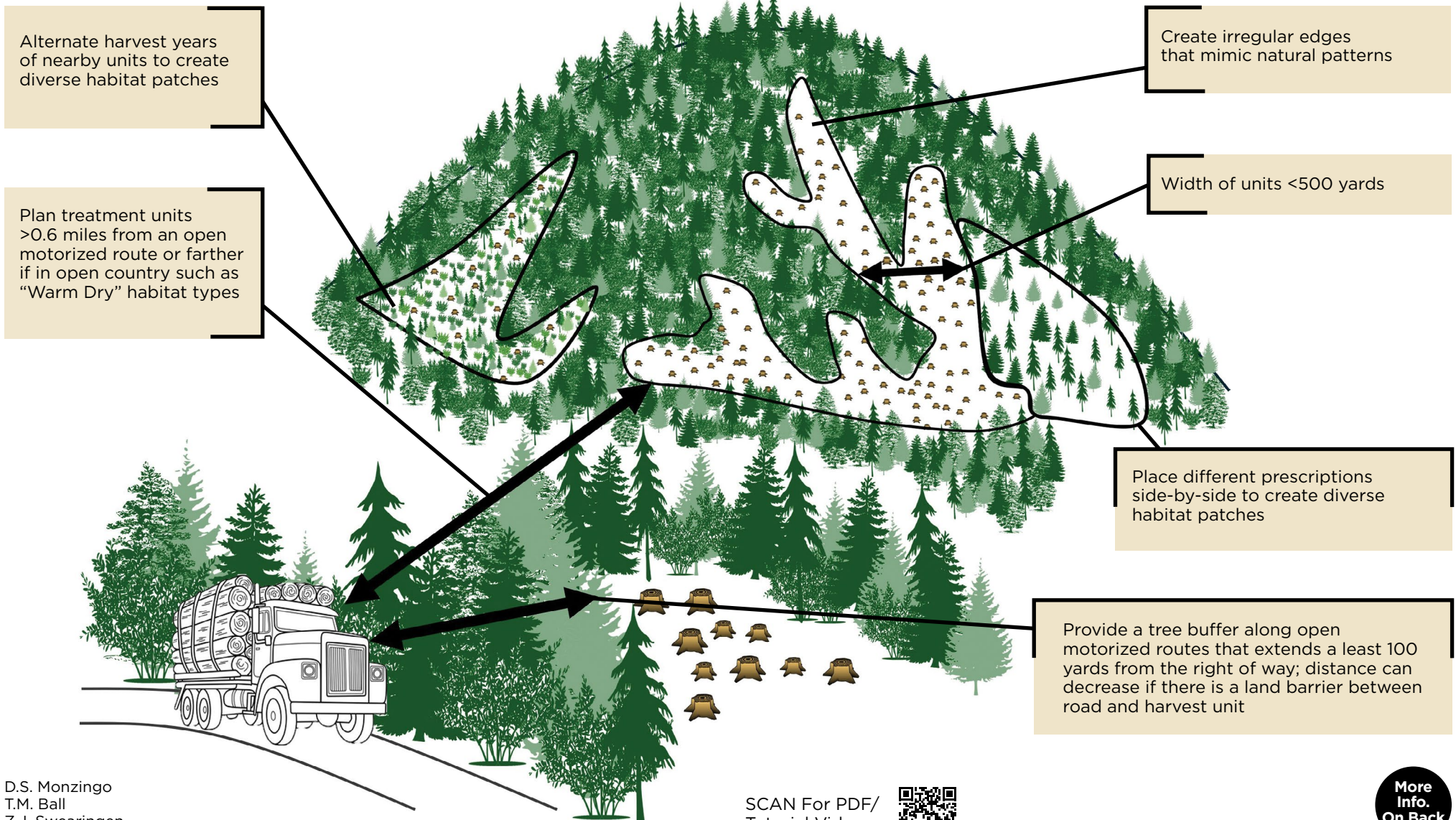




# THINK LIKE AN ELK!



Recommendations for land managers to improve elk habitat use in the forests of northern Idaho



