



# Blue Mountain Forest Partners Zones of Agreement

July 2013

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# I. Introduction

The Blue Mountains Forest Partners (BMFP) is a diverse group of stakeholders who work together to create and implement a shared vision to improve the resilience and well-being of forests and communities in the Blue Mountains. From 2006-2013, the BMFP reached consensus on recommendations to the Malheur National Forest (MNF) about four different land management projects:

1. Dads Creek Wildland Urban Interface Project
2. Damon Wildland Urban Interface Project
3. Soda Bear Project
4. Elk 16 Project

This document summarizes these “zones of agreement” that will serve as a starting point for future collaboration.

Map 1 shows treatment unit location of the first three projects, which have been largely completed as of 2013. The fourth project, Elk 16, is located approximately 20 miles east of Seneca and is currently in the early stages of planning.

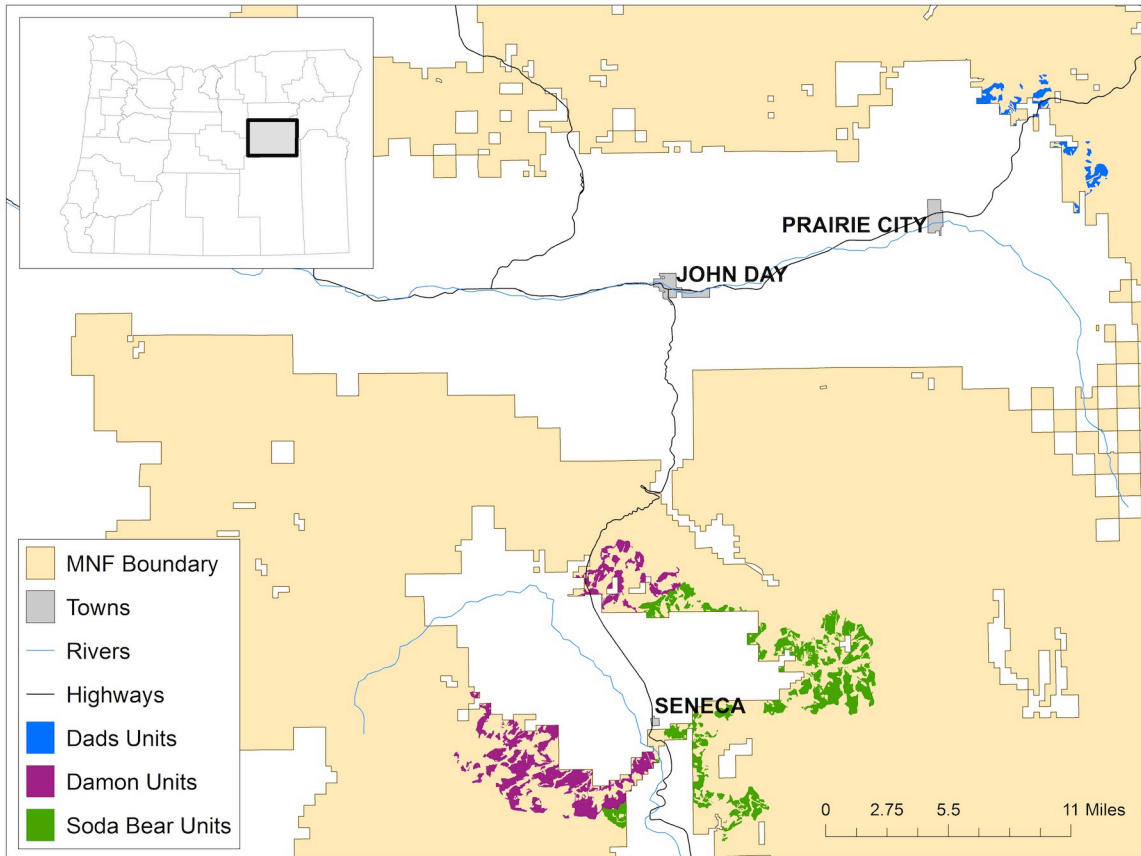
To compile these zones of agreement, 23 different sets of meeting notes (see Appendix B) were consulted. All portions of the notes that were in the nature of group agreements about the Dads, Damon, Soda Bear and Elk 16 projects were transcribed. These passages were subsequently edited with the aim of making them concise and accessible to those not present at the meetings.

The editing process involved judgment calls about what was most germane to future conversations. A number of passages were deleted in the interest of readability and brevity, including:

- Site-specific agreements with no possible application to future projects, e.g., “shorten the road to [Dads Creek] unit #12.”
- Recommendations that were vague or subjective, e.g., “consider landscape context,” or “root causes of environmental degradation will have to be addressed.”
- Foregone conclusions, e.g., “the Forest Service should analyze impacts to wildlife,” or “address grazing by working with permittees.”
- Redundancies, e.g., “protect old trees for wildlife habitat” and “protect old trees to provide for future wood recruitment to streams.”

The exact language of the recommendations was altered to be consistent, concise, and understandable, however the original wording was maintained to the maximum extent feasible.

**Map 1. Location of completed BMFP projects**



This document is not a history of the BMFP, and does not record purely procedural or institutional agreements, such as agreements about group membership or decision-making process.

Zones of agreement are only recommendations to the Forest Service agreed to by the group. Decision making authority about land management on the MNF rests solely with the U.S. Forest Service.

Section II reports the agreements that were reached for each of the four projects, summarized by topic area. The heart of this document is Section III, which synthesizes these agreements in a form that can be used as a starting point for future collaboration.

Common themes that emerged from the meeting notes include a desire to tailor treatments to forest type, and to implement treatments at a scale appropriate to accomplish desired ecological and community sustainability objectives. Section IV includes maps and summary statistics designed to allow the reader to understand

the landscape context and impact of the projects the BMFP worked together to implement. Section V speculates briefly about future needs and opportunities.

