

**City of Corvallis**  
**Corvallis Forest**  
**2011 Forest Activities Report**



*Corvallis Forest*

**Prepared by:**  
**City of Corvallis**  
**Public Works Department**  
**Utilities Division**  
**September, 2011**

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**Executive Summary**

This is a Forest Activities Report for Fiscal Year 2010-2011 (FY 10-11) for the Corvallis Forest which is part of the Rock Creek Watershed. This report highlights accomplishments and future planned activities on the Corvallis Forest. Items include: Habitat Enhancement, Resource Protection and Maintenance, Monitoring, Forest Policy, and Education and Public Tours. It was developed by City of Corvallis Public Works Department staff and Trout Mountain Forestry (consulting foresters).

The overall goal of the City for the Rock Creek property is to provide a reliable source of high quality drinking water that surpasses all state and federal drinking water requirements. The Corvallis Forest property includes the Rock Creek water treatment plant, which produced approximately 30 percent of the City's annual water need, or about 1,040 million gallons of water in FY10/11. Water quality for domestic use is the first priority for all management practices within the watershed on City land. The Corvallis Forest property also provides an opportunity to manage natural resources by restoring forest lands and terrestrial and aquatic habitats to future desired conditions and processes.

Watershed Management Advisory Commission (WMAC) members:

Matt Fehrenbacher, Chair  
Jacque Schreck, Vice Chair  
Charlie Bruce  
Michael Campana  
Creed Eckert  
Sheryl Stuart  
David Zahler  
Richard Hervey, City Council Liaison

City of Corvallis Staff:

Tom Penpraze, Utilities Division Manager  
Amber Reese/Ken McCall, Watershed Program Specialist

Trout Mountain Forestry Staff:

Mark Miller  
Scott Ferguson  
Mike Messier

## Revenue/Expenditure Summary

The table below shows a revenue/expenditure summary of major projects or undertakings that have occurred and are planned for the next fiscal year. Most projects are self-supporting through revenue generated through timber sales. The income source column of the table shows funds received through timber sales, cost-share grants, and the use of volunteers. No City property tax revenue is used in Corvallis Forest Projects. The expense column does include City staff time.

<i>Activity</i>	<i>Schedule 2010-2011</i>	<i>Income Source</i>	<i>Income</i>	<i>City Expenses</i>
<b>Accomplished:</b>				
Understory vegetation inventory	Spring/summer	City Watershed Stewardship		\$5,750
Forest diversity thinning	Summer	City Watershed Stewardship	\$326,380	\$136,895
Invasive weed control	Summer	City Watershed Stewardship		\$3,000
Fish habitat monitoring	Summer	City Watershed Stewardship		\$10,500
Stream temperature	Summer	Volunteers and Siuslaw NF staff	\$1,800	
Meadow restoration #1	Summer/fall	Coast Range Stewardship Fund	\$5,580	\$8,030
Meadow restoration #2	Summer/fall	Coast Range Stewardship Fund- Federal Stimulus	\$4,490	\$7,655
Road maintenance	Fall	City Watershed Stewardship/Water Fund		\$8,312
Wildlife snag creation	Winter/spring	Coast Range Stewardship Fund	\$48,550	\$48,550
Forest Tour	Spring	City Watershed Stewardship/Volunteers	\$712	\$1,235
CFSP revisions	Spring	City Watershed Stewardship		\$3,000
<b>Totals=</b>			<b>\$387,512.00</b>	<b>\$232,927.00</b>
<b>Estimated Revenue and Expenses 2011-2012:</b>				
Long-term harvest planning	Summer/fall	City Watershed Stewardship		\$10,000.00
Riparian restoration	Fall/winter	Coast Range Stewardship Fund	\$28,100.00	\$12,800.00
Forest diversity thinning	Winter	City Watershed Stewardship	\$385,000.00	\$273,585.00
Rare plant restoration	Spring/summer	City Watershed Stewardship		\$1,000
Invasive weed monitoring & control, meadow maintenance	Summer 2012	Coast Range Stewardship Fund	\$6,400	\$3,900
Forest Tour	Spring 2012	City Watershed Stewardship	\$700	\$1,000
CFSP revisions finalized	Winter 2012	City Watershed Stewardship		\$3,000
<b>Totals=</b>			<b>\$420,200.00</b>	<b>\$305,285.00</b>

# City of Corvallis Corvallis Forest 2011 Forest Activities Report September, 2011

## Introduction

Welcome to the third annual Forest Activities Report for the Corvallis Forest. This report describes activities undertaken over the past year (FY 10-11) to implement the Corvallis Forest Stewardship Plan, actions planned for the 2011-2012 fiscal year and a “snap shot” of conditions and trends on the City’s 2,350-acre Rock Creek Watershed property. The overall goal of the City for the Rock Creek property is to provide a reliable source of high quality drinking water that surpasses all state and federal drinking water requirements. The Corvallis Forest property includes the Rock Creek water treatment plant, which produced approximately 30 percent of the City’s annual water need, or about 1,040 million gallons of water in FY10/11. Water quality is the first priority for all management practices within the watershed on City land. The Corvallis Forest property also provides an opportunity to manage natural resources by restoring forest lands and terrestrial and aquatic habitats to future desired conditions and processes.



