

Threats Template Matrix-- Age class diversity
<p>1. <b>Threat:</b> The current age class distribution of the ANF is very unbalanced, and the creation of early structural habitat is occurring far too slow. Current condition of Management Area (MA) 3.0: 71% is 80 years of age or older; other MAs are comparable.</p>
<p>2. <b>Location:</b> MAs suitable for timber harvest (1.0, 3.0, 2.1, 2.2, and 6.1)</p>
<p>3. <b>Impact or Severity:</b> Very significant—many of the other threats outlined by the collaborative would benefit from a more balanced age class distribution.</p>
<p>4. <b>Desired Outcome:</b> A stated acreage goal for yearly regenerated acres (by MA). Consistent planning efforts that move the forest towards a balanced condition over time. This includes prescribing of sufficient shelterwood seed cut acreage to result in adequate shelterwood removal harvesting rates. Harvest activities would occur where they are most needed (hotspots). Initial efforts may exceed the annual target. The intent is to have a more balanced age class distribution – not a perfectly balanced distribution.</p>
<p>5. <b>Strategies to Achieve the Desired Outcome</b></p> <p><b>Strategy 1:</b> Define rotation ages (will vary by forest type and management area (MA); run models to calculate what level of annual activity is required to balance the age class distribution), or define desired objectives for early age class by MA and develop harvest schedules from those objectives.</p> <p>Based on existing ANF Forest Plan direction, the following rotation ages can be inferred, and potential harvest schedules developed for each suited MA based on Forest Plan objectives for each:</p> <ul style="list-style-type: none"> <li>• <b>MA 1.0 (7,937 acres):</b> 50-100 year rotation (10-20% 0-10 years old, LRMP p. 102)             <ul style="list-style-type: none"> <li>○ <b>Current Condition:</b> 1.6% 0-20 years old</li> <li>○ <b>MA 1.0 Potential Harvest Schedule:</b> Harvest 227 acres shelterwood seed cuts; 160 acres final harvest annually.</li> </ul> </li> <li>• <b>MA 2.1 (2,387 acres):</b> 90-150 year rotation (Use uneven-aged management on 500-750 acre per decade, assuming 3 entries to achieve 3 age classes in each treated area, LRMP p. 106)             <ul style="list-style-type: none"> <li>○ <b>MA 2.1 Potential Harvest Schedule:</b> Harvest 75 acres annually using uneven-aged regeneration methods.</li> </ul> </li> </ul>

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- **MA 2.2 (121,176 acres- 23,301 acres oak types; 93,723 acres non-oak types; 4,152 acres non-forest):** Connectivity, predominantly managed using uneven-aged regeneration methods. 300-500 year rotation Oak forest types (4-6% 0-20 years old). 500-1,000 year rotation non-oak forest types (2-4% 0-20 years old). (ANF LRMP p. 109). Note: intent is not to regulate this Management area using even-aged regeneration methods. Management activities focused on sustaining mid-late structural habitat on >85% of area with contiguous high forest canopy.
  - **Current Condition:** Oak Types= 0.3% 0-20 years old, Non-oak types= 1.8% 0-20 years old.
  - **MA 2.2 Potential Harvest Schedule:**
    - **Oak forest types-** Harvest 100 acres shelterwood seed cuts; 70 acres final harvests annually.
    - **Non-oak forest types-** Harvest 268 acres shelterwood seed cuts; 187 acres final harvests annually.
- **MA 3.0 (287,380 acres):** 167-200 year rotation (10-12% 0-20 years old, ANF LRMP p. 113)
  - **Current Condition:** 5.0% 0-20 years old
  - **MA 3.0 Potential Harvest Schedule 1 (LRMP modeled rate):** Harvest 2,224 acres shelterwood seed cuts; 1,556 acres final harvests annually.
  - **MA 3.0 Potential Harvest Schedule 2 (Accelerated rate):** Harvest 2,668 acres shelterwood seed cuts; 1,868 acres final harvests annually.
- **MA 6.1 (16,421 acres):** 286-333 year rotation (6-7% 0-20 years old, LRMP p. 126)
  - **MA 6.1 Potential Harvest Schedule:** Harvest 82 acres shelterwood seed cuts; 58 acres final harvests annually.

