearing ponds, collection facilities, and hatcheries. Can get new water rights or change existing ones. The ability to get one affects timing and potential of fish passage measures.

Ecology wants involvement in upstream and downstream fish passage and collection facilities to ensure they have the permits they need and comply with water quality standards.

settlement agreement/401 walkthrough

Settlement Agreement

Section 5. Additional Aquatic Measures

§ 5.1 – Yale Spillway Modification. Will likely have flow and water quality impacts. Must have Ecology review.



settlement agreement/401 walkthrough

Settlement Agreement

Section 6. Flow Release. The flow section of the 401 has several places it specifies 'coordination with the ACC, with final approval by Ecology'.

Section 4.2.6 of the 401 has flows for the bypass reach, upper and lower release points from the canal. Ecology has approval authority over changes in flows.

§ 6.1.3.f – Constructed Channel. If the lower channel isn't constructed, the SA directs the flow to the upper channel. Since the channel is being built, we do not see a need to discuss upper channel suitability for higher flows. We expect both channels to be constructed and flows released by Oct/Nov, 2009.

§ 6.1.3.g – Constructed Channel flows. The 401 (§4.2.6) flows are different, less than the SA. But in the 401, flows can never be interrupted.

settlement agreement/401 walkthrough

Settlement Agreement

Section 6. Flow Releases.

§ 6.1.2 – Construction of upper release point. The licensee determines location and design. Thought the SA language leaves design up to Licensee, and the 401 includes Ecology approval, we see and hope to enhance communication between SA, Licensee and Ecology on this matter Ecology and PacifiCorp have finalized the design and location.

Possible to alter stream flows of both channels through coordination and staying within the water budget.

settlement agreement/401 walkthrough

Settlement Agreement

Section 6. Flow Releases

§ 6.1.3 d– Permitting and construction. Licensee to obtain necessary permits. Construction 401 permits have already been obtained through language in the 401 and therefore the license. May consult with other permitting agencies though—like the Corps. May consider amending 401 in the distant future if there are significant changes in construction requirements.

§ 6.1.3 Ecology wants fish habitat (§ 4.2.4) as the primary goal of the constructed channel – hence the need to be involved with this decision-making review process—even after construction and with future operation.

§ 6.1.4a – Interim Flows. The ACC may change flows in the bypass channels based on certain considerations The 401 (§ 4.2.6) says that any changes to these flows must have Ecology’s approval.

settlement agreement/401 walkthrough

Settlement Agreement

Section 6. Flow Releases

§ 6.1.5a – Licensee may, at times stop releases from this channel. Ecology requires continuous flows through this channel (§ 4.2.5 and (§ 4.2.6) Let's talk about this.

§ 6.1.6 – Flow Interruptions. Allowed under certain circumstances. The 401 (§ 4.2.6) does not allow disruption of flows. We don't ever want to see this occur. It is a replacement stream allowing the dam to be there—mitigation. The 401 recognized that there might be something out of the dam owner's control; but everything possible would have to be done to keep flows going. In this vein, input into design of 'temporary replacement facilities' per SA §6.1.6c. Is important to us.

settlement agreement/401 walkthrough

Settlement Agreement

Section 6. Flow Releases

§ 6.2 Merwin Flow Releases. Requires min flows, ramping rates and plateau flows. The 401 for Merwin requires settlement agreement flows (§ 4.2.1) Any changes to these flows need Ecology input and approval through amending the 401.

§ 6.1.3.g Swift No 1 Canal Releases Upper release. Interim release differ slightly from the 401 (§ 4.2.6). The 401 releases supersede the SA when they are higher. October, March, April, May = 1 cfs higher.

See canal release flow comparisons in next two slides...

settlement agreement/401 walkthrough

Settlement Agreement

Section 6. Flow Releases –Settlement Agreement

Upper channel release until Oct-Nov 2009 (as constructed channel is complete)

60 cfs July-October

100 cfs November-January

75 cfs February–June

Before both channels are operational, allocate monthly, annual, and continuous flow for the constructed channel.

During the next 12 months, adjust based on constructed channel. Revise flow if needed every 5 years.

annual between the two release points: <55,200af

<17,078 af July-October (averages to 70/month)

<80 cfs max between July -October

<100 cfs November– June

<47cfs canal drain

settlement agreement/401 walkthrough

Settlement Agreement

Section 6. Flow Releases 401

Canal Drain: 14 cfs

Combined: 55200 af annual.