Appendix A is a glossary and list of acronyms. Appendix B lists every person that the meeting notes that were consulted for this document indicated attended at least one meeting. Although these agreements represent group decisions, not all participants necessarily agree with every statement in this document.

To learn more about the Blue Mountain Forest Partners or contact us about this document, see our web page at:

<https://sites.google.com/site/bluemountainsforestpartners/>

## II. Project agreements

### Dads Creek Wildland Urban Interface Project

Decision signed December 19, 2008

#### Goals, objectives, and desired future conditions

- ❑ Incorporate watershed restoration opportunities (e.g., road closures) in project planning.
- ❑ Encourage biomass utilization

#### Roads and access

- ❑ Carefully analyze impacts of temporary roads (including but not limited to hydrological impacts, illegal OHV use, invasive weeds, soil compaction and habitat fragmentation). If impacts cannot be mitigated, prohibit road construction.
- ❑ Carefully monitor all impacts from temporary roads.
- ❑ Pursue opportunities to reduce total road mileage in the project area and mitigate impacts from existing roads.
- ❑ Investigate “light on the land” logging equipment.

### Damon Wildland Urban Interface Project

Decision signed June 7, 2010

#### Environmental planning

- ❑ Use Healthy Forest Restoration Act authorities.
- ❑ Analyze impacts with an environmental assessment (EA).

#### Goals, objectives, and desired future conditions

- ❑ Reduce fire hazard in the wildland urban interface.
- ❑ Provide raw materials and employment opportunities for local communities.
- ❑ Protect and enhance old growth habitat to support a diversity of native species.
- ❑ Improve watershed hydrologic function.
- ❑ Encourage biomass utilization
- ❑ Create diverse, dynamic and complex forest structure and composition that supports high levels of historic and/or desired biodiversity.

- ❑ In pine and larch forest types, create a landscape characteristic of a low intensity/high frequency fire regime that is more resilient in the face of disturbance.
- ❑ In mixed conifer stands, create a landscape characteristic of a mixed severity/mixed frequency fire regime that is more resilient in the face of disturbance.
- ❑ Create a landscape where future fires are lower intensity and easier to control, especially near private property.
- ❑ Old forest structures and large trees should be common throughout the landscape.
- ❑ Promote forest structure and density that is able to withstand impacts from climate change and uncharacteristic insect and disease outbreaks.
- ❑ Restored hardwood communities (including aspen) similar to historical extent.
- ❑ Improve conditions for cold-water aquatic species.
- ❑ Reduce or eliminate grazing impacts where possible.
- ❑ Create ample habitat for wildlife, including but not limited to wolverine, goshawk, great gray owls, pigmy owls, flammulated owls, lynx, marten, white-headed woodpeckers, and black backed woodpeckers.

### **Economic and community development considerations**

- ❑ Provide contracts and jobs for people who live in surrounding communities.
- ❑ Explore stewardship contracting to accomplish treatments.
- ❑ Plan a cost effective project that generates at least as much revenue as it costs, or better yet, generates revenue for other restoration projects.

### **Treatment prescriptions**

- ❑ Use both commercial and non-commercial thin from below treatments to protect older trees and reduce fire, disease, and insect risk.
- ❑ Maintain all old growth and fire resistant trees.
- ❑ Avoid uniform spacing. Vary thinning to emphasize spatial heterogeneity and achieve patchy/clumpy tree distributions.
- ❑ Provide for down wood following harvest.
- ❑ Maintain 60-100 square feet of basal area per acre.
- ❑ Leave approximately half of the planning area untreated.
- ❑ Place treatment units strategically on the landscape to moderate fire behavior.
- ❑ Address mistletoe when possible while meeting other project objectives.  
Leave mistletoe witches in larger trees for habitat.
- ❑ Avoid treatment in moist sites and in “honey holes” (microsites that support a high density of larger trees without visible stress).

- ❑ On dry pine sites:
  - Remove ladder fuels around large trees.
  - Create more open areas around mountain mahogany.
  - Protect clumps of medium sized/aged trees.
  - On warm/hot dry, low elevation sites previously dominated by ponderosa pines that historically supported single strata structure, and where good opportunities exist to create this habitat for white-headed woodpeckers and other species, and where needs of other species can be accommodated, create single strata old growth structure.

### **Riparian areas and aquatic systems**

- ❑ Place exclosures around streams and riparian areas to protect hydrologic function as needed.
- ❑ Apply INFISH standards to all actions in riparian areas.
- ❑ Prohibit timber harvest in Riparian Habitat Conservation Areas (RHCAs) except as necessary to obtain riparian management objectives and where harvest does not retard attainment of riparian management objectives.

### **Special habitats**

- ❑ Prioritize fencing of aspen stands that are genetic isolates or subject to heavy grazing pressures.

### **Roads and access**

- ❑ Road mileage should be reduced from current levels in designated old growth (DOG) areas to less than 1 mile per mile<sup>2</sup>.
- ❑ Reduce road system impacts on native wildlife, aquatic habitat, and ecosystem function through road closures and road removal.
- ❑ Prohibit new road construction except as necessary to protect forest ecosystems.
- ❑ Prohibit roads in RHCAs.
- ❑ Perform cost benefit analysis for all new proposed road segments.

### **Prescribed fire and post-treatment fire**

- ❑ Use prescribed fire when appropriate.
- ❑ Minimize impacts from slash treatments.
- ❑ Consider raking duff around large/old trees prior to introducing fire.

### **Other**

- ❑ Enhance native vegetation and treat invasives.



- ❑ Use native grasses and forbs for revegetation.

