

Accelerated Watershed/Vegetation Restoration Plan

Bighorn National Forest
March 15, 2004



Riley Point Fire, Bighorn National Forest, 2003.

Introduction

The Accelerated Watershed/Vegetation Restoration Plan for the Bighorn National Forest identifies our plan for restoring watersheds and ecosystems to sustainable, healthy, functioning levels through a 5-year plan and 10-year strategy.

The Bighorn National Forest (BNF) is in the process of revising its Land and Resource Management Plan; some of the data included in this plan is from the revision analysis process. Direction for development of this 10-year strategy, and our 5-year plan to implement it, comes from the current and projected revised Forest Plan goals and objectives, the National Fire Plan, the Healthy Lands Initiative, and the Healthy Forests Restoration Act.

Vision Statement

The Bighorn National Forest will strive to move the Forest resources in priority areas into conditions that foster public and employee safety, improve ecosystem function and focus on utilizing the tools provided through the Healthy Forest Initiative and enabled through the Bighorn Forest Plan. Public participation and collaboration foster effective treatments in an efficient manner to address the challenges of the current healthier watersheds, improved wildlife habitat diversity, reduced invasive species impacts and associated economic benefits to the local communities through more stable timber, grazing and recreation programs will result.

Budget

Based on the size of the Forest and associated staffing, increased funding to implement the Accelerated Watershed/Vegetation Restoration Program is not as critical as stable, timely funding. The limited staff and associated workloads make it extremely difficult and inefficient to react to late budgets and changing priorities.

A sound, productive and integrated program can be conducted if a specified funding level is identified early in the fiscal year and assured over a period of years.

AWRP Focus

The primary focus and concern of the fire and fuels (and consequently the AWRP focus) is to provide for firefighter and public safety which includes the safety of those living in communities at risk in and adjacent to Forest lands. Among the potential benefits of fuel reduction projects in providing for firefighter safety are development of safety zones for firefighters, creating anchor points for

suppression activities, and reducing fire activity to manageable levels. Fuels treatments adjacent to structures, communities, and other high value areas can increase the defensibility of those areas that improve public and firefighter safety. The effectiveness of the treatments is dependent the fire regimes involved and on site specific burning conditions.

In order to determine where to focus our efforts, we looked first at where our treatment priorities could be, these areas being based on evaluations of Condition Class, Wildland Urban Interface (WUI), hazard areas and areas that derive secondary benefits, such as improved forage production, improved habitat conditions, and improved watershed conditions. Treatment areas are also determined by the potential effectiveness of available treatments.

Bighorn National Forest Treatment Priorities

These priorities are based on the criteria listed below which describe the condition of the landscape as it relates to fire. The risks associated with them are used to determine treatment priorities for the BHF.

Evaluation Criteria

These criteria, describe:

- 1) Current ecosystem health (Fire Regime/Condition Class)
- 2) Potential for effectiveness of treatment
- 3) Values at risk (WUI/non-WUI)
- 4) Fire behavior and resistance to control in the event of a wildfire (High Hazard Acres)
- 5) Fire Risk

1) Fire Regime/Condition Class

Approximately 84% of the vegetated areas on the BHF are in Fire Regimes 2, 4, and 5. Approximately 39% of the Forest is in Condition Class 3 with the remainder either late in Condition Class 1 or early in Condition Class 2.

The fire regimes of the BHF are primarily Fire Regimes 2, 4 and 5, Table 1. Approximately 39% of the vegetated acres of the BHF are evaluated at a Condition Class 3, with another 56% as Condition Class 2 (Table 1).