*Rock Creek water treatment plant*

## Stewardship Planning

Management of the forest is guided by the policies detailed in the Corvallis Forest Stewardship Plan (CFSP), which was adopted by the City Council in December 2006. It was developed through a 2-year public input and resource assessment process. The plan describes the property’s history and current resources conditions, details the vision and principles that guide management, describes desired future conditions, and outlines guidance policies in such areas as forest reserves, invasive species control, and resource monitoring. Opportunities and recommended actions are offered in each of seven different resource and land use areas. A copy of the plan is available for viewing at [www.ci.corvallis.or.us/](http://www.ci.corvallis.or.us/)<sup>1</sup> and at the Corvallis Public Library reference section.

The Watershed Management Advisory Commission (WMAC) advises the City Council on policies and activities on the Corvallis Forest. This seven-member panel of citizen volunteers is appointed by the Mayor and generally meets monthly. All Commission meetings are open to the public. The WMAC works with city staff, resource specialists and consultants to implement the CFSP policies.

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<sup>1</sup> The direct link to the CFSP page is:  
<http://www.ci.corvallis.or.us/index.php?option=content&task=view&id=1795&Itemid=2067>

## Accomplishments for 2010-2011<sup>2</sup>

The following actions were initiated or completed in FY 2010-11:

### *Habitat Enhancement:*

- Wildlife snag creation – A Federal Stimulus grant funded tree topping for snag creation and woody debris by topping 680 trees at various locations across the forest. The varied prescription created live snags, tall snags, bored cavities, bat roosting “flanges”, and spotted owl “feeding sites”, while releasing existing and potential older complex diverse trees.
- Meadow restoration 1 – The same Federal “Stimulus” grant funded expansion of a historic meadow along Old Peak Road. Encroaching trees were removed, then native grasses and forbs were seeded in Fall 2010. To further enhance this uncommon habitat on the Forest, another grant from the Coast Range Stewardship Fund funded woody shrub planting at the meadow edges, and meadow maintenance mowing.
- Meadow restoration 2 – An area of reservoir dredge spoils near the main Rock Creek Road entrance was restored to meadow habitat by shaping the berm, controlling invasive Reed Canary grass, and seeding native grasses and forbs. The project, funded by a Federal “Stimulus” grant, included a trial of non-chemical weed control on a second dredge spoils site.
- Forest thinning for diversity – In July 2010 57 acres were thinned to improve wildlife habitat, increase tree species diversity, and enhance forest stand structure. In a 45-year old plantation, trees were thinned using a variable density thinning strategy designed to expand crowns, encourage understory development, and improve growth rates. Nearby, thinning in a 70-90 year old stand created openings to establish a multi-aged stand and develop future



*Tree topping for wildlife snag creation*



*Meadow expansion and restoration off Old Peak Road*



*2010 diversity thinning area*

<sup>2</sup> Accomplishments for 2010 can be viewed in the prior State of the Forest report, which can be found at: <http://www.ci.corvallis.or.us/downloads/pw/State%20of%20the%20Forest%20Report%202010.pdf>

conditions favored by spotted owls and marbled murrelets. Hemlock and cedar seedlings were planted in gap openings to increase species diversity in this predominate Douglas-fir forest. Approximately 665,000 board feet of timber was harvested across 56 acres by B&G Logging of Philomath, with revenue from the sale put back into management of the watershed and to fund other habitat improvement projects in the Corvallis Forest.

#### *Resource Protection and Maintenance:*

- Corvallis Forest Natural Resources Inventory – In late spring 2010, to supplement the non-forest inventories of the CFSP, Trout Mountain Forestry conducted an inventory of understory vegetation. The inventory provides insight into key plant resources of the Corvallis Forest, and serves as an important record of property baseline conditions. In addition, a new vegetation type classification and vegetation type maps were developed and approved by the WMAC. The inventory report and maps can be viewed at: [http://www.ci.corvallis.or.us/index.php?option=com\\_content&task=view&id=1924&Itemid=2184](http://www.ci.corvallis.or.us/index.php?option=com_content&task=view&id=1924&Itemid=2184)
- Invasive weed inventory and control – A comprehensive roadside and riparian area weed control project was undertaken to treat invasive weeds on all known infested roadsides, pipelines, and riparian areas. Follow-up monitoring and spot control showed vastly reduced weed populations. All project sites are routinely pre-screened for invasive weeds, as well as rare plants and animals. Weeds of concern on the forest include False-brome, Himalayan blackberry, Scotch broom, and Reed Canary grass. Weed control strategies include pre-washing equipment, restricting equipment to designated trails, and quickly reseeding disturbed soils with native species.
- Road maintenance – Worn surface gravel was replaced and surfaces regraded on roads to protect water quality and provide safe travel surfaces. Approximately 16.5 miles were regraded, rock was added on 2.4 miles, and 10.2 miles of road was brushed.

