

City of Corvallis
Corvallis Forest
State of the Forest Report
2009



Prepared by:
City of Corvallis
Public Works Department
June, 2009

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Introduction

Welcome to first annual State of the Forest Report for the Corvallis Forest. The report describes activities undertaken over the past two years to implement the Corvallis Forest Stewardship Plan, action planned for the 2009-2010 fiscal year and a snap shot of conditions and trends facing the City's 2,400-acre Rock Creek Watershed property. The overall goal of the City for the Rock Creek property is providing 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 treated 30 percent (819 million gallons) of Corvallis drinking water in 2008. The Corvallis Forest property also provides an opportunity to manage a healthy forest environment for the benefit of the watershed.



Rock Creek water plant

Stewardship Planning

Management of the forest is directed by the Corvallis Forest Stewardship Plan (CFSP), 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 resource 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 at www.ci.corvallis.or.us/ and the Corvallis Public Library reference section.

The Watershed Management Advisory Commission (WMAC) advises City Council on policies and activities on the Corvallis Forest. This seven-member panel of citizen volunteers is appointed by the Mayor and meets monthly. All Commission meetings are open to the public. The WMAC works with city staff, resource specialists and our consultants to develop annual action plans, as well as individual project operational plans.

Accomplishments 2008-2009

The following actions were initiated or completed in 2008-2009:

- Culvert replacement - The CFSP places priority on restoring fish passage to high quality upstream habitats. With the assistance of generous grant funding and

many project partners, undersized and perched culverts were replaced on four creeks: Griffith, Stilson, Middle Fork, and Tributary B. New large culverts have a simulated natural streambed that allows year-round unimpeded fish passage.

- Large wood stream placement – Rock Creek fish habitat is limited by a lack of large logs in the stream channel, resulting in few resting pools or spawning beds. A helicopter was used to place 83 logs averaging 125 feet in length and 34 inches in diameter into 20 structures (log jams), to capture nutrients for feeding, sediments for spawning and to provide hiding cover for fish. Project partner Marys River Watershed Council coordinated the project. The Siuslaw National Forest donated logs as an “in-kind” contribution, and provided grant funding through the Siuslaw Stewardship Fund with grant applications coordinated through the Marys Peak Stewardship Group.
- Fish ladders – A fish ladder was added to the Griffith Creek water intake, and the existing ladder at the South Fork intake was redesigned to improve fish passage to extensive upstream habitat. A total of eight miles of fish habitat was reconnected to allow fish passage from the main stem of Rock Creek into prime fish habitat upstream of the former fish passage barriers by completing these fish habitat improvement projects.
- Invasive weed inventory and control – Restoration project sites are pre-screened for presence of invasive weeds — False-brome, Himalayan blackberry and Scotch broom — as well as rare plants and animals. Invasive weeds are mapped, added to the City’s weed information database, and controlled to prevent their spread. Disturbed soil areas are reseeded with native species.
- Marbled Murrelet survey, Phase 1 – These small sea birds fly up to 50 miles inland to nest in the tops of large conifers similar to those that grow in the oldest parts of the Corvallis Forest. Initial surveys during spring and summer 2008 sampled potential habitat in three separate areas. No murrelets were sighted. A second year of surveys is being completed in 2009 to confirm their presence or absence.
- Forest thinning for diversity – Dense young fir plantations and uniform middle-aged stands provide limited wildlife habitat. Thinning to improve diversity and stand structure was conducted in late summer 2008 on 33 acres of plantations aged 35 to 50 years old. An additional 34 acres of 70-90 year-old forest that originated when former pasture lands were abandoned was also thinned. Thinning will improve wildlife habitat by increasing the diversity



Photos from top: new Stilson Creek culvert, helicopter log placement, log placement in Rock Creek

and amount of shrub and ground cover plants, moving the forest from a mono-culture (trees only) to a multi-culture (trees, shrubs, ground cover) environment. Approximately 650,000 board feet of timber was removed. The revenue from the sale of harvested trees is put back into management of the watershed and helps fund the various habitat improvement projects.

- Forest Resources Inventory – A comprehensive inventory was initiated to map and quantify the forest resources, including forest structure, tree health and quality, invasive species, snags, down wood, and critical wildlife habitat. Plot measurement was completed in the spring of 2009; analysis and assessment will be completed in the summer of 2009.
- Road maintenance – Under a cooperative road use maintenance agreement, the Siuslaw National Forest cleared road ditches of brush and sediments on 21 miles of watershed roads on both City and Siuslaw National Forest lands. Periodic maintenance helps prevent ditch and culvert failure that could lead to erosion and sedimentation. City resources were used to replace worn gravel on road surfaces and grade roads to provide safe travel surfaces.

Activities Planned for 2009-2010

The following actions are planned or will be completed in fiscal year 2009-2010:

- Hydro feasibility study – A hydroelectric feasibility evaluation was contracted in fiscal year 2008-2009 using grant funding. The feasibility of installing water powered electrical generating equipment and facilities in the Rock Creek water line is being considered. Results of the evaluation will guide whether funding or implementation of this project will be undertaken.
- Marbled Murrelet survey, Phase 2 – The second year of marbled murrelet surveys will be completed mid-summer 2009. Findings will help in the development of timber thinning harvest plans to best protect any resident Murrelet populations and nest trees.
- Wildlife habitat enhancement thinning – Thinning in 25 year-old plantations will assure hardwoods, shrubs, and cedar are protected from being shaded



Thinnings from top: 90-year old stand, 50-year old plantation, 42-year old plantation, 35-year old plantation with cedar underplanting.

out by fast-growing Douglas-fir. Cut trees will be left on site to increase woody debris for wildlife and soil organic matter enrichment. Grant funding is provided by the U.S. Forest Service through the Siuslaw Stewardship Fund. Grant application coordination was provided by the Marys Peak Stewardship Group.