Table 1: Fire Regimes/Condition Class on the Bighorn NF

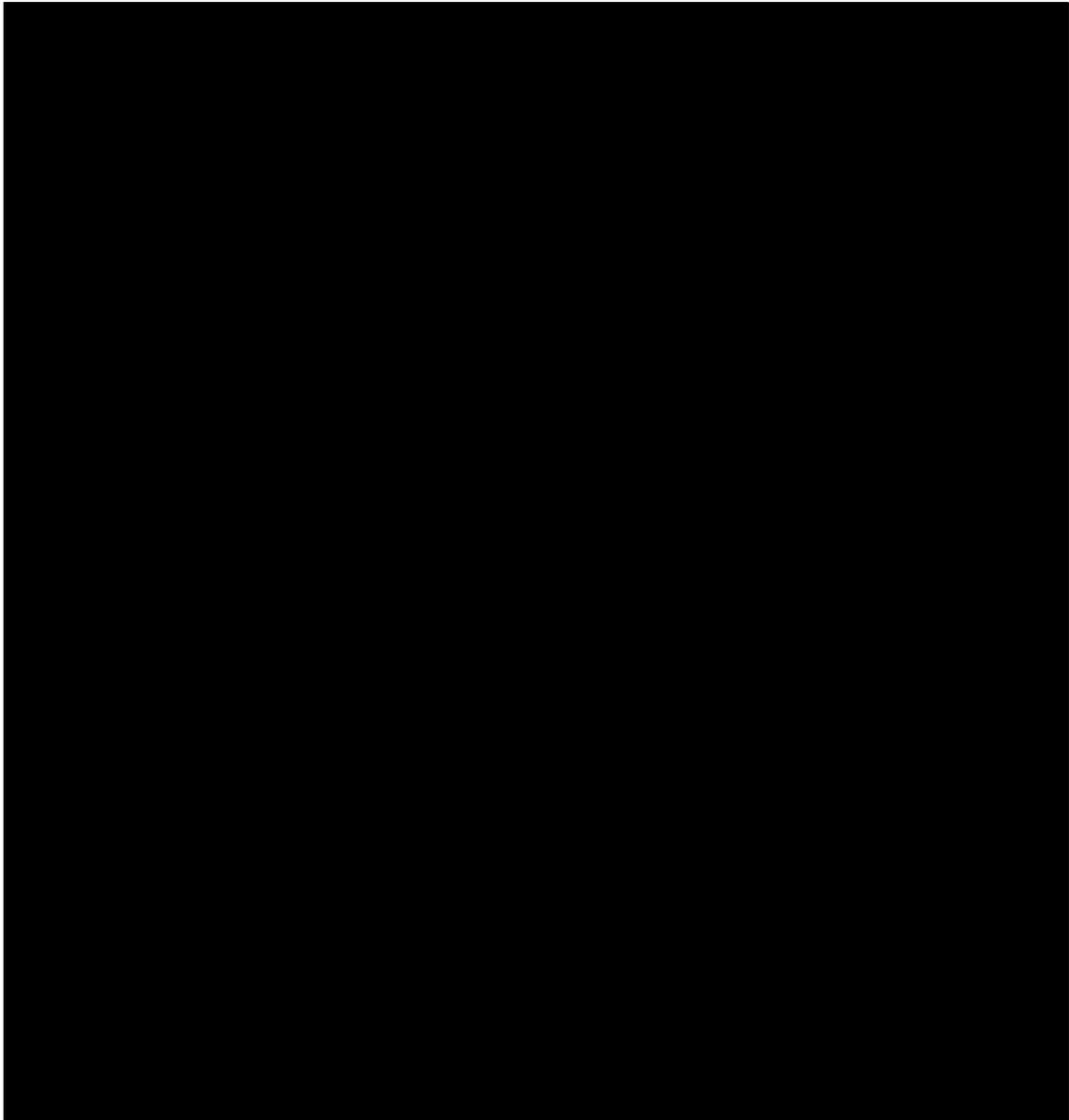
Fire Regime	Condition Class	Cover/Vegetation Type	% of Vegetated Acres on Forest
1	1	Ponderosa pine	<1%
1	2	Ponderosa pine	<1%
1	3	Ponderosa pine	3%
2	1	Sagebrush/Grass/Forb	<1%
2	2	Sagebrush/Grass/Forb	<1%
2	3	Sagebrush/Grass/Forb	29%
3	1	Limber pine/Douglas-fir/Rocky Mtn. juniper	<1%
3	2	Limber pine/Douglas-fir/Rocky Mtn. juniper	8%
3	3	Limber pine/Douglas-fir/Rocky Mtn. juniper	4%
4	1	Lodgepole pine	2%
4	2	Lodgepole pine	27%
4	3	Lodgepole pine	3%
5	1	Engelman spruce/Subalpine fir/ Aspen	1%
5	2	Engelman spruce/Subalpine fir/Aspen	21%

The fire regime groups and condition class classifications were determined from forest Integrated Resource Inventory (IRI) and Common Vegetative Unit (CVU) stand polygon data. The classifications were based on definitions presented by Wendel Hann and David Bunnell in *Fire and Land Management Planning and Implementation Across Multiple Scales, 2001*.

2) WUI Designation on the BHF

There are approximately 23 locations listed in the Federal Register (2001) as communities at risk located within or near the Forest. The Federal Register list includes the community of Story, which has an on-going collaborative fuels treatment program that involves Story, private landowners, the State of Wyoming, and the Forest Service. WUI on the Bighorn covers a wide range of improvements and values, such as actual communities like Story, groups of cabins, resorts and lodges, ski areas, administrative sites, isolated cabins, and private lands with improvements in and adjacent to the Forest. Lands adjacent to these values are considered to be within the wildland urban interface if, based on fuels (hazard), fire occurrence, topography, and access, a fire occurring within those lands would be expected to threaten the value/community. Because of the variables associated with determining WUI areas, the exact number of acres considered WUI on the Forest has not been determined. This determination is made in conjunction with site specific project planning efforts.

The Forest has 265 Summer Homes, 23 WUI / Communities @ Risk, 12 Resorts, 6 Guard Stations, 2 Ski Areas and 2 Visitor Centers Shown on the map following.



3) Hazard Acres

Fire hazard can be directly related to stand age, stand structure, live and dead fuel loads, and their resulting effects on fire behavior. Differences in fuels and how they react to such factors as wind, humidity, and topography are also considerations.

Crown base height (CBH), crown bulk density (CBD), and stand height were determined for the average site for each cover type and subsequently for each forested fuel model identified on the Bighorn National Forest. Live and dead fuel moisture levels and wind speed and direction were determined using historical Remote Automated Weather Station (RAWS) weather station data processed through Fire Family Plus. GIS was used to create a fuel model layer and the above information was used for FlamMap, which is a program to display fire hazard. Table 2 shows the percentage of the BHF in each fire hazard rating class determined through FlamMap runs for 22 and 32 mph wind speeds.

Table-2. Percent of area (excluding non-vegetated areas) in each fire hazard rating class for 22 mph winds and 32 mph wind gusts for the BHF.

22 mph, 20-foot winds			
Low	Moderate	High	Extreme
92%	4%	4%	<.1%

32 mph, 20-foot winds			
Low	Moderate	High	Extreme
81%	13%	2%	4%

4) Fire Risk

To further evaluate the relationship of fire to overall forest management and protection, fire hazard must be related to risk. Risk relates to the source and number of ignitions, which can result from either human-caused or natural (i.e. lightning) ignitions. Although fire risk is simple to calculate, it is often difficult to predict, especially with human-caused fire starts.

Fire risk is the simple measure of fire starts on a 1,000-acre basis per ten-year period (per decade). The fire risk value corresponds to a likelihood of fire starts per 1,000 acres per decade. The following are risk ratings with the ranges of values used to categorize risk.

- ?? Low Risk: 0 to 0.49 – This predicts a fire every 20 or more years per thousand acres.
- ?? Moderate Risk: 0.5 to 0.99 – This predicts one fire every 11 to 20 years per thousand acres.
- ?? High Risk: ? 1.0 – This level predicts at least one fire every 0 to 10 years per thousand acres.

