

The Art, Science, and Humility of Restoration

Region 6 Restoration Services Team

Lee Riley

Horticulturist/Restoration Specialist

Dorena Genetic Resource Center

Lynda Moore

Botanist/Restoration Specialist

Regional Office





Scott Riley
Botany (RO-DES)



Lee Riley
*Plant Materials
(DGRC)*



Lynda Moore
Botany (RO)

R6 Restoration Services Team and Training Cadre



**Lisa
Winn**
*Silviculture
(DGRC)*



Vicky Erickson
Genetics (RO)

Kelly Evans
Botany (RO-OKAWEN)



**Matt
Horning**
Genetics (DES)



Helen Lau
Botany (OKAWEN)

Interdisciplinary Reveg Projects



Road Construction



Invasive Plant Management



Road Decommissioning



Pollinator Forage/Habitat



Energy



Habitat Improvement








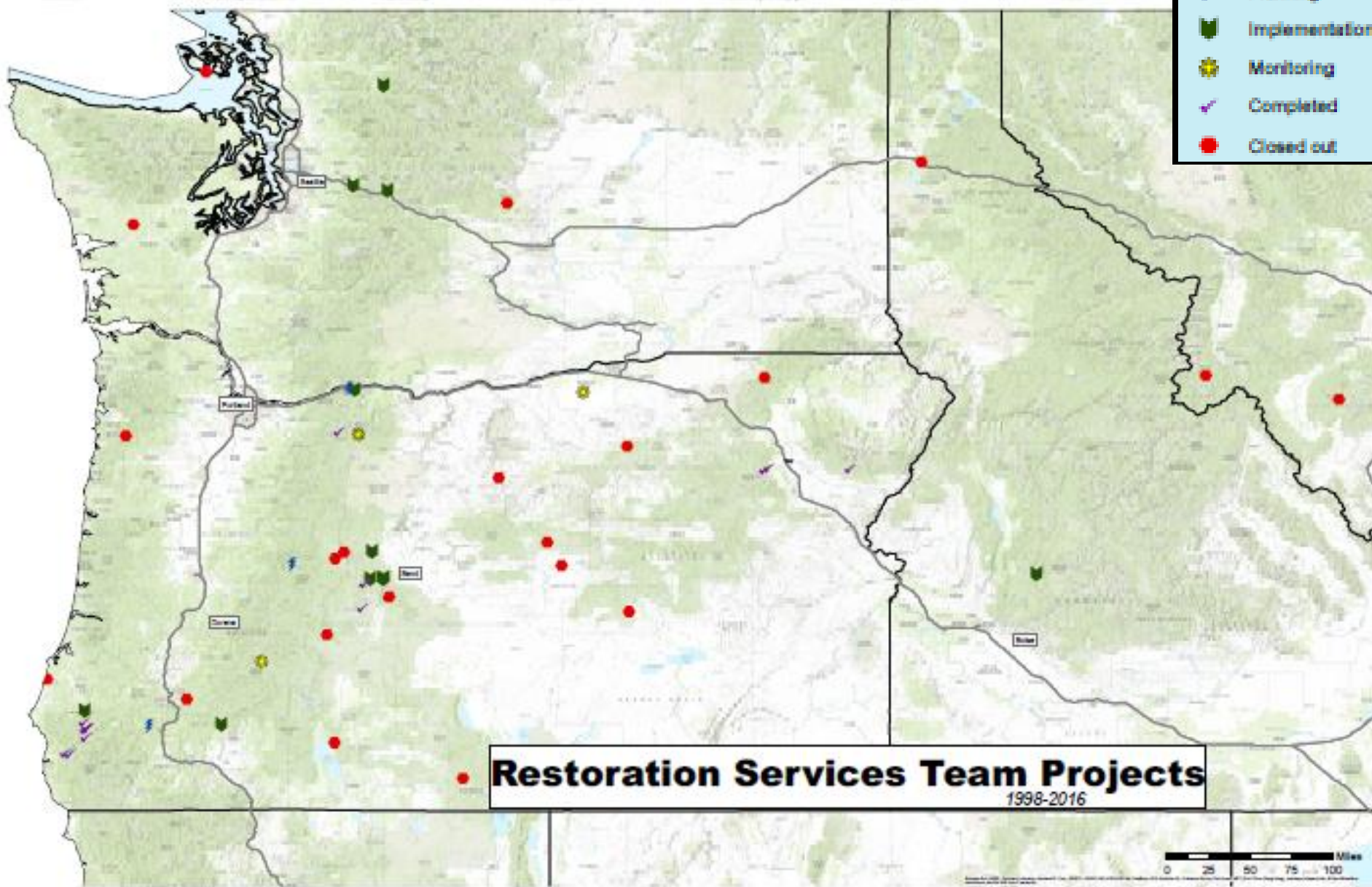
Recreation Development & Mitigation



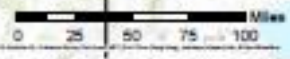
Dam Removal

R&T Project Status

-  Planning
-  Implementation
-  Monitoring
-  Completed
-  Closed out



Restoration Services Team Projects
1998-2016



A Collaborative Approach



U.S. Department
of Transportation
**Federal Highway
Administration**



