

## 6.18 Appendix R. Response to Public comments on the draft Aspen Parklands SFRMP

The draft Aspen Parklands (AP) SFRMP was released for public review and comment on February 24, 2011. The 30-day comment period ended on March 26, 2011. Comments on the draft plan were accepted via e-mail, letter, or fax.

The DNR received two (2) comment letters from the public during the comment period.

Comments were received from the following organizations:

Minnesota Forest Industries (MFI); and,  
Minnesota Timber Producers Association (MTPA).

The comments have been summarized, and responses to the comments and any changes to the draft plan resulting from the comments are listed below in this appendix.

### Remsoft modeling process comments:

1. Both organizations supported the DNR's "use of a forest planning model in the development of subsection plans." The organizations went on to state that the modeling process could be improved if the DNR modeled and presented more scenarios (e.g. use a scenario that uses economic rotations as a base and then compare to other scenarios with various constraints applied to the model). The organizations believe that this comparison of modeling scenarios "would allow the DNR to view the cost of constraints on timber production and other values."

### DNR response:

The DNR agrees with the organizations support of the use of the forest planning model in the selection of stands that will be managed during the 10-year implementation period for the AP SFRMP. The DNR also agrees with the organizations suggestion of improving the modeling process via comparison of multiple modeling scenarios. The DNR is currently revising the SFRMP process for future SFRMPs. One of the issues that has been identified to improve the current SFRMP process, is the use of multiple modeling scenarios that would detail how the various constraints used in the model affect the subsections goals for sustainability, even-flow of timber, age-class distributions, old forest percentages, harvest levels, etc. Modeling of multiple scenarios will be used at an early stage of future SFRMP projects.

2. In addition, the organizations requested that the DNR represent the anticipated costs and revenues associated with the proposed actions contained in the draft SFRMP, in the modeling scenarios that are presented in the draft SFRMP. An example was given that the DNR could determine:

"...what types of revenues will be generated via timber harvest/sold. Additionally, what are the costs of stand conversions and or maintaining stands at a young age through shearing or burning? The revenues and costs could then be compared across scenarios modeled and presented for review."

### DNR response:

The AP SFRMP outlines management plans for state lands administered by the Division of Forestry, and the Section of Wildlife. The total acreage of state administered lands in the subsection is approximately 344,000 acres. Of this total, the Section of Wildlife administers approximately 337,000 acres (98%), and the Division of Forestry administers approximately 7,000 acres (2%). The purpose and management objectives of lands administered by the state vary by management unit. For example, Wildlife Management Areas (WMAs),

administered by the Section of Wildlife, are managed for these primary reasons: wildlife production; public hunting; trapping; and other compatible recreation uses. On WMAs silviculture is used as a tool to perpetuate and reestablish quality wildlife habitat. The economics of proposed management activities for the various state administered lands is difficult to estimate with any reliable level of accuracy. The volume and value of timber sold in the past can be tracked and projected into the future under a number of assumptions. However, market conditions and natural disturbances can dramatically affect these figures moving forward. In addition, the costs associated with managing the lands is difficult to project into the future due to the uncertainties associated with: the viability of markets for biomass moving forward; the percentage of stands offered for sale that are not sold; the costs associated with management of non-timber sites (i.e. with a viable biomass market costs associated with these lands would likely become revenues). A comprehensive cost-benefit analysis should also consider recreational and environmental costs and revenues when evaluating various scenarios, but they are generally very difficult to quantify in a comprehensive manner. DNR is in the process of developing modeling scenarios and associated outputs (including timber revenue estimates), for use and consideration, early in future SFRMP revisions. However, these are not fully vetted at this time for inclusion in the AP SFRMP.

The plan does provide estimates of acres treated by decade for even-aged cover types, proposed and past roundwood volumes, potential green tons of biomass, and potential acres of biomass harvest.

**Aspen management regimes comments:**

1. The organizations asked what criteria was used to establish the aspen management regimes (i.e. Aspen/balm of Gilead “T”, “O”, “S”, “R”, and “C” stands) presented in the draft plan.

**DNR response:**

More information on this subject can be found in Chapter 3 GDS 1C, Chapter 4.2, and Appendix F

GDS 1C states that “vegetation will be managed according to ecological classifications to more closely reflect vegetation that developed under natural disturbance regimes.” The proposed cover type change goals reflect the DNR’s desire to increase the acreage of cover types that have declined historically.

