

## **APPENDIX A**

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# **COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS GIVEN IN THE EIS**



## APPENDIX A

# COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS GIVEN IN THE EIS

This appendix contains a list of the common and scientific names of plant and animal species mentioned in the text of the EIS.

Common Name	Scientific Name
<b>PLANTS</b>	
<b>Grasses and Grass-like Plants</b>	
Alkali Sacaton	<i>Sporobolus airoides</i>
Barley, Foxtail	<i>Hordeum jubatum</i>
Bluegrass	<i>Poa</i> spp.
Bluegrass, Alkali	<i>Poa juncifolia</i>
Bluegrass, Kentucky	<i>Poa pretensis</i>
Bluegrass, Nevada	<i>Poa nevadensis</i>
Bluegrass, Sandberg's	<i>Poa secunda</i>
Brome, Downy	<i>Bromus tectorum</i>
Brome, Mountain	<i>Bromus carinatus</i>
Brome, Red	<i>Bromus rubens</i>
Cheatgrass	<i>Bromus tectorum</i>
Cordgrass, Alkali	<i>Spartina gracilis</i>
Fescue, Idaho	<i>Festuca idahoensis</i>
Grama, Blue	<i>Bouteloua gracilis</i>
Hairgrass, Tufted	<i>Deschampsia cespitosa</i>
Muhly Grass	<i>Muhlenbergia capillaris</i>
Mutongrass	<i>Poa fendleriana</i>
Needle-and-thread	<i>Hesperostipa comata</i>
Needlegrass, Columbia	<i>Achnatherum nelsonii</i>
Needlegrass, Letterman's	<i>Achnatherum lettermanii</i>
Needlegrass, Thurber's	<i>Achnatherum thurberianum</i>
Needlegrass, Western	<i>Achnatherum occidentale</i>
Quackgrass	<i>Elymus repens</i>
Redtop	<i>Agrostis gigantea</i>
Ricegrass, Indian	<i>Achnatherum hymenoides</i>
Rush, Baltic	<i>Juncus balticus</i>
Rush, Spike	<i>Eleocharis</i> spp.
Saltgrass	<i>Distichlis spicata</i>
Saltgrass, Inland	<i>Distichlis spicata</i>
Sedge, Clustered Field	<i>Carex praegracilis</i>
Sedge, Nebraska	<i>Carex nebrascensis</i>
Sedge, Water-loving	<i>Carex aquatilis</i>
Squirretail	<i>Elymus</i> spp.
Squirretail, Bottlebrush	<i>Elymus elymoides</i>

COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS

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Common Name	Scientific Name
<b>PLANTS (Cont.)</b>	
<b>Grasses and Grass-like Plants (Cont.)</b>	
Timothy, Alpine	<i>Phleum alpinum</i>
Wheatgrass, Bluebunch	<i>Pseudoroegneria spicata</i>
Wheatgrass, Crested	<i>Agropyron cristatum</i>
Wheatgrass, Slender	<i>Elymus trachycaulus</i>
Wheatgrass, Western	<i>Pascopyrum smithii</i>
Wildrye, Basin	<i>Leymus cinereus</i>
<b>Forbs and Nonvascular Plants</b>	
Balsamroot	<i>Balsamorhiza</i> spp.
Bassia, Fivehook	<i>Bassia hyssopifolia</i>
Buckwheat, Beatley	<i>Eriogonum beatleyae</i>
Bulrush	<i>Scirpus</i> spp.
Cat-tail	<i>Typha latifolia</i>
Cinquefoil	<i>Potentilla</i> spp.
Clover, Sierra	<i>Trifolium</i> sp.
Cress, Hoary	<i>Cardaria draba</i>
Eriogonum	<i>Eriogonum</i> spp.
Forage Kochia	<i>Bassia prostrata</i>
Goldenweed	<i>Haplopappus acaulis</i>
Halogeton	<i>Halogeton glomeratus</i>
Hawksbeard	<i>Crepis</i> spp.
Iris, Wild	<i>Iris missouriensis</i>
Knapweed, Russian	<i>Acroptilon repens</i>
Knapweed, Spotted	<i>Centaurea stoebe</i>
Lahontan Beardtongue	<i>Penstemon palmeri</i>
Least Phacelia	<i>Phacelia minutissima</i>
Locoweed	<i>Oxytropis lambertii</i>
Lupine	<i>Lupine</i> spp.
Milkvetch, One-leaflet Torrey	<i>Astragalus calycosus</i>
Mint	<i>Mentha</i> spp.
Mustard, Tansy	<i>Descurainia pinnata</i>
Mustard, Wild	<i>Sinapis arvensis</i>
Nevada Willowherb	<i>Epilobium nevadense</i>
Onion	<i>Allium</i> sp.
Paintbrush, Monte Neva	<i>Castilleja salsuginosa</i>
Penstemon	<i>Penstemon</i> spp.
Phlox	<i>Phlox</i> spp.
Pickleweed	<i>Salicornia</i> sp.
Puncturevine	<i>Tribulus terrestris</i>
Ragwort, Tansy	<i>Senecio jacobaea</i>
Reedgrass	<i>Calamagrostis</i> spp.
Scarlet Globe-mallow	<i>Sphaeralcea coccinea</i>
Seepweed	<i>Suaeda intermedia</i>
Snakeweed	<i>Gutierrezia</i> spp.
Snakeweed, Broom	<i>Gutierrezia sarothrae</i>
Sorrel	<i>Rumex acetosa</i>
Spikerush	<i>Elocharis</i> spp.

**COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS**

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<b>Common Name</b>	<b>Scientific Name</b>
<b>PLANTS (Cont.)</b>	
<b>Forbs and Nonvascular Plants (Cont.)</b>	
Spurge, Leafy	<i>Euphorbia esula</i>
St. Johnswort, Common	<i>Hypericum perforatum</i>
Thistle, Bull	<i>Cirsium vulgare</i>
Thistle, Canada	<i>Cirsium arvense</i>
Thistle, Musk	<i>Carduus nutans</i>
Thistle, Russian	<i>Salsola tragus</i>
Thistle, Scotch	<i>Onopordum acanthium</i>
Watercress	<i>Nasturtium officinale</i>
Whitetop, Tall	<i>Lepidium latifolium</i>
Yarrow	<i>Achillea spp.</i>
<b>Shrubs and Trees</b>	
Aspen, Quaking	<i>Populus tremuloides</i>
Bitterbrush, Antelope	<i>Purshia tridentata</i>
Bud Sagebrush	<i>Picrothamnus desertorum</i>
Ceanothus	<i>Ceanothus spp.</i>
Chokecherry	<i>Prunus virginiana</i>
Cottonwood, Black	<i>Populus balsamifera</i> var. <i>trichocarpa</i>
Fir, White	<i>Abies concolor</i>
Gooseberry	<i>Ribes spp.</i>
Greasewood	<i>Sarcobatus spp.</i>
Greasewood, Black	<i>Sarcobatus vermiculatus</i>
Greenstem Paperflower	<i>Psilostrophe sparsiflora</i>
Hemlock, Poison	<i>Conium maculatum</i>
Hopsage	<i>Grayia spp.</i>
Hopsage, Spiny	<i>Grayia spinosa</i>
Horsebrush, Littleleaf	<i>Tetradymia glabrata</i>
Iodine Bush	<i>Allenrolfea occidentalis</i>
Juniper, Utah	<i>Juniperus osteosperma</i>
Mahogany, Cur-leaf Mountain	<i>Cercocarpus ledifolius</i>
Manzanita	<i>Arctostaphylos spp.</i>
Mormon Tea	<i>Ephedra spp.</i>
Nevada Ephedra	<i>Ephedra nevadensis</i>
Pine, Limber	<i>Pinus flexilis</i>
Pinyon, Singleleaf	<i>Pinus monophylla</i>
Poison hemlock	<i>Conium maculatum</i>
Rabbitbrush	<i>Chrysothamnus spp.</i> and <i>Ericameria spp.</i>
Rabbitbrush, Douglas'	<i>Chrysothamnus viscidiflorus</i>
Rabbitbrush, Rubber	<i>Chrysothamnus nauseosus</i>
Rose, Wild	<i>Rosa spp.</i>
Sage, Mediterranean	<i>Salvia aethiopsis</i>
Sagebrush	<i>Artemisia spp.</i>
Sagebrush, Basin Big	<i>Artemesia tridentata</i> <i>tridentata</i>
Sagebrush, Big	<i>Artemesia tridentata</i>
Sagebrush, Black	<i>Artemesia nova</i>
Sagebrush, Low	<i>Artemesia arbuscula</i>
Sagebrush, Mountain big	<i>Artemesia tridentata</i> ssp. <i>vaseyana</i>
Sagebrush, Wyoming big	<i>Artemesia tridentata</i> spp. <i>wyomingensis</i>

## COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS

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Common Name	Scientific Name
<b>PLANTS (Cont.)</b>	
<b>Shrubs and Trees (Cont.)</b>	
Saltbush	<i>Atriplex</i> spp.
Saltbush, Four-wing	<i>Atriplex canescens</i>
Saltcedar (tamarisk)	<i>Tamarix ramosissima</i>
Serviceberry	<i>Amelanchier utahensis</i>
Shadscale	<i>Atriplex confertifolia</i>
Snowberry	<i>Symporicarpos albus</i>
Willow	<i>Salix</i> spp.
Willow, Arroyo	<i>Salix lasiolepis</i>
Willow, Narrow-leaf	<i>Salix exigua</i>
Willow, Rock	<i>Salix vestita</i>
Winterfat	<i>Krascheninnikovia lanata</i>
<b>INVERTEBRATES</b>	
Beetle	Coleoptera
Caddisfly	Trichoptera
Fly	Diptera
Leach	Hirdinea
Mayfly	Ephemeroptera
Snail	Gastropoda
Springsnail	<i>Pyrgulopsis</i> spp.
Stonefly	Plecoptera
True Bug	Hemiptera
<b>FISH</b>	
Chub, Newark Valley Tui	<i>Siphateles bicolor newarkensis</i>
Chub, Tui	<i>Gila</i> spp.
Dace, Monitor Valley Speckled	<i>Rhinichthys osculus</i> spp.
Dace, Speckled	<i>Rhinichthys osculus</i>
Shiner, Redside	<i>Cyprinella lutrensis</i>
Sucker, Mountain	<i>Catostomus platyrhynchos</i>
Sucker, Tahoe	<i>Catostomus tahoensis</i>
Trout, Brook	<i>Salvelinus frontinalis</i>
Trout, Brown	<i>Salmo trutta</i>
Trout, Rainbow	<i>Oncorhynchus myliss</i>
<b>REPTILES AND AMPHIBIANS</b>	
Boa, Rubber	<i>Charina bottae</i>
Coachwhip	<i>Masticophis flagellum</i>
Frog, Columbia Spotted	<i>Rana luteiventris</i>
Frog, Northern Leopard	<i>Lithobates pipiens</i>
Lizard, Great Basin Collared	<i>Crotaphytus bicinctores</i>
Lizard, Greater Short-horned	<i>Phrynosoma douglasii</i>
Lizard, Long-nosed Leopard	<i>Gambelia wislizenii</i>
Lizard, Sagebrush	<i>Sceloporus graciosus</i>
Lizard, Western Fence	<i>Sceloporus occidentalis</i>
Rattlesnake, Western	<i>Crotalus oreagnus</i>
Snake, Long-nosed	<i>Rhinocheilus lecontei</i>
Snake, Ringneck	<i>Diadophis punctatus</i>
Toad, Great Basin Spadefoot	<i>Spea intermontana</i>
Toad, Western	<i>Anaxyrus boreas</i>

**COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS**

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<b>Common Name</b>	<b>Scientific Name</b>
<b>REPTILES AND AMPHIBIANS (Cont.)</b>	
Whipsnake, Striped	<i>Masticophis taeniatus ornatus</i>
<b>BIRDS</b>	
American Bittern	<i>Botaurus lentiginosus</i>
American Kestrel	<i>Falco sparverius</i>
American Robin	<i>Turdus americanus</i>
Black Rosy-fin	<i>Leucosticte atrata</i>
Bluebird, Mountain	<i>Sialia currucoides</i>
Bluebird, Western	<i>Sialia mexicana</i>
Chickadee, Mountain	<i>Poecile gambeli</i>
Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>
Dove, Mourning	<i>Zenaida macroura</i>
Eagle, Bald	<i>Haliaeetus leucocephalus</i>
Eagle, Golden	<i>Aquila chrysaetos</i>
Falcon, Prairie	<i>Falco mexicanus</i>
Falcon, Peregrine	<i>Falco peregrinus</i>
Finch, Cassin's	<i>Haemorhous cassinii</i>
Flicker, Northern	<i>Colaptes auratus</i>
Flycatcher, Gray	<i>Empidonax wrightii</i>
Flycatcher, Willow	<i>Empidonax traillii</i>
Gnatcatcher, Blue-gray	<i>Polioptila caerulea</i>
Goose, Canada	<i>Branta canadensis</i>
Goose, Snow	<i>Chen hyperborea</i>
Hawk, Cooper's	<i>Accipiter cooperi</i>
Hawk, Ferruginous	<i>Buteo regalis</i>
Hawk, Red-tailed	<i>Buteo jamaicensis</i>
Hawk, Rough-legged	<i>Buteo lagopus</i>
Hawk, Sharp-shinned	<i>Accipiter striatus</i>
Hawk, Swainson's	<i>Buteo swainsoni</i>
Heron, Black-crowned Night	<i>Nycticorax nycticorax</i>
Heron, Great Blue	<i>Ardea herodias</i>
Jay, Pinyon	<i>Gymnorhinus cyanocephalus</i>
Jay, Western Scrub	<i>Apelocoma californica</i>
Mallard	<i>Anas platyrhynchos</i>
Meadowlark, Western	<i>Sturnella neglecta</i>
Merlin	<i>Falco columbarius</i>
Nighthawk, Common	<i>Chordeiles minor</i>
Northern Coot	<i>Fulica americana</i>
Northern Goshawk	<i>Accipiter gentilis</i>
Northern Harrier	<i>Circus cyaneus</i>
Nuthatch, Red-breasted	<i>Sitta canadensis</i>
Owl, Barn	<i>Tyto alba</i>
Owl, Flammulated	<i>Otus flammeolus</i>
Owl, Great Horned	<i>Bubo virginianus</i>
Owl, Long-eared	<i>Asio otus</i>
Owl, Northern Pygmy	<i>Glaucidium gnoma</i>
Owl, Northern Saw-whet	<i>Aegolius acadicus</i>
Owl, Short-eared	<i>Asio flammeus</i>
Owl, Western Burrowing	<i>Athene cunicularia</i>

COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS

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Common Name	Scientific Name
<b>BIRDS (Cont.)</b>	
Partridge, Chukar	<i>Alectoris graeca</i>
Quail, Mountain	<i>Oreortyx pictus</i>
Raven, Common	<i>Corvus corax</i>
Robin, American	<i>Turdus americanus</i>
Sage-grouse, Greater	<i>Certrocercus urophasianus</i>
Screech-owl, Western	<i>Otus asio</i>
Shrike, Loggerhead	<i>Lanius ludovicianus</i>
Solitaire, Townsend's	<i>Myadestes townsendi</i>
Sora	<i>Porzana carolina</i>
Sparrow, Black-throated	<i>Amphispiza bilineata</i>
Sparrow, Brewer's	<i>Spizella breweri</i>
Sparrow, Lark	<i>Chondestes grammacus</i>
Sparrow, Sage	<i>Amphispiza belli</i>
Swan, Tundra	<i>Cygnus columbianus</i>
Thrasher, Sage	<i>Oreoscoptes montanus</i>
Titmouse, Juniper	<i>Baeolophus ridgwayi</i>
Towhee, Green-tailed	<i>Pipilo chlorurus</i>
Vulture, Turkey	<i>Cathartes aura</i>
Warbler, Black-throated Gray	<i>Setophaga nigrescens</i>
Warbler, Macgillivray's	<i>Geothlypis tolmiei</i>
Warbler, Orange-crowned	<i>Oreothlypis celata</i>
Warbler, Virginia's	<i>Vermivora virginiae</i>
Waxwing, Cedar	<i>Bombycilla cedrorum</i>
Woodpecker, Lewis'	<i>Melanerpes lewis</i>
<b>MAMMALS</b>	
Antelope, Pronghorn	<i>Antilocapra americana</i>
Bat, Little Brown	<i>Myotis lucifugus</i>
Bat, Silver-haired	<i>Lasionycteris noctivagans</i>
Bat, Townsend's Big-eared	<i>Corynorhinus townsendii</i>
Cottontail, Mountain	<i>Sylvilagus nuttallii</i>
Cougar	<i>Puma concolor</i>
Cow, Domestic	<i>Bos primigenius taurus</i>
Coyote	<i>Canis latrans</i>
Deer, Mule	<i>Odocoileus hemionus</i>
Horse	<i>Equus ferus caballus</i>
Jackrabbit, Black-tailed	<i>Lepus californicus</i>
Marmot, Hoary	<i>Marmota caligata</i>
Mouse, Dark Kangaroo	<i>Microdipodops megacephalus</i>
Mouse, Deer	<i>Peromyscus maniculatus</i>
Mouse, Pinyon	<i>Peromyscus truei</i>
Myotis, California	<i>Myotis californicus</i>
Myotis, Fringed	<i>Myotis thysanodes</i>
Myotis, Hoary	<i>Lasiurus cinereus</i>
Myotis, Long-eared	<i>Myotis evotis</i>
Myotis, Long-legged	<i>Myotis volans</i>
Myotis, Western Small-footed	<i>Myotis ciliolabrum</i>
Pipistrelle, Western	<i>Parastrellus hesperus</i>
Porcupine	<i>Erethizon dorsatum</i>

**COMMON AND SCIENTIFIC NAMES OF PLANTS AND ANIMALS**

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<b>Common Name</b>	<b>Scientific Name</b>
<b>MAMMALS (Cont.)</b>	
Rabbit, Pygmy	<i>Brachylagus idahoensis</i>
Rat, Desert Kangaroo	<i>Dipodomys deserti</i>
Rat, Ord's Kangaroo	<i>Dipodomys ordii</i>
Sheep, Bighorn	<i>Ovis canadensis</i>
Sheep, Domestic	<i>Ovis aries</i>
Shrew, Montane	<i>Sorex monticolus</i>
Vole, Sagebrush	<i>Lemmiscus curtatus</i>
Woodrat, Bushy-tailed	<i>Neotoma cinerea</i>



## **APPENDIX B**

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# **PROGRAMMATIC AGREEMENT BETWEEN THE MOUNT LEWIS FIELD OFFICE OF THE BLM AND THE NEVADA STATE HISTORIC PRESERVATION OFFICER**



**PROGRAMMATIC AGREEMENT BETWEEN  
THE MOUNT LEWIS FIELD OFFICE OF THE BUREAU OF LAND MANAGEMENT  
AND  
THE NEVADA STATE HISTORIC PRESERVATION OFFICER  
REGARDING  
NATIONAL HISTORIC PRESERVATION ACT COMPLIANCE  
FOR  
THE 3 BARS ECOSYSTEM AND LANDSCAPE RESTORATION PROJECT  
EUREKA COUNTY, NEVADA**

WHEREAS, the Mount Lewis Field Office of the Bureau of Land Management (BLM) is preparing a plan to conduct multiple phased vegetation treatments on +/-200,000 acres of public lands at various locations within the Roberts Mountain, Simpson Park Range, Kobeh and Pine Valley, Eureka County, Nevada (hereinafter referred to as the "undertaking" as defined in 36 C.F.R. § 800.16[y]); and

WHEREAS, the undertaking is officially identified as the 3 Bars Ecosystem and Landscape Restoration Project (undertaking), Eureka County, Nevada; and

WHEREAS, the BLM proposes to implement the undertaking to comply with all relevant Federal regulations, policies, and laws; and implementing these policies subject to the requirements of the National Environmental Policy Act of 1969 (NEPA); the BLM is responsible for completing NEPA and ensuring that it is in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), 16 U.S.C. § 470f, and its implementing regulations, 36 C.F.R. § 800; and

WHEREAS, the BLM has determined that the undertaking may have an effect upon properties eligible for inclusion in the National Register of Historic Places (NRHP), and has consulted with the Nevada State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA); and

WHEREAS, the BLM has consulted with the Advisory Council on Historic Preservation (AChP), pursuant to 36 CFR §800.14(b), to develop and execute this Programmatic Agreement (PA) and the AChP has elected not to formally enter consultation on the development of this PA; and

WHEREAS, effects to historic properties in the Area of Potential Effect (APE) cannot be fully determined and the Parties desire to enter into this Agreement to set forth procedures to be followed in satisfaction of the BLM's Section 106 responsibilities of the National Historic Preservation Act, for the Project in the APE, and

WHEREAS, the BLM is responsible for conducting Native American Tribal consultation on a government to government level and ensuring that it is in compliance with the BLM Manual Handbook, H-8120-1, Guidelines for Conducting Tribal Consultation and Secretarial Order 3317;

**WHEREAS** the undertaking would be implemented over the course of the next 15 years; and

**WHEREAS**, this Programmatic Agreement (PA) covers all aspects of the planning, development, and implementation of undertaking including use of prescribe fire, tree cutting and removal, chaining, herbicide treatments, weed prevention and treatment, aspen restoration, seeding, stream and spring restoration and protection;

**NOW THEREFORE**, the signatories agree that implementation of the NEPA decision record shall be administered in accordance with the following stipulations to ensure that historic properties will be treated to avoid or mitigate effects to the extent practicable to satisfy the BLM's NHPA Section 106 responsibilities for all aspects of the undertaking.

## **I. ROLES AND RESPONSIBILITIES**

The signatories agree that the *STATE PROTOCOL AGREEMENT between the Bureau of Land Management, Nevada and the Nevada State Historic Preservation Office for Implementing the National Historic Preservation Act, Revised January 2012* (Protocol), except as amended here, will be utilized for this PA. This Protocol is incorporated by reference.

The BLM is responsible for administering this PA. This includes but is not limited to: ensuring that signatories carry out their responsibilities; overseeing cultural resource work; assembling submissions to the SHPO including reports, determinations of eligibility and effect, and treatment plans; and for seeking SHPO concurrence with agency compliance decisions.

## **II. AREA OF POTENTIAL EFFECT**

The APE for cultural resources is defined as the project boundary (+/-750,000 acres) or the area considered for vegetation and fire management in the undertaking NEPA documents. The overall APE is shown on the map in Appendix A.

The APE shall be defined to include potential direct and indirect effects to cultural resources and properties of traditional religious and cultural importance from any activities associated with the undertaking without regard for land ownership.

Based on current data, there are no known historic properties outside of the direct APE that would have the characteristics that qualify them for listing in the NRHP adversely affected by visual impacts from the proposed action. However, the APE for assessing indirect effects on known historic properties will be the area plus one mile outward in all directions from the perimeter of each area, which would include some areas outside the undertaking area.

The BLM may amend the APE as needed or as requested by the SHPO without amending the PA proper.

### **III. STIPULATIONS**

The BLM shall ensure that the stipulations of this PA are carried out by its contractors, subcontractors, or other personnel involved with this undertaking.

The BLM shall ensure that ethnographic, historic, architectural, and archaeological work conducted pursuant to this PA is carried out by or under the direct supervision of persons meeting qualifications set forth in the *Secretary of the Interior's Professional Qualifications Standards* (currently available at [http://www.nps.gov/history/local-law/arch\\_stnds\\_9.htm](http://www.nps.gov/history/local-law/arch_stnds_9.htm)) and that those who require permits for such work by the BLM Nevada have them.

#### **A. Identification**

1. The BLM, in consultation with the SHPO, shall ensure that appropriate cultural resource identification activities, including records research; informant interviews; context development; and archaeological, historic, or ethnographic inventory for the APE are conducted in a manner consistent with the Protocol.
2. The BLM shall make a good faith effort to consult with the Tribes and affected tribal members to identify properties of traditional religious or cultural importance in accordance with Secretarial Order 3317.

#### **B. Eligibility**

1. For each phase of undertaking within the APE, the BLM shall evaluate cultural resources for eligibility to the NRHP. The BLM will determine NRHP eligibility prior to the initiation of activities that may affect cultural resources, using the Protocol as guidance.
2. The BLM shall consult with the Tribes or identified affected tribal members to evaluate the NRHP-eligibility of properties of traditional religious and cultural importance. Based on information shared with the BLM, the BLM would determine the NRHP eligibility of identified properties, and consult on these determinations with SHPO and the Tribes.
3. The BLM shall ensure that appropriate cultural resource inventories that identify and evaluate cultural resources are completed and that appropriate reports are prepared in accordance with the Protocol and with the Nevada BLM's *Guidelines and Standards for Archaeological Inventory, 5<sup>th</sup> edition (January 2012)*, or the latest edition issued by BLM Nevada (Guidelines) at the date of implementation of each phase.

### **C. Treatment**

1. To the extent practicable, the BLM shall ensure that project activities avoid adverse effects to historic properties through project design, or redesign, relocation of activities, or by other means in a manner consistent with the Protocol.
2. In avoiding or mitigating effects, the BLM, in consultation with the SHPO, shall determine the precise nature of effects to historic properties identified in the APE, using the Protocol as guidance.
3. The BLM shall consult with the Tribes, or identified affected tribal members, to evaluate effects to properties of traditional religious and cultural importance. Based on information shared with the BLM, the BLM would determine the appropriate treatment to avoid or to minimize to the extent practicable adverse effects, and consult on these determinations with SHPO and the Tribes.
4. For properties eligible under NRHP criteria (a) through (c), mitigation other than data recovery may be considered in the treatment plan (e.g., Historic American Buildings Survey/Historic American Engineering Record recording, oral history, historic markers, exhibits, interpretive brochures or publications, etc.). Where appropriate, treatment plans may include provisions (content and number of copies) for a publication for the general public.
5. The BLM shall, in consultation with the SHPO, ensure that the fieldwork portions of any treatment plan (using BLM staff or contractors and subcontractors) are completed prior to initiating any activities that may affect historic properties located within the area covered by the plan.
6. The BLM shall ensure that all field records, artifacts, and samples (soil, carbon...) collected during the identification, recordation, and any treatment efforts are maintained until the final treatment report is complete. All artifacts will be curated in accordance with 36 C.F.R. § 79 or 43 C.F.R. § 10.

### **IV. DURATION**

This PA shall remain in effect for fifteen (15) years from the date of its execution. If proposed actions in the APE are not completed prior to such time, the BLM may consult with the other signatories to reconsider the terms of the PA and amend it in accordance with Section X below or extend the document for additional fifteen (15) years. The BLM shall notify the signatories as to the course of action it will pursue.

### **V. POST-REVIEW DISCOVERY SITUATIONS**

Stipulations of this PA and the Protocol are intended to identify and treat cultural resources that are eligible for inclusion in the NRHP. Unplanned discoveries of buried cultural resources are not anticipated. In the case of an unplanned discovery, the BLM will ensure that provisions in the Protocol (Section VI.B) and Appendix B of this PA are met.

