Salem District

Annual Program Summary

Plan Maintenance and Monitoring Report

Fiscal Year 2014

BLM

Salem District

The BLM manages more than 245 million acres of public land, the most of any Federal agency. This land, known as the National System of Public Lands, is primarily located in 12 Western states, including Alaska. The BLM also administers 700 million acres of sub-surface mineral estate throughout the nation. The BLM's mission is to manage and conserve the public lands for the use and enjoyment of present and future generations under our mandate of multiple-use and sustained yield. In Fiscal Year 2013, the BLM generated $4.7 billion in receipts from public lands.

Cover Photo: Peachuck Lookout in the Cascades Resource Area

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A Message from the District Manager

I am pleased to present the Salem District's 19th Annual Program Summary (APS). This APS provides a review of the Salem District programs and accomplishments during fiscal year 2014 (FY 2014): October 1, 2013 to September 30, 2014. The *Salem District Resource Management Plan* (RMP), approved in 1995, provides the objectives and guidance for managing the resource programs. Tables 1 and 2 summarize many of the resource management accomplishments.

The RMP directs that the APS will: track the progress of plan implementation, state the findings made through monitoring, and serve as a report to the public. The different sections of the APS reflect the different purposes of the document, and the manner of reporting activities differs between various programs. The APS describes some resource programs in short narratives and provides statistical summaries for other programs. Where possible, the APS provides cumulative information from the first year of the RMP (1995) through 2014.

The Bureau of Land Management (BLM) started a new planning process in March 2012. Until the new plan is completed and a record of decision is signed, the Salem District will continue to design projects that conform to the 1995 RMP.

Two of the major programs on the district are vegetation management and recreation. In FY 2014, the District sold 52.4 million board feet (MMBF) of timber, primarily from commercial and density management thinning. Approximately 27.7 MMBF of the total timber volume sold was restoration thinning in Late-Successional Reserve and Riparian Reserve land use allocations. BLM designed restoration thinning to improve habitat conditions for late-successional, old-growth, and riparian dependent species.

In the recreation program, an estimated 1.3 million visitors enjoyed the numerous recreational opportunities on public lands managed by the Salem District. The Salem District manages nine National Landscape Conservation System units, including the Yaquina Head Outstanding Natural Area, seven Wild and Scenic River segments, and Table Rock Wilderness.

We hope that you find the information contained in this report informative and we welcome suggestions for improvement.

Kim M. Titus

Kim M. Titus
District Manager

SUMMARY OF FY 2014 ACCOMPLISHMENTS

Tables 1 and 2 summarize Salem District's fiscal year (FY) 2014 accomplishments.

Table 1 - Summary of Renewable Resource Management Accomplishments

RMP Management Activity	Salem District Accomplishments				RMP Projected Practices
	FY 2014		Cumulative		
			FY 2005-2014		FY 2005-2015
Total Commercial Thinning / Density Management / Uneven-age Management (acres sold/offered) (includes non-ASQ [reserve] acres)	2,075		21,951		8,195
Total Regeneration Harvest (acres sold/offered) (includes road right-of-way clearing and salvage) (includes non-ASQ [reserve] acres)	27		955		5,558
			FY 1995-2014		FY 1995 - 2015
Hazard Reduction - Hand Pruning/Pullback / Lop and Scatter (acres)	170		1,905		None
Hazard Reduction – Manual/Mechanical Piling (acres)	256		unknown		None
Prescribed Burning - Hazard Reduction (acres)	2,141		4,915		None
Prescribed Burning - Wildlife Habitat (acres)	34		115		None
Prescribed Burning - Ecosystem Management (acres)	9		153		None
Site Preparation - Prescribed Burning (acres)	97		3,261		4,800
Site Preparation - Other (acres)	0		4,487		5,900
Planting / Regular Stock (acres)	34		5,811		4,800
Planting / Genetically Selected (acres)	385		2,728		4,500
Fertilization (acres)	0		4,645		6,000
Plantation Maintenance - Vegetation Control (acres)	604		29,111		18,500
Plantation Protection - Animal Damage Control (acres)	424		8,368		12,800
Pre-commercial Thinning (acres)	1,360		45,441		29,700
Brush Field / Hardwood Conversion (acres)	0		202		900
Pruning (Pruning for disease control combined with wood quality) (acres)	210		4,567		None
New Permanent Road Constructed (miles)	0		27		NA
Roads Fully Decommissioned / Obliterated (miles)	0		146		NA
Roads Closed / Gated (miles)	2		206		NA
Timber Sale Quantity Sold/Offered (million board feet) (allowable sale quantity (ASQ))	25		541		348
Timber Sale Quantity Sold/Offered (million board feet) (non-ASQ = Late Successional and Riparian Reserves (LSR/RR))	27		215		*0*
Weed Control	**Sites**	**Acres**	**Sites**	**Acres**	

RMP Management Activity	Salem District Accomplishments				RMP Projected Practices
	FY 2014		Cumulative		
• Chemical treatments	40	550	179	3,515	As Needed
• Other treatments (e.g. manual, mechanical, biological)	33	925	148	5,251	As Needed

Table 2 - Summary of Non-Renewable Resource Management Accomplishments

RMP Management Activity	FY 2014		Cumulative - FY 1995-2014	
By Number and Acres	**#**	**Acres**	**#**	**Acres**
Recreation - Maintained Sites	23	1,015	N/A [1]	N/A [1]
By Number and Miles	**#**	**Miles**	**#**	**Miles**
Recreation - Maintained Non-Motorized Trails	10	80.5	N/A [1]	N/A [1]
Recreation - Maintained Off Highway Vehicle Trails	1	25	N/A [1]	N/A [1]
By Sites and Acres	**Sites**	**Acres**	**Sites**	**Acres**
Cultural Resource Inventories	1	1,800	85	32,935
Cultural / Historic Sites Nominated	0	0	0	0
By Actions	***Actions***		***Actions***	
Realty - R&PP Leases/Patents	0		10	
Realty - Road Easements Acquired for Public / Agency Use	1		32	
Realty – Unilateral O&C Road Use Permits	6		170	
Realty – Right of Way Grants (FLPMA)	3		219	
By Actions and Acres	***Action***	***Acres***	***Action***	***Acres***
Minerals/Energy - Total Oil and Gas Leases	0	0	5	15,633
Minerals/Energy - Total Other Leases	0	0	0	0
Minerals - Material Sites Opened and Material Sites Closed	0	0	0	0
Mining Claims Patented and Mining Plans Approved	0	0	0	0
Realty - Land Sales	1	77	17	93
Realty - Withdrawals Completed	0	0	3	3
Realty -Withdrawals Revoked	0	0	1	16
Realty -Acquisitions	0	0	21	3,150

By Actions, Acres Acquired, and Acres Disposed	***Actions***	***Acres Acquired***	***Acres Disposed***	***Actions***	***Acres Acquired***	***Acres Disposed***
Realty - Land Exchanges	0	0	0	7	4,524	2,241
By Sites Identified and Sites Cleaned	***Sites Identified***		***Sites Cleaned***	***Sites Identified***		***Sites Cleaned***
Hazardous Material Sites	6		2	81		54

[1] Same trails/sites maintained annually - no cumulative number

PROGRAM ACCOMPLISHMENTS

Areas of Critical Environmental Concern (ACEC)

In 2013, the Salem District evaluated 26 designated, 10 potential and 4 ACEC nominations to determine whether they met the minimum criteria for "relevance and importance" as required by FLPMA and BLM regulations. The District has recommended 23 of the designated, eight existing potential and two nominated ACECs be considered for designation in the next land use plan. Through the evaluation process the District recommended changes to the district's ACECs including combining adjacent existing ACECs, removing some areas and adding other areas to existing ACECs. The District managed 14 potential ACECs under interim management in FY 2014.

In FY 2014, the District found most of the 26 existing and potential ACECs monitored to be in good or stable condition. A landslide at the Silt Creek Potential ACEC approximately doubled the size of the area of concern. The District's management response was to block access to the active landslide area. The District replaced a vandalized gate at the summit of Mary's Peak ACEC. Salem District botanists observed minor threats to relevant and important values at some of the other monitored ACECs including weed invasion and evidence of minor trespasses.

Invasive plant control and re-vegetation restoration continued at the Yaquina Head Outstanding Natural Area ACEC and the Sandy River Potential ACEC.

Botany

Special Status Plants

BLM conducted surveys, monitoring and restoration activities for special status plant and fungi species. Species management was consistent with RMP direction for special status plant species. The District completed surveys for special status species prior to all ground-disturbing activities. Salem staff conducted about 2,310 acres of pre-project surveys for special status plant and fungi species, bringing the total from 1996 through 2014 to 98,170 acres. The Monitoring Section of this document describes site monitoring for special status plants.

Workshops: In 2014, Salem BLM organized and hosted *Sphagnum* and former genus *Bryum* bryophyte identification workshops for federal agency botanists and several other botany related workshops and field trips for the public.

Invasive Plant Management

The District continued to implement the *Noxious Weed Strategy for Oregon/Washington BLM* (August 1994) and the *Strategies for the Management and Control of Invasive Plant Species on the Eugene and Salem Districts* (September 2003). The primary goal is to reduce the density, expansiveness and the impacts posed by invasive plant infestations. The Salem District actively participated in the Western Invasives Network and eight associated Cooperative Weed Management areas.

The Salem District continued to inventory BLM-managed land for noxious weeds and other invasive species through systematic surveys and risk assessments in the course of project planning. BLM entered infestations data into the National Invasive Species Information Management System, which in turn becomes available to the Oregon Department of Agriculture and other organizations through formal data sharing agreements.

BLM implemented integrated pest management, which includes chemical, mechanical, manual, and biological methods, in accordance with BLM's 1985 *Northwest Area Noxious Weed Control Program Environmental Impact Statement*, and its 1987 Supplement; the *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (*September, 2007); and their respective Records of Decision.

The BLM completed *Vegetation Treatments Using Herbicides on BLM Lands in Oregon Environmental Impact Statement* and the associated Record of Decision in 2010. BLM continues to complete a 'step down" environmental assessment and associated Decision Record in 2014. Salem District will be able to use 14 herbicides for various vegetation treatments, including invasive plant treatments by combining the amended herbicide injunction with the new decision record.

Table 3 provides a summary of integrated weed management activities to control invasive plants. The BLM coordinates control efforts with adjacent landowners and other interested entities by way of individual contacts and coordination through Cooperative Weed Management Areas and other partnerships. Youth crews treated 160 acres of blackberries, Scotch broom, non-native blackberries, periwinkle, English ivy, Policeman's helmet, European beach grass, and shining geranium in 2014.

Risk assessments for proposed management projects, averaged 5,500 acres per year over the last eighteen years. In all, BLM inventoried almost 2,400 acres in fiscal year 2014. Resource area staff found the majority of high priority new invasive plant infestations through project risk assessments and partnered projects.

Table 3 - Management Actions to Control Invasive Plants

Species	Treatments (Acres)					
	Mechanical		Manual		Chemical	
	Current FY 2014	Cumulative FY 1996-2014	Current FY 2014	Cumulative FY 1996-2014	Current FY 2014	Cumulative FY 1996-2014
Bull thistle	0	264	1	1,062	0	16
Butterfly bush	0	0	0	1	0	0
Canada thistle	0	979	0	518	5	141
Clematis	0	0	0	0	0	254
Cotoneaster	0	0	1	10	0	0
Diffuse knapweed	0	0	0	1	0	0
English holly	0	10	0	1	0	0
English ivy	1	4	3	51	31	745
European beach grass	0	0	1	49	0	0
Evening primrose	0	1	1	10	0	0
False brome	0	0	0	26	329	803
Gorse	0	0	0	10	0	0
Herb Robert	0	0	1	1	0	3
Himalayan blackberry	0	0	0	0	84	642
Knotweeds (Japanese, Giant, Bohemian)	0	4	0	26	1	113

Species	Treatments (Acres)					
	Mechanical		Manual		Chemical	
	Current FY 2014	Cumulative FY 1996-2014	Current FY 2014	Cumulative FY 1996-2014	Current FY 2014	Cumulative FY 1996-2014
Meadow knapweed	0	0	0	289	3	4
Non-native blackberry	0	1,717	4	1,023	0	0
Peavine	0	0	0	0	3	3
Policeman's helmet	0	0	50	30	0	0
Quack grass	0	0	0	0	0	10
Reed canary grass	0	0	0	16	0	0
Scotch broom	7	2,035	100	2,507	121	994
Shining geranium	0	1	0	153	0	2
Spotted knapweed	0	0	0	20	0	3
St. John's wort	0	297	0	146	0	21
Tansy ragwort	0	388	*1*	*892*	0	15
Teasel	0	1	*1*	*30*	0	0
Velvet grass	0	2	*1*	*1*	0	0
Vinca	0	0	*11*	*24*	0	0
Yellow archangel	0	0	0	0	2	2

Cadastral Survey

The Salem District Cadastral Survey Section was reduced to a single survey crew in FY 2014. They were able to complete 5 survey projects for the Salem District, 4 of which benefited the timber program. These 4 surveys resulted in 24.5 miles of line surveyed and 14 miles of public land boundary lines posted and blazed. The remaining Salem District project was the identification of a small residential trespass adjacent to the Wildwood Recreation Site. The Salem survey crew also conducted a cadastral survey to identify public lands related to the West Eugene Wetlands Conservation Project for the benefit of the Eugene District. This project resulted in 8 miles of surveyed line, identified an agricultural and a residential trespass, and posted 3 miles of public land boundary line. In total for FY 2014, Salem Cadastral surveyed 41.93 miles of line, posted 17.8 miles of public land boundary line, and set 42 monuments. Additionally, the Salem Cadastral Surveyors assisted the district by providing Land Description Reviews for various realty actions.

Cultural Resources

The Salem District Cultural Resource Program identifies and manages cultural resources on BLM-administered lands in accordance with Section 106 and Section 110 of the National Historic Preservation Act of 1966 (NHPA). In 2014, Cultural Resources staff:

- Identified 12 undertakings requiring pre-project field inventory;
- Conducted Class III pre-project inventory on 1,800 acres according to Appendix A of the *Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Oregon;*
- Conducted Class III inventory on 80 acres outside of project areas in medium to high probability areas according to Section 110 of the NHPA;
- Discovered and recorded one new site as a result of surveys; and
- Monitored and updated records on twelve previously recorded sites.

The Salem District represented Oregon BLM on the Oregon Archaeology Celebration (OAC) Steering Committee, as well as the Association of Oregon Archaeologists (AOA, parent committee of the OAC). These scientific and educational organizations are dedicated to the protection and enhancement of prehistoric and historic archaeological sites. The Oregon Archaeology Celebration strives to encourage the education and appreciation of Oregon's cultural resources by promoting activities and presentations focused on Oregon's heritage directed towards all age groups. To publicize OAC 2014, the Salem District distributed 324 large posters and 2,719 small posters and calendars of events to 795 locations including other federal agencies, schools, counties, universities, libraries and museums.

Table 4 - Cultural Resources Activity Cumulative Totals, FY 1996-2014

Activity	Number
Public education and interpretative programs	396
People directly reached by these programs	17,853 (2014 addition unknown)
Number of locations OAC materials distributed	17,767

Energy and Minerals

It is the policy of the BLM to make mineral resources available to the public, including commercial users.

Locatable Minerals: The Mining Law of 1872 authorizes the rights to explore for, and develop locatable minerals. Locatable minerals include both metallic minerals and nonmetallic minerals. They are recognized by the standard experts, are not subject to disposal under some other law, and make the land more valuable for mining purposes than for agriculture. These minerals do not include common varieties of sand, gravel, stone, pumice, and cinders. Most of the public land in the Salem District is open to mining claims. In 2014 Salem District received no applications for mining notices or plans of operation.

Leasable Minerals: The Mineral Leasing Act of 1920 authorizes the rights to explore for, and develop leasable minerals. Leasable minerals include oil, gas, coal, oil shale, potash and geothermal resources. The BLM State Office geologists manage the BLM's oil and gas program for the Salem District. Salem District currently has no oil and gas production on public lands and the District did not receive any applications for permits to drill for oil and gas in 2014.

Saleable Minerals: The Materials Act of 1947 authorizes the sale of mineral materials from public land. Saleable minerals are common variety minerals such as sand, gravel, rip-rap, and volcanic pumice. Mineral materials may be provided to federal, state, and local governments at no cost under provisions of free use permits. The Salem District did not issue any permits for the sale of mineral materials (rock) in 2014.

Wind Energy: The Bureau completed an Environmental Impact Statement (EIS) for wind energy development on BLM lands nationwide in 2009. The BLM also identified potential transmission line corridors which would allow development of high potential sites. The EIS simultaneously amended all BLM resource management plans to allow wind energy development.