**Washington State
Department of Transportation**



A photograph of several pink flowers with five petals and yellow centers, growing on green stems with serrated leaves. The background is a soft-focus natural setting with green foliage and a tree trunk. The text "Services Offered" is overlaid in the center in a bold, black, sans-serif font.

Services Offered

Planning

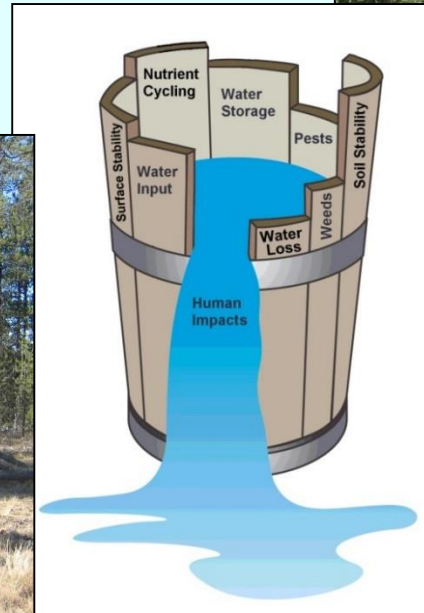
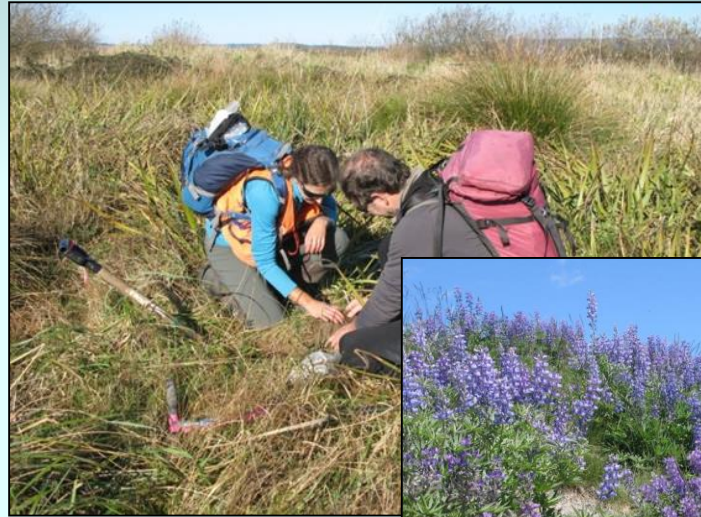
Soil Surveys

Vegetation Surveys

Limiting Factors

Site Resources

Plant Material Needs



Implementation

Seed and Vegetation Collection

Plant Materials

Outplanting Assistance



Monitoring Transect Fixed Photo Point



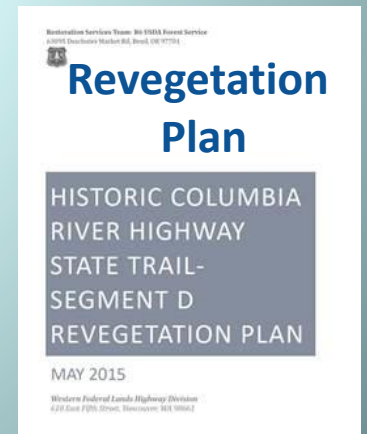
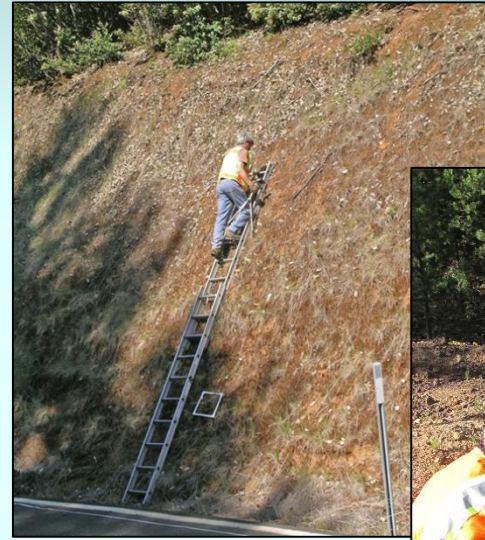
Year 0



Year 1



Year 3



Studies

Design

Implementation

Measurements/Reports



A photograph of several pink flowers with yellow centers, growing on green stems with leaves. The background is a soft-focus natural setting with green foliage and a tree trunk. The text "Supporting Facilities and Contracts" is overlaid in the center in a bold, black, sans-serif font.

