

Lewis River Hydroelectric Project

October 17, 2007

Public Meeting

Merwin Hydroelectric Project, FERC No. 935

Yale Hydroelectric Project, FERC No. 2071

Swift No. 1 Hydroelectric Project, FERC No. 2111

Swift No. 2 Hydroelectric Project, FERC No. 2213

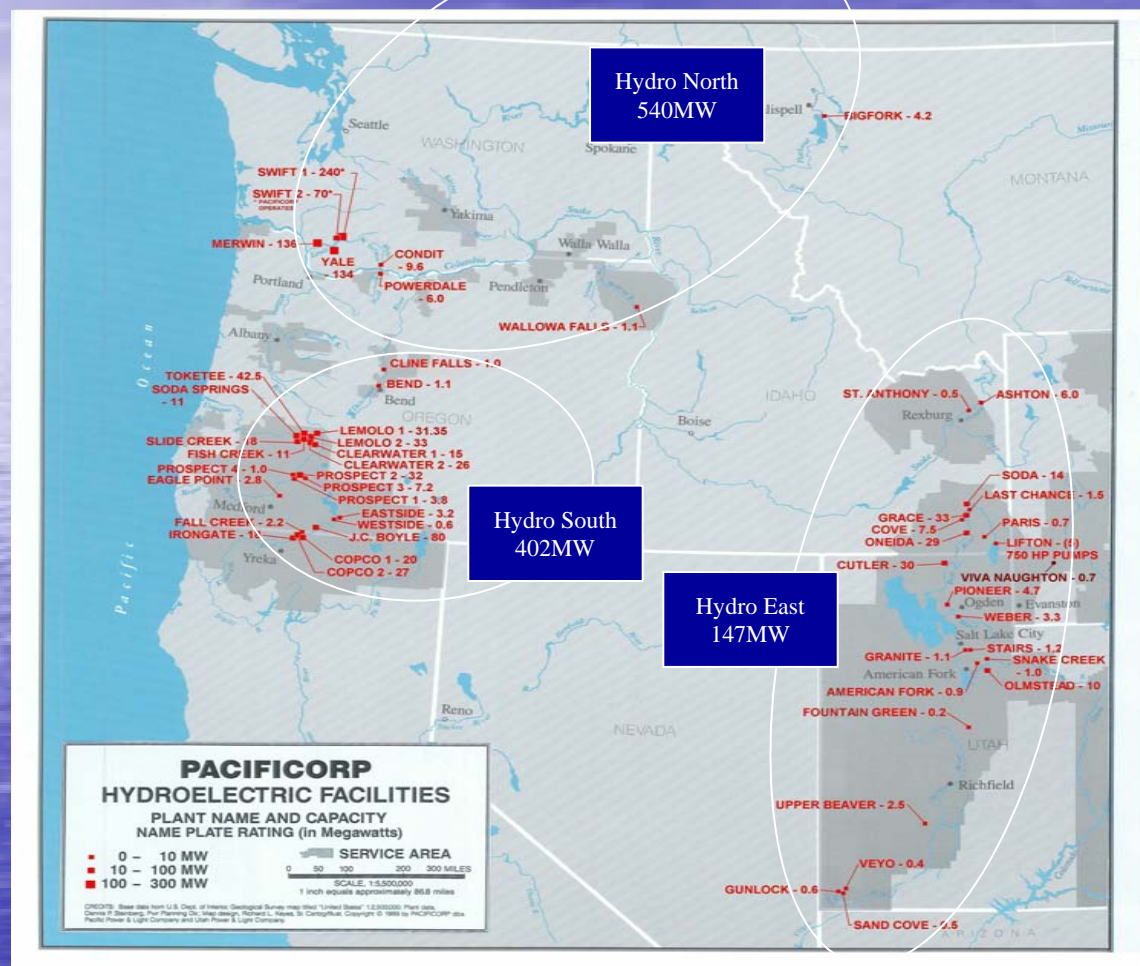


Meeting Purposes:

To provide:

- Overview of the Lewis Hydroelectric Projects
- Overview of Hydro related Facilities
- Overview of Settlement Agreement measures by resource area
- Opportunity for individual Q&A with Subject Matter Experts

PacifiCorp's Hydro Portfolio – System Map



Hydro areas consist of 3 major production locations.