Prior to initiating any ground disturbing activities within the APE, all BLM employees, contractors, and subcontractors empowered to halt activities in a discovery situation shall be informed about who to contact and under what time frame. At least one of these individuals will be present during any project field activities.

Activities in the area of the discovery will be halted until the BLM Authorized Officer provides written authorization that the required mitigation is complete and activities can resume.

## **VI. NOTICES TO PROCEED**

When appropriate, in consultation with the SHPO and in compliance with the PA stipulations, the BLM may issue Notices to Proceed for individual project phases, under the following conditions:

- A. The BLM, in consultation with the SHPO, has determined that
  1. either there are no historic properties within the APE or through project design all historic properties will be avoided for the current phase of the undertaking; and
  2. in consultation with the Tribes, no properties of traditional religious or cultural importance were identified within the APE for the current phase of the undertaking; or
- B. The BLM, after consultation with the SHPO and in the case of properties of traditional religious or cultural importance, the Tribes, has implemented an adequate treatment plan for the current phase of the undertaking, and
  1. the fieldwork phase of the treatment option has been completed; and
  2. the BLM has prepared or accepted a summary description of the fieldwork performed and a schedule for reporting that work; and
  3. the BLM shall provide a copy of the summary to SHPO; and
  4. the SHPO shall review the summary and if the SHPO concurs or does not respond within two working days of receipt, BLM shall assume concurrence and issue the NTP; and
  5. the BLM shall not begin any ground disturbing activities within the boundaries of any historic property until a NTP is issued for the property; and
  6. a partial NTP may be issued for portions of the APE that are outside of the area that may affect historic properties.

## **VII. MONITORING AND REPORTING**

- A. Any signatory may monitor actions carried out pursuant to this PA. To the extent practicable, monitoring activities should minimize the number of monitors involved in the undertaking.

**B. Reporting**

1. A draft report of the identification, recordation, evaluation, treatment or other mitigative activities will be due to the BLM from any contractor within three (3) months after the completion of the fieldwork associated with the activity, unless otherwise negotiated.
2. BLM should review and comment on any report submitted by contractors within 30 calendar days of receipt.
3. The BLM shall submit the results of identification, recordation, evaluation, and treatment efforts, including discovery situations, and treatment plans to the SHPO for a 30 calendar day review and comment period.
4. If the SHPO fails to respond to the BLM within 30 calendar days of the receipt of a submission, the BLM shall presume concurrence with the findings and recommendations as detailed in the submission and proceed accordingly.
5. The BLM shall ensure that all final archaeological reports resulting from actions pursuant to this PA will be provided to the SHPO. All such reports shall be consistent with contemporary professional standards and the *Department of Interior's Formal Standards for Final Reports of Data Recovery Programs* (48 Federal Register 44716-44740).

**VIII. OTHER CONSIDERATIONS**

- A. The BLM shall ensure that all its personnel and all the personnel of its contractors and subcontractors are directed not to engage in the illegal collection of historic and prehistoric materials. All parties shall cooperate with the BLM to ensure compliance with the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470), as amended, on public lands and with Nevada Revised Statute (NRS) 383 for private lands.
- B. The BLM shall ensure that any human remains, grave goods, items of cultural patrimony, and sacred objects encountered during the undertaking are treated with respect. In coordination with this PA, human remains and associated grave goods found on public land will be handled according to the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. 3001 et seq., and its implementing regulations (43 C.F.R. § 10). Human remains and associated grave goods on private land will be handled according to the provisions of NRS 383.
- C. The BLM shall bear the expense of the identification, evaluation, and any treatment of historic properties directly or indirectly affected by project-related activity. Such costs may include, but not be limited to, pre-field planning, fieldwork, post-fieldwork analysis, research and report preparation, interim and summary report preparation, publications for the general public, and the cost of curating project documentation and artifact collections.
- D. Information on the location and nature of cultural resources, and information provided by and considered proprietary by the Tribes, will be held confidential to the extent provided by Federal and state law.

## **IX. DISPUTE RESOLUTION**

If any signatory to this PA objects to any activities proposed pursuant to the terms of this PA, the BLM Mount Lewis Field Office (MLFO) Manager shall consult with the objecting party and the SHPO to resolve the issue. If the BLM MLFO Manager determines that the objection cannot be resolved, they shall request the assistance of the BLM Nevada Deputy Preservation Officer and the Battle Mountain District Manager to resolve the objection. The BLM Battle Mountain District Manager's decision will be considered final.

The signatories may continue all actions under this PA that are not in dispute.

## **X. AMENDMENT**

Any signatory to this PA may request that this PA be amended, whereupon the signatories will consult to consider such amendment. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

## **XI. TERMINATION**

Any signatory to this PA may terminate the PA by providing thirty (30) days advance written notice with cause to the other signatories, provided that the signatories will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination.

**EXECUTION** of this PA and implementation of its terms is evidence that the BLM has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

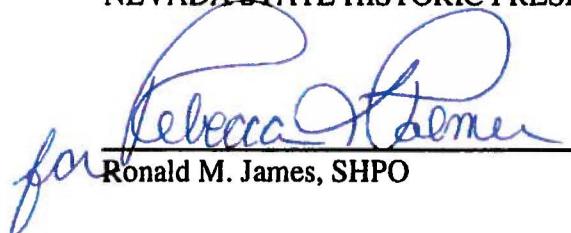
### **SIGNATORIES:**

U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF LAND MANAGEMENT

  
Christopher J. Cook, Mount Lewis Field Office Manager

Date 8/20/12

NEVADA STATE HISTORIC PRESERVATION OFFICER

  
Ronald M. James, SHPO

Date 9/5/12

**3 Bars Programmatic Agreement Concurring Party Signatures:**

**Battle Mountain Band Council**

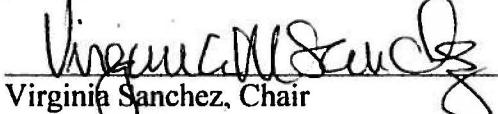
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Michael Price, Chair

Date

**Duckwater Shoshone Tribe**

---

  
Virginia Sanchez, Chair

Date 9/12/2012

**Elko Band Council**

---

Gerald Temoke, Chair

Date

**Ely Shoshone Tribe**

---

Alvin Marques, Chair

Date

**South Fork Band Council**

---

Sim Malotte, Chair

Date

**Te-Moak Tribe of Western Shoshone**

---

Bryan Cassadore, Chair

Date

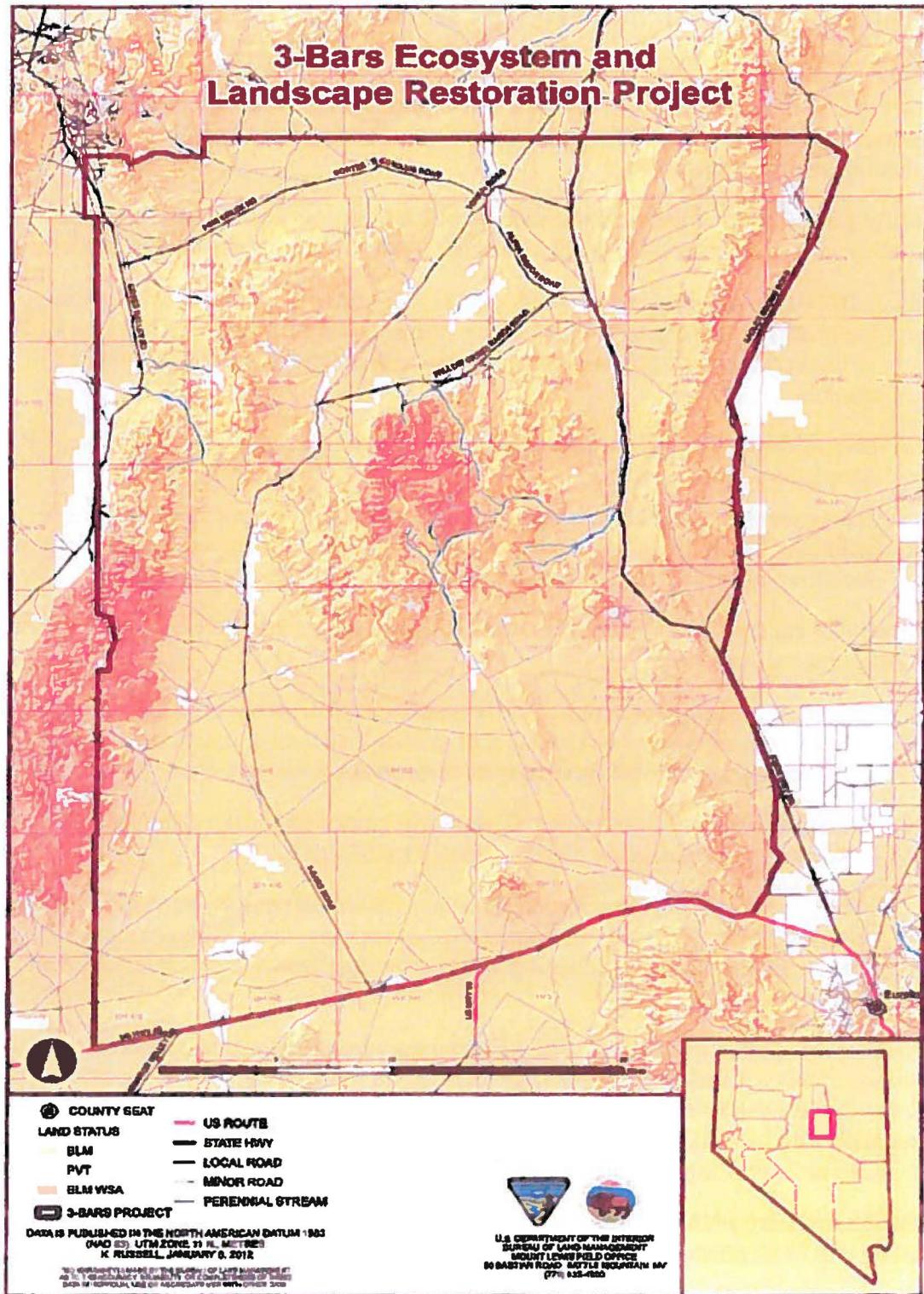
**Yomba Shoshone Tribe**

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Elisha Mockerman, Chair

Date

## Appendix A: Area of Potential Effect



## **APPENDIX B:**

### **DISCOVERY AND UNANTICIPATED IMPACTS PROCEDURES**

In the event that previously unknown cultural resources are discovered within the area of potential effects of the undertaking, or should known resources be directly or indirectly impacted in an unanticipated manner, the following actions, at a minimum, would be initiated by the BLM in consultation with the signatories:

1. All activities will halt in the immediate vicinity of the discovery and all actions will be directed away from an area at least 100 meters in all directions from the point of discovery.
  - a. A BLM cultural resources specialist (CRS) will be notified immediately by the contractors or BLM staff working on the project. The BLM will ensure that a CRS, with the proper expertise for the suspected resource type, is on-site as soon as possible.
  - b. The BLM will initiate consultation with the appropriate parties, including the SHPO, other federal agencies, the Tribes, and interested parties as appropriate.
  - c. In the event that a CRS or other necessary persons are not immediately available, BLM may be required to cover and/or otherwise protect the resource until such time that the appropriate parties can be present for inspection and/or evaluation.
2. Upon arriving at the site of the discovery, the CRS will assess the resource. At a minimum, the assessment will include:
  - a. The nature of the resource (e.g., number and kinds of artifacts, presence/absence of features). This may require screening of already disturbed deposits, photographs of the discovery, and/or other necessary documentation.
  - b. The spatial extent of the resource. This may require additional subsurface testing, mapping or inspection, as is appropriate to the resource.
  - c. The nature of deposition/exposure. This may require interviews with construction personnel, other persons having knowledge concerning the resource or, in rare instances, the expansion of existing disturbances to establish the characteristics of the deposits.
3. Discoveries and unanticipated impacts to known resources will be managed according to the provisions of this PA and the Protocol. After consultation with the appropriate parties, BLM shall then make a determination of eligibility, treatment and effect. If necessary, BLM, in consultation with the SHPO, the Tribes and appropriate parties, shall ensure that a treatment plan is prepared following the guidance provided in this PA.
4. Any items covered by NAGPRA encountered in a discovery, or unanticipated impact situation, will be handled according to 43 C.F.R. § 10 or Nevada state laws, as appropriate.
5. All implementation activities in the area of the discovery will be halted until the BLM documents in writing that identification and treatment is complete and activities can resume.

## **APPENDIX C**

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# **STANDARD OPERATING PROCEDURES**



## TABLE OF CONTENTS

	Page
C.1 General Standard Operating Procedures .....	C-1
C.2 Project Specific Standard Operating Procedures .....	C-1
C.2.1 General .....	C-1
C.2.2 Livestock .....	C-13
C.2.3 Wild Horses .....	C-14
C.2.4 Erosion Control .....	C-15
C.2.5 Planting and Seeding .....	C-16
C.2.6 Protective Fences .....	C-16
C.2.7 Riparian Management .....	C-17
C.2.8 Aspen Management .....	C-17
C.2.9 Pinyon-juniper Management .....	C-17
C.2.10 Sagebrush Management .....	C-18
C.2.11 Prescribed Fire and Fire for Resource Benefit .....	C-18
C.2.12 Activity Fuel Disposal Methods .....	C-18
C.3 Special Precautions .....	C-20
C.3.1 Prevention of Weeds and Early Detection and Rapid Response .....	C-20
C.3.2 Fish and Wildlife .....	C-21
C.3.3 Native American Concerns and Cultural Resources .....	C-24
C.3.4 Paleontological Resources .....	C-26
C.3.5 Wilderness Study Areas .....	C-26
References .....	C-27

### List of Tables

C-1 Vegetation Treatment Methods Standard Operating Procedures and Guidelines .....	C-2
C-2 Raptor Nest Buffers .....	C-23



## APPENDIX C

# STANDARD OPERATING PROCEDURES

This section identifies Standard Operating Procedures (SOPs) that would be followed by the U.S. Department of the Interior (USDOI), Bureau of Land Management (BLM), under all alternatives to ensure that risks to human health and the environment from treatment actions would be kept to a minimum. Standard operating procedures are the management controls and performance standards required for streambank restoration and vegetation management treatments. These practices are intended to protect and enhance natural resources that could be affected by future treatments.

