Siuslaw National Forest Stewardship Contracting Multiparty Monitoring Report-Fiscal Year 2012

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SIUSLAW NATIONAL FOREST

Cascade Pacific
Resource Conservation + Development

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Executive Summary

Introduction and Purpose

This Multiparty Monitoring Report for Fiscal Year 2012 (FY12), documents and analyzes the biophysical accomplishments, economic impacts and stewardship monitoring that were conducted on the Siuslaw National Forest (SNF) and non-federal property with funds generated through stewardship timber sales, through a process called stewardship contracting. Stewardship contracting is a method for the United States Forest Service (USFS) and Bureau of Land Management (BLM) to contribute to the economic viability of rural communities while restoring and maintaining healthy forest ecosystems, by providing a continuing source of employment and local income.

Methodology

To determine the biophysical and economic impacts of stewardship contracting, data were analyzed from SNF stewardship timber sale contracts, Forest Service retained receipts projects, and projects conducted on private and non-federal lands, commonly referred to as Wyden projects. These data were provided by the Siuslaw National Forest and Cascade Pacific Resource Conservation & Development (Cascade Pacific RC&D). In addition, field work was conducted to collect and analyze vegetative data from stewardship timber sales to determine if silvicultural prescriptions were being achieved.

To determine the direct economic and employment impacts of stewardship contracting during FY12, the SNF and Integrated Resource Management (IRM) derived estimated worker production rates, which were combined with federal wage determination rates to determine estimated full time equivalent (FTE) jobs. In addition, IRM conducted phone and email interviews with contractors to determine the county of origin of contractors involved in stewardship contracting. Analysis of data provided estimates of the overall economic impact that stewardship contracting provides to the local community.

As a result of all stewardship contracting projects completed on the SNF during FY12, there was a total of 16.07 million board feet (MMBF) of timber removed from stewardship timber sale contracts, $156,913 spent on Forest Service retained receipts projects and $146,960 spent on Wyden projects. The economic impact of these projects was the creation of 188 FTE jobs, which had an average wage of $22.80 per hour. This resulted in $9,099,844 earned by contractors and subcontractors and over $818,986 paid in state taxes (based on a 9% state income tax assessment).

Section One: Introduction

Integrated Resource Management (IRM), a forestry consulting firm headquartered in Philomath Oregon, was hired by Cascade Pacific RC&D to compile, analyze, and summarize the biophysical and socioeconomic impacts of projects completed with stewardship funds during FY12. This report provides a general summary of these data. In addition, as part of this project, a custom Microsoft Access database was created to facilitate the compilation of all data. The database is called the *Siuslaw Monitoring Project (SMP) FY12 Database*. It provides the user with a quick and easy way to query data relating to stewardship contracting. The database is available for download at: http://www.cascadepacificstewardship.org/resources-publications.

About Stewardship Contracting

Stewardship contracting is an innovative method for managing forests and watersheds that is rooted in collaboration and adaptive management. Stewardship contracting is a suite of authorities or contracting tools that are intended to help the agencies meet land management objectives and rural community needs. It is the blending of land management and rural community development that makes stewardship contracting unique. The guiding regulations from the USFS encourage strong collaboration between the federal agencies and local and regional partners and interests.

In 2003, Congress enacted legislation enabling the UFSF and the BLM to use stewardship contracting to accomplish land management. Specific mechanisms authorized by the legislation include:

- *Exchange of goods for services*: Contractors can be paid in goods—with the value of any timber or other forest products removed by the contractor used to offset what the agency owes the contractor for services performed, as written in 16 U.S.C. 2104 Note (Revised February 28, 2003 to reflect Sec. 323 of H.J. Res. 2 as enrolled)
- *Receipt retention*: Excess receipts from the sale of timber or other forest products removed can be kept and used by the agency, rather than being deposited in the U.S. Treasury.
- *Best-value contracting*: Contracts must be awarded on the basis of achieving best value to the government. A variety of criteria, in addition to price, can be used in making the award determination.
- *End-results contracting*: The agency determines the end result desired for the work, but the contractor has flexibility to propose the methods to be used, including, in some instances, which individual trees to cut.
- *Multi-year contracts*: Service contracts can be held for up to 10 years, instead of the current 5 year maximum.

Origins

The Northwest Forest Plan designated much of the forested land of the SNF as late successional reserves (LSR). LSRs are managed to provide habitat for threatened and endangered species. The SNF uses stewardship contracting as a means to address the health of the land within or adjacent to the SNF. Salmon habitat enhancement and restoration is high priority in the basin. Given that much of the lands with the highest habitat potential for salmonoids are on private land, there is a natural strategic partnership between the National Forest, watershed councils, soil and water conservation districts and

other organizations that promote conservation on private lands. The local partners are organized into four stewardship groups, the Alsea, Hebo, Marys Peak and Siuslaw stewardship groups.