Supporting Facilities and Contracts



Dorena Genetic Resource Center

Lisa Winn, Manager



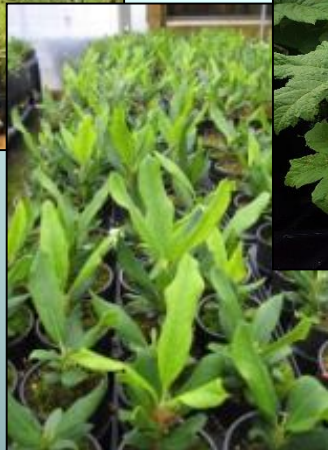
**Blister rust
screening**



**Port-orford
cedar
seed orchard**



**Native Plant
Materials**



Tree Climbing



Dorena Genetic Resource Center

Lee Riley, Horticulturist



**Plant
Materials**



**Propagation
Protocols**

Collection and Outplanting

R6 Bend Seed Extractory

Kayla Herriman, Manager

Seed Extraction

Freezer & granary seed storage

Seed inventory database

Seed testing & shipping

Training and consultations

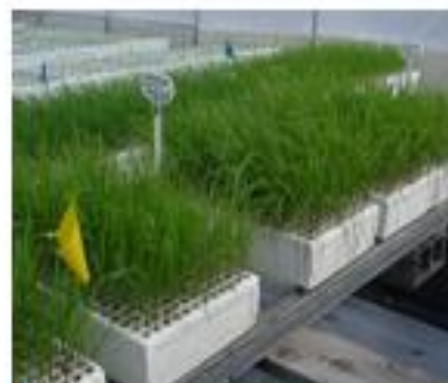


Native Seed and Plant Production at Forest Service Nurseries



**Lucky Peak Nursery
(Boise, ID)**

**J. Herbert Stone Nursery
(Medford, OR)**



**Coeur d'Alene Nursery
(Coeur d'Alene, ID)**

Regional IDIQ Contracts



- Large pool of pre-qualified contractors
- Includes
 - Restoration Services
 - Plant Materials
 - Plant propagation
 - Seed collection