## C.1 General Standard Operating Procedures

The BLM will comply with SOPs identified in the 17-States PEIS (USDOI BLM 2007a:2-22 to 2-38), and PER (USDOI BLM 2007b:2-31 to 2-44). These SOPs are provided in **Table C-1**. These SOPs have been identified to reduce adverse effects to environmental resources and human health from vegetation treatment activities based on guidance in BLM manuals and handbooks, regulations, and standard agency and industry practices. The SOPs listed in these documents are not all encompassing, but give an overview of practices that should be considered when designing and implementing a vegetation treatment project on public lands. In addition to these SOPs, the Mount Lewis Field Office has identified the following additional SOPs that would apply to the 3 Bars Project.

## C.2 Project Specific Standard Operating Procedures

### C.2.1 General

1. Several site-specific projects would likely take place each year. Treatment locations and acreage to be treated within any one year would be dependent upon availability of funding. The BLM will coordinate with the affected livestock operator(s) to ensure that livestock are managed in a way that supports the accomplishment of treatment objectives.
2. If multiple projects are proposed for an area, the BLM will try to complete all or several of the projects at similar times to reduce/avoid the occurrence of multiple disturbances in the area over an extended period of time.
3. Treatments would occur during those times of the year when they are most likely to be successful. The BLM will make every effort to ensure through treatment design that restorative actions achieve site specific objectives.
4. The BLM will consult the LR2000 database to identify locations of existing authorizations and avoid disturbance of active mining claim markers prior to any treatment. The LR2000 is the BLM's Legacy Rehost System that provides reports on BLM land and mineral use authorizations for oil, gas, and geothermal leasing, rights-of-way, coal and other mineral development, land and mineral title, mining claims, withdrawals, and classifications, on federal lands or on federal mineral estate.

## STANDARD OPERATING PROCEDURES

**TABLE C-1**  
**Vegetation Treatment Methods Standard Operating Procedures and Guidelines**

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Guidance Documents	BLM handbooks H-9211-1 ( <i>Fire Management Activity Planning Procedures</i> ) and H-9214-1 ( <i>Prescribed Fire Management</i> ), and manuals 1112 ( <i>Safety</i> ), 9210 ( <i>Fire Management</i> ), 9211 ( <i>Fire Planning</i> ), 9214 ( <i>Prescribed Fire</i> ), and 9215 ( <i>Fire Training and Qualifications</i> ).	BLM Handbook H-5000-1 ( <i>Public Domain Forest Management</i> ), and manuals 1112 ( <i>Safety</i> ) and 9015 ( <i>Integrated Weed Management</i> ).	BLM <i>Domain Forest Management</i> , and manuals 1112 ( <i>Safety</i> ), and 9015 ( <i>Integrated Weed Management</i> ).	BLM manuals 1112 ( <i>Safety</i> ), 4100 ( <i>Grazing Administration</i> ), 9014 ( <i>Use of Biological Control Agents on Public Lands</i> ), and 9015 ( <i>Integrated Weed Management</i> ) and Handbook H-4400-1 ( <i>Rangeland Health Standards</i> ).
General	<ul style="list-style-type: none"> <li>• Prepare fire management plan.</li> <li>• Use trained personnel with adequate equipment.</li> <li>• Minimize frequent burning in arid environments.</li> <li>• Avoid burning herbicide-treated vegetation for at least 6 months.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that power cutting tools have approved spark arresters.</li> <li>• Ensure that crews have proper fire-suppression tools during the fire season.</li> <li>• Wash vehicles and equipment before leaving weed infested areas to avoid infecting weed-free areas.</li> <li>• Keep equipment in good operating condition.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that crews have proper fire-suppression tools during fire season.</li> <li>• Minimize soil disturbance, which may encourage new weeds to develop.</li> </ul>	<ul style="list-style-type: none"> <li>• Use only biological control agents that have been tested and approved to ensure they are host specific.</li> <li>• If using domestic animals, select sites with weeds that are palatable and non-toxic to the animals.</li> <li>• Manage the intensity and duration of containment by domestic animals to minimize overutilization of desirable plant species.</li> <li>• Utilize domestic animals to contain the target species in the treatment areas prior to weed seed set. Or if seed set has occurred, do not move the domestic animals to uninfested areas for a period of 7 days.</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>• Carefully plan fires in the wildland urban interface to avoid or minimize loss of structures and property.</li> <li>• Notify nearby residents and landowners who could be affected by smoke intrusions or other fire effects.</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborate on project development with nearby landowners and agencies.</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborate on project development with nearby landowners and agencies.</li> </ul>	<ul style="list-style-type: none"> <li>• Notify nearby residents and landowners who could be affected by biological control agents.</li> </ul>

**TABLE C-1 (Cont.)**

## **Vegetation Treatment Methods Standard Operating Procedures and Guidelines**

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Air Quality  See Manual 7000 (Soil, Water, and Air Management).	<ul style="list-style-type: none"> <li>Have clear smoke management objectives.</li> <li>Evaluate weather conditions, including wind speed and atmospheric stability, to predict effects of burn and impacts from smoke.</li> <li>Burn when weather conditions favor rapid combustion and dispersion.</li> <li>Burn under favorable moisture conditions.</li> <li>Use backfires, when applicable.</li> <li>Burn small vegetation blocks, when appropriate.</li> <li>Manage smoke to prevent air quality violations and minimize impacts to smoke-sensitive areas.</li> <li>Coordinate with air pollution and fire control officials, and obtain all applicable smoke management permits, to ensure that burn plans comply with federal, state, and local regulations.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain equipment in optimal working order.</li> <li>Conduct treatment activities during the wetter seasons.</li> <li>Use heavy equipment under adequate soil moisture conditions to minimize soil erosion.</li> <li>Minimize vehicle speeds on unpaved roads.</li> <li>Minimize dust impacts to the extent practicable.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain equipment in optimal working order.</li> <li>Conduct treatment activities during the wetter seasons.</li> <li>Minimize vehicle speeds on unpaved roads.</li> <li>Minimize dust impacts to the extent practicable.</li> </ul>	
Soil Resources  See Manual 7000 (Soil, Water, and Air Management).	<ul style="list-style-type: none"> <li>Assess the susceptibility of the treatment site to soil damage and erosion prior to treatment.</li> <li>Prescribe broadcast and other burns that are consistent with soil management activities.</li> <li>Plan burns so as to minimize damage to soil resources.</li> <li>Conduct burns when moisture content of large fuels, surface organic matter, and soil is high to limit the amount of heat</li> </ul>	<ul style="list-style-type: none"> <li>Assess the susceptibility of the treatment site to soil damage and erosion prior to treatment.</li> <li>Time treatments to avoid intense rainstorms.</li> <li>Time treatments to encourage rapid recovery of vegetation.</li> <li>Further facilitate revegetation by seeding or planting following treatment.</li> <li>Use equipment that minimizes soil disturbance and</li> </ul>	<ul style="list-style-type: none"> <li>Assess the susceptibility of the treatment site to soil damage and erosion prior to treatment.</li> <li>Time treatments to avoid intense rainstorms.</li> <li>Time treatments to encourage rapid recovery of vegetation.</li> <li>Further facilitate revegetation by seeding or planting following treatment.</li> <li>Minimize soil disturbance and</li> </ul>	<ul style="list-style-type: none"> <li>Assess the susceptibility of the treatment site to soil damage and erosion prior to treatment.</li> <li>Minimize use of domestic animals if removal of vegetation may cause significant soil erosion or impact biological soil crusts.</li> <li>Closely monitor timing and intensity of biological control with domestic animals.</li> <li>Avoid grazing on wet soil to</li> </ul>

TABLE C-1 (Cont.)

## Vegetation Treatment Methods Standard Operating Procedures and Guidelines

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Soil Resources (cont.)	<p>penetration into lower soil surfaces and protect surface organic matter.</p> <ul style="list-style-type: none"> <li>Time treatments to encourage rapid recovery of vegetation.</li> <li>Further facilitate revegetation by seeding or planting following treatment.</li> <li>When appropriate, reseed following burning to reintroduce species, or to convert a site to a less flammable plant association, rather than to specifically minimize erosion.</li> </ul>	<p>compaction.</p> <ul style="list-style-type: none"> <li>Minimize use of heavy equipment on slopes &gt;20 percent.</li> <li>Conduct treatments when the ground is sufficiently dry to support heavy equipment.</li> <li>Implement erosion control measures in areas where heavy equipment use occurs.</li> <li>Minimize disturbances to biological soil crusts (e.g., by timing treatments when crusts are moist).</li> <li>Reinoculate biological crust organisms to aid in their recovery, if possible.</li> <li>Conduct mechanical treatments along topographic contours to minimize runoff and erosion.</li> <li>When appropriate, leave plant debris on site to retain moisture, supply nutrients, and reduce erosion.</li> <li>Consider chaining when soils are frozen and plants are brittle to minimize soil disturbance.</li> </ul>	<p>compaction.</p> <ul style="list-style-type: none"> <li>Minimize disturbance to biological soil crusts (e.g., by timing treatments when crusts are moist).</li> <li>Reinoculate biological crust organisms to aid in their recovery, if possible.</li> <li>When appropriate, leave plant debris on site to retain moisture, supply nutrients, and reduce erosion.</li> <li>Prevent oil and gas spills to minimize damage to soil.</li> </ul>	minimize compaction and shearing.
Water Resources See Manual 7000 ( <i>Soil, Water, and Air Management</i> ).	<ul style="list-style-type: none"> <li>Prescribe burns that are consistent with water management objectives.</li> <li>Plan burns to minimize negative impacts to water resources.</li> <li>Minimize burning on hillslopes, or revegetate hillslopes shortly after burning.</li> <li>Maintain a vegetated buffer</li> </ul>	<ul style="list-style-type: none"> <li>Minimize removal of desirable vegetation near residential and domestic water sources.</li> <li>Do not wash equipment or vehicles in water bodies.</li> <li>Maintain minimum 25-foot wide vegetated buffer near streams and wetlands.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain vegetated buffer near residential and domestic water sources.</li> <li>Minimize removal of desirable vegetation near residential and domestic water sources.</li> <li>Minimize removal of desirable vegetation near water bodies.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize use of domestic animals near residential or domestic water sources.</li> <li>Minimize use of domestic animals adjacent to water bodies if trampling or other activities are likely to cause soil erosion or impact water quality.</li> </ul>

TABLE C-1 (Cont.)

## Vegetation Treatment Methods Standard Operating Procedures and Guidelines

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Water Resources (Cont.)	between treatment areas and water bodies.			
Wetlands and Riparian Areas	<ul style="list-style-type: none"> <li>Following treatment, reseed or replant with native vegetation if the native plant community cannot recover and occupy the site sufficiently.</li> </ul>	<ul style="list-style-type: none"> <li>Manage riparian areas to provide adequate shade, sediment control, bank stability, and recruitment of wood into stream channels.</li> <li>Following treatment, reseed or replant with native vegetation if the native plant community cannot recover and occupy the site sufficiently.</li> </ul>	<ul style="list-style-type: none"> <li>Following treatment, reseed or replant with native vegetation if the native plant community cannot recover and occupy the site sufficiently.</li> </ul>	<ul style="list-style-type: none"> <li>Manage animals to prevent overgrazing and minimize damage to wetlands.</li> <li>Following treatment, reseed or replant with native vegetation if the native plant community cannot recover and occupy the site sufficiently.</li> </ul>
Vegetation See Handbook H-4410-1 ( <i>National Range Handbook</i> ), and manuals 5000 ( <i>Forest Management</i> ) and 9015 ( <i>Integrated Weed Management</i> ).	<ul style="list-style-type: none"> <li>Keep fires as small as possible to meet the treatment objectives.</li> <li>Conduct low intensity burns to minimize adverse impacts to large vegetation.</li> <li>Limit area cleared for fire breaks and clearings to reduce potential for weed infestations.</li> <li>Where appropriate, use mechanical treatments to prepare forests for the reintroduction of fire.</li> <li>Identify and implement any temporary domestic livestock grazing and/or supplemental feeding restrictions needed to enhance desirable vegetation recovery following treatment.</li> <li>Consider adjustments in the existing grazing permit, including the application of state or regional grazing administration guidelines, needed to maintain desirable vegetation on the treatment site.</li> </ul>	<ul style="list-style-type: none"> <li>Power wash vehicles and equipment to prevent the introduction and spread of weed and exotic species.</li> <li>Remove damaged trees and treat woody residue to limit subsequent mortality by bark beetles.</li> <li>Use plant stock or seed from the same seed zone and from sites of similar elevation when conducting revegetation activities.</li> <li>Use lighter chains with 40 to 60 pound links where the objective is to minimize disturbance to the understory species.</li> <li>As appropriate, use two chainings to reduce tree competition and prepare the seedbed. Carry out the second chaining at the most advantageous time for seeding (late fall or early winter, in most cases).</li> <li>Do not chain in areas where</li> </ul>	<ul style="list-style-type: none"> <li>Remove damaged trees and treat woody residue to limit subsequent mortality by bark beetles.</li> <li>Identify and implement any temporary domestic livestock grazing and/or supplemental feeding restrictions needed to enhance desirable vegetation recovery following treatment.</li> <li>Consider adjustments in the existing grazing permit, including the application of state or regional grazing administration guidelines, needed to maintain desirable vegetation on the treatment site.</li> <li>Use plant stock or seed from the same seed zone and from sites of similar elevation when conducting revegetation activities.</li> </ul>	<ul style="list-style-type: none"> <li>Use domestic animals at the time they are most likely to damage invasive species.</li> <li>Manage animals to prevent overgrazing and minimize damage to sensitive areas.</li> <li>Identify and implement any temporary domestic livestock grazing and/or supplemental feeding restrictions needed to enhance desirable vegetation recovery following treatment.</li> <li>Consider adjustments in the existing grazing permit, including the application of state or regional grazing administration guidelines, needed to maintain desirable vegetation on the treatment site.</li> <li>Use plant stock or seed from the same seed zone and from sites of similar elevation when conducting revegetation activities.</li> </ul>

TABLE C-1 (Cont.)

