

INTERNAL DRAFT

Appendix D

Rangeland Improvements

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Appendix D. Rangeland Improvements

D.1 INTRODUCTION

The following is a discussion of typical design features and construction practices for the rangeland improvements and treatments that would be considered when implementing Alternatives B, C, or D of this RMP. There are many special design features not specifically discussed in this appendix that can be made part of a project's design. One example of a special design feature would be the use of a specific color of fence post to blend with the surrounding environment and thereby mitigate some of the visual impact of the fence. These mitigating design features would be developed, if needed, for individual projects at the time an environmental assessment is written.

D.2 STRUCTURAL IMPROVEMENTS

D.2.1 Fences

Fences would be constructed to divide allotments into pastures and to control livestock. Most fences would be of three or four wires with steel posts spaced 16.5 feet apart with intermediate wire stays. Where fences may impair the movement of wildlife, they would be no more than 42 inches in height and the top two strands would be at least 12 inches apart, with the bottom wire smooth and at least 16 inches above the ground. Where appropriate on key big game areas, the top wire would also be smooth. Existing fences that create wildlife movement problems would be modified. Proposed fence lines would not be bladed or scraped. Gates or cattleguards would be installed where fences cross existing roads.

D.2.2 Spring Development

Springs would be developed or redeveloped using a backhoe to install a buried collection system, usually consisting of a perforated pipe and a collection box. Collection boxes are normally made of fiberglass with a cover and a fitting to which a delivery pipe is connected. A short pipeline would be installed to deliver water to a trough for use by livestock and wildlife. Normally the spring area would be fenced to exclude livestock following development.

D.2.3 Pipelines

Wherever possible, water pipelines would be buried. The trench would be excavated with a backhoe, ditchwitch, ripper tooth, or with similar equipment. The pipe would be placed in the trench and the excavated material used as backfill at a depth dependent on the depth of the frost line in the winter. Flexible or rigid plastic would be used depending on the system design. Pipelines would have water tanks spaced as needed to meet management objectives.

D.2.4 Wells

Well locations would be selected based on well site investigations, which would predict the depth to reliable aquifers. All applicable state laws and regulations that apply to the development of ground water would be observed, including water rights acquisition.

D.3 NONSTRUCTURAL IMPROVEMENTS

D.3.1 Burning

Burning is normally proposed to increase understory vegetation. Burning would normally be done from April-May or September-October, depending on the specific prescription written for each area, desired results, weather, and moisture conditions. Burn plans would be developed for each burn.

40 **D.3.2 Plowing and Seeding**

41 Most of the sites to be treated are in poor or fair vegetative condition and have a low potential to improve
42 under other management practices. Most of the existing vegetation would be eliminated during seedbed
43 preparation, and the site would be seeded with species adapted to the site. The final selection of species to
44 be seeded would depend on the planned use of the site and the management objectives for the allotment.
45 Seed would be drilled wherever possible.

46 **D.3.3 Interseeding**

47 This treatment differs from plowing and seeding in that existing vegetation is not eliminated during seedbed
48 preparation. Desirable plant species would be interseeded with existing vegetation. A range drill would be
49 used to interseed strips. Broadcast seedings might be used as well. Species to be seeded would be selected
50 to meet management objectives developed for the allotment.

51 **D.3.4 Vegetation Treatments**

52 Noxious and invasive plant species are controlled where infestations occur on BLM-administered lands. In
53 addition, the BLM cooperates with other affected landowners in controlling infestations on relatively large
54 areas. Native species, including but not limited to, Great Basin big sagebrush and one-seed juniper, may
55 also be controlled on a case-by-case basis where their presence is determined to be out of balance with
56 the native plant community in order to meet Rangeland Health Standards, based upon the best available
57 science. Chemical vegetation treatments would conform to all applicable state and federal regulations.
58 Biological controls would also be considered where practical. Mechanical controls including but not limited
59 to; masticating and pushing could be used in areas where suitable.

60 **D.3.5 Standard Operating Procedures**

61 The following procedures would be followed in construction of all management facilities and for vegetation
62 manipulations.

- 63 1. Specific projects would be assessed individually through environmental assessments to determine
64 whether they would have adverse environmental impacts.
- 65 2. Roads or trails would not normally be constructed to new construction on project sites. Use of
66 existing roads and trails would be encouraged.
- 67 3. To comply with the National Historic Preservation Act of 1966, 36 CFR 800, and Executive Order
68 11593, all areas where ground is to be disturbed by range developments would be inventoried for
69 prehistoric and historic features. Where feasible, all cultural resources located by this inventory
70 would be avoided. The results of the inventory and determinations of eligibility for the National
71 Register of Historic Places would be forwarded to the New Mexico State Historic Preservation
72 Officer for comment.
73 If cultural resources are found to be eligible for the National Register and cannot be avoided, a
74 determination of the effect of the project on the resource(s), including appropriate mitigating
75 measures if necessary, would be done in consultation with the New Mexico Historic Preservation
76 Officer and the Advisory Council on Historic Preservation. No action affecting the resource would
77 be taken until the Advisory Council has had the opportunity to make comments.
78 If buried cultural remains are encountered during construction, the operator would temporarily
79 discontinue construction until the BLM evaluated the discovery and determined the appropriate
80 action.
- 81 4. No action would be taken by the BLM that could jeopardize the continued existence of any federally
82 listed threatened or endangered plant or animal species. An endangered species clearance with the
83 USFWS would be required before any part of the proposal or alternatives would be implemented
84 that could affect an endangered species or its habitat.

