



Native Plant Restoration

Program Accomplishments



Planting willow stakes for a riparian habitat improvement project on the Malheur National Forest

**Fiscal Year
2012**

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Pacific Northwest Region, US Forest Service Native Plant Restoration Program

2012 Accomplishments

In FY12, the Region made great strides in acquiring and using native plant materials (grass, forb, and shrub seed, as well as hardwood cuttings and seedlings) to restore biodiversity, resilience, and ecosystem function to National Forest system lands. A variety of fund types were used, including NFWW, NFWF, NFTM, WFHF, CMRD, CMLG and others to manage forest programs and accomplish work such as:

- surveying and mapping collection sites for key species.
- collecting seed and cuttings.
- process materials at R6 Bend Seed Extractory.
- producing native seed and cuttings in nursery or agronomic settings.
- collaborating with other resource specialists to establish seed and planting stock for habitat enhancement, invasive plant control, and restoration of disturbed or degraded sites.

Other activities include developing seed zones and plant movement guidelines to ensure adaptation to current and future climates, and providing training and technical support to help build program capacity, expertise, and success in native plant restoration.

Plant Material Development

- A new regional IDIQ contract was awarded to qualifying growers for grass and forb seed production. Over 70,000 pounds of seed and 75 tons of weed free straw were purchased under the previous 5-year contract, including 11,000 pounds of seed and 25 tons of straw in FY12 alone.
- R6 Bend Seed Extractory (BSE) processed nearly 20,000 pounds of wild collected and J. H. Stone Nursery harvested seed. These involved 1863 different seedlots from multiple federal agencies and clients in 14 western states.
- The Clarno Hardwood Production Facility (OCH NF) provided over 50,000 native willow and cottonwood cuttings to eastern Oregon forests and partners, and established 3 new beds to meet expanding demands.

Seed Zone Development

- Continued field support for an interagency (USFS, ARS, BLM) collaborative seed zone studies for bottlebrush squirreltail, a key restoration species for harsh, arid sites.



Support Services/Training/Tech. Transfer

The R6 Restoration Services Team (RST) provided:

- revegetation services (via reimbursable agreements) to the Western Federal Lands Highway Division, ODOT, WSDOT, City of Bend, and Confederated Tribes of the Warm Springs/Bonneville Power Administration. Work involved revegetation plan development, plan implementation, and project monitoring on 12 roadside projects and one large-scale rangeland restoration project. RST also worked on construction storm water plans and wetland mitigation projects.
- provided revegetation consultation and site visits to national forests for energy corridor planning, mine reclamation, meadow reconstruction, post-fire rehabilitation, and ski area restoration. The team is available for consultation on all aspects of restoration.

Regional Contact:

Vicky Erickson, 541.278.3715
verickson@fs.fed.us

Program Website:

<http://fsweb.r6.fs.fed.us/natural-resources/native-plants/>



**Pacific Northwest Region
US Forest Service**
Natural Resources Staff
333 SW 1st Avenue
Portland, OR 97204

Region 6 Bend Seed Extractory Native Plant Restoration Program

2012 Accomplishments

The Region 6 Bend Seed Extractory purchased new equipment, upgraded existing equipment and developed & documented new technologies for processing the ever-increasing native species seed needs of the Federal seed program. Reporting numbers reflect extractory accomplishments for the period June 1, 2011 through May 31, 2012.

Number of diverse native species and pounds processed:

- 12,631 pounds of nursery harvested and grow-out seeds were received, processed, & packaged from R6 JH Stone Nursery.
- 6,088 pounds of wild seed collections were received, processed, packaged & placed into storage for future use or shipped to growers or back to the unit for site projects.
- 1,863 different field & nursery grown native species seed collections were received from 14 western states, collected by the FS, BLM, NPS, FHWA, BIA & other government organizations.

Visitors to the Bend Seed Extractory:

- The 2012 Joint Annual Meeting of the Intermountain Container Seedling Growers Association, Western Forest and Conservation Nursery Association, & Intertribal Nursery Council was located in Bend, featuring a tour of the extractory. This conference included visitors from throughout the United States, Mexico, Canada, and the Dominican Republic.
- Wilkin Encarnacion, Yuley Encarnacion, Wilman Placido, Porfirio Peralta, Yoni Rodriguez, and Rumarda Urbaz came to the extractory from the National Native/Endemic Seedbank and the National Botanic Gardens of the Dominican Republic. They came for hands on seed processing training using machines at the extractory and attended the 2012 Joint Annual Meeting.



Figure 1 . Hands-on seed processing training

FY12 Income/Expenditures: \$564,000

Staff: 9 PFTs and temporary employees
4 STEP students

Type of Projects: Processing, packaging, imaging, documenting and improving native species field seed collections for storage, seed increase and future use.

Partners/Clients: USFS, BLM, NPS, FHWA, BIA, & other government organizations.

Contact: Nita Rauch, Extractory Manager
541-383-5646

Extractory Website;

<http://fsweb-ochdes.r6.fs.fed.us/seed-extractory/>



Region 6 Bend Seed Extractory
Deschutes National Forest
63095 Deschutes Market Road
Bend OR 97701



Figure 2. Bend Seed Extractory staff and visitors from the Dominican Republic



Clarno Hardwood Propagation Center

Serving Eastern Oregon Public Lands

2012 Program Highlights

The Clarno Hardwood Propagation Facility is a FS and BLM collaborative project in Central Oregon that supports R6 Native Plant Restoration Program Goals. Annually, over 50,000 native willow and cottonwood cuttings are harvested for large scale riparian projects.

FY12 Highlights:

- Established 3 new beds (13,125 sq ft) of salix and cottonwoods from 537 plant accessions to meet continued supply demands with vigorous material.
- Collaborated with Prineville BLM in assisting with 5 acres of native cottonwood restoration planting along John Day River.
- In 2012, the facility provided cuttings for the following units: OCH, DES, MAL, UMA, FRE, HOOD and WW National Forests; Prineville, Burns and Vale BLM units, Oregon State Parks, National Park Service (John Day Fossil Beds), CTWS (Confederated Tribes of Warm Springs) conservation areas including Pine Creek, Oxbow and Middle Fork.
- Cuttings provided to the following non-profits through watershed council partnerships: TSID (Three Sisters Irrigation District), CRWC (Crooked River Watershed Council): Nature Conservancy (Juniper Hills), ONDA (Crooked River), and Oregon Trout.
- 2 federal and 4 private native plant nurseries were used for seedling production of harvested material.
- Collaborated with Department of Agriculture ARS (Logan, Utah) in establishing a native legume planting trial on-site.
- Collected 6-yr survival and growth data from cottonwood movement study.
- This program wouldn't be possible without the assistance of the BLM, various youth crews, and the additional support from colleagues and volunteers.



Figure 1. Establishing hardwoods, Clarno



Figure 2. New beds (Fig 1 and 2) before and after establishing 2012.

Year Awarded: 2012
Base Funding: \$20,000 Total NFN3
Contact: Chris Jensen
 (541-383-4779).



Figures 3 & 4. Over 7,000 poles harvested for deep planting.

Managed by Ochoco National Forest
 3160 NE 3rd Street
 Prineville, Oregon 97754



Colville National Forest Native Plant Restoration Program

2012 Accomplishments

The Colville National Forest Native Plant Restoration Program continues to focus on developing stocks of native grasses, forbs, and shrubs for restoration projects.

New foundation seed collections were made across the Forest of 91 gallons of uncleaned seed from 22 species (18 shrubs, 3 sedges and 1 forb) between 2160 and 4250 feet in elevation (Fig. 1). Sedge and forb seeds were planted at Coeur d'Alene Nursery for increasing and use for future projects, and the shrub seed was stored at the nursery.