Although a small number of high potential sites are located in the Salem District, the lack of nearby existing transmission line facilities will likely preclude their development in the near future. In 2014, the Salem District received no applications for wind energy.

Fisheries

Fisheries Inventory and Assessment

District personnel conducted adult salmonid spawning surveys in coastal and Columbia Basin streams. Spawning and redd surveys targeted coho and Chinook salmon and steelhead in the Salmon River (Sandy), Clackamas, Little North Santiam, Nestucca and Alsea Watersheds. The Salem District, in partnership with The Freshwater Trust, Forest Service (USFS), and the Tillamook Estuaries Partnership, conducted juvenile fish density and distribution surveys in the Nestucca, Molalla, and Salmon (Sandy) Rivers.

The Tillamook Resource Area is partnering with Clean Water Services, a water resources management utility, to identify and monitor cold water refugia in the Tualatin Watershed. Cold water refugium is defined as a stream reach, 150 to 1000 feet in length, where the water temperature is at least 2°C cooler than adjacent reaches. In 2013, a Geographic Information System (GIS) project was designed to identify probable locations of cold water source areas. The identified areas were field checked in 2014. Three cold water reaches have been identified in the Tualatin Basin, one of which is located on public land on McKay Creek.

Fish Habitat Restoration

Salmon River

The Cascades Resource Area continued to work with the Sandy River Basin Partners (Partners) to restore habitat for Chinook and coho salmon and steelhead trout on the Salmon River. In 2014, the Partners contracted the construction of eight main channel engineered log jams, and improved connectivity to five alcove and side channel habitats, utilizing 370 pieces of large wood. Partners in the project include: The Freshwater Trust, BLM, US Forest Service, Portland Water Bureau, and Sandy River Basin Watershed Council. BLM leveraged $122,000 in restoration funds with an additional $278,000 in partner funding in 2014. The 2014 actions are part of a 5-year project to restore salmon and steelhead habitat on 2 miles of the lower Salmon River.

Elkhorn Creek

The Cascades Resource Area placed 18 trees into Elkhorn Creek, a tributary to the Little North Santiam River, to increase habitat complexity for winter steelhead, coho, and Chinook salmon and to improve floodplain function.

Little Sandy River

In partnership with the Cascades Resource Area, the Portland Water Bureau used a helicopter to fly 63 pieces of large wood into the Little Sandy River on BLM lands to improve habitat complexity for coho and Chinook salmon, and winter steelhead, and restore floodplain/side channel connectivity.

Walker Creek

The Tillamook Resource Area placed 20 trees into Walker Creek to improve habitat for coho salmon, steelhead and cutthroat trout and to improve habitat complexity, facilitate floodplain/side channel connections and store bed-load material in the channel. Riparian planting is planned in two half mile segments in 2015.

Rickreall Creek

In November, 2013, the Marys Peak Resource Area, in cooperation with the Rickreall Watershed Council, placed 165 pieces of large wood in the Rickreall Creek Watershed to benefit cutthroat trout and coho salmon. When completed, this multi-phase project will treat nearly 6 miles of public and private lands upstream of Mercer Reservoir in Rickreall Creek. Habitat work in the upper watershed has led to collaborative discussions with relevant stakeholders for restoration of fish passage over Mercer Reservoir. The cooperators are the BLM, Rickreall Watershed Council, Polk Soil &Water Conservation District, Hancock Forest Management, City of Dallas, and Oregon Department of Fish and Wildlife (ODFW). The BLM has entered into an MOU indicating BLM would provide up to 350 pieces of large wood for the project, financial support as funding allows, and technical support for the placement of wood in the stream channel. The final phase of the project, planned for 2015 and 2016, will place up to 700 pieces of wood by helicopter. A grant request for the final phase has been submitted to the Oregon Watershed Enhancement Board (OWEB) for the 2015 grant cycle.

South Fork Alsea River

In 2014, the Marys Peak Resource Area improved habitat for resident cutthroat in the South Fork Alsea River Watershed. BLM placed 12 pieces of large wood into a half mile of the South Fork Alsea River at Alsea Falls Park.

Preacher Creek

In 2014, the Marys Peak Resource Area provided technical support and 24 logs to the Alsea Watershed Council and ODFW for a large wood project at the confluence of Preacher Creek and Lobster Creek. With OWEB funding, the project placed 80 pieces of large wood and several rock structures to benefit critical habitat for Oregon Coast coho salmon. The project had support from the BLM, USFS, and private landowners.

Fish Passage Restoration

The Marys Peak Resource Area improved access for Oregon Coast coho salmon and steelhead to 1.2 miles of Parker Creek, a tributary to the North Fork Alsea River by replacing an undersized, partial barrier culvert with an 80 foot long Rapid-Span prefabricated bridge using Deferred Maintenance Funds.

Threatened or Endangered Fish

Salem District lands contain seven federally-listed Evolutionarily Significant Units for anadromous fish: Oregon Coast coho salmon, Upper Willamette River spring Chinook, Upper Willamette River winter steelhead, Lower Columbia River steelhead trout, Lower Columbia River Chinook salmon, Lower Columbia River coho salmon, and eulachon. Bull trout were reintroduced into the Clackamas River Basin in 2011 and have been documented in streams on BLM lands near the North Fork Reservoir.

The District completed four Endangered Species Act consultations with National Marine Fisheries Service (NMFS) for several timber sales and one Recreation and Public Purposes (R&PP) lease action. Programmatic biological opinions from NMFS covered numerous actions, including large wood placements, culvert replacements, road maintenance and invasive weed treatments.

Forest Management and Timber Resources

Timber Harvest Activities

The Salem District's declared Allowable Sale Quantity (ASQ) under the 1995 RMP is 34.8 million board feet (MMBF). The ASQ represents the annual volume of timber harvest that is offered from the Matrix land use allocations, which include General Forest Management Areas (GFMA), Adaptive Management Areas (AMA), and Connectivity/Diversity Blocks. The target volume for 2014 for the Salem District was established at 54 MMBF.

The District offered 52.4 MMBF of timber, primarily from commercial and density management thinning. Table 5 shows the volume and acres offered, the portion that counts toward ASQ, and volume and acres offered by harvest type and land use allocation. Since 2005, 66 percent of the harvest acres have been from stands less than 80 years old and 34 percent of the harvested acres have been from stands over 80 years old.

This table also includes cumulative information on timber harvest acres, volumes, and harvest types. Except for the District declared allowable sale quantity, projections made in the RMP (see RMP Projections) are not intended as management action/direction, but rather are underlying RMP assumptions. Projected levels of activities are the approximate level expected to support the ASQ.

Table 5 - 2014 Timber Sale Volume and Acres

2014 Volume and Acres	FY 2014		Cumulative FY 2005 - 2014		RMP Projection FY 2005 – 2014	
	Acres	MMBF	Acres	MMBF	Acres	MMBF
Sold Volume (MMBF)						
ASQ Volume (Harvest Land Base)		24.7		302.9		348.1 [a]
Non-ASQ - Volume (Reserves)		27.7		208.2		0 [a]
Total Sold Volume		**52.4**		**511.1**		**348.1**
Sold, Not Awarded Volume (MMBF) as of 9/30/14						

2014 Volume and Acres	FY 2014		Cumulative FY 2005 - 2014		RMP Projection FY 2005 – 2014	
	Acres	MMBF	Acres	MMBF	Acres	MMBF
ASQ Volume (Harvest Land Base)		3.3		43.5		NA [b]
Non-ASQ - Volume (Reserves)		12.3		31.5		NA
Total Sold, Not Awarded Volume		**15.6**		**75.0**		**NA**
ASQ Acres / Volume - MMBF by Land Use Allocation						
Matrix	729	16.9	9,710	226.7	9,214	328.6 [a]
Adaptive Management Area	313	7.8	3,552	81.2	2,141	19.5 [a]
Total ASQ Acres / Volume - MMBF by Land Use Allocation [e]	**1,042**	**24.7**	**13,262**	**307.9**	**11,355**	**348.1**
Non-ASQ Acres by Land Use Allocation						
Late-Successional Reserves (LSR) and LSR within Adaptive Management Areas (AMR)	455		5,023		1,456	
Riparian Reserves	605		5,064		892	
Other Withdrawn Lands	*0*		18		50	
Total Non-ASQ Acres by Land Use Allocation	**1,060**		**10,105**		**2,398**	
Key Watershed Volume		0		49		32
ASQ Acres/ Volume by Harvest Types						
Regeneration Harvest [d]	27	1.6	736	28.3	5,558 [a]	298.6
Commercial Thinning & Density Management [c]	1,015	23.1	12,526	279.6	5,797 [a]	49.5 [a]
Other (Mortality Salvage)	0	0	0	*0*	0	0.0
Total ASQ Acres/ Volume by Harvest Types	**1,042**	**24.7**	**13,262**	**307.9**	**11,355**	**348.1**

[a] Includes Riparian Reserve volume and/or acres that are associated with the major land base allocations.
[b] This information is also contained in the information for the land use allocations that are associated with Riparian Reserves.
[c] Density Management / other silvicultural treatments to achieve land use allocation objectives
[d] In FY 2014, limited to clearing vegetation for road rights-of-way and wildlife patch cuts, [e] Harvest Land Base

Timber Pipeline Restoration Program

Section 327 of the Omnibus Consolidated Rescissions and Appropriations Act of 1996 (Public Law (PL) 104-134) established the pipeline restoration fund. The Act established separate funds for the Forest Service and BLM, using revenues generated by timber sales released under Section 2001(k) of the FY 95 Supplemental Appropriations for Disaster Assistance and Rescissions Act. PL 104-134 directs agencies to use 75 percent of the fund to prepare sales sufficient to achieve the total allowable sale quantity (ASQ). Since May 1998, Salem has received funds to work on pipeline timber sales. These funds allow the Salem District to complete and prepare timber sales for auction ahead of the scheduled sale year.

Having these sales available, or in the pipeline, provides flexibility in the sale program to react to late developing issues that might delay regular sales in the current year. The Salem District offered 13.3 million board feet (MMBF) of timber pipeline sales in FY 2014.

BLM's goal is to use the fund to gain one year's lead time in ASQ timber sale preparation work over a five to seven year time frame, to reduce the backlog of maintenance at recreation sites, and to address crucial unresolved visitor services or recreation management needs.

Fuels Management / Air Quality / Wildfire

Fuels Management

Timber Sale Program: The BLM implements fuels management treatments associated with the timber sale program in selected areas to reduce the potential for human-caused wildfire ignition, to reduce the potential for wildfire to cross property lines between BLM and private land, and to reduce both the intensity and severity of potential wildfires in the long term (after the completion of fuels reduction). These treatments include site preparation for tree planting, or to create early seral habitat in small gaps or low density thinning areas for grass, forb, and brush establishment, and to remove barriers to big game use of these areas.

National Fire Plan: The District continues to receive funding for hazard fuel reduction projects through the National Fire Plan. The District places a major emphasis on treating fuels in the wildland / urban interface. Treatments that combine disciplines such as wildlife, silviculture, and botany, or that coordinate work with other government agencies or outside constituencies also continue to receive funding. See Table 6 below for the total number of acres that received fuels treatments by land use allocation.

Table 6 - Fuel Treatments for Site Preparation, Wildlife Habitat Enhancement and Hazard Reduction by Land Use Allocation

	Land Use Allocation				
	Matrix (GFMA)	**Connectivity**	**LSR/AMR/AMA**	**Other**	**Total**
Site Preparation Acres	0	0	97	0	97
Wildlife Habitat Acres	0	0	34	9	43
Hazard Reduction Acres	94	0	332	0	426
Prescribed Fire Acres	1222	0	919	0	2141
TOTAL	1316	0	1382	0	2707

Air Quality

Air quality continues to be an issue on the Salem District because of its proximity to the Willamette Valley and to the major metropolitan areas of the state. BLM coordinated all prescribed fire activities with the Oregon Department of Forestry (ODF) and adjacent landowners to assure that management of the air shed was maintained at a high quality for both visual resources and human health.

Operators completed these activities in compliance with the guidelines outlined in the Oregon Smoke Management Plan, and avoided smoke intrusions into any Smoke Sensitive Receptor Areas (SSRA's) or Class 1 air sheds.

The small number of acres burned is a reflection of the type of timber harvest (density management / commercial thinning) that is occurring throughout the District. These types of harvest generally pile fuels with heavy equipment or by hand and consequently less fuel is burned than would occur under regeneration harvest activities. Operators burn piled material during the fall when rains have dampened the soil and atmospheric conditions are unstable. This helps to reduce residual smoke. Piles are distributed throughout the District which further reduces the impacts to any one geographic air shed. In addition, there is an increased effort to find alternative uses for residual slash.

Wildfire

In the spring of 2014, forecasts indicated that fire season would be affected by a wide spread drought persistent mostly in the south end of the district. Throughout the 2014 fire season, the Salem District experienced below average precipitation and warmer than average temperatures. A cold winter event which caused large areas of frost-killed vegetation at high elevations, contributed to the fire risk associated with the drought conditions.. As the summer progressed, prolonged drought and high temperatures created the environment for large fire growth, and this persisted into the fall for much of the District.

Persistent dry weather over much of Oregon, in the summer of 2014, resulted in one large fire on BLM administered lands. The 36 Pit Fire burned over multiple jurisdictions within the Cascade Resource Area near Estacada Oregon. The fire originated on Forest Service land and consumed 1,326 acres of BLM land within the 5,521 acre fire.

Fiscal year 2014 was a below average year for wildfire starts on the Salem District. Coastal Valley Interagency Dispatch received 12 reported fires that burned 1,327.2 acres on BLM administered lands. The 36 Pit Fire contributed 1,326 of the total acres for the year. In the last 10 years, the District has averaged 23 fires, burning 76 acres per year. However, it should be noted that only a few large fires throughout this 10 year period make up the majority of the acres burned.

The BLM contracts fire prevention, detection, and initial attack suppression, with the Oregon Department of Forestry (ODF) through the Western Oregon Fire Protection Services Contract. Payment is based on a per acre assessment of the 403,870 acres in the Salem District.
The majority of wildfires ODF responds to on the Salem District are abandoned campfires. These fires often occur in high use recreational areas such as the Molalla and Quartzville Recreation Corridors, and the Nestucca and Alsea National Backcountry Byways. In the case of a large fire like the 36 Pit Fire, ODF joined in a unified command structure with the Mt Hood National Forest and Salem BLM to jointly combat the blaze, due to its size and complexity.

Because of the high fire risk in 2014, Salem BLM worked to identify and acquire additional fire suppression equipment to assist initial attack resources within the protection area. This was done by the use of regional severity funds that are used to order additional equipment in times when the risk of large fires is outside of historically normal indices and predicted risk is high for a given geographical area.

ODF firefighting units gained access to prepositioned federal resources from the severity process through the use of response agreements already in place for this type of situation. This added to the large ODF resource pool already in place.

Hazardous Materials

The BLM responded to six potentially hazardous/illegal dumpsites; two sites were determined hazardous needing an emergency response. Since fiscal year 1995, the BLM has identified 83 potentially hazardous abandoned waste sites on agency-managed lands. Salem District staff has determined that 54 of these sites contained hazardous materials, and they have been cleaned up.. The District has removed drug lab waste, abandoned barrels of corrosives and heavy metals, dynamite and explosives, oil based paints, pesticides, used paint thinners, lead contaminated soils, solvents, and asbestos from these sites.

Lands and Realty Program

The Salem District BLM Lands and Realty Program consists of the following categories or subject areas: rights-of-way (including communication use leases), land leases, recreation & public purpose leases, land tenure adjustments (purchases, sales and exchanges), compliance, trespass abatement, and withdrawals. Uses of public land in the Lands and Realty Program must be consistent with the *Salem District Resource Management Plan* dated May 1995 and the Federal Land Policy and Management Act of 1976.

Right-of-Way Grants: In 2014, Salem District issued three individual right-of-way grants for a total of 219 grants since fiscal year 1995.

Land Leases: The Salem District did not complete any new Communication Site Authorizations in 2014. However we did oversee the reclamation of the Snow Peak Communication Site by the Oregon State Police. The Oregon Department of Transportation State Radio Project submitted three applications for communication site leases. The District continues to process these land lease applications.

Recreation and Public Purposes Leases (R&PP): The Salem District has 10 active R&PP leases. No new R&PP leases were issued by the Salem District in 2014. AApplications for the Pacific City Joint Water and Sanitary Authority, Multnomah County, and Columbia County are in progress.

Land Tenure Adjustments: The BLM acquires and disposes lands to support a variety of recreation and resource program objectives.

Acquisitions: The Salem District did not receive any Land and Water Conservation Funds to purchase parcels. These acquisitions are intended to provide improved access and to protect critical habitat, open space, and the visual resources of the area. Since the Sandy River acquisition project began in 2001, the BLM has acquired 21 parcels totaling 3,150.1 acres at a cost of $16,883,000. Appendix 3 lists the land acquisitions from 1995 – 2013.