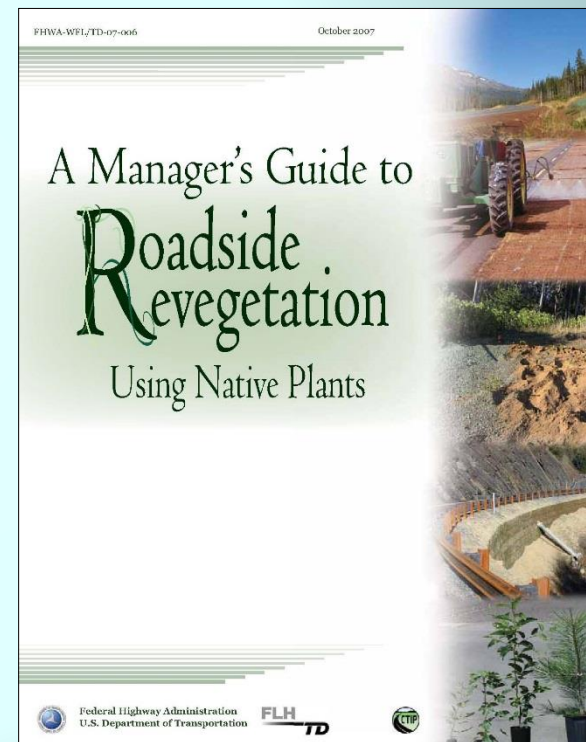
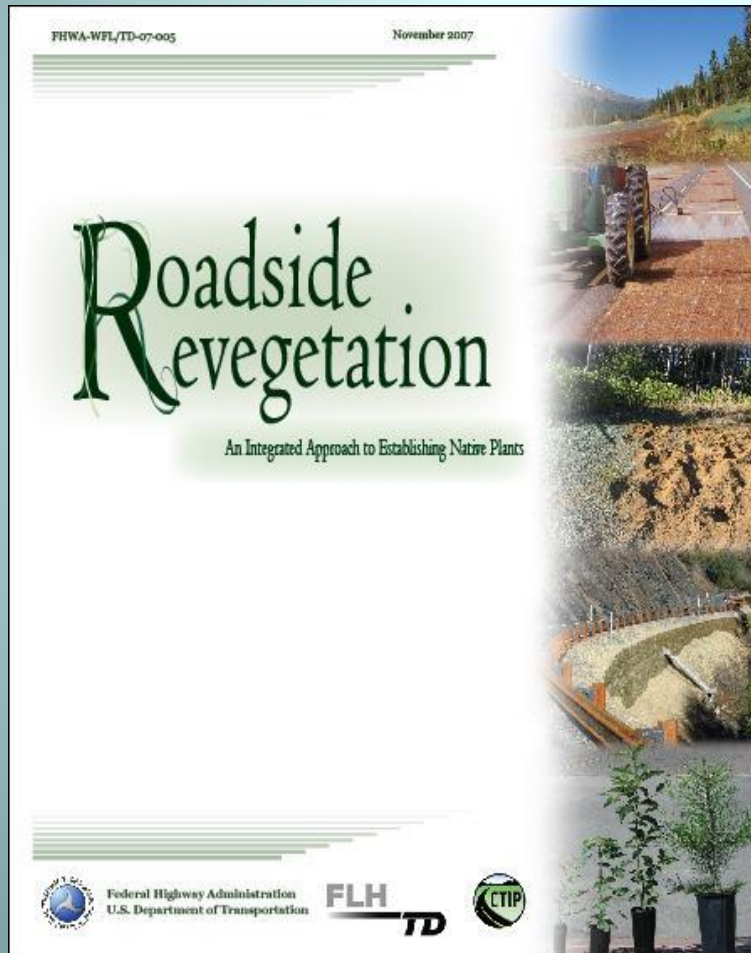


A photograph of several pink flowers with yellow centers, growing on green stems with leaves. The background is a soft-focus natural setting with green foliage and a light-colored branch. The text "Innovative Approaches and Solutions" is overlaid in the center in a bold, black, sans-serif font.

**Innovative Approaches
and
Solutions**

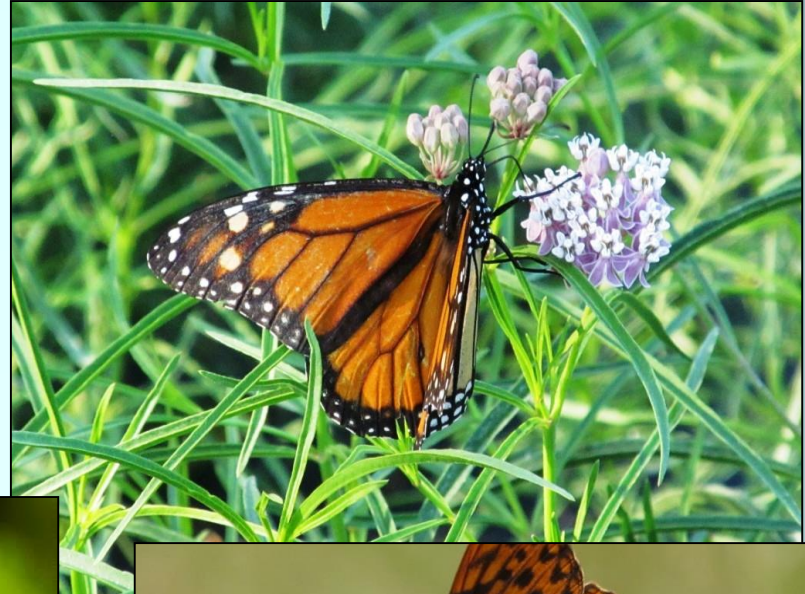
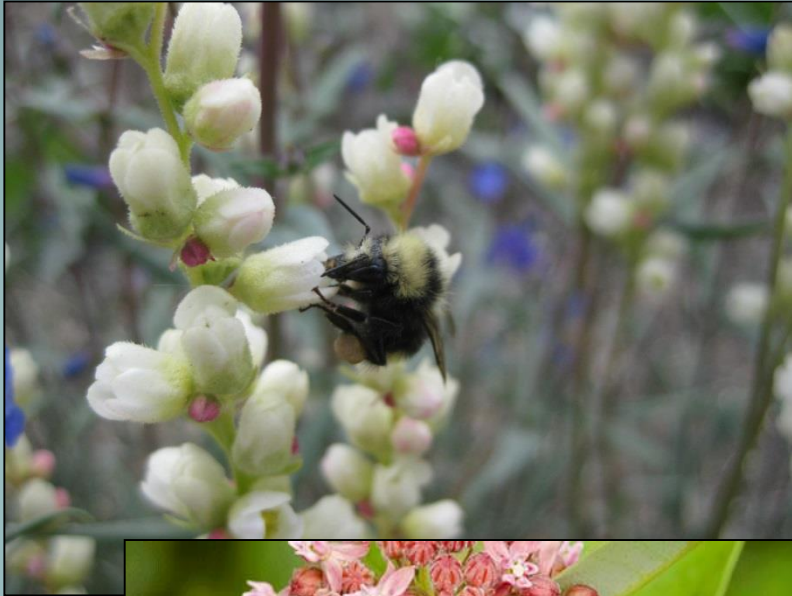
Roadside Revegetation: An Integrated Approach to Establishing Native Plants