Restoration efforts continue at the Growden Dam removal site, where 2240 alders were planted on 8 acres by the Forest Service and students from Republic and Kettle Falls schools (Fig. 1). Six monitoring plots were read. About 7100 1-year-old shrubs from 14 species are growing at the nursery for use next year.

On 2 acres along the North Fork of Chewelah Creek 200 shrubs of Douglas maple, snowberry, and Nootka rose were planted. On the Middle Branch LeClerc Road Relocation Project, 1500 alder and Douglas hawthorn plugs were planted on 2.3 miles of decommissioned roads along with 250 western white pines and Ponderosa pines. Berms on closed Forest Road 9518245 were planted with 50 alders. The Forest Damage Response Team seeded locally collected blue wild rye on several areas (10 acres total) damaged by off-road vehicles.

Funds were also used to locate and map 42 native plant collection sites across the Forest, pay for seed cleaning, testing and storage; collect hardwood cuttings; provide revegetation consultation; develop/track budgets; and administer agreements.

Contact: Kathy Ahlenslager 509-684-7178.



Colville National Forest
765 S. Main
Colville, WA 99114



Figure 1. Oceanspray spread out to dry on racks, August 2012.

Year Awarded: 2012

Project completion: 2012

Expenditures: \$33,000 Total

\$19,000 (NFN3)

\$ 9,000 (NFVW)

\$ 5,000 (NFTM)

Partners/Contractors/Coop: Coeur d'Alene and J. Herbert Stone Nurseries, Colville Tribe, and Kettle Falls and Republic schools.



Figure 2. Republic High School students planting alder plugs at former Growden Dam site, May 2012.

Deschutes National Forest Native Plant Restoration Program

2012 Accomplishments

The Deschutes National Forest Native Plant Restoration Program continues to focus on developing/planting stock of native grasses, forbs, and shrubs for restoration projects. In addition to the highlights below, funds were used to test/clean/store seeds; develop contracts; provide revegetation consultation; develop project revegetation plans; and develop/track budgets.

Seed and Propagule Propagation:

- Extended existing task order and initiated a new task order for forb seed propagation of penstemons, phacelia, lupines, & buckwheat for the Skyliner Rd./City of Bend waterline project (*Bend/Ft. Rock*).
- 56 lbs. of penstemon and phacelia seed was produced by Benson Farms, and a small amount (~ 1 lb.) of Oregon sunshine seed by Coeur d'Alene nursery for future restoration projects (*Bend/Ft. Rock*).
- Provided field assistance to Clarno Hardwood Production Facility.
- Contracted production of 50 trees, 500 grass and 350 bitterbrush plugs, and propagation of a variety of forbs (*Crescent*).

Seed Collection:

- Collected Oregon sunshine seed from a hydroseeded area and packaged it for dissemination to the public at a Forest Celebration Day.

Restoration Projects:

- Seeded disturbed areas at Mt. Bachelor Ski Area with 65 lbs. native seed and planted 500 seedlings at Lava River Cave (*Bend/Ft. Rock*).
- Continued landscaping new office building with hydroseeding a variety of grasses and forbs (*Fig. 1*) as well as seeding a separate area with 50 lbs. of native grass/forb seed (*Bend/Ft. Rock*).
- In partnership with Wolfree, elementary students helped seed native grasses and transplant native trees/shrubs (*Crescent*).
- 120 volunteers planted 1,650 native trees, shrubs, forbs, and grasses, restoring riparian and upland habitats on National Public Lands Day. Also, Sisters High School Students planted 450 native trees & shrubs to restore decommissioned roads and campsites along Whychus Creek (*Sisters, Tale of Two Rivers Conservation Campaign*; see *USFS Region 6 YouTube video*: <http://www.youtube.com/watch?v=JD2i5YI-40k>)



Figure 1. Area hydroseeded with native forbs and grasses at the new Deschutes/Bend/Ft. Rock District office.



Figure 2. Crescent District employees mulching an eroding slope.



Figure 3. Bend/Ft. Rock employees planting natives in front of the new office building.



Figure 4. A family participates in native plant restoration, Sisters District.

Year Awarded: 2012

Expenditures: \$62,456 Total Funding

\$ 6,456 NFN3

\$23,000 NFTM

\$26,000 NFWF

\$ 2,000 NFWW

\$ 5,000 WFHF

Partners: Deschutes Basin Native Seedbank, Benson Farms, Clearwater Native Plant Nursery, FS Coeur d'Alene Nursery, Dorena Genetic Resource Center; Upper Deschutes Watershed Council, Wolfree, Gilchrist School, National Forest Foundation, Trout Unlimited, Friends of the Metolius, Clarno Hardwood Production Facility, Deschutes County.

Contacts: Katie Grenier (541-383-5564); Charmane Powers (541-383-4730); Christina Veverka (541-433-3234); Maret Pajutee (541-549-7727), Marlo Fisher (541-383-4743).



Deschutes National Forest
63095 Deschutes Market Road
Bend, Oregon 97701

Eastern Oregon Area Genetics Program

OCH, DES, WIN-FRE, CRNG, MAL, WAW & UMA NFs

2012 Program Highlights

In 2012 the Eastern Oregon Area Genetics Program collaborated with, and provided support to a diverse collection of internal and external cooperators. Below is a brief list of highlights. *Not all program activities are listed.*

Climate Change Response:

- Re-established Phenology Monitoring Station on the Pringle Falls Experimental Forest .
- Established a weather station and phenology monitoring study at Kelsey Butte Seed Orchard.

Education and Outreach

- Volunteer mentor at 3rd Annual YCC Career Day (with L. Roby OCH NF).
- Children's Forest 'Naturehood' curriculum development- Ponderosa Elementary (with S. Ferrell BFR RD).

Admin Studies in Support of Operations

- Bottlebrush Squirreltail Common Garden Trial (with USFS, BLM, PNWRS, ARS-Pullman, and ARS-Sydney).
- Basalt Milkvetch and Western Prairie Clover seeding trials (with ARS-Provo).
- Ponderosa pine plantation screening (molecular genetic) (with B. Kaiser UMA NF and NFGEL).
- Established permanent Whitebark Pine monitoring plots in the Warner Mtns. (with K. Chadwick MTH NF).



Figure 3. OCH and DES NF employees in coordination with high school students from the Redmond Proficiency Academy install a common garden study of the important restoration grass Bottlebrush Squirreltail at the OSU Research Farm near Powell Butte, OR



Figure 1. BFR RD Technician Sandy Conaway installs a time lapse camera to monitor reproductive henology of bitterbrush at Pringle Falls xperimental Forest.



Figure 2. BFR RD Genetics and Reforestation Technician Chris Jensen prepares to climb a Ponderosa pine and install a weather station sensor at the Kelsey Butte Seed Orchard.