The risk analysis used historical fire data from 1970 to 1996. Fire locations were plotted and overlaid on a Forest map. This revealed no definitive, homogeneous geographic areas in which to group fire occurrence. As a result it was decided to analyze fire risk on the Fire Management Zones (FMZ's) established in NFMAS

for the Bighorn NF. The Fire Management Zones and associated fire risk are displayed in Table 3. In very general terms, FMZ 1 would be comprised primarily of Fire Regimes 1 and 2 with FMZ 2 comprised primarily of Fire Regimes 3, 4, and 5.

Table-3: Fire risk analysis (1970 – 1996) for the Bighorn National Forest.

Analysis Area	% of Bighorn NF	Number of Ignitions	Natural (Lightning) Ignitions	Human-caused Ignitions	Fire Risk
FMZ 1, Bighorn Mountain Face Below 7000 Feet	27%	215	151	64	.27 Low
FMZ 2, Montane Above 7000 Feet	56%	354	113	241	.21 Low
FMZ 3, Cloud Peak Wilderness	17%	12	4	8	.02 Low
Bighorn NF Average		581	268	313	.19 Low

Source: Fire Management Zones (FMZs), acres, and ignition data are from Bighorn National Forest NFMAS.

Priorities

Priority areas for treatment are based on a combination of the following factors:

- 1) WUI – discussed above
- 2) Fire Regimes and Condition Classes – discussed above
- 3) Municipal Watershed – discussed below
- 4) Insect and Disease susceptibility – discussed below
- 5) Values at risk
- 6) Public and Employee Safety & Health

The BHF is largely contiguous National Forest System lands, with little other ownership interspersed. About 7,000 non-National Forest System acres are within the approximately 1.1 million-acre BF.

Municipal Watersheds

Streams originating on the Bighorn National Forest provide an important source of year-round water for the arid areas lower in the valley. One of the most important off-site uses of water produced on the forest is for domestic use. There are five cities located at the base of the mountains that rely on surface water that originates on National Forest System lands. The State of Wyoming Department of Environmental Quality (DEQ) does not officially designate watersheds that produce water for domestic use. However, the State does

designate Class 2AB as waters that have sufficient water quality and quantity to support drinking water supplies and protect those waters for that purpose. The following watersheds have been identified by the State as being suitable for drinking water and have been identified by the Environmental Protection Agency as serving community water systems or in two instances State of Wyoming fish hatcheries.

Table 4: Municipal & Other Important Watersheds.

Watershed Name	Use Classification	City Served	Risk
Tongue River	CLASS 1 Outstanding waters	DAYTON & RANCHESTER, WY	LOW
Clear Creek	CLASS 2AB Managed for game fish populations with protection of all other designated uses	BUFFALO, WY	LOW
Goose Creek	CLASS 2AB Managed for game fish populations with protection of all other designated uses	SHERIDAN, WY & VA MED. CENTER	LOW
Shell Creek	CLASS 2AB Managed for game fish populations with protection of all other designated uses	SHELL, WY	HIGH
Tensleep Creek	CLASS 2AB Managed for game fish populations with protection of all other designated uses	Non-municipal Supports 2 state fish hatcheries and agriculture, directly off-Forest	HIGH
Piney Creek	CLASS 2AB Managed for game fish populations with protection of all other designated uses	Non-municipal Supports a state fish hatchery, and scenic values, directly off-Forest	MOD

Risk for these watersheds, relative to each other, was qualitatively evaluated based on the potential for catastrophic fires and the values associated with the water supply. For example, a large portion of the Tensleep Creek drainage is within fire regime 3, containing a large amount of beetle killed trees. The Tensleep Creek drainage supports two State fish hatcheries, which produce one of the Forest's native and regionally sensitive Yellowstone cutthroat trout. Although it is not a municipal watershed, pulses of sediment and ash, associated with a catastrophic fire, would have a negative impact on those facilities. Conversely, a majority of the Goose Creek watershed is in fire regime 4, dominated by lodgepole pine. Stand replacing fires are likely and expected, but catastrophic fires, having large effects on the water supply to Sheridan may have a lower probability of occurrence.

The Vegetative Situation

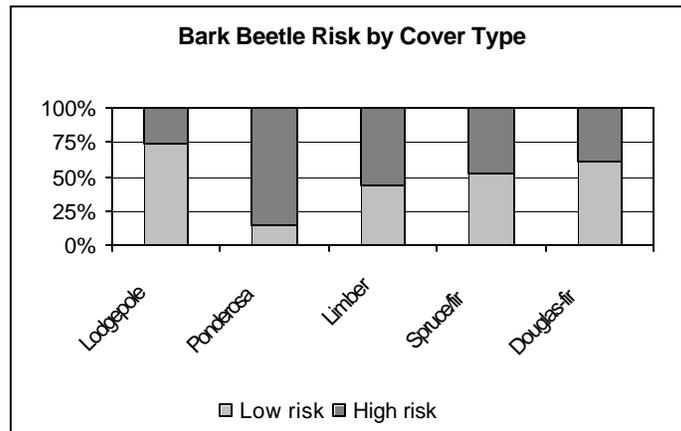
The Bighorn National Forest is characterized, very generally, by the following vegetation conditions:

- ?? About 65% of National Forest System lands are forested, 25% is grass/forb/shrub, and 10% is non-vegetated, primarily rock.
- ?? About 20% of the forested area has been harvested over the past 100+ years of National Forest management.
- ?? About 34% of National Forest System lands are subalpine forests (lodgepole pine or spruce-fir), about 6% is Douglas-fir and about 1% is ponderosa pine.
- ?? There are large parks, particularly on the northern, western and southern areas of the National Forest.

Insects and Disease

Based on current stand exam data, the majority of the forested acres are at a moderate to high hazard for bark beetle infestation, as shown below in figure 1. Dense mature stand conditions, combined with drought are also contributing to outbreaks of Douglas-fir spruce beetle and subalpine fir decline. Mistletoe, White Pine and Comandra Blister Rusts, and Western Gall Rust are among the diseases active on forest. These all have resulted in areas of dead and dieing trees, from a few acres to over a thousand acres. While the native insects and diseases are a natural component of the ecosystem, the epicenters can create conditions of unacceptable hazard to valued components such as watersheds and private and public improvements.