About the Stewardship Groups

The Alsea, Hebo, Marys Peak and Siuslaw stewardship groups are each a collection of local and regional organizations and individuals that collaborate with the SNF on the planning, implementation, and monitoring of the stewardship projects on land within or adjacent to the SNF. Each group has formed its own charter and meets monthly to discuss projects within its area. Group participants include: federal and state agencies, landowners, conservation organizations, local governments, timber companies, tribes, and other interested parties.

The stewardship groups dedicate much of their attention to the use of the Coast Range Stewardship Fund, a subset of the receipts retained from stewardship contracts that can be utilized by landowners through non-governmental organizations for restoration projects on non-federal lands that benefit the National Forest.

Section Two: What's New in FY12

As most readers who are familiar with the *Fiscal Year 2011 Multiparty Monitoring Report* will notice, the content and format of the FY12 report is very similar. This is due to the support received from the previous year's report and an effort to be consistent for the public. Below is a brief list detailing the major changes to the *FY12 Multiparty Monitoring Report*.

- Increased quantity of stand exam/photo point plots: During the FY12 field season, there were a total 41 stand exam/photo point plots installed across eight harvest units. These plots consisted of 20 pre-harvest plots and 21 post-harvest plots.

Section Three: Methods

In order to calculate the direct socioeconomic impacts of stewardship contracting on the SNF for FY12, IRM worked with the SNF staff to develop estimated worker production rates. These rates were multiplied by federal wage determination rates, which allowed IRM to derive estimated FTE jobs, worker income and state income tax information. Through data provided by Cascade Pacific RC&D and the SNF, IRM analyzed data pertaining to contractors and their locations that performed work on stewardship contracting projects. With these data gathered, IRM was able to break down estimated wages, FTE jobs, total income and state tax revenue generated by county, for all FY12 SNF stewardship contracts, Forest Service retained receipts projects and Wyden projects.

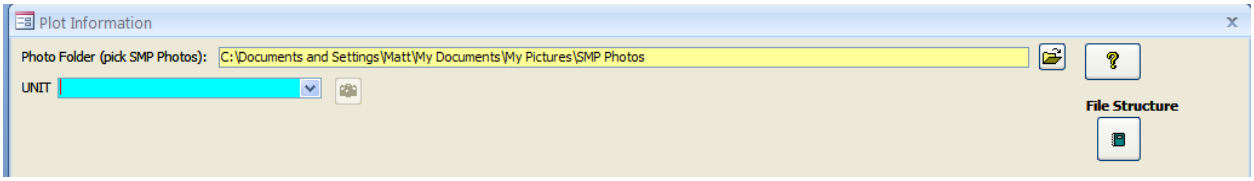
Microsoft Access Database

As previously discussed, this paper contains a summary of these biophysical, economic and monitoring data that were completed and analyzed during FY12. These data in their entirety resides in the *SMP FY12 Database,* which is available for download at: http://www.cascadepacificstewardship.org/resources-publications. Below are directions for downloading and using the database.

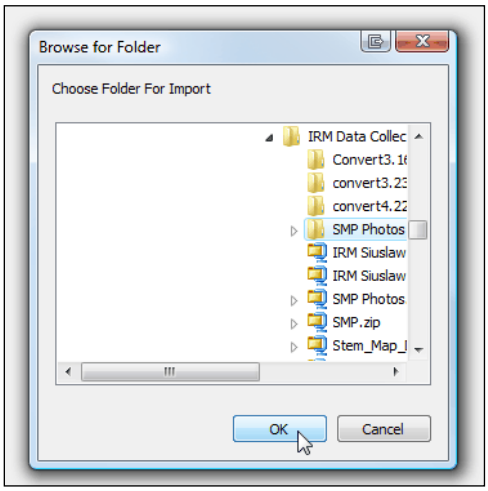
Deploying the Siuslaw Monitoring Project FY12

1. Download Siuslaw Monitoring Project FY12.
2. Extract to a folder on your computer.
3. The result will be three .mdb files (Access Databases) and a folder called SMP Photos.
    a. IRM Biophysical Accomplishments.mdb
    b. IRM Siuslaw Monitoring Project.mdb
    c. SMP Economic Analysis.mdb
    d. SMP Photos folder
4. The Siuslaw Monitoring Project.mdb database has a link to the SMP Photos.

The Biophysical Accomplishments.mdb and SMP Economic Analysis.mdb files are stand alone Microsoft Access databases that do not require linking to any other files. The Siuslaw Monitoring Project.mdb database, however, does link to the SMP Photos folder. By default it is programmed to assume that the SMP Photos folder is in the same location as the Siuslaw Monitoring Project.mdb file. If you move either the .mdb file or the SMP Photos folder to a new location, you will need to link the photos to the database by clicking on the folder icon in the Plot Information form and navigating to the SMP Photos folder (see image below):



Click on the folder, which will bring up the Browse for Folder dialog:



Select the SMP Photos folder and click OK.

Once you have the database and photo point picture files saved properly, you will be able to browse through these stewardship data from the current fiscal year as well as previous years. This database allows the user to generate reports detailing these biophysical, economic and monitoring data.