2012 Partners/Cooperators

- **ARS-Pullman Western Regional Plant Introduction Center** (RC Johnson, Mike Cashman)
- **ARS-Sydney Northern Plains Agricultural Research Laboratory** (Erin Espeland)
- **ARS-Provo Forest and Range Research Laboratory** (Doug Johnson, Shaun Bushman)
- **USFS PNW Research Station** (Francis Kilkenny, Brad St. Clair)
- **University of Nevada – Reno** (Beth Leger)
- **Oregon State University** (Tim Van Domelen)
- **Pringle Falls Experimental Forest** (Andy Youngblood)

Contact: Matt Horning, 541-383-5519



Deschutes National Forest
63095 Deschutes Market Rd.
Bend, OR 97701

Fremont-Winema National Forests Native Plant Restoration Program

2012 Accomplishments

A contract was awarded and funds obligated:

- 1,000 lbs. of *Elymus elymoides*
- 1,800 lbs. of *Deschampsia cespitosa*

Partnership and appropriated funds were used to produce and deliver:

- 750 lbs. *Bromus carinatus*
- 155 lbs. *Deschampsia cespitosa*
- 692 lbs. *Elymus elymoides* (2 different lots)
- 1,500 lbs. *Elymus glaucus* (3 different lots)
- 450 lbs. *Festuca idahoensis*
- 200 lbs. *Leymus cinereus*
- 1,011 lbs. *Poa secunda* (2 different lots)
- 1,400 hardwood seedlings of 2 different species (Fall 2011)
- 265 sedge plugs (Fall 2011)
- 71 shrub seedlings (Fall 2011)

12 lbs. of uncleaned *Elymus glaucus* seed was collected with help from Integral Youth Services.

Appropriated funds were used to collect 1 lb of *Alnus incana* seed and 225 cuttings and root segments for 5 hardwood/shrub species.

Forest supplied the Modoc National Forest with 1,527 lbs. of native grass seed for revegetation work after the 2012 Barry Point Fire. The reimbursement funds (approx. \$23,000) will be used to collect and grow out additional lots in 2013.

Funds were also used to: locate and map new source populations; test, clean, and store native seeds; and develop and administer contracts and agreements.

Through the work of the cone collection crew in Sisters, 45 lots of whitebark pine cones were collected and delivered. A portion of the collection was completed on genetic trees for 1 seed zone, while the rest was general collection within 3 different seed zones.



Figure 1: Sedge plugs from Karma's Forest

Dorena Genetic Resource Center delivered 260 2-year-old *Chrysolepis chrysophylla* seedlings for project planting. Dorena went above and beyond successfully producing plants from seed, even though this is not a species that is usually grown.

Expenditures:	\$ 79,464 Total
\$ 26,200	(NFTM/NFVW)
\$ 5,295	(NFXF)
\$ 47,969	(SRS2)

Partners/Contractors/Coop: Integral Youth Services, USFWS, Benson Farms, Karma's Forest Nursery, Dorena Genetic Resource Center, Clarno Stool Beds.

Contacts: Lucas Phillips 541-947-6251
Missy Anderson 541-783-4085
Jeannette Wilson 541-576-7593



Fremont-Winema National Forest
1301 South G Street
Lakeview, OR 97630

Gifford Pinchot National Forest Native Plant Restoration Program

2012 Accomplishments

Seed Growout Contracts:

We have 2 contracts for seed growout this year (Benson Farms) which resulted in procurement of the following:

- 603 lbs. Idaho fescue

Collection Site:

A small service contract was used to accomplish seed collection of California brome on Westside seed collection sites on the South Zone of the Gifford Pinchot National Forest, in preparation for FY13-FY14 foundation seed collection.

Seed use:

Native grass seed was utilized for the re-vegetation of a number of culvert replacement and other aquatic restoration projects, road decommissioning with partners, stabilizing timber sale landings and skid trails, and a mine reclamation site, all totaling about 20 acres on the Forest.

Native Plan Garden:

Cowlitz Valley Ranger District Office created a native plant garden. The garden demonstrates how native species can be integrated into home landscaping in the community. It shows the beauty and habitat for native animals including pollinators. It also displays the reduced needs for watering, fertilizer and mowing. More than 25 species with a range of preferences for sun and shade were established in the garden.



Figure 1. Cowlitz Valley Native Plant Garden



Figure 2. This American Lady butterfly fed on native plants both as a caterpillar and an adult.

Year Awarded/Completed: 2012
Expenditures: \$36,000 Total
\$ 26,000 (NFTM03)
\$ 10,000 (NFVW03)

Partners/Contractors/Coop: Benson Farms Inc.

Contacts:

HQ: Carol Chandler (360) 891-5106
S. Zone: John Scott (509) 395-3413 or
Andrea Ruchty (509) 395-3414
N. Zone: Linda Swartz (360) 497-1164



Gifford Pinchot National Forest
10600 N.E. 51st Circle
Vancouver, WA 98682

Malheur National Forest Native Plant Restoration Program

2012 Accomplishments

Revegetation Projects – Native plant materials were used for restoration, revegetation, and habitat improvement projects:

- *Riparian Habitat:* River channel restoration and culvert replacements projects that improved critical fish habitat (Figure 1) used a total of 8,000 willow cuttings; 2,000 cottonwood cuttings; 400 red-osier dogwood cuttings, 1,620 lbs. of wetland grass/forb seed mix; and 10,000 lbs. of weed-free native grass mulch.
- *Fire Rehabilitation:* 1,500 lbs. of upland grass/forb seed mix was used to seed 38 miles of dozer and hand lines for the Parish Cabin Fire and other fires.
- *Forage Improvements:* 600 lbs. of upland seed mix was used for big game and rangeland habitat improvements associated with timber sales, range allotments, and road decommissioning projects.
- *Mining Reclamation:* 40 lbs. of upland seed mix was used to seed disturbed areas associated with two active mining claims.
- *Utility Corridors:* 60 lbs. of upland seed mix was used to seed areas disturbed as a result of powerline corridor maintenance.
- *Vegetation Stewardship:* 120 lbs. of upland seed mix was used to seed landings, slash piles, and skid trails for fuels treatments and restoration stewardship projects.

Seed Production – 825 lbs. of mountain brome and 70 lbs. of slender hairgrass were procured and delivered from previous contracts. New contracts were awarded to produce 1000 lbs. of mountain brome and 900 lbs. of bluebunch wheatgrass . Additionally, contracts for the production of 1000 lbs. of Great Basin wildrye, 800 lbs. of bottlebrush squirreltail , and 400 lbs. of prairie junegrass are in progress (e.g. Figure 2).

Seed Collection and Source Mapping – Seeds were collected and their source populations were described and mapped for one forb and two grass species: 7 lbs. of woolly sunflower, 10 lbs. of prairie junegrass, and 12 lbs. of bluebunch wheatgrass.

Program Management – Funds were also used to provide restoration and revegetation consultation to districts and partners; manage the budget and coordinate the program; administer and inspect contracts; and pay for seed cleaning, testing, and storage.



Figure 1. Crew planting willow stakes for a riparian habitat improvement project.

Year Awarded: 2012

Project completion: 2012, ongoing

Expenditures: \$38,000 Total

\$ 20,000	(NFTM)
\$ 10,000	(NFVW)
\$ 5,000	(WFHF)
\$ 3,000	(NFN3

carryover)

Partners/Contractors/Coop: Benson Farms, Western Reclamation, Eastern Oregon Stewardship, Siskiyou BioSurvey, Natural Resource Conservation Service, Oregon Youth Conservation Corps, Oregon Department of Transportation, Confederated Tribes of Warm Springs, The Nature Conservancy, Deschutes Basin Native Seed Bank.

Contact: Joseph Rausch 541-575-3141



Figure 2. Native grass production field at Benson Farms, Inc.



Malheur National Forest

431 Patterson Bridge Road

P.O. Box 909

John Day, OR 97845

Mt. Baker-Snoqualmie National Forest Native Plant Restoration Program

2012 Accomplishments



Wow! 6770 potted native plants staged for planting!



Wow! Lively contingent of 60 Microsoft employees at Gold Creek Pond helping with restoration on September 21, 2012 - a "Day of Caring".

