Clackamas Watershed Tour

- **1:15** Depart Museum of the Oregon Trail

(1st stop driving time 15 minutes)

- **1:30- 2:30** Delano Farm - *50 min.*

(driving time to Gerber 10 min)

Welcome and introduction – CRBC and SWCD
Presentation and site tour – Clackamas SWCD and Howard Delano

Solar off-channel and rainwater livestock watering system. Riparian fencing. Significant reduction in nutrient and sediment delivery to stream, improved riparian vegetation condition, innovative, energy conservation, improved water quality. Small grant program.

- **2:40-2:50** Gerber Rd. Fish Passage - *10 min*

(Driving time to Parsons 10 min)
Presentation – CRBC and Clackamas County and Mark Mouser

Project replaced an existing 84" diameter, 105' foot-long pipe arch culvert impeding upstream fish passage due to high culvert barrel water velocities and concrete apron at the outlet. Original plan was to replace with 20.5 span multiplate pipe-arch, however engineering design analysis demonstrated significant cost savings and resource benefit installing a 100' clear span, pass-through concrete bridge structure for $113,000.00 less than the multiplate pipe-arch. The project opened 4 stream miles of spawning and rearing habitat for Coho, Steelhead and Cutthroat trout. Regular grant program.

- **3:00-3:45** Parsons Side Channel Site - *30 min*

(driving time to Estacada 15 minutes)
Presentation and tour – CRBC, ODFW and others

Clackamas River side channel and ground water channel construction and enhancement, addresses identified limiting factors of high water off-channel rearing and temperature refugee for salmonid production in the lower Clackamas. Provides high quality off channel habitat for Coho, Steelhead and Cutthroat Trout.

- **4:00-4:15** Estacada Bioswales - *15 min*

Presentation **–** Steve Shibley, CRBC and SWCD

Urban stormwater mitigation project through the construction and enhancement of vegetated bioswale for the retention and filtration of impervious surface stormwater runoff form the school roof and parking area. The bioswale captures and filters approximately 2.4 million gallons of runoff annually, addressing both water quality and quantity issues associated with urbanization. Small grant program.

Return to Oregon City Museum by 5:10 p.m.
Mileage= 47 miles round trip