

# Willamette Water 2100 Stakeholder Learning Action Network (SLAN) Upper Willamette Water System

## Field Trip



**Leaburg Dam**



**Lookout Point Reservoir**



**Willamette Valley Farmland**

\* Images from Oregon State Historical Archives <http://arcweb.sos.state.or.us/>

**Arranged by the Willamette Water 2100 Broader Impacts and Stakeholder Outreach Subgroup**

# April 21<sup>st</sup>, 2011

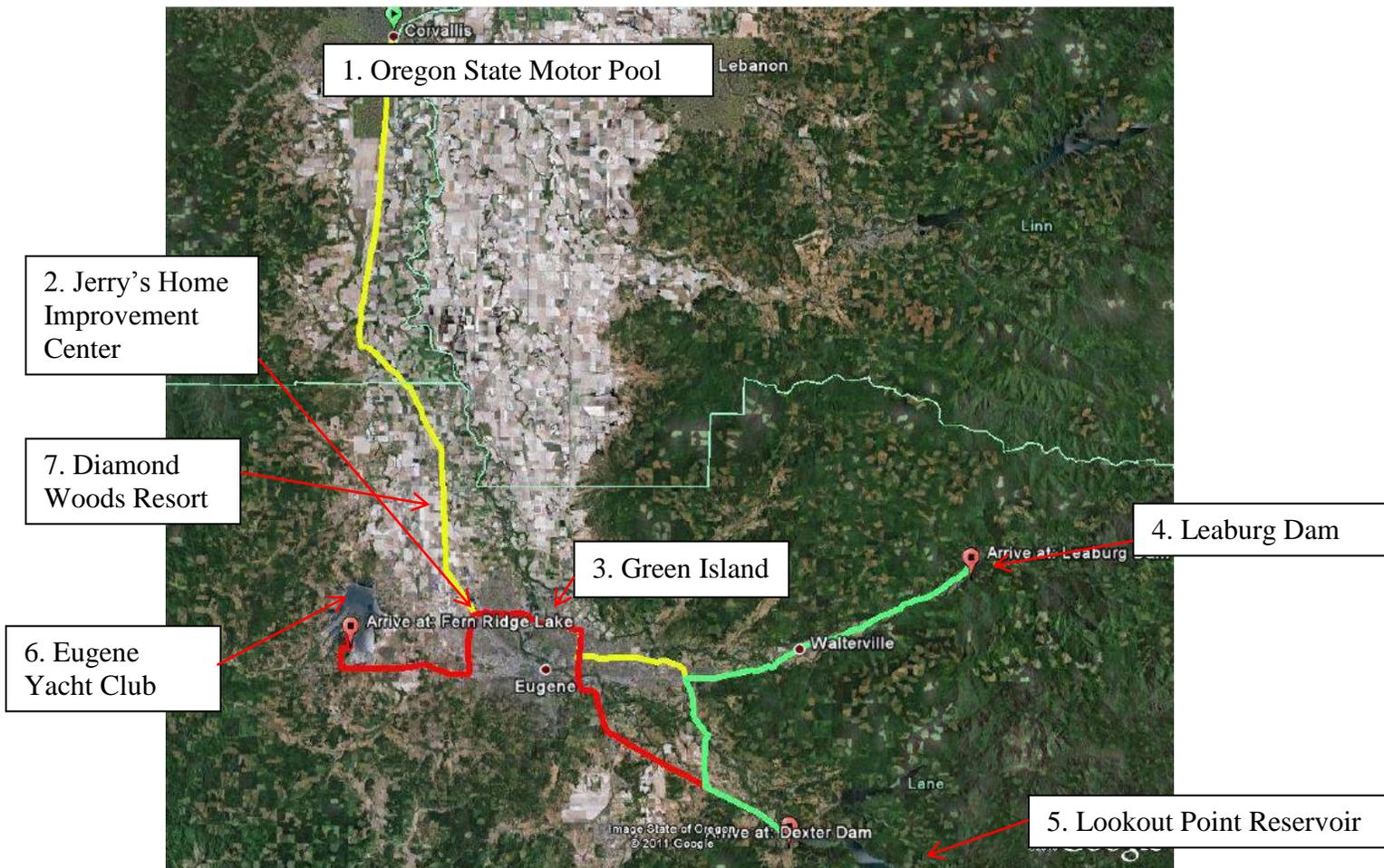
# Itinerary

- 7:45 AM Depart Corvallis from Oregon State University Motor Pool in Tour Bus**  
OSU Motor Pool is located at 3400 Campus Way, Corvallis, OR 97331. Tour participant parking will be provided behind locked gates at the Motor Pool.
- 8:30 AM Pickup Tour Participants at Jerry's Home Improvement Center:**  
The tour bus will be stopping at 2600 Highway 99 N, Eugene, OR 97402 to pick up additional Tour Participants. Please confirm if you will be leaving your car and joining the tour bus at this location.
- 9:00AM-10:15AM Green Island Conservation Area**  
Meeting near 31668 Green Island Road, Eugene
- 11:00 AM-12:00 PM Leaburg Dam, Eugene Water and Electric Board**
- 12:00 PM-12:45 PM Lunch at EWEB Water Board Park, Leaburg Dam**  
Lunch sandwiches, salads, etc. will be provided from the local Vida Café
- 1:30 PM-2:30 PM Lookout Point Reservoir, US Army Corps of Engineers**
- 3:30 PM-4:30 PM Water Resources Management, Oregon Water Resources Dept.:**  
Meeting at the Eugene Yacht Club 26126 Bangs Road, Junction City, OR 97448
- 5:00 PM-6:00 PM Field Trip Debrief & Discussion at Diamond Woods Resort**  
96040 Territorial Road, Monroe, OR 97456

**Drop off Tour Participants at Jerry's Hardware Center (6:30 PM) and OSU Motor Pool (7:15 PM)**

**\*\*\*All Tour Participants are strongly encouraged to be part of the Tour Bus** to allow for discussions, question and answers, and overall better field trip experience while reducing the amount of cars on the road. Please determine which stop you will be joining the Tour Bus in advance and let Adam know if you will be joining the tour at Jerry's Home Improvement Center ([adam.stebbins@co.benton.or.us](mailto:adam.stebbins@co.benton.or.us);541-766-6085 ). If you cannot join the tour bus, **Driving Directions** are available by contacting Adam for all stopping locations on the tour.