## Soda Bear Project

Decision signed January 6, 2012

### Goals, objectives and desired future conditions

- ❑ Reduce the potential for large, severe wildfire and insect disturbance, and restore lower intensity fire patterns.
- ❑ Restore a historical mix of native species.
- ❑ Restore spatial heterogeneity with a mosaic of more open stands interspersed with patches of dense trees in an irregular pattern.
- ❑ Maintain large old trees over time.
- ❑ Restore thriving goshawk populations and associated habitat conditions, including diverse forest and understory structure, appropriate canopy cover, and snags.
- ❑ Restore a healthy, sustainable forest that provides jobs, recreation opportunities, carbon storage, and habitat.
- ❑ Restore landscape resiliency to various types of natural disturbance.
- ❑ Transition to a landscape where 2/3 of the planning has old trees (21"+ dbh with old growth characteristics) and 1/3 of the area has young trees (<21" dbh).

### Economic and community development considerations

- ❑ Consider opportunities to provide social and economic benefits through contracts and jobs for people living in surrounding communities.
- ❑ Provide a mix of product types and values (e.g., saw logs, posts and poles, firewood, and biomass).
- ❑ Balance ecological objectives while developing economically viable treatments.

### Treatment prescriptions

- ❑ Place restoration treatment units strategically to provide for fuel breaks that buffer high value resources and private lands. Thin to low densities around private property and in drier plant associations while creating relatively higher densities farther from private property and in moister plant associations.
- ❑ Embed dense forest patches within treated areas to lengthen their "hang time" until new dense patches can provide for habitat. Locate dense patches where

they historically occurred, including steep slopes, cold upland sites, moister aspects, valley bottoms, and where dense forest associated species occur.

- ❑ Implement treatments in older forest stands to maintain or enhance ecologically sustainable structure. Maintain all existing live and dead trees greater than 150 years old. Maintain sufficient younger trees to replace future mortality in old trees.
- ❑ Create heavily thinned buffers around mistletoe trees. Kill old trees outside of buffer areas that are at risk of spreading mistletoe and maintain them onsite as snags.
- ❑ Remove ladder fuels around old trees in a radius equal to approximately twice the distance of the drip line around old trees, but maintain all trees of all species greater than 150 years of age regardless of location. Retain some healthy mature trees next to old trees.
- ❑ All treatment units should contain skips (untreated areas) and gaps (openings). Approximately 10-15% of each treatment unit should consist of skips approximately 1/8 to 1/2 acres. Skips should be centered around existing dense forest patches, potential wildlife hiding cover or habitat, concentrations of woody debris, rock outcroppings, or moist microsites. Approximately 5-10% of each treatment unit should consist of gaps from 1/10 to 2 acres. Gaps may retain some trees and are designed to create a mosaic of regeneration opportunities over time.
- ❑ Retain an average of approximately 3-4 clumps of 2-6 trees per acre.
- ❑ Vary thinning density by plant association and objectives. In general, ponderosa pine sites should be thinned to a lower density than mixed conifer sites.
- ❑ Increase mean stand diameter and shift stands from less drought and/or fire tolerant species like grand fir to more drought and/or fire tolerant species like ponderosa pine and larch, while retaining a fir component that was historically present to maintain specialized habitat for wildlife. Maintain existing composition and density in stands historically subject to stand replacement fire or disease such as cold lodgepole pine sites, high elevation moister mixed conifer such as grand fir co-dominant or dominant forest, and in moist areas such as riparian zones and moist hollows.
- ❑ Retain snags, logs, and other coarse woody structure.
- ❑ Treat activity created fuels with fire.
- ❑ On dry ponderosa pine sites:
  - Thin to a post-treatment basal area target from 40-60 feet<sup>2</sup> per acre, with some sites as high as 80 feet<sup>2</sup> per acre.
  - Prohibit activity that disturbs goshawks within a half mile of active nest sites during the April 1-September 30 nesting season.

- ❑ On mixed conifer sites:
  - Use a range of basal area targets to meet objectives including fuel reduction and timber production. In dry mixed conifer sites densities should range from 60-80 square feet but may vary based on economic considerations, the need to leave young trees for old growth replacement, and landscape connectivity and habitat considerations.
  - Prohibit commercial treatments in goshawk territories (active in the last five years), and prohibit all treatments in nest areas. Goshawk territories should be embedded within treated areas, protecting them from fire and insects while other habitat areas develop.

### **Riparian areas and aquatic systems**

- ❑ Retain shade along streams. Hardwood shading (aspen and willows) may be temporarily removed by fire treatments that improve vigor.
- ❑ Prohibit treatments in RHCAs, except treatments that aid in attaining riparian area objectives and achieve desired future vegetation characteristics.

### **Special habitats**

- ❑ Remove lodgepole and other encroaching conifers in and around meadows. This may involve regeneration harvest or burning. Manage some lodgepole sites with regeneration methods, retaining seed trees and at least ten percent of the treated area as reserves, skips or clumps.
- ❑ Treat aspen stands to reduce fuels, improve aquatic conditions and diversify habitat. Treatments should include conifer removal, while retaining the largest conifers and all trees greater than 150 years of age.
- ❑ Protect aspen regeneration with fencing, directional felling/hinging and/or rearrangement of downed wood depending on the size, condition, diversity, and location of stands.

### **Roads and access**

- ❑ Reduce roads and skid trail access in goshawk territories to limit disturbance.
- ❑ Prohibit all road construction, including temporary roads, in RHCAs.
- ❑ Take action to prohibit off-road mechanized access through active floodplains, seeps, wet meadows and across streams. Create stream only if no other options for access exist and only where impacts to streams can be mitigated.
- ❑ Close and decommission roads to reduce existing road densities and associated impacts (including invasive plant disturbance, illegal OHV use, and fish and wildlife disturbance). Ensure proper hydrologic functioning of closed and

decommissioned roads. Prioritize decommissioning of roads that are currently hydrologically connected to streams.