Hydro North
 9 facilities (540MW)

Hydro South
 19 facilities (398MW)

Hydro East
 21 facilities (147MW)

Note: 1 Megawatt (MW) serves approximately 500 homes

Lewis River Hydroelectric Project



- Legend**
- ★ Cities
 - Stream
 - Primary Road
 - Secondary Road
 - ▭ County
 - ▭ Regional Lakes
 - ▭ PacifiCorp Property
 - ▭ WA DNR Property
 - ▭ National Forest

0 2 4 Miles

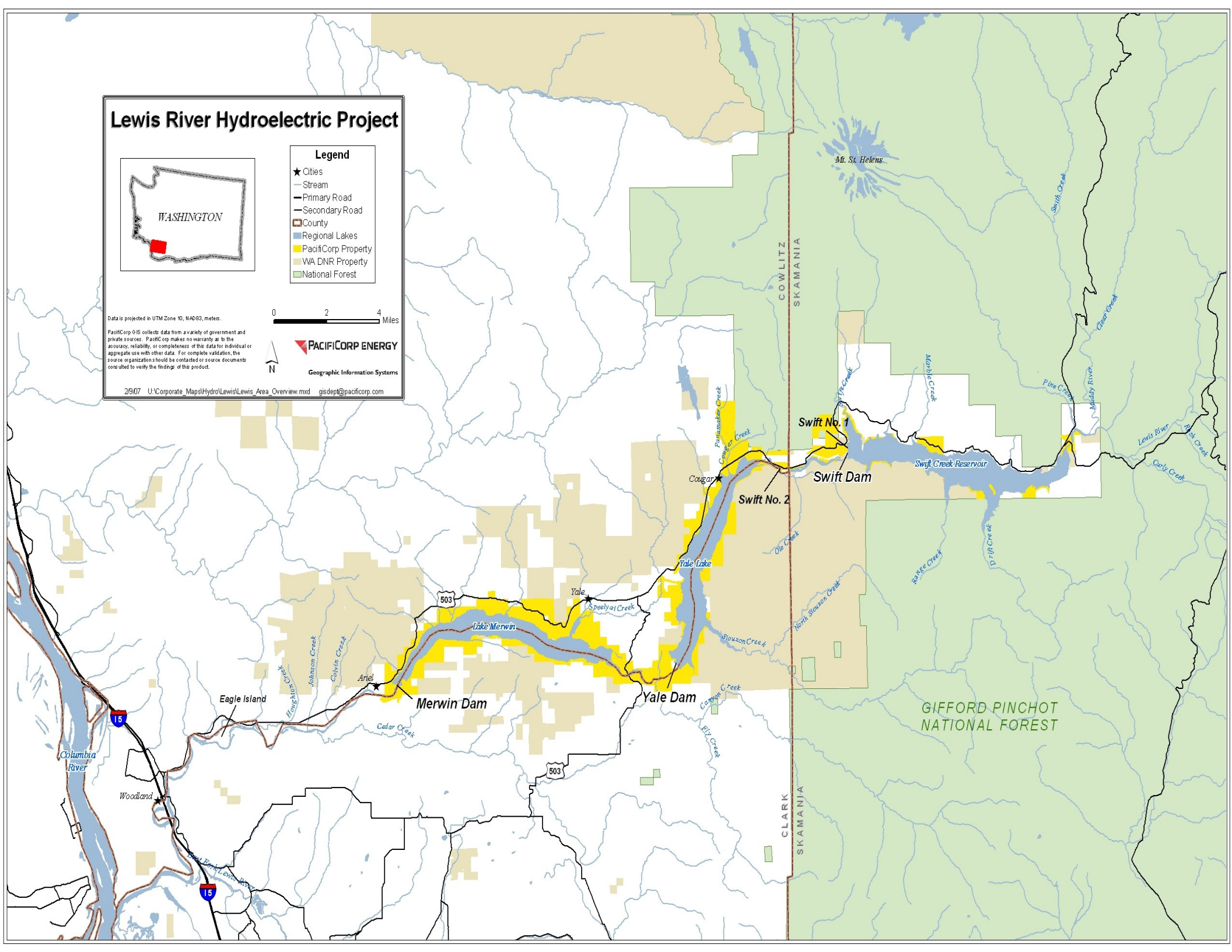


Geographic Information Systems

Data is projected in UTM Zone 10, NAD83, meters.