David Steinfeld, Scott Riley, Kim Wilkinson, Tom Landis, Lee Riley



Improving Best Management Practices

Native Species for Pollinators

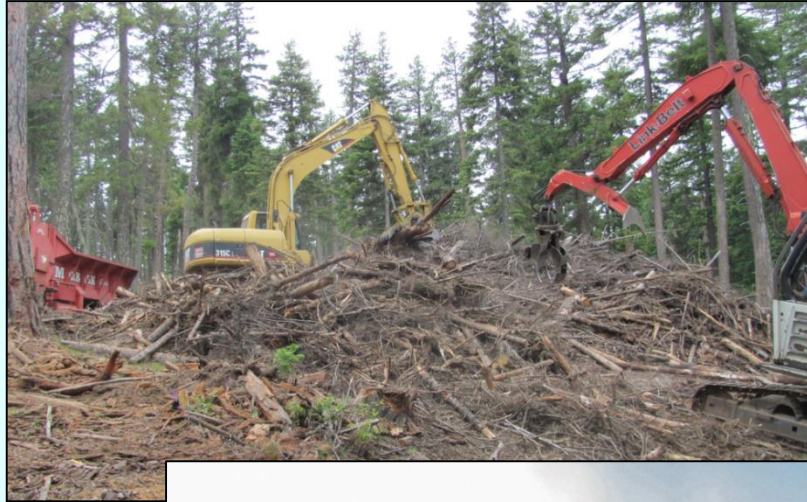


Improving Best Management Practices

Biomass Utilization



Burn it?



Or shred it?