## **Elk 16 Project**

Project initiation letter signed April 20, 2013

### **Environmental planning**

- ❑ Analyze impacts in an EA.
- ❑ Use a forest plan amendment to treat designated DOGs using the Franklin/Johnson/Van Pelt approach.

### **Treatment prescriptions**

- ❑ Use Franklin/Johnson/Van Pelt restoration principles.
- ❑ Use precommercial thinning and burning treatments alongside existing roads on the border of inventoried roadless areas (IRAs) where appropriate, but avoid entry in IRAs.
- ❑ Mechanical treatments may be used in the Wild and Scenic River (WSR) Corridor, but only to maintain or enhance Outstanding Resource Values (ORVs).
- ❑ Use Franklin/Johnson/Van Pelt approach to remove some smaller Douglas fir, pine and larch, but prioritize grand fir for removal.

### **Riparian areas and aquatic systems**

- ❑ Use silvicultural treatments in RHCAs to attain resource management objectives and achieve desired vegetation characteristics while avoiding adverse impacts to inland fish species.

### **Roads and access**

- ❑ Prioritize road closure and removal in the WSR corridor.

**Table 1. Evolution of important agreements through four different projects**

	<b>Dads</b>	<b>Damon</b>	<b>Soda Bear</b>	<b>Elk 16</b>
<b>Goals, objectives, and desired future conditions</b>	Incorporate watershed restoration	Reduce fire hazard, restore low intensity fire  Provide raw materials and jobs  Protect old trees  Provide for wildlife habitat	Resilient forests: reduce fire hazard, restore low intensity fire  Jobs, recreation, carbon storage, and habitat  Restore spatial heterogeneity  Protect old trees  2/3 landscape old trees, 1/3 young trees	
<b>Economic and community development considerations</b>		Jobs and contracts  Stewardship contracting  Cost effective project	Jobs and contracts  Mix of product types  Balance ecology and economics	
<b>Treatment prescriptions</b>		Variable thinning, promote patchiness and clumpiness  Half planning area untreated  Strategic fuel breaks  Maintain 60-100 ft <sup>2</sup> basal area  Remove ladder fuels  Single strata pine where appropriate  Heavy thins around mistletoe	Embed dense patches within treated areas  Retain clumps, create skips/gaps  Strategic fuel breaks  Maintain all trees >150 years old.  Heavy thins around mistletoe  Remove ladders fuels from dripline X 2  Favor drought/fire tolerant  Dry pine maintain	Use Johnson/Franklin/Van Pelt  Precommercial thinning around IRA boundaries, prohibit other mechanical treatments in IRAs  Mechanical treatments in WSR corridor only to achieve ORVs

	<b>Dads</b>	<b>Damon</b>	<b>Soda Bear</b>	<b>Elk 16</b>
			<p>40-60 ft<sup>2</sup> basal area</p> <p>Mixed conifer maintain 60-80 ft<sup>2</sup> basal area</p> <p>Limit activity to protect goshawks</p>	
<b>Riparian areas and aquatic systems</b>		<p>Exclosures as needed</p> <p>Apply INFISH</p> <p>No timber harvest, except to achieve RMOs.</p>	<p>Retain shade</p> <p>No timber harvest except to achieve RMOs</p>	<p>Use treatments in RHCAs only to achieve RMOs and desired conditions.</p>
<b>Roads and access</b>	<p>Prohibit roads where impacts can't be mitigated.</p> <p>Reduce total road mileage</p>	<p>Reduce to 1mi<sup>2</sup> per mi in DOGs</p> <p>Prohibit roads in RHCAs</p> <p>Prohibit new roads except to protect ecosystems</p> <p>Road closures and decommissioning to protect resources</p>	<p>Reduce mileage in goshawk areas</p> <p>Prohibit roads in RHCAs</p> <p>Prohibit access in sensitive areas (wetlands, streams, etc.)</p> <p>Road closures and decommissioning to protect resources</p>	<p>Prioritize road removal in WSR Corridors</p>

### **III. Synthesis of agreements**

This section is the result of a review of past agreements and discussion about what past recommendations may be applicable to future projects, as well as what additional recommendations may be appropriate given the group's past experiences.

#### **Environmental planning**

- ❑ EAs are an appropriate document to analyze restoration projects.
- ❑ Forest plan amendments are appropriate to treat designated DOGs using the Franklin/Johnson/Van Pelt approach.
- ❑ The Forest Service should treat large areas consistent with achieving efficiencies in environmental planning and better economies of scale with respect to ecological and community stability objectives.

#### **Goals, objectives, and desired future conditions**

- ❑ Provide a diverse supply of timber products and create jobs and economic opportunities for residents of local communities.
- ❑ Restore forest resilience, with an emphasis on reducing risk of uncharacteristically severe wildfire.
- ❑ Protect and enhance old forest structure.
- ❑ Provide for diverse wildlife habitat.
- ❑ Improve watershed and stream health.

#### **Economic and community development considerations**

- ❑ Use stewardship contracting where appropriate.
- ❑ Create cost effective projects that can pay for themselves or generate revenue for other needed restoration or development work.

#### **Treatment prescriptions**

- ❑ Use Franklin/Johnson/Van Pelt to guide treatments.
- ❑ In general, protect old trees greater than 150 years of age.
- ❑ Remove ladder fuels from around old trees, generally in an area equal to twice the distance of the dripline, while leaving all 150+ year-old trees and potentially some younger trees within the dripline to replace old trees over time.
- ❑ Maintain snags and down wood, where appropriate given consideration of forest type.