## Recommendations for land managers to improve elk habitat use in the forests of northern Idaho

Roads	Treatment Arrangement	Post-Treatment
<p>If units must be along open motorized routes they should have a security buffer &gt;100 yards (i.e., distance from road to unit edge); can decrease if there is a land barrier (e.g., steep draw or hill) between between road and treatment unit<sup>1</sup></p>	<p>Create a habitat mosaic (i.e., variety of habitats with different ages, structures, and species compositions):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Create irregular treatment edges that mimic natural patterns</li> <li><input type="checkbox"/> Hopscotch around the project area when completing the same harvest prescription</li> <li><input type="checkbox"/> Alternate harvest years of nearby units</li> <li><input type="checkbox"/> Width of cuts &lt;500 yards (0.3 miles)<sup>2</sup>, total acreage does not matter if mosaic is maintained</li> <li><input type="checkbox"/> Leave cover in draws to connect treatment patches</li> <li><input type="checkbox"/> Alternate burn years of burn blocks in the same project area<sup>5</sup></li> <li><input type="checkbox"/> Leave uneven-aged patches within treatment units</li> </ul>	<p>Conduct post-harvest treatments that promote understory regrowth and remove travel barriers (e.g., prescribed burn, pile and burn).<sup>8</sup> Slash left on ground should be &lt;1.5 feet thick and preferably &lt;16 inches<sup>1,9</sup></p>
<p>Plan treatment units &gt;0.6 miles from an open motorized route.<sup>2</sup> Farther if:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Road is in open country such as Warm Dry habitat types</li> <li><input type="checkbox"/> Road exhibits heavier traffic than the surrounding area such as roads connecting private timber grounds</li> </ul>		<p>Limit post-harvest herbicide that targets removal of all non-conifer understory species (typically used to improve conifer growth during first 5 years after harvest)</p> <p>Exception: Treatments that target noxious weeds<sup>10</sup> &lt;2 years post-treatment, if applied in a single year/application.</p>
<p>Consider reducing motorized access during high stress seasons such as hunting, wintering, and calving seasons<sup>3</sup></p>		<p>Burns with large high-severity areas, or noxious weeds<sup>10</sup>, should be combined with native reseeding treatments when possible<sup>11</sup></p>
<p>&lt;2 miles of open motorized routes per square mile<sup>4</sup></p>	<p>Preferred slope &lt;20%, except if livestock are present, then slope increases to 20-40%<sup>2,6</sup></p>	<p>Conduct post-wildfire salvage logging to remove standing dead and jack-strawed debris<sup>12</sup></p>
<p>Monitor/Reduce illegal use on temporary or user-created motorized routes. Investigate options such as:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Install/Maintain gates</li> <li><input type="checkbox"/> Front end obliteration</li> <li><input type="checkbox"/> Total decommission</li> </ul>	<p>Mastication or thinning should reduce fuels without removing 100% of concealment cover.<sup>7</sup> Mitigation examples include:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Leaving small patches untouched</li> <li><input type="checkbox"/> Leaving a few partially cut shrubs without fully cutting them to a stump</li> </ul>	<p>If cutting and leaving, consider clearing game trails of debris. Target is &lt;23 obstacles (16 inches tall) every 100 yards<sup>1,9</sup></p>

<sup>1</sup> Nyberg and Janz. 1990. Deer and elk habitat in coastal forests of Southern British Columbia. Chapter 4.

<sup>2</sup> Rowland et al. 2018 <https://doi.org/10.1002/wmon.1033>

<sup>3</sup> Wisdom et al. 2018 <https://doi.org/10.1016/j.foreco.2018.01.032>

<sup>4</sup> Lyon 1983 <https://doi.org/10.1093/jof/81.9.592>

<sup>5</sup> Sittler et al. 2014. Effects of Prescribed Fire on Ungulates. REN #9. U of N British Columbia, Can.

<sup>6</sup> Long et al. 2010 <https://doi.org/10.2193/2007-337>

<sup>7</sup> Strong et al. 2016. Wildlife-friendly fuels reduction in dry forests of the Pacific Northwest. Woodland Fish & Wildlife.

<sup>8</sup> Goodwin et al. 2018 <https://doi.org/10.1016/j.foreco.2018.07.058>

<sup>9</sup> Lyon & Jensen 1980 <https://doi.org/10.2307/3807965>

<sup>10</sup> Idaho Noxious Weeds, 9th ed.

<sup>11</sup> Morgan et al. 2015. <https://doi.org/10.4996/fireecology.1102031>

<sup>12</sup> Hebblewhite et al. 2006. Effects of post-fire logging on elk habitat during the first 3 years post-fire: A case study of the Dogrib Creek Fire.