Upper Release Point:

Cannot interrupt flow releases through upper release point

November 1-15:	76 cfs
November 16-30:	56 cfs
December – January:	51 cfs
February:	75 cfs
March – May:	76 cfs
June - September 23:	54 cfs
September 24 – 30:	55 cfs
October:	61 cfs

settlement agreement/401 walkthrough

Settlement Agreement

Section 7. Aquatic Habitat Enhancements. Water rights may be needed

§7.2 Spawning Gravel below Merwin. We felt the gravel below Merwin was already supporting good salmon spawning. So we did not put in any more conditions for gravel habitat below Merwin.

The 401 has conditions for placement, evaluation and adaptive enhancement of Gravel in the upper constructed channel and swift bypass. We welcome ACC involvement with this.

settlement agreement/401 walkthrough

Settlement Agreement

Section 7. Aquatic Habitat Enhancements. Water rights may be needed

§7.5 Aquatic Habitat Fund. Can provide information about enhancement opportunities. Involved with other projects in the N & E Fork watersheds. Could work with group or WDFD..what do you think?

settlement agreement/401 walkthrough

Settlement Agreement

Section 8. Hatchery Supplementation Program

Areas of Ecology interest:

- Water Rights
- NPDES
- 401
 - §4.1.3 appropriate requirements of state law
 - 4.1.3 Pollution Prohibited
 - 4.1.4 Ecology Approvals Required
 - 4.1.5 Does not provide exemption from other state laws

• SA activities should avoid conflicting with water quality standards goals, core species, and criteria:

For instance, the standards are set to protect the most cold-water sensitive fish. Over the years, introduction of anadromous fish may require different levels of protection.

settlement agreement/401 walkthrough

Settlement Agreement

Section 9. Aquatic Monitoring. Ecology is interested in fish introduction successes as this may affect how water quality standards change and related activities are carried out such as introduction of anadromy.

Coordination between the 401 monitoring measures and some of the SA monitoring requirements would be useful.



settlement agreement/401 walkthrough

Settlement Agreement

Section 14. Coordination and Decision Making. Ecology is excluded from specific coordination and decision making procedures outlined in this section. At the same time, Ecology is not limited by this decision-making language. How could the SA best coordinate with Ecology?

Section 15. Implementation of the Agreement. Again, Ecology is not bound by the agreement. A water-quality, habitat, or flow issue may rise to a level of concern that conflicts with the Agreement but warrants action to protect beneficial aquatic uses. If so, Ecology will work through with the ACC to resolve the conflict but can take independent action if needed.