- ❑ Vary thinning to emphasize spatial heterogeneity and achieve patchy/clumpy tree distributions. Leave skips (untreated areas) and gaps (openings) in units following treatment. Leave clumps of trees. Embed denser forest patches within a treated landscape to provide for sustainable diverse wildlife habitat over time.
- ❑ Increase mean stand diameter and shift species composition from drought and fire intolerant species to drought and fire tolerant species.
- ❑ Reduce mistletoe's detrimental effects to the forest on a site-by-side basis; consider girdling trees over 21 inches to create snags and help reduce mistletoe spread.
- ❑ Place treatment units strategically on the landscape to moderate wildfire behavior and aid in control.
- ❑ Use precommercial thinning and burning treatments within inventoried roadless areas (IRAs) where appropriate, but avoid commercial treatments in IRAs.
- ❑ Consider mechanical treatments in the Wild and Scenic River WSR Corridor, but only to maintain or enhance ORVs.
- ❑ Use project objectives (e.g., creating fire resiliency) to guide post-treatment basal area and density targets.

### **Riparian areas / aquatic systems**

- ❑ Prohibit timber harvest in RHCAs except as necessary to obtain riparian management objectives and where harvest does not hinder attainment of riparian management objectives.

### **Special habitats**

- ❑ Use fencing or other measures to protect aspen regeneration.
- ❑ Use silvicultural treatments and/or burning to remove conifers that have encroached into aspen stands while retaining older trees.

### **Roads and access**

- ❑ Maintain, close, or decommission roads in planning areas as appropriate to reduce road-related environmental impacts. Give priority to road closures and decommissioning in RHCAs, and DOGs, roads that are hydrologically connected to streams, and where road management actions would reduce illegal motorized access.



## IV. Project context

This section contains information about the geographic scope of the projects the BMFP collaborated on, the environmental context of projects, and the concrete outcomes of the projects relative to the MNF's ongoing restoration work. "BMFP projects sold" in Table 3 and Figure 1 and "BMFP projects treated" in Table 3 refer to the timber produced and acres treated by MNF projects that the BMFP collaborated on: Dads, Damon and Soda Bear. Not all treatments for all of these projects have been completed as of the summer of 2013.