Figure 1: Bark Beetle Risk for the Bighorn National Forest.



Forest vegetation projects – past program levels

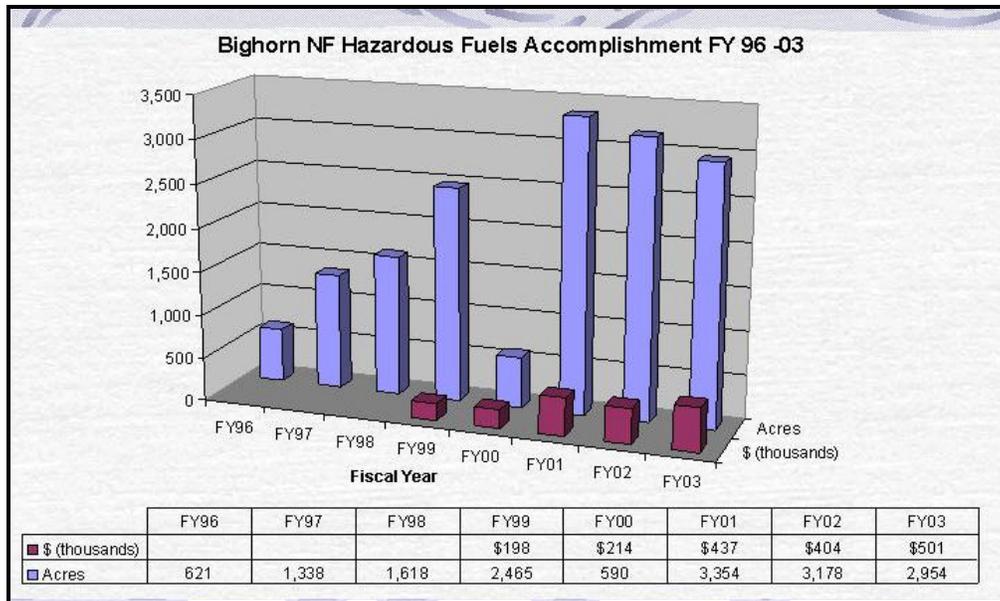
Wildlife/Vegetation

Wildlife programs on the BHF have steadily improved habitat structure and Condition Class each year. The majority of the projects that have been accomplished in fuels have provided benefits for wildlife habitat as well. Apart from the changing current conditions; vegetation treatments may change the response of flora and fauna to disturbances such as wildfire and drought.

Hazardous Fuels/Timber

Fuels management on the Bighorn National Forest has become more active since implementation of the National Fire Plan. The low production figure in 2000 was due to a severe fire season and a subsequent suspension of prescribed burning due to a national shortage of resources.

Figure 2: Past program levels for Hazardous Fuels



Ten Year Strategy

The National Fire Plan combined with current efforts at Forest Plan revision provided the impetus for the Bighorn NF to address planning and implementation of the strategy. The strength the Bighorn carries is its ability to integrate resource functions into this strategy, due primarily to the Forest's smaller size, ongoing planning efforts and experience implementing showcase projects. The small size of the Bighorn, especially in regard to staffing and budget, make it imperative that projects are integrated across resource fields and as a result of

this integration, projects frequently have multiple objectives and benefits, such as fuels reduction and hazard mitigation, wildlife habitat improvements, livestock forage improvements, and timber products.

The Bighorn has mapped and assessed the priority of **fire regimes and condition classes**. Several projects have been initiated within Fire Regimes 1 and 2, Condition Class 2 and 3. These include the Story Fuels, Little Bighorn, and the Bench Fuels projects. While most of the Fire Regimes 1 and 2 exist at lower elevations with smaller areas of urban interface around the Forest, as previously described in the Hazard Acres section, integration opportunities abound with wildlife habitat needs, rangeland management emphasis to improve shrub and aspen communities, and commercial harvest where appropriate. Program emphasis has been realigned from primarily prescribed burning to incorporate mechanical treatments. The Bighorn's strategy incorporates expanding these types of projects to address these priority sites.

Many of the Forest's **WUI sites**, as described in the Federal Register, exist as more isolated sites typically not within Fire Regimes 1 and 2, but in Condition Classes 2 and 3 sites, as they are at higher elevation montane areas. This provides the opportunity to integrate recreation and vegetation management including fuels and commercial timber harvest. Commercial timber sales, such as the Swamp area, integrated fuels objectives and timber harvest within a WUI. Other projects addressing concerns in these WUI sites that are in various stages of implementation include the Bench, West Tensleep, and Porcupine projects. In areas where WUI's and condition classes overlap at lower elevations, the Forest has begun implementation of projects such as Story Fuels and Little Bighorn as residences occur in these areas. The Forest also has an on-going program of fuels reduction around and adjacent to summer home groups and Forest Service Work Centers. Although most of these areas are in Fire Regimes 4 and 5, they are very important in providing defensible space, which increases firefighter and public safety. Again, expansion of these concepts and experience would be carried forward in the ten-year strategy.

With many areas of the Forest experiencing increased levels of **insects and disease**, the Forest is incorporating this priority into the strategy, as demonstrated by current efforts with the Bench, Bald Mountain, and Woodrock projects, which involve reducing insect and disease infested trees through commercial harvest near summer home groups and recreation sites. Various types of fuel treatments are incorporated into these projects as opportunities are identified. Opportunities for expanding aspen vegetation for fuel breaks and wildlife habitat has become a recent focus in these projects. With much of the Forest in a high to moderate bark beetle risk category, this priority is typically manifested at the higher elevations, allowing integration with WUI sites in several areas of the Forest.

Municipal watersheds, as described above, have been used in prioritizing the strategy. An example is the Bench project, which directly seeks to restore and protect watershed conditions that are drastically altered from insects and disease and at threat from wildfire.