## Vegetation Treatment Methods Standard Operating Procedures and Guidelines

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Vegetation (cont.)	<ul style="list-style-type: none"> <li>Use plant stock or seed from the same seed zone and from sites of similar elevation when conducting revegetation activities.</li> </ul>	<p>annual rainfall is less than 6 to 9 inches, especially if downy brome is present.</p> <ul style="list-style-type: none"> <li>Identify and implement any temporary domestic livestock grazing and/or supplemental feeding restrictions needed to enhance desirable vegetation recovery following treatment.</li> <li>Consider adjustments in the existing grazing permit, including the application of state or regional grazing administration guidelines, needed to maintain desirable vegetation on the treatment site.</li> </ul>		
Fish and Other Aquatic Resources  See Manual 6500 ( <i>Wildlife and Fisheries Management</i> ).	<ul style="list-style-type: none"> <li>Maintain vegetated buffers near fish-bearing streams to minimize soil erosion and soil runoff into streams.</li> <li>Minimize treatments near fish-bearing streams during periods when fish are in sensitive life stages (e.g., embryo).</li> </ul>	<ul style="list-style-type: none"> <li>Minimize treatments adjacent to fish-bearing waters.</li> <li>Do not wash vehicles in streams or wetlands.</li> <li>Refuel and service equipment at least 100 feet from water bodies to reduce the chance for pollutants to enter water.</li> <li>Maintain adequate vegetated buffer between treatment area and water body to reduce the potential for sediments and other pollutants to enter the water body.</li> </ul>	<ul style="list-style-type: none"> <li>Refuel and service equipment at least 100 feet from water bodies to reduce the chance for pollutants to enter water.</li> <li>Minimize removal of desirable vegetation near fish-bearing streams and wetlands.</li> </ul>	<ul style="list-style-type: none"> <li>Limit the access of domestic animals to streams and other water bodies to minimize sediments entering water and potential for damage to fish habitat.</li> </ul>
Wildlife Resources  See Manual 6500 ( <i>Wildlife and Fisheries Management</i> ).	<ul style="list-style-type: none"> <li>Minimize treatments during nesting and other important periods for birds and other wildlife.</li> <li>Minimize treatments of important forage areas immediately prior to important use period(s), unless the burn is</li> </ul>	<ul style="list-style-type: none"> <li>Minimize treatments during nesting and other important periods for birds and other wildlife.</li> <li>Retain wildlife trees and other unique habitat features where practical.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize treatments during nesting and other important periods for birds and other wildlife.</li> <li>Retain wildlife trees and other unique habitat features where practical.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize the use of livestock grazing as a vegetation control measure where and/or when it could impact nesting and/or other important periods for birds and other wildlife.</li> <li>Consider and minimize potential adverse impacts to</li> </ul>

## STANDARD OPERATING PROCEDURES

**TABLE C-1 (Cont.)**

**Vegetation Treatment Methods Standard Operating Procedures and Guidelines**

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Wildlife Resources (cont.)	designed to stimulate forage growth.	<ul style="list-style-type: none"> <li>Design chaining treatments to provide a mosaic of treated and nontreated sites. No more than 50 percent of an area should be chained at one time. Provide natural travel lanes, resting and thermal cover areas, snags, and corridors (less than 30 feet wide) connecting non-chained areas. Size of clearing should not exceed 100 yards at its widest point.</li> </ul>		wildlife habitat and minimize the use of livestock grazing as a vegetation control measure where it is likely to result in removal or physical damage to vegetation that provides a critical source of food or cover for wildlife.
Threatened and Endangered Species  See Manual 6840 ( <i>Special Status Species</i> ) and <i>Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic Biological Assessment</i> .	<ul style="list-style-type: none"> <li>Survey for special status species of concern if project may impact federally and state-listed species.</li> <li>Minimize direct impacts to species of concern, unless studies show that species will benefit from fire.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize use of ground-disturbing equipment near special status species of concern.</li> <li>Survey for species of concern if project could impact these species.</li> <li>Use temporary roads when long-term access is not required.</li> </ul>	<ul style="list-style-type: none"> <li>Survey for special status species of concern if project could impact these species.</li> </ul>	<ul style="list-style-type: none"> <li>Survey for special status species of concern if project could impact these species.</li> </ul>
Livestock  See Handbook H-4120-1 ( <i>Grazing Management</i> ).	<ul style="list-style-type: none"> <li>Notify permittees of proposed treatments and identify any needed livestock grazing, feeding, or slaughter restrictions.</li> <li>Design treatments to take advantage of normal livestock grazing rest periods, when possible, and minimize impacts to livestock grazing permits.</li> <li>Provide alternative forage sites for livestock, if possible.</li> <li>Notify permittees of the project to improve coordination and avoid potential conflicts and safety concerns during</li> </ul>	<ul style="list-style-type: none"> <li>Notify permittees of proposed treatments and identify any needed livestock grazing, feeding, or slaughter restrictions.</li> <li>Design treatments to take advantage of normal livestock grazing rest periods, when possible, and minimize impacts to livestock grazing permits.</li> <li>Provide alternative forage sites for livestock, if possible.</li> <li>Notify permittees of the project to improve coordination and avoid potential conflicts and safety concerns during</li> </ul>	<ul style="list-style-type: none"> <li>Notify permittees of proposed treatments and identify any needed livestock grazing, feeding, or slaughter restrictions.</li> <li>Design treatments to take advantage of normal livestock grazing rest periods, when possible, and minimize impacts to livestock grazing permits.</li> <li>Provide alternative forage sites for livestock, if possible.</li> <li>Notify permittees of the project to improve coordination and avoid potential conflicts and safety concerns during</li> </ul>	<ul style="list-style-type: none"> <li>Notify permittees of proposed treatments and identify any needed livestock grazing, feeding, or slaughter restrictions.</li> <li>Design treatments to take advantage of normal livestock grazing rest periods, when possible, and minimize impacts to livestock grazing permits.</li> <li>Provide alternative forage sites for livestock, if possible.</li> <li>Notify permittees of the project to improve coordination and avoid potential conflicts and safety concerns during</li> </ul>

TABLE C-1 (Cont.)

## Vegetation Treatment Methods Standard Operating Procedures and Guidelines

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Livestock (cont.)	implementation of the treatment.	implementation of the treatment.	implementation of the treatment.	potential conflicts and safety concerns during implementation of the treatment.
Wild Horses and Burros	<ul style="list-style-type: none"> <li>Minimize potential hazards to horses and burros by ensuring adequate escape opportunities.</li> <li>Avoid critical periods and minimize impacts to critical habitat that could adversely affect wild horse or burro populations.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid critical periods and minimize impacts to habitat that could adversely affect wild horse or burro populations.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid critical periods and minimize impacts to habitat that could adversely affect wild horse or burro populations.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid critical periods and minimize impacts to habitat that could adversely affect wild horse or burro populations.</li> </ul>
Paleontological and Cultural Resources  See handbooks H-8120-1 ( <i>Guidelines for Conducting Tribal Consultation</i> ) and H-8270-1 ( <i>General Procedural Guidance for Paleontological Resource Management</i> ), and manuals 8100 ( <i>The Foundations for Managing Cultural Resources</i> ), 8120 ( <i>Tribal Consultation Under Cultural Resource Authorities</i> ), and 8270 ( <i>Paleontological Resource Management</i> ).  See also: <i>Programmatic Agreement among the Bureau of Land</i>	<ul style="list-style-type: none"> <li>Follow standard procedures for compliance with Section 106 of the National Historic Preservation Act as implemented through the National Programmatic Agreement and state protocols or 36 Code of Federal Regulations (CFR) Part 800, including necessary consultations with the State Historic Preservation Officers and affected tribes.</li> <li>Follow BLM Handbook H-8270-1 to determine known Condition 1 and Condition 2 paleontological areas, or collect information through inventory to establish Condition 1 and Condition 2 areas, determine resource types at risk from the proposed treatment, and develop appropriate measures to minimize or mitigate adverse impacts.</li> <li>Identify cultural resource types at risk from fire use and design</li> </ul>	<ul style="list-style-type: none"> <li>Follow standard procedures for compliance with Section 106 of the National Historic Preservation Act as implemented through the National Programmatic Agreement and state protocols or 36 CFR Part 800, including necessary consultations with the State Historic Preservation Officers and interested tribes.</li> <li>Follow BLM Handbook H-8270-1 to determine known Condition 1 and Condition 2 paleontological areas, or collect information through inventory to establish Condition 1 and Condition 2 areas, determine resource types at risk from the proposed treatment, and develop appropriate measures to minimize or mitigate adverse impacts.</li> <li>Identify cultural resource types at risk from mechanical treatments and design inventories that are sufficient to</li> </ul>	<ul style="list-style-type: none"> <li>Follow standard procedures for compliance with Section 106 of the National Historic Preservation Act as implemented through the National Programmatic Agreement and state protocols or 36 CFR Part 800, including necessary consultations with the State Historic Preservation Officers and interested tribes.</li> <li>Follow BLM Handbook H-8270-1 to determine known Condition 1 and Condition 2 paleontological areas, or collect information through inventory to establish Condition 1 and Condition 2 areas, determine resource types at risk from the proposed treatment, and develop appropriate measures to minimize or mitigate adverse impacts.</li> <li>Identify cultural resource types at risk from manual treatments and design inventories that are sufficient to locate these</li> </ul>	<ul style="list-style-type: none"> <li>Follow standard procedures for compliance with Section 106 of the National Historic Preservation Act as implemented through the National Programmatic Agreement and state protocols or 36 CFR Part 800, including necessary consultations with the State Historic Preservation Officers and interested tribes.</li> <li>Follow BLM Handbook H-8270-1 to determine known Condition 1 and Condition 2 paleontological areas, or collect information through inventory to establish Condition 1 and Condition 2 areas, determine resource types at risk from the proposed treatment, and develop appropriate measures to minimize or mitigate adverse impacts.</li> <li>Identify opportunities to meet tribal cultural use plant objectives for projects on</li> </ul>

TABLE C-1 (Cont.)

## Vegetation Treatment Methods Standard Operating Procedures and Guidelines

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
<i>Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act (1997).</i>	<ul style="list-style-type: none"> <li>inventories that are sufficient to locate these resources. Provide measures to minimize impacts.</li> <li>Identify opportunities to meet tribal cultural use plant objectives for projects on public lands.</li> <li>Monitor significant paleontological and cultural resources for potential looting of materials where they have been exposed by fire.</li> </ul>	<ul style="list-style-type: none"> <li>locate these resources. Provide measures to minimize impacts.</li> <li>Identify opportunities to meet tribal cultural use plant objectives for projects on public lands.</li> <li>Consult with tribes to locate any areas of vegetation that are of significance to the tribe and that might be affected, adversely or beneficially, by mechanical treatments.</li> </ul>	<ul style="list-style-type: none"> <li>resources. Provide measures to minimize impacts.</li> <li>Identify opportunities to meet tribal cultural use plant objectives for projects on public lands.</li> <li>Consult with tribes to locate any areas of vegetation that are of significance to the tribe and that might be affected, adversely or beneficially, by manual treatments.</li> </ul>	<ul style="list-style-type: none"> <li>public lands.</li> <li>Consult with tribes to locate any areas of vegetation that are of significance to the tribe and that might be affected, adversely or beneficially, by biological treatments.</li> </ul>
Visual Resources  See handbooks H-8410-1 ( <i>Visual Resource Inventory</i> ) and H-8431-1 ( <i>Visual Resource Contrast Rating</i> ), and Manual 8400 ( <i>Visual Resource Management</i> ).	<ul style="list-style-type: none"> <li>Minimize use of fire in sensitive watersheds to reduce the creation of large areas of browned vegetation.</li> <li>Consider the surrounding land use before assigning fire as a treatment method.</li> <li>At areas such as visual overlooks, leave sufficient vegetation in place, where possible, to screen views of vegetation treatments.</li> <li>Avoid use of fire near agricultural or densely populated areas, where feasible.</li> <li>Lessen visual effects in Class I and Class II visual resource areas.</li> <li>Design activities to repeat the form, line, color, texture of the natural landscape conditions to meet established Visual Resource Management (VRM) objectives.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize dust drift, especially near recreational or other public use areas.</li> <li>Minimize loss of desirable vegetation near high public use areas.</li> <li>At areas such as visual overlooks, leave sufficient vegetation in place, where possible, to screen views of vegetation treatments.</li> <li>Minimize earthwork and locate away from prominent topographic features.</li> <li>Revegetate treated sites.</li> <li>Lessen visual effects in Class I and Class II visual resource areas.</li> <li>Design activities to repeat the form, line, color, and texture of the natural landscape character conditions to meet established VRM objectives.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize dust drift, especially near recreational or other public use areas.</li> <li>Minimize loss of desirable vegetation near high public use areas.</li> <li>At areas such as visual overlooks, leave sufficient vegetation in place, where possible, to screen views of vegetation treatments.</li> <li>Lessen visual effects in Class I and Class II visual resource areas.</li> <li>Design activities to repeat the form, line, color, and texture of the natural landscape character conditions to meet established VRM objectives.</li> </ul>	<ul style="list-style-type: none"> <li>At areas such as visual overlooks, leave sufficient vegetation in place, where possible, to screen views of vegetation treatments.</li> <li>Lessen visual effects in Class I and Class II visual resource areas.</li> <li>Design activities to repeat the form, line, color, and texture of the natural landscape character conditions to meet established VRM objectives.</li> </ul>