Example: If you wanted to view these monitoring data that are displayed in Section six of this report, follow the steps below:

1. Open the *SMP FY12 Database.*
2. Select the "Stewardship Monitoring" tab.
3. Click the dropdown to the right of the "Unit" tab and select "Rock Thin Unit: 12 (1 plot)".
4. In the top left salmon colored box, click the "2" under the plot column.
5. If you would like to view the photo points that were taken at this plot, click the camera icon that is located to the right of the "Rock Thin Unit 12: 5 (1 plot)" tab.

These data contained within the biophysical and economic sections work similarly. For each of these, there are dropdown tabs that let you select various projects or other search categories.

Definitions

Due to the nature of this paper, some of the terms used to describe the various aspects of stewardship contracting may be unfamiliar to the general public. For this reason, we have provided the following definitions:

General Definitions

Biophysical Accomplishments: Land and water management practices that help preserve natural resources or ecosystems.

Integrated Resource Contract: A contract used in stewardship timber sale contracts, which allows agencies to exchange goods for services when the value of the timber harvested exceeds the cost of the services.

Late Successional Reserve (LSR): This phrase became widely used in 1994, when the Northwest Forest Plan (NWFP) established LSRs on 30 percent of the federal land area within the range of the northern spotted owl (United States Department of Agriculture (USDA) and United States Department of Interior (USDI) 1994). The primary objectives for the LSR land allocation are to "protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth forest related species including the northern spotted owl (USDA and USDI 1994)."

Retained Receipts Projects: Refers to service contracts on land managed by the USFS using funds generated from stewardship contracts. These funds may not be used for USFS salaries, overhead administrative costs or indirect costs; neither may they be used for project planning or analysis. This authority was granted by amendment number 2409.19-2008-7, found in the Forest Service Handbook

FSH 2409.19 – Renewable Resources Handbook, chapter 60 Stewardship Contracting, effective October 21, 2008.

Seral Forage Creation: Development of specific plant communities which are beneficial to particular animal species. Typical projects would consist of planting various grass and forbs species that would provide additional food sources for deer and elk.

Sidecast Pullback: The process of moving soil and road material from the downhill side of a gravel road to the uphill side for the purpose of road decommissioning.

Stewardship Contracts: Refers to contracts on land managed by the USFS, using an Integrated Resource Timber Contract, Integrated Resource Service Contract, standard service or construction contracts that utilize stewardship authority. These contracts allow the USFS to bundle several contracts into one, to treat a landscape, trade goods for services, use multi-year and one year contracts and agreements up to 10 years, and use best value contracting to evaluate contractors' proposals. These authorities were passed under section 323 of Public 108-7 under the omnibus Appropriations bill for fiscal year 2003, on February 20th, 2003.

Wyden Projects: Refers to projects on private and non-federal lands that use stewardship funds. The Wyden Amendment (Public Law 109-54, Section 434) passed on November 1st, 2005 authorizes the USFS to provide funds for projects on private and non-federal lands that benefit the National Forest.

Economic Definitions

Direct Jobs: Includes all industry, industry-contracted and government employees involved in: protection of the commercial forest resource, harvesting, reforestation and tending, mill processing/manufacturing, administration, etc.

Full Time Equivalent (FTE) Jobs: Method of calculating amount of jobs created. The assumption is that there are 2,016 work hours in a year (8 hours a day, 21 work days a month, 12 months a year).

Indirect Jobs: Includes all those involved in the provision of goods and services necessary to support the ongoing operations of the industry, and its direct employees as defined above, such as: equipment and part suppliers, electrical power, fuel and chemical suppliers, equipment maintenance shops, etc.

Induced Jobs: All those involved in the provision of goods and services purchased by those directly and indirectly employed and contracted by the industry.

Million Board Feet (MMBF)**:** An acronym used to abbreviate One Thousand Thousand Board Feet or Million Board Feet of timber. This is a unit of measure of harvested timber.

Socioeconomic: A phrase used to discuss the combination of social and economic factors (e.g. a salary of a specific job).

Section Four: Biophysical Accomplishments

Summary of Biophysical Accomplishments in FY12

The three types of biophysical accomplishments that are summarized in this section are: Forest Service stewardship timber sale contracts, Forest Service retained receipts projects and Wyden projects, which were completed during FY12 on or near the SNF.

Forest Service Stewardship Timber Sale Contracts

Stewardship contracting was developed as a method to achieve land management goals for National Forest System lands while meeting local and rural community needs. Implementation activity occurred on 13 previously awarded stewardship timber sale contracts on the SNF during FY12. Six of these contracts were held by Georgia Pacific, five were held by the Swanson Group and two held by B&G Logging. There were a total of 16.07 MMBF of timber removed from the SNF during FY12 from the combined 13 stewardship contracts.