## Upper Willamette Water System Willamette Water 2100 Tour



### Field Trip Purpose:

Researchers from the Willamette Water 2100 project at Oregon State University, Portland State University and University of Oregon and members of the Benton-Linn-Lane County Water Study Group, and others are invited on a field trip within the Upper Willamette Water System as part of a Stakeholder Learning and Action Network (SLAN) to:

- 1) Improve our visual and working understanding of the water system and how our actions in one part of the system are connected to and/or can impact another part of the system.
- 2) Learn and discuss how different attributes and uses of the water systems we visit in the field can be represented in a modeling framework called Envision. Envision will be used to integrate the many parts of the water system into a “whole” and help develop scenarios for anticipating future water scarcity under different policies, land uses, management, demographics and climate change.

- 3) Enable researchers and stakeholders to share their perspectives on water scarcity and learn from each other's expertise.
- 4) Enhance the ability of the stakeholders learning network to teach/explain to others about the complex Willamette Basin system.
- 5) Prepare for a **formal focus group meeting, to be scheduled for June Oregon State University** to help guide model development/use.

As "homework" for discussion during the field trip and at future work sessions, hosts and participants should be prepared to address

- 1) How the water system is used or managed through the perspective of the organization and stakeholders you serve?
- 2) What does it take to have a reliable source of water?
- 3) What are the priority issues affecting reliability for your organization or constituents?
- 4) What do you see as the current and anticipated risks to your water system?
- 5) What are your current approaches for managing these risks?
- 6) What knowledge and information will help you prepare for future scenarios?
- 7) What are the most effective ways to share knowledge about your water system?

