

## **TIMBER AND VEGETATION MANAGEMENT**

### **Background**

Timber harvest has been part of the North Fork area history since western settlement, starting with small-scale harvest on private homesteads to meet the needs of local residents. National Forest management of timber increased in scope and complexity following the Second World War. Managing these forests for multiple benefits is a way of life in the North Fork. Insect and disease activity such as white pine blister rust, mountain pine beetle and various types of root rot along with high intensity, low frequency fire and localized blow down events are the primary natural change vectors for the North Fork Forests. The Forest Service built an extensive trail system in the Whitefish Range over the 1920's and 30's to establish a fire lookout system, employ local residents during the Great Depression, and provide access. In the 1940's, commercial timber harvest on National Forest lands in the North Fork began. Construction of road systems to facilitate timber harvest, fire suppression and recreational access represented the second phase of actively managing these lands.

During the 1950's and 1960's timber harvest was concentrated in mature spruce stands, often located in the upper reaches of many of the drainages, in response to a spruce bark beetle epidemic. Since it was generally salvage logging in pure spruce stands, harvest prescriptions at that time were most commonly clear cutting and overstory removal. White pine blister rust caused ongoing salvage operations from the mid 1960's to mid-1980's. A major mountain pine beetle outbreak in lodgepole and whitebark pine stands initiated large-scale salvage operations from mid-1970's until mid-1980's. Approximately 13,000 acres of commercial timber harvest in this time frame is largely attributed to the beetle epidemic.

Since the 1960's, timber harvest in the North Fork has been a combination of salvage of fire, insect and disease and blow down events and timber harvests to increase stand vigor and diversity to reduce the risk of epidemic beetle outbreak. General timber production was a significant management goal up until the mid 1980's. Records of timber harvest activity from 1950 to the late 1990's indicates a total of approximately 73,000 acres have had some type of timber harvest.

Since the mid 1990's, new laws, regulations and legal challenges have led to a significant reduction in commercial timber harvest activities in the North Fork. Timber management on national forest lands has been challenged at the local and national level. Concerns over endangered species such as the grizzly bear, bull trout, Canada lynx and other societal concerns led to limitations on forest management in an attempt to improve access management and conservation of landscape and ecosystem integrity. The protracted "roadless areas" debate and final ruling; impacts to water quality and budget concerns led to limitations on road use and construction. Litigation at a project level became the new

norm in adjudicating conflicting interests on national forests in general. The balance point between these conflicting interests has yet to be reached, however, great strides have been made at local and community levels.

In recent years, we have seen a modest recurrence of commercial timber harvest in some areas of the North Fork. Subsequent to large wildfires in 2001 and 2003, some salvage of fire-killed timber did occur. Fuels management projects have recently been approved and implemented through the use of stewardship contracting in the Trail Creek, Moose Creek and Hay Creek areas. These success stories are a result of good multiple objective planning, and collaborative involvement of interested parties.

Commercial timber harvesting in conjunction with the stewardship program is one of the few land management techniques that not only pay for themselves but generate excess revenue. These excess revenues can be reinvested to make improvements in our local forests. The Flathead valley area still has a robust forest products industry infrastructure. Sawmill capacity within Flathead County alone exceeds 200mbf annually. The forest products industry and support services accounts for nearly 20% of the local economy.<sup>1</sup>

### ***Current issues - Opportunities for Vegetation Management***

The ecological forest types found in the North Fork are diverse and productive. Evidenced by the robust and diverse wildlife populations, including a variety of endangered species, the habitat capacity of these forests are unique and must be maintained. This diversity presents both opportunity and limitations. Specifically, fire, endangered species habitat, political designations such as inventoried roadless, declining federal budgets and other issues provide sideboards for how forest management projects are developed in the North Fork.