Lewis River AQ Fund ACC Evaluation for Funding 2008-09

ACC Decision	Applicant	Project Title	NMFS	WDFW	Fish First	LCFRB	Yakama Nation
1	USDA Forest Service	Pine Creek Instream Nutrient Enhancement	Favors Carcasses: if not available she will support analogs. Supports project funding.	Worthwhile project. Forest Service needs to provide monitoring to show response of macro invertebrate populations. We do have a concern about lack of structure to keep carcasses from remaining in desired location. Need to consider tethering in place. Favors analogs; can't move carcasses between basins; can't use file fish; analogs will provide more ability to add nutrients. Analogs first will support funding either way.	Support the project, however, how does this project fit in with the SA requirements? Favors use of analogs.	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 recommend that nutrient enhancement projects mimic natural processes as closely as possible. Thus, we recommend the use of carcasses, rather than analogs, until results of more detailed carcass analog studies have been obtained. Also, we recommend carcass treatment in the fall when fish would normally be returning. Dependent on further ACC discussion. Prefers closely mimicking natural process is of particular interest to LCFRB. Prefers use of carcasses and distribution in the Fall. Tentatively support funding this project.	Prefers natural supplementation funding as long as use carcasses (after 3-week holding period from treatment of antibiotics). Supports funding this project.
Project withdrawn 1/27/09							
2	USDA Forest Service	East Fork Lewis River Instream Structures Steelhead					
3	USDA Forest Service	Clear Creek Instream Habitat Restoration	Undecided at this time.	Primary concern is whether or not we are addressing the key limiting factor in this reach. EDT highlights siltation as highest problem for most species in this basin. Production has generally been less than expected for the quality of habitat that exists in this basin. May be a water quality issue (e.g. heavy metal, copper). Should test water quality before implementing this project. Other concern is high cost of the project. Large part of the cost of this project is hauling of wood. WDFW would be more supportive if there was at least a 50% match for wood hauling costs. Finite funding source; perhaps wait a couple of years. Do not support funding.	Cost is a concern. Large woody debris is beneficial to the system. He supports funding this project.	This project is located in Clear Creek, a Tier 2 reach according to LCFRB's Habitat Strategy. The placement of large wood is rated as a High priority project type. We have some concerns over the size of wood and stability of the project over time. We also have some concerns over the source of large wood as it relates to project funds. Dependent on further ACC discussion of these issues. Tentatively support funding this project.	Concerned about cost, timing and the species of large woody debris to be used for this project. Support funding at this time.
4	USDA Forest Service	Pepper Creek Instream Habitat Restoration	Undecided at this time.	Valuable project, especially for low costs. Supports funding this project.	Supports funding this project.	This project is located in Pepper Creek, a Tier 4 reach according to LCFRB's Habitat Strategy. The project also may have benefits to fish in the downstream reach, Lewis 20, a Tier 1 reach, as off-channel habitat. The placement of large wood is rated as a High priority project type in Pepper Creek, and enhancement of off-channel habitat is rated a High priority project type in Lewis 20. We have some concerns over the source of large wood as it relates to project funds. Dependent on further ACC discussion of this issue, we tentatively support the funding of this project.	If it helps bring more spawning habitat into the system then supports funding this project.
5	Lower Columbia Fish Enhancement Group (LCFEG)	North Fork Lewis River RM 13.5 Habitat Enhancement	Copncerned about high cost; undecided at this time.	Valuable project that complements other projects utilizing other funding sources such as SRFB. Multiple projects working in coordination increases value of this project. WDFW is concerned about the high cost of this project also. Again the bulk of the cost is associated with purchasing wood for this project. WDFW believes that PacifiCorp should actively manage the wood bank to provide wood for this project so as to lower costs. WDFW would consider this a top priority for the wood bank. Tentatively supports funding this project if reduction in wood expenses.	Do not support funding this project due to high costs.	This project is located in Lewis 5, a Tier 1 reach according to LCFRB's Habitat Strategy. The placement of large wood structures is rated a High priority project type. This project was reviewed by the LCFRB TAC during the 2008 SRFB funding cycle, and was recommended for SRFB funding. We feel the potential benefits of this project are sound, but would like the ACC to discuss the high cost of this project in relationship to available funds. Dependent on further ACC discussion, we tentatively support funding of this project.	Do not support funding this project due to high costs.
6	Cowlitz Indian Tribe	Plas Newydd RM 2.0 Off-Channel Habitat Enhancement	Undecided at this time.	Valuable project. Side channel habitat is extremely limited in this section of river, which makes this project even more valuable. Will support a variety of species at different life stages. Other similar projects in the area have provided positive results. Tribe will need to monitor changes in macroinvertebrate populations and salmonid usage of the area. Tentatively supports funding this project.	Concern about lack of protections for plantings. Supports funding this project.	This project is located in Lewis 1B Tidal, a Tier 4 reach according to LCFRB's Habitat Strategy. Riparian projects are a High priority project type in this reach, but the reach has Low potential for all NF Lewis populations. We feel the potential benefits of this project to NF Lewis populations are minimal, given its location in the tidally-influenced portion of the system. Temperature conditions in the side channel are not likely to be influenced by plantings, and the applicant noted that temperature is a concern in the side channel. The side channel would not function as winter refuge, as it is inundated under high flow conditions. Based on the information provided, we do not support the funding of this project.	Absent
Project withdrawn 1/30/09							
7	Cowlitz Indian Tribe	Plas Newydd RM 0.5 Bar Plantings and LWD Structures					
8	USDA Forest Service	Spencer Peak Road Decommission	Undecided at this time.	Will support this project, but are concerned about the number of decommissioning projects the ACC should fund. Commitment by Forest Service to search for other funding for road decommissioning projects reduced WDFW's concern on funding of this project. This is a valuable project and it addresses the most important need in the basin, reducing siltation. Supports funding this project due to benefits for Clear Creek.	Considerable in-kind contributions. Strongly supports funding this project.	This project is aimed at benefitting Clear Creek, a Tier 2 reach according to LCFRB's Habitat Strategy. The project would be considered a 'Watershed Conditions and Hillslope Processes' type project, which is a High priority project type. In addition, Integrated Watershed Assessment (IWA) completed for the Recovery Plan indicates sediment conditions in downsternam subwatersheds are moderately impaired. Although there is no map included with the application, assuming the road and its failing culverts re in proximity to Clear Creek, the potential benefits of this project are sound. Dependent on further ACC discussion. Supports funding this project after viewing location of the road.	Absent