Projects to implement the strategy have been based on sites where there is a high degree of overlap of the priorities. The Forest stands able to address these priorities and projects through its current efforts in Plan Revision, and will be incorporating these priorities into its preferred alternative and management direction in the Revised Plan. The most beneficial aspect of the plan revision process applicable to this strategy will be rollover of the involvement of the communities surrounding the Forest and stakeholders interested in management of the Forest.

Ten year strategy at current program level

The Forest Plan revision, along with the National Fire Plan, Healthy Lands Initiative and the Healthy Forest Restoration Act has provided ample impetus to the Forest. We have already begun to plan at the watershed or geographic area level. Within the next ten years this should allow us to be more efficient in the use of limited funding.

The Forest recognized that given the existing conditions, habitats, and land patterns we will not be the highest priority regionally for funding of fire/fuels restoration projects. The Forest will continue to focus efforts on maintaining water quality through transportation and dispersed recreation management (including unrestricted off-road use) by reducing travel and recreation impacts to watersheds. As such we must look to integrating our needs with other resources, and make the best of what we are able to compete for. This is the forte of the Bighorn, and we don't foresee that changing.

We will focus on our priority areas, and where we can integrate restoration activities with other multiple uses. Priorities for WUI's and neighbors receptive to commensurate work will be sought. Opportunities for treating our lower fire regimes and condition classes will be explored. Proper functioning watersheds are the cornerstone of the Forest and protection and maintenance of them is essential. All the while we need to be responsive to catastrophic events, including the epidemics of insects, disease, blowdown and wildfire.

In addition we will consider the historic scale of events that have occurred on this Forest, 60,000 acre fires within the past 150 years. These are no longer acceptable to our publics, and we need to consider how we establish some resilience to our Forest to ameliorate these events. Much of this will be accomplished above the lower fire regimes and condition classes, but is essential for maintenance of our Forest.

The Forest plan revision includes revised monitoring elements to assist us in application of these tools, and yearly monitoring reports are often used in adaptive management planning.

Five year plans at current funding

The BHF has an aggressive schedule set up for the current funding level. To achieve it will involve collaboration between BLIs, and working cooperatively with federal, state, and local partners to achieve our goals. Appendix A displays the projects, purpose, accomplishments and funding sources. Final production levels will depend on funding, available qualified personnel and burning windows.

Consistent and stable funding sources would be optimum to achieving the projects identified on this plan. The Forest is not staffed at a level that allows us to react to rapidly changing priorities.

Collaboration - Outside Partners

Collaboration and partnership projects with non-federal agencies are routinely conducted on the Bighorn NF. Groups provide not only funding for projects, but also support for fire prevention, input for projects and planning documents, help in hazardous fuels and invasive species reduction, and promote community awareness and understanding of wildfire in urban interface areas.

Local Volunteer Fire Departments (VFDs) and **Counties** are involved in fire management on the Bighorn. They work extensively with the forest during the planning and implementation of Hazardous Fuels Projects, such as Story and Bench Fuels. They provide input and information annually for the annual update of the Fire Management Plan. Cooperative fire protection agreements are in place with these partners and other agencies. As a small Forest in a rural area, the Forest values and promotes these partnership opportunities.

Federal partners include **Bureau of Land Management** and **National Park Service**. These partners are and will continue to be involved on adjacent lands to the National Forest.

We coordinate treatment of lands adjacent to the **Tribal lands** to the north of the Forest and those of cultural significance to other tribes.

State partners include **Wyoming State Forestry** and **Wyoming Game and Fish Department**. Both of these partners were involved and conducted similar treatments on adjacent lands to the Story Fuels project, and the Little Bighorn project. There are other sites within the priorities that will involve the continued coordination with these partners.

The Bighorn NF involves **permittees** (range and recreation) in the project planning processes. Their involvement has been demonstrated in treatments of summer home group sites, and prescribed fire projects to improve wildlife and livestock forage in the FR 1 and 2, CC 2 and 3 sites, such as the Southwest Fuels project.

The **Rocky Mountain Elk Foundation** has indicated it has an interest in assisting with elk habitat and has funded many past treatment projects to enhance aspen, and prescribed burning in FR 1 and 2, CC 2 and 3 sites. Projects are planned for submission to continue this partnership.

The **Nature Conservancy** has been a strong partner with the Forest involved in the Fire Learning Network. Efforts of this network will help in implementation of Forest projects through the public contacts and educational opportunities, and has been the foundation for work outlined in the Southwest Fuels project. In addition, the Nature Conservancy has been acquiring more easements within FR 1 and 2, CC 2 and 3 sites that surround the Forest at the lower elevations, and would continue to be a strong partner in the future as additional projects develop. Many partners including the **NRCS, Conservation Districts**, and **Wilderness Watch** are involved in monitoring of projects conducted on the Forest that pertain to the priorities involved in the plan. Hosts of other volunteers and services help in disseminating information and public contacts regarding Forest projects.

Implementation tools

These additional tools should allow faster implementation of fuels projects, and will continue to be an asset for current and future projects.

IDIQ will be used for fuels and thinning contracts, along with negotiated contracts with 8(a) and HUB Zone contractors.

Stewardship Contracts

The possibility of using the stewardship tool is being explored for the Bench and Woodrock projects. The intent is to use the stewardship authority on both projects.

CE

To date, the BHF has signed one category-13 CE. Work is currently under way on the documentation and planning for 1 category 10 CE, and 4 cat. 14-CEs.

Integrated Management and Multi-financing

The small size of the BHF, not only in acres but also in staffing requires us to be innovative in our approach. To this end we continually explore opportunities to integrate our management activities. Many of the priority projects on the Forest have benefits to multiple resources. In order to accomplish this with limited staffing and budgets multi-financing opportunities are often sought.