PacifiCorp GIS collects data from a variety of government and private sources. PacifiCorp makes no warranty as to the accuracy, reliability, or completeness of the data for individual or aggregate use with other data. For complete validation, the source organization should be contacted or source documents consulted to verify the findings of this product.

2907 U:\Corporate_Map\Hydro\Lewis\Area_Overview.mxd gisdept@pacifiCorp.com



Project Overview

- Merwin, Yale & Swift No. 1
 - Owned and operated by PacifiCorp
- Swift No. 2
 - Owned by Cowlitz County PUD
 - Operated by PacifiCorp
- Lewis River System
 - Eleven generators
 - Total output 580 MW
 - Annual energy generation 2,033,515 Mwh

Merwin Hydroelectric Project

- Merwin Dam & Powerhouse
 - Completed in 1932
 - 314 feet tall with 1300 feet of crest length
 - Three generators - total output of 136 MW
 - 4,000 acre reservoir, 14.5 miles long
 - 251,000 ac-ft. of active storage
 - 5,600 acres of land in Merwin Wildlife Management Area

Yale Hydroelectric Project

- Yale Dam & Powerhouse
 - Completed in 1953
 - 323 feet tall with 1,320 feet of crest length
 - Two generators - total output of 134 MW
 - 3,800 acre reservoir, 10.5 miles long
 - 185,000 ac-ft of storage
 - 2,100 acres in proposed Yale Wildlife Management Area
- Yale Saddle Dam
 - 37 feet tall with 2,000 feet of crest length

Swift No. 1 Hydroelectric Project



- Swift Dam
 - Completed in 1958
 - 512 feet tall with crest length of 2,100 feet
 - 4,680 acre reservoir, 11.5 miles long
 - 412,000ac-ft of storage
 - 1,300 acres of land

Swift No. 1 Hydroelectric Project

Powerhouse

- Three generators - total output of 240 MW
- Tailrace connects to Swift No. 2 Canal



Swift No. 2 Hydroelectric Project

An aerial photograph of the Swift No. 2 Hydroelectric Project. The image shows a large concrete dam with a spillway on the right. In the center, there is a powerhouse building with two large generators. To the left of the powerhouse is a power canal. The surrounding area is a mix of green forest and brown earth, indicating recent construction or clearing. The water in the reservoir is dark blue.

- Completed in 1958
- Two generators - total output of 66.8 MW
- 3.2 mile power canal
- 525 acres of land
- Owned by Cowlitz County Public Utility District

Swift Hydroelectric Projects



Fish Hatcheries

- **Over Three million fish released annually**
- **Merwin Hatchery**
 - Owned and funded by PacifiCorp
 - Produces 275,000 steelhead and 60,000 (at 3 per pound) rainbow trout
- **Lewis River Hatchery**
 - Owned by State of Washington; Funded by PacifiCorp
 - Produces 1 million chinook and 1.8 million coho
- **Speelyai Hatchery**
 - Owned and funded by PacifiCorp and Cowlitz County PUD
 - Integrates with Lewis River hatchery and produces 100,000 kokanee

Recreation Sites

- **15 formal recreation sites are available for public use**
 - 15 day use sites
 - 4 campgrounds with a total of 259 individual camp sites
 - Various dispersed camping opportunities along reservoir shorelines
- **Campgrounds and certain day use facilities have requisite user fees**
- **Combined facility visitation is approximately 500,000 visits per year**
- **Most non-operational Project lands are open to non-motorized public access**

Project Operating Conditions and Requirements

- Lewis River Hydroelectric Projects and associated features are operated under federal licenses from the Federal Energy Regulatory Commission (FERC).
- PacifiCorp and Cowlitz Public Utility District have completed a re-licensing process and expect new FERC licenses in early 2008.

Re-licensing process

- Initiated in 1995
- 202 meetings were conducted
- 51 resource studies completed
- = Settlement Agreement between 26 parties

Parties to the Settlement Agreement

PacifiCorp	Washington Department of Fish and Wildlife	American Rivers
Cowlitz County PUD	Washington Recreation and Conservation Office	Fish First
National Marine Fisheries Service	Cowlitz County	Rocky Mountain Elk Foundation, Inc.
US Bureau of Land Management	Cowlitz/Skamania Fire District No. 7	Trout Unlimited
National Park Service	North County Emergency Medical Service	Clark County
US Fish and Wildlife Service	City of Woodland	The Native Fish Society
USDA Forest Service	Woodland Chamber of Commerce	Skamania County
Yakama Nation	Lewis River Community Council	The Lower Columbia Fish Recovery Board
Cowlitz Indian Tribe	Lewis River Citizens At-large	