Application to seeds and soil



Amended planting areas



Incorporate into treated or amended ditches



Design into bioswales

Improving Best Management Practices

Planting Techniques



Expandable Stinger

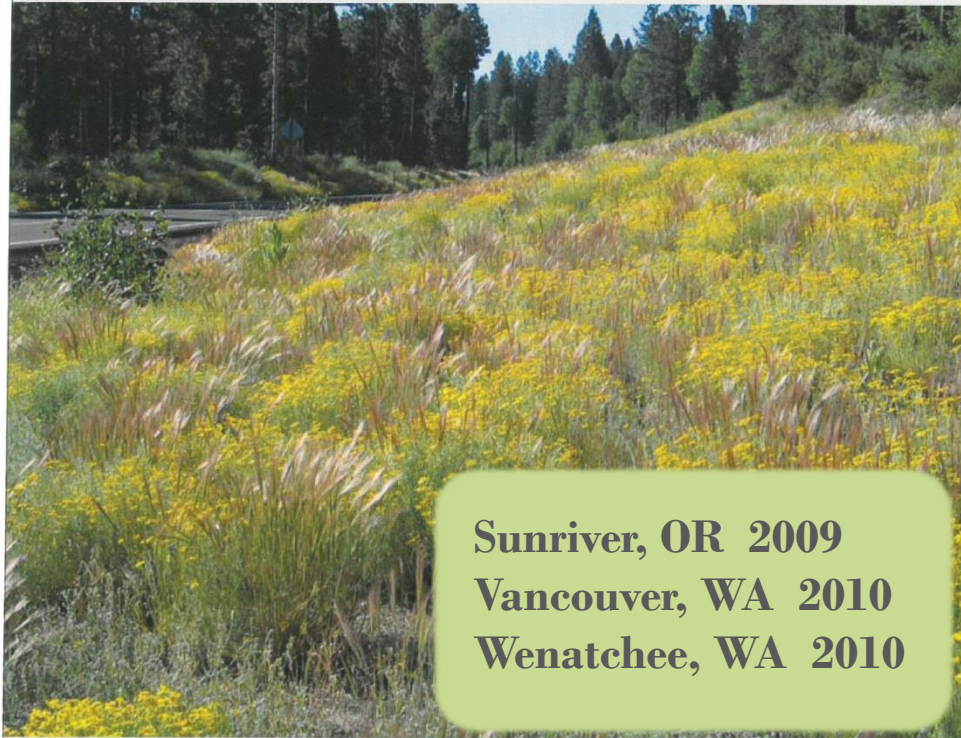


Waterjet planter



USDA Forest Service

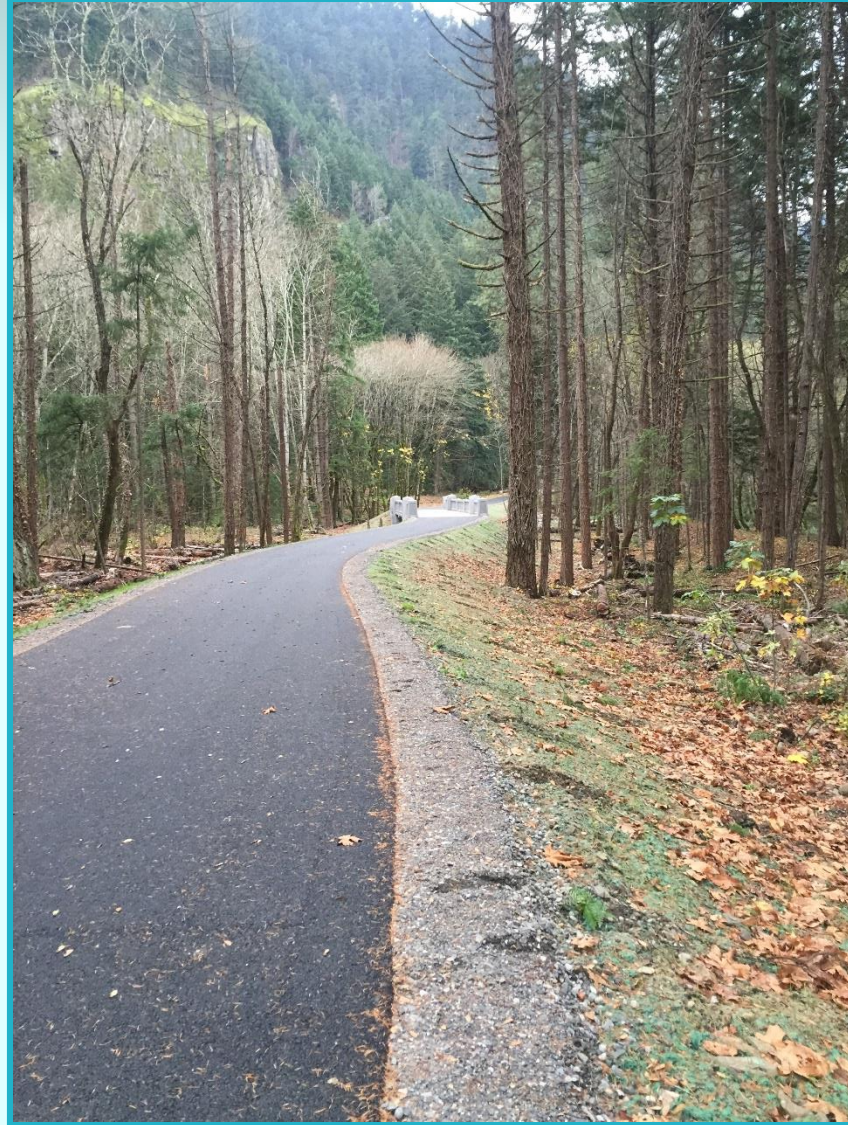
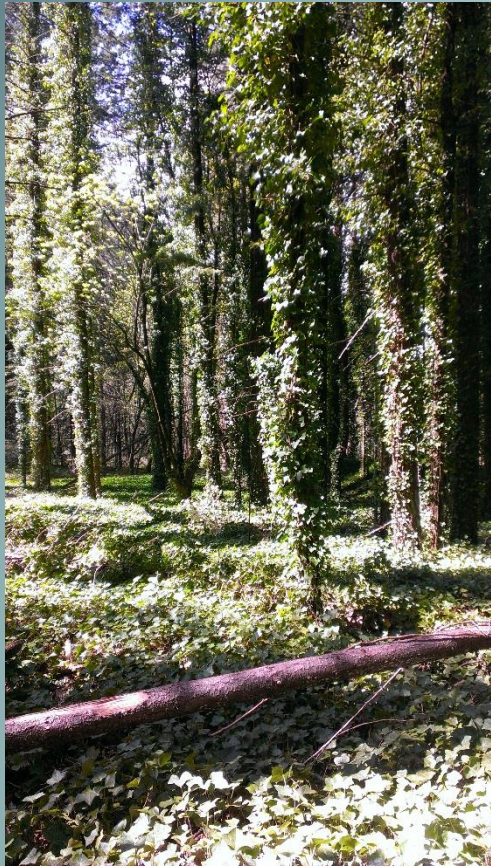
Restoration of Disturbed Sites with Native Plants: An Integrated Approach