The major biophysical accomplishments achieved through stewardship contracts across the 13 stewardship timber sales during FY12 were as follows:

- 899 acres of late successional reserve (LSR) enhancement (commercial thinning)
- Total of 16.07 MMBF of timber harvested
- 615 mature snags created
- 1,925 young snags created
- 19 acres of late non-commercial riparian thinning
- 19 acres of conifer release in riparian areas
- 460 small trees topped inside units
- 385 small trees topped outside units
- 3,446 pieces of dead wood created
- 14 acres of noxious weed control
- 5 acres of hand piled slash
- 189 acres of upland site preparation and under planting
- 29 acres of upland site preparation and container planting
- 6.5 miles of deferred road maintenance
- 250 acres of false brome monitoring

Forest Service Retained Receipts Projects

Forest Service retained receipts, are funds that are received from the sale of forest products removed under a Forest Service stewardship timber sale contract. Some of these funds are retained by the agency and used to pay for resource restoration, maintenance and enhancement projects on the National Forest. During FY12 there were nine active retained receipts projects, which expended a total of $156,913. The major biophysical accomplishments include:

- 1.2 miles of road decommissioned
- 181 acres of Silverspot butterfly habitat restoration
- 2 acres of riparian planted
- 317 acres of meadow habitat maintained
- Replacement of 14 failing culverts to improve water quality
- 500 acres of Snowy Plover habitat restoration and protection

Wyden Projects

The Wyden Authority authorizes the USFS to expend funds (including retained receipts) on resource restoration and enhancement projects on non-federal lands as long as the projects provides resource benefits to National Forest Service lands within the watershed. Wyden projects within the vicinity of the SNF are accomplished through cooperative agreements and public assistance grants. Agreements may be with governmental, private and nonprofit entities; to protect, restore or enhance natural resources. There was a total of $146,968 of retained receipts from Forest Service stewardship timber sale contracts expended to fund the 17 active Wyden projects in FY12. Additionally, several other projects were ongoing multi-year projects initially awarded in previous fiscal years. Due to the method of reporting, it was difficult to separate out the bio-physical accomplishments of FY12 versus previous years of multi-year contracts. The cumulative quantifiable accomplishments of these multi-year contracts are greater than:

- 44,235 native plants distributed and planted
- 50 bird houses placed on site
- 4.56 acres of riparian area planted
- 207 native shrubs planted
- 1 culvert replaced
- 104 acres of plantation thinning
- 184 acres Knotweed and Clematis control
- 1,300 feet of wildlife friendly livestock exclusion fence constructed
- 6,290 feet of stream bank restoration
- 180 logs with root wads placed

Section Five: Economic Impacts

Overview of all Fiscal Year 2012 Stewardship Contracting

This section provides an overview of the methods used to determine the economic impacts of stewardship contracting and the results of the economic analysis. There were slight variations in data analysis between the three categories of stewardship contracting (Forest Service stewardship timber sale contracts, Forest Service retained receipts and Wyden projects), which will be explained in detail below.

Due to difficulty in obtaining socioeconomic data from contractors during stewardship monitoring

efforts prior to Fiscal Year 2008 (FY08), the USFS and IRM decided to use worker production estimates and federal wage determination rates to derive FTE jobs, average wages, net incomes and state tax revenue (based on a 9% state income tax assessment). These estimates were then analyzed based upon contractor location, which allowed IRM to estimate socioeconomic data at a county level. These data provided within this section represents a combination of direct, indirect and induced employment figures. The LSR thinning treatments, which are the tree harvest portion of the stewardship contracts, represents direct, indirect and induced employment figures. The associated restorative activities, retained receipts and Wyden projects are strictly based upon direct employment figures. A full list of worker production rates and federal wage determination rates used in this report is readily available in report format through the use of the *SMP Database FY12,* which can be downloaded at Cascade Pacific RC&D's website.

Forest Service Stewardship Timber Sale Contracts

There were a total of 13 stewardship timber sale contracts being actively thinned in FY12. B&G Logging, Georgia Pacific and the Swanson Group purchased a total of 16.07 MMBF of commercial timber through stewardship timber sales during this time period.

Beginning in FY08, a new method was derived to determine the socioeconomic impacts of stewardship contracting through a combination of two methodologies.

For the stewardship timber sales portion of the stewardship contracts, IRM used a multiplier to determine the number of direct, indirect, and induced jobs created. According to Gary Lettman, former forest economist with the Oregon Department of Forestry, 11.4 direct, indirect and induced FTE jobs are created for every one million board feet (MMBF) of timber harvested. Of these, there is one logging job for every 5.1 mill jobs.

To determine the socioeconomic impacts of the associated restorative activities that were part of these stewardship contracts, IRM used the following methodology:

- Production rates for individual tasks were estimated. These estimates were based upon the expert knowledge of staff at the SNF and IRM. For example, we estimated a production rate of 17 young tree snags were created per 8 hour day for the snag creation conducted on the contracts. Total quantities for each task were divided by these estimated production rates to determine FTE jobs.