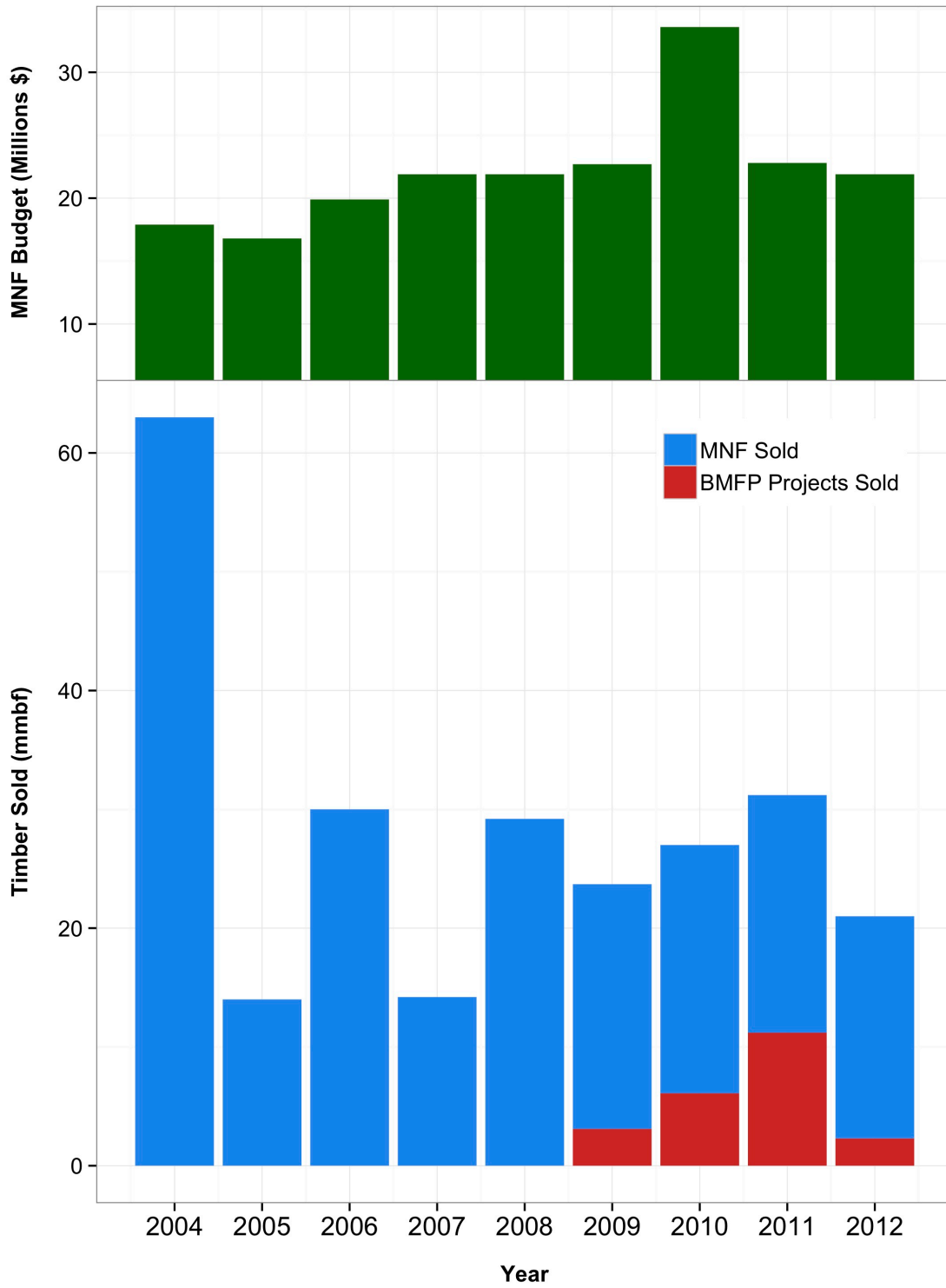
**Table 2. Summary of BMFP projects.**

	<b>Dads</b>	<b>Damon</b>	<b>Soda Bear</b>	<b>Totals</b>
<b>Planning area</b>	7200	19421	20774	47395
<b>Commercial thinning (acres)</b>	1279	8173	9264	18716
<b>Precommercial thinning (acres)</b>	799	3080	10889	14768
<b>Other mechanical treatments (acres)</b>	995	712	85	1792
<b>Understory burning (acres)</b>	2520	13696	14174	30390
<b>Other fire treatments (acres)</b>	757	7159	13719	21635
<b>Temporary road construction (miles)</b>	1.0	6.8	7	14.8
<b>Road closures (miles)</b>	30	12.8	29	43.8
<b>Timber production (mmbf)</b>	3.1	15.1	13.2	31.4

**Table 3. Summary of total MNF restoration work and BMFP projects completed by year.**

	2004	2005	2006	2007	2008	2009	2010	2011	2012	Totals
<b>MNF Budget (millions of dollars)</b>	17.9	16.8	19.9	21.9	21.9	22.7	33.6	22.8	21.9	199.4
<b>Commercial thinning (acres)</b>	2919	3793	4882	4519	6838	8971	7399	6999	5422	51742
<b>Pre-commercial thinning (acres)</b>	3130	4996	4450	6958	3543	6583	16491	3832	4853	54836
<b>Underburn (acres)</b>	9301	5421	3828	10493	6764	7885	3907	6546	3023	57168
<b>Pile burn (acres)</b>	5955	5308	1499	5645	2221	3581	6506	3140	7997	41852
<b>Timber sold (mmbf)</b>	63	14	30	14.2	29.2	20.6	20.9	20	18.7	230.1
<b>Timber cut (mmbf)</b>	46.4	10.8	14	23.4	12.6	34.0	18.8	19.9	27.3	207.2
<b>BMFP projects sold (mmbf)</b>	0	0	0	0	0	3.1	6.1	11.2	2.3	22.7
<b>BMFP projects treated (acres)</b>	0	0	0	0	0	524	477	312	242	1555

**Figure 1. Summary of MNF budget, total volume sold, and total volume sold from projects collaborated on by BMFP.**



During their deliberations, the BMFP frequently expressed a desire to tailor treatment prescriptions to the different forest types found on the MNF. The Integrated Landscape Assessment Project (ILAP) has developed Potential Vegetation Types (PVTs) that describe overstory forest composition in the absence of disturbance.\* In reality, few if any forests on the MNF have developed in the absence of disturbance, but these PVTs serves as surrogates for variation in temperature and precipitation regimes that tend to support different forest communities. There are five such PVTs on the MNF in the pine and mixed conifer zones where most timber management on the MNF occurs:

1. Cool/moist grand fir
2. Warm/dry grand fir
3. Dry Douglas fir
4. Dry ponderosa pine with juniper
5. Xeric ponderosa pine

The overstory of the cool/moist grand fir PVT typically consists of a mix of older (>150 years old) ponderosa pine and grand fir. The overstory of the warm dry grand fir PVT is typically dominated by ponderosa pine, with varying amounts of grand fir. The overstories of the other three PVTs typically consist almost entirely of ponderosa pine.

The understory of the cool/moist grand fir PVT typically consists mostly of grand fir and Douglas fir with few if any ponderosa pine. Understory composition in the warm/dry grand fir, dry Douglas fir and dry ponderosa pine typically consists of a mixture of ponderosa pine, grand fir, Douglas fir and occasionally juniper. Ponderosa pine typically dominates the understory of the xeric pine PVT, along with scattered Douglas fir and juniper.† Western larch and lodgepole pine are found in both the understory and overstory in cooler sites throughout the forest. Table 5 shows the distribution of these five PVTs within the pine and mixed conifer forest of the MNF and the acreage commercially treated in different PVTs by the Dads, Damon and Soda Bear project. The percentage of the treatments does not sum to 100% because 1,545 acres of treatments occurred outside the five mapped PVTs described above.

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\* See <http://ecoshare.info/ilap/about-ilap/>