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USFS	Cowlitz Indian Tribe	USFWS	Trout Unlimited	Utilities	Next Step
<p>This project will provide increased nutrients to improve bull trout watershed conditions until reintroduction efforts begin. Prefer carcasses; not analogs. Concern about loss of carcasses since not staked in place. Recommend funding in full</p>	<p>Prefers use of carcasses in the Fall; Concerna bout loss of carcasses during first high flow event. Prefers recreating the natural process. Supports full funding.</p>	<p>Strongly prefers carcasses; if beneficial showing results in prior years of nutrient enhancement she supports funding this project.</p>	<p>What are plans for monitoring? Does not have a preference of carcasses vs. analogs. Support funding whether analog or carcasses.</p>	<p>Prefer use of carcasses; tethering would not happen naturally and increase costs. PacifiCorp supports funding this project.</p>	<p>Fish First: How does this project fit in with the SA requirements. Trout Unlimited: What are plans for monitoring?</p>
					<p>1/27/09 - US Forest Service withdrew project to give them opportunity to monitor the current Rosgen style cross vane project they installed on the East Fork Lewis River in 2008. ACC informed via email on 1/27/09.</p>
<p>This project will provide improved rearing habitat for re-introduced juvenile salmonids, and will increase and enhance spawning opportunities for reintroduced adult salmonids. Intent is to restore ecosystem process, scope of project is large; timing is right for environmental compliance Recommend funding in full</p>	<p>Undecided at this time.</p>	<p>Discussion of potential problems with chemistry in system is worrisome but leaning toward supporting funding this project.</p>	<p>Undecided at this time.</p>	<p>PacifiCorp rather this the highs of the projects; support funding</p>	<p>WDFW - wants completion of water quality study first. ACC should consider WQ testing of this stream before proceeding as a condition to project moving forward.</p>
<p>This project will provide improved rearing habitat for re-introduced juvenile salmonids, and will increase and enhance spawning opportunities for reintroduced adult salmonids - Recommend funding in full</p>	<p>Supports funding this project.</p>	<p>Supports funding this project.</p>	<p>Tentatively favoring funding this project.</p>	<p>Supports funding this project.</p>	<p>Yakama Nation: Is there a barrier?</p>
<p>This project is costly and the project proposal does not appear to demonstrate significant cost leveraging and partnership involvement. There is currently a high quality steelhead spawning area on the left bank in the project area and there is concern of damage to these spawning areas due to failure of proposed log structures under high flow conditions. The Forest Service recommends that the installation and resiliency of logjams to be installed under a separate LCFRB award in the right bank area of the project are monitored for stability under high flow conditions before additional significant funds are invested in this high risk area - Recommend partial funding</p>	<p>Fits in with the big picture; approves funding if reduction in wood costs.</p>	<p>Concern about costs but with thistype of project if does not seem outlandish. Supports funding this project.</p>	<p>Absent</p>	<p>Supports funding this project due to large projects already funding. This project will enhance ther others.</p>	
<p>USFS agrees with PacifiCorp and believes this project should have more in-kind cost sharing and include partners. Good project but not a high priority. Not decided at this time.</p>	<p>Good project; side channel habitat limited. Supports funding this project.</p>	<p>Good project; undecided at this time.</p>	<p>Absent</p>	<p>Not confident this project wil provide much benefit to fish Do not support funding this project but will not stand in the way.</p>	<p>Document results of other projects success.</p>
<p>This project will decrease sediment in Clear Creek watershed - Recommend funding in full</p>	<p>Suggest putting this off for one year until determination of stimulus package which may provide funding for this decommission. Tentatively approve funding this project.</p>	<p>Good project. Supports funding.</p>	<p>Absent</p>	<p>Coupled with the clear creek project it compliment; would prefer not to use aquatic funds if on the stimulus package award list. Tentatively approve funding this project.</p>	<p>Did this make it into the stimulus package award list?</p>