## STANDARD OPERATING PROCEDURES

**TABLE C-1 (Cont.)**

**Vegetation Treatment Methods Standard Operating Procedures and Guidelines**

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Wilderness and Other Special Areas  See handbooks H-8550-1 ( <i>Management of Wilderness Study Areas (WSAs)</i> ), and H-8560-1 ( <i>Management of Designated Wilderness Study Areas</i> ).	<ul style="list-style-type: none"> <li>Minimize soil-disturbing activities during fire control or prescribed fire activities.</li> <li>Revegetate sites with native species if there is no reasonable expectation of natural regeneration.</li> <li>Maintain adequate buffers for Wild and Scenic Rivers.</li> </ul>	<ul style="list-style-type: none"> <li>Use the least intrusive methods possible to achieve objectives, and use non-motorized equipment in wilderness and off existing routes in wilderness study areas, and where possible in other areas.</li> <li>If mechanized equipment is required, use the minimum amount of equipment needed.</li> <li>Time the work for weekdays or off-season.</li> <li>Require shut down of work before evening if work is located near campsites.</li> <li>If aircraft are used, plan flight paths to minimize impacts on visitors and wildlife.</li> <li>Revegetate sites with native species if there is no reasonable expectation of natural regeneration.</li> <li>Maintain adequate buffers for Wild and Scenic Rivers.</li> </ul>	<ul style="list-style-type: none"> <li>Use the least intrusive methods possible to achieve objectives, and use non-motorized equipment in wilderness and off existing routes in wilderness study areas, and where possible in other areas.</li> <li>Revegetate sites with native species if there is no reasonable expectation of natural regeneration.</li> <li>Maintain adequate buffers for Wild and Scenic Rivers.</li> </ul>	<ul style="list-style-type: none"> <li>Use the least intrusive methods possible to achieve objectives, and use non-motorized equipment in wilderness and off existing routes in wilderness study areas, and where possible in other areas.</li> <li>Maintain adequate buffers for Wild and Scenic Rivers.</li> </ul>
Recreation  See Handbook H-1601-1 ( <i>Land Use Planning Handbook</i> ).	<ul style="list-style-type: none"> <li>Control public access to potential burn areas.</li> <li>Schedule treatments to avoid peak recreational use times, unless treatments must be timed during peak times to maximize effectiveness.</li> <li>Notify the public of treatment methods, hazards, times, and nearby alternative recreation areas.</li> </ul>	<ul style="list-style-type: none"> <li>Control public access until potential treatment hazards no longer exist.</li> <li>Schedule treatments to avoid peak recreational use times, unless treatments must be timed during peak times to maximize effectiveness.</li> <li>Notify the public of treatment methods, hazards, times, and nearby alternative recreation areas.</li> </ul>	<ul style="list-style-type: none"> <li>Control public access until potential treatment hazards no longer exist.</li> <li>Schedule treatments to avoid peak recreational use times, unless treatments must be timed during peak times to maximize effectiveness.</li> <li>Notify the public of treatment methods, hazards, times, and nearby alternative recreation areas.</li> </ul>	<ul style="list-style-type: none"> <li>Control public access in areas with control agents to ensure that agents are effective.</li> <li>Schedule treatments to avoid peak recreational use times, unless treatments must be timed during peak times to maximize effectiveness.</li> <li>Notify the public of treatment methods, hazards, times, and nearby alternative recreation areas.</li> </ul>

TABLE C-1 (Cont.)

## Vegetation Treatment Methods Standard Operating Procedures and Guidelines

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Social and Economic Values	<ul style="list-style-type: none"> <li>Post treatment areas.</li> <li>Notify adjacent landowners, grazing permittees, the public, and emergency personnel of treatments.</li> <li>Control public access to treatment areas.</li> <li>Consult with Native American tribes and Alaska Natives whose health and economies might be affected by the project.</li> <li>To the extent feasible, hire local contractors and purchase supplies locally.</li> </ul>	<ul style="list-style-type: none"> <li>Post treatment areas.</li> <li>Notify adjacent landowners, grazing permittees, the public, and emergency personnel of treatments.</li> <li>Control public access to treatment areas.</li> <li>Consult with Native American tribes and Alaska Natives whose health and economies might be affected by the project.</li> <li>To the extent feasible, hire local contractors and purchase supplies locally.</li> </ul>	<ul style="list-style-type: none"> <li>Post treatment areas.</li> <li>Notify adjacent landowners, grazing permittees, the public, and emergency personnel of treatments.</li> <li>Control public access to treatment areas.</li> <li>Consult with Native American tribes and Alaska Natives whose health and economies might be affected by the project.</li> <li>To the extent feasible, hire local contractors and purchase supplies locally.</li> </ul>	<ul style="list-style-type: none"> <li>Post treatment areas.</li> <li>Notify adjacent landowners, grazing permittees, the public, and emergency personnel of treatments.</li> <li>Control public access to treatment areas.</li> <li>Consult with Native American tribes and Alaska Natives whose health and economies might be affected by the project.</li> <li>To the extent feasible, hire local contractors and purchase supplies locally.</li> </ul>
Rights-of-way	<ul style="list-style-type: none"> <li>Coordinate vegetation management activities where joint or multiple uses of a rights-of-way (ROW) exists.</li> <li>Notify other public land users within or adjacent to the ROW proposed for treatment.</li> <li>Manage burns under powerlines so as to avoid negative impacts to the powerline.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate vegetation management activities where joint or multiple use of a ROW exists.</li> <li>Notify other public land users within or adjacent to the ROW proposed for treatment.</li> <li>Apply appropriate safety measures when operating equipment within utility ROW corridors.</li> <li>Minimize exposed soil areas during treatment.</li> <li>Keep operations within prescribed ROW.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate vegetation management activities where joint or multiple use of a ROW exists.</li> <li>Notify other public land users within or adjacent to the ROW proposed for treatment.</li> <li>Always use appropriate safety equipment and operating procedures.</li> <li>Utilize methods for disposal of vegetation that prevent spreading or reinfestation of unwanted vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate vegetation management activities where joint or multiple use of a ROW exists.</li> <li>Notify other public land users within or adjacent to the ROW proposed for treatment.</li> </ul>
Human Health and Safety	<ul style="list-style-type: none"> <li>Use some form of pretreatment, such as mechanical or manual treatment, in areas where fire cannot be safely introduced because of hazardous fuel buildup.</li> <li>Wear appropriate safety equipment and clothing, and use</li> </ul>	<ul style="list-style-type: none"> <li>Wear appropriate safety equipment and clothing, and use equipment that is properly maintained.</li> <li>Cut all brush and tree stumps flat, where possible, to eliminate sharp points that could injure a worker or the public.</li> </ul>	<ul style="list-style-type: none"> <li>Wear appropriate safety equipment and clothing, and use equipment that is properly maintained.</li> <li>Cut all brush and tree stumps flat, where possible, to eliminate sharp points that could injure a worker or the public.</li> </ul>	<ul style="list-style-type: none"> <li>Wear appropriate safety equipment and clothing, and use equipment that is properly maintained.</li> </ul>

TABLE C-1 (Cont.)

## Vegetation Treatment Methods Standard Operating Procedures and Guidelines

Resource Element	Treatment Method			
	Wildland Fire	Mechanical	Manual	Biological
Human Health and Safety (cont.)	<ul style="list-style-type: none"> <li>• equipment that is properly maintained.</li> <li>• Notify nearby residents who could be affected by smoke.</li> <li>• Maintain adequate safety buffers between treatment area and residences/structures.</li> <li>• Burn vegetation debris off ROWs to ensure that smoke does not provide a conductive path from the transmission line or electrical equipment to the ground.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that only qualified personnel cut trees near powerlines.</li> </ul>		

5. No new roads will be constructed.
6. Some sites could likely be treated with a combination of methods. For example, an area with cheatgrass could be burned, then disked, then drill seeded with desirable plant species.
7. Although manual and mechanical methods are labor intensive and costly on a per unit of area basis compared to prescribed burning, they are highly selective and can be used in areas such as sensitive habitats or where human health and safety are concerns. Manual and mechanical treatments will be applied when prescribed burning is not appropriate.
8. Several mechanical methods are available for vegetation treatment. With any mechanical treatment, steps will be taken to minimize both soil disturbance and the spread of invasive species. Treatment methods will be matched with site characteristics and potential based on ecological site description.
9. Thinning will be conducted in a manner that blends treated areas into untreated areas, thus maximizing the “edge effect,” or the amount of area between two adjacent habitat types. Stumps will be cut as low as possible to the ground.
10. For proposed treatments that would impact use of the Pony Express National Historic Trail, the BLM would coordinate with the National Pony Express Association to minimize activity and noise that would detract from the experience of re-riders during the annual re-ride of the trail through the Project Area.

## C.2.2        Livestock

There are 12 livestock allotments within the 3 Bars ecosystem. The following procedures will ensure that the health and safety of livestock are not compromised by treatment activities, and that treatment activities will have minimal impacts on livestock operators. Standard Operating Procedures specific to livestock are:

1. Notify allotment permittee(s) of proposed vegetation treatments to discuss dates of treatment and restoration, current grazing practices, and additional site-specific mitigation, and to resolve issues they may have with the proposed treatments. This will help to ensure safe implementation of treatments.
2. Do not implement any restoration activities without appropriate adjustments in the management of livestock.
3. Design treatments to take advantage of normal livestock grazing rest periods for a particular area, when possible, to minimize impacts to livestock grazing permits.
4. Rangeland improvements would be documented prior to initiating treatment projects and any damaged improvements will be repaired to previous condition or current BLM standards as soon as project activities in the immediate area are complete.
5. Vehicle speed limits will be set at 25 mph to avoid livestock/vehicle collisions and to reduce the generation of fugitive dust deposition.

### C.2.2.1      **Temporary Livestock Grazing Closures**

1. Close areas for at least 2 growing seasons, or until restoration objectives are met. Closure decisions are associated with the range regulations 43 Code of Federal Regulations (CFR) § 4160 and are required to close the treatment areas to livestock grazing. Animal Unit Months associated with the treatment areas will be temporarily suspended.
2. Re-open treated area to grazing in accordance with livestock grazing mitigation actions developed in the 3 Bars Project EIS or in accordance with existing permitted uses.

Depending upon the vegetation management treatment method used, the length of the temporary grazing closure will vary. Any treatment method used to release understory vegetation, and that meets the following criteria, will result in a temporary closure of that area for a minimum of 2 growing seasons or until vegetation establishment objectives are met. These criteria are:

1. The proposed treatment area understory lacks perennial understory vegetation that is expected and described in the Ecological Site Description(s) for the Ecological Site(s) for the treatment area.
2. Rest from livestock grazing is considered necessary to aid in the establishment/improvement of desired perennial vegetation. Perennial plant species that meet site-specific restoration objectives will be determined by the BLM.
3. Treatment area requires reseeding.

For prescribed fire treatments, a year of grazing rest prior to a prescribed fire treatment may be required in order to build up an adequate amount of fine fuels needed to carry the fire. The BLM will determine if a growing season's rest is required before the prescribed fire treatment. Following the prescribed fire treatment, a minimum of 2 growing seasons of grazing rest will be required to meet vegetation establishment objectives.

Riparian treatment areas will be closed for a minimum of 2 years; however, closure could be extended until the streambank is stabilized and vegetation establishment objectives are met.

The BLM will take steps to reduce the impact of treatment closures on permittees through targeting general areas for treatment as opposed to scattering treatments across the 3 Bars Project Area. The BLM will also work within grazing authorizations to modify patterns of use to accommodate treatment closure when possible, thus limiting impacts to current management strategies.

### C.2.3      **Wild Horses**

There are four Herd Management Areas (HMAs) within the 3 Bars ecosystem. The wild horse population in the 3 Bars Project area is in excess of the established Appropriate Management Level (AML) in the Roberts Mountain Complex. The Rocky Hills HMA population is currently below AML, but is heavily concentrated in the vicinity of Cadet Trough Spring. The following procedures will ensure that the health and safety of wild horses are not compromised by treatment activities. The procedures will also ensure a desirable distribution of wild horses, and few areas of overuse by wild horses, to ensure treatment success. To meet these objectives, SOPs specific to wild horses are:

**C.2.3.1        Roberts Mountain Complex**

1. Use temporary or permanent fencing to protect riparian treatment areas and include water gaps or off-site water development (trough placement).
2. Where fencing is needed within HMAs, use temporary electric fencing around sagebrush and pinyon-juniper treatment areas to protect from use by wild horses.

**C.2.3.2        Rocky Hills Herd Management Area**

1. The Rocky Hills HMA is part of the Catch, Treat, and Release gather and fertility control program. National direction has been to return to these HMAs on a 2- to 3-year basis to re-treat the mares for fertility control. The timing of the gathers will be determined by the BLM Nevada State Office. The Rocky Hills HMA is a priority for gathering and for maintaining the AML through subsequent gathers during the life of the 3 Bars Project.
2. Use temporary or permanent fencing to protect riparian treatment areas and include water gaps or off-site water development (trough placement).

