

City of Corvallis
Corvallis Forest
2012 Forest Activities Report



Corvallis Forest

Prepared by:
City of Corvallis
Public Works Department
Utilities Division
January 2013

**City of Corvallis
Corvallis Forest
2012 Forest Activities Report
January 2012**

Executive Summary

This is a Forest Activities Report for Fiscal Year 2011-2012 (FY 11-12) 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 FY11/12. 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:

Charlie Bruce, Chair
Jacque Schreck, Vice Chair
Creed Eckert
Jessica McDonald
Racquel Rancier
Sheryl Stuart
David Zahler
Richard Hervey, City Council Liaison

City of Corvallis Staff:

Tom Penpraze, Utilities Division Manager
Jennifer Ward/Amber Reese, Watershed Program Specialist

Trout Mountain Forestry Staff:

Mark Miller
Scott Ferguson
Matt Fehrenbacher

City of Corvallis
Corvallis Forest
2012 Forest Activities Report
November, 2012

Introduction

Welcome to the fourth annual Forest Activities Report for the Corvallis Forest. This report describes activities undertaken over the past year (FY 11-12) to implement the Corvallis Forest Stewardship Plan, actions planned for the 2012-2013 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 FY11/12. 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.



Water supply pipeline with Oregon Iris

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. 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.corvallisoregon.gov/¹ and at the Corvallis Public Library reference section.

¹ The direct link to the CFSP page is: <http://www.corvallisoregon.gov/index.aspx?page=126>

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.



Members of the Watershed Management Advisory Commission (January 2013). Standing, from left to right: Jacquie Schreck (Vice –Chair), Jessica McDonald, David Zahler, Sheryl Stuart, Creed Eckert, Richard Hervey (City Council Liaison). Kneeling: Charlie Bruce (Chair).

Accomplishments for 2011-2012²

The following actions were initiated or completed in FY 2011-12:

Habitat Enhancement:

- Wildlife habitat – Brush and hardwoods along 3,000 lineal feet of Rock Creek riparian area were 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.
- Forest thinning for diversity – In early 2012, 50 acres of the Corvallis Forest were thinned to improve wildlife habitat, increase tree species diversity, and enhance forest stand structure. In a 55-year old plantation, trees were thinned using a variable retention strategy designed to establish a



Seedling protection for Riparian Restoration Project

² Accomplishments for 2011 can be viewed in the prior State of the Forest report, which can be found at: <http://www.corvallisoregon.gov/index.aspx?page=143>

multi-aged stand and develop conditions favored by a wider variety of plant and animal species including old-forest species, over time. In a 45 year-old plantation a variable density thinning approach was used to expand tree crowns, encourage understory development, and improve growth rates. Openings were created in areas affected by root rot, which were replanted with disease-resistant cedar seedlings. In total, approximately 608,000 board feet of timber was harvested by B&G Logging of Philomath and milled by three different mills in western Oregon revenue from the sale put back into management of the watershed and to fund other Corvallis Forest projects.



Log processing in FY 2011/12 thinning

- Meadow restoration – A 2010 grant funded expansion of a historic meadow along Old Peak Road, removing encroaching trees and seeding native grasses and forbs. A 2011 grant from the Coast Range Stewardship Fund funded additional shrub planting at meadow edges and maintenance mowing to further enhance this uncommon habitat by increasing the structural complexity of the edge and increasing wildlife habitat within the meadow. Watering of the new plantings over the summer was provided by volunteers from the Mid-Willamette Chapter of the Oregon Hunters Association.



Meadow restoration shrub planting

Resource Protection and Maintenance:

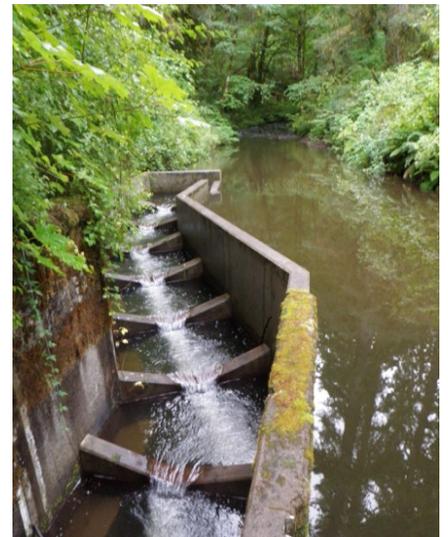
- Invasive weed inventory and control – Following comprehensive roadside and riparian weed control projects 2009-11, follow-up monitoring and spot control in spring 2012 vastly reduced weed populations. This phase of the project was funded by a Coast Range Stewardship Fund grant. To monitor invasive 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.
- Rare plant restoration plans – Interim management guidelines for Peacock Larkspur (a threatened Oregon prairie species) were developed and adopted by the WMAC in 2008. A small population of Peacock Larkspur is found on City property. Work was begun in 2011 to restore habitat for this plant, including field mowing and blackberry removal, in accordance with Peacock Larkspur management guidelines and the Benton County Habitat Conservation Plan (HCP) for prairie species. The HCP describes how the County

will avoid, minimize, or mitigate impacts to threatened, endangered, and critically rare prairie species.

- Road maintenance – The City cooperates with the US Forest Service to maintain roads. Together, the City and USFS replaced ten timber runners on the main entry bridge over Rock Creek (FS Road 3405) and into the watershed. In addition, the Griffith Creek Intake road was graded and graveled, and all other watershed roads were graded to protect water quality and provide safe travel surfaces.
- Property Boundary Survey – A previously unmarked section of the Corvallis Forest was surveyed, and property corners and boundary lines were monumented.

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. Post-project surveys demonstrate that cutthroat are now using habitats previously blocked by impassable culverts and inadequate fish ladders, and overall fish density has increased slightly. Reports can be viewed at: <http://www.corvallisoregon.gov/index.aspx?page=148>
- 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. Cold water from Rock Creek helps keep waters downstream from exceeding the temperature threshold that would render them inhospitable for fish rearing. This project is conducted in cooperation with the Siuslaw National Forest. Data and results can be found at: <http://www.corvallisoregon.gov/index.aspx?page=148>
- Songbird populations – The Siuslaw National Forest has conducted songbird population monitoring in connection with planned meadow restoration activities. Because of the similarity and proximity of the Corvallis Forest’s Old Peak Road meadow, songbird population monitoring was also conducted there between June 6 and July 5, 2012. This was a two-year monitoring study and the Old Peak Road meadow was also surveyed for songbirds between June 2 and June 23 in 2011. Recommendations from the study include maintaining a range of native forbs within the meadow, creating habitat complexity within the meadow and at its edges, and maintaining or creating large-diameter snags. These recommendations may form the basis for partnerships with the Siuslaw National Forest in the future. Data and results can be found at: <http://www.corvallisoregon.gov/index.aspx?page=148>



South Fork water intake with fish ladder

Forest Policy:

- CFSP S&G – Revised Standards and Guidelines (S&G) were drafted and approved by the WMAC during Spring 2011 to clarify and expand provisions of the original stewardship plan. The Commission will incorporate the S&G into an update of the CFSP that will be presented to the City Council in 2013.
- CFSP Public Meeting – A public meeting held in November 2011 provided citizens the opportunity to review and comment on proposed CFSP Standards & Guidelines, new forest findings, and work of the Commission, staff, and consultants over the past 5 years.

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 2012 tour held on May 24th attracted nearly 60 people. Attendees visited the reservoir and the water treatment plant, as well as two thinned units. They also viewed the log placement and riparian plantings along Rock Creek. Approximately 70% of tour attendees who were surveyed indicated a desire to attend another tour and almost all indicated an adequate or good understanding of the goals of the Corvallis Forest.
- Educational tours – School and group tour use included the Girl Scouts of America, City of Corvallis Department of Parks and Recreation, Marys Peak Stewardship Group, Marys River Watershed Council, and Oregon State University as well as a walking tour on the newly proposed Corvallis-to-the-Sea trail.
- Trainings – The Aquatic and Riparian Effectiveness Monitoring Program (AREMP) conducted field stream training for US Forest Service and Bureau of Land Management employees.
- Stickworks – Environmental artist Patrick Dougherty was commissioned to create a new installation for the Oregon State University campus. In September 2011, his piece entitled “Pomp and Circumstance” used maple saplings from the Corvallis Forest along with other local woods to create a whimsical, windblown sculpture, sited west of Gilkey Hall on the corner of SW Memorial Place and Campus Way.
- Website improvements – An update of the City of Corvallis website brought expanded content on WMAC meetings and Corvallis Forest documents, and a more accessible user-interface.