The North Fork subunit of the Flathead National Forest encompasses roughly 309,300 acres of National Forest System lands (NFS). Under the existing 1986 forest plan, 116,507 acres are considered to be within the suitable timber base. The North Fork subunit also classifies 214,050 acres as "grizzly bear core", 56,291 ac of which are currently in the suitable base but not generally available for harvest. 136,642 ac are within inventoried roadless areas (IRA), 12,000 ac of which are also currently classified as suitable timber base but not generally available for harvest. 10,186 acres of the 1987 suitable timber base are classified as BOTH GB core and IRA and are not generally available for harvest. Thus, due to grizzly bear core and Inventoried Roadless Areas, the effective current suitable timber base which includes lands available for harvest is substantially less, closer to 58,500ac.<sup>2</sup>

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<sup>1</sup> U of M BBER 2013 Outlook 2013 Flathead County Report

<sup>2</sup> Heidi Trechsel G.V.R.D USFS 4/18/13

Under the current (1986) plan, roughly 116,507 acres are considered “suitable” for timber management.<sup>3</sup> Lands generally suitable for timber harvest are those areas that do not meet one of the following exclusions:

1. Timber Harvest prohibited by Statute, executive order or regulation
2. Soil, slope or other watershed condition will be irreversibly damaged by timber harvest
3. No assurance the lands could be re-stocked within 5 years
4. Trees are unable to grow due to environmental conditions
5. Lands where timber harvest is not compatible with desired conditions and objectives.

While lands may be considered “suitable” for timber management, those lands may not be available for timber management for a variety of reasons. For example, significant portions of those lands classified as “suitable” in 1986 have since been designated as Inventoried Roadless Areas or part of “grizzly bear core”. These designations have limited the availability of those acres for timber production.

## **Fire**

Fire regimes in North Fork forest types tend to be high intensity, low frequency in nature. Fire tends to be stand-replacement across large contiguous areas. Past fires in the north fork leave us with approximately 76,500 ac of forest on National Forest System lands that are largely in the seedling/sapling age class and are predominately stocked with lodgepole pine. This condition on this scale and continuity presents some vegetation management challenges. Large contiguous blocks of similar forest type – though historic and natural - increase the risk for insect and disease outbreaks, large scale fire activity and reduce the functionality of wildlife habitat due to lack of diversity of habitat types in close spatial relationships.

Essentially the entire North Fork area falls within lynx critical habitat designation. Seedling – Sapling lodgepole stand types fits the lynx foraging habitat need. However, there are 83,825 acres of lynx foraging habitat in the North Fork between fire areas, past harvest units and other natural events creating young age class forests, often in large contiguous blocks. Lynx denning habitat and travel corridors are not proportionate to the area of foraging habitat. Similarly, the results of large-scale wild fire can greatly alter habitats for wildlife species such as grizzly bear, bull trout and big game ungulates both in the short term and long term.

Management of these burned areas should focus on increasing diversity of species and age class while imposing a mosaic of patch size across the landscape. Appropriate management tools for these forest types include prescribed fire, pre-commercial thinning, commercial

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<sup>3</sup> Heidi Trechsel G.V.R.D USFS 4/18/13

thinning and patch cutting/regeneration harvests. Artificial regeneration to enhance species diversity should be considered. Management activities to reduce fuel loading, increase crown spacing and reduce fuel ladders should take place where USFS property adjoins private and in other strategic locations to help modify future fire behavior and mitigate the size and scale of future wildfire activity.

### **Insect and Disease**

Forests dominated by older age class late serial species such as alpine fir, grand fir and Douglas-fir are susceptible to insect and disease. Similarly, large contiguous stands of even aged lodgepole pine eventually will become susceptible to mountain pine beetle. It is not uncommon to see outbreaks of Douglas-fir bark beetle in areas surrounding or impacted by mixed severity fire.