**C.2.3.3        Other Measures**

1. Minimize disturbance associated with restoration activities within wild horse HMAs during the foaling season (March 1 – June 30).
2. Do not implement any restoration activities without appropriate adjustments in the management of livestock or wild horses.

**C.2.4        Erosion Control**

1. Follow guidance provided in the *Nevada Contractors Field Guide for Construction Site Best Management Practices* (Nevada Division of Environmental Protection 2008) and in *An Introduction to Erosion Control* (Zeedyk and Jansens 2006).
2. Stabilize terrestrial areas as quickly as possible after treatment, including reseeding or replanting with native vegetation, if the existing native plant community cannot recover and revegetate the site sufficiently.
3. Install sediment traps in streams if prescribed fire is used near streams.
4. Leave downed trees and mulch in areas with large-scale pinyon-juniper removal to prevent sediment from entering nearby waterways.
5. Use mulch, wood straw, wattles, and other erosion control features to minimize erosion and movement of sediments into nearby water bodies in areas treated using prescribed fire or where other large-scale vegetation removal occurs.

## C.2.5 Planting and Seeding

1. Follow BLM Handbook H-1742-1, *Burned Area Emergency Stabilization and Rehabilitation Handbook* (USDOI BLM 2007c) during the seed procurement process, including the sampling and testing of all seed lots for noxious weeds and other invasive non-native species, to ensure that noxious weeds and other invasive non-native species seed are not present.
2. Follow the contour of the land as much as possible when drill seeding to reduce potential water erosion. Do not disturb intact stands of sagebrush and native perennial vegetation.

## C.2.6 Protective Fences

1. Build fences in accordance with BLM Manual H-1741, *Renewable Resource Improvements, Practices, and Standards* (USDOI BLM 1989). Modifications may be incorporated into the design based on consultation with the Nevada Department of Wildlife (NDOW) and subsequent recommendations to minimize adverse impacts to wildlife. Let-down fences could be constructed in big game ranges and migration corridors where feasible and necessary.
2. Use existing fence infrastructure as much as is practical to protect treatment areas. This may entail modification of grazing on a pasture basis to ensure the appropriate amount of protection for seeding and restoration activities.
3. Use temporary protective fences when feasible. Fences may be permanent if needed to protect the integrity of the treatment. Permanent fences besides those proposed for the 3 Bars Project, if needed, will be analyzed under the National Environmental Policy Act for the effects to cultural, natural, and social resources from the fencing.
4. Construct livestock, wild horse, and wild ungulate exclusion fences around treatment boundaries. These protective fences will be on an as-needed basis to allow vegetation to establish, and to reduce the need to remove livestock from the pasture or allotment.
5. Place the top fence wire above horizontal braces to minimize perching by predatory birds.
6. Place domed pipe caps on the top of steel pipes, if steel pipe corners are used, to prevent wildlife entry and to minimize predatory bird perching.
7. Enhance the visibility of fences constructed within greater sage-grouse habitat or HMAs by using appropriate measures such as installing wide stays, deflectors, and/or white-topped posts. Type or brand of reflectors used will be selected from those that have been previously tested and determined to be effective. Additional measures to reduce impacts to greater sage-grouse include constructing fences with larger and more conspicuous wooden fence posts, ensuring that fence segments are less than 13 feet wide, avoiding fence construction within 1,640 feet of an inactive lek, and avoiding fence construction within 1¼ miles of an active lek.
8. Where exclusionary fencing is constructed around water features, the BLM will provide access to water through the form of a water gap or impoundment.

**C.2.6.1 Types of Temporary Fencing**

1. Riparian Treatments - Piperrail (jack fence type), standard barbed wire fence, and temporary electric fence may be used.
2. Aspen Treatments – Piperrail (jack fence type), standard barbed wire fence, and temporary electric fence may be used.
3. Pinyon-juniper Treatments – Temporary electric fence and piperrail (jack fence type) may be used in Birch Creek and Upper Pete Hanson treatment areas, and temporary barbed wire fencing outside of areas utilized by wild horses.
4. Sagebrush Treatments – Temporary electric fence, and temporary barbed wire fencing may be used outside of areas utilized by wild horses.

**C.2.7 Riparian Management**

1. Remove non-riparian trees within the historic floodplains.
2. Remove mountain mahogany only where it compromises riparian habitat treatment objectives.
3. Remove vegetation incrementally over several years if loss of shade near streams and other waterbodies is of concern to minimize stream temperature effects.
4. No fueling within 300 feet of water bodies.

**C.2.8 Aspen Management**

1. Slash accumulations will remain in place to promote seedling and sapling establishment.
2. Pinyon-juniper removal activities may extend 200 feet beyond the aspen stand.
3. The BLM may protect treated aspen stands until the stand density is 1,500 stems per acre and sapling reach at least 7 feet in height with exclosure fencing. Typically, objectives are met in 3 to 5 years as a result of exclusion.

**C.2.9 Pinyon-juniper Management**

1. Prescribed fire could be utilized in all pinyon-juniper phase classes and may be carried out at any time of the year depending on treatment objectives.
2. In most instances, treatment of pinyon-juniper will occur predominately in Phase I and Phase II sites. Treatments within Phase III sites will be used to disrupt the continuity of fuels and reduce the risk of catastrophic wildfire, as well as improve forest health.
3. The BLM may leave downed trees and mulch in areas with large-scale pinyon-juniper removal to prevent sediment from entering nearby waterways.

## **STANDARD OPERATING PROCEDURES**

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4. For all pinyon-juniper removal projects, the BLM will implement SOPs to minimize the chance of noxious weeds and other invasive non-native vegetation becoming established on the treatment units, and will monitor all units for noxious weeds and other invasive non-native vegetation for up to 5 years after treatment.

### **C.2.10 Sagebrush Management**

1. Treatments will adhere to the Western Association of Fish and Wildlife Agencies (Connelly et al. 2000), the Wyoming Game and Fish Department (2010) greater sage-grouse guidelines, and the BLM Nevada State Office and Washington Office Instructional Memoranda guidelines when restoring sagebrush habitats.
2. Any treatments on greater sage-grouse habitat will utilize a mosaic design where treated areas have a width of no greater than 200 feet between untreated areas. No treatment will occur within 0.6 miles of any occupied lek that results in a decrease in canopy cover of greater than 15 percent, unless additional site-specific objectives are identified.
3. Prescribed fire and fire for resource benefit will not be used in Wyoming big sagebrush communities or where annual precipitation is less than 12 inches.
4. Soil tests will be conducted to determine if suitable seeds are present in the seedbank before treatments occur in sagebrush communities.
5. Standing tree skeletons in areas burned to enhance greater sage-grouse habitat may be felled.

### **C.2.11 Prescribed Fire and Fire for Resource Benefit**

1. Develop a burn plan prior to any prescribed burn occurring.
2. Ignite burns under fair to excellent ventilation conditions and suspend operations under poor smoke dispersion conditions.
3. Minimize dirt content when slash piles are constructed.
4. Consolidate burn piles and other burn materials to enhance fuel consumption and to minimize smoke production.
5. The BLM may suspend grazing on burned areas for at least 2 years after the burn, or until standards are met.
6. Use fencing, if necessary, to allow desirable plants to become established in burned areas.
7. Treatments may be conducted next to roads to improve the roads' usefulness as fuel breaks and as control lines for wildfires and prescribed fires.

### **C.2.12 Activity Fuel Disposal Methods**

The following actions will be taken to dispose of felled trees, slash, and other woody materials that remain from treatments to reduce the buildup of hazardous fuels and potential for wildfire.

1. Dispose of activity fuels (slash) using one or more of the disposal options from the activity fuel disposal alternatives listed below.
2. Remove biomass in a manner that minimizes the spread of noxious weeds and other invasive non-native species and promote seeding establishment and development. Should slash accumulations exceed 4 tons/acre, these activity fuels will be disposed of with one or more of the activity fuel disposal methods listed below.
3. Burn during the fall, winter, and spring to take advantage of conditions of soil moisture, snow, precipitation, and vegetation green-up to reduce fire impacts to non-target vegetation.
4. Where appropriate, leave tree materials on the ground and positioned perpendicular to slopes to minimize erosion.
5. Where appropriate, lop and scatter felled trees to reduce fuel loading, buck and stack close to access points to minimize erosion and spread of noxious weeds and other invasive non-native species, or burned in slash piles to minimize ground litter.
6. Where appropriate, allow felled trees to be used for public wood harvesting per District policy and to aid in the removal of tree materials.

#### **C.2.12.1 Biomass Utilization**

1. Where appropriate, make juniper activity fuels that are wider than 3 inches available to the public (personal use or commercial) for fire wood or posts.
2. Where appropriate, make activity fuel available to the public (personal use or commercial) as mulch.
3. Where feasible, use coarse and large woody debris for stream restoration to slow stream water flow and reduce the potential for stream erosion.
4. Place coarse and large wood debris perpendicular to slopes greater than 10 percent.
5. Where appropriate, make activity fuel available for personal and commercial biomass use.

#### **C.2.12.2 Pile Burn**

1. Burn piles should not exceed 10 feet long by 10 feet wide by 6 feet high.
2. Burn piles will be piled with fine fuels and slash on the interior and larger fuels on the exterior.
3. Burn piles maybe covered with wax paper or similar material (no plastic).
4. Piles will be burned in the spring, fall, or winter.

#### **C.2.12.3 Slash Burn**

1. Scatter activity fuels according to guidance from the Fire Behavior Fuel Models for slash.
2. Slash will be burned in the spring, fall, or winter.

#### C.2.12.4 Leave on Site

1. Where appropriate, leave some material piled on site to provide wildlife habitat or for erosion control.

### C.3 Special Precautions

#### C.3.1 Prevention of Weeds and Early Detection and Rapid Response

Once weed populations become established, infestations can increase and expand in size. Weeds colonize highly disturbed ground and invade plant communities that have been degraded, but are also capable of invading intact communities. Therefore, prevention, early detection, and rapid response are the most cost-effective methods of weed control. Prevention, early detection, and rapid response strategies that reduce the need for vegetative treatments for noxious weeds and other invasive non-native should lead to a reduction in the number of acres treated using herbicides in the future by reducing or preventing weed establishment.

As stated in the BLM's *Partners Against Weeds - An Action Plan for the BLM* (USDOI BLM 1996), prevention and public education are the highest priority weed management activities. Priorities are as follows:

- Priority 1: Take actions to prevent or minimize the need for vegetation control when and where feasible, considering the management objectives of the site.
- Priority 2: Use effective nonchemical methods of vegetation control when and where feasible.
- Priority 3: Use herbicides after considering the effectiveness of all potential methods or in combination with other methods or controls.

Prevention is best accomplished by ensuring the seeds and reproductive plant parts of new weed species are not introduced into new areas.

The BLM is required to develop a noxious weed risk assessment when it is determined that an action may introduce or spread noxious weeds or when known noxious weed habitat exists (USDOI BLM 1992). If the risk is moderate or high, the BLM may modify the project to reduce the likelihood of weeds infesting the site and to identify control measures to be implemented if weeds do infest the site. The following are actions that can be taken by the BLM to slow the introduction or spread of noxious weeds and other invasive non-native vegetation:

1. To eliminate the transport of vehicle-borne weed seeds, roots, or rhizomes, all vehicles and heavy equipment that could cause ground disturbance, or are authorized for off-road use, will be cleaned to ensure that they are free of soil and debris capable of transporting weed propagules. All vehicles and equipment will be cleaned prior to entering or leaving the project area. Cleaning efforts will concentrate on vehicle tracks, feet and tires, and undercarriage. Cleaning efforts will also focus on axles, frames, cross members, motor mounts, steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be swept out and refuse will be disposed of in waste receptacles.
2. Equipment will be washed prior to being moved between project units. Equipment will arrive at the project unit area already cleaned of all dirt and debris. Any subsequent cleanings (i.e., before moving between units) will be recorded using Global Positioning System units or other mutually acceptable equipment and provided to the District Office Weed Coordinator or designated person.

3. All treatment areas where soil is disturbed will be monitored to determine if noxious weeds and other invasive non-native vegetation establish on the site. If so, they will be treated to remove them from the site.
4. Project areas will be surveyed for noxious weeds and other invasive non-native vegetation prior to project implementation. Any noxious weeds discovered within the Project area will be flagged and project treatments will not be allowed within 75 yards of the noxious weed infestation.

## C.3.2 Fish and Wildlife

### C.3.2.1 Fish

1. To ensure fish passage and to protect fish, all culverts will be designed to ensure fish passage unless specifically designed and located to minimize interaction of fish species in coordination with NDOW and U.S. Fish and Wildlife Service (USFWS).
2. Hardened water crossings or raised culverts would be considered in all locations where roads cross lotic or lentic areas.

### C.3.2.2 Special Status Species

Federal policies and procedures for protecting federally listed threatened and endangered plant and animal species and species proposed for listing were established by the Endangered Species Act of 1973 (Act) and regulations issued pursuant to the Act. The purposes of the Act are to provide mechanisms for the conservation of threatened and endangered species and their habitats. Under the Act, the Secretary of the Interior is required to determine which species are threatened or endangered and to issue recovery plans for those species.

Section 7 of the Act specifically requires all federal agencies to use their authorities in furtherance of the Act to carry out programs for the conservation of listed species, and to ensure that no agency action is likely to jeopardize the continued existence of a listed species or adversely modify critical habitat. Policy and guidance (BLM Manual 6840, *Special Status Species*; USDOI BLM 2008a) also stipulates that species proposed for listing must be managed at the same level of protection as listed species.

