APPENDIX F

RANGE DEVELOPMENTS

The following is a discussion of typical design features and construction practices for range improvements and treatments proposed in this plan (refer to Table 2-5 for a summary of improvements and treatments). There are many special design features that can be made part of a project's design, that are not specifically discussed in this Appendix. 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 will be developed, if needed, for individual projects at the time an environmental assessment is written.

STRUCTURAL IMPROVEMENTS

Fences

Fences would be constructed to provide exterior allotment boundaries, divide allotments into pastures, protect streams, and control livestock. Most fences would be three or four wire with steel post spaced sixteen and one-half feet apart with intermediate wire stays. Jack legs would be used where driving steel posts is not practical. Where fences may impair the movement of wildlife, they would be no more than forty inches in height, three strand, with the bottom wire smooth and at least sixteen inches above the ground. Where needed 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. For any fences in wildlife migration areas, the need for let-down fences to allow passage of wildlife would be analyzed. These fences would be let down when livestock are not present. The BLM would be responsible for management of these special purpose fences.

Spring Development

Springs would be developed or redeveloped using a backhoe to install a buried collection system, usually consisting of drain tile and a collection box. The collection box is normally made from a section of twenty-four to forty-two inch metal culvert 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 is fenced to exclude livestock following development.

Pipelines

Wherever possible, water pipelines would be buried. The trench would be excavated by a backhoe, ditchwitch, or similar equipment. Rigid plastic pipe would be placed in the trench and the excavated material would be used to backfill. While some flexible pipe may be installed using a ripper tooth, this is not a preferred technique. Most pipelines would have water tanks spaced approximately one-half mile apart.

Wells

Well sites would be selected based on geologic reports that predict the depth to reliable aquifers. All applicable state laws and regulations that apply to the development of ground water would be observed.

NONSTRUCTURAL IMPROVEMENTS

Burning

Burning is proposed to reduce the amount of big sagebrush and/or conifers on a site. Burning would normally be done during April-May or September-October, depending on the specific prescription written for each area, desired results, weather, and mositure conditions. Burn plans would be developed for each burn.

Plowing and Seeding

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

Interseeding

The treatment differs from plowing and seeding in that the existing vegetation is not eliminated during seedbed preparation. Desirable plant species would be interseeded with existing vegetation. A seed dribbler used with a crawler tractor, a small scalper/seeder, or range drill would be used to interseed strips. Broadcast seedings could possibly be used as well. Species to be seeded would be selected to meet management objectives developed for the allotment.

Plant Pest Control

Poisonous or noxious plants would be controlled where spot infestations occur, or where the BLM would cooperate with other affected landowners in controlling infestations on relatively large areas. Biological control would be used where practical. Chemical control would conform to all applicable state and federal regulations.

STANDARD OPERATING PROCEDURES

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

1. Specific projects would be assessed individually through environmental assessments to determine whether they would have adverse environmental impacts.

2. Roads or trails to new construction or project sites would not normally be constructed. Use of existing roads and trails would be encouraged.

3. To comply with the National Historic Preservation Act of 1966, 36 CFR 800, and Executive Order 11593, all areas where ground is to be disturbed by range developments would be inventoried for prehistoric and historic features. Where feasible, all sites found by this inventory would be avoided. The results of the inventory and determinations of eligibility for the National Register of Historic Places would be forwarded to the Montana State Historic Preservation Officer for comment.

If sites are found to be eligible for the national register and cannot be avoided, a determination of the effect of the project on the site(s), including appropriate mitigating measures if necessary, would be done in consultation with the Montana Historic Preservation Officer and the Advisory Council on Historic Preservation. No action affecting the site would be taken until the advisory council has had the opportunity to make comments.

If buried cultural remains are encountered during construction, the operator would temporarily discontinue construction until the BLM evaluates the discovery and determines the appropriate action.

4. No action would be taken by the BLM that could jeopardize the continued existence of any federally listed threatened or endangered plant or animal species. An endangered species clearance with the U.S. Fish and Wildlife Service (FWS) would be required before any part of the proposal or alternatives would be implemented that could affect an endangered species or its habitat.

In situations where data are insufficient to make an assessment of proposed actions, surveys of potential habitats would be made before a decision is made to take any action that could affect threatened or endangered species. Should the BLM determine that there could be an effect on a federally listed species, formal consultation with the FWS would be initiated. This situation exists for the gray wolf, grizzly bear, peregrine falcon, and bald eagle. In the interim period before formal consultation, the BLM would not take any action that would make an irreversible or irretrievable commitment of resources that would foreclose the consideration of modifications or alternatives to the proposed action. When the FWS opinion is received, if it should indicate the action would be likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat, the action would be abandoned or altered as necessary. All procedures thus described are in compliance with BLM Manual, section 6840.

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

5. All wilderness values would be protected on lands under wilderness review or study. Guidelines in the Interim Management Policy would be followed for designated wilderness study areas (WSAs). No impairing projects would be allowed in these areas.

6. All actions would address the BLM's Visual Resource Management criteria. The management criteria for the specific Visual Class would be followed.

7. Wildlife escape devices would be installed and maintained in water troughs.

8. In crucial wildlife habitat (winter ranges, fawning/calving areas, strutting grounds, etc.), construction work on projects would be scheduled

during seasons when the animals are not concentrated to avoid or minimize disturbances.

9. After construction, any disturbed areas would be revegetated with a mixture of grasses, forbs, and shrubs as appropriate for the specific site.

10. Analysis of cost effectiveness would be done on an allotment managment plan (AMP) basis prior to the installation of any management facility or land treatment.

11. All areas where vegetative manipulations occur would be totally rested from grazing for at least two growing seasons following treatment.

12. Vegetative manipulation projects would be done in irregular patterns creating more edge (more than strip and block manipulation), with islands of vegetation left for cover.

13. Consultation with the Montana Department of Fish, Wildlife, and Parks would be required prior to job layout, design, and accomplishment in accordance with the existing memorandum of understanding between the MDFW&P and BLM.

14. Chemical treatment would consist of applying approved chemicals to control noxious or poisonous plants. Before chemicals are applied, the BLM would comply with the Department of the Interior regulations. All chemical applications would be preceded by an approved Pesticide Use Proposal. All applications of pesticides would be under the supervision of a certified pesticide specialist. All applications would be carried out in compliance with the pesticide laws for Montana.

15. All land treatment projects on crucial wildlife ranges would be limited in size, where necessary, by the cover requirements of wildlife.

—On sage grouse brood rearing areas, sagebrush canopy cover would not be reduced below 15%.

—On sage grouse nesting and wintering areas, sagebrush canopy cover would not be reduced below 20%.

—On summer-fall antelope ranges, sagebrush would not be reduced below 5% canopy cover.

—Generally winter/spring elk, deer, and antelope ranges would not be treated. However, if they are, consultation and mitigating measures would be incorporated.