**Willamette Water 2100 project scientists will be participating in the field trip as co-learners of the water system, ask questions, share information, answer questions and discuss needs regarding how their respective research groups will be compiling and using a wide range of information to support development of future water scenarios using the Envision Model Development.**

## **Field Trip Stops/Location Descriptions**

### **Field Trip Begins OSU Motor Pool, Jerry's Hardware Center**

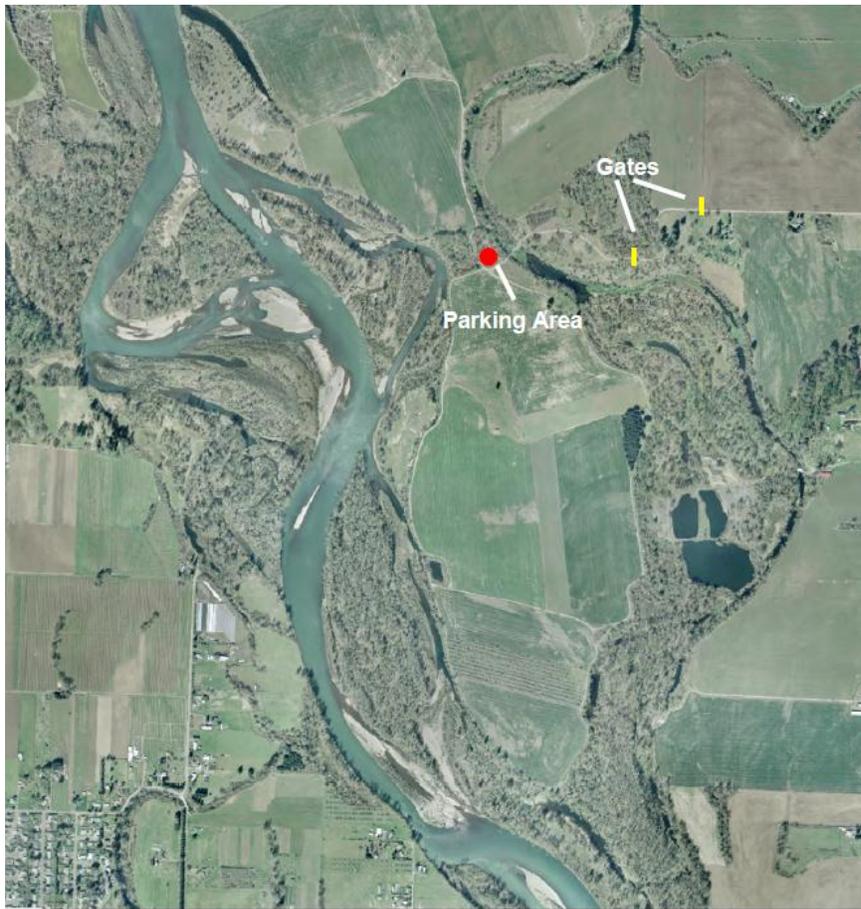
- Introductions and Welcome by Commissioner Linda Modrell and Adam Stebbins
- Overview of the NSF Willamette Water 2100 Project, Jeff McDonnell and Sam Chan
- Our landscape and the science tools we will use to project water scarcity scenarios (John Bolte, David Hulse or Kelly Vache)

### **Field Trip Stop #1 Green Island Project: Floodplain Restoration and Application of Scientific Research**

**Tour Stop Presenter:** Chris Vogel, Green Island Project Manager McKenzie River Trust

Green Island is a long term floodplain restoration project located near the confluence of the McKenzie and Willamette Rivers. Green Island is owned and managed by the McKenzie River Trust (MRT), a non profit land trust working in Lane and Douglas Counties. A *Conservation Easement* on the property is held by Bonneville Power Administration (BPA) and Oregon Watershed Enhancement Board (OWEB).

After 70 years of farming, the Green Family sold the majority of the site to the MRT with the vision to have the land protected and enhanced for the benefit of the fish, wildlife and people of



the southern Willamette Valley. Over 1,000 acres in size, the site is an array of side channels, oxbows, sloughs, and islands home to sensitive species such as spring Chinook salmon, Oregon chub, Western pond turtle, red-legged frog, bald eagle, and Western meadowlark.

With the goal to restore floodplain processes; the following actions are planned or completed: levee removal, channel reconnections, native vegetation planting, weed eradication, and gravel pit reclamation.

In addition to restoration, formal research efforts on the site currently include 50 shallow research wells

operated by the Ground Water and Ecosystem Restoration Division (GWERD) of the USEPA to quantify benefits to water quality from enhanced ground water/surface water interaction and carbon sequestration.