Bighorn Forest Advantages

- ?? Relatively small forest
- ?? Few private in-holding
- ?? Strong integration of specialists including: Timber, Fire, range, aquatics, recreation, wildlife and engineering to name only a few.
- ?? Tribal and Public Collaboration

Bighorn Forest Disadvantages

- ?? Large number of summer homes
- ?? Scattered Private structures along Forest boundary
- ?? Limited Budget for implementation
- ?? Budget timing
- ?? Short turnaround planning is major impact on small workforce
- ?? Extent of designated roadless areas

Bighorn Forest Needs

- ?? Regional Office support in development and awarding of our first stewardship contract.
- ?? Contracting support in preparing, advertising and awarding our stewardship and other contracts in a timely manner.

Safety

All project and priorities set within this program and schedule are based on doing the job safely and efficiently. The Forest will not take chances with the application of fire prescriptions or personnel safety to accomplish any targets. We will make every effort to keep our production level at the highest level possible without any compromise of safe working practices.

Conclusion

The Bighorn National Forest Accelerated Watershed/Vegetation Restoration Plan acknowledges a Forest scale situation that does not warrant the urgency or present the risks that exist on other Forests in the Region.

The Forest's highest priority objectives are integration of all program areas to escalate stewardship activities at locations where real property or unique resource values are a recognized public interest. The single most uncertainty on delivering this plan lies in the stability of the Forest's base level funding. Supplemental funding to address the urgency at the Regional scale is recognized. The Bighorn's largest contribution to the Regional Accelerated Watershed/Vegetation Restoration Plan lies in the endorsement of the Regional

priorities while adapting our base program locally to be in concert with Regional emphasis.

Appendix A – Treatment Details

Fiscal Year 2004

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2004 OUTPUT	EBLI	PART-NERS	FOREST PRIORITY	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Pete's Hole	Fuels and reduced fire hazard, Secondary-improved wildlife habitat	1200 Acres Burning, FR2-CC 2/3	1200 Acres	WFHF	RMEF	H	NEPA	SHPO Burn Plan Late Summer/Early Fall Burn
Story Fuels WUI	Fuels and reduced fire hazard	689 Burn Acres FR1-CC3	225 Acres Mechanical	WFHF	State of WY	H	NEPA SHPO	Burn Plan
Little Bighorn WUI	Fuels and reduced fire hazard, Secondary-wildlife habitat Imp	13,000 acres burning, FR1/2/3-CC2/3	1100(600 Acres to date)	WFHF NFVW	RMEF MDF	H	NEPA Burn Plan	SHPO (8/1/040)
Little Horn #3 WUI	Fuels and reduced fire hazard	20 Acres Burning, FR1-CC 2/3,	20 Acres	WFHF		H	NEPA SHPO	Burn Plan
Upper Shell	Fuels and reduced fire hazard, Secondary-improved wildlife habitat	500 Acres Burning, FR2-CC2/3	500 Acres Burning,	WFHF	RMEF	H	NEPA SHPO Burn Plan	Check Cultural Clearance
South Slope	Fuels and reduced fire hazard, Secondary-improved wildlife habitat	4,108 Acres Burning, FR1/2-C2/3	250 Acres Burning,	WFHF	RMEF	H	NEPA SHPO	Burn Plan Check Cultural
Horse Creek Mesa	Fuels and reduced fire hazard, Secondary-improved wildlife habitat	250 Acres Burning, FR2CC2/3	250 Acres	WFHF		M	NEPA SHPO Burn Plan	Check Cultural
Swamp Timber Sale WUI	Timber production, fuels reduction, wshed protection, veg. restoration, and property protection.	668 acres of mechanical treatment. 6,861 CCF, FR 3, CC1	668 acres of mechanical treatment.	NFTM		H	Sale Sold	

Fiscal Year 2004 Continued

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2004 OUTPUT	EBLI	PART-NERS	FOREST PRIORITY	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Bald Mountain Salvage	Bark beetle epidemic; fuels reduction, watershed protection, veg. restoration, and property protection.	250 acres of mechanical and chemical treatment. 1,500 CCF	250 acres of mechanical and chemical treatment	SSSF SPFH NFTM		H	SHPO concurrence before beetle flight.	CE
Crooked Shell Salvage	Bark beetle epidemic; fuels reduction, watershed protection, and veg. restoration.	50 acres of mechanical and chemical treatment. 200 CCF, FR 4, CC1	50 acres of mechanical and chemical treatment	NFTM		H	NEPA SHPO Fuel Treatment Plan	Contract – extension of Shell Res. Sale
Riley Point Salvage	Salvage from wildfire, watershed protection, and vegetation restoration	250 acres of mechanical. 2,400 CCF, FR 3-CC1	250 acres of mechanical	NFTM		H	CE SHPO	Pre-haul Maintenance inspection, ½ mile temp. rd.
Pre-commercial thinning WUI	Pre-commercial thinning,-Poison	61 acres WUI 367 non-WUI, of mechanical, FR 3-CC1	61 acres WUI, 367 non-WUI, of mechanical	CWKV NFVW		H	NEPA SHPO	
Paintrock	Fuels & reduced fire hazard, Secondary wildlife habitat imp.	Planning 3000 FR 2/3-CC 2/3	Planning	WFHF NFWF	RMEF			EA 9/04 Burn Plan SHPO

Fiscal Year 2005

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2005 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Bench WUI	Bark beetle epidemic; fuels reduction, watershed protection, vegetation restoration, and property protection	Combination of mechanical, burning -1000 Acres, 5,000 CCF removed, FR 2/3-CC2/3	1000 acres Mechanical	WFHF SPFH NFTM SSSF	Bighorn County Conserv. District. Wyoming G &F, mountain bike users, O&G, Northwind association		NEPA-CE SHPO concurrence Stewardship contracting Burn Plan
Devil's Canyon	Fuels and reduced fire hazard	Planning 4500 Acres, Burning, FR2/3-CC2/3	1180 Acres Elk Springs	WFHF	RMEF	NEPA	SHPO Burn Plan
Story Fuels WUI	Fuels and reduced fire hazard	690 burn acres & mech. Treatment FR1-CC3	225 Acres	WFHF	State	NEPA SHPO.	Burn Plan
Little Bighorn WUI	Fuels and reduced fire hazard, secondary-wildlife habitat improvement.	13,000 Acres Burning, FR1/2/3CC2/3	1000 Acres	WFHF NFVW	RMEF	SHPO Except Pass Cr	Burn Plan
South Slope WUI	fuels and reduced fire hazard. secondary-Improved wildlife habitat	5,000 Acres Burning, FR1/2-CC2/3	500 Acres Burning,	WFHF	RMEF	NEPA SHPO	Burn Plan Check Cultural
Spring Creek	Fuels and reduced fire hazard. secondary-Improved wildlife habitat	1500 Acres Burning, FR2CC2/3	1500 Acres	WFHF	RMEF	NEPA SHPO Burn Plan	
Grouse Creek	Fuels and reduced fire hazard. secondary-Improved wildlife habitat	1600 Acres Burning, FR2/3CC2/3	1600 Acres	WFHF	RMEF	NEPA	SHPO Burn Plan