- Total payroll was calculated by multiplying the number of FTE jobs by the appropriate wage determination rates, which contractors are required to pay their workers as required by the McNamara-O'Hara Service Contract Act of 1965. This bill, amended on October 13th, 1976 as Public Law 94-480, requires contractors and subcontractors performing services on prime contracts in excess of $2,500 to pay service employees in various classes no less than wage rates and fringe benefits found prevailing in the locality.

The estimated production rates along with the wage determination rates (as found on www.wdol.gov/, a federal wage determination website) are contained within the *SMP FY12 Database* and available in

report format through the use of the database. Table 1 displays a subset of these economic data broken down by county between the 13 active stewardship timber sale contracts as a whole.

Table 1– FY12 Forest Service Stewardship Timber Sale Contracts – Economic Data

County	Person Hours Worked	$ Earned	FTE Jobs	Avg. Wage	State Taxes Paid
Benton, OR	65,686	$1,446,203	32.58	$22.02	$130,158
Coos, OR	80,868	$2,021,708	40.11	$25.00	$181,954
Lane, OR	162,941	$4,001,556	80.82	$24.56	$360,140
Lincoln, OR	38,090	$952,256	18.89	$25.00	$85,703
Linn, OR	3,795	$94,884	1.88	$25.00	$8,540
Marion, OR	1,309	$36,486	0.65	$27.87	$3,284
Tillamook, OR	19,531	$390,617	9.69	$20.00	$35,155
Total	*372,220*	*$8,943,710*	*184.62*	*$24.21*	*$804,934*

Forest Service Retained Receipts Projects

During FY12, there were a total of four projects active on SNF property that was funded with income retained from stewardship contracts. To determine the socioeconomic impacts for these activities, we used the same methodology as we did for the associated restorative activities of the stewardship contracts, as outlined above. Table 2 displays a subset of these economic data broken down by county for the four Forest Service retained receipts projects completed on SNF property as a whole.

Table 2 – FY12 Forest Retained Receipts Projects – Economic Data

County	Person Hours Worked	$ Earned	FTE Jobs	Avg. Wage	State Taxes Paid
Benton, OR	260	$6,243	0.13	$24.04	$562
Lane, OR	888	$16,550	0.44	$18.63	$1,490
Lincoln, OR	200	$3,170	0.10	$15.85	$285
Multnomah, OR	417	$12,000	0.21	$28.80	$1,080
Total	*1,765*	*$37,963*	*0.88*	*$21.83*	*$3,417*

Wyden Projects

As stated in the biophysical accomplishments section, due to the method of reporting, IRM was unable to accurately separate the biophysical accomplishments of FY12 from that of the total for the multi-year Wyden projects. Although the biophysical accomplishments of Wyden projects reflect multi-year projects in their entirety, these economic data represent FY12 alone. To determine the socioeconomic impacts for these activities, we used the same methodology as we did for the associated restorative activities of the stewardship contracts and retained receipts projects, as outlined above. Table 3 displays a subset of these economic broken down by county for the 17 Wyden projects worked on during FY12.

Table 3– FY12 Wyden Projects – Economic Data

County	Person Hours Worked	$ Earned	FTE Jobs	Avg. Wage	State Taxes Paid
Benton, OR	983	$18,831	0.49	$19.16	$1,695
Clackamas, OR	56	$1,200	0.03	$21.26	$108
Coos, OR	1,154	$20,009	0.57	$17.34	$1,801
Lane, OR	1,649	$38,343	0.82	$23.25	$3,451
Lincoln, OR	1,774	$31,867	0.88	$17.96	$2,868
Multnomah, OR	77	$2,707	0.04	$35.00	$244
Polk, OR	301	$5,214	0.15	$17.34	$469
Total	*5,994*	*$118,171*	*2.98*	*$21.62*	*$10,636*

Summary of Economic Impacts Combined Across All Three Project Types for FY12

Table 4 summarizes these economic data broken down by county for all projects completed with stewardship funds during FY12.

Table 4 – Economic Data for all FY12 Projects

County	Person Hours Worked	$ Earned	FTE Jobs	Avg. Wage	State Taxes Paid
Benton, OR	66,929	$1,471,277	33.20	$21.74	$132,415
Clackamas, OR	56	$1,200	0.03	$21.26	$108
Coos, OR	82,022	$2,041,716	40.69	$21.17	$183,754
Lane, OR	165,479	$4,056,450	82.08	$22.14	$365,080
Lincoln, OR	40,064	$987,293	19.87	$19.60	$88,856
Linn, OR	3,795	$94,884	1.88	$25.00	$8,540
Marion, OR	1,309	$36,486	0.65	$27.87	$3,284
Multnomah, OR	494	$14,707	0.25	$31.90	$1,324
Polk, OR	301	$5,214	0.15	$17.34	$469
Tillamook, OR	19,531	$390,617	9.69	$20.00	$35,155
Total	*379,980*	*$9,099,844*	*188.49*	*$22.80*	*$818,985*