Stickworks sculpture installation on OSU campus

- Press coverage – Stories about the Corvallis Forest occurred in the Corvallis Gazette-Times, *The City* newsletter, the City of Corvallis website, and local radio stations.

Economic context

The lingering economic downturn has had limited effects on restoration efforts on the Corvallis Forest. The slow recovery of the softwood lumber market has led to slowly but steadily improving prices for both finished lumber and raw sawlogs. Strengthening log demand should bring increased profitability to thinning in younger plantation stands. As landowners increase their logging in response to recovering prices, loggers and truckers will be in greater demand. Steady rises in lumber sales and prices are forecast through 2013-14 as housing demand increases.

Grant funding for restoration continues, though in a more competitive environment. For many agencies the availability of grant funds 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 a solid track record - areas in which Corvallis has excelled.

Weather and climate

The past year was one of extremes with both one of the wettest and coolest springs, and warmest and driest summers in recorded history. In spite of that, weather events on the Corvallis Forest were in sum moderate. Overall mild temperatures and modest winds created an “average” year that resulted in no major storm impacts to the forest. Seedlings planted in early winter in the 2012 harvest areas saw good survival and growth. Wind damage was minimal in previously harvested areas.

Activities Planned for 2012-2013

The following projects are planned for fiscal year 2012-2013 (July 1, 2012 – through June 30, 2013):

- Invasive weed monitoring – Monitoring will continue as a part of other routine operations to determine where and when next treatments are needed.
- Forest thinning for diversity – Thinning of 100 acres of 65-year old trees is scheduled as a 2-year contract offering. Ground-based thinning began in October 2012 and will break for the winter, resuming in late spring 2013. The thinning is designed to benefit wildlife by expanding tree crowns, increase tree vigor, promote tree age and species diversity, and improve shrub and ground cover vegetation. The thinning is expected to yield approximately 1,100,000 board feet of timber over two years.
- Threatened species recovery – Ongoing forest restoration practices are improving habitat for Northern spotted owl and Marbled



Northern spotted owl

murrelets, both federally listed as threatened species. The WMAC will continue discussions with Oregon Department of Forestry and US Fish and Wildlife Service on their voluntary Safe Harbor Agreement programs designed for properties like the Corvallis Forest where management exceeds regulatory minimums.

- Rare plant restoration plans – Habitat for Peacock larkspur will continue to be protected and enhanced in accordance with Peacock larkspur management guidelines and the Benton County Habitat Conservation Plan (HCP) for prairie species. Mowing and blackberry removal will occur in the fall and Peacock larkspur population surveys will take place in the spring.
- Updated Corvallis Forest Stewardship Plan – 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. The CFSP revision will be available for public review and eventual City Council adoption this winter or spring. 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 provides a framework for guiding future forest management.
- Rock Creek Bridge Replacement and Channel Restoration - The bridge on Rock Creek Road which serves as the main entrance into the Forest is in need of replacement. The replacement will take place in summer in cooperation with Siuslaw National Forest with funding from the Coast Range Stewardship Fund, Legacy Road dollars, and appropriated funds already dedicated to this project.

Staffing

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



*Jennifer Ward,
Watershed Program Specialist*

A variety of contractors were retained in FY 11/12 to assist staff in implementing the CFSP:

- Trout Mountain Forestry 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.
- Jim Peterson Surveying of Corvallis conducted the property boundary survey.
- B&G Logging of Philomath conducted the diversity forest thinning and hauled the timber to the mills.

- Nick's Timber Services of Sheridan was the subcontractor for brush and tree planting for the Rock Creek wildlife enhancement project.
- Strata Forestry of Springfield was the subcontractor 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 Fish and Wildlife
- Oregon Department of Forestry
- Oregon Hunters Association, Mid-Willamette Chapter
- 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 350 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 \$850,000.

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.corvallisoregon.gov/index.aspx?page=126>.