**Sunriver, OR 2009
Vancouver, WA 2010
Wenatchee, WA 2010**

A photograph of several pink flowers with yellow centers, growing on green stems with leaves. The word "Projects" is overlaid in the center in a bold, black, sans-serif font. The background is a soft-focus natural setting with green foliage and a light-colored branch.

Projects



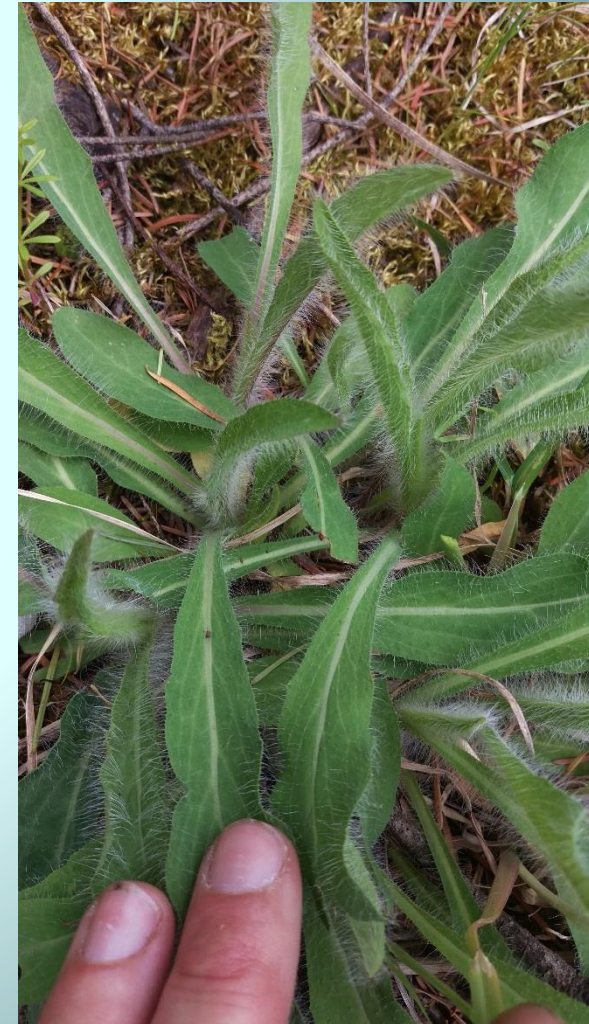
**Historic Columbia
River Highway
State Trail 'D'**