Exchanges: The Salem District has no pending Land Exchanges for 2014. Since implementation of the RMP, the District has acquired 4,524 acres in seven land exchanges. The District has conveyed 2,241 acres out of federal ownership through land exchanges.

Sales:
The Salem District sold 77.35 acres of public land in 2014. Since fiscal year 1995, Salem sold 17 sales resulting in conveyance of 93.17 acres out of federal ownership.

Withdrawals:
Salem did not revoke any land withdrawals in 2014. Since fiscal year 1995, the District processed three withdrawal applications.

Compliance:
The Salem District completed 20 compliance inspections on a variety of right-of-way grants, leases, and permits.

Trespass Abatement: The Salem District did not investigate or open any trespass cases.

O&C Revested Lands Access and Transportation Rights-Of-Way Program

The O&C Revested Lands Access and Transportation Rights-of-Way program facilitates the management and sale of BLM timber and timber owned by private companies and individuals. BLM authorizes access, whether acquired by the BLM to cross non-BLM lands, or by private landowners to cross BLM lands, through reciprocal right-of-way agreements, road easements, unilateral O&C road use permits, and license agreements. These instruments facilitate access to public and private timber lands through the complex checkerboard ownership pattern of Salem District BLM lands.

Reciprocal Right-of-Way Agreements

BLM uses reciprocal right-of-way agreements when private property owners need access across public land and the BLM needs access across private property. They consist of the agreement which private land owners use to grant the BLM the right to cross private property, and permits which grant private property owners the right to cross land owned by the BLM. Right-of-way agreements are for the management of timber lands and the removal of timber and other forest products. They do not provide public access across intermingled private timber lands. The District has entered into and administers a total of 212 reciprocal right-of-way agreements. Salem did not enter into any new right-of-way agreements in 2014.

The BLM and the private land owner amends an agreement primarily when either party desires to add land or interests in land to the agreement. BLM assigns permits when a private property owner (permittee) conveys land or interests in land to third parties. In 2014, Salem completed 5 amendment and 4 partial assignments.

Unilateral O&C Road Use Permits

Unilateral O&C road use permits are for the removal of timber and other forest products from private property. The Resource Area engineers issue and administer these permits.

These permits authorize third parties to construct and/or use existing roads on public land when the BLM does not need reciprocal access across private property. The BLM requires permittees to pay road use, road maintenance, and/or surface replacement fees. The Salem District issued 6 unilateral road use permits in 2014.

Road Easements

The BLM uses road easements to obtain the right to cross private property. In the vast majority of cases, BLM obtained easements across private property to access BLM timber lands for the removal of timber and other forest products from public lands. In a smaller number of cases, BLM obtained easements to provide public access across private property to public land or facilities. Easements are either exclusive, where the BLM owns and controls the road, or non-exclusive, where the private property owner owns and controls the road. Road easements also grant legal use of roads and trails crossing parcels of non-federal land to access BLM land and facilities. Easements will continue to be acquired where and when needed to support BLM program objectives.

The Salem District has obtained and administers 526 road easements. The District completed one easement acquisition in FY 2014. Since fiscal year 1995, the BLM has acquired 32 road easements.

Law Enforcement

The Salem District's law enforcement program addresses the public safety and resource protection issues integral to managing public lands in Northwest Oregon. The Salem District has Oregon's largest population and the heaviest urban use of public lands. The program has three rangers: the Salem District Ranger, the Tillamook Resource Area Ranger, and the Cascades Resource Area Ranger.

Rangers work cases ranging from unauthorized recreational activities, theft of special forest products, stolen vehicles to marijuana eradication from public lands. The law enforcement rangers lead the Law Enforcement Assistance (LEA) Contracts with Marion, Clackamas, Linn, Benton, Yamhill, and Tillamook County. This allows the BLM to fund county deputies' time in law enforcement forest programs. The law enforcement agreements/contracts enable the county deputies to patrol the Salem District lands targeting specific high use areas known for incidents including the Molalla River, Little North Fork Santiam, Nestucca River, and the Quartzville Wild and Scenic River corridors.

Clackamas County has a "Dump Stoppers" program - a cleanup, educational, violation investigation, and prosecution program designed to reduce trash dumping on federal lands. The efforts and results of these programs have been tremendously successful. Dump sites are now more difficult to find for the assigned work crews. The Salem District funds some of these LEA agreements and "Dump Stoppers" programs through the Secure Rural Schools and Community Self Determination Act of 2000 (Title II program).

The Salem District had more than 700 law enforcement incidents in 2014. The Salem District law enforcement rangers (LEOs) resolved few of the vandalism and firewood theft incidents due to their heavy law enforcement workload. District LEO's and deputies worked together to process these violations. The numbers have decreased from 2013. Table 7 shows the number of law enforcement incidents by category.

Table 7 - Law Enforcement Incidents, FY 2014

Incidents	#	Incidents	#
Natural Resource violations	120	Public Assists	360
Littering/dumping violations	28	Weapons violation	14
Drug violations	39	DUII/ liquor law violations	15
Stolen vehicles/ recovered	12	Camping violations	51
Thefts - other	9	Fire	6
Theft of special forest products	177	Search and Rescue	11
Vandalism	81	OHV violations/incidents	45
Hazmat	7	Special Rec Permit violations	6
Vehicle violations (speed/registration/insurance)	79	K-9 utilizations	0
Special Forest Product checks	430	Public Contacts	600+

Recreation

An estimated 1.3 million users recreate on BLM-managed lands in the Salem District. One third of these users visited the District's 23 recreation sites. The District estimates that the remainder of the use includes those involved in dispersed recreational activities such as fishing, hunting, hiking, nature viewing, etc.

Recreation Pipeline Restoration Program

Section 327 of the Omnibus Consolidated Rescissions and Appropriations Act of 1996 (Public Law (PL) 104-134) established the pipeline restoration fund. The Act established separate funds for the Forest Service and BLM, using revenues generated by timber sales released under Section 2001(k) of the FY 95 Supplemental Appropriations for Disaster Assistance and Rescissions Act. PL 104-134 directs agencies to use 25 percent of the fund on the backlog of recreation projects.

In fiscal year 2014, Congress provided recreation pipeline funds to accomplish recreation maintenance, repairs, and improvements postponed due to reduced funding over several years. These are referred to as Recreation Pipeline Funds. Table 8 displays how Salem utilized the funds.

Table 8 - Recreation Pipeline Projects, FY 2014

Project Area	Project Description	Dollars Expended
Molalla River – Table Rock SRMA (H207)	Site closure and restoration	$4,142
Molalla River Recreation Area (H201)	Campground maintenance and improvement	$10,579
Sandy River – Mt. Hood SRMA (H201)	Sandy Ridge Trail System maintenance and construction; Wildwood site security	$22,679
Alsea Falls Recreation Area (H206) (H207)	Trailhead development, trail construction	$43,294
TOTAL		$80,634

Recreation Fee Program

Five Salem District recreation sites (incorporating 11 locations) collect recreation fees under the Federal Land Recreation Enhancement Act. In total, these sites collected $698,627 in fees during FY 2014. Table 9 shows how the Salem District used the fee program funds.

Table 9 - Fee Site Expenditures, FY 2014

Site Name	Description	Fee Site Expenditures
Yaquina Head Outstanding Natural Area	Operation and maintenance of facilities, visitor services, and interpretative programs.	$320,518
Nestucca River Recreation Sites	Operation and maintenance of facilities and visitor services.	$29,760
Fishermen's Bend Recreation Complex	Operation and maintenance of facilities and visitor services.	$248,372
Wildwood Recreation Site	Operation and maintenance of facilities and visitor services, and volunteer host reimbursement.	$44,888
Alsea Falls Recreation Site	Operation and maintenance of facilities and visitor services, and volunteer host reimbursement.	$25,475
Total		$669,013

These funds also support our volunteer program; these citizens believe in our mission, love the public lands, and are willing to volunteer their time and energy in a spirit of cooperation.

Special Recreation Permits

The BLM authorizes commercial, competitive, and group recreation uses of the public lands and related water by special recreation permits. Public demand for events and commercial uses has continued to grow.

Table 10 - Number of Permits Issued by Fiscal Year

Year	FY 2014	FY 2013	FY 2012	FY 2011	FY 2010
	44	33	24	13	4

National Landscape Conservation System Units

The Salem District manages several National Landscape Conservation System (NLCS) units. They include:

Yaquina Head Outstanding Natural Area: The BLM manages Yaquina Head to protect and conserve the area's unique scenic, scientific, cultural, historic, educational, natural, and recreational values.

Wild And Scenic Rivers: The rivers are located on BLM-managed lands in designated corridors along the Salmon, Sandy, Clackamas, South Fork Clackamas, Fish Creek, Elkhorn Creek and Quartzville Creek Wild and Scenic Rivers (WSRs). The BLM protects each river's Outstandingly Remarkable Values, free flowing characteristics and water quality.

The Quartzville Creek WSR visitor contact and volunteer corridor host program continued to encourage appropriate use ethics among visitors to the river. More than 106,000 visitors used the WSR for recreational activities.

Wilderness: BLM monitored trail conditions and wilderness values in the 5,786 acre Table Rock Wilderness located in Clackamas County.

Recreation Partnerships and Special Events

The recreation program greatly depends on special events and partnerships to maintain high quality recreation facilities, trails, services, and programs. The events include National Trails Day, National Public Lands Day, Earth Day, annual river clean-ups, and several other less formal work party events. These special events and work parties would not be successful without the assistance of partners.

The partners include: Molalla Riverwatch, Antfarm, Wolftree Inc., Peachuck Lookouts, Boy Scout troops, Applegate Rough Riders Motorcycle Club, Northwest Youth Corps, Northwest Trail Alliance, Oregon Youth Conservation Corps, Columbia River Youth Corps, Linn County, Wilderness International, Team Dirt, volunteer hosts, and other groups and individuals who lend their enthusiastic help throughout the year.

Yaquina Head Outstanding Natural Area

Friends of Yaquina Lighthouses work with the BLM at the Yaquina Head Outstanding Natural Area to assist in preserving and interpreting the Yaquina Head Lighthouse and surrounding area.

Tillamook Resource Area is actively working with the Tillamook Estuaries Partnership and other local groups and agencies to develop a trail advisory group. This effort is still in its infancy with an objective to identify how and where to develop trails and coordinate for a "friends" group that will commit to trail maintenance throughout the county. Primary efforts are focused in the north county on the: Salmonberry Trail, Oregon Coast Trail between Manzanita and NeahKahNie, and the Estuaries Trail between Manzanita and Wheeler. Other participants in this group are: Oregon Department of Forestry, Oregon State Parks, City Managers, Tillamook County, USFS, Nestucca Valley Community Alliance, Kayak Tillamook and trail users.

Tillamook Resource Area created a new partnership with Washington County, evaluating public lands for potential lease and recreation development.

Other Recreation Management Areas

Alsea Falls Recreation Area: In 2014, the Salem District re-opened the Alsea Falls Trail System to bikers and hikers. Approximately six miles of “bike-optimized” trails were open to the public in 2014. This overhauled system was an immediate hit with the public – an estimated 6,000 visitors utilized the trail system from June to September. Work continues on the trail system with an estimated 3-4 miles of new bike/hike trails available for the summer 2015 recreation season.

In addition to the trail system, improvements were made to the day use area and the campground. In the day use area, a short trail to Alsea Falls was re-built and opened to hikers.

Several pedestrian bridges in the day use and campground were replaced under the District's deferred maintenance program and two restrooms in the campground were replaced.

Molalla River Recreation Corridor: Three Bears and Cedar Grove Recreation Sites opened to the public on July 4, 2013. BLM staff began design and construction of the sites in FY 2012. Now completed, the new facilities offer paved parking, 26 campsites with fire rings and BBQ grills, improved river access and potable water. Three Bears changed from day use to donation camping in 2014. Special recreation permits for group camping at Cedar Grove continued for the second year; 5 permits were issued.

Peachuck Lookout: Located just outside the Table Rock Wilderness, Peachuck Historic Lookout is a popular attraction to those hiking in and near the wilderness. The Salem District, with the help of a volunteer group, the "Peachuck Lookouts," completed annual maintenance on both the Lookout and the Lookout Trail.

Non-Motorized Trails

Sandy Ridge Trail System: The BLM continued the development and maintenance of the Sandy Ridge Trail System in partnership with the Northwest Trails Alliance, the International Mountain Bicycling Association and several Portland based bicycle retailers. A $30,000 grant from Clackamas County Tourism contributed to the construction of a new beginner-friendly trail. The Sandy Ridge Trail System hosted a record attendance in 2014. Visitor levels increased from 500 to 120,000 annually in the span of 5 years.

Alsea Falls Trail System: In June 2014, the Alsea Falls Trails System was re-opened to the hiking and biking public. Six miles of trail are available for use now. Construction on additional trails is ongoing. Team Dirt, a Corvallis-area mountain bike group volunteered over 2,000 hours in 2014 building and maintaining the Alsea Falls trail system. The group also sponsored trail shuttle days in June and September 2014 that attracted over 100 participants for each event.

Molalla Shared-Use Trail System: The BLM continues to partner with Molalla RiverWatch to maintain the trail system. The Horse, Hiker and Mountain Biker Annual Ride, a partnership event between the BLM and Molalla Riverwatch, held its 19th event in September. Monies generated from this event are spent on the shared-use trail system.

Motorized Roads and Trails

Off-Highway Vehicle Areas (OHVs): More than 5,000 visitors used the Upper Nestucca OHV Trail System. The Salem District worked in partnership with the Applegate Rough Riders and Antfarm Youth Core to maintain 25 miles of trail in the system. Applegate Rough Riders sponsored five weekend trail work parties and an Earth Day event.

Back Country Byways

The Salem District continued to maintain signs and facilities along the Quartzville Creek, South Fork Alsea, and the Nestucca River National Back Country Byways. An analysis for the Environmental Assessment is currently taking place for the Nestucca River National Back Country Byway project.

Project objectives are to provide visitors a safe, scenic travelling experience on the Byway and facilitate management of resources while minimizing potential adverse impacts to the environment. The project includes paving the 2.7 miles that is currently gravel surfaced; minor road realignment and subgrade widening; replacing undersized or failing culverts; installing additional cross drains; installation of a two-lane bridge; and repainting both center and fog lines along the route.

Research

In 2014, the Salem District maintained cooperative relationships with research organizations including Oregon State University (OSU), Portland State University, University of Washington and the USDA Forest Service Forest Sciences Laboratory in Corvallis (part of the Pacific Northwest Experiment Station, or PNW).

The Salem District hosts four of the twelve replications of the *Western Oregon Density Management and Riparian Buffer Study* (Establishment Report and Study Plan, USGS, 2006-5087). The objective of the research, begun in 1994, is to study the efficacy of treatments in forest stands to restore late-successional habitat attributes, and the effects of thinning and buffers on aquatic and riparian ecosystems. This study has helped the BLM in effectiveness and validation monitoring identified in the 1995 RMP. In 2012, the District concluded the "Phase 2" treatments and researchers began post-treatment data collection.

In 2014, the focus of work in the Density Management Study (DMS) was field maintenance activities, data analyses and reporting. Data collection continues, using cover boards to monitor salamander presence and data-loggers to continuously monitor in-stream water temperatures and above stream air temperatures. Initial results of temperature responses were presented at the International Union of Forest Research Organization World Congress in October, 2014. An analysis of radiation loading compared modeled estimates from the NetMAP watershed assessment tool to radiation estimates derived from hemispherical photographs taken at the research sites. Finally, the PNW funded an agreement with the University of British Columbia to develop a model-based analysis of the spatial and temporal dynamics of stream temperature for the integrated stream network at Keel Mountain.

Five-year post-Phase 2 surveys were conducted at one Salem site, Callahan Creek, in 2014.

Researchers conducted a conference at OSU and a field tour to Salem's Green Peak study in October 2011 to present and explore findings to date. The proceedings are now available at: http://www.fs.fed.us/pnw/pubs/pnw_gtr880.pdf .

In 2014, Dr. Deanna Olson (PNW) authored and/or co-authored 7 journal articles on the Density Management and Riparian Buffer Study, including a special issue of the journal *Forests* on the topic: 'Salamanders in Forests'. Dr. Julia Burton (OSU) authored a 2014 journal article addressing spatial heterogeneity of understory vegetation at a subset of the DMS sites. Dr. Kenny Ruzicka (OSU) authored his PhD dissertation based on DMS sites on riparian tree responses to upslope density reduction.

In 2014, BLM funded a study with Dr. Klaus Puettmann and Dr. Julia Burton of OSU to assess potential climate change impacts on understory plant species using DMS sites and data.