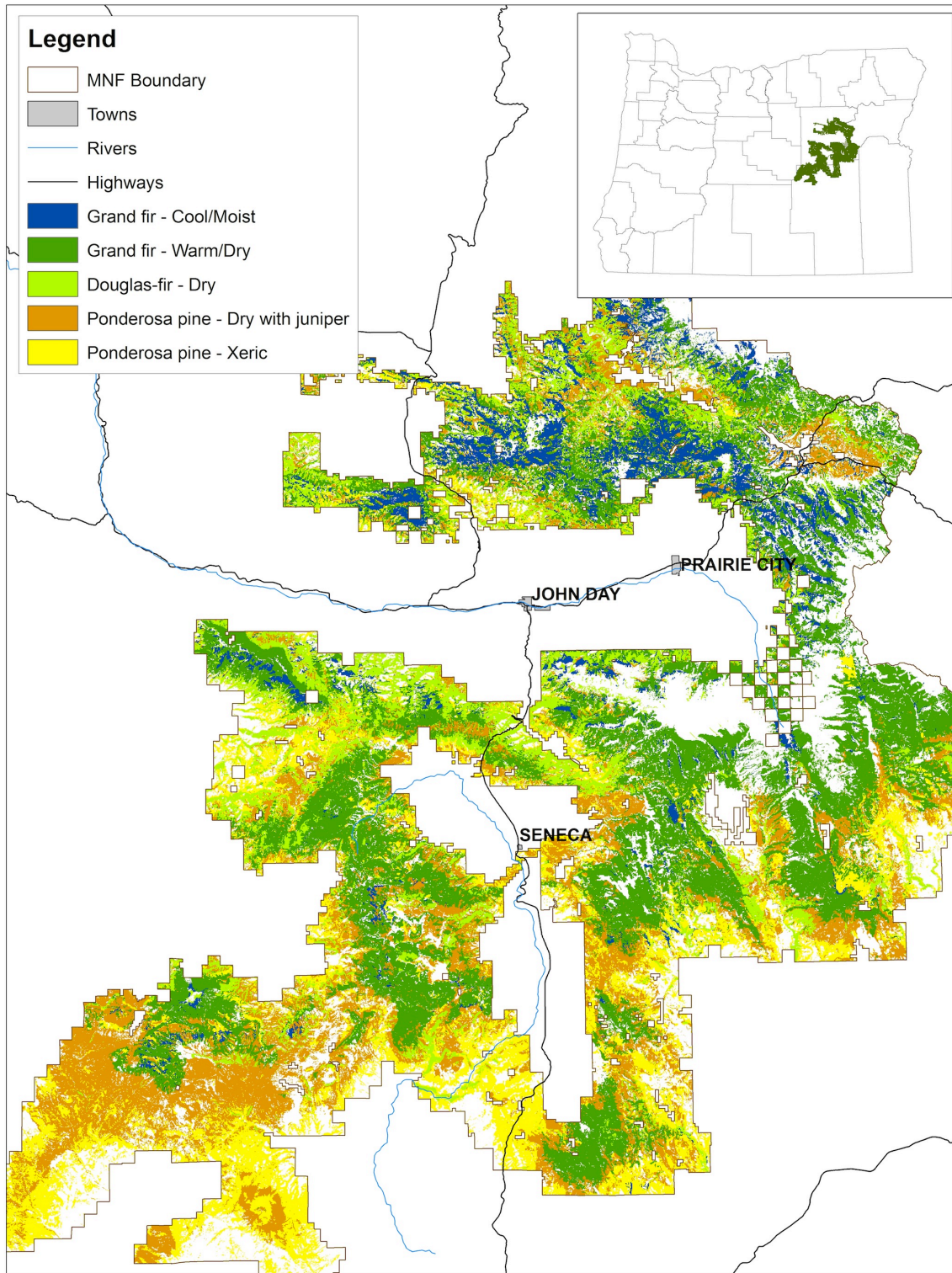
† All information about PVT composition is from James Johnston's (unpublished) PhD thesis data.

**Table 5. PVTs on the MNF and acres of each PVT commercially treated by the Dads, Damon and Soda Bear projects.**

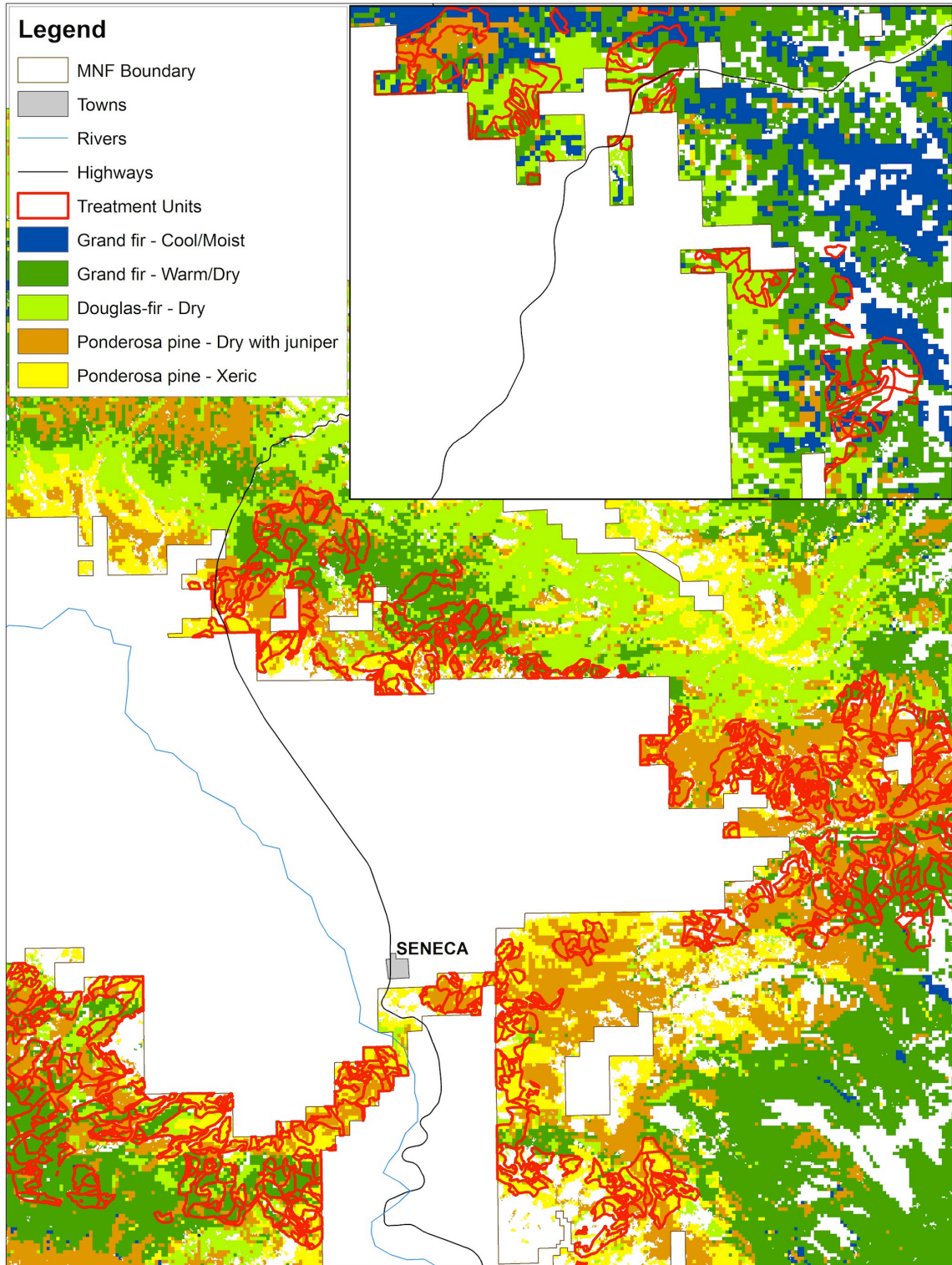
	<b>Acres</b>	<b>Percent of MNF</b>	<b>Acres treated</b>	<b>% of treated</b>
<b>Cool/moist grand fir</b>	111,032	8	175	1
<b>Warm/dry grand fir</b>	460,125	35	5,793	31
<b>Dry Douglas fir</b>	189,105	14	1,582	8
<b>Dry ponderosa pine</b>	304,367	23	6,188	33
<b>Xeric ponderosa pine</b>	244,666	19	3,433	18
<b>Totals</b>	1,309,298	100	17,171	92

