

**Meeting Summary Notes**  
**Lewis River License Implementation**  
**Merwin Trap Engineering Subgroup**  
**March 22, 2005**  
**Olympia, WA**

**Subgroup Participants Present: (9)**

Monty Nigus, Black & Veatch  
Bryan Nordlund, NOAA Fisheries  
Brent Denham, PacifiCorp  
Erik Lesko, PacifiCorp  
Kimberly McCune, PacifiCorp  
Dana Postlewait, R2 Resource Consultants  
Pat Powers, WDFW  
Eric Kinne, WDFW  
Curt Leigh, WDFW

<b>Assignments from March 22nd Meeting:</b>	<b>Status:</b>
PacifiCorp: Provide group with existing project drawings.	Complete 3/0/05, to be distributed on 5/4/05
PacifiCorp: Keep subgroup apprised of PacifiCorp fish migration study efforts.	Will have study at next meeting, Frank is lead
PacifiCorp: Investigate and report background if available on why two of the trap entrances were abandoned in 1980.	Arnold Adams researched - * see below
PacifiCorp: To email pdf diagram of sorting process diagrams to Erik Kinne	Complete 4/1/05
Subgroup: to review Facility Design Criteria document and provide comment by March 28, 2005 if possible, regardless PacifiCorp will forward revised draft for full review the first week in April.	Complete – 4/12/05

\* Interviewed all onsite personnel likely to have knowledge of traps. Traps had been blocked off before 1980's but no one was on staff when it happened. I passed several names of retired employees to Brent for follow up if more history required.

The pumps associated with traps 2 & 3 were operated once per year until 1999 when the switchgear was replaced and no new breakers were purchased for the pumps. Engineering's assessment was that the motors were in need of a rewind or with today's standards replacement with a lower voltage motor and since they were not being used no justification could be made to spend capital dollars to fix them.

**Handouts**

- Agenda
- Draft Facility Design Criteria (SA 4.2 and 4.3)
- AQU5 (Aquatic Study prepared by Montgomery Watson Harza in association with Mobrand Biometrics)
- Lewis River Implementation Aquatic Engineering Subgroup Power Point

## **Administrative**

Introductions of attendees

Engineering subgroup would like 2-3 weeks to review large documents prior to approval.

Next meeting at Merwin Hydro facility for site visit.

Summary notes will be provided and sent to engineering subgroup for review.

## **4.2 Merwin Trap & 4.3 Merwin Upstream Collection & Transport Facility**

Brent Denham (PacifiCorp) reviewed pertinent SA items with engineering subgroup.

- 4.2a Fyke repair – completed 3-14-05.
- 4.2c Merwin trap engineering upgrades – schematic design to be completed 11-30-05. Final design to be complete 90 days after issuance of License.
- 4.3 Merwin Upstream Collection & Transport Facility – 90% design drawings to ACC by 4-30-07.

Dana Postlewait (R2 Resource Consultants) presented and reviewed with the subgroup the AQU 5 Appendix 1 (Engineering Feasibility Study for Fish passage facilities – Phase 2) prior work 4.2 & 4.3 Draft Schedule was presented to the subgroup. (see handouts)

Denham communicated a historical Merwin overview to familiarize the engineering subgroup with Merwin history, aerial photos of hydro facilities, 4<sup>th</sup> Unit / Fish Gallery, Penstocks, engineering drawing of existing collection gallery, existing fyke and existing fish lift.

## **4.2 & 4.3 Project Goals**

Engineering subgroup technical expertise discussion regarding the following:

- Fishway entrance improvements
- Fishway trap/lift improvements
- Addition of a new sorting facility at the dam site
- Presented sorting facility configurations and layouts currently being reviewed by PacifiCorp.
- Subgroup agreed they need to build consensus on side boards and overall design.

Subgroup received and reviewed the following documents:

- Five (5) engineering schematic options of Merwin sorting transport facilities.
- Sorting requirements / Design criteria document (March 22, 2005)

Break 11:30am

Reconvene: 11:40am

Subgroup agreed that additional data analysis may need to be completed as part of the design process to finalize the Design Peak Daily Run sizing.

### **Upstream Sorting Process at Merwin Fish Trap**

Postlewait presented to the subgroup for review and comment the Spring Chinook Adult Fish Handling Process design; flow exceedance curves for Merwin and fish trap entrance conditions.

Postlewait presented to the subgroup for review and comment the Facility Design Criteria (fishway entrance, operating range criteria & design value) to include but not limited to trap & sorting facility water supply, preferred temperature requirements for migration, transport channel, fish ladder, fish trap, fish hopper, distribution flume, conveyance flume, sorting facility holding volume and flow.

### **6.1 Flow Releases in Bypass Reach**

Subgroup reviewed total annual release quantity, timing, discharge, location of releases, existing canal drain, upper release maximum flow, combined flow schedule, aerial photos of bypass reach and upper release.

### **Upstream Passage Fish Barrier**

Subgroup is not confident that an electric barrier is the preferred alternative. Physical barrier, velocity barrier, flow pipe, and depth barrier methods are preferred options for further consideration.

Meeting adjourned at 2:15pm