At a proposed thinning project on Marys Peak Resource Area (Rowell Creek), Dr. Olson is conducting a pilot study to maintain over-ridge forest connectivity between headwater riparian areas of two watersheds undergoing timber harvest. Initial pre-treatment surveys of amphibian fauna at the site were completed in 2013 and 2014. Treatment implementation is expected in 2016.

In 2014 the BLM, in cooperation with the US Environmental Protection Agency (EPA), Portland State University and University of Washington continued to fund ongoing research on the Panther Creek Watershed on the Salem District. A group of researchers are using intensive LiDAR imaging to study forest and soil carbon pools, to model climate change impacts to Coast Range forests, and the use of terrestrial LiDAR scanning for inventory and tree species identification.

The Salem District partnered with Oregon State University and the Oregon Parks and Recreation Department to conduct a visitor capacity study of the lower Sandy Wild and Scenic River. The study administered 600 visitor surveys about recreational use of the river and the satisfaction level of visitors. The results will be used to help determine future management of the river.

Silviculture

For the second decade of the RMP, Salem BLM completed approximately ten percent of the projected RMP accomplishments. Due to the low levels of regeneration harvest, the District will continue to accomplish a small percentage of the RMP silvicultural targets for the short term, including:

In FY 2014, the Salem District:

- Did not treat any acres with prescribed fire for site preparation.
- Treated 48 acres with manual brush-cutting, piling, lopping and scattering site preparation techniques. These treatments totaled one percent of the planned amount for the second decade. Two of the projects restored Oregon white oak habitat.
- Planted 34 acres with regular planting stock, which is less than one percent of the amount projected in the RMP.
- Planted 385 acres with genetically improved planting stock, which is eight percent of the amount projected in the RMP. The seedlings were grown from improved seed produced by Horning Seed Orchard, the offspring of trees on the Salem District selected for genetic quality.
- Accomplished 1,028 acres of maintenance and protection treatments. The amount of maintenance and protection last year is three percent of the planned amount for the second decade, again due to low levels of regeneration harvest.
- Completed 1,360 acres of pre-commercial thinning (PCT), which was 4.6 percent of the planned amount for the second decade of the RMP.
- Completed 177 acres of tree pruning to improve wood quality and 33 acres of pruning to control white pine blister rust in 2014. The RMP did not project a decadal estimate of pruning acres.

Salem District has not done any fertilization since 1999 due to Survey and Manage protocols and continued litigation. During the second decade of RMP implementation, Salem achieved zero acres of the decadal fertilization goals.

Socioeconomic Conditions

The Salem District contributes to local, state, national, and international economies through monetary payments, sustainable use of BLM-managed lands and resources, and through the use of innovative contracting.

Monetary Payments

The Bureau of Land Management contributes financially to the local economy through Payments in Lieu of Taxes, Oregon and California (O&C) payments, and Coos Bay Wagon Road (CBWR) payments.

Payments in Lieu of Taxes

Payments in Lieu of Taxes (PILT) are federal payments made annually to local governments to help offset losses in property taxes due to nontaxable federal lands (public domain) within their boundaries. The key law that authorizes the payments is Public Law 94-565, dated October 20, 1976.
This law was rewritten and amended by Public Law 97-258 on September 13, 1982 and codified as Chapter 69, Title 31 of the United States Code. The law recognizes that the inability of local governments to collect property taxes on federally owned land can create a financial impact.

The PILT payments help local governments carry out vital services such as firefighting and police protection, construction of public schools and roads, and search-and-rescue operations. The PILT payments are one of the ways that the federal government can fulfill its role of being a good neighbor to local communities.

Payments to Counties

The Secure Rural Schools and Community Self-Determination Act of 2000 (Public Law 106-393) established a Salem District Resource Advisory Committee (RAC) and a six-year payment schedule to local counties in lieu of funds derived from the harvest of timber on federally managed lands. These receipts have dropped dramatically over the past 15 years. In addition to providing millions of dollars to the counties under Title I of the Act, the Act also created a mechanism for local communities to collaborate with federal land managers in the selection of projects to be conducted on federally managed lands or to benefit resources on federally-managed lands. Funds for these efforts are provided through participating counties under Title II of the Act. A copy of the Act and additional information can be found at http://www.blm.gov/or/rac/ctypayracinfo.php.

On February 27, 2014, the Salem RAC met and recommended funding for over $500,000 in Title II projects in 11 counties. In May 2014, Salem District Manager Kim Titus approved funding for these projects. A wide variety of projects were funded in 2014 including noxious weed programs, county law enforcement support contracts, and youth stewardship programs. A complete list of projects and funding levels is available on the Salem BLM website at:
http://www.blm.gov/or/districts/salem/rac/index.php.

Special Forest Products

The Salem District issued 392 Special Forest Products contracts. The contracts resulted in $26,228 in receipts.

Table 11 - FY 2014 Special Forest Products Sales

Special Forest Products	FY 2014				Cumulative - 2nd Decade - FY 2005 - 2014			
	Pounds		Contracts	Value ($)	Pounds		Contracts	Value ($)
Boughs	25,700		4	$1,756	309,004		75	$34,386
Burls and Miscellaneous	N/A		1	$13	1,965		11	$132
Edibles and Medicinals	0		0	$0	960		4	$71
Floral and Greenery	10,000		12	$800	431,309		213	$34,661
Moss and Bryophytes	0		0	$0	500		1	$1,846
Mushrooms and Fungi	14,340		77	$1,814	166,154		1,194	$26,572
	Trees				**Trees**			
Christmas Trees	0		0	$0	11		8	$152
	Tons				**Tons**			
Feed and Forage	0		0	$0	1,937		6	$2,031
	Bushels				**Bushels**			
Seed and Seed Cones	0		0	$0	120		2	$120
	Plants				**Plants**			
Transplants	2,000		1	$40	25,960		91	$8,580
	Cubic Feet	**Green Tons**			**Cubic Feet**	**Green Tons**		
Firewood and Wood Products*	19,739	1,447	288	$21,805	1,143,892	4,792	1,686	$67,227
Total for all Products			**392**	**$26,228**			**3,291**	**$175,778**

* To avoid double counting, this line does not include saw timber which is reported elsewhere. In 2009 the Salem District changed the unit of measure for firewood from cubic feet to green tons.

Transportation and Roads

The Salem District road system includes approximately 2,400 miles of road. The District has not received adequate road maintenance funding to maintain the current road system; so the District has deferred maintenance on approximately 1,700 miles of road.

The District maintains arteries[1] yearly because of BLM manual requirements and active use by the BLM, private timber companies, and public users. The goal of the Salem District Road Maintenance Program is to maintain system roads, other than the arteries, on a three-year cycle. With current funding, the District cannot meet this cycle as the maintenance crew and resource area contracts are covering only about half of the annual requirement for road maintenance.

In 2014, Salem road maintenance personnel maintained approximately 288 miles of road. Additional road maintenance work included replacing surface rock, maintaining road shoulders on asphalt roads, patching and cleaning asphalt roads, and removing trees and vegetation across roads blown down by winter storms. A separate Marys Peak Resource Area contract maintained approximately 125 miles of road. Contractors completed road system maintenance through timber sales and other contracts or agreements.

Table 12 - Road Maintenance Work

FY 2014 Road Maintenance Actions	**Salem District Personnel**	**Contract Personnel** (Marys Peak contract**)**	**Contract Personnel** (timber sales, etc.)	**Industry Users** (right-of-way agreements or permits)	**Remarks**
Road Miles					
Graded aggregate roads	188	55	7	107	
Cleaned ditches	150	70	5	1	
Cut brush to increase visibility	152	85	5	140	
Decommissioned roads			0		
Blocked or gated roads			2		
Water barred or storm proofed roads			17		
Improved or reconstructed existing roads			26		
Constructed temporary roads to be decommissioned upon timber sale completion			4		
Brushing, surface grading, ditch cleaning, and the placement of rock.	110	142		107	

[1] Artery - A main transportation route into which local routes flow.

FY 2014 Road Maintenance Actions	**Salem District Personnel**	**Contract Personnel** (Marys Peak contract**)**	**Contract Personnel** (timber sales, etc.)	**Industry Users** (right-of-way agreements or permits)	**Remarks**
Cubic Yards					
Cleaned road right-of-way by removing slide or slough material	540	5500			
Replaced surface rock		2775			
Number					
Cleaned culverts	557	30			
Cleaned bridge decks		4			
Replaced culverts that blocked fish passage			2		
Installed gates					
Replaced or installed culverts		25	155		

Visual Resources

Visual resource management guidelines continued to be implemented during analysis of all proposed projects and actions. In 2014, BLM assessed visual resources on timber sale planning, river restoration and recreation management related projects. The Salem District reviewed a new Visual Resource Inventory for all lands within the District as part of the Resource Management Plan for Western Oregon effort.

Volunteer Program

Six hundred Salem District volunteers and hosted workers logged approximately 33,237 hours during Fiscal Year 2014. Their contributions are valued at $749,494 (based on the 2013 dollar value of a volunteer at $22.55 per hour). BLM costs to support the volunteer program were $32,527. Volunteers contributed work in a variety of programs, none of which could have been accomplished with BLM funds alone. Some volunteers sought work experience, while others wanted to contribute toward a worthwhile project.

Yaquina Head Outstanding Natural Area

During FY 2014, 55 individual volunteers and several groups of volunteers donated 8,263 hours of time valued at $186,331, to Yaquina Head Outstanding Natural Area. Yaquina receives 331,000 visitors per year.

Fourteen interpretive hosts, who lived on site in their recreational vehicles (RVs), volunteered 3,147 hours for Yaquina Head. The hosts served as front-line interpreters and educators involved in resource protection and education of the intertidal area, marine mammal and sea bird education and greeting and orientating visitors entering the Interpretive Center.

Ten youth volunteers served 3,148 hours as Resource Education and Interpretation Apprentices. They instructed approximately 5,000 school children who visited Yaquina Head on field trips and they worked with "regular" family visitors throughout the summer and fall. Apprentices were supported, in part, by funds provided through an Assistance Agreement with Friends of Yaquina Lighthouses.

Yaquina Head's volunteers provided invaluable service to the BLM and the many visitors who came from all over the world to visit this small National Landscape Conservation Site on the Central Oregon Coast.

Team Dirt, Alsea Falls Trail System

More than any other project in the Salem District, the development of the new trail system at Alsea Falls epitomizes what it means for a public lands effort to be "community-based." Equal parts federal investment and volunteer sweat equity, the partnership between Team Dirt and the BLM's Salem District has resulted in a new recreational amenity halfway between the growing communities of Corvallis and Eugene, Oregon. The Alsea Trail System has already served nearly 6,000 visitors in just four short months.

Team Dirt is a club chapter of the International Mountain Bicycle Association based in Corvallis, Oregon. With 75 plus members, Team Dirt represents a constituency of recreationists in the central Willamette Valley committed to working with land managers to expand and improve access to off-road cycling.

Through persistent marketing and effective recruitment, the club was able to host more than a dozen organized work parties, ranging in size from 10 to 36 volunteers. Informal 'pop-up' work sessions were commonplace during midweek days, with several dedicated volunteers taking the time to clear a trail of a downed tree or put the final touches on a prized section of trail. From October 2013 to the end of September 2014, club members devoted nearly 2,000 hours to the Alsea Falls Trails project!

The year was marked by several successes: Foremost, the trail system opened to the public on June 22, 2014. The public reaction was immediate and resounding. The Oregonian, Corvallis Gazette-Times and Salem Statesman-Journal penned highly complementary pieces about the project. The media attention and quality of the trails drew big crowds, with an estimated 1,000 to 1,500 riders enjoying the trails each month during the summer season. Second, the club was able to create a stable, effective working relationship with the BLM that included two fundraisers and an increase in the visibility of the trail system. Lastly, the successful efforts of trail building and volunteer advocacy at Alsea are already being exported elsewhere, including the Oregon State University's MacDonald Dunn Forest and the Siuslaw National Forest.

With momentum building, it looks like FY 2015 will be another successful year for the BLM, Team Dirt and the Alsea Falls Trail System.

Cascades Resource Area

Floyd and Opal Jensen, volunteer campground hosts at the Bureau of Land Management's (BLM), Fishermen's Bend Recreation Site, west of Mill City, were awarded BLM's national "Making a Difference Lifetime Achievement Award," for contributing more than 17,000 hours of volunteer service at the park. They received their award at the BLM's State Office in Portland and participated in the Washington DC ceremony via video connection.

Oregon State University (OSU) Extension Service-Marion County-Youth Enviro Squad

The Bureau of Land Management partnered with Oregon State University Extension Service – Marion County- Youth Enviro Squad Forest Stewardship Program to engage youth in sustaining healthy forest and natural areas through service learning. One hundred forty seven students contributed 1,300 volunteer hours from October 1, 2013 through September 30, 2014. They worked in five locations: Fishermen's Bend, Bear Creek-Little North Fork, Cascade Park, Winema Wayside and Silver Falls.

The Youth Enviro Squad, made up of under-served students, participated in watershed restoration projects, they removed noxious weeds and helped improve forest ecosystem health. Through this work, they gained an understanding of sustainability and environmental stewardship, and they were exposed to careers in the natural resource fields.

Humboldt Marten Collaboration between OSU and the BLM

Six Oregon State University (OSU) undergraduate students contributed 2,400 volunteer hours on an OSU research project to study the effects of landscape-scale forest management on Pacific marten occupancy and population connectivity in coastal Oregon. The project provided research experience in conducting field surveys, and data management activities. The field work occurred on forest lands managed by BLM, Siuslaw National Forest, Rogue-Siskiyou National Forest and Plum Creek Timber Company.

The field work will continue in the summer of 2015. The project provides information on the Humboldt marten to forest managers and biologists. The Humboldt Marten Conservation Committee also includes several Oregon coast private timber companies, U.S. Fish and Wildlife Service, Forest Service, Oregon Department of Forestry and Oregon Department of Fish and Wildlife. The BLM contributed a vehicle, fuel, field supplies, drivers training and first aid training for the field team.

Water Quality and Soil

Salem District's foremost water and soil objective is to provide conditions supporting high quality water for domestic drinking and fish habitat. The District promotes protection of soils to promote soil quality, maintain site productivity, reduce sediment delivery to the waterways, prevent the occurrence of landslides, and enhance the overall watershed health.

Water Pollution Management and Best Management Practices (BMPs)

Best Management Practices (BMPs) are the primary controls for achieving Oregon's water quality standards and are used to meet water quality objectives when implementing site-specific management actions. The BLM designed BMPs to meet Oregon Administrative Rules (OARs) related to Oregon Department of Environmental Quality's (ODEQ) Water Quality Standards. Salem District works with federal, state and other stakeholders within the affected watersheds to ensure that timber harvest and road building BMPs are designed in a manner to protect all beneficial uses.

Water Quality Monitoring

The Monitoring section of this APS describes water quality monitoring in FY 2014.

Water Body and Fragile Area Identification and Protection

Salem District protects flood plains, wetlands, streams, and lakes through implementation of the Aquatic Conservation Strategy as described on pages 5-7 of the RMP. District personnel identify these water features in the field and apply standards and guidelines appropriate for operation in the vicinity of these areas. The Geographic Information System (GIS) hydrology theme tracks the field mapping of water features. Resource Area specialists recommend project design features and BMPs that protect aquatic systems and associated fragile areas during the project level analysis. By identifying the required BMPs and design features in the project analysis, they are easier to bring forward when writing contracts for the activities.

Water Quality Restoration

The BLM has developed Water Quality Restoration Plans (WQRP) and submitted them to ODEQ for approval following the development of a Total Maximum Daily Loads (TMDL) order by ODEQ. The WQRP is the implementation plan on how Salem District BLM will meet the TMDL Order. Salem District Staff completed a draft WQRP for the Tualatin River Sub-basin and submitted it to ODEQ for approval.

In 2014, the following projects were completed by the Resource areas that were consistent with the following Water Quality Restoration Plans: the Sandy River WQRP, the North Santiam WQRP, the Nestucca River WQRP, the North Coast WQRP and the Middle Willamette WQRP. The projects added complexity to the fisheries habitat, promote formation of pool habitat and aid in reducing water temperature.

Cascades Resource Area continued its partnership work in the Salmon River by placing 370 pieces of large woody debris to improve hydrologic function and fisheries habitat. This work will continue in 2015 as part of a multiyear project. Large wood was also placed in Elkhorn Creek (18 trees) and the Little Sandy River (63 trees).

Marys Peak Resource Area placed 80 pieces of large woody debris in Rickreall Creek.

Tillamook Resource Area felled 20+ trees into Walker and Fan Creeks in the Nestucca watershed to improve hydrologic function and fisheries habitat. The Resource Area added 38 logs to Gunner Creek in the East Fork of the Nehalem River to improve stream complexity, moderate water temperature and improve fisheries habitat.