Native Plant Restoration at Gold Creek Pond

Wildlife Viewing Area. In 2011 we hired a contractor to collect native plant materials from the project site, and this September they delivered one pound of rough cleaned pearly everlasting s (*Anaphalis margaritacea*) seed (a lot when you consider there are 17,669 seeds per gram); 3,100 four-inch pots of wild strawberries (*Fragaria vesca* and *F. virginiana*); 1,770 gallon-sized containers of hardhack spirea (*Spirea douglasii*), and 1,900 gallon sized containers of snowberry (*Symphoricarpos albus*). The MBS has partnered with Conservation Northwest to coordinate large volunteer work parties and conduct long-term monitoring. In 2012, the baseline monitoring plan was completed and baseline monitoring plots were established. This was followed by 3 smashingly successful work parties with a total of 143 volunteers, worth \$24,928 in labor!

Native Plant Revegetation in the Baker River Hydro Relicensing Project was helped by "The "Kulshan Kids" and "North Cascades Wild" who planted sword ferns (*Polystichum munitum*). Red huckleberry (*Vaccinium parvifolium*), and grand fir (*Abies grandis*) were transplanted at Excelsior Campground by Whatcom County Corrections Crew, who salvaged the plants from construction areas.

Native Plant Restoration at Harlan Meadow. In 2012, Botany program staff collaborated with the USFS Ecology Program, North Cascades National Park, and the Tulalip Indian Tribe to survey and design a meadow restoration project. In early FY 2012 we spent 2 days harvesting seeds of native grasses, rushes, sedges, and thin-leaved huckleberry (*Vaccinium membranaceum*) which will be propagated at the NOCA greenhouse.

On-going Seed Increase and Plant Propagation. We continue to grow-out a variety of native plant materials. In FY12, we used allocated funds to increase the bed size at Fourth Corner Nursery in Bellingham to produce seeds of piggyback (*Tolmia menziesii*), fringe cup (*Tellima grandiflora*), and goatsbeard (*Arunucus dioicus*). Seeds may be ready for final harvest in 2014.

Year Awarded: 2012

Expenditures:	\$ 3,000 (NFIM)
	\$10,000 (NFVW)
	\$20,000 (NFTM)
	<u>\$11,900 (SRS2)</u>
	\$44,900 total

Partners/Contractors/ Cooperators: Conservation Northwest, Defenders of Wildlife, WA Native Plant Society, Microsoft, EarthCorps, Mobilize Green, J. Herbert Stone Nursery, Couer d'Alene Nursery, Judd Creek Nursery, WA Association of Conservation Districts, Karma's Forest, Fourth Corner Nursery, Mountaineers Naturalists, Central Washington University, Kulshan Kids, North Cascades Wild, N Cascades National Park, Tulalip Indian Tribe, Whatcom County Corrections Crew.



Mt. Baker-Snoqualmie National Forest
2930 Wetmore Ave, Suite 3a
Everett, WA 98201

Laura Potash Forest Botanist & South Zone Botanist 425-783-6043
Sarah Callaghan Invasive Plant Specialist 425-783-6042
Shauna Hee North Zone Botanist 360-854-2635

Mt. Hood National Forest Native Plant Restoration Program

2012 Accomplishments

This year native plant materials played an increasing role across various program areas. We continue building capacity to supply our restoration needs with native grass and forb seed, shrubs, and specialty tree seedlings.

Seed Increase Contract Funds Obligated

- 200 lbs. *Festuca idahoensis* (Idaho fescue)
- 200 lbs. *Achillea millefolium* (common yarrow)
- 64 lbs. *Lupinus latifolius* (broadleaf lupine - Eastside)
- 35 lbs. *Lupinus latifolius* (broadleaf lupine - Westside)

Seed Collection

11.7 lbs. (raw weight): For direct sowing at high elevation disturbed sites, including at Mt. Hood Meadows ski resort and Timberline Lodge facilities.

6 species: 4 wildflower forbs and 2 sedges

>2.7 lbs. (raw weight): Foundation seed for propagating planting stock and seed increase.

9 species: 5 forbs and 4 shrubs

Restoration Project Implementation

- Seeded blue wildrye and California brome on:
 - 50 mi. decommissioned roads
 - 25 mi. equivalent total of road maintenance sites
 - Various disturbed sites (mostly <1 ac.), including at timber sales, ski resorts, dispersed campsites, facilities.
- Transplanted 2,300+ plants (7 forb, 14 shrub, and 8 conifer species) and seeded with blue wildrye and California brome across Timothy Lake area campgrounds and day use sites (> 7 ac.).
- Staked 80 black cottonwood cuttings (at 3 elevation bands) at culvert upgrades, decommissioned stream crossings, and other riparian sites. Collected additional foundation cuttings for continued propagation at Clarno stouling beds (with support from Bend Ft. Rock RD, Deschutes NF).
- Monitored 2 ac. at Mt. Hood Meadows ski resort for revegetation of Canada goldenrod and pearly everlasting sown in 2011.

Funds also supported native seed cleaning and storage, and for salaries to collect native plant materials, develop and administer contracts, track inventory, and implement and monitor revegetation.

R6 Restoration Services Team continued cooperative restoration efforts along Hwy. 35 Improvement Projects (20 ac.), including seeding with strategic mixes of grasses and forbs, and planting custom-grown shrubs and trees.

Contact: Wesley Wong (503) 668-1764



Mt. Hood National Forest
16400 Champion Way
Sandy, Oregon 97055



Workhorse species

*Broadleaf lupine (*Lupinus latifolius*) seed increase plots produced a third year of high yields after native soil inoculation (June 7, 2012).*

Year Awarded: 2012

Project completion: 2013

Expenditures: \$15,582 Total

\$ 5,000 (NFWF)
\$ 5,000 (CMLG)
\$ 3,485 (NFTM)
\$ 1,527 (NFVW)
\$ 500 (NFN3)
\$ 70 (FSEC)

Partners/Contractors/Coop: Dorena Genetic Resource Center, R6 Restoration Services Team, Benson Farms Inc., Portland General Electric, Oregon Department of Transportation, Federal Highways Administration, Mt. Hood Meadows ski resort, SkiBowl resort, Timberline Lodge (RLK & Co.).



Riparian rehabilitation along the Clackamas River

Black cottonwood vigorously sprouts three months after planted as a dormant cutting (June 26, 2012).

Ochoco National Forest & Crooked River National Grassland Native Plant Restoration Program

2012 Accomplishments

The Ochoco National Forest Native Plant Restoration Program continues to focus on developing/planting stock of native grasses, forbs, shrubs and trees for restoration projects. In addition to the highlights below, funds were also used to test, clean, and store native seeds; develop contracts; provide revegetation consultation & develop revegetation plans; develop/track budgets. **An outstanding year of habitat restoration, Ochoco Botanists collaborated with other resources to plant 550 cottonwoods, 895 alders, 2,000 bitterbrush, 600 willows (plants or as wattles/bundles to stabilize stream banks), 1,420 other shrubs (rose, currant, dogwood, mock orange), 350 sedges, and 100's of lbs. of native grass seed.**

Seed and Propagule Production/Purchase:

- Completed a purchase agreement with a local nursery for 3,000 bitterbrush seedlings to be planted on the Crooked River National Grassland in 2014.

Seed Collection:

- Collected tufted hairgrass seed for future seed production.

