

INTERNAL DRAFT



# Appendix M

Vegetation Treatment Best Management Practices

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# Appendix M. Vegetation Treatment Best Management Practices

The following best management practices (BMPs) have been incorporated from the RMP Amendment for Fire and Fuels Management on Public Land in NM & TX, September 2004.

**Table M-1: Vegetation Treatment Best Management Practices, by Method**

Resource Element	Prescribed Fire	Mechanical and Manual
Guidance Documents	<ul style="list-style-type: none"> <li>• BLM handbook H-9214-1</li> <li>• Prescribed Fire Management 2000</li> </ul>	<ul style="list-style-type: none"> <li>• BLM Manual 1112 (Safety)</li> </ul>
General	<ul style="list-style-type: none"> <li>• Prepare Fire Management Plan.</li> <li>• Use trained personnel with adequate equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that power-cutting tools have approved spark arresters.</li> <li>• Wash vehicles and equipment before leaving weed infested areas to avoid infecting weed-free areas. Minimize soil disturbance that may encourage new weeds to develop.</li> </ul>
Air Quality (See Manual 7000.)	<ul style="list-style-type: none"> <li>• Evaluate weather conditions, including wind speed and atmospheric stability, to predict effects of burn and impacts from smoke.</li> <li>• Coordinate burn activities with New Mexico Environment Department. Burn when weather conditions are good for rapid smoke dispersion.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimize generation of dust and exhaust.</li> </ul>
Cultural Resources and Native American Religious Concerns (See NM BLM Protocol with SHPO and Manuals 8100 and 8160.)	<ul style="list-style-type: none"> <li>• Evaluate potential impacts of proposed treatment.</li> <li>• Conduct cultural resource inventories to identify sites at risk from treatment. Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.</li> <li>• Consult with State Historic Preservation Officer (SHPO) and tribes per NM Statewide Protocol Agreement. In Texas, consult with Texas SHPO for National Register of Historic Places (NRHP) site eligibility and effect.</li> <li>• Monitor effectiveness of site protection measures (Appendix A.5, Monitoring and Adaptive Management).</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate potential impacts of proposed treatment.</li> <li>• Conduct cultural resource inventories to identify sites at risk from treatment. Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.</li> <li>• Consult with SHPO and tribes per NM Statewide Protocol Agreement. In Texas, consult with Texas SHPO for NRHP site eligibility and effect.</li> <li>• Monitor effectiveness of site protection measures (Appendix A.5, Monitoring and Adaptive Management).</li> </ul>

Resource Element	Prescribed Fire	Mechanical and Manual
Health and Safety	<ul style="list-style-type: none"> <li>• Use some form of pre-treatment, such as mechanical or manual treatment, in areas where fire cannot be safely introduced due to hazardous build-up.</li> <li>• Always use appropriate safety equipment and Personal Protective Equipment (PPE). Notify nearby residents who could be affected by smoke.</li> </ul>	<ul style="list-style-type: none"> <li>• Always use appropriate safety equipment and PPE.</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>• Carefully plan fires in WUI to avoid loss of property.</li> <li>• Notify nearby residents and landowners who could be affected by smoke intrusions or by other fire effects.</li> </ul>	
Livestock (See Handbook H-4120-1.)	<ul style="list-style-type: none"> <li>• Notify permittees of livestock feeding restrictions in treated areas, if necessary.</li> <li>• Provide alternative forage sites for livestock if use areas burn.</li> </ul>	<ul style="list-style-type: none"> <li>• Notify permittees of livestock feeding restrictions in treated areas, if necessary.</li> <li>• Provide alternative forage sites for livestock, if necessary.</li> </ul>
Recreation (See Handbook H-1601-1.)	<ul style="list-style-type: none"> <li>• Control public access to potential burn areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Control public access until potential treatment hazards no longer exist.</li> </ul>
Rights-of-Way	<ul style="list-style-type: none"> <li>• Avoid or minimize prescribed burning under powerlines.</li> </ul>	
Soil	<ul style="list-style-type: none"> <li>• Minimize broadcast burning on highly erodible soils.</li> <li>• Re-seed if necessary following treatment to encourage revegetation and minimize erosion.</li> <li>• Minimize soil heating by pre-treatment of fuels where practical.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement erosion control measures where heavy equipment is used.</li> <li>• Limit heavy equipment use on slopes greater than 30 percent.</li> <li>• Conduct activities on dry or frozen soil to minimize soil compaction.</li> <li>• Avoid damage to biological crusts.</li> </ul>
Vegetation (See Handbook H-4410-1, 5000, and 9015.)	<ul style="list-style-type: none"> <li>• Conduct burn prescriptions to minimize residual damage to desirable trees.</li> <li>• Mitigate soil erosion by constructing erosion control structures on any control lines used.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimize disturbance to native vegetation by keeping equipment on existing roads and trails.</li> <li>• Reseed skid trails and roads to be closed after operations.</li> <li>• Install erosion control structures on roads used.</li> </ul>
Water Resources (See Manual 7000 and Memorandum of Understanding with New Mexico Environment Department.)	<ul style="list-style-type: none"> <li>• Maintain minimum buffer of 25-50 feet between burn area and water bodies. Minimize burning on hill slopes with high erosion potential and consider revegetation to mitigate. Prevent degradation of groundwater quality whenever practicable, even when Water Quality Control Commission (WQCC) standards allow for further degradation.</li> <li>• Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution for groundwater with 10,000 mg/l total dissolved solids (TDS) or less.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain minimum buffer of 25-50 feet between burn area and water bodies. Reseed skid trails and roads closed after operations. Install erosion control structures on roads used. Prevent degradation of groundwater quality whenever practicable, even when WQCC standards allow for further degradation.</li> <li>• Develop site-specific BMPs for actions that degrade groundwater quality through nonpoint source pollution for groundwater with 10,000 mg/l TDS or less.</li> </ul>