Oregon Watershed Enhancement Board (OWEB)

The Salem District continues to support watershed councils in improving water quality and salmon habitat in watersheds across the District. Resource area and district staff hydrologists are members of two OWEB regional teams that review project proposals and help watershed councils develop proposals for watershed restoration. In 2014, the two regional OWEB teams reviewed and prioritized more than 100 projects.

303d Listed Streams

The Salem District administers lands in 14 sub-basins that contain 303d listed streams. ODEQ recognizes these streams are impaired and that they do not meet state water quality standards. ODEQ develops Total Maximum Daily Loads (TMDL) Orders and Water Quality Management Plans (WQMP) for these sub-basins. The BLM, as a designated management agency, complies with the TMDL Orders and develops WQRPs to assist the basins in meeting the specifics of the TMDL Order.

In 2014, the BLM served as a designated management agency representative in developing an implementation-ready TMDL order for the mid-coast basin. The District expects collaboration with ODEQ to continue and that they will issue an implementation ready TMDL order for the mid-coast basin in late 2015. The mid-coast basin contains BLM administered lands in both the Eugene and Salem Districts. Table 13 shows the work completed thus far for each listed sub-basin.

Table 13 - Planning for TMDL

Sub-basin Name	Stream Segment (303d Listing Parameter)	TMDL Status
Clackamas River	Clackamas River (temperature)	The Environmental Protection Agency (EPA) approved the TMDL Order and the WQMP in 2006. BLM completed the WQRP in 2008.
Mid-coast basin	Alsea River, Bummer Creek, Drift Creek, Fall Creek, Lobster Creek, Little Lobster Creek, Peak Creek, Siletz River and Slick Rock Creek (sedimentation and turbidity)	The Oregon Department of Environmental Quality (ODEQ) is working on an implementation-ready TMDL order for the Mid-coast Basin planned for 2015.
Molalla-Pudding River	Molalla River and its perennial tributaries and the Pudding River Tributaries (Abiqua, Butte and Rock Creek) (temperature)	ODEQ completed the TMDL order and WQMP in 2008. ODEQ approved the BLM WQRP in 2012.
North Coast	East Fork Nehalem (temperature)	EPA approved the TMDL order and WQMP in 2003.

Sub-basin Name	Stream Segment (303d Listing Parameter)	TMDL Status
Nestucca River Tillamook Bay Watershed	Trask River and Wilson River (temperature) Nestucca River and East Fork Beaver Creek (temperature and sedimentation)	ODEQ completed the TMDL order and WQMP for Tillamook Bay and Nestucca Bay. EPA approved these documents in 2001 and 2002.
Sandy River	Salmon and Sandy River (temperature)	EPA approved the TMDL order and WQMP in 2005. BLM completed the WQRP in 2009.
North Santiam River	Little North Santiam, Elkhorn Creek and North Santiam River (temperature)	EPA approved the TMDL order and WQMP in 2006. BLM completed the WQRP in 2008.
South Santiam River	Thomas Creek, Hamilton Creek, Crabtree Creek and Quartzville Creek (temperature)	EPA approved the TMDL order and WQMP in 2006. BLM completed the WQRP in 2008.
Tualatin River	East Fork Dairy Creek, Scoggins Creek and McKay Creek (temperature)	In 2012, DEQ issued a Revised TMDL Order for the Tualatin Basin to incorporate additional parameters into the TMDL Order. The BLM submitted a draft WQRP for BLM administered lands within the Tualatin Basin in 2014.
Lower Willamette River	Scappoose Creek (temperature)	EPA approved the TMDL order and WQMP in 2006. BLM completed the WQRP in 2008.
Middle Willamette River	Rickreall Creek (temperature)	EPA approved the TMDL order and WQMP in 2006. BLM completed the WQRP in 2008.
Upper Willamette River	Marys River (temperature)	EPA approved the TMDL order and WQMP in 2006. BLM completed the WQRP in 2008.
Yamhill River	Mill Creek (temperature) North Yamhill River (temperature) Turner Creek (temperature)	The TMDL order is on hold based on ODEQ's staffing level. The BLM is partnering with ODEQ and the Greater Yamhill Watershed Council to continue to collect water temperature data for this effort.

Wildlife

The type of work affecting wildlife and wildlife habitat depends on the land use allocation. Projects follow the recommendations identified in watershed analyses and Late-Successional Reserve (LSR) assessments. BLM designed forest management activities in LSRs to enhance late-successional forest characteristics for wildlife habitat. This habitat enhancement is for species ranging from raptors to invertebrates. It also benefits fungi, bryophytes, and vascular plants.

The District designed forest management actions within Matrix allocations, which include General Forest Management Area (GFMA), Adaptive Management Area (AMA), and Connectivity areas to meet timber management objectives in conformance with RMP standards and guidelines. Mitigating measures to reduce impacts to wildlife in regeneration harvests or to improve habitat in other kinds of timber treatments include green tree retention, snag retention and recruitment, and management to increase coarse woody debris. In 2014, Salem BLM did not implement any regeneration harvest as defined in the RMP.

Salem District created snags on 1,127 acres to benefit forest birds, bats, and arboreal rodents. The District also created coarse woody debris on 1,089 acres to benefit forest floor species such as mollusks, salamanders, and prey species for northern spotted owls and other raptors. These treatments included work in GFMA and reserves.

Green Tree Retention: Salem did not implement any regeneration harvest that required green tree retention. See above.

Connectivity / Diversity Blocks: Salem District conducted 55 acres of commercial thinning in Connectivity/Diversity blocks.

Special Habitats: Cascades Resource Area, in partnership with the Nature Conservancy, completed 190 acres of invasive plant management and habitat improvement along the Sandy River.

In fiscal year 2014, the Salem District, in partnership with Northwest Habitat Institute and Ecology staff from the USDA Forest Service, PNW Region, completed inventory of special habitats on federal lands within 70 USGS Quads in Northwest Oregon. The areas total 150,214 acres of Salem District BLM. In addition, 194,485 acres of USDA Forest Service lands (Mt. Hood, Willamette, and Siuslaw National Forests) were surveyed. Inventory methods used LiDAR images and aerial photo analysis to identify and delineate more than 5,242 distinct areas of wetlands, meadows, and rock outcrops. One hundred twenty sites were ground-verified and classified by ecologists. The inventory will be completed in 2015. The inventory will improve the District's ability to identify and manage special habitats for their unique values.

Nest Sites, Activity Centers, and Rookeries: Marys Peak Resource Area discovered two new potential marbled murrelet nesting areas. Cascades Resource Areas found one new great blue heron rookery on the lower Clackamas River Island Parcel. BLM protected known raptor, spotted owl and marbled murrelet nesting trees and active nests, throughout the Salem District, by placing seasonal restrictions on nearby projects to discourage nest abandonment. The District topped 586 trees to provide nesting or perching structures for forest raptors.

Elk Habitat: The BLM did not decommission any miles of road for elk habitat.
Late-Successional Reserve (LSR) Habitat Improvement: The Salem District implemented 1,508 acres of on-the-ground, (not just sold and awarded) density management treatments in 26 project areas to accelerate the development of late-successional characteristics in LSR, Adaptive Management Areas within LSR (AMR), and Riparian Reserve (RR) land use allocations. From 1996 through 2014, Salem treated 7,233 acres.

The District also completed 624 acres of pre-commercial thinning in very young LSR stands to accelerate the development of forest structure. Some of the pre-commercial thinning incorporated specific practices to culture open-grown trees: wide spacing (21 to 47 foot spacing) and clearing gaps around selected trees.

Other Wildlife Habitat Improvements: The Cascades Resource Area completed 724 acres of variable density pre-commercial thinning, 30 acres of low density thinning openings, and 30 acres of native planting to enhance habitat in the Molalla and Quartzville LSRs.

Special Status Wildlife

Salem completed surveys for special status species (listed as BLM sensitive and federally threatened or endangered), or Survey and Manage wildlife species prior to all ground disturbing activities. The District conducted approximately 10,888 acres of pre-project surveys in 2014, bringing the total from 1996 through 2014 to 171,506 acres.

Bureau Sensitive or Survey and Manage Wildlife

In FY 2014, BLM surveyed for the following species:

Oregon Red Tree Vole: Contract and in-house crews ground-surveyed 751 acres to pre-project protocol standards. Crews climbed 85 trees to verify vole nest structures and to conduct population monitoring.

Bald Eagles: Salem District biologists surveyed eight known bald eagle nesting sites for eagle activity and reproductive success; eight adults and one nestling were observed. Staff observed six eagles during the winter bald eagle count, and observed no eagles at the largest known winter roost site on the Salem District.

Harlequin Ducks: District biologists conducted harlequin duck surveys on the Molalla River and Table Rock Fork (20 river miles), North Santiam River (8 river miles) and Quartzville Creek (7 river miles), and Canal Creek (1 river mile) for a total of 36 river miles. Staff observed 24 adult ducks.

Amphibians: District staff monitored two sites (Soosap and Mikes Meadow) for the presence of the Cascades frog.

Mollusks: Contract and in-house crews surveyed 1,977 acres to protocol for several mollusk species identified as potential inhabitants of the Salem District.
They included the Oregon megomphix snail, Crater Lake tightcoil snail, Cascade axetail slug, warty jumping slug, spotted tail-dropper slug, Pacific walker snail, evening field slug, and the Puget Oregonian snail.

Bats: Salem District biologists investigated one cave for possible bat resources.

Threatened or Endangered (T/E) Wildlife

Interagency teams continued using the Section 7 of the Endangered Species Act streamlined consultation process. Level one teams, consisting of local employees from the BLM, Forest Service, and U.S. Fish and Wildlife Service (USFWS), regularly met to accomplish consultations. In FY 2014, the cooperating agencies prepared and submitted the following batched biological assessments to the USFWS. Table 14 summarizes the latest consultation.

Table 14 - ESA Consultation

Type of Consultation	Province	Type of Actions	Consultation Results
Informal	North Coast	"not likely to adversely affect" for FY 2015-16 Habitat Modification Projects	BLM received a Letter of Concurrence from USFWS.
Formal	Willamette	"likely to adversely affect" for FY 2015 Habitat Modification and Disruption Projects	BLM received a biological opinion from USFWS.

Marbled Murrelet:

The Salem District has 35 known occupied murrelet sites in reserved land-use allocations in the Coast Range. RMP direction requires two years of surveys for marbled murrelets on all projects that will modify suitable murrelet habitat in the Coast Range. From 1995 through 2014, the District completed surveys, where required for specific projects, in accordance with established protocol. This year, Salem BLM conducted 72 surveys for marbled murrelets in ten project areas covering 360 acres. Surveys detected murrelet presence at two of the project sites. For murrelet monitoring efforts, see the Monitoring Section of this document.

Northern Spotted Owls:

The Salem District has 62 occupied spotted owl sites. Surveys conducted in the past five years determined northern spotted owl occupancy. The District conducted 102 pre-project northern spotted owl surveys in 13 project areas covering 7,800 acres. The following paragraphs summarize the spotted owl 2014 survey results:

Cascades Resource Area – Northern Spotted Owl 2014 Survey Summary

The Cascades Resource Area consists of 175,000 acres of BLM land in the Cascades Range of Western Oregon, located in Multnomah, Clackamas, Marion and Linn counties. BLM lands are intermingled with State and private industrial lands. The primary objective of this project is to inventory multi-ownership lands for spotted owls through comprehensive surveys in cooperation with the State and adjacent private landowners. The intent is to track spotted owl occupancy, nesting status, and reproductive success over time. This cooperative effort is supported by all parties contributing funding and in kind services to accomplish the workload. The information collected helps in developing planning projects that minimize impacts to spotted owls across the landscape.

In 2014, the Cascades Resource Area had a new contractor. E.Tegrity Consultants took over survey responsibilities under a new District-wide Owl Survey Contract. Protocol surveys were conducted for the tenth year in portions of the Snow Peak, Quartzville and Whitcomb Late Successional Reserves (LSRs). Contractors surveyed Table Rock, Horse Creek and Lukens Creek LSRs for the eighth year; and conducted additional surveys in the Little North Santiam, Thomas Creek, Gawley Creek, Horse Creek, the South Santiam, and the Middle Santiam Watersheds.

Of the 66 known spotted owl sites surveyed that are on or near BLM lands, the BLM contractor surveyed 40 sites, and State and private surveyed 26 sites in 2014. Of these 66 sites surveyed, spotted owl pairs occupied 15 sites (23%), singles occupied 8 sites (12%) and the contractor heard no responses in 37 sites (56%). In addition, the contractor heard one pair response and three single responses from spotted owls not associated with known sites.

The contractor confirmed no new spotted owl sites in 2014, although a nesting pair of spotted owls occupied the Gawley Creek site for the first time since 1989.

FY 2014 was a noteworthy year for northern spotted owl reproduction in the cooperative area. Surveys documented 14 juveniles at nine spotted owl known sites in 2014, which is the most since 1998 when surveys documented 18 juveniles. During the winter of 2013-2014, snow accumulation was well below average. The winter was not nearly as severe as it has been during the last ten or so years. Surveyors were able to access survey areas 4 to 6 weeks earlier than in 2013 to start surveys. The spring weather was much milder than recent years, with no severe wintery storms.

Unfortunately, it was a banner year for barred owls as well. Surveys documented barred owls in 40 of the 66 known spotted owl sites (61%) surveyed in the cooperative area this year. Barred owl pairs occupied 17 known spotted owl sites, singles occupied the remaining sites. In addition, there were 9 pairs and 25 single barred owl detections not associated with known spotted owl sites. Surveys detected 16 barred owl juveniles in 2014, of which 11 were in known spotted owl sites. Surveys did not detect any "sparred" owls in 2014.

It appears that the milder winter/spring weather contributed to higher reproduction in 2014. It is also of interest to note that of the nine pairs of spotted owls that fledged juveniles in 2014, surveys did not detect any barred owls at seven of these sites.

Mary's Peak Resource Area - Northern Spotted Owl 2014 Survey Summary

The Marys Peak Resource Area consists of 128,000 acres of BLM-managed land in Benton, Lincoln, and Polk counties. With the cooperation of timber companies, consultants, and the Pacific Northwest Research Station (PNW), the surveyors conducted 122 survey visits at 33 spotted owl sites (33,000 acres surveyed) on BLM and adjacent landowners within the resource area. The PNW owl crew monitored 28 of these sites (95 survey visits) as part of their Coast Range Demographic Study. BLM staff, along with a contractor, surveyed five spotted owl sites (27 survey visits). Spotted owls occupied 9 sites (four pairs and five resident singles), while surveys determined no spotted owl occupancy at 21 sites.

A total of 12 individual spotted owls were encountered on all surveys (8 females and 4 males). Six of the females were confirmed as banded in previous years, while 2 of the males were previously banded. Two of the four spotted owl pairs attempted nesting, and one pair produced a single juvenile this year. The successful spotted owl site is a newly established pair that is located within a section of BLM land that was commercially thinned 20 years ago. This new nest site location was in an unthinned "skip" that had a few old-growth legacy trees. This successful nesting is an encouraging example of how well-designed thinning harvests can provide suitable habitat conditions and recover sufficient prey populations to support a pair of nesting spotted owls.

Barred owls continue to be encountered throughout the resource area. Twenty-four of the 33 spotted owl sites had one or more barred owls detected. BLM staff also recorded incidental sightings of barred owls at several other locations in the resource area. A single male hybrid spotted-barred owl was detected at a monitoring site that was historically occupied by spotted owls.

In addition to the monitoring of known spotted owl sites, BLM staff and our contractor conducted surveys at two proposed timber sale areas and two proposed spotted owl sites. A total of 24 survey visits were conducted at these 4 locations with no spotted owl detections. Barred owls were detected at three of these survey areas.

Tillamook Resource Area – Northern Spotted Owl 2014 Survey Summary

The Tillamook Resource Area consists of 106,000 acres of BLM land in Clatsop, Columbia, Multnomah, Tillamook, Washington, and Yamhill Counties. The Tillamook Resource Area contains 11 active known or historic spotted owl sites located on or near BLM land. Current and historical occupancy status and monitoring history varies at these sites.

During the 2014 survey season, our cooperators monitored three spotted owl sites (1,500 acres) on BLM or on directly adjacent non-federal lands. BLM monitored one site. Surveyors encountered spotted owls at two sites. The surveyors did not observe any spotted owl fledglings; and detected numerous barred owls.

Youth, Education and Outreach

The Salem District manages approximately 403,870 acres in northwest Oregon, a diverse urban and rural region that stretches from the Pacific Coast to the Cascade crest and includes nearly three quarters of Oregon's population. The District's recreation program serves these residents and nearby communities by providing high quality recreation opportunities, improving physical health, and employing and educating youth. A main component of this service is the program's environmental education and community outreach efforts. Highlighted below are some of the most successful efforts.