Management for insect and disease should focus on two fronts: First priority should be salvage of dead, dying or infested trees to recover the value of timber affected and to help limit spread of insects and disease (while allowing for sufficient snag retention to ensure habitat for wildlife and other ecological functions). Secondly, managing for diversity of species and age classes and to maintain a high level of individual tree vigor is the universal prescription to prevent large scale insect and disease outbreak. Use of small-scale timber salvage sales to respond early to activity is an appropriate tool. Incorporating large-scale planning for forest diversity allows use of commercial timber sales to generate both economic and silvicultural benefit.

### **Unique Ecotypes**

The North Fork contains a variety of unique ecotypes, many of which seem to be at risk. Specifically, high elevation whitebark pine and subalpine larch, high elevation old growth spruce basins and western white pine forest types are underrepresented in relation to historic conditions. Varieties of elements contribute to this situation, including past forest management, fire suppression and stand replacement fire activity, climate change and insect and disease activity.

Active forest management, including natural and planned regeneration activities can promote the conservation and recovery of these unique forest types. Conservation and recovery of these forest types needs to be incorporated into both long-term and project level planning. Continued research and data gathering is critical to identifying these unique forests and the things that put them at risk.

### **Basic Goals and Guiding Principles for Forest Planning and Land Use Designations**

Future forest management in the North Fork will likely look different from past management. The following goals and guiding principles should be incorporated into the forest planning document to guide future management.

- **Landscape Level Planning:** Incorporate landscape level analysis and planning, relying on scientific analysis to develop long-term (50 year) comprehensive watershed scale integrated habitat and vegetation management plans.
  - Utilize a multi species integrated planning process specifically to address wildlife habitat management.
- **Ecological Resiliency and Integrity:** Forest management activities should employ both “passive” and “active” management techniques and focus on promoting ecological resiliency and integrity. Use an integrated, multiple benefit framework in project design.
  - Increase diversity of species, age class and stand size, working towards a mosaic that reduces risk of large-scale disturbance from either fire or insect epidemic.
  - Using the best available science, provide for resiliency in the face of a changing climate.
  - Utilize silvicultural systems that mimic natural processes such as wildfire, blow-down and insect and disease events.
  - Conserve and/or restore unique ecological types such as white bark pine, high elevation spruce basins, western white pine, subalpine larch and subalpine fir.
  - Recognize that forest fires and burned forests are a natural and important component of the Whitefish Range ecosystem that provides important ecological processes and habitat elements for many species. While large stand replacing wildfires are a part of natural processes in the North Fork, they are considered undesirable based on the values society places on private lands, structures and natural resources in the area. Post fire response should recognize pre-fire desired future conditions and adapt treatments to promote both economic and ecological benefits.
  - Conserve existing old growth and recruit new old growth across the Whitefish Range to ensure Old Growth representation within the Historic Range of Variability.
- **Commercial Certainty:** Increase predictability, consistency and volume of forest products to provide some level of certainty to the forest products industry and local communities.
  - Recognize the ecological, economic and societal benefits of commercial timber harvest as a tool in managing national forest lands.
  - Utilize Stewardship Contracting to capture the economic value of timber removal and re-invest those dollars back in the forest to meet other management objectives.

- Designate the suitable timber base with an eye to the future and provide opportunities, not barriers, for future management under changing conditions.
- **Economic and Legal Flexibility:** Ensure Forest Plan retains flexibility to allow for changing conditions, both ecological and legal.
  - Anticipate flexibility that may result from implementation of the Grizzly Bear Conservation Strategy .
  - Using science and experience, challenge existing lynx management strategies and develop alternatives that incorporate landscape level and long-term planning for multiple species habitat. Evaluate current Lynx habitat condition classes to assess proportions of stands in target condition for foraging habitat, denning habitat, etc. Develop recommendations for minimum habitat by condition class to support recovered Lynx populations. Evaluate the opportunity to maximize those condition classes in the non-suitable management areas, including MA 3.3, insuring that adequate Lynx habitat exists without excessive dependence on forested lands in MA 4.1a or MA 4.1b. This should allow more cultural treatments (precommercial thinning, etc.) in stands in MA 4.1a & b while maintaining adequate Lynx habitat overall.
  - Consider implications of climate change on long-term productivity of landscapes.