Fiscal Year 2005 Continued

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2005 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)		CRITICAL PATHS (Needed)
Woodrock WUI	Integrated project, watershed protection, vegetation restoration, fuels reduction, and property protection	1082 acres, combination of mechanical, burning, 7,500 CCF removed, FR 3/4, CC1	1082 acres,	NFTM BDBD CWKV NFVW	Wyoming state trails coordinator	SHPO Concurrence Stewardship NEPA		SHPO concurrence, Stewardship contracting NEPA Draft
Pre-comm. Thinning WUI	Pre-commercial thinning, Gold Mine	800 acres of WUI, 200 acres non-WUI, mechanical, FR 3/4-CC1.	800 acres of WUI, 200 acres non-WUI,	CWKV NFVW		CE SHPO		
Southwest Fuels WUI	Fuels and reduced fire hazard,	24,850 prescribed/mechanical, FR1/2-CC2/3,	Planning	WFHF NFVW	RMEF			NEPA SHPO
Powder River Pass	Bark beetle epidemic; fuels reduction, watershed protection, and veg. restoration.	250 acres of mechanical and chemical treatment, 1,500 CCF, FR 4-CC1	Planning	SPFH NFTM		H	SHPO concurrence before beetle flight.	CE Roads-pre-haul maintenance package

Fiscal Year 2006

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2006 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
WUI Lodges	Fuels and reduced fire hazard.	Planning 2000 Acres Planning, Various Treatments, Various FRCC, By-products	Planning	WFHF	RMEF		EA 9/30/04 Treatment Plan SHPO
Little Bighorn WUI	Fuels and reduced fire hazard, secondary-wildlife habitat improvement.	13,000 Acres Burning, FR1/2/3CC2/3	1000 Acres	WFHF NFVW	RMEF	Burn Plan SHPO NEPA	
South Slope WUI	Fuels and reduced fire hazard. secondary-Improved wildlife habitat	5,000 Acres Burning, FR1C-C2/3	500 Acres Burning,	WFHF	RMEF	NEPA SHPO	Burn Plan Check Cultural
Southwest Fuels WUI	Fuels and reduced fire hazard,	24,350 prescribed/mechanical, FR1/2-CC2/3,	2,500 Acres	WFHF NFVW	RMEF		NEPA SHPO Burn Plan
West Tensleep Phase II WUI	Fuels and reduced fire hazard	200 acres mechanical, , FR4-CC2	Planning,	WFHF	adjacent land owners		CE – 9/06 Stewardship 9/2006
Snowshoe, WUI,	Fuels and reduced fire hazard. Secondary- wl habitat improvement	750 Acres Burning FR2-CC2/3	750 Acres	WFHF	RMEF	NEPA	New Burn Plan SHPO 9/2005
Mill Creek (Paintrock EA) WUI	Fuels and reduced fire hazard. Secondary-wildlife habitat improvement	600 Acres Burning, FR2-CC2/3,	600 Acres	WFHF	RMEF	NEPA	EA 9/2004 SHPO – 9/05 Burn Plan – 4/05

Fiscal Year 2006 Continued

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2006 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Little Horn #5 WUI,	Fuels and reduced fire hazard. Secondary-wildlife habitat improvement	1500 Acres Burning, FR2/3-CC2/3	1500 Acres	WFHF	RMEF	NEPA	Burn Plan SHPO – Pass Cr. – 4/06
Switchback	Integrated project, watershed protection, vegetation restoration, fuels reduction, & property protection.	50 acres of mechanical, 50 acres burning, 300 CCF removed, FR 2/3-CC 3.	Planning	NFTM SPFH WFHF BDBD CWKV NFVW	Wyoming Dept. of Transportation		Stewardship contracting SHPO Treatment Plan
Precom. Thinning WUI	Pre-commercial thinning, FR 3-CC 1	100 acres WUI, 900 non-WUI, of mechanical, FR3/4- CC1.	100 Acres	CWKV NFVW		Done	
Paintrock Basin	Fuels/Range/Wildlife	320 Acres FR2 – CC2/3	320 Acres	WFHF NFVW NFWF	RMEF	NEPA Burn Plan	SHPO 9/2005
Bench WUI	Bark beetle epidemic, fuels reduction, watershed protection, vegetation restoration & property protection	Burning of 50 mechanically treated acres FR 2/3-CC-2/3	50 Acres	WFHF SPFH NFTM SSSF	Bighorn Con. Dist., G&F, Mtn. Bike Users, O&G, and N. Wind Assoc.		NEPA-CE SHPO Concurrence Stewardship Contracting
Devils Canyon	Fuels and reduced fire hazard, secondary Wildlife habitat	4500 Acres Burning FR2/3-CC2/3	700 Acres	WFHF NFWF	RMEF	NEPA	SHPO Burn Plan
Story Fuels WUI	Fuels and reduced fire hazard	690 burn acres & mech. Treatment FR1-CC3	190 Acres	WFHF	State	NEPA SHPO.	Burn Plan