New Projects Approved for Fiscal Year 2013

There have been a series of new projects approved by the USFS that will become active during Fiscal Year 2013 (FY13). These projects (Tables 5-7) will be actively monitored along with the ongoing projects from FY12 and included in the following year's monitoring report. The new projects approved for FY13 are as follows:

Forest Service Stewardship Timber Sale Contracts

Table 5– FY13 Approved Forest Service Stewardship Timber Sale Contracts

Project Name
Bixby Thin Stewardship Contract
Meadow Thin Stewardship Contract
Missouri Thin Stewardship Contract
Morris Thin Stewardship Contract
Rock Thin Stewardship Contract

Forest Service Retained Receipts Projects

Table 6 – FY13 Approved Forest Service Retained Receipts Projects

Project Number	Project Name	Stewardship $ Approved
FS-077	Bluff Creek Road Decommissioning - Hebo RD	$48,000
FS-078	Rock Creek Bridge Replacement and Channel Restoration - CCRD	$150,000
FS-079	Road Storm Mitigation - Hebo and CC RDs	$21,000
FS-080	Alsea River Boat Ramp Sediment Reduction - CCRD	$25,000
FS-081	ORBIC Plover Nest Protection - CCRD-ODNRA	$30,000
FS-082	APHIS Plover Predator Management - CCRD-ODNRA	$50,000
FS-083	Mt. Hebo Silverspot Habitat Restoration - Hebo RD	$10,000
FS-084	Plover Habitat Restoration - CCRD-ODNRA	$50,000
FS-085	Fivemile Restoration - CCRD	$82,500
FS-086	Native Plant Propagation - CCRD	$10,000
FS-087	Rock Creek Silverspot Habitat Restoration - CCRD	$25,000
FS-088	Meadow Maintenance - CCRD	$12,000
Total		*$513,500*

Wyden Projects

Table 7 – FY13 Approved Wyden Projects

Project Number	Project Name	Stewardship $ Approved
WY-A13-13	Lincoln County False Brome Control	$25,480
WY-A13-14	Big Elk and Sugarbowl Creeks Riparian Restoration	$56,091
WY-A13-15	Flynn Creek Large Wood Placement and Riparian Revegetation	$29,333
WY-A13-16	Lincoln SWCD Invasive Species Control	$21,315
WY-H13-02	Butte Creek Fish Passage	$53,514
WY-H13-03	Lower Schooner Creek Fish Passage	$43,072
WY-M13-11	Greasy Creek Riparian Revegetation	$96,501
WY-M13-12	Shiver River False Brome Eradication	$14,310
WY-S13-13	Misery Creek Riparian Enhancement	$36,496
WY-S13-14	Siuslaw Riparian Restoration	$47,272
Total		*$423,384*

Section Six: Implementation Monitoring

In order to track ecological responses to the LSR thinning treatments within stewardship timber sale areas, IRM installed a series of monitoring plots. These included Common Stand Exams (CSE) and photo point plots. The *SMP FY12 Database* provides access and analysis of all of these monitoring data.

Photo Point Monitoring

The purpose of the photo point monitoring is to establish pre and post-harvest photo point plots to document pre-harvest conditions and track changes resulting from timber harvesting associated with stewardship contracts. The points selected for FY12, were all located in stewardship timber sales scheduled to be harvested over the course of the next several years. All photo point plots installed during FY12 are permanently referenced with metal posts and tags as well as blazed reference trees. In addition, each plot was mapped using a resource grade Global Positioning System (GPS). Each photo point plot includes four cardinal directions (North, East, South and West) photos, and a canopy (overhead) photo. These photos will allow individuals viewing the photos to track visual changes to vegetation such as species composition, size and percent cover over time as the stand progresses from restoration thinning.

IRM installed a total of 20 sets of pre-harvest photos and 21 post-harvest photos. On the following pages are examples of pre and post-harvest photo points taken on the Rock Creek stewardship timber sale. The *SMP FY12 Database* provides the user with the ability to view all the photos.

Rock Thin Unit 12 Plot 1

Rock Thin Unit 12 Plot 1 North
Pre-Harvest (2012)

Rock Thin Unit 12 Plot 1 North
Post-Harvest (2013)

Rock Thin Unit 12 Plot 1 East
Pre-Harvest (2012)

Rock Thin Unit 12 Plot 1 East
Post-Harvest (2013)

Rock Thin Unit 12 Plot 1 South
Pre-Harvest (2012)

Rock Thin Unit 12 Plot 1 South
Post-Harvest (2013)

Rock Thin Unit 12 Plot 1 West
Pre-Harvest (2012)

Rock Thin Unit 12 Plot 1 West
Post-Harvest (2013)

Rock Thin Unit 12 Plot 1
Overhead Pre-Harvest (2012)

Rock Thin Unit 12 Plot 1
Overhead Post-Harvest (2013)