Lewis River Projects - Licensing Process

Dominant Licensing Issues:

- Reintroduction of salmon and steelhead upstream of Project
 - Fish passage facilities
 - Hatchery upgrades
- Habitat improvements for ESA listed Bull Trout and others
- Management of Project lands for wildlife habitat and acquisition of additional land
- Recreation Facility upgrades and expansions
- Protection of Cultural sites and Historic properties
- High Flow procedures and public notification

Lewis River Projects – Current Licensing Status

- September 15, 2006: US Fish and Wildlife Service issues Final Biological Opinion
- October 9, 2006: Washington Department of Ecology issues 401 Certificates for the Hydroelectric Projects
- August 27, 2007: NOAA Fisheries issues Final Biological Opinion
- January, 2008 (expected): FERC issues new Hydroelectric Project licenses

Lewis River Projects – Current Licensing Status

- Establishment of resource committees:
 - Aquatic Coordination Committee
 - Terrestrial Coordination Committee
 - Lewis River Recreation Committee
- In general Committees provide oversight, consultation, and approval of resource actions prior to on-the-ground work

Lewis River Projects – Settlement Agreement

Aquatic Measures:

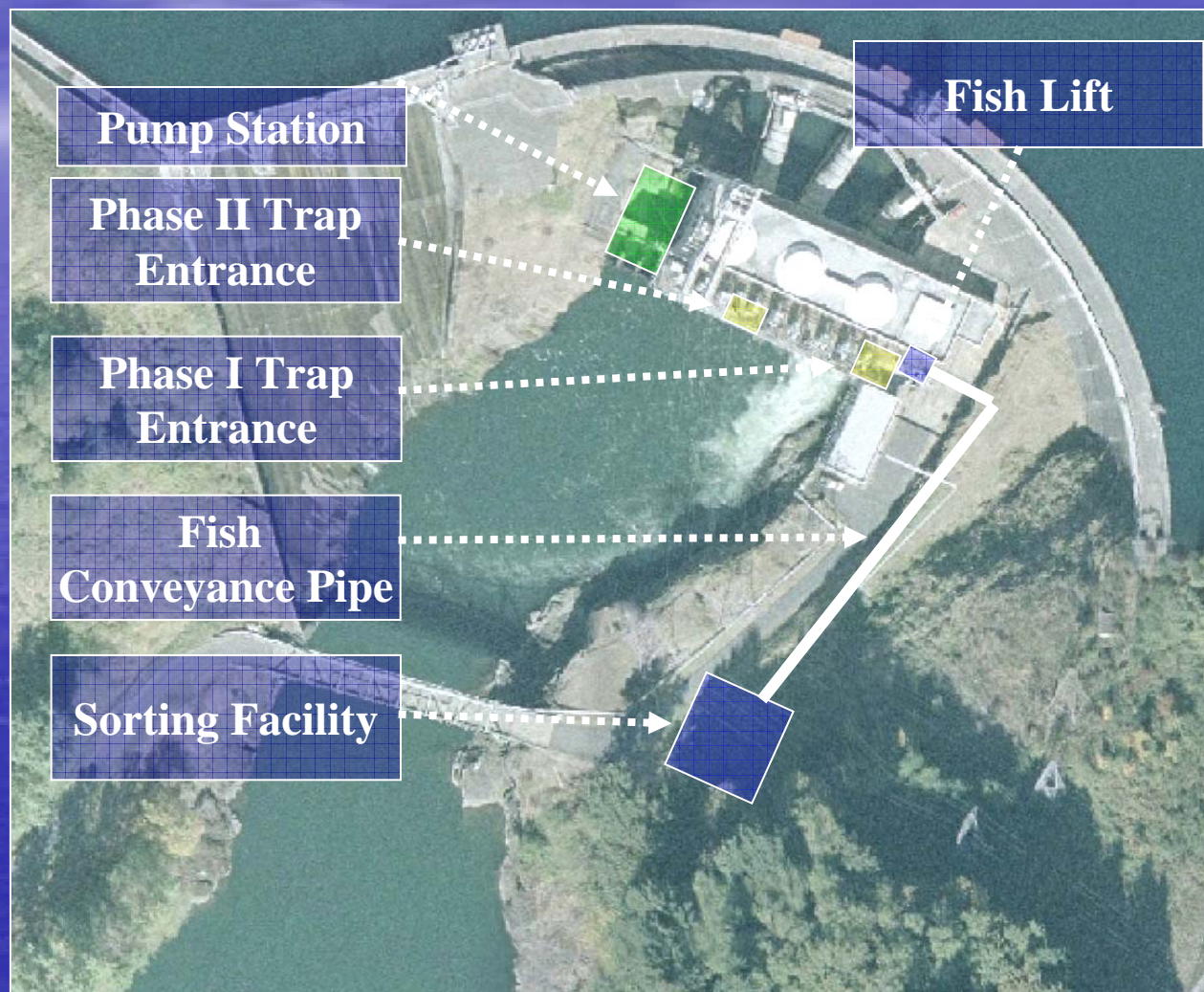
- Reintroduction of salmon and steelhead upstream of Project
 - Hatchery and Supplementation Plan
 - Fish passage facilities
 - Hatchery upgrades
- Habitat improvements for ESA listed Bull Trout and others
 - Cougar Creek and Devil's Backbone Conservation Covenants
 - Swift bypass flows and habitat enhancement
 - Establishment of an Aquatics Fund – Contribute \$300k annually to fund aquatic restoration projects within Lewis River basin