The Green Island project is supported with funds from the Oregon Watershed Enhancement Board (OWEB), USFWS/North American Wetland Conservation Act (NAWCA), Eugene Water and Electric Board (EWEB), Bonneville Power Administration (BPA), Meyer Memorial Trust (MMT), and the Pacific Salmon Commission (PSC).

## **Field Trip Stop #2. Leaburg Dam, Eugene Water and Electric Board: Managing Water Resources for Drinking Water, Hydropower and the Environment**

**Presentation/Discussion:** Brad Taylor, Water Systems Planner Eugene Water and Electric Board; Overview of Eugene Water and Electric Board water resources management

**Contributors:** Dr. Gordon Grant, US Forest Service discusses High Cascades and Low Cascades geology impacts on water supply

The very genesis of the Eugene Water & Electric Board is rooted in the McKenzie River Valley. When typhoid fever hit Eugene in 1906, the city's water supply was identified as the source of the epidemic. It didn't take long for Eugene citizens to approve a bond measure to buy the

privately owned water company and establish a public water system. As the city of Eugene grew, so did the demand for electricity. The Leaburg Hydroelectric Project was completed in 1930, and consists of a diversion dam, a five-mile long canal and a power station on the north side of the McKenzie River near the community of Leaburg. With the most current upgrades, the Leaburg and Walterville Hydroelectric Projects have a combined nameplate capacity of 22.5 megawatts (MW).

In 2000, the Federal Energy Regulatory Commission issued EWEB a 40-year license for the continued operation of the Walterville and Leaburg projects. EWEB committed over \$45 million for facility improvements and environmental protection measures for salmon. The projects continue to harness the power of the McKenzie River, annually providing enough electricity to power over 13,000 homes in Eugene and areas along the river corridor. EWEB is currently working on or is a partner on various projects for water supply, hydropower, and the environment with changing population and climate.

**LUNCH 12:00 PM-12:45 PM** at Waterboard Park, Leaburg Dam.  
Lunch will be from the local Vida Café

**Field Trip Stop #3 Lookout Point Reservoir: Dam Operations and Water Storage\_ 1:30 PM-2:30 PM**

**Presentation/Discussion:** Greg Taylor, Fish Biologist, US Army Corps presentation on dam operations, Willamette Basin Biological Opinion and key points to be addressed in developing scenarios.



The U.S. Army Corps of Engineers operates the Willamette Basin project which consists of 13 reservoirs; eleven are multiple purpose storage reservoirs and 2 are re-regulating reservoirs located in the subbasin of six major tributaries of the Willamette—the North and South Santiam Rivers, the McKenzie River, the Middle and Coast Forks, and the Long Tom River. The first of the reservoirs, Fern Ridge, was completed in 1941. The last, Blue River, was completed in 1969. HD 531 actually authorized construction of a system of 17 dams. Funds were never appropriated for four of those which have subsequently been deauthorized. In addition to the reservoirs, HD 531 also authorized a navigation channel extending from Portland Harbor to Eugene at River Mile 180, approximately 100 miles of bank improvements along the mainstem Willamette and major tributaries, and 5 mitigation fish hatcheries. The Willamette Basin project is operated to meet multiple authorized purposes including: Flood damage reduction, hydropower, navigation, irrigation, recreation, fish & wildlife, municipal & industrial water supply, and Water Quality. Presentation will describe:

- System description, Authorized project purposes, Rule curves, Operating criteria during the conservation season (Feb - Oct), Special Operations

Focus will be placed on how US Army Corps Of Engineers is managing for threatened and endangered fish species migration through flow augmentation, hatchery management, and restoration projects.

**Field Trip Stop #4 Water Resources Management and Regulations in the Long Tom Watershed 3:30 PM-4:30 PM**

**Presentation/Discussion:** Bill Ferber, Oregon Water Resources Department Western Region Manager on State management and regulations for water uses with a focus on Municipal and Agricultural water management, rules, and data in the Long Tom Watershed.

**Field Trip Debrief & Discussion at Diamond Woods Resort**

 <http://www.diamondwoods.com/>

Drop off Tour Participants at Jerry's Home  
Improvement and OSU Motor Pool

Thanks!