### **Specific Recommendations**

**Suitable Timber Base:** Extensive planning, public input and analysis of the suitable timber base took place in the 2005-2006 forest planning process. Many of the sideboards that constrained that analysis remain. In order to achieve greater management flexibility over vegetation over the life of the revised plan, we suggest adopting land use designations as indicated on the attached map as a starting point for discussion. Specifically, adopt the use of categories 4.1a, 4.1b and 3.3 for lands that potentially could use commercial timber harvest as a management tool.

Under this planning scenario, roughly 89,500 acres would be classified as either 4.1a or 4.1b, General Forest Medium Intensity. The 4.1b designation represents land that could currently be managed under General Forest Medium Intensity strategies including regularly scheduled timber harvest (roughly 54,000 ac +/-). The 4.1a designation represents lands *potentially* suitable for General Forest Medium Intensity management **IF** new flexibilities in the management of grizzly bear core and lynx habitat are allowed (roughly 40,000 ac).

Land use designation 3.3 would not be considered “suitable”; however commercial timber harvest could be used as a tool to meet other resource objectives if analysis shows it is appropriate. Timber harvest would not be regularly scheduled. None of the lands proposed

to be classified as 4.1a, 4.1b or 3.3 are within Inventoried Roadless areas, or proposed recommended wilderness areas.

### **Recommended Management Unit Direction**

3.3: Use timber harvest in infrequent entries to modify or improve stand conditions for wildlife habitat or hazardous fuels modifications within or adjacent to the Wildland Urban Interface and adjacent to private lands.

4.1a: Use infrequent broadscale timber harvest to treat stand conditions as necessary while promoting the intent to minimize entries into Grizzly Bear Core habitat to support recovered Grizzly Bear populations.

4.1b: Use regularly scheduled timber harvest and stand tending activities (precommercial thinning, commercial thinning, salvage and sanitation harvests) to maintain and improve stand conditions with an emphasis on improving species diversity, multiple age and stand structure to create mosaics of stands within drainages to improve resiliency.

Additionally, consideration should be given for re-classifying the following areas:

City of Whitefish Municipal Watershed (1,600 ac +/-) - Consider designation of the NFS lands within the watershed boundaries of First, Second and Third creeks as 4.1a or 4.1b. The primary management goal for these lands would be preservation of water quality by fuels management and reduction of risk of large-scale wildfire in these areas while fully accounting for aesthetic and visual impacts.

West of Whitefish Mountain Resort - Review MU designation in the area directly west of Whitefish Mountain Resort in the upper King creek area. Consider either 4.1a or 4.1b designation with the primary management goal of fuels management and reduction of risk of large-scale wildfire in these areas while fully accounting for aesthetic and visual impacts.

Demers Ridge (4,000 ac +/-) - This area was extensively burned in the Moose fire. While access is limited, a large portion of this area could benefit from silvicultural treatment to improve wildlife habitat diversity. Ensure MU designation would allow management activities to address wildlife habitat improvement needs.

East of Ketchikan Creek - This area is currently designated as Inventoried Roadless Area. However, fuel loading in this area is extremely high due to high levels of mortality from past mountain pine beetle activity. Given the close proximity to private and State lands in the Trail Creek and Mud Lake area, review MU designation for the area between Ketchikan Creek and private and state lands to better allow management to reduce fuels and risk of wildfire.

### **Addendum**

- Review the Inventoried Roadless Area boundaries in the Ketchikan Creek area to allow for fuel hazard reduction management activities necessary to adequately protect private and state lands abutting National Forest lands in this area.

**Committee Members**

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**Approved by unanimous consensus of the Whitefish Range Partnership on  
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