Fiscal Year 2007

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2007 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Little Bighorn WUI	Fuels and reduced fire hazard, secondary-wildlife habitat improvement.	13,000 Acres Burning, FR1/2/3CC2/3	1000 Acres	WFHF NFVW	RMEF	Burn Plan SHPO NEPA	
North Shell Beetle	Bark Beetle epidemic, fuels reduction, watershed protection & veg. restoration.	Planning 1000 Burning, 4500 Acres Com. FR 2/3-CC2/3	Planning	WFHF			CE Stewardship SHPO Burn Plan
South Slope WUI	Fuels and reduced fire hazard. secondary-Improved wildlife habitat	5,000 Acres Burning, FR1C-C2/3	500 Acres Burning,	WFHF	RMEF	NEPA SHPO Burn Plan	
Southwest Fuels WUI	Fuels and reduced fire hazard,	24,350 prescribed/mechanical, FR1/2-CC2/3,	2,500 Acres	WFHF NFVW	RMEF		NEPA SHPO Burn Plan
West Tensleep Phase II WUI	Fuels and reduced fire hazard.	200 Acres Mechanical, , FR4-CC1	200 Acres Mechanical	WFHF	adjacent land owners	NEPA SHPO Treatment Plan	
Bear Mesa	Fuels and reduced fire hazard. secondary-improve forage/habitat	1000 Acres Burning, FR2/3-CC2/3	1000 Acres Burning	WFHF	RMEF	NEPA	SHPO Burn Plan
WFU Prep	Fuels and reduced fire hazard	Burning and Mechanical, FR1CC2/3	Planning	WFHF	adjacent land owners		NEPA SHPO Treatment Plan
WUI Lodges	Fuels and reduced fire hazard. 265 lodges, 3 Resorts, 2 ski areas	500 Acres, Various treatments, Various FR-CC, , By-products	250 Acres, Various treatments,	WFHF	adjacent land owners		CE SHPO Treatment Plan

Fiscal Year 2007 Continued

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2007 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Poison	Integrated project, watershed protection, vegetation restoration, fuels reduction, and property protection.	500 acres, combination of mechanical, burning, WUI, 3,000 CCF removed, FR 3/4, CC1.	500 acres, combination of mechanical,	NFTM BDBD CWKV NFVW			SHPO concurrence-9/05, Stewardship contracting NEPA – 9/06
Precom Thinning	Pre-commercial thinning, FR 3, CC 1	200 acres WUI, 800 non-WUI, of mechanical FR 3,4-CC1.	200 acres WUI, 800 non-WUI, of mechanical	CWKV NFVW		NEPA SHPO	
Devils Canyon	Fuels and reduced fire hazard, secondary Wildlife habitat	4500 Acres Burning FR2/3-CC2/3	700 Acres	WFHF NFWF	RMEF	NEPA	SHPO Burn Plan
Paintrock AMP	Fuels and reduced fire hazard, secondary Wildlife habitat	2820 Acres Burning FR2/3-CC2/3	800 Acres	WFHF NFVW NFWF	RMEF		NEPA – 9/04 SHPO Burn Plan
Hunt Mountain Douglas Fir	Fuels and reduced fire hazard, secondary Wildlife habitat	4500 Acres burning & some mechanical	Planning	WFHF NFWF	RMEF		Burn Plan SHPO NEPA-CE
Hunt Mtn. Analysis Unit	Fuels and reduced fire hazard, secondary Wildlife habitat	1000 Acres burning FR2-CC2/3	1000 Acres	WFHF NFWF	RMEF	NEPA	SHPO Burn Plan

Fiscal Year 2008

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2007 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Little Bighorn WUI	Fuels and reduced fire hazard, secondary-wildlife habitat improvement.	13,000 Acres Burning, FR1/2/3-CC2/3	1500 Acres	WFHF NFVW	RMEF	Burn Plan SHPO NEPA	
South Slope WUI	Fuels and reduced fire hazard. secondary-Improved wildlife habitat	5,000 Acres Burning, FR1C-C2/3	500 Acres Burning,	WFHF	RMEF	NEPA SHPO	Burn Plan Check Cultural Burn Plan
Southwest Fuels WUI	Fuels and reduced fire hazard,	24,850 prescribed/mechanical, FR1/2-CC2/3,	2,500 Acres	WFHF NFVW	RMEF		NEPA SHPO
Tongue AMP	Fuels and reduced fire hazard. secondary-improved wildlife habitat	1000 Acres Burning, FR2-CC2/3	1000 Acres	WFHF	RMEF	SHPO	Burn Plan NEPA
WFU Prep	Fuels and reduced fire hazard.	500 Acres Burning and Mechanical FR1CC2/3	500 Acres	WFHF	Adjacent Landowners		
Hunt Mountain Douglas fir	Fuels and reduced fire hazard. Secondary-improved wildlife habitat	Up To 4500 Acres Burning w/ some mechanical treatment	4500 Acres	WFHF	RMEF		Burn Plan SHPO NEPA-CE
WUI Lodges	Fuels and reduced fire hazard.	500 Acres, Var. treatments, Var. FR-CC, By-prod	250 Acres	WFHF	Adjacent Landowners	CE SHPO Treatment Plan	
Pre-com. Thinning	Pre-commercial thinning, FR 3-CC 1	200 acres WUI, 800 non-WUI, of mechanical, FR 3/4, CC1.	200 Acres	CWKV NFVW		NEPA SHPO	

Fiscal Year 2008 Cont.

PROJECT	PURPOSE AND NEED	TOTAL OUTPUT (Projected)	2007 OUTPUT	EBLI	PARTNERS	CRITICAL PATHS (Completed)	CRITICAL PATHS (Needed)
Paintrock AMP	Fuels and reduced fire hazard, secondary Wildlife habitat	2820 Acres FR2/3-CC2/3	800 Acres	WFHF NFWF	RMEF		SHPO 9/2005 Burn Plan
Hunt Mtn. Analysis Unit	Fuels and reduced fire hazard, secondary Wildlife habitat	1000 Acres burning FR2-CC2/3	1000 Acres	WFHF NFWF	RMEF	NEPA	SHPO Burn Plan