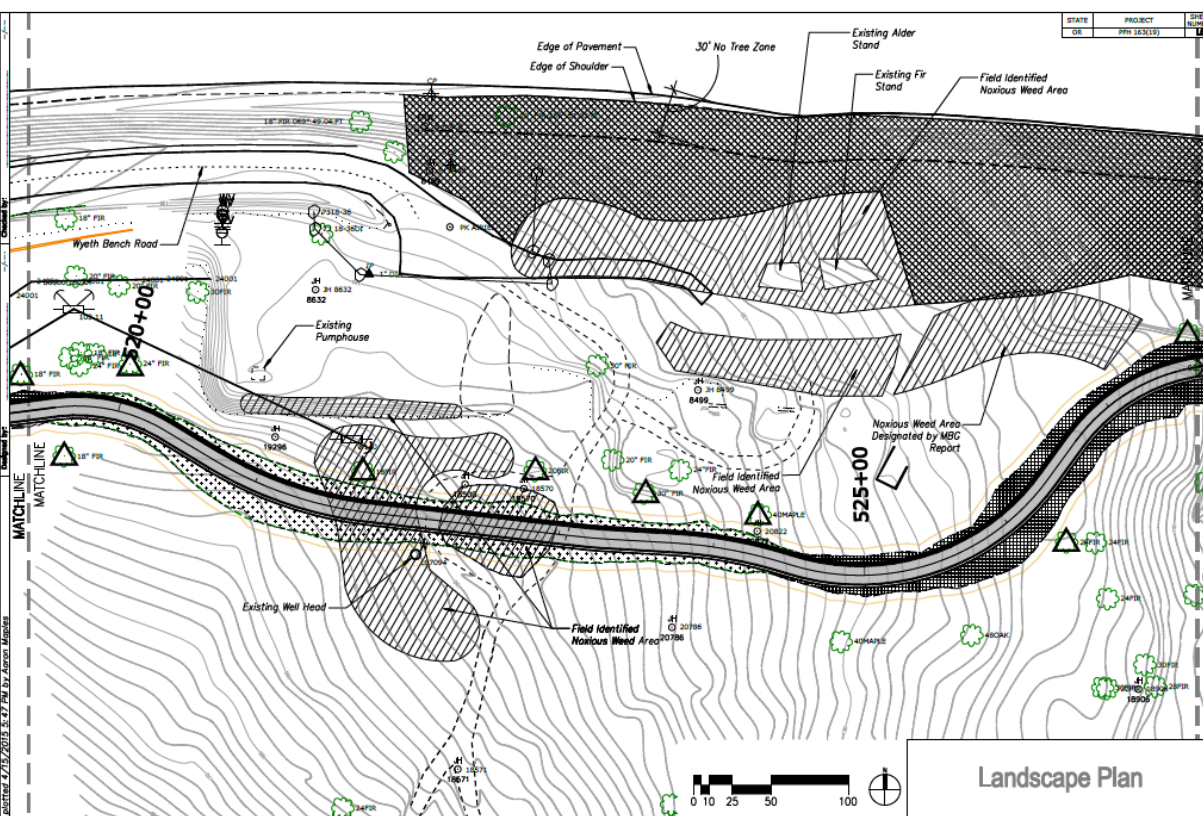
**Historic Columbia
River Highway
State Trail 'D'**



Historic Columbia River Highway State Trail 'A-C'



- Early involvement
- Agency insight
- Suite of plants to support pollinators
- Endemic hawkweed (*Hieracium longiberbe*)



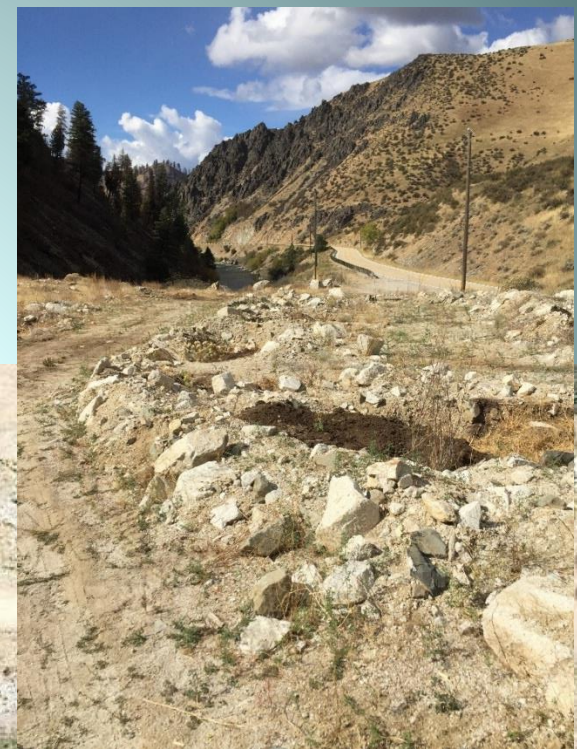
Historic Columbia River Highway State Trail 'A-C'



Banks to Lowman Rockfall Mitigation Project



Banks to Lowman Rockfall Mitigation Project



USDOT Western Federal Lands Highway Division

Blaine Road – Little Nestucca River





**Blaine Road
Vegetated MSE Wall**



**Blaine Road
Vegetated MSE Wall**

City of Bend Water Pipeline Project Riparian and Wetland Restoration



Construction under Tumalo Creek and through associated wetland



City of Bend

Water Pipeline Project

Riparian and Wetland Restoration



Wetland plant salvage



City of Bend

Water Pipeline Project

Riparian and Wetland Restoration



One year post-construction



Lee Riley

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