Project YESS: Project YESS at Mt. Hood Community College is an education and employment skills development program that serves local low-income, at-risk youth from East Multnomah County. Project YESS is currently engaged in restoration work to support land managers and community partners in the Sandy River Basin.

Yaquina Head Outstanding Natural Area (YHONA): YHONA provides a variety of coastal and marine education programs on ecology, natural systems, and history targeting different age groups, needs, and interests. YHONA presented eleven unique programs to 2,620 people for a total of 204 hours. The programs included Rocky Shores training (70)[2], Lighthouse Halloween (98), Victorian Christmas (284), National Public Lands Day (410), Youth Employment Recruitment Fairs (35), Whale Watch Weeks (1,314), Yaquina Century Bike Race (148), International Migratory Bird Day (278) Environmental Education Spring Staff Training (8) and Interpretive training (10).

YHONA provided educational presentations to schools from throughout Oregon. A total of 6,080 students participated in curriculum-based intertidal ecology programs. Rangers in period costume interpreted lighthouse tours for 18,344 visitors. The YHONA staff presented stewardship information for sensitive resources such as the tidepools, birds and sea mammals to 47,664 visitors. YHONA staff also gave interpretive orientations to 94,245 visitors, about the lighthouse history, natural history of Yaquina Head, and tide pool ecosystems through the Interpretive Center..

[2] The number in parentheses is the number of participants.

Wildwood Recreation Site: More than 48,000 visitors were hosted at Wildwood, including school groups, camps and boy scout troops. The Urban Nature Overnight Program held its 9th event in FY 2014; this partnership with the Oregon Zoo focuses on introducing camping and environmental education to youth from local urban areas. Overnight camping has increased over the years and now includes 4 overnights in 2 weeks annually.
Approximately 30 children ages 8 to 11 participate in a variety of environmental education activities such as nature walks and identification of native flora and fauna, use of camping equipment and basic camping skills.

Fishermen's Bend Recreation Site: Approximately 77,000 visitors were hosted in FY 2014. Fishermen's Bend staff and volunteer hosts presented 21 interpretive/environmental education events to 326 youth and 186 adults. Four of the events were planned and presented with Oregon State University Extension. Program subjects included tree biology, invasive and native plants, aquatic invertebrates and water quality, leave no trace principles, animal tracks and calls, bat ecology, and campfire safety with some hands-on activities such as nature walks, building a hummingbird feeder, and making pressed leaf coasters. The ADA fishing platform/river overlook and associated trails were improved with new asphalt. Additional Fishermen's Bend trail improvements included a trail relocation and removal of two foot bridges for health and safety reasons.

Cascade Streamwatch Partnership: Cascade Streamwatch is an internationally-recognized environmental education program located at Wildwood Recreation Site, just west of Mount Hood. For 20 years the BLM has partnered with Wolftree, a Portland-based nonprofit dedicated to improving environmental awareness. Combining classroom time with hands-on learning, Wolftree brings Oregon's forests and watershed to urban Portland students. Each year, the program serves between 3,000 and 5,000 students.

2014 District Youth Outreach Program: The Salem District Office provided employment (for a minimum of 80 hours, as defined by the BLM) for 125 youth under the age of 25. The District worked with a wide variety of youth crews on several diverse projects including annual trail maintenance, new trail construction, invasive non-native species removal, and park maintenance. The BLM worked with a number of partner organizations including Northwest Youth Corps, Oregon Youth Conservation Corps, Antfarm, Columbia River Youth Corps and Wilderness International to provide these employment opportunities.

COORDINATION AND CONSULTATION

Cities

The Salem District works with cities to ensure that timber harvest and road building are done in a manner to protect water quality in watersheds used by cities for their municipal water supply.

Counties

The Salem District administers land in 13 counties. While involvement levels vary between counties based on the amount of BLM lands, the District frequently communicates with various county commissioners and other staff.

The purpose of this communication is to inform, coordinate, and obtain or provide input on BLM proposed projects. County commissioners and agencies receive copies of all major publications, project updates, and project proposals. The District regularly communicates with the Association of O&C Counties on issues of mutual interest.

Federal Agencies

The NW Oregon Provincial Interagency Executive Committees (PIEC) is a primary method for cooperation and coordination between federal agencies. The PIEC, organized in accordance with the Northwest Forest Plan, includes the following federal agencies: Bureau of Land Management, Forest Service, Bureau of Indian Affairs, Fish & Wildlife Service, Environmental Protection Agency, National Marine Fisheries Service, and Natural Resource Conservation Service. In addition, personnel from several of these agencies participated in project level planning, conflict resolution, Endangered Species Act consultation, and implementation monitoring.

Salem District routinely consults with the Fish and Wildlife Service and National Marine Fisheries Service on actions that may affect species federally listed as threatened or endangered under the Endangered Species Act.

Partnerships

Work continues in the Western Invasives Network to ensure seamless and broad technology transfer and information sharing among members. The members include 8 established cooperative weed management areas in northwestern Oregon and southwestern Washington, and four invasive species working groups. The Willamette Invasives Network facilitated the formation of the Willamette Aquatic Invasives Network in 2014. The focus is on the management of aquatic invasive plants in the Willamette Basin.

The partnership with Project YESS completed its fifth year in 2014. BLM collaborated with Mt. Hood Community College to integrate at-risk students into active stewardship with the Sandy Basin Vegetation Restoration Coalition to restore and manage native plant communities in priority habitat areas. Project YESS students learn how to identify, collect seeds from, propagate and use locally adapted native plant species in restoration projects.

The District continued to benefit from the four year-long partnership with the Eddyville Charter School. The partnership provides for educational opportunities within the Eddyville Charter School as well as providing native plants for restoration activities within the Marys Peak Resource Area. Eddyville Charter School projects include seed collection and native plant propagation. The vision is for this nursery and program to supply plant material for Marys Peak Resource Area restoration projects and South Lincoln County including Yaquina Head and the summit of Marys Peak. Eddyville School intends to sustain a horticulture and conservation program.

In 2014, the District and school focused on restoration at Yaquina Head Outstanding Natural Area and the summit of Marys Peak. At Yaquina Head Outstanding Natural Area, the students planted six native herb species and four tree and shrub species. At the Marys Peak summit, the students planted native blue violets and reseeded native grass seed collected onsite.

Oregon Watershed Enhancement Board (OWEB)

The Oregon Watershed Enhancement Board is a state agency that promotes and funds voluntary actions that strive to enhance Oregon's watersheds. The Board fosters the collaboration of citizens, agencies, and local interests.
The Salem District provides support to OWEB by providing technical assistance to their evaluations teams and work with the local watershed councils on development of grant proposals to OWEB for restoration activities.

In 2013, the Cascades Resource Area provided technical assistance to the Sandy Basin Watershed Council and its partners. Marys Peak Resource Area provided technical assistance to the Yamhill Basin Council on a project to benefit water quality in Gooseneck Creek. The Tillamook Resource Area continued to plan with Tillamook Estuaries Partnership for an in-stream large wood and road decommissioning project on East Beaver Creek (Nestucca drainage). Other planning includes fish passage replacements and discussions on climate change assessments.

Other Partnerships

Table 15 - Other Partnerships Described in this APS

Partners	Types of Projects	Described in APS Section
Applegate Rough Riders	Maintain trails in the Nestucca Trail System.	Recreation – Motorized Roads and Trails
Clackamas County Juvenile Department, Wilderness International	Recreation site and trail maintenance, invasive species removal	Recreation
Corbett School District	Natural resource education programs at Larch Mountain Environmental Education Site	Youth, Education and Outreach
Freshwater Trust, Forest Service and the Tillamook Estuaries Partnership	Juvenile fish density and distribution surveys	Fisheries – Fish Inventory and Assessment
Molalla Riverwatch, American Wildlife Foundation, Wolftree Inc., Peachuck Lookouts, Boy Scout troops, Applegate Rough Riders Motorcycle Club, Northwest and Linn County youth crews, Clackamas County Environmental Youth Corp, AmeriCorp, volunteer hosts, and other individuals	Volunteer work such as campground hosts, trail building, and interpreting sites such as the Yaquina Head Lighthouse	Recreation - Recreation Partnerships and Special Events
Molalla Riverwatch, the Molalla School District, American Wildlife Foundation, and the Northwest Youth Corps	Natural resource education programs at Aquila Vista Environmental Education Site and youth work on trails.	Youth, Education and Outreach
Northwest Habitat Institute	Remote sensing habitat assessment	Special Habitats
Northwest Oregon Ecology Group	Data collection, analysis and assessments	Special Habitats
Northwest Oregon Restoration Partnership	Improve riparian habitat for fisheries and wildlife	Watershed Councils
Northwest Trail Alliance, Oregon Equestrian Trails, Wilderness International and Clackamas County Juvenile Department. the Molalla Saddle Club, and Molalla Riverwatch	Molalla shared-use trail system: Volunteer trail maintenance groups	Recreation – Non-motorized Trails
Northwest Trails Alliance, and the International Mountain Bike Association and several Portland based bicycle retailers	Sandy Ridge Trail System: volunteer labor towards the development of this non-motorized trail system outside Sandy,	Recreation - Recreation Partnerships and Special Events

Partners	Types of Projects	Described in APS Section
	Oregon.	
Sandy River Basin Partners	Chinook and coho salmon and steelhead trout on the Salmon River habitat restoration	Fisheries – Fish Habitat Restoration
Team Dirt	Maintain and construct trails in the Alsea Falls area.	Recreation – Non-motorized trails
The Nature Conservancy, Western Invasives Network	Invasive plant management and habitat improvement	Terrestrial Habitat and Species Management – Invasive Plant Management
Tillamook Estuaries Partnership and Benton county public works	Fish passage projects for Oregon Coast coho salmon	Fisheries – Fish Habitat Restoration
Upper Rickreall Creek Large Woody Debris Restoration -BLM, Rickreall Watershed Council, Polk SWCD, USFWS, Hancock Forest Management, City of Dallas, ODFW.	Streamside tree felling, upland wildlife habitat enhancements, excavator placement of large woody debris, and helicopter placement of large woody debris	Fisheries – Fish Habitat Restoration
Willamina School District and Oregon State University	SMILE (Science & Math Investigative Learning Experiences) program	Youth, Education and Outreach

Public

The District publishes the *Salem District Project Update* quarterly. This publication lists current Salem District projects and serves as a vital part of scoping and solicitation of public comment for all projects. Local newspapers publish legal notices of individual project National Environmental Policy Act (NEPA) documents during the public review periods. The public may obtain the *Salem District Project Update* by joining the mailing list or by viewing it on the Salem District website at: http://www.blm.gov/or/districts/salem/plans/index.php

Resource Advisory Committee (RAC)

See Socio-economics section, Payments to Counties.

State of Oregon

The Salem District continued its long-term working relationships with the Oregon Department of Forestry, Oregon Department of Fish and Wildlife, and Oregon Department Environmental Quality. These relationships cover a diverse assortment of activities such as timber sale planning, fish habitat inventory, wildlife and water quality monitoring, hazardous material cleanup, air quality maintenance, habitat enhancement, and wildfire suppression.

Tribes

The District consults with Native American groups on BLM projects and sends them all major publications, project updates and project proposals. BLM has broadened coordination with Native American groups as a part of the RMPs for Western Oregon planning effort.

Watershed Councils

The Salem District participated in and supported local watershed councils. A watershed council provides a forum for exchange of information and ideas among all interested stakeholders about the activities proposed or occurring within a watershed. Table 16 shows the current status of Salem District involvement in watershed councils.

Table 16 - Salem District Involvement with Local Watershed Councils

Watershed Council	Resource Area	2014 Involvement
Alsea	Marys Peak	Attend Watershed Council (WAC) meeting on a quarterly basis. BLM has a Memorandum of Understanding (MOU) with Alsea WAC on trout and coho large woody debris restoration projects.
Clackamas River Basin	Cascades	Aquatic - Limited involvement. Provide technical support, recommendations on proposed restoration projects. Wildlife - No current interaction on this watershed council.
Lower Columbia River	Cascades	BLM has a MOU for the North Coast Cooperative Weed Management Area. Wildlife - BLM has a MOU for the North Coast Cooperative Weed Management Area. Work together to improve habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership).
Lower Nehalem	Tillamook	Occasional meetings with members. Work together to improve riparian habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). Provide technical committee support as requested.
Luckiamute	Marys Peak	Limited involvement. Collaborate when needed with the project review committee. Have a financial assistance agreement and MOU on Maxfield Creek Restoration Project. BLM has a MOU for the Mid-Willamette Cooperative Weed Management Area. Wildlife - Limited involvement. Collaborate when needed with the project review committee. Have a financial assistance agreement and MOU on Maxfield Creek Restoration Project and Rapid Bio Assessment (RBA) surveys. BLM has a MOU for the Mid-Willamette Cooperative Weed Management Area.
Marys River	Marys Peak	Limited involvement. Collaborate when needed with the project review committee. Have a financial assistance agreement utilizing the Secure Rural School Act (RAC) funds to help implement Duffy Creek Restoration Project. BLM has a MOU for the Upper Willamette Cooperative Weed Management Area. Wildlife - Limited involvement. Collaborate when needed with the project review committee. Have a financial assistance agreement utilizing the Secure Rural School Act (RAC) funds to help implement Duffy Creek Restoration Project. A project is being developed on Botkin Road. BLM has a MOU for the Upper Willamette Cooperative Weed Management Area.

Watershed Council	Resource Area	2014 Involvement
Mid-Coast	Marys Peak	Limited involvement. Maintain communication, provide technical support where needed.
Molalla	Cascades	Limited involvement. Provide technical assistance. Partnered with Watershed Council on completing Rapid Bio-Assessment surveys of the basin.
Necanicum	Tillamook	Work together to improve habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership).
Nestucca/Neskowin and Sand Lake	Tillamook	BLM continues to participate in the Northwest Oregon Restoration Partnership, producing specialized plant material. BLM continues to participate in efforts to secure funding for and implement fish passage improvements. The council successfully completed two fish passage projects in 2013 that were identified in the Nestucca/Neskowin Culvert Prioritization. Wildlife - Work together to improve habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). Provide technical committee support as requested.
North Santiam	Cascades	Limited involvement. Maintain communication, providing technical support on restoration planning on the lower North Santiam River. BLM has a financial assistance agreement for riparian invasive plant management. Noxious weed control.
Pudding River	Cascades	Serve on the technical advisory committee. Regularly attend meeting. Provide assistance on projects, where needed.
Rickreall	Marys Peak	Regularly attend council meetings. Coordinating large woody debris restoration on Upper Rickreall Creek. Completed an MOU along with an Environmental Assessment on a Large Woody Debris project in Rickreall Creek upstream of Mercer Reservoir. Wildlife - Regularly attend council meetings. Coordinate large woody debris restoration on Upper Rickreall Creek. Developing a MOU along with an Environmental Assessment on a Large Woody Debris project.
Salmon Drift Creek	Tillamook	Wildlife - Work together to improve habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership).
Sandy Basin	Cascades	Wildlife - Maintain regular communication and involvement with occasional projects.
Scappoose Bay	Tillamook	Work together to improve riparian habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). BLM has a MOU for the North Coast Cooperative Weed Management Area. Provide technical committee support as requested. The watershed council used Secure Rural Schools Act funding to implement two fish passage projects in 2013.
Siletz	Marys Peak	Not involved at this time.

Watershed Council	Resource Area	2014 Involvement
South Santiam	Cascades	Limited involvement. Maintain communication, provide technical support. BLM has a financial assistance agreement for Crabtree Creek Japanese Knotweed Control and Riparian Restoration.
Tillamook Bay	Tillamook	Work together to improve riparian habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). BLM has a MOU for the North Coast Cooperative Weed Management Area. Provide technical committee support as requested.
Tualatin	Tillamook	Work together to improve riparian habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). BLM has a MOU for the Four County Cooperative Weed Management Area. Provide technical committee support as requested. Using Secure Rural Schools Act funding, a culvert assessment and prioritization was begun in 2013, to be completed during summer 2014. This assessment on private lands will dovetail into a completed assessment by BLM and Washington County Public Works. Wildlife - Work together to improve habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). BLM has a MOU for the Four County Cooperative Weed Management Area. Provide technical committee support as requested.
Upper Nehalem	Tillamook	Provide technical support. Work together to improve riparian habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). BLM has a MOU for the North Coast Cooperative Weed Management Area. Provide technical committee support as requested.
Yamhill Basin	Tillamook & Marys Peak	Regularly attend Council meetings. Assisted in leading watershed tour for stakeholders (federal and state lawmakers). Maintain communication and provide technical support. Cooperating with the watershed council on a restoration project, and provided technical assistance and in-kind contribution of large woody debris. Work together to improve riparian habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership). The council and Grande Ronde Tribe used an Assistance Agreement to fund developing a grant to inventory and prioritize three 5th field watersheds in the Yamhill Basin for fish passage improvements.
Greater Yamhill	Tillamook & Marys Peak	Wildlife - Regularly attend council meetings. Assisted in leading watershed tour for stakeholders (federal and state lawmakers). Maintain communication and provide technical support. Cooperating with the watershed council on a restoration project, and provided technical assistance and in-kind contribution of large woody debris. Work together to improve habitat for fisheries and wildlife by sharing resources, producing specialized plant material and providing education to the local community (Northwest Oregon Restoration Partnership).