**When:** Prior to the next collaborative meeting (September 7)

**Who:** ANF staff and Group #1 members.

**Cost:** --

**Strategy 2:** Develop area control model for all suited MAs with decadal regeneration requirements. Develop an internal target (acres treated annually) that clearly defines annual planning expectations.

- **MA 1.0 Potential Harvest Schedule:** Harvest 227 acres shelterwood seed cuts; 160 acres final harvest annually.
- **MA 2.1 Potential Harvest Schedule:** Harvest 75 acres annually using uneven-aged regeneration methods.
- **MA 2.2 Potential Harvest Schedule:**
  - **Oak forest types-** Harvest 100 acres shelterwood seed cuts; 70 acres final harvests annually.
  - **Non-oak forest types-** Harvest 268 acres shelterwood seed cuts; 187 acres final harvests annually.

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<ul style="list-style-type: none"> <li>• <b>MA 3.0 Potential Harvest Schedule 1 (LRMP modeled rate):</b> Harvest 2,224 acres shelterwood seed cuts; 1,556 acres final harvests annually.</li> <li>• <b>MA 3.0 Potential Harvest Schedule 2 (Accelerated rate):</b> Harvest 2,668 acres shelterwood seed cuts; 1,868 acres final harvests annually.</li> <li>• <b>MA 6.1 Potential Harvest Schedule:</b> Harvest 82 acres shelterwood seed cuts; 58 acres final harvests annually.</li> </ul> <p><b>When:</b> Prior to the next collaborative meeting (September 7)</p> <p><b>Who:</b> ANF staff and Group #1 members.</p> <p><b>Cost:</b> --</p>
<p><b>Strategy 3:</b> Future projects should be commensurate with regeneration requirements and continue to incorporate the regeneration of larger contiguous areas and limit intermediate harvests; they should take advantage of low hanging fruit, e.g., uncut stands with adequate advanced regeneration already established, when possible.</p> <p><b>When/Frequency:</b> Beginning now/Annually. The priority for each District should be the completion of one vegetation management project annually.</p> <p><b>Who:</b> District personnel</p> <p><b>Cost:</b> --</p>
<p><b>Strategy 4:</b> Silvicultural prescriptions should describe <b>desirable and acceptable</b> outcomes clearly, and the desired condition should be attainable. Most foresters strive for perfection, e.g., a fully stocked stand with a diverse mix of desirable species, and the reality is this condition may be impossible to obtain in poorly stocked stands with multiple forest health concerns.</p> <ul style="list-style-type: none"> <li>• <b>Desirable outcome +&gt; 70% stocked with preferred seedling species-</b> including cherry, oaks, maples, tulip poplar, cucumbertee, hemlock, pine, etc..</li> <li>• <b>Acceptable outcome=&gt;70-% stocked with commercial species,</b> including birch, The amount of birch that is acceptable will vary by site quality, pre-existing overstory condition, etc..</li> </ul> <p><b>When/Frequency:</b> Beginning now/always.</p> <p><b>Who:</b> Foresters – both ANF and other landowners. Researchers. Research can facilitate regular interactions among foresters from different landownerships to learn from each other’s experiences.</p> <p><b>Cost:</b> --</p>

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	<p><b>Strategy 4:</b> Develop local contractor pool to support and keep pace with implementation of forest health strategies. Local contractor base (e.g. chainsaw site preparation and broadcast herbicide application) is critical to implementation strategies to address this threat, and there is a need to develop additional service contracting resources.</p> <p><b>When/Frequency:</b> Beginning now/always.</p> <p><b>Who:</b> ANF, State, private landowners, contracting staff and Foresters.</p> <p><b>Cost:</b> --</p>
6.	<p><b>Monitoring Strategies</b></p> <p><b>Strategy 1:</b></p> <ul style="list-style-type: none"> <li>• Monitor status of stands in process of regeneration much more closely. Monitor and adapt ... encourage foresters to utilize adaptive management and think outside the box.</li> <li>• Strive to field visit all treatment areas at the end of their 2<sup>nd</sup> growing season to determine next appropriate action.</li> </ul> <p><b>When/Frequency:</b> Always</p> <p><b>Who:</b> District staff/Research (Administrative studies, for example)</p> <p><b>Cost:</b> --</p>
7.	<p><b>Additional Information Needs:</b></p>
8.	<p><b>Other:</b></p>