Current Aquatic Work:

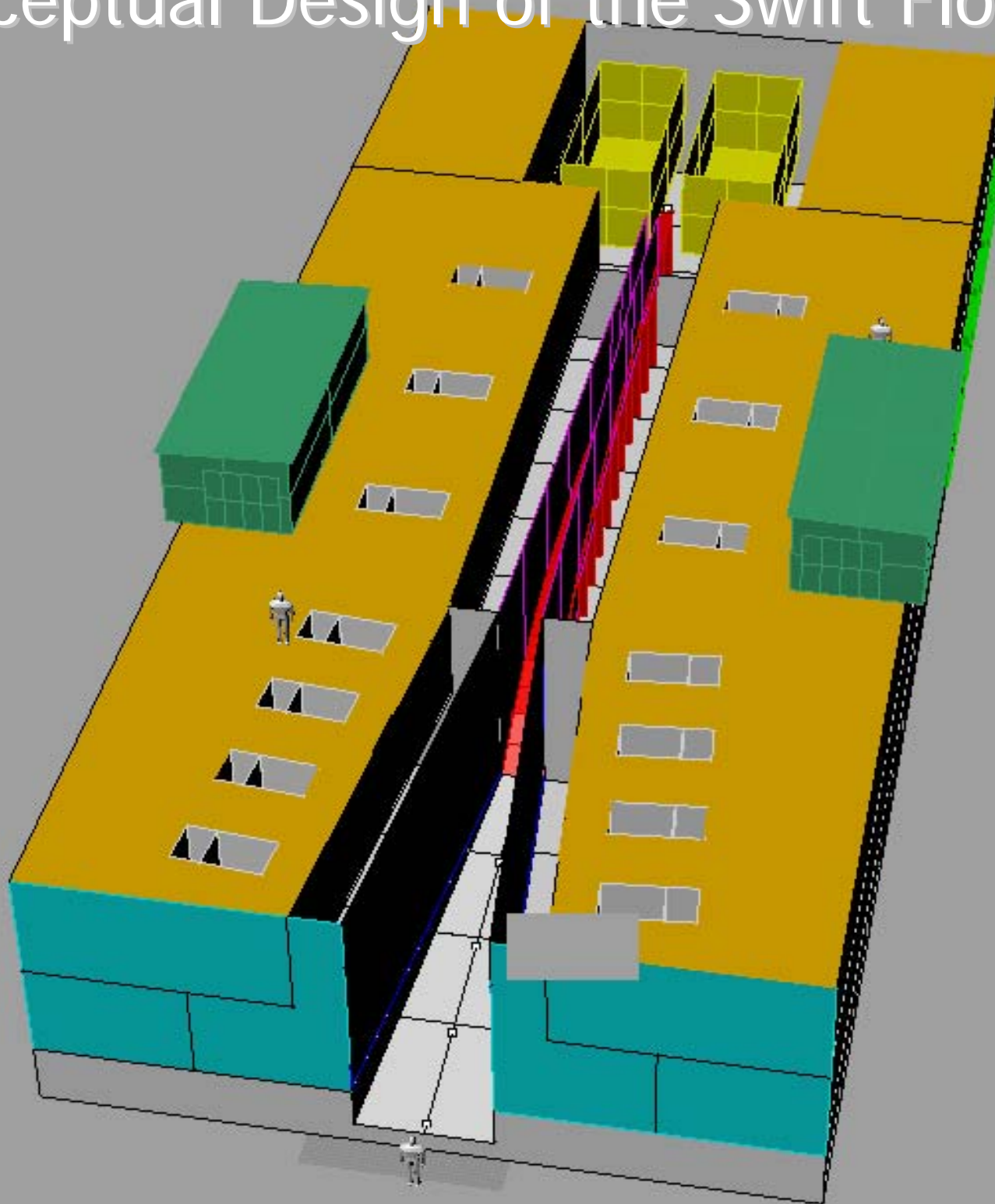
- Reintroduction of Anadromous Fish
 - Initial design of Merwin Upstream Collection Facility and the Swift Downstream Collection Facility
 - Third year of implementing Habitat Preparation Plan
 - Locate sites for upper basin juvenile fish acclimation ponds
 - Negotiating purchase of site for downstream juvenile fish release ponds
 - Preparation of the Hatchery and Supplementation Plan
- Hatchery Upgrades
 - Lewis River Hatchery – Rebuild ponds #15 in 2009; ponds #13 and #14 in 2010, and Pond #16 in 2011
 - Speelyai Hatchery – Convert Fish rearing Pond Bank #1 to raceways in 2008; bank #2 in 2009