PLAN REVISION AND MAINTENANCE

Progress of 1995 Resource Management Plan Implementation

Land Use Allocations

Table 17 shows LUA acreage revisions since the beginning of 1995 RMP implementation.

Table 17 - Revised Acreage within Land Use Allocations

Major Land Use Allocation*	Acres in RMP Record of Decision	Acres before Adjusting for Unmapped LSRs (NSO, MM)	Acres after Adjusting for Unmapped LSRs (NSO, MM)
Late-Successional Reserves (LSR) outside the Adaptive Management Area	132,100	133,472	135,409
Late-Successional Reserves inside the Adaptive Management Area (AMR)	79,700	80,409	80,793
Adaptive Management Area (AMA)	43,700	41,927	41,543
General Forest Management Area (Matrix)	107,300	104,927	104,060
Connectivity / Diversity Blocks (Matrix)	27,400	27,286	26,345
Other	7,900	15,849	15,720
TOTAL	398,100	403,870	403,870

LSR = Late-Successional Reserve, NSO = Northern Spotted Owl, MM = Marbled Murrelet
Riparian Reserves are included in all land use allocations listed above. The amount of acres within Riparian Reserves is estimated at approximately 55 percent of the land base or 222,000 acres (based on mapping and analysis factors).

Survey and Manage Species

On February 18, 2014, the District Court for the Western District of Washington issued a remedy order in the case of Conservation Northwest et al. v. Bonnie et al., No. 08-1067- JCC (W.D. Wash.)/No.11-35729 (9th Cir.). This was the latest step in the ongoing litigation challenging the 2007 Record of Decision (ROD) to modify the Survey and Manage (S&M) Standards and Guidelines.

The remedy order contained two components. The order:

1) Vacates the 2007 ROD to Remove or Modify the Survey and Manage S&M Mitigation Measure Standards and Guidelines, and
2) Allows for continued project planning and implementation for projects that relied on the 2011 Consent Decree and were being developed or implemented on or before April 25, 2013 (date of the Ninth Circuit Court ruling invalidating the 2011 Consent Decree).

Vacating the 2007 RODs has the effect of returning the agencies to the status quo in existence prior to the 2007 RODs. The status quo existing before the 2007 RODs were signed was defined by three previous rulings where:

1) Judge Pechman reinstated the 2001 ROD, including any amendments or modifications to the 2001 ROD that were in effect as of March 21, 2004 (CV-04-00844-MJP, 1/9/2006). This ruling incorporated the 2001, 2002, and 2003 Annual Species Reviews (ASR).
2) Judge Pechman ordered four categories of projects exempt from compliance with the S&M standards and guidelines (CV-04-00844-MJP, 10/11/2006, "Pechman exemptions").
3) The Ninth Circuit Court of Appeals in KSWC et al. v. Boody et al., 468 F3d 549 (9th Cir. 2006) vacated the 2001 ASR category change and 2003 ASR removal for the red tree vole in the mesic zone, returning the species to Category C throughout its range.

In summary, the current status of Survey and Manage is:

1) Follow the 2001 S&M ROD and Standards and Guidelines (S&G);
2) Apply the "Pechman exemptions;" and
3) Implement the 2001, 2002, and 2003 ASR modifications to the S&M species list, except for the changes made for the red tree vole.

MONITORING

Soil Quality

Implementation Monitoring

Best Management Practices for ground-based activities are based on soil moisture levels and typical "dry season" dates. Soil moisture surveys are required to allow the operation to begin outside of established dates to ensure the BMP standard will be met. In 2014:

- The Marys Peak Resource Area monitored four timber sales for soil moisture levels a total of five times to determine when ground based activities could begin.
- The Tillamook Resource Area completed inspection and reported on the Nestucca OHV Trail System (approximately 34 miles of trails), completed FSDMP monitoring of ground based harvest operations of the Wilkenson TS (52 acres) and Trigger Finger TS (62 acres).
- The Cascades RA reviewed four sale units with two independent soil monitoring protocols. Issues with meeting BLM standards for protection of soil productivity were identified. Resource Area staff reviewed results and identified follow-up work to rectify issues. Field reviews for timber sales indicated that BMPs were implemented and they are effective in meeting soil productivity objectives.

Water Quality

Implementation Monitoring

Performance monitoring, as identified in OAR3400042-0030 (7), is an important component of the Total Daily Maximum Load (TMDL) process and requires annual reporting.

The Cascades Resource Area completed Best Management Practices (BMP) implementation monitoring on three timber sales and their haul routes: Missouri Ridge and Gordon 2 and 3 timber sales. Water quality objectives were meet on all field reviewed units and roads.

The Mary's Peak Resource Area completed BMP implementation monitoring on six timber sale areas and their haul routes. They also completed noxious weed BMP equipment reviews seven times during the year. BMP reviews were also conducted on a mix of projects ranging from floodplain restoration, road clearing activities, culvert installations, and mountain bike trail construction. A total of 17 BMP reviews were completed on the Mary's Peak Resource Area in FY14.

The Tillamook RA randomly sampled 4 road segments in the Wilkenson timber sale and found BMPs were satisfactorily implemented at all of them. The widths of 10 randomly selected riparian no harvest buffers in the Fan Creek timber sale were measured to determine the degree to which the project design features that specific buffer width was implemented. Eighty percent (80%) of the buffers measured had median widths in excess of 50 feet (50 feet was the target).

Turbidity monitoring is required during in-stream restoration activities implemented under the Aquatic Restoration biological opinion from National Marine Fisheries Service (NMFS) and associated permits (401 Water Quality Certification). Monitoring was completed on projects in the Alsea, Nestucca, East Fork Nehalem, and Sandy Watersheds.

Monitoring in the Alsea Basin on the Parker Creek Bridge replacement project documented two instances over the course of the project where turbidity levels were exceeded and work was moved out of the channel for short time periods to allow the water to return to allowable conditions. All other projects were implemented consistent with state turbidity standards.

Effectiveness Monitoring

In 2014, the Marys Peak Resource Area continued turbidity and stream flow monitoring on Maxfield Creek and monitored temperature on Condenser Creek. The monitoring of turbidity and stream flow meets the requirement of decision documents to undertake the Maxfield Creek Timber Sale.

The temperature and shade monitoring was completed on the Condenser Peak, Hagerty Ridge and Gordon Creek timber sales utilizing the Western Oregon TMDL Shade Monitoring Protocol that was approved by ODEQ in 2012. Salem District along with numerous other westside BLM Districts is partnering with Oregon State University to help work up our stream shade and water temperature data into a peer-reviewed research document that will help evaluate the effectiveness of the channel and riparian restoration project and to provide a long term effectiveness monitoring component to the Willamette River Water Quality Restoration Plan.

Salem monitored pesticide spraying at the Horning Orchard in compliance with the Integrated Pest Management FEIS (June 2005). In 2014, staff used drift cards and the results showed absent or diminishing spray on cards along the critical boundaries. One SPMD was deployed and sampled after spray that was no detect for esfenvalerate. The monitoring results will be in the 2014 Horning Seed Orchard Annual Monitoring Report. This report is available at the Salem District Office or the Horning Seed Orchard.

TMDL Validation Monitoring

Salem District personnel completed Total Maximum Daily Loads (TMDL) temperature validation monitoring in the Molalla-Pudding River Basin. This validation monitoring included the Molalla River and its perennial tributaries. The purpose of the TMDL validation monitoring is to determine the level of compliance with the TMDL temperature standard at representative stations throughout the Molalla sub-basin.

Where appropriate, the District continues to use the Western Oregon Shade Temperature Monitoring Methodology as described in the Willamette Basin Water Quality Restoration Plan across the District.

The Salem District plans to continue baseline temperature monitoring in 2014 in the Yamhill River Basin at 6 sites.(Marys Peak and Tillamook Resource Areas (RA)). The District is expected to continue validation monitoring of water temperature in 2014, including sites in the Molalla River sub-basin (Dead Horse Creek, Lukens Creek, Molalla River, and Table Rock Fork.

The Tillamook RA monitored summer stream temperatures in 20 stream reaches in the upper Nestucca, upper Yamhill and East Fork Nehalem sub-watersheds. Data indicated that water temperatures (7 day max averages) were warm, but under the 64 F TMDL threshold, and will contribute to a record that can be used to monitor water temperature trends over longer terms (years to decades).

The BLM cooperates with the U.S. Geological Survey on five continuous recording stream flow stations in the Salem District. These stations are located in following headwater watersheds: Tucca Creek, East Fork Lobster Creek, Bull Creek, Schaffer Creek, and Nate Creek. The real time data from these sites is available on line at: http://waterdata.usgs.gov/or/nwis/sw.

Fisheries

The Salem District, in cooperation with the Oregon Department of Fish and Wildlife (ODFW) Salmonid Life-Cycle Monitoring Project, completed the 27th year of smolt monitoring of Oregon coastal coho salmon, steelhead, and cutthroat trout in Lobster Creek in the Alsea Watershed. The BLM maintains financial assistance agreements with ODFW to support the State's monitoring efforts in Lobster Creek.

The Salem District, in cooperation with the Sandy River Basin Partners, continued monitoring adult and juvenile fish response to habitat restoration actions on the Salmon River. Project effectiveness monitoring has documented significant adult salmon and steelhead spawning in gravels recruited by the construction of engineered log jams, and juvenile fish use of restored side channels and main channel log jams. During 2009-2014, an average of 10 coho salmon redds per mile were located in reconnected side channels within the restoration reach. The number of coho redds in reconnected side channels tracked yearly coho abundance in the Sandy River Basin, based on ODFW coho population estimates. The highest number of redds (19/mile) were found in 2014.

The number of adult coho salmon returning to the lower Salmon River has increased significantly since 2005, from both long-term counts of redds in side-channels and tributaries (BLM redd surveys, $P < 0.01$), and short-term surveys of adults spawning in the river (ODFW spawner surveys, $P < 0.05$). The number of winter steelhead redds on the 2 mile-long restoration reach increased from 68 in 2012, to 94 in 2013, and to 115 in 2014. About 10,000 juvenile coho and 3,500 juvenile steelhead are rearing annually in restored side channels with perennial flow. In 2010 and 2012, juvenile densities averaged 1.2 coho salmon/m^2 and 0.4 steelhead/m^2 in pools in reconnected side channels. Juvenile fish densities increased at main channel log jams: densities at main channel jam pools in 2014 (3.7 fish/ m^2) were 5-fold greater than that of main channel pools without large wood (0.7 fish/ m^2; $P < 0.001$).

Coho population assessments using the Rapid Biological Assessment methodology (RBA) were completed in the East Fork Nehalem River and Nestucca River sub-watersheds to monitor trends in coho salmon productivity in response to recently completed fish habitat improvement projects.

Wildlife and Wildlife Habitat

Marbled Murrelet: District staff and the BLM's contractor conducted murrelet monitoring in known murrelet habitat at four sites on Salem District administered lands with the known highest level murrelet use. The staff surveyed 330 acres. The surveys showed occupancy with low activity at one site, moderate activity at one site, and no activity at two sites.

Northern Spotted Owl: District personnel, contractors, and cooperators conducted district-wide monitoring of known spotted owl sites (occupied or previously occupied) on 75,100 acres. Of the 102 sites surveyed, spotted owls occupied 34 sites, producing 15 spotted owl fledglings. Surveyors encountered barred owls at 64 of the 102 monitored spotted owl sites.

Bald Eagle: See the Terrestrial Habitat and Species Management section for monitoring information about bald eagles.

Harlequin Ducks: District biologists monitored 36 river miles for this species; the staff observed 24 adult ducks.

Snags: District personnel conducted 49 acres of snag monitoring in four timber sale areas.

Special Status Plants

Site Monitoring: In 2014, Salem conducted known site monitoring for special status plants at 18 sites.

District staff relocated a site of *Grimmea lisea* in the Mill Creek Potential ACEC. This is the only site for this species in the Salem District.

Cold-water corydalis (*Corydalis aquae-gelidae*): District staff monitored six *Corydalis aquae-gelidae* sites in 2014 and found several of the sites with very low numbers of individuals. The effort was part of an Interagency Special Status Sensitive Species Program project with adjacent National Forests to update the Conservation Strategy *for Corydalis aquae-gelidae*. Monitoring results from all project participants will likely lead to a revised conservation assessment prior to updating the conservation strategy.

Frigid Shooting Star (*Dodecatheon Austrofrigidum*): District staff visited two sites containing *Dodecatheon austrofrigidum* and found these sites to be in good condition.

Duplicate Tube Lichen (*Hypogymnia Duplicata*): District staff visited four sites of *Hypogymnia duplicata* and found all sites to be in good condition.

APPENDICES

Appendix 1: Acronyms/Abbreviations

ACEC	Area of Critical Environmental Concern	O&C	Oregon and California Revested Lands
APS	Annual Program Summary	ODEQ	Oregon Department of Environmental Quality
ASQ	Allowable Sale Quantity	ODF	Oregon Department of Forestry
BLM	Bureau of Land Management	ODFW	Oregon Department of Fish and Wildlife
BMP(s)	Best Management Practices	OSU	Oregon State University
CWD	Coarse Woody Debris	OWEB	Oregon Watershed Enhancement Board
EIS	Environmental Impact Statement	PGE	Portland General Electric
EPA	U.S. Environmental Protection Agency	PIEC	Provincial Interagency Executive Committee
ESA	Endangered Species Act	PILT	Payment in Lieu of Taxes
FEIS	Final Environmental Impact Statement	RA	Resource Area
FLPMA	Federal Land Policy and Management Act	RAC	Resource Advisory Committee
FY	Fiscal Year	RMP	Resource Management Plan
GFMA	General Forest Management Area	TMDL	Total Maximum Daily Load
GIS	Geographic Information System	USDA	U.S. Department of Agriculture
LSR	Late-Successional Reserve	USFS	U.S. Forest Service
LUA	Land Use Allocation	USFWS	U.S. Fish and Wildlife Service
LWD	Large Woody Debris	USGS	U.S. Geological Survey
MMBF	Million Board Feet	WC	Watershed Council
MOU	Memorandum of Understanding	WQMP	Water Quality Management Plan
NEPA	National Environmental Policy Act	WQRP	Water Quality Restoration Plan
NMFS	National Marine Fisheries Service	WSR	Wild and Scenic River

Appendix 2: Glossary

Acres conveyed: Acres sold or exchanged out of federal ownership.

Area of Critical Environmental Concern (ACEC): Lands where special management attention is needed to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish, and wildlife resources or other natural systems or processes or to protect life and provide safety from natural hazards.

Adaptive Management Area (AMA): The Salem District's Northern Coast AMA is managed to restore and maintain late-successional forest habitat while developing and testing new management approaches to achieve the desired economic and other social objectives.

Allowable sale quantity (ASQ): The gross amount of timber volume, including salvage, which may be sold annually from a specified area over a stated period in accordance with the resource management plan.

Anadromous fish: Fish that are born and reared in freshwater, move to the ocean to grow and mature, and return to freshwater to reproduce.

Aquatic Conservation Strategy (ACS): A Northwest Forest Plan methodology designed to restore and maintain the ecological health of watersheds and aquatic ecosystems, consisting of four components: riparian reserves, key watersheds, watershed analysis, and watershed restoration.

Archaeological site: A geographic location that contains the material remains of prehistoric and/or historic human activity.

Best Management Practices (BMP): Methods, measures, or practices designed to prevent or reduce water pollution. Usually BMPs are applied as a system of practices rather than a single practice.

Biological opinion (BO): The document resulting from formal consultation that states the opinion of the U S Fish and Wildlife Service or National Marine Fisheries Service as to whether or not a federal action is likely to jeopardize the continued existence of listed species or results in destruction or adverse modification of critical habitat.

Board foot (BF): Lumber or timber measurement term. The amount of wood contained in an unfinished board 1 inch thick, 12 inches long, and 12 inches wide

Checkerboard ownership: A land ownership pattern in which every other section (square mile) is in federal ownership because of federal land grants to early western railroad companies.