The primary strategy for achieving this general direction is to increase the acres of upland and lowland brush and prairie, oak savannah and oak by reducing the acres of aspen/balm of Gilead cover type. To implement this strategy the AP SFRMP team (the team) developed five aspen/balm of Gilead management categories (T, O, S, R and C) and assigned each stand to one of the categories. These management category designations are preliminary and will be adjusted when necessary based on the outcome of a stand’s field visit.

**Aspen categories (extracted from Chapter 4.2B):**

**T – Timber**

Stands that will be managed as a forested cover type and held to at least normal rotation (45 years). These stands generally have a higher site index, are usually associated with forested NPC classes, and are within areas desired to be managed for forest plant and wildlife species. Extended Rotation Forest (ERF) goals were derived from T stands.

**O – Conversion to other forested cover type**

Stands that will be converted to another forested cover type to better represent the ecological characteristics of the site (i.e. aspen to oak).

**S – Short rotation**

Stands that will be managed as a forested cover type, but harvested prior to normal rotation age (20 to 44 years). These stands generally have a lower site index, may or may not be associated with forested NPC classes, and are within areas desired to be managed for early successional forest plant and wildlife species. It should be noted that for this 10-year planning cycle, stands that would not meet age of merchantability (35 years) were not selected for examination.

**R – Regeneration**

Stands that will be managed as a short rotation cover type (less than 20 years). These stands generally have very low site indexes, are usually not associated with forested NPC classes, and are within areas desired to be managed for open landscape plant and wildlife species.

**C – Conversion to non-forested cover type**

Stands that will be converted or restored to a non-forested cover type (i.e., upland/lowland grass, upland/lowland brush). These stands have often invaded prairie or oak savannah habitats and the management goal is to greatly reduce or eliminate aspen/balm of Gilead from the site.

However, prior to the aspen/balm of Gilead management category designation process, the Priority Open Landscape Area designation began. The team reviewed DNR Wildlife's 2002 "An Assessment of Open Landscapes for Management of Brushland Wildlife Habitat in Northern and Central Minnesota" report which included Land Type Association (LTA) summaries for the Aspen Parklands subsection. Staff also reviewed other spatial and descriptive information by subsection or LTAs, including pre-settlement vegetation (from Marshner's map); bearing tree, corner, and line note information from the original public land survey; current land cover; current forest inventory data; forest management activities; habitat management history including burn units, shearing projects, etc.; detailed county soil survey information including classification and drainage class; NPC occurrence by LTA; openland species occurrences including records from the natural heritage database and locations of surveyed sharp-tailed grouse leks; management emphasis areas; conservation lands; and, boundaries of public natural resource management units (i.e. WPAs, SNAs, etc.).

Based on the above information, along with local field knowledge and management objectives for particular areas, staff nominated all or portions of LTAs as Priority Open Landscape Areas. These Priority Open Landscape Areas were classified as either Openland (a habitat consisting of an open complex of vegetation with <1/3 total cover by shrubs and/or trees) or Brushland (a habitat consisting of a semi-open complex of vegetation with >1/3 total cover by shrubs and/or 1/3-2/3 total cover by trees). These nominated areas and associated management recommendations received interdisciplinary review and finally AP SFRMP team approval. The final product of this effort was a management agreement (Appendix H) and designation map (see: Priority open landscape area and special management area designations map in *Appendix M: Maps*).

The process used to assign aspen/balm of Gilead stands to the management categories involved information from many sources and was completed primarily by area wildlife and forestry staff at meetings coordinated by the AP SFRMP team. It was very much intertwined with the Priority Open Landscape Area designations, which framed the broad cover type management direction for each LTA. For example, most of the stands in the “T” management category are found in either non-open landscape LTA areas or in Brushland LTA areas. Much effort was spent to identify areas where traditional forest management is appropriate. Extracted from the information sources listed above, specific attributes used to support forest management (or “T” designations) included historic timber sale records, the presence of conifer species by cover type, secondary species or advance regeneration, site index, proximity to markets, land acquisition, site accessibility and wildfire history. Most of the deliberations focused on the amount and locations of the “T” and the “S” stands which laid the ground work for determining where traditional forest management would be emphasized. After this step in the process, the designation of stands in the “R” “O” and “C” categories fell in line with the LTA open land designation, management emphasis of particular units or SMA’s, location within burn-units, etc. In summary, no one factor determined which management category a stand was assigned to, rather, all available information was used to assign a stand to a management category that was judged to be a good fit in the broader context of its location in both the management unit and the LTA’s Priority Open Landscape Area designation.