Restoration Project Implementation:

- Ochoco and Deschutes NF employees teamed up to plant 2,000 bitterbrush seedlings and 200 willows and cottonwoods on Crooked River National Grassland.
- On the Crooked River National Grassland, sowed native grass and forb seed on 10 acres of prescribed burn and on a dozer line in a wildfire area; also sowed native and cultivar seed to determine seedling effectiveness (using photo points) in a fuels treatment area.
- On Lookout Mt. District, 400 lbs. of native grass seed was sown by timber sale purchasers on log landing and skid trail areas.
- Ochoco and BLM Botanists teamed up to plant 50 cottonwood and willow plants on BLM land within the Ochoco NF boundary.
- Paulina District planted cottonwoods, alder, and sedges at the Sugar Creek Culvert Replacement Project, and worked with Trout Unlimited and 10 volunteers to plant 250 willows, 50 wild rose, 50 wax current and 10 red dogwoods at the Little Summit tributary stream restoration project.

Revegetation Project Planning:

- Developed an integrated (botany, engineering, fish, hydrology) revegetation plan for Sugar Creek Culvert Replacement Project.



Figure 1. Ochoco and Deschutes NF employees teamed up to plant 2,000 bitterbrush seedlings and 200 willows and cottonwoods, Crooked River National Grassland.



Figure 2. Redmond Proficiency Academy students plant squirreltail for a native plant genetics study to help in future restoration projects.

Year Awarded: 2012

Expenditures: \$33,945 Total Funding

\$ 10,000 NFWW

\$ 20,000 NFTM

\$ 3,945 NFWF

Partners/Contractors/Coop: Clearwater Native Plant Nursery, Trout Unlimited, Rocky Mountain Elk Foundation, Wolftree, Crooked River Watershed Council, Benson Farms, Deschutes Basin Native Plant Seedbank, Clarno Hardwood Facility.

Contacts: Mark Lesko (541-416-6416)
Katie Grenier (541-383-5564)
Krista Lopez (541-416-6635)



Figure 3. Black cottonwoods waiting to be planted at Sugar Creek Culvert Replacement Project, Paulina District, Ochoco NF.



Ochoco National Forest
3160 NE 3rd Street
Prineville, Oregon 97754

Okanogan-Wenatchee National Forest Native Plant Restoration Program

2012 Accomplishments

Using FY12 NFTM, NFWW, CMRD, CMLG, NFN3 and other funds we accomplished the following:

Managed native plant programs with the objective of providing native plant materials, principally, native grass, forb, and shrub seed, cuttings, or plants to restore biodiversity, resilience, and ecosystem function to disturbed or degraded sites on National Forest system lands. Funds were used to manage local programs, including: 1) planning appropriate species collections, 2) surveying and mapping collection sites, 3) collecting native plant materials, 4) process materials at R6 Bend Seed Extractory, 5) increase native seed using R6 Restoration Services Contract, and 6) sow native seed or plant native stock in appropriate project sites for restoration, rehabilitation, or revegetation purposes.

Accomplishments for FY12 include:

- Reconnaissance, assessment, and mapping sites for native seed collection in 2012 and future years.
- Collected 218 lbs. of seed for 20 native grass, forb, and shrub species for future seed increase and use (including *Agrostis exarata*, *Agrostis scabra*, *Bromus carinatus*, *Calamagrostis rubescens*, *Danthonia intermedia*, *Festuca occidentalis*, *Poa curtifolia*, *Vahlodea atropurpurea*, *Achillea millefolium*, *Lupinus latifolius*, *Acer circinatum*, *Amelanchier alnifolia*, *Cornus sericea*, *Lonicera involucrata*, *Mahonia nervosa*, *Rosa gymnocarpa*, *Rubus spectabilis*, *Sambucus racemosa*, *Sorbus scopulina*, and *Sorbus sitchensis*).
- Awarded contracts for seed increase of four native grass and forb species (*Poa secunda*, *Pseudoroegneria spicata*, *Festuca idahoensis*, and *Phacelia hastata*) to meet future restoration seeding needs on three ranger districts. Amount of seed to be produced during the next two years is 1,057 lbs.
- Purchased and planted 6,832 containerized native plant seedlings for restoration purposes on diverse sites including abandoned mines (Fig. 1), recreational trailheads, flood-damaged roads and campgrounds, and lake and pond habitat.
- Implemented revegetation project seeding of native grasses, forbs, and shrubs on 94 acres including campgrounds, skid trails, fire lines, and abandoned mines. Also seeded 1 mile of decommissioned road.
- Revegetation projects used over 1,700 lbs. of grass and forb seed (including *Pseudoroegneria spicata*, *Bromus carinatus*, *Poa secunda*, *Achillea millefolium*, *Elymus glaucus*, *Festuca idahoensis* and *Poa curtifolia*).
- Repair and maintain controlled environment seed storage capability for three zones on the Forest (North, Central, and South Zones) at a cost of \$3,960.
- Procured 165 lbs. of surplus local grass seed (*Festuca idahoensis*) for revegetation projects.



Figure 1. Volunteers and native plant restoration on the Azurite Mine site on the Methow Valley RD..

Year Awarded: 2012

FY12 Expenditures: \$337,085 (NFWW, CMRD, NFN3, CMLG, CFLN, ERFO, NFTM, NFMG, CWFS, NFWF, RICZ, P6G75A)

Partners/Contractors/Coop: Benson Farms Inc, WA Dept. of Transportation, R6 Restoration Services, Methow Natives, Derby Canyon Natives

Contacts:

SO - Rod Clausnitzer, 509-826-3278

Chelan & Entiat RDs - Brigitte Ranne,
509.682.4941

Cle Elum RD - Helen Lau, 509.852.1074

Methow Valley RD - Kelly Baraibar, 509.996.4019

Naches RD - Jodi Leingang, 509.653.1450

Tonasket RD - Larry Loftis, 509.486.5160

Wenatchee River RD - Lauri Malmquist,
509.548.2575



Okanogan-Wenatchee National Forest
215 Melody Lane
Wenatchee, WA 98801



Figure 2. Cle Elum RD *Bromus carinatus* grass seed production field in the Columbia Basin.

Olympic National Forest Native Plant Restoration Program

2012 Accomplishments

Native Grass Seed Production:

- The Olympic National Forest received delivery of 4500 pounds of native grass seed (blue wildrye and California brome) and twelve tons of certified weed-free straw harvested from grass seed production fields. We are now using source-identified local native grass seed for all revegetation, restoration, and erosion control projects across the forest.
- We completed foundation seed collection for future grass seed production for the Pacific Ranger District.
- We located collection sites for Roemer's fescue, which will be used for foundation seed for prairie and open woodland restoration.
- We are investigating methods for increase of Columbia brome, a native grass species with great potential for use in shady restoration sites, but which has proven difficult to produce under commercial seed production conditions.

Site-Specific Restoration Projects:

- We collected foundation beargrass seed for a beargrass savanna restoration site.
- In collaboration with the Aquatics and Engineering programs, we completed revegetation of drainage features and outcropping along approximately 20 miles of decommissioned road.
- Production of 10,000 sedge plugs is underway for the Mint Meadow wetland/meadow restoration site.
- We implemented restoration planting of over 25,000 sedge plugs and hundreds of hardwood live stakes at the Cranberry Bog (photo below) and Pine Lake shoreline restoration sites.



Figure 1. Blue wildrye grass seed production field (Photo by Jerry Benson)



Figure 2. Source-identified blue wildrye grass seed. (Photo by Robin Shoal)



Figure 1. Sedge plugs at the Cranberry Bog restoration site (Photo by Cheryl Bartlett)



Olympic National Forest
1835 Black Lake Blvd SW
Olympia, Washington 98512

Year Awarded/Completed: 2012

Expenditures:

\$ 35,000 TOTAL

\$ 8,000 CMRD

\$ 27,000 NFTM

Partners/Contractors: Bend Seed Extractory; Benson Farms Inc.; Green Tree Landscaping Inc.; Karma's Forest Wholesale Nursery; NRCS Corvallis Plant Materials Center; Siskiyou Biosurvey LLC; Sound Native Plants; Western Reclamation Inc.; Washington Conservation Corps.