The BLM state directors may designate special status species in cooperation with their respective state. These special status species must receive, at a minimum, the same level of protection as federal candidate species. The BLM will also carry out management activities for the conservation of state-listed species, and state laws protecting these species will apply to all BLM programs and actions to the extent that they are consistent with Federal Land Policy and Management Act and other federal laws. Threatened, endangered, and other special status species are discussed in Section 3.14 of the EIS.

Before any vegetation treatment or ground disturbance occurs, BLM policy requires that the Mount Lewis Field Office survey the treatment site for species listed or proposed for listing, and for special status species. This must be done by a qualified biologist and/or botanist who consults the state and local databases and visits the site during the appropriate season. For wildlife surveys, the biologist will follow the *BLM Nevada Wildlife Survey Protocols* (USDOI BLM 2013a). If a proposed project may affect a proposed or listed species or its critical habitat, the BLM will consult with the USFWS. A project with a “may affect, likely to adversely affect” determination requires formal consultation and receives a Biological Opinion from the USFWS. A project with a “may affect, not likely to adversely affect” determination requires informal consultation and receives a concurrence letter from the USFWS.

## STANDARD OPERATING PROCEDURES

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The BLM consulted with the USFWS during development of the 3 Bars Project EIS as required under Section 7 of the Act. As part of this process, the BLM prepared a formal consultation package that included a description of the program; species listed as threatened or endangered, species proposed for listing, and critical habitats that could be affected by the program; and a Biological Assessment that evaluated the likely impacts to listed species, species proposed for listing, and critical habitats from the proposed vegetation treatment programs. The Lahontan cutthroat trout was the only species that required evaluation in the Biological Assessment (USDOI BLM 2013b). The BLM would also consult with the USFWS and NDOW before conducting prescribed fire and other treatments that could adversely impact Lahontan cutthroat trout when working near Lahontan cutthroat trout occupied or potential habitat.

### C.3.2.3 Migratory Birds

1. The BLM will conduct migratory bird nest surveys prior to any surface disturbing activities that would occur during the avian breeding season (April 1 through July 31) following guidance in *BLM Nevada Wildlife Survey Protocols* (USDOI BLM 2013a). If nests are found within the treatment area, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nest material, transporting food) is observed, treatment activities may be postponed until after the completion of nesting, or a protective buffer (the size depending on the habitat requirements of the species) will be delineated and the buffer area will be avoided to prevent destruction or disturbance to nests and birds until they are no longer active, or the area will be removed from project consideration.
2. Raptor nest sites are subject to seasonal and spatial protection from disturbance to avoid displacement and mortality of raptor young as shown in **Table C-2**.
3. A BLM-approved wildlife biologist will conduct raptor nesting using guidance in the *BLM Nevada Wildlife Survey Protocols* (USDOI BLM 2013a). Surveys will be conducted no more than 14 days prior to commencement of surface-disturbing activities in an area. If disturbance does not occur within 14 days of the survey, the site will be resurveyed. If during any surveys nests or nesting behavior are documented, the area must be avoided until the young have fledged from the nest or the nest fails. Compliance with this SOP does not constitute full compliance with, or exemption from, the Migratory Bird Treaty Act as amended, or any other legislation.

### C.3.2.4 Mule Deer, Pronghorn Antelope, and other Mammals

1. Ground disturbing activities will not occur in mule deer and pronghorn antelope winter range from November 15 through March 16 to avoid displacement and mortality to mule deer and pronghorn antelope during winter. The BLM will consult seasonal range maps prepared by the NDOW to delineate winter range for mule deer and pronghorn antelope at the time of treatment activities.
2. Ground disturbing activities will not occur in pronghorn antelope kidding areas from May 1 through June 30 to avoid displacement and mortality to pronghorn antelope during the kidding season. The BLM will consult seasonal range maps prepared by the NDOW to delineate kidding areas at the time of treatment activities.
3. BLM will not conduct treatments within 40 meters (131 feet) of active pygmy rabbit burrows.

**TABLE C-2**  
**Raptor Nest Buffers**

Species	Seasonal Restrictions	Spatial Buffers (miles)
Turkey vulture	2/1 – 8/15	0.5
Northern harrier	4/1 – 8/15	0.25
Cooper's hawk	3/15 – 8/31	0.25
Sharp-shinned hawk	3/15 – 8/31	0.25
Northern goshawk	3/1 – 8/15	0.5
Red-tailed hawk	3/15 – 8/15	0.33
Swainson's hawk	3/1 – 8/31	0.25
Ferruginous hawk	3/1 – 8/1	1.0
Bald eagle	1/1 – 8/31	1.0
Golden eagle	1/1 – 8/31	0.5
American kestrel	4/1 – 8/15	0.125
Prairie falcon	3/1 – 8/31	0.5
Peregrine falcon	2/1 – 8/31	1.0
Barn owl	2/1 – 9/15	0.125
Burrowing owl	3/1 – 8/31	0.25
Flammulated owl	4/1 – 9/30	0.25
Great-horned owl	12/1 - 9/30	0.125
Long-eared owl	2/1 – 8/15	0.125
Northern pygmy-owl	4/1 – 8/1	0.25
Northern saw-whet owl	3/1 – 8/31	0.125
Short-eared owl	3/1 – 8/1	0.25
Western screech-owl	3/1 – 8/15	0.125

Sources: Herron et al. (1985), Romin and Muck (1999), Whittington and Allen (2008), and USDOI BLM (2013a).

### C.3.2.5      Greater Sage-grouse

1. To ensure that treatments benefit greater sage-grouse, sagebrush restoration treatments would adhere to the most recent guidance available at the time of treatment implementation, currently the Western Association of Fish and Wildlife Agencies and the Wyoming Game and Fish Department greater sage-grouse guidelines, and the BLM Nevada State Office and Washington Office Instructional Memoranda when restoring sagebrush habitats.
2. Ground disturbing activities will not occur near within 3 miles of active sage grouse leks from 7 p.m. to 10 a.m., Pacific Time, during March 1 through May 15, or in accordance with current guidelines and policies. The BLM will conduct lek and other surveys based on the *BLM Nevada Wildlife Survey Protocols* (USDOI BLM 2013a).
3. Ground disturbing activities will not occur in sage-grouse brood rearing areas from May 15 through August 15, or in accordance with current guidelines and policies. The BLM will consult seasonal range maps prepared by the NDOW to delineate greater sage-grouse use areas at the time of treatment activities.

## STANDARD OPERATING PROCEDURES

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4. Ground disturbing activities will not occur in sage-grouse winter habitat use areas from November 1 through March 15, or in accordance with current guidelines and policies. The BLM will consult seasonal range maps prepared by the NDOW to delineate greater sage-grouse use areas at the time of treatment activities.

### C.3.2.6 Lahontan Cutthroat Trout

1. No in-stream treatments will be conducted between January 1 and July 15 for waters occupied by Lahontan cutthroat trout.
2. No in-stream treatments will be conducted between January 1 and June 1 for waters occupied by rainbow trout.

### C.3.3 Native American Concerns and Cultural Resources

The BLM meets its responsibilities for consultation and government-to-government relationships with Native American tribes by consulting with appropriate tribal representatives prior to taking actions that affect tribal interests. The BLM's tribal consultation policies are detailed in BLM Manual 8120 (*Tribal Consultation under Cultural Resource Authorities*; USDOI BLM 2004a) and Handbook H-8120-1 (Handbook H-8120-1, *General Procedural Guidance for Native American Consultation: Guidelines for Conducting Tribal Consultation*; USDOI BLM 2004b). The BLM consulted with various tribes and bands of the Western Shoshone during development of this EIS. Information gathered on important tribal resources and potential impacts to these resources from restoration activities is presented in the analysis of impacts.

The BLM meets its responsibilities for compliance with Section 106 of the National Historic Preservation Act, and has adopted the following SOPs that would in part ensure compliance. All disturbance activities would comply with Section 106 in accordance with the measures outlined in the *State Protocol Agreement between the Bureau of Land Management and the Nevada State Historic Preservation Office for Implementing the National Historic Preservation Act* (Protocol Agreement) and specifically the Programmatic Agreement for the 3 Bars Project (**Appendix B**) between the Nevada BLM and the Nevada State Historic Preservation Office. Actions that could be taken to address Native American concerns and cultural resources and to meet its responsibilities for compliance with Section 106 of the National Historic Preservation Act include:

1. All disturbance activities will comply with Section 106 of the National Historic Preservation Act. Compliance will be achieved in accordance with the measures outlined in the Protocol Agreement.
2. Wherever possible, the project will be designed to avoid potential adverse effects to historic properties (i.e. archeological sites eligible for inclusion on the National Register of Historic Places[NRHP]). Where it is not possible to avoid potential adverse affects, a mitigation plan will be crafted in accordance with National Historic Preservation Act as guided by the 36 CFR § 800 regulations and the site(s) will be fully mitigated.
3. Each treatment will be monitored to ensure that avoidance measures have been effective and that project activities have not impacted cultural resources in an unforeseen manner. All persons participating in the construction, operation, or maintenance of a project will not disturb, alter, injure, or destroy any scientifically important remains, or any eligible archeological site, structure, building, object or artifact on lands associated with the project. Individuals involved in illegal activities will be subject to penalties under the Archaeological Resource Protection Act (16 United States Code [USC] § 470ii), the Federal Land Policy and Management

Act (43 USC § 1701), the Native American Graves and Repatriation Act (16 USC § 1170), or other applicable statutes.

4. If human remains/burials or other previously unidentified cultural resources or vertebrate paleontological resources are discovered during project operations, all activities within 300 feet of the discovery will immediately cease and the BLM archeologist will be notified by telephone, followed by written confirmation. Work will not resume and the discovery will be protected until the BLM authorized officer issues a Notice to Proceed. All discoveries of human remains (regardless of location in association with the project area) will be reported to the BLM Mount Lewis Field Office.
5. Sites identified as holding special significance to Native American groups from a cultural or spiritual importance will be avoided if restoration activities would compromise the site's value.
6. Phase III cultural resource inventories Handbook H-8120-1, *General Procedural Guidance for Native American Consultation: Guidelines for Conducting Tribal Consultation* be conducted prior to project implementation.

Under all alternatives, the BLM Handbook H-8120-1, *General Procedural Guidance for Native American Consultation: Guidelines for Conducting Tribal Consultation* implement the following measures as outlined in the Programmatic Agreement prepared for the 3 Bars project and signed by the BLM and Nevada State Historic Preservation Officer on September 5, 2012.

1. Complete a cultural resource inventory of the proposed project area and consult with the Tribes in accordance with Stipulation III (A) of the Programmatic Agreement.
2. For each phase of the undertaking, evaluate cultural resources for NRHP eligibility, consult with the Tribes or tribal members regarding areas of cultural or traditional religious importance, and consult with the State Historic Preservation Office and tribes regarding the NRHP determinations per Stipulation III(B) of the Programmatic Agreement.
3. Develop and implement appropriate treatment measures to mitigate adverse affects to those resources determined eligible for inclusion in the NRHP and in accordance with Stipulation III(C) of the Programmatic Agreement.
4. Treat unanticipated finds in accordance with the protocols outlined in Stipulation VII of the Programmatic Agreement.
5. Provide training to all BLM and contract personnel to ensure compliance with the Archeological Resource Protection Act of 1979 (16 USC § 470), as amended, and ensure that human remains and burial associated items are treated with respect and are handled according to the provisions of the Native American Grave Protection and Repatriation Act and Nevada Revised Statute 383 in accordance with Stipulation VIII of the Programmatic Agreement.

### C.3.4 Paleontological Resources

Standard Operating Procedures that apply to paleontological resources are in BLM Manual 8270, *Paleontological Resource Management*, and BLM Handbook H-8270-1, *General Procedural Guidance for Paleontological Resource Management* (USDOI BLM 2008b, c).

If it is the opinion of the authorized officer that particular treatment areas may contain valuable fossil resources that may be placed at risk by invasive treatments, then paleontological surveys will be conducted by a BLM-permitted paleontologist. Paleontological surveys would assess the potential for valuable resources to be present by using the Potential Fossil Yield Classification (PFYC) System. Once geologic deposits have been classified according to the PFYC system, and if there is a medium to high potential for valuable fossil resources to be present in a given area, then protective measures according to BLM rules and guidance will be implemented to protect potential fossil resources. Such protective measures will include, but are not limited to, the following actions:

1. If any scientifically important fossils are found during a field survey, a program will be developed and implemented to remove at risk fossils prior to ground disturbing activities.
2. Treatment areas identified as having a high potential for buried paleontological resources based upon field surveys will be monitored by a qualified paleontologist during ground disturbing activities. The method of treatment will determine the level of monitoring needed. For instance, a stream restoration that potentially involves substantial excavation will require more intense monitoring than other activities.
3. Personnel will be instructed about the types of fossils they could encounter and the steps to take if fossils are uncovered during construction. Instruction would stress the nonrenewable nature of paleontological resources and that collection or excavation of fossil materials from federal land without a federal permit is illegal.
4. Fossils recovered during the field surveys or monitoring will be prepared in accordance with standard professional paleontological techniques. A report on the findings of the salvage program, including a list of the recovered fossils, will be prepared following completion of the program. A copy of this report will accompany the fossils to the BLM-approved facility where they are curated.

### C.3.5 Wilderness Study Areas

The guidance for managing each Wilderness Study Areas (WSAs) is provided in the BLM Manual 6330 (*Management of Wilderness Study Areas*; USDOI BLM 2012). The general management standard is that the suitability of the WSAs for preservation as Wilderness must not be impaired. Additional policies for specific activities are provided in the manual and will be followed for the 3 Bars Project.

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