2. The organizations were concerned with the amount of aspen/balm of Gilead acres that were assigned to the “R”, “S”, and “C” management regimes that are identified in table 4.2a of the draft plan (i.e. 56,649 acres - combined, ~66% of aspen/balm of Gilead cover type). The organizations stated that their concern was based on the fact that “R” and “C” designated stands would be removed from long-term timber production. Additionally, the organizations expressed concern that management of the “S” stands “...may not produce timber product...” due to the rotation ages that were established for these stands (i.e. 20-44 years).

The organizations recommended that the DNR only target off-site aspen/balm of Gilead stands with site indices below 50 for conversion to other cover types:

“MFI [*and MTPA*] does not support conversion of aspen stands that are on medium to good sites. A review of the data shows that aspen is on poor sites, site index less than 50 is present on approximately 19,000 acres. This would suggest that the DNR is going to manage more than 45,000 acres of productive aspen timberlands to ages that will not produce timber over the long-term or convert these stands to other cover types.

MFI [*and MTPA*] recommends that the DNR place emphasis on the 19,000 acres of off-site aspen. These areas should then be targeted for different management regimes or conversions. MFI [*and MTPA*] recommends that the DNR consider modeling this scenario and compare it with the proposed actions presented in the draft plan.

...MFI [*and MTPA*] recommends that where you have off-site aspen intermixed with productive sites that efforts are made to convert the poor site aspen to another forest type pine, oak, northern hardwoods, spruce. This would improve economies of scale in the area for future timber management options.

To contrary, MFI [*and MTPA*] does not support the conversion “C” or regeneration “R” regime type management on medium to good aspen sites intermixed with poor quality aspen sites.”

**DNR response:**

As stated previously, the majority of state lands included in the plan (98%) are administered by the DNR's Section of Wildlife. Silviculture will be used on WMAs to meet wildlife species' needs and achieve habitat management goals and objectives for each unit. In this subsection, managing for openland/brushland habitats and associated openland dependant wildlife species is a priority on WMAs and throughout the landscape (see Appendix H).

Prior to the start of the AP SFRMP, a trial re-inventory process was used to update the forest inventory information for the entire subsection. When the team was preparing the inventory data for the modeling process, it became evident that many of the aspen/balm of Gilead stands were missing site index information. A site index for these stands, therefore, was estimated either by the modeler from an average site index for the subsection, through the re-inventory process by using a site index based on cover type size/density, or by using the site index of an adjacent stand. However, site index information was only one of many considerations in the process of assigning stands to the different management categories.

Natural-origin pine, northern hardwoods, and spruce cover types are quite uncommon in the AP and are not ecologically appropriate in most parts of this subsection, therefore it is generally inappropriate to convert aspen in this landscape to these cover types.

The age of merchantability for the "S" stands was set at 35 years old (see Appendix I) and the desired age-class distribution is balanced through the 35 age-class midpoint (Chapter 4; Figure 4.2d), so most "S" stands are planned for treatment between 35-45 years of age. The modeled average stand treatment age for "S" stands over the next five decades is 46, ranging from age 35 to 53 (Table 3.5c on page 3.34 of the plan.) Considering the variability of timber markets, merchantable timber products can be expected to be harvested from these stands.

**Extended rotation forest (ERF) comments:**

1. The organizations asked for clarification on the amount of acres prescribed to an ERF management regime.

**DNR response:**

The DNR acknowledges the fact that prescribed ERF percentages and acreages were not presented in a table in the draft plan. A summary of the total acres, prescribed ERF percentages designated and prescribed ERF acres designated is presented below:

Cover Type	Total acres (2010)	Prescribed ERF percent designated	Prescribed ERF acres designated
Aspen/balm of Gilead*	29,309	13%**	3,809
Tamarack SI=40 & above	1,996	18%	357
Tamarack SI<40	1,758	23%	397
Black spruce, lowland SI=40 and above	1,160	43%	495
Black spruce, lowland SI<40	536	79%	422
Oak	967	100%	967
White cedar	215	100%	215
Balsam fir	98	48%	47
Birch	94	60%	56
White pine	4	100%	4

\*ERF was designated only for the aspen/balm of Gilead “T” and “O” management regimes.