#### *Monitoring:*

- Fish habitat monitoring – A three-year in-stream fish survey was developed to determine the numbers and distribution of Cutthroat trout following 2008 fish passage barrier removal projects. Findings of the 2011 survey show that fish are using the 8.3 miles of high-quality upstream habitats previously blocked by undersized culverts and inadequate fish ladders, and slightly increased fish numbers. Reports can be viewed at: <http://www.ci.corvallis.or.us/index.php?option=content&task=view&id=1795&Itemid=2067>
- Stream temperature – Temperature monitoring of Rock Creek and several tributaries is being done to assess the long-term effectiveness of large wood placement and planned riparian planting projects on summer stream temperatures. This project is conducted in cooperation with the Siuslaw National Forest. Data and results can be found at: <http://www.ci.corvallis.or.us/index.php?option=content&task=view&id=1795&Itemid=2067>

#### *Forest Policy:*

- CFSP Revisions – New forest inventory findings and work over the past 5 years by the WMAC, staff, and Trout Mountain Forestry (City's consultant) have identified several areas where the CFSP should be revised, including: new forest community designations, new restoration practices for some older stands, reserve area policy adoption, and

updating maps with corrected road and stream locations. Revised Standards and Guidelines, drafted by the WMAC during Spring 2011, will be presented to the public for review in the fall, 2011. Modifications to the CFSP will require adoption by the City Council.

#### *Education and Public Use:*

The Corvallis Forest is gated to prevent unauthorized access and to protect the City's water supply, however educational use is encouraged and organized tours are provided. Recent education offerings included the following:

- Public tour – Annual public tours are widely advertised and have proven to be popular. The 2011 tour held on June 8th attracted nearly 80 people, who viewed planned bridge replacement and thinning harvest areas, the South Fork fish ladder, a captive “sparred” owl (spotted-barred cross), and planned thinning areas on adjacent Siuslaw National Forest lands. Approximately 88% of tour attendees who were surveyed indicated a desire to attend another tour and all indicated an adequate or good understanding of the goals of the Corvallis Forest.
- Educational tours – School and group tour use included Oregon State University silviculture and engineering classes, Albany public schools, and OSU visiting foreign professors.
- Trainings – The forest was used as a field site for USFS silviculture and fish survey trainings.
- Press coverage – Stories about the Corvallis Forest occurred in the *Corvallis Gazette-Times*, *The City Newsletter*, the *Corvallis Public Works Annual Report*, 2010 *Corvallis Water Quality Report* and the *Marys River Watershed Council website*.
- 2010 Two Chiefs' Partnership Award – The national award is presented annually by the chiefs of the U.S. Forest Service and the USDA Natural Resources Conservation Service. City of Corvallis public works staff affiliated with four Siuslaw National Forest stewardship groups received this award for conservation work in the city's forest.



*2011 public tour*

#### **Economic context**

The ongoing economic downturn has had limited effects on restoration efforts on the Corvallis Forest. Strong log demand from China and anticipated Japanese tsunami rebuilding efforts created a surge in log exports in early 2011, especially for “white woods” — hemlock and grand fir.<sup>3</sup> Export minimum size limits were also relaxed, allowing much domestic grade material to now be exportable. A surge in white wood harvesting flooded this market in early 2011, leading to a price drop that will likely persist through the remainder of 2011. The FY 2011/12 harvest is planned for January and February 2012, a period of historically peak log markets.

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<sup>3</sup> Log exports from public forests are prohibited by law. All logs harvested from the Corvallis Forest were sold to local mills. Rising log exports typically result in domestic log price increases.

The availability of grant funds also continues to diminish, with fewer funds available and more competition for those funds. To be successful projects must be high quality, involve partners, and demonstrate solid track record— areas in which Corvallis has excelled.

**Revenue/Expenditure Summary:**

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## Weather and climate

Although this past spring was the wettest and coolest in recorded history, weather events on the Corvallis Forest were generally moderate. Overall mild temperatures and modest winds created an “average” year that resulted in no major storm impacts to the forest. Wind damage was minimal in previously harvested areas. Seedlings planted in early winter in the 2010 harvest areas will likely have good survival, especially if the forest continues to have moderate summer precipitation.