- Snag creation – Snags are standing dead trees which are important wildlife habitat component. Younger stands lack snags and rotten logs on the forest floor found in older forests. Under a grant from the Marys Peak Stewardship Group selected trees will be topped, creating habitat for birds and a variety of other animals. Tree tops will be left in the forest to provide decaying logs on the ground.
- Invasive weed control – Ongoing monitoring and control assures that invasive plants are successfully contained and controlled before isolated populations can expand. A grant request to the Oregon Department of Agriculture will seek cost-share funds to control roadside and riparian weeds.
- Forest thinning for diversity – Thinning of 38 acres of 70-90 year-old forests that seeded into abandoned agricultural lands is planned for late summer 2009. This continuation of areas thinned in 2007 is expected to yield approximately 500,000 board feet of timber. Thinning will benefit wildlife by increasing shrub and ground cover vegetation, provide growing space for potential Marbled Murrelet nest trees, and improve general forest health..
- Rare and native plant restoration – In cooperation with partners, a potential project is being planned to restore prairie habitat near the Rock Creek entrance road by controlling invasive plant species in degraded meadow areas and re-establishing rare and native plant species and other prairie plants. On the adjacent Rock Creek Park (Corvallis Parks and Recreation) Oak woodland will be protected by removing overtopping firs. Grant funds will be sought from the Siuslaw Stewardship Fund through the Marys Peak Stewardship Group.

Education and public use

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

- **Public tours** – Annual public tours are widely advertised and have proven to be popular. The 2008 tour held on August 6th, previewing that year's planned forest diversity thinning and fish habitat projects, attracting nearly 100 people. The 2009 tour held May 27 reviewed the past year's fish passage, stream enhancement, and forest diversity thinning projects, with nearly 50 people attending. Public outreach activities have been coordinated with the Marys River Watershed Council to encourage public participation by contacting local and adjacent landowners.
- **Educational tours** – School and group tour use included Marys River Watershed Council and Marys Peak Stewardship Group (helicopter log placement, fish passage projects), Forest Guild,



2009 public tour

Oregon State University (silviculture institute, undergraduate classes), and Albany public schools.

- Press coverage – Stories about the Corvallis Forest occurred in the Corvallis Gazette-Times, The City Newsletter, Corvallis Public Works Annual Report and the Marys River Watershed Council website.

Economic context

The current economic crisis has impacted restoration efforts on the Corvallis Forest. Log markets began falling in mid 2008, and accelerated in response to the sub-prime mortgage crisis, fall of the housing market, and the ongoing financial crisis. This resulted in the 2009 log market being further depressed, with demand lowest for the smaller logs used for 2x4 framing lumber or pulp. One bright spot in the market is “green building”, which has not fallen as far as more traditional lumber markets. Demand for “Green Certified” lumber continues to outpace demand, and may offer opportunities for logs harvested from the Corvallis Forest, which are certified under the Forest Stewardship Council (FSC) program.



The availability of grant funds has also tightened over the past year, with fewer funds available and more entities seeking those funds. To succeed in this competitive environment projects must be high quality, involve strong partners, and demonstrate a solid track record — all areas in which Corvallis has excelled.

Weather and climate

Although this past winter was one of the coldest in recent memory, weather events on the Corvallis Forest were generally moderate. Overall mild temperatures, modest winds, and normal precipitation created an “average” year that resulted in no major storm impacts to the forest. Wind damage was minimal in recently harvested areas, and recent stream structure installations survived winter flows unscathed.

Weather anomalies are predicted to become more the norm with a changing climate. The CFSP addresses changing climatic conditions with recommendations to increase species diversity, build wind-firmness, reduce fire risks, and increase forest health and tree vigor.

Trends for 2009-2010

There are indications that the recession is “bottoming out”, although many expect the recovery to be slow. Modest rises in lumber sales and prices are predicted later this summer or fall as Federal stimulus funds lead to new projects and increased employment. Timber prices are expected to rise more slowly. Demand for FSC lumber is projected to remain strong.

There is an emerging market in carbon offset credits, which is organizing and expected to surge with anticipated national cap/trade legislation. Prolonged low petroleum prices will likely slow the growth of carbon markets, which many see tied to the general economic climate. Also tied to petroleum prices is interest in forest biomass for fuel. After a rapid rise in 2007-2008, development is currently slowed by the economic decline.

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. Ken McCall was hired as part-time Watershed Program Specialist in February, 2009. He is responsible for WMAC meetings, project implementation and coordination with project partners and consultants.

A variety of contractors are retained to assist staff in implementing the CFSP:

- Trout Mountain Forestry is the lead contractor to the City for forestry services, including resource inventory, project planning, project permitting, bid preparation and solicitation, contracting, and supervision of projects. They assist staff with WMAC meetings and public tours, annual plan development, and grant writing. Trout Mountain Forestry retains subcontractors for some projects.
- Turnstone Environmental Consultants is under contract for marbled murrelet monitoring.
- A Cooperative Agreement with the Marys River Watershed Council provides technical assistance in implementing the CFSP, including services such as consultant Bio-Surveys monitoring fish population trends following fish habitat projects completed in 2008.

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:

- Marys River Watershed Council
- Marys Peak Stewardship Group
- Oregon Watershed Enhancement Board
- USDA Forest Service, Siuslaw National Forest
- Oregon Department of Fish and Wildlife
- Adjacent Landowners

Conclusion

This first annual State of the Forest report was intended to briefly summarize the activities implemented since the adoption of the Corvallis Forest Stewardship Plan and activities planned on the Corvallis Forest for the coming year. 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.