Merwin Upstream Trap - General Site Plan

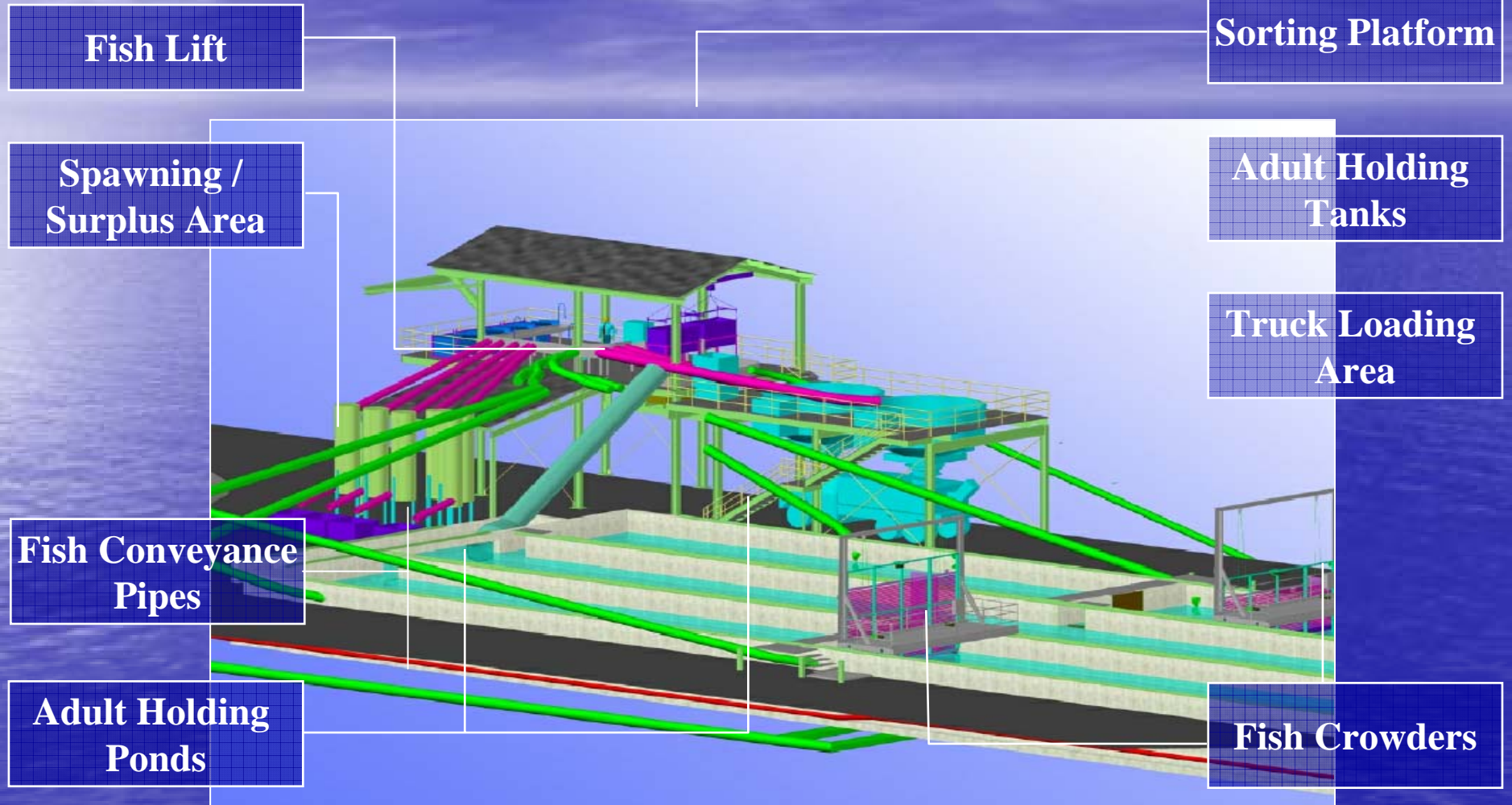
- Phase I
 - Corner Trap
 - Pump Station
 - 400cfs Max
 - Fish Lift
 - Sorting Facility
- Phase II
 - Add Entrance or
 - Add Pump
 - 600cfs max
 - Split flows Between Entrances