Common Stand Exam Data Collection

The purpose of the Common Stand Exam (CSE) monitoring is to collect pre-harvest ecological data in order to establish a baseline to tract changes in stand dynamics post-harvest. To accomplish this, there were 41, 1/10th acre (37.2 ft. radius) CSE plots installed or re-measured across eight stewardship timber sales. These plots were overlaid at photo point locations. By incorporating the photo point pictures and CSE data, viewers will be able to compare the visual changes to the statistical changes as the stand progresses. On each plot, these data were collected:

- Tree level data: Species, diameter, height, crown class, crown ratio, damage, age and growth information
- Vegetation data: Species, % cover and average height of all plants down to trace presence
- Down woody material: Piece count, length, diameter at large and small end and decay class

Inclusion of CSE data collection was initiated in the FY08 contract. Fiscal Year 2010 (FY10) was the first year that post-harvest data had been collected. There were a total of 20 pre-harvest stand exam plots and 21 post-harvest stand exam plots installed or re-measured in FY12. In subsequent years, the SNF plans to re-measure all pre-harvest plots to document post-harvest conditions. Table 8 illustrates an example of summary statistics from CSE data compiled from the Rock Creek stewardship timber sale as will be seen in the *SMP FY12 Database* (same plot as the photo points shown above).

As part of the Fiscal Year 2009 (FY09) monitoring contract, IRM prepared a Siuslaw Monitoring Project Stand Exam Data Collection Program as well as a manual to be used as a reference for future contractors involved in the data collection. The major benefit of these tools is to streamline the data collection process in order to ensure that data collected in future measurements will be compatible with past data collected. In addition, with the data collection program, contractors are able to collect inventory data with the utmost accuracy and efficiency, and transfer these data to the USFS with greater ease.

With the completion of post-harvest photographs and the associated stand exam data collection during the FY10 - FY12 seasons, the database now has the functionality for the plots which have both pre and post-harvest stand exam data to be seen simultaneously. As seen in Table 8, there is a “compare” feature which will provide the viewer with an instant comparison of several forestry statistics.

Table 8– Common Stand Exam Summary Statistics (sample)