Contact: Robin Shoal 360-956-2376

Western Washington Area Genetics Program Olympic, Gifford Pinchot, & Mt. Hood NFs

2012 Accomplishments

Climate Change Vulnerability Assessment – a vulnerability assessment of forest trees was completed for all of Region 6, providing vulnerability rankings and suggested action items for climate change adaptation.

Taylor's checkerspot genetics – sample collection was completed for a population genetics assessment of the now endangered Taylor's checkerspot butterfly. Analysis will be done at NFGEL.

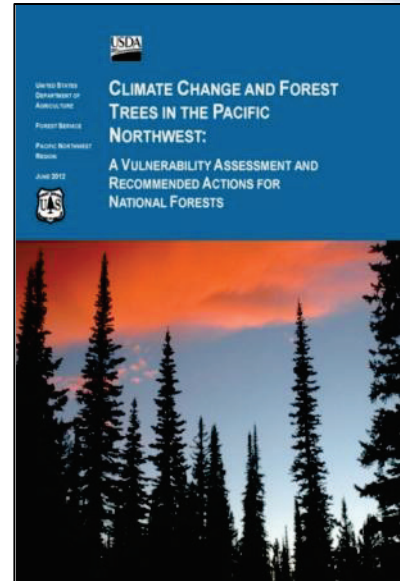
Golden Chinquapin - Leaf collections were completed for a total of ~700 samples from 22 populations covering the range of the species. Analysis will be done at NFGEL.

Oregon white oak restoration strategy – a strategy for conservation and restoration of Oregon white oak on the east side of the Columbia River Gorge National Recreation Area, Mt. Hood, and Gifford Pinchot National Forests has been developed for release in early 2013.

WBP restoration program – management of the regional WBP restoration program included seed collections in OR, WA, and NV, and limber pine.

2012 Partners/Cooperators

USFS NFGEL Laboratory (Valerie Hipkins)
USFS PNW Research Station (Brad St. Clair, Richard Cronn, Connie Harrington)
WDFW (Ann Potter)
USFWS (Ted Thomas)
Quinalt Indian Nation (Jim Hargrove)
Confederated Tribes of Warm Springs (Ryan Singleton, Greg Bjornstrom)
WCC (Darryll Bordon)
The Nature Conservancy (Jim Evans)
NPS (Wende Rehlaender, Ben Becker)
BLM Arcata Field Office (Hank Harrison)
California State Parks (Mike Walgren, Craig Swolgaard)
UC Berkeley (Rob York)
WSU Extension (Jim Freed)



SEED ORCHARDS

Removal of buildings at South Fork Orchard – two excess buildings at the MHNH South Fork seed orchard that had become a maintenance and safety liability were donated to the Confederated Tribes of Warm Springs who dismantled and removed the buildings. The only cost to the USFS was the removal of the concrete pads for a total cost of ~\$1200.

Phenology monitoring year 2 – a second year of data was collected on phenology of Pacific silver fir and western white pine. This data along with weather records will be used as a baseline to monitor impacts of climate warming.

Improvements at Dennie Ahl – working with Engineering and a contractor, a French drain was installed in front of the main building to direct roof runoff away from the bay doors; working with Wildlife, bird and bat boxes were installed to improve habitat and provide nesting sites.

Fire staging – during the Steel Bridge fire, fire crews used the orchard as a staging area for fire operations headquarters and crew quarters.



Contact: Andy Bower
Olympic National Forest
1835 Black Lake Blvd. SW
Olympia, WA 98512

Rogue River-Siskiyou National Forest Native Plant Restoration Program

2012 Accomplishments

2012 Farm Seed Production:

- 1200 lbs. *Bromus carinatus* seed from Pacific NW Natives
- 1325 lbs. *Festuca roemerii* seed from Benson Farms
- 665 lbs. *Elymus glaucus* seed from Pacific NW Natives
- 600 lbs. *Festuca rubra* seed from Pacific NW Natives
- 51 lbs. *Festuca californica* from J. Herbert Stone FS Nursery

2012 Wild Seed Collections:

- *Danthonia californica*, *Festuca roemerii*, *Stipa lemmonii*, *Ceanothus cuneatus*, *Rubus parviflorus*, *Vaccinium parvifolium*, *Rubus ursinus*, *Mahonia aquafolium*, *Gaultheria shallon*, *Acer macrophyllum*.

New contracts were awarded and funds obligated to produce:

- ½-acre to 1-acre seed production plantings of Roemer's fescue, California brome, California oatgrass, and California fescue at J. Herbert Stone FS Nursery (JHSN).
- Small first generation new plantings at JHSN; *Elymus glaucus*, *Stipa lemmonii*, *festuca roemerii*, *Danthonia californica*.
- 3,420 containerized plants from 8 different native species to be grown at Dorena Genetic Resource Center.

Restoration project implementation:

- Continued re-vegetation efforts at Blue Ledge Mine.
- Volunteer watering and care of planted whitebark pines (Fig. 2).
- Ashland Forest Resiliency Project; diversity seedings (Fig. 1).
- With Student Conservaton Association interns, planted over 1,500 shrubs and forbs from 5 different native species for several engineering projects along the Lower Rogue River.
- Sowed over 1,000 lbs. of native grass into the wild for Wildlife, Invasive Plant, Riparian Restoration and Engineering projects on Gold Beach and Powers RDs .
- Southern Oregon University volunteers planted 300 shrubs and forbs at McGribble Meadow (OHV damage restoration).

Other Projects:

- Viability test results obtained for 40 older grass seed lots.
- Prepared re-vegetation prescriptions for three future large scale native plant restoration projects (Copper Salmon Wilderness, Bradford Wall and Big Redwood Culvert). Plants are being propagated this winter and will be ready for out planting in Fall of 2013 and 2014.

Funds were also used to:

- Help managing seed crops at J. Herbert Stone Nursery.
- Write seeding/fertilizer/site prep prescriptions and assemble seed for various other wildland restoration projects.
- Pay seed cleaning and storage costs.



Figure 1. Lomakatsi Restoration seeding Winburn Ridge in Ashland Watershed, Sept. 2012.

Expenditures:	\$ 5,000 (NFWW)
	\$ 32,000 (NFTM)
	\$ 15,000 (CWKV)
	\$ 5,000 (RAC)

Partners/Contractors/Cooperators: Pacific Northwest Natives, Benson Farms, Lomakatsi Restoration, Ski Ashland, Bend Seed Extractory, Dorena Genetic Resource Center, Southern Oregon University, Student Conservation Association.

Forest Contact:

Wayne Rolle, Forest Botanist 541-618-2056,
wrolle@fs.fed.us.



Figure 2. Norm Jensen collecting whitebark pine cones on Mt. Ashland, October 31, 2011.



Rogue River-Siskiyou National Forest
Supervisor's Office
3040 Biddle Road
Medford, OR 97520

Siuslaw National Forest Native Plant Restoration Program

2012 Accomplishments

In 2012 the Native Plant Program produced planting stock and seed used for the restoration of upland meadows, estuaries, habitat for the federally threatened Oregon silverspot butterfly, and re-vegetation of disturbed or bare soil resulting from project activities. A total of 1,650 pounds of seed grown from wild-collected foundation material was delivered, and 4000 willow cuttings and 11,300 plugs were planted.