Recovery from the recession and jobs crisis is expected to be slow. Modest rises in lumber sales and prices are predicted in winter or spring 2012 as the recovery slowly stimulates job growth. Timber prices are expected to be more volatile as mills closely control inventory to reduce costs.

## Activities Planned for 2011-2012

The following projects are planned for fiscal year 2011-2012 (July 1, 2011 – through June 30, 2012):

- Wildlife habitat enhancement – Brush and hardwoods along 3,000 lineal feet of Rock Creek riparian area will be removed and planted to conifers for improved stream shading and riparian habitat. This is the third phase of a multi-year project funded through a Coast Range Stewardship Fund Grant.
- Invasive weed monitoring – Monitoring will determine where and when next treatments are needed (Spring 2012).
- Forest thinning for diversity – Thinning of 65 acres of 45 to 50-year old trees on three sites is planned for winter 2012. Cable thinning will protect soils from disturbance, and allow logging during a traditionally peak market period. The thinning is designed to address forest health concerns (extensive root rot areas), benefit wildlife by increasing tree age and species diversity, and enhance shrub and ground cover vegetation. The thinning is expected to yield approximately 700,000 board feet of timber.
- Rare plant restoration plans – The Benton County Habitat Conservation Plan (HCP) is designed to balance wildlife conservation with economic development. Under this Plan, a blanket permit will cover many activities conducted by the County, its residents, and cooperators like the City of Corvallis. The Plan describes how the County will avoid, minimize, or mitigate impacts to threatened, endangered, and critically rare prairie species in the County. Interim management guidelines for Peacock Larkspur (a threatened Oregon prairie plant species) was developed and adopted by the Commission in 2008. A small population of Peacock Larkspur is found on City property. Work will begin in Fall 2011 to restore habitat for this plant.
- 15-year Forest Management Framework – The recommended projects to implement the management policies as listed in the 2006 CFSP have been substantially accomplished. An updated set of harvest and restoration recommendations is being developed. These will be presented as a part of the CFSP revision for public review and eventual City Council adoption later this fall and winter. The purpose of this framework is to provide City officials and staff with guidance for the integrated management of the City forest’s resources. This document with an accompanying map and spreadsheet, provide a framework for guiding future forest management.

## **Staffing**

Responsibility for the Corvallis Forest rests with the City of Corvallis Public Works Department, directed by Steve Rogers. Tom Penpraze, Utilities Division Manager, oversees watershed management and conservation programs for the City. Amber Reese, part-time watershed program specialist, assists with WMAC meetings, project implementation, and coordination with project partners and consultants.

A variety of contractors were retained in FY 10-11 to assist staff in implementing the CFSP:

- Trout Mountain Forestry of Corvallis and Portland was the lead contractor to the City for forestry services, including resource inventory, project planning, permitting, bid preparation and solicitation, contracting, and supervision of projects. They assisted staff with WMAC meetings and public tours, annual plan development, and grant writing.
- Bio-Surveys of Alsea monitored fish population trends.
- Carex Working Group of Corvallis assisted with understory plant survey design, data collection and analysis.
- B&G Logging of Philomath conducted the diversity forest thinning.
- Headwaters ECO of Seal Rock topped trees for wildlife snag creation.
- Miller Timber of Philomath conducted the young stand wildlife habitat thinning.
- Strata Forestry of Springfield were subcontractors for invasive weed control and tree planting.

## **Partner Institutions**

The work of implementing the CFSP to date would not be possible without the assistance and expertise of a large number of partner groups and institutions including:

- Watershed Management Advisory Commission
- Adjacent Landowners
- Institute for Applied Ecology
- Marys Peak Stewardship Group
- Marys River Watershed Council
- Oregon Department of Agriculture, Oregon State Weed Board
- Oregon Department of Fish and Wildlife
- Oregon Watershed Enhancement Board
- USDA Forest Service, Siuslaw National Forest
- US Fish and Wildlife Service

## **Conclusion**

Since the CSFP was adopted in 2006, restoration and habitat enhancement projects have occurred on over 300 acres of forest, and stream improvements have increased fish access and habitat on more than 8 miles of streams. Invasive weed control and road maintenance have taken place throughout the forest. Funds from thinning harvests have allowed the City to leverage grant and cost-share funds totaling more than \$800,000.

More detailed information on the vision, guiding principles, desired future condition, resource policies and recommended actions can be found in the Corvallis Forest Stewardship Plan at <http://www.ci.corvallis.or.us/index.php?option=content&task=view&id=1795&Itemid=2067>