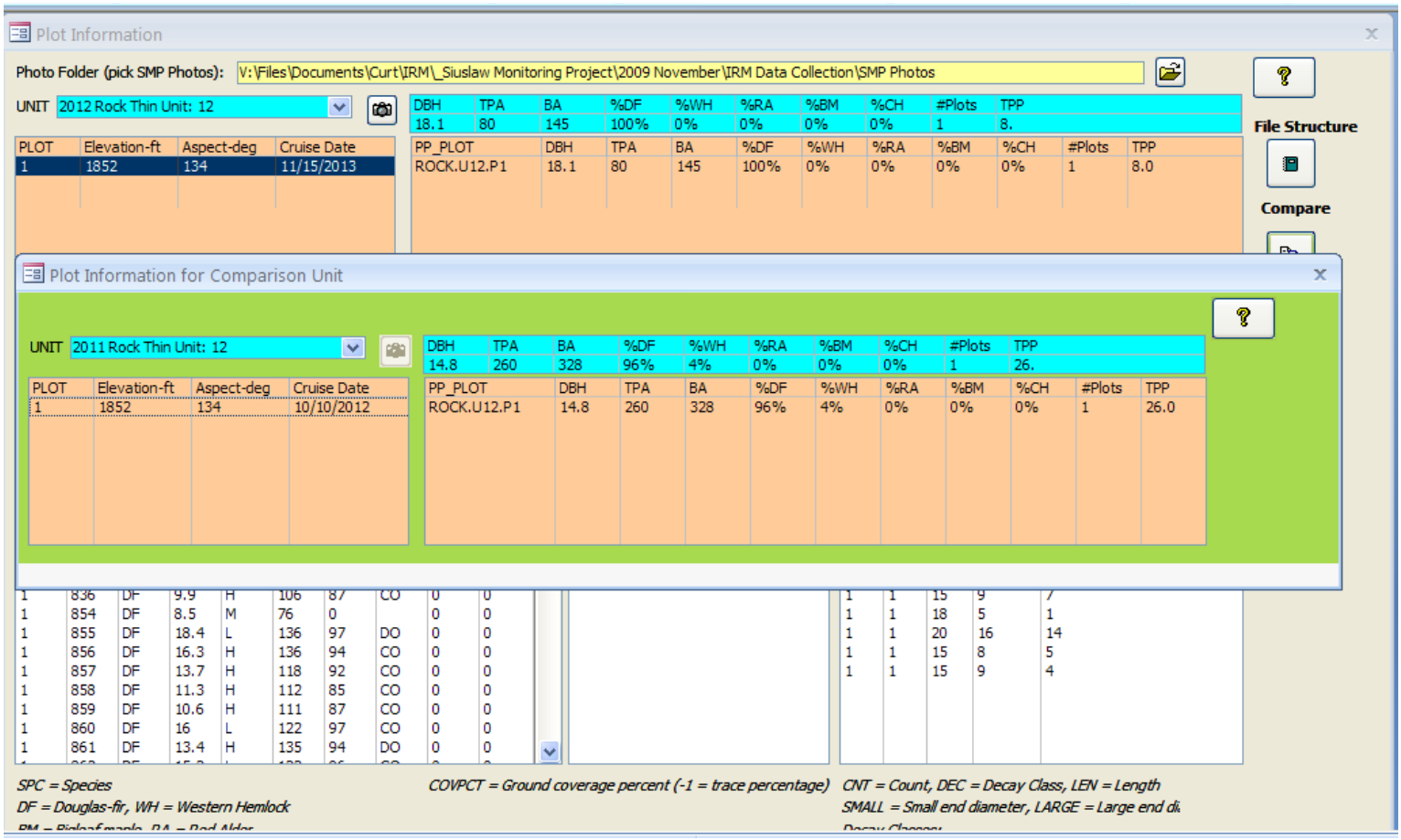


Table 8 is a screenshot of the Common Stand Exam inventory plot – Rock Thin Unit 12 Plot 1 (same as the photo point pictures (pages 16-18)) as seen on the *SMP FY12 Database*. The majority of the acronyms used in this table are defined in the bottom gray bar of the screenshot. Below is a brief explanation of these data presented in this table:

- Top Right Blue Table: Stand level data summary (TPA= trees per acre, TPP= trees per plot)
- Right and Left Salmon Colored Table: Plot level data summary
- Left White Table: Plot level tree data
- Center White Table: Vegetation data
- Left White Table: Down woody material data

Section Seven: Stakeholder Field Trips

Field Trip # 1 Hebo Stewardship Group – May 31, 2013

Logging operations on the Hebo Ranger District

The May 31, 2013 Hebo Stewardship Group field trip's purpose was to visit and discuss the operations at two thinning sites; one active and one recently completed.

The first stop was at Nesko Thin, where Nathan Pearson, USFS Timber Sale Administrator discussed the different equipment being used, thinning prescription, stand history, etc. Many of the participant's questions revolved around the difference in economics between stewardship timber sales and traditional timber sales. These questions included: What species are being cut, where the timber is being processed, replanting and the creation of snags. The second stop was used to view the recently completed Austin Thin. Wayne Patterson, USFS Operations Staff, explained that the goal of the thinning is to drive the stand towards old-growth structure. USFS Wildlife Biologist, Michelle Dragoo discussed the importance of snag and down woody material in the forest ecosystem as it related to fungi and other organisms.

Field Trip # 2 Marys Peak Stewardship Group Field Trip – June 27, 2013

The June 27, 2013 Marys Peak Stewardship Group field trip examined the role of the American Beaver on Beaver Creek in the Marys River Watershed. Guest speakers discussed the function of beaver as it relates to stream ecology and salmonoid habitat. Much of the discussion focused on tools available for landowners which can help them "live with beavers". Two of the methods discussed were planting forage and pond level control. The group also explored strategies that can be used to encourage beaver recolonization to areas where they are not currently present.

Field trip participant enjoying Beaver Creek

Field Trip # 3 Alsea Stewardship Group – September 4, 2013

Active Beaver Pond

The first stop on the September 4, 2013 Alsea Stewardship Group field trip was used to look at a beaver pond-leveler along Yaquina Bay Road near Toledo. Fran Recht and Wayne Hoffman explained that the device works by allowing the beaver to follow it's own instincts without destroying nearby roads and properties.
The next stop was used to view and discuss a "beaver deceiver" that Oregon Depatment of Transportation had installed to prevent beaver from clogging a small culvert.

Following a brief explanation of the the device, the group talked with a local landowner who lived near the pond being discussed. Matt Fehrenbacher of Trout Mountain Forestry presented a riparian restoration project on the Van Eck Forest for the final stop of the day. Then the group toured an active thinning operation on the Van Eck Forest near the upper end of Mill Creek.

Joint Stewardship Group Meeting – January 15, 2014

Oregon Coast Community College

The 2014 Joint Stewardship Group meeting took place at the Oregon Coast Community College in Newport, OR on January 15, 2014

For the morning session, guest speaker Chris Jordan of the National Oceanic and Atmospheric Administration, discussed his findings on *Beavers and Climate Change: research and "on-the-ground" restoration perspectives.* Mr. Jordan's presentation follows the general theme of beavers and restoration that the four stewardship groups focused on during 2013.

In the afternoon, speaker Matt Mellenthin of IRM presented his findings of stewardship contracting in the SNF as part of the FY12 Multiparty Monitoring Contract. Guest speaker Jean Daniels of the USFS PNW Research Station discussed her work quantifying the economics of stewardship contracting.

Following a short break, the group heard from Dan Whelan, Field Representative and Natural Resource Liaison for Senator Jeff Merkley. Mr. Whelan discussed the reauthorization of stewardship contracting in Congress. The remaining time was used to hear from the various stewardship groups about some of their projects from FY12. At the close of the meeting, participants heard about updates and announcements.