Seed Delivered:

- 1,000 lbs Alaska brome (*Bromus sitchensis*)
- 650 lbs Roemer's fescue (*Festuca idahoensis* ssp. *roemeri*)

Cuttings Planted:

- 4,000 Hooker's willow (*Salix hookeriana*)

Plants Produced: 11,300 Total

- early blue violet (*Viola adunca*)
- yarrow (*Achillea millefolium*)
- pearly everlasting (*Anaphalis margaritacea*)
- coastal wormwood (*Artemisia suksdorfii*)
- Canada goldenrod (*Solidago canadensis*)
- coast strawberry (*Fragaria chilensis*)
- aster (*Aster chilensis*)
- dune tansy (*Tanacetum camphoratum*)

Seed Collected:

- yarrow (*Achillea millefolium*)
- Olympic onion (*Allium crenulatum*)
- field chickweed (*Cerastium arvense* ssp. *strictum*)
- Menzies larkspur (*Delphinium menziesii*)
- wooly sunflower (*Eriophyllum lanatum*)
- wallflower (*Erysimum capitatum*)
- bluehead gilia (*Gilia capitata*)
- Martindale's lomatium (*Lomatium martindalei*)
- Cardwell's beardtongue (*Penstemon cardwellii*)
- Douglas' catchfly (*Silene douglasii*)

Restoration Projects Implemented:

11,300 containerized plugs were planted in support of Oregon silverspot butterfly habitat restoration, willow cuttings were used to re-vegetate the former Pixieland Amusement Park, areas of disturbed soil were seeded with native grass for timber sale, watershed restoration, and road projects, and upland meadow habitat was enhanced with native seed.



Figure 1. Seed mix trials at an Oregon silverspot butterfly habitat restoration site following solarization . Photo: Marty Bray USFS

Year :	2012
Expenditures:	\$44,770 Total
	\$20,000 (NFTM)
	\$ 9,960 (NFWF)
	\$ 9,310 (CWFS)
	\$ 4,500 (NFVW)
	\$ 1,000 (SRS2)

Partners/Contractors: USFWS, NRCS Corvallis Plant Materials Center, Oregon Coast Aquarium, Oregon Zoo, Woodland Park Zoo, Siuslaw Soil and Water Conservation District, Mid-Coast Watershed Council, Salmon-Drift Watershed Council, Benson Farms, Western Reclamation, Institute for Applied Ecology, Willamette Gardens.

Contacts: Marty Stein 541-563-8417
Doug Glavich 541-750-7048
Marty Bray 541-563-8452



Figure 2. Coastal wormwood in production at NRCS Corvallis Plant Materials Center. Photo: Amy Bartow NRCS



Siuslaw National Forest
3200 SW Jefferson Way
Corvallis, OR 97339

Umatilla National Forest Native Plant Restoration Program

2012 Accomplishments

New Contracts Awarded and Funds Obligated:

New task orders were awarded to

- Coeur d'Alene nursery to establish small increase field of *Thermopsis montana* (mountain goldenbanner)
- To L&H Seeds and Benson Farms to grow 500 pounds of blue wildrye and 500 lbs of California brome from fields to be sown in 2013 for North Fork John Day District.
- To Benson Farms to grow 1000 pounds of California brome from field to be sown in 2013 for Pomeroy District.

Seed purchased from ongoing increase fields:

- Purchased 8 lbs of parsnipflower buckwheat from Benson Farms for the great biochar experiment at Rocky Mountain Research Station.
- Purchased 750 lbs of Idaho fescue, 750 lbs of Sandberg's bluegrass, 550 lbs of blue wildrye, 550 lbs of bluebunch wheatgrass, 2000 lbs of California brome from Benson Farms for Pomeroy District.

Seed Collections and cuttings:

- Collected 10 lbs seed of a forb, goldenbanner on Walla Walla District.
- Collected 12 lbs seed of elderberry and small collections from red osier dogwood, black hawthorn, and serviceberry.
- Cuttings taken from clones at Clarno stool beds and the Forest to produce 600 black cottonwood, 600 willow, 200 quaking aspen at Plant Works for North Fork John Day District projects.
- Collected and propagated 1500 native shrubs of various species at Coeur d'Alene nursery for planting on Pomeroy District.

Planting/Restoration Project Implementation:

- Planted 1968 lbs seed of native grasses and forbs on timber sales, Phillips Cr decommissioned road, Umatilla Forks and Woodward campgrounds, Buck Cr cabin, Bluewood ski area, culvert replacement sites, Cold Spring Fire, Camp Creek mine and other disturbed sites on all four districts.
- 700 shrubs (willows, red osier dogwood, black cottonwood, Lewis' mock orange) planted and caged with help of Ukiah school children, USFS personnel, North Fork John Day Watershed Council in riparian areas on North Fork John Day District.
- 1865 shrubs (thinleaf alder, red osier dogwood, black hawthorne, willow, black cottonwood, dwarf rose, Nootka rose, Lewis' mock orange, blue elderberry, serviceberry, prickly currant, sticky currant, quaking aspen) planted and caged by USFS personnel for Wall Creek watershed project.
- Maintained native plant demonstration garden at Tollgate visitor center.



Figure 1. Northwest Youth Corps maintaining buck and pole fence to protect aspen on Walla Walla District. Photo by Betsy Kaiser

Year Awarded: 2012

Project completion: 2012 and beyond

Expenditures: \$98,833 Total

\$43,000 (NFTM)

\$14,000 (NFN3)

\$ 5,000 (WFHF)

\$ 10,000 (CMLG)

\$ 20,133 (SRS2)

\$ 6700 (CWKV)

Integration: Other BLIs and grants contributed to accomplishments as a result of program integration esp. the Watershed and Aquatic Restoration Program.

Partners/Contractors: Benson Farms, Dorena Genetic Resource Center, Plantworks, NRCS Plant Material Center, Clarno, Rocky Mountain Research Station, Coeur d'Alene Nursery, WDFW, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Nez Perce Tribe, Northwest Youth Corps., OSU seed lab

Contacts Joan Frazee 541-278-3931; Karen Prudhomme 541-427-5391.

NOTE: Native plant expenditures shown in box above include salary for Karen Prudhomme for management of task orders under regional seed production and restoration services contracts; and NFN3 carryover to obligate task orders for new seed increase contract.

Monitoring took place on plantings at Jubilee Lake campground; Woodward Campground, Jarboe Creek riparian restoration.



Umatilla National Forest

2517 S.W. Hailey Ave.
Pendleton, OR 97801

Umpqua National Forest Native Plant Restoration Program

2012 Accomplishments

Seed Collection and Propagation

400 lbs. of Prairie junegrass (*Koeleria cristata*) and Roemer's fescue (*Festuca roemerii*) were purchased from Benson Farms. A new field of blue wildrye was established at the JH Stone Nursery.

Wild seed collections of forbs were made for the Oak Flats restoration project. Species collected included: camas (*Camassia* spp.), yellow iris (*Iris chrysophylla*), red columbine (*Aquilegia formosa*), ookow (*Dichelostemma congestum*) and Oregon geranium (*Geranium oregonum*). Additional collections of native grass, shrub and forb species were gathered for additional projects.

Umpqua Botany personnel continued to partner with the Roseburg Phoenix High School to develop a successful native plant nursery on school grounds.

Restoration Project Implementation

Working with the Federal Highways Administration, seeded a native grass species mix along the now-completed North Umpqua Highway Project and planted approximately 2000 seedlings of native shrubs.