85 In situations where data are insufficient to make an assessment of proposed actions, surveys of
 86 potential habitats would be made before a decision is made to take any action that could affect
 87 threatened or endangered species. Should the BLM determine that there could be an effect on a
 88 federally listed species, formal consultation with the FWS would be initiated. In the interim period
 89 before formal consultation, the BLM would not take any action that would make an irreversible or
 90 irretrievable commitment of resources that would foreclose the consideration of modifications or
 91 alternatives to the proposed action. When the USFWS opinion is received, if it should indicate the
 92 action would be likely to jeopardize the continued existence of a listed species or result in the
 93 destruction or adverse modification of critical habitat, the action would be abandoned or altered, as
 94 necessary. All procedures thus described are in compliance with BLM Manual, Section 6840.

95 The BLM also would comply with any state laws applying to animal or plant species identified by the
 96 State of New Mexico as being threatened or endangered (in addition to the federally listed species).

- 97 5. All wilderness values would be protected on lands under Wilderness review or study. Guidelines in
 98 the Interim Management Policy (BLM_1995) would be followed for all Wilderness Interim
 99 Management Areas. No impairing projects would be allowed in these areas.
- 100 6. All actions would consider the BLM's Visual Resource Management criteria.
- 101 7. Wildlife escape devices would be installed and maintained in water troughs.
- 102 8. In crucial wildlife habitat (when identified), (e.g., winter ranges, fawning, calving areas), construction
 103 work on projects would be scheduled during seasons when the animals are not concentrated to
 104 avoid or minimize disturbances.
- 105 9. After construction, any disturbed areas would be revegetated with a mixture of bureau
 106 approved/certified noxious weed seed free grasses, forbs, and shrubs as appropriate to the specific
 107 site.
- 108 10. Vegetative manipulation projects would be done, when possible, in irregular patterns, creating more
 109 edge than strip and block manipulation, with islands of vegetation left for cover.
- 110 11. Chemical treatment would consist of applying approved chemicals to control noxious or invasive
 111 plants. Before chemicals are applied, the BLM would comply with Department of the Interior
 112 regulations. All chemical applications would be preceded by an approved Pesticide Use Proposal. All
 113 applications of pesticides would be under the supervision of a certified chemical applicator. All
 114 applications would be carried out in compliance with the New Mexico pesticide laws.

115 **D.4 PREVENTION OF NOXIOUS WEED SPREAD THROUGH SURFACE DISTURBING** 116 **ACTIVITIES**

- 117 1. Inventory the proposed route or site for the presence of noxious weeds. Noxious weeds are those
 118 listed on the current New Mexico Noxious Weed List (New Mexico Department of Agriculture
 119 2020+6) or on the current federal Noxious Weed List. The following noxious weeds have been
 120 identified as occurring on lands within the boundaries of the Rio Puerco Field Office:
 - 121 • Russian knapweed (*Centaurea repens*)
 - 122 • Musk thistle (*Carduus nutans*)
 - 123 • Bull thistle (*Cirsium vulgare*)
 - 124 • Canada thistle (*C. arvense*)
 - 125 • Scotch thistle (*Onopordum acanthium*)
 - 126 • Hoary cress (*Cardaria draba*)
 - 127 • Perennial pepperweed (*Lepidium latifolium*)
 - 128 • Halogeton (*Halogeton glomeratus*)
 - 129 • Spotted knapweed (*Centaurea maculosa*)
 - 130 • Dalmation toadflax (*Linaria genistifolia*)

- 131 • Yellow toadflax (*L. vulgaris*)
 - 132 • Camelthorn (*Alhagi pseudalhagi*)
 - 133 • Yellow starthistle (*Centaurea solstitialis*)
 - 134 • Saltcedar (*Tamarix* spp.)
 - 135 • Diffuse knapweed (*Centaurea diffusa*)
 - 136 • Cheatgrass (*Bromus tectorum*)
 - 137 • Tree of heaven (*Ailanthus altissima*)
 - 138 • African rue (*Peganum harmala*)
- 139 2. Construction equipment should be inspected and cleaned prior to coming onto the work site. This
140 is especially important on vehicles from out of state or if coming from a weed infested area.
 - 141 3. If fill dirt or gravel will be required, the source needs to be noxious weed free.
 - 142 4. The site should be monitored for the life of the project for the presence of noxious weeds (includes
143 maintenance and construction activities). If weeds are found, the RPFO will be notified and the RPFO
144 will determine the best method for the control of the particular weed species.
 - 145 5. If the work site is abandoned, the area shall be reclaimed and revegetated with the species specified
146 by the RPFO. All seed shall be certified weed free. Area will be monitored to determine the success
147 of the revegetation, and will be reseeded if necessary.
 - 148 6. Standard operating procedures found in Instruction Memorandum NM-010-99-01 (Noxious Weed
149 Prevention Schedule for the Albuquerque Field Office; BLM 1999) will be followed (see Appendix
150 K). In addition to the Noxious Weed Prevention Schedule for the RPFO, guidance from the Final
151 Programmatic Environmental Impact Statement (PEIS) for Vegetation Treatments Using Herbicides
152 on BLM Lands in 17 Western States (BLM 2007) and the Final PEIS for Vegetation Treatments Using
153 Aminopyralid, Fluroxypyr, and Rimsulfuron on BLM Lands in 17 Western States (BLM 2016) would
154 be followed. Additionally, the BLM would follow guidance in BLM Handbook 1740-2, Integrated
155 Vegetation Management (BLM 2008).

156 **D.5 REFERENCES**

- 157 BLM (United States Department of the Interior, Bureau of Land Management). 1995. Interim Management
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