Marbled Murrelet Long-term Conservation Strategy

Draft Alternatives

A Report to the Board of Natural Resources

Kyle Blum, Department of Natural Resources

November 2015 - Subject to change
Identifying Alternatives
Marbled Murrelet Long-term Conservation Strategy

Drafted a range of potential alternatives that represent conservation strategies to meet both agencies criteria.
Alternatives

Key Questions

- Does the alternative address the Need, Purpose and Objectives?
- Does the alternative address the Endangered Species Act Section 10 issuance criteria?
- What habitat will be conserved?
- How will the forest be managed?
- How will potential impacts be mitigated?
- How will the alternatives affect the murrelet population?
Marbled Murrelet

ALTERNATIVES
### Habitat Conserved

**Acres of Long-term Forest Cover**

<table>
<thead>
<tr>
<th>Alternative</th>
<th>LTFC Acres*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative A</td>
<td>621,000</td>
</tr>
<tr>
<td>Alternative B</td>
<td>594,000</td>
</tr>
<tr>
<td>Alternative C</td>
<td>636,000</td>
</tr>
<tr>
<td>Alternative D</td>
<td>635,000</td>
</tr>
<tr>
<td>Alternative E</td>
<td>734,000</td>
</tr>
</tbody>
</table>

* LTFC acre numbers are draft and subject to change without notice.
## Alternatives

### Areas of Long-term Forest Cover

<table>
<thead>
<tr>
<th>Existing Habitat Conservation</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Areas</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Riparian Management Zones</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Conservation Commitments</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Existing NSO – high quality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Existing NSO – low quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
### Marbled Murrelet Habitat Conservation

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied sites – HCP surveyed</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupied sites – Science Team mapped</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Buffers on occupied sites</td>
<td>✓</td>
<td>100m</td>
<td>0</td>
<td>100m on all, except OESF where sites greater than or equal to 200 acres have 50m</td>
<td>✓</td>
</tr>
<tr>
<td>Habitat types identified under interim strategy</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Marbled murrelet management areas identified in the Science Team Report</td>
<td></td>
<td></td>
<td></td>
<td>Plus areas established in North and South Puget</td>
<td>✓</td>
</tr>
<tr>
<td>High quality habitat (P-stage &gt;.47)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emphasis areas</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special habitat areas</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

November 2015 - Subject to change
## Alternatives
### Forest Management

<table>
<thead>
<tr>
<th>Forest Management Inside LTFC</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvests that create large openings, such as clear cuts and variable retention harvests</td>
<td>No planned harvests allowed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited management (includes silvicultural treatments such as commercial thinnings, reforestation)</td>
<td>Treatments are allowed in operable, non-marbled murrelet habitat consistent with other land management objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marbled Murrelet habitat enhancement treatments</td>
<td>√</td>
<td>√</td>
<td>Habitat enhancement treatments are allowed in non-habitat areas within emphasis areas and special management areas with the objective of developing habitat within the life of the HCP.</td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>
### Alternatives

#### Forest Management

<table>
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<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salvage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salvage</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Non-timber harvest land uses (roads, campgrounds, trails, etc.)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Management of existing land uses and related infrastructure will continue per existing law and policy, with ongoing disturbance impacts to LTFC identified and mitigated.  

*Note: rules for managing new infrastructure are still under development.*
Alternative Comparisons

- **Alternative A** (No Action)

  - DNR-managed Lands
  - Areas of Long-term Forest Cover
Alternative Comparisons

- Alternative B

![Map showing DNR-managed Lands and Areas of Long-term Forest Cover](image-url)
Alternative Comparisons

- Alternative C

- DNR-managed Lands
- Areas of Long-term Forest Cover
- Emphasis Areas
- Special Habitat Areas
Alternative Comparisons

- Alternative D

- DNR-managed Lands
- Areas of Long-term Forest Cover
- Special Habitat Areas
Alternative Comparisons

- Alternative E

- DNR-managed Lands
- Areas of Long-term Forest Cover
- Marbled Murrelet Management Areas
Thank you