Planted native sedges and other wetland species at the Stinkhole wetlands enhancement project and native, trees, shrubs and grasses at a large pipeline reroute project. Both projects were funded by PacifiCorp.

Additional transplants were interplanted with last year's native plantings at the Clearwater Falls Recreation area to compensate for mortality from last year's drought.

Two acres of closed system roads were amended with straw or dry cake biosolids, turned with an agricultural disk, and seeded with native grasses and forbs.

Tiller Elementary School students restored a formerly blackberry infested riparian area by the Three C Rock Campground with native tree and shrub plantings through the South Umpqua rural Community Partnership (SURCP).



Figure 1. Reseeding native grasses along the North Umpqua Highway subsequent to road reconstruction.

Expenditures: \$162,000 Total
\$107,000 (CWKV) \$7,000 (CMRD)
\$7,400 (CWFS) \$23,000 (NFTM)
\$40,000 (NFVW) \$10,000 (CMLG)

Partners/Contractors/Cooperators: PacifiCorp, Coeur d'Alene Nursery, JH Stone Nursery, Benson Farms, Roseburg Phoenix School, Tiller Elementary School, Federal Highway Administration, South Umpqua rural Community Partnership (SURCP).

Contact : Richard Helliwell, 541-957-3337



Figure 2. Wetland creation project immediately after planting as a mitigation measure for relicensing of the North Umpqua Hydroelectric Project.



Umpqua National Forest
2900 NW Stewart Parkway
Roseburg, OR 97471-1274

Wallowa-Whitman National Forest Native Plant Restoration Program

2012 Accomplishments

The Wallowa-Whitman National Forest Native Plant Restoration Program continues to work to develop an inventory of native grasses, forbs, and shrubs to provide for various restoration projects across the forest.

During 2012 we were able to complete the ARRA collection and propagation contracts of 2010. In addition, funds were used to locate and map collection sites, pay for seed cleaning, testing and storage. Also provided assistance and mixed seed for restoration projects and administered contract agreements.

Restoration project implementation –

Provided approximately 3,275 pounds native grass and forb seed to 22 projects across the forest for rehabilitation of 200 – 275 acres.

- 100 lbs. - Medical Springs- skid trails and landings
 - 50 lbs. - Bald Angel skid trails and landings
 - 50 lbs. - HorseFly skid trails and landings
 - 100 lbs. - Sugar skid trails and landings
 - 100lbs. - Chicken Hill skid trails and landings
 - 80 lbs. - Road Closure
 - 200 lbs. - Range Improvement
 - 850 lbs. - Meadow Creek Aquatic Restoration
 - 450 lbs. - Battle Creek Aquatic Restoration
 - 20 lbs. - Dark Canyon culvert and stream restoration
 - 50 lbs. - Thorn Springs Range and Riparian restoration
 - 150 lbs. - Sundry Stewardship, skid trails and landings
 - 250 lbs. - Sheep Timber Sale, skid trails and landings
 - 5 lbs. - Pinus Aspen Restoration, skid trails and ford
 - 70 lbs. - Moonshine T.S. skid trails and landings
 - 100 lbs. - Cactus Mt Fire suppression rehab project,
 - 150 lbs. - Cactus Mt BAER project
 - 100 lbs. - Mud Creek Fire suppression rehab work/
weed treatment.
 - 50 lbs. - Culvert replacement work.
 - 50 lbs. - Restoration work on dispersed campsites
 - 50 lbs. - Green McCoy and Bovine timber sales
 - 50 lbs. - Hang Glider Launch site project on Mt Howard.
- 3,275 lbs.**



Wallowa-Whitman National Forest
P.O. Box 907
1550 Dewey Avenue
Baker, OR 97814

New foundation seed collections

Purchased –

580 lbs. Idaho fescue
260 lbs. bluebunch wheatgrass
100 lbs. of bottlebrush squirreltail
940 lbs.

Collected –

15 lbs. native grass seed (bluebunch wheatgrass,
Sandberg's bluegrass, and Idaho fescue)
5 lbs. native grass seed (mountain brome)
20 lbs. native shrub seed (big sagebrush)
40 lbs.



Figure 1. Prairie Junegrass field, BFI, Inc. Washington

Year Awarded: 2012

Project completion: 2012

Expenditures: \$45,000 Total

\$25,000 NFTM

\$ 5,000 NFWF

\$ 5,000 WFHF

\$10,000 CMLG

Partners/Contractors/Coop:

Benson Farms, Inc., Bend Seed Extractory, Karma's Forest, Great Bear Restoration, The Nature Conservancy, Wallowa Resources, and Shepridge Farm and Forestry.

Contacts: Robyn Darbyshire, Jerry Hustafa, Lynne Smith & Penny Hall (541-962-8558)

Willamette National Forest Native Plant Restoration Program

2012 Accomplishments

Seed Growout Contracts:

We currently have 1 existing and 3 new task orders on the Regional Grass Seed Growout contract resulting in procurement of the following:

- 22 Tons of native weed-free grass straw
- 4569 # blue wildrye seed
- 2350 # California brome seed

We expect delivery of 500 lbs. of Columbia brome early next fiscal year.

Seed Collection:

Due to the fact that 2011 was a very wet year and seed did not mature until late, additional seed was collected for the Respect the River project, including salmonberry, twinberry, California brome and Oregon sunshine on Detroit District and cascara and dwarf Oregon grape on Sweet Home District. Pearly everlasting, goldenrod, Oregon sunshine, lupine and deervetch were collected by YCC members and spread on temporary and decommissioned roads, a bridge replacement and on invasive species removal sites on McKenzie District.

Wildlife Forage Growout:

Corvallis Plant Material Center established seed increase plots of *Iris tenax*, *Eriophyllum lanatum*, *Lotus unifoliatius*, *Lotus crassifolius*, *Penstemon cardwellii*, and produced plugs of *Trifolium variegatum* to be used to create seed increase plots in the spring of 2013.

Cooperative Projects:

Using funds from a CCS called Keeping it Native!, we initiated seeding trials at Santiam Pass ATV Area. Plugs were successful in all but the harshest sites, so our main partner, [Walama Restoration](#), will be growing plugs and planting them on site with grant funding in 2013 and beyond. [Native Grounds Nursery](#) will be growing 500 plants with seed provided by Sweet Home District for their Respect the River riparian restoration. And [Eagle's Pride Nursery](#) grew 100 native plants for McKenzie District.

In 2012 Detroit District created a new partnership with [Stayton High School](#) for a 3-4 year seed growout project. High school students will be responsible from growing 300 plants per year with genetically local seed provided by the Forest Service.



Figure 1. Walama Restoration Project crew monitoring plug survivorship in closed ATV trails at Santiam Pass

Year Awarded/Completed: 2012

Expenditures: \$ 91,000 Total

\$ 10,000 (CMLG)

\$ 8,000 (CMRD)

\$ 31,000 (NFTM)

\$ 5,000 (NFN3)

\$ 20,300 (SRS2)

\$ 3,900 (WFHF)

\$ 12,800 (CWKV)

Partners/Contractors/Coop: Benson Farms Inc., Western Reclamation, Native Grounds Nursery, Corvallis Plant Material Center, Trillium Gardens, Walama Restoration Project, McKenzie Youth Conservation Corps, Stayton High School, McKenzie High School's Eagles Pride Nursery

Contact: Jenny Lippert 541-225-6440



Figure 2. Sample of Nursery Bed being developed on Detroit Ranger District



Willamette National Forest

3106 Pierce Parkway, Suite D
Springfield, Oregon 97477