Resource Element	Prescribed Fire	Mechanical and Manual
Wildlife (See Manuals 6500 and 6780.)	<ul style="list-style-type: none"> <li>Avoid treatments during nesting and other critical periods for birds and other wildlife.</li> </ul>	<ul style="list-style-type: none"> <li>Retain wildlife trees and other unique habitat features where practical.</li> <li>Vegetation management strategies should be consistent with historical succession and disturbance regimes.</li> <li>Fuels treatments should consider habitat needs of migratory and non-migratory populations.</li> <li>Avoid treatments during nesting and other critical periods for birds and other wildlife.</li> </ul>

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7 In addition, the following BMPs should be followed in regard to cultural resources and Native American  
8 concerns.

9 **Table M-2: Vegetation Treatment BMPs for Cultural Resources and Native American**  
10 **Concerns**

Prescribed Fire	Mechanical	Chemical	Biological
<ul style="list-style-type: none"> <li>Evaluate potential impacts of proposed treatment.</li> <li>Conduct cultural resource inventories to identify sites at risk from treatment. Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.</li> <li>Site protection measures include fire exclusion through mechanical means, black-lining, or wrapping wooden structures, and post-treatment field inspections of sites.</li> <li>Consult with SHPO and tribes per NM Statewide Protocol Agreement.</li> <li>Monitor effectiveness of site protection measures.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate potential impacts of proposed treatment.</li> <li>Conduct cultural resource inventories to identify sites at risk from treatment. Develop avoidance measures and project-specific treatment measures to protect sites by reducing fuel loads in the vicinity of at-risk sites.</li> <li>Site protection measures may include exclusion of sites from ground disturbing activities, hand-thinning within sites with no ground disturbance, and post-treatment field inspections of sites.</li> <li>Consult with SHPO and tribes per NM Statewide Protocol Agreement.</li> <li>Monitor effectiveness of site protection measures.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate potential impacts of proposed treatment.</li> <li>If application methods involve ground disturbing activities, conduct cultural resource inventories and implement avoidance measures.</li> <li>Site protection measures may include exclusion of sites from ground disturbing activities and post-treatment field inspections of sites.</li> <li>Coordinate with Native American groups with traditional use concerns regarding timing of treatment.</li> <li>Consult with SHPO and tribes per NM Statewide Protocol Agreement.</li> <li>Monitor effectiveness of site protection measures.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate potential impacts of proposed treatment.</li> <li>If application methods involve ground disturbing activities, conduct cultural resource inventories as appropriate, and implement avoidance measures.</li> <li>Site protection measures may include exclusion of sites from ground disturbing activities and post-treatment field inspections of sites.</li> <li>Coordinate with Native American groups with traditional use concerns regarding timing of treatment.</li> <li>Consult with SHPO and tribes per NM Statewide Protocol Agreement.</li> <li>Monitor effectiveness of site protection measures.</li> </ul>

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