Map 2 shows how these PVTs are distributed on the MNF. Map 3 shows how Dads, Damon and Soda Bear units overlay these forest types.

**Map 2. MNF PVTs**



**Map 3. MNF PVTs and treatment units (Dads units are shown in the inset at top right)**



## V. Conclusions

The analysis in this document suggests a number of conclusions about the BMFP's work:

- The size of projects generally increased as the group's work progressed. Recommendations tended to become more complex and specific.
- Ultimately, the group relied heavily on dry forest restoration guidance developed by Drs. Jerry Franklin (University of Washington) and Norm Johnson (Oregon State University).<sup>‡</sup>
- The BMFP has collaborated on projects in a variety of forest types that are roughly representative of the distribution of forest types on the MNF.
- The total amount of acreage that the group collaborated on is small relative to the total acreage of the MNF and the total amount of restoration need that has been identified by forest and region-wide assessments. The group's collaborative efforts are an increasingly important part of the total amount of restoration work undertaken by the MNF, but remain a minority of the total timber harvest undertaken by the Forest.

As of the writing of this report, there is considerable momentum to dramatically accelerate restoration treatments on the MNF. The BMFP's past work leaves us well positioned to play a key role in these efforts. Key questions that the group will need to continue to work to resolve include:

- What level of retention of different tree species, sizes, and ages is appropriate in different forest types.
- How to most effectively integrate commercial timber harvest with non-commercial restoration work including road closures and aquatic habitat restoration.
- How to ensure that restoration treatments translate directly into jobs and community economic stability.

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<sup>‡</sup> See J.F. Franklin and K. N. Johnson. 2012. A restoration framework for federal forests in the Pacific Northwest. *Journal of Forestry*. 110(8):429-439



## Appendix A: Acronyms and terminology

BMFP	The Blue Mountain Forest Partners
DOGs	Designated Old Growth (groves)
Drip line	The area surrounding a tree, the outer boundary of which is defined by the distance to the outermost leaves.
EA	Environmental Assessment
“Hinging” or “hinge tree”	Directionally felled conifer trees with a portion of the stem still attached to the stump within or adjacent to an aspen stand which acts as a physical barrier to inhibit ungulate browsing.
IRA	Inventoried Roadless Area
MNF	Malheur National Forest
OHVs	Off highway vehicles
ORVs	Outstanding Resource Values
PVTs	Potential Vegetation Types
RHCAs	Riparian Habitat Conservation Areas
RMOs	Riparian management objectives
WSR	Wild and Scenic River

## Appendix B: Sources and participants

### Sources

Blue Mountain Forest Partners, Full Group Meeting Minutes, January 24, 2008

Blue Mountain Forest Partners, Full Group Meeting Minutes, March 20, 2008

May 29, 2008 “Dads Creek Lessons Learned, May 2008” Notes

Blue Mountain Forest Partners, Project Planning Subcommittee Field Trip and Full Group Meeting, May 17, 2007 (no recommendations came from this group).

Draft Project Initiation Letter for the Shirttail Damon Project, Submitted by the Blue Mountain Forest Partners, July 3, 2007

Blue Mountain Forest Partners, May 2008 Meeting Notes

Damon Project Agreements to Date, June 2008

Blue Mountain Forest Partners, Damon Committee Field Day Notes, June 19<sup>th</sup>, 2008.

Blue Mountains Forest Partners, Damon Project Committee Meeting, July 17, 2008

Soda Bear Project Consensus Document, August 19, 2010

Soda Bear Subcommittee Notes, July 10, 2010

Office Meeting Notes – Soda Bear, August 12, 2010

Soda Bear Project Proposed Alternative Consensus Document, August 12, 2010

Blue Mountain Forest Partners Full Group Meeting, July 28, 2011.

Soda Bear Project: The Journey from Conflict to Consensus – Confronting Conflicts, Fostering Collaboration, Building Consensus and Community. Report prepared by Sugar Pine Cones and Associates. June-August 2010.

Elk 16 Field Trip Notes, August 17, 2011

Elk 16 In-Office Meeting Notes, September 22, 2011

Elk16+Decisions, December 13, 2011

Elk 16 Project Summary of Collaboration Proposals to FS, October 6, 2011

Elk16 Decisions with Forest Service Discussion Items, July 17, 2012

Blue Mountain Forest Partners Full Group Meeting Notes, September 20, 2012

Elk 16 Subcommittee Meeting Notes, October 17, 2012

Elk 16 Decisions With Forest Service Discussion Items, October 2012

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