Coarse woody debris (CWD): The portion of a tree that has fallen or been cut and left in the woods. Usually refers to pieces at least 20 inches in diameter.

Commercial thinning: Removal of generally merchantable trees from an even-aged stand, usually to encourage growth of the remaining trees

Connectivity: The Connectivity / Diversity lands are specific blocks spaced throughout the matrix lands, which have similar goals as matrix but have specific Standards & Guidelines which affect their timber production. They are managed on longer rotations (150 years), retain more green trees following regeneration harvest (12-18) and must maintain 25-30 percent of the block in late successional forest.

Critical habitat: Under the Endangered Species Act, critical habitat is defined as: (1) the specific areas within the geographic area occupied by a federally listed species on which are found physical and biological features

essential to the conservation of the species, and that may require special management considerations or protection; and (2) specific areas outside the geographic area occupied by a listed species, when it is determined that such areas are essential for the conservation of the species

Density management: The cutting of trees for the primary purpose of widening their spacing so that growth of remaining trees can be accelerated. Density management may be designed to improve forest health, to open the forest canopy, or to accelerate the attainment of late-successional forest structural characteristics. The forest canopy is the more or less continuous cover of branches and foliage formed collectively by crowns of adjacent trees and other woody growth,

Endangered species: Any species defined through the Endangered Species Act as being in danger of extinction throughout all or a significant portion of its range and published in the Federal Register.

Endangered Species Act (ESA) consultation: A formal interaction between the U S Fish and Wildlife Service and another federal agency when it is determined that the agency's action may affect a species that has been listed as threatened or endangered or its critical habitat

Environmental assessment (EA): A systematic analysis of site-specific BLM activities used to determine whether such activities have a significant effect on the quality of the human environment; and whether a formal environmental impact statement is required; and to aid an agency's compliance with NEPA when no environmental impact statement is necessary.

Evolutionarily significant unit (ESU): An ESU, or evolutionarily significant unit, is a Pacific salmon population or group of populations that is substantially reproductively isolated from other conspecific populations and that represents an important component of the evolutionary legacy of the species.

Floodplain: Level lowland bordering a stream or river onto which the flow spreads at flood stage.

General Forest Management Area (GFMA): This is the federal land not encumbered by any other land use designation, on which most timber harvest and silviculture activities will be conducted. See Matrix**.**

Ground-based harvest system: Harvesting timber using mechanical equipment that moves along the ground.

Harvest land base: Those lands on which the determination and declaration of the Annual Productive Capacity / Allowable Sale Quantity (ASQ) is based The ASQ is based on implementing a set of programmed timber management activities that assumes those practices will be repeated over time and results in a sustainable harvest level.

Hazardous materials: Anything that poses a substantive present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

IDIQ (Indefinite Delivery/Indefinite Quantity) contract: Commonly used for surveys and inventories where the amount and the delivery of the product is not known on the onset of the contracting period. The contract establishes the overall length of the contract period and the minimum and maximum amount to be accomplished during that contract. The contracting officer or their representatives use task orders to define the amount of work to be done and to specify the delivery of that work.

Invasive species: A non-native species whose introduction does, or is likely to, cause economic or environmental harm or harm to human health.

Key watershed: A land use allocation used in the Northwest Forest Plan. A watershed containing: (1) habitat for potentially threatened species or stocks of anadromous salmonids or other potentially threatened fish, or (2) greater than 6 square miles with high-quality water and fish habitat.

Land use allocation (LUA): Uses that are allowed, restricted, or prohibited for a particular area of land, a type of decision in a land use plan.

Large woody debris (LWD): Pieces of wood larger than ten feet long and six inches in diameter, in a stream channel.

Late-successional forests: Forest seral stages which include mature and old-growth age classes.

Late-Successional Reserve (LSR): A forest in its mature and/or old-growth stages that has been reserved under each option in this report (see Old-growth Forest and Succession).

Leasable minerals: Minerals generally found in bedded deposits and include oil, gas, coal, chlorides, sulfates, carbonates, borates, silicates, and nitrates of potassium (potash) or sodium and related products; sulfur; phosphate and its associated and related minerals; asphalt; and gilsonite.

Locatable minerals: Metallic minerals (gold, silver, lead, copper, zinc, nickel, etc.) and nonmetallic minerals (fluorspar, mica, certain limestone and gypsum, tantalum, heavy minerals in placer form and gemstones) in land belonging to the United States that are open to citizens of the United States for exploration, discovery, and location which conveys the exclusive right to extract the locatable minerals upon receiving all required authorizations in accordance with regulations at 43 CFR 3802 for lands in wilderness review and 3809 for other public lands.

Matrix: Federal land outside of reserves and special management areas that will be available for timber harvest at varying levels.

MMBF: Million board feet of timber. See Board foot.

Monitoring: The review on a sample basis, of management practices to determine how well objectives are being met, as well as the effects of those management practices on the land and environment

National Landscape Conservation System (NLCS): Special Congressional or Presidential land use designations such as National Monuments, Wild and Scenic Rivers, and Wilderness Areas

Noxious plant/weed: A plant specified by law as being especially undesirable, invasive, troublesome, and difficult to control.

Northwest Forest Plan: A 1994 common management approach for the 19 national forests and 7 BLM districts located in the Pacific Northwest ecological region and jointly approved by the Secretary of Agriculture and the Secretary of the Interior.

Oregon & California Railroad lands (O&C Lands)**:** Public lands granted to the Oregon and California Railroad Company, and subsequently revested to the United States that are managed by the Bureau of Land Management under the authority of the O&C Lands Act.

Offered (sold) volume or offered (sold) acres: Any timber sold during the year by auction or negotiated sales, including modifications to contracts. This is more of a "pulse" check on the District's success in meeting ASQ goals than it is a socioeconomic indicator, since the volume can get to market over a period of several years. It should be noted that for this Annual Program Summary (APS) we are considering "offered" the same as "sold." Occasionally sales do not sell. They may be reworked and sold later or dropped from the timber sale program. Those sold later will be picked up in the APS tracking process for the year sold. Those dropped will not be tracked in the APS.

Off-highway vehicle (OHV): Any motorized track or wheeled vehicle designed for cross-country travel over natural terrain. The term, "Off-Highway Vehicle" will be used in place of the term "Off-Road Vehicle" to comply with the purposes of Executive Orders 11644 and 11989. The definition for both terms is the same. Off-highway vehicle road designations are as follows:

- **Open -** Designated areas and trails where off-highway vehicles may be operated subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343.
- **Limited -** Designated areas and trails where off-highway vehicles are subject to restrictions limiting the number or types of vehicles, date, and time of use; limited to existing or designated roads and trails.
- **Closed -** Areas and trails where the use of off-highway vehicles is permanently or temporarily prohibited. Emergency use is allowed.

Outstanding Natural Area (ONA): An area that contains unusual natural characteristics and is managed primarily for educational and recreational purposes.

Outstandingly Remarkable Values (ORV): Values among those listed in Section 1 (b) of the Wild and Scenic Rivers Act: "scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values . . ." . Other similar values that may be considered include ecological, biological or botanical, paleontological, hydrological, scientific, or research.

Peak flow: The highest amount of stream or river flow occurring in a year, or from a single storm event.

Pre-commercial thinning (PCT): An action taken in a non-merchantable stand of immature trees to control density and growing space, so that growth is concentrated on potential crop trees.

Prescribed fire: A controlled fire, burned under specified conditions to accomplish planned objectives. The fire may result from planned or unplanned ignitions.

Public domain lands: Original holdings of the United States never granted or conveyed to other jurisdictions, or reacquired by exchange for other public domain lands.

Regeneration harvest: Timber harvest conducted with the partial objective of opening a forest stand to the point where favored tree species will be reestablished. Regeneration harvest in this document also includes clearing vegetation within road rights-of-way. In fiscal year 2013, all acres called regeneration harvest in Table 1 was clearing vegetation from road rights-of-way to access timber sales and other projects.

Resource Management Plan (RMP): A land use plan as described by the Federal Land Policy and Management Act.

Right-of-way (ROW): A permit or an easement that authorizes use of public lands for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs; also, the lands covered by such an easement or permit.

Riparian area: A geographic area containing an aquatic ecosystem and adjacent upland areas that directly affects it.

Rural interface areas: Areas where BLM lands are adjacent to or intermingled with privately-owned lands zoned for 1 to 20-acre lots or that already have residential development.

Saleable minerals: Minerals including but not limited to: petrified wood and common varieties of sand, stone, gravel, pumice, pumicite, cinder, clay, and rock

Seral stages: The series of relatively transitory plant communities that develop during ecological succession from bare ground to the climax stage

Silvicultural practices (or treatments or system): The set of field techniques and general methods used to modify and manage a forest stand over time to meet desires conditions and objectives.

Silvicultural prescription: A plan for controlling the establishment, composition, constitution, and growth of forests.

Site preparation: Any action taken in conjunction with a reforestation effort (natural or artificial) to create an environment that is favorable for survival of suitable trees during the first growing season. This environment can be created by altering ground cover, soil or microsite conditions, using biological, mechanical, or manual clearing, prescribed burns, herbicides, or a combination of methods.

Slash: The branches, bark, tops, cull logs, and broken or uprooted trees left on the ground after logging has been completed.

Snag: Any standing dead, partially-dead, or defective (cull) tree at least 10 inches in diameter at breast height and at least 6 feet tall A hard snag is composed primarily of sound wood, generally merchantable A soft snag is composed primarily of wood in advanced stages of decay and deterioration, generally not merchantable.

Soil productivity: Capacity or suitability of a soil, for establishment and growth specified crop or plant species.

Soil quality: The capacity of a soil to function, within natural or managed ecosystem boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality and to support human health and habitation.

Special Status species: Plant or animal species in any of the following categories:

- **Threatened or Endangered species -** *Endangered species* - Any species defined through the Endangered Species Act as being in danger of extinction throughout all or a significant portion of its range. *Threatened species* - Any species defined through the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- **Proposed Threatened or Endangered species -** Plant or animal species proposed by the U.S. Fish & Wildlife Service to be biologically appropriate for listing as threatened or endangered, and published in the Federal Register. It is not a final designation.
- **Candidate species -** Plant and animal taxa considered for possible addition to the Federal List of Endangered and Threatened Species. These are taxa for which the Fish and Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

- **Bureau Sensitive species -** Plant or animals species eligible for federal listed, federal candidate, state listed, or state candidate (plant) status, or on list 1 in the Oregon Natural Heritage Data Base, or approved for this category by the BLM State Director Species included under agency species conservation policies

Target volume: As used in this document, target volume refers to the volume to be offered for sale as directed by the annual budgeting documents for the District.

Timber volume: Amount of timber contained in a log, a stand, or a forest, typically measured in board feet.

Visual Resource Management (VRM): The inventory and planning actions to identify visual values and establish objectives for managing those values and the management actions to achieve visual management objectives.

Water quality: The chemical, physical, and biological characteristics of water with respect to its suitability for a particular use

Watershed: An area in which all surface waters flow to a common point.

Wildland urban interface (WUI): Areas where communities are expanding into traditional forest and other resource lands.

Wild and Scenic River system: A national system of rivers or river segments that have been designated by Congress and the President as part of the National Wild and Scenic Rivers System (Public Law 90-542, 1968). Each designated river is classified as one of the following:

- **Wild River -** A river or section of a river free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. Designated wild as part of the Wild and Scenic Rivers System.
- **Scenic River -** A river or section of a river free of impoundments, with shorelines or watersheds still largely primitive and undeveloped but accessible in places by roads. Designated scenic as part of the National Wild and Scenic Rivers System.
- **Recreational River -** A river or section of a river readily accessible by road or railroad that may have some development along its shorelines, and that may have undergone some impoundment or diversion in the past. Designated recreational as part of the National Wild and Scenic Rivers System.

Appendix 3: Land Acquisitions By Exchanges Or Purchase, FY 1995-2014

Name	Case File Number	Date	Acres Acquired	Acres Conveyed	Remarks
Aims Exchange	OR50799	02/24/1995	0	27.09	The BLM acquired 48.80 acres in Perpetual Scenic Easement to facilitate implementation of the Sandy Wild & Scenic River Management Plan.
Sandy Exchange	OR50419	03/07/1995	80.85	0	Five acres of timber only conveyed in return for the acquired acreage. Acreage acquired to facilitate implementation of the Sandy River Management Plan.
Rocky Top Exchange	OR50847	08/03/1995	142.82	110.00	Exchange to consolidate ownership and acquire a bald eagle nest site.
River Trail Exchange	OR51155	05/07/1996	154.41	80	Exchange to obtain access for proposed Molalla River Trail.
Little North Fork Wilson River Exchange	OR51231	06/26/1996	525.01	489.93	Exchange to obtain high quality marbled murrelet, spotted owl and salmon habitat.
Mt. Hood Corridor Exchange	OR53235	01/12/1998	3,531.65	1,453.52	Exchange completed per Title IV of the Omnibus Consolidated Appropriations Act for fiscal year 1997. Lands are in view shed of Mt. Hood Corridor.
Wildwood Exchange	OR52446	03/11/1998	89.07	80	Acquired 8.12 acre Perpetual Trail Easement.
Fishermen's Bend (Frank Trucking)	OR55115	09/24/2001	17.74	0	Purchased with Land and Water Conservation Funds.
Sandy River (Prochnau)	OR56328	09/24/2001	152.27	0	
Sandy River (PGE)	OR56330	09/21/2001	60	0	
Sandy River (Smekel/PGE)	OR56329	09/23/2002	239.8	0	
Sandy River (Dodge)	OR57278	09/26/2002	273.5	0	
Sandy River (Longview)	OR57752	09/16/2003	187.2	0	
Sandy River (Winters Group)	OR58455	09/16/2003	206.9	0	
Sandy River (Barnett)	OR58456	09/22/2004	19.6	0	
Sandy River (PGE)	OR58457	09/29/2004	306.9	0	
Sandy River (PGE)	OR59051	09/22/2004	117.0	0	
Sandy River (Longview / Schopert / PGE)	OR59052	09/29/2004	300.0	0	
Sandy River (TenEyck)	OR59053	09/30/2005	127.9	0	
Sandy River (PGE)	OR60666	09/30/2005	117.46	0	
Sandy River (PGE)	OR61162	09/20/2006	47.3	0	
Sandy River (WEYCO)	OR62002	09/20/2006	78.1	0	
Sandy River (Halvorson)	OR63984	09/24/2007	157.23	0	
Sandy River (Clackamas Co.)	OR64381	09/16/2008	30.0	0	

Name	Case File Number	Date	Acres Acquired	Acres Conveyed	Remarks
Sandy River (Clackamas Co.)	OR65373	09/21/2009	9.6	0	Purchased with Land and Water Conservation Funds.
Sandy River (Clackamas Co.)	OR65973	09/21/2009	19.5	0	
Sandy River (Clackamas Co.)	OR66356	09/27/2011	245.23	0	
Sandy River (Clackamas Company)	OR66978 OR66998 OR66977	9/28/2012	404.10	0	
Acres Acquired or Conveyed in FY 2013			0	0	
Acres Acquired or Conveyed in FY 2014					
Total			7,641.14	2,240.54	
Net Acreage increase to BLM				**5,400.6**	
Source: BLM LR2000 Database - Salem District					

Appendix 4: Land Sales, FY 1995-2014

These land sales were isolated parcels of BLM ownership that were targeted for disposal (land tenure zone 3) or minor sales completed to resolve occupancy trespasses.

Purchaser	Serial Number	Date	Acres Sold
Robert Dersham	OR51291	02/23/1995	0.80
Peter Boden	OR51166	09/25/1995	0.43
Ray Johnson	OR51998	10/17/1995	0.15
Clara Taylor	OR52165	10/17/1995	0.46
Ervin Simmons	OR52166	10/17/1995	0.38
Caffall Brothers	OR51890	01/09/1996	2.44
Clem Lulay	OR52096	05/26/1996	0.19
Robert Mommson	OR52644	01/24/1997	0.20
Stimson Lumber Co.	OR53113	08/28/1997	0.15
Stimson Lumber Co.	OR53114	08/28/1997	0.60
Morrow For.Pds.	OR53115	11/19/1997	1.00
Morrow For.Pds.	OR53116	11/19/1997	2.10
Morrow For.Pds.	OR53117	11/19/1997	2.60
City of McMinnville	OR54442	06/16/1998	3.79
Susi K. Trattner	OR53611	11/06/1998	0.19
Konstantin Verbin	OR53985	04/29/1999	0.34
Nestucca Forests LLC	OR068032	12/22/2014	58.63
Littlejohn Resources LLC.	OR068032-01	12/22/2014	2.48
Hampton Resources, Inc.	OR068032-02	12/22/2014	16.24
		Total	**93.17**