Conceptual Design of the Swift Floating Collector



LR Hatchery Pond # 15 – 90% Design



Current Aquatic Work:



- Bull Trout Conservation
 - Cougar Creek and Devils Backbone Conservation Covenants
 - Collection and transport of adults
- Aquatic Fund Projects
 - 2005/2006 Funding cycle
 - 4 projects selected for funding
 - 2006/2007 Funding cycle
 - 6 projects selected for funding
 - 2007/2008 Funding cycle
 - 11 projects to be considered for funding

Lewis River Projects - Settlement Agreement

Wildlife Measures:

- Develop and implement Wildlife Habitat Management Plans
 - Inclusion of approximately 10,500 acres (PacifiCorp) 525 acres (Cowlitz PUD)
 - Protect special and unique habitats (old growth fir, oaks, wetlands etc.)
 - Manage forest lands for big game and for the conservation of sensitive forest wildlife species
 - Review Plan results in year 17 of the new license
- Acquire interests in land (ownership or easements) to increase the amount of habitat in the basin set aside for wildlife.

WILDLIFE HABITAT GOALS AND OBJECTIVES

- Protect old growth and mature forests
- Protect and enhance wetlands
- Establish riparian buffers
- Enhance shrublands
- Manage agriculture, meadows, orchards, and oaks



- Enhance forage on Transmission Right of Way
- Manage forest habitat
- Manage invasive plant species and public access
- Protect raptors (bald eagle, northern spotted owl, other)
- Habitat Evaluation Procedure at License Year 17

Lewis River Projects – Settlement Agreement

Recreation Measures:

- Finalize and implement a Lewis River Recreation Resource Management Plan
 - Recreation Facility Capital Improvement Program
 - Recreation Facility Operations and Maintenance Program
 - Recreation Dispersed Shoreline Use Program (Designate and harden dispersed sites)
 - Recreation Monitoring Program (Recreation facilities, dispersed sites, and reservoirs)
 - Interpretation and Education Program
 - Install Lewis River vault toilets



Lewis River Projects – Settlement Agreement

Cultural Measures:

- Finalize and implement a Lewis River Historic Properties Management Plan (HPMP) to preserve and treat historic properties in the Project area
 - Annually consult with Cowlitz Indian Tribe and Yakama Nation and Washington SHPO on status and activities of implementing HPMP
 - Monitor recorded sites to assure protection
 - Address erosion/deposition effects and motorized vehicle traffic in reservoir drawdown zones
 - Review ground-disturbing activities and building modifications prior to any action
 - Provide for curation of artifacts and education of Project staff and general public

Lewis River Projects – Settlement Agreement

Flood Management Measures:

- Revise and Implement a revised high runoff procedure
- Contribute funding towards County Emergency Notification service
- Pay for installation and maintenance of weather radio transmitter in Project area
- Enhance coordination and communication with county emergency management officials during high runoff events

Team Website

To view meeting notes from resource committee meetings, available reports, and the Lewis River Settlement Agreement please visit us at:

<http://www.pacificorp.com/Navigation/Navigation1842.html>

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