\*\* The ERF percentage presented in the table was calculated based on the future aspen/balm of Gilead acres to be managed as “T” and “O” stands (i.e. 3,809/29,309 x 100). The 3,809 acres to be managed as ERF in this plan is 4.4% of the current (2010) aspen/balm of Gilead cover type acres (i.e. 3,809/85,958 x 100).

- The organizations expressed concern over the amounts of ERF and non-ERF stands that would be held beyond normal rotation age in the first two decades of the planning period in the draft plan:

“ The proposed plan states that in order to achieve older stands that non-ERF stands were held beyond normal rotation ages. MFI [and MTPA] disagrees with this concept. ERF was never intended to limit timber harvest production. ERF was designed to provide older forests over time. It was understood that given some age-class imbalances that ERF would fluctuate until a more balanced age- class was achieved. Further, holding stands beyond rotation ages increases the likelihood of higher mortality and a decline in timber volume per acre. MFI [and MTPA] recommends that these stands be harvested at [normal] rotation age. MFI [and MTPA] additionally recommends that ERF be applied to no more than 20 percent of forest type acres. Additionally, ERF maximum ages should not exceed 1.5 times minimum economic rotation ages as identified in the DNR ERF Guidelines. Table 3.5c shows average harvest age by forest type. For [aspen/balm of Gilead] stands this ranges from 55-87 for the first two decades. Stands greater than 70 years of age should be harvested during the first decade. Stands of this age are likely already experiencing high mortality rates and should be harvested prior to additional timber volume and value loss.”

**DNR response:**

One of the goals in SFRMPs is to balance the age-classes of even-aged managed cover types. Balanced age-classes provide a sustainable yield and even-flow of forest timber

products over time and provide for a variety of forest habitat ages now and into the future. Due to the age-class imbalances that currently exist for the aspen/balm of Gilead cover types, the Remsoft model determined that holding some non-ERF stands to an older age was necessary in the first two decades of the planning period to move the current age-class structure to a more balanced age-class structure. The Remsoft model also selected younger stands over non-ERF (older) stands in the first two decades because of stand volume considerations.

### **Ecologically important lowland conifers (EILC) comments:**

The organizations expressed concern over the amount of acres that were designated as EILC in the draft plan:  
 “[Table 3.5i] displays the amount of acres reserved from timber harvest due to EILC status. Approximately 20% of black spruce stands are being deferred based on EILC concept. Further, the plan additionally recommends that 16% to 18% of the lowland black spruce be managed as old forests. The DNR should recognize that black spruce beyond 100 years of age may have significant red-rot making it undesirable to timber purchasers or paper mills. MFI [and MTPA] recommends that no ERF be applied to black spruce stands given the large amount of acres already reserved from timber harvest in the SNA program. MFI [and MTPA] does not support deferring productive stands under this category. The MN-DNR program has a substantial amount of lowland forest areas identified and reserved from timber management. The EILC status should be removed from these stands.”

### **DNR response:**

Each subsection (and resulting SFRMP) establishes goals to provide older forest habitat via ERF, EILC and old forest management complex (OFMC) designations. These goals are “subsection specific” and do not consider designations that have occurred outside of the subsection. The team determined the EILC designations presented in the draft, based on department policy and area managers’ input, in order to provide old forest habitat for wildlife and plant species that exist in the subsection. Due to the factors stated above, the DNR will maintain the EILC designations presented in the draft plan.

It should also be pointed out that even though the percent of acres designated as EILC in the subsection is higher than other SFRMPs, the actual amount of acres designated is low (1659 acres). In addition, all EILC is located on WMAs where habitat needs have been identified as a priority.

### **Timber harvest volume comments:**

The organizations wanted an explanation of the timber harvest volumes presented in table 3.5j of the draft plan:  
 “...It is unclear if the total volume [presented in the table] includes biomass harvest in this estimate. Please indicate if the estimated volume is round wood only or a combination of round wood and biomass. Distinction between round wood and biomass volume should be made.”

**DNR response:**

The projected even-aged treatment volumes presented in table 3.5j of the draft plan do not contain estimates of biomass harvest volumes. Estimates and information on potential biomass harvest is presented on page 3.38 of the draft plan and in the openland and brushland sections of Chapter 4 of the draft plan. During the first decade of the planning period aspen/balm of Gilead management will occur in stands old enough to support traditional roundwood harvest.