

**ALTERNATIVE E (PREFERRED ALTERNATIVE)****RANGELAND RESOURCES**Soils

Broad based long-term erosion rates would show an average increase of 0.05 tons/acre/year (2%) over current levels. This increase is within the estimated average soil loss tolerance of 2 to 3 tons/acre/year. The erosional processes described for land use actions in the Affected Environment and Alternative A would be the same for this alternative, but the area size and/or magnitude of the impact may vary considerably (Appendix B). Specific uses and actions would be responsible for significant short and/or long-term erosion on isolated areas. These would be ORV use, timber harvest, road building, agricultural development, range projects, and mineral exploration and/or development.

Impacts from ORV use would be similar to those described in Alternative A. The extent of impacts would be less (see Appendix B). Closed ORV areas have a high probability of gaining long-term benefits to watershed and site productivity on an additional 1,548 acres.

Commercial timber harvest is proposed on 150-700 acres annually with allowable annual cuts of approximately 1.7 million board feet. Selective cutting would generally be used with clear cutting as an option. To accomplish this harvest 3.4 miles/year of roads, over a 20 year period, would be built. Resulting impacts would be similar to those described in Alternative A and Affected Environment. The extent of impacts would be greater (see Appendix B).

The transfer of public lands include 560 acres for agricultural development. The impacts associated with farming would be the same as described in Alternative A.

Impacts due to ROWs would be the same as Alternative A.

Mineral exploration and development would be open on 454,486 acres for locatables and 456,289 acres for leasables. Impacts would be the same as described in Alternative A.

Range condition improvement is projected for 27% of the RMP area. See Chapter 2 - Livestock, Vegetation, and Wildlife, Alternative E for details of improvements. Where range condition is improved through enhancement of vegetation density and/or composition, erosion rates would be reduced. Rates would decrease from 0.1 to as much as 1 ton/acre/year. The amount would depend on the degree of vegetative improvement, the success, and the following management of the area. Where annual range is converted to seedings the susceptibility to wildfires would be greatly reduced.

Where burning, spraying, discing or any combination of the three are used, with or without seeding, a short-term (one to two year) increase in soil loss would result. This would be due to loss of vegetative cover and surface disturbance. But as vegetation becomes reestablished and density

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and/or composition improved, long-term erosional decreases would be expected. Twelve miles of pipelines are proposed.

Livestock AUM increases of 5% are proposed over a 20 year period. By incorporating grazing systems and with the proposed range improvement projects this increase would result in a very slight increase in erosion rates (up to 0.05 tons/acre/year) on grazed lands. Erosion would show the largest increases around livestock concentration areas and on steep hillsides.

Fencing 10 miles and streambank planting of 7 miles of riparian habitat would affect soils as described in Alternative A.

Designation of the Boise Front ACEC and the Sage Creek ACEC would provide special management for these areas (see appropriate ACEC). This management would enhance vegetative condition, increase watershed proficiency, and reduce soil loss.

### Air Quality

Impacts on air quality would be the same as described under Alternative B.

### Water Quality

Parameters such as ammonia, total inorganic nitrogen, and fecal coliform that are influenced by livestock grazing would slightly improve due to the proposed 11 stream miles of riparian exclosures. Water quality would be maintained or very slightly improved on 18 miles of perennial streams and 124 miles of intermittent streams due to management in revised and new AMPs. High fecal coliform levels and sedimentation from streambank grazing activities would be eliminated from those stream reaches excluding livestock and reduced in those streams within revised and new AMPs.

A short-term increase in sedimentation would likely occur on a range of 7-29 miles of streams due to timber harvest activities. A slight increase in sedimentation would occur over the long term on the same 7-29 miles as above from the proposed 68 miles of road construction.

Range fires contribute to high sediment loads in streams due to the loss of upland and riparian vegetative cover. This impact would be minimized by full fire suppression and rehabilitation efforts.

ORV use in the limited use areas would occur on 47% of the area. This would result in a very slight increase in sediment in streams in these areas. Open ORV use would occur on 53% of the area and would occur on those areas of basaltic parent materials. A slight increase in sediments would occur in streams within the open ORV use classification areas.

Resource management guidelines for the maintenance and protection of riparian and aquatic habitats would have long term positive benefits on the quality of water on public lands by improving management of riparian areas.

Overall, water quality on public lands from this level of management would slightly improve.

## Vegetation

The long-term vegetative condition would show an overall improvement on 22 to 27% of the RMP area. This increase would not always reflect a total change in condition class (ie., fair to good). In many areas the general condition would improve but not enough to change classes. On approximately 16% of the poor condition range this change would reflect a seeding. Approximate breakdown where improvements are projected would be: poor changed or improved - 28% (56,000 acres), fair improved - 32% (66,230 acres), good improved - 11% (3,680 acres). See Appendix R for a comparison of vegetation condition changes by alternative. Trend data is not available.

The encroachment of annual grasses (medusahead wildrye and cheatgrass) into fair and poor condition rangeland would continue. This would be most prominent on the sedimentary and lower elevation basalt soils. These areas tend to be very susceptible to invasion once disturbed (wildfires or heavy use by livestock). Full fire suppression and rehabilitation efforts would gradually reduce the total number of acres burned annually.

Increasing livestock AUMs by 6% over 20 years is proposed. By incorporating grazing systems along with range improvement projects this increase would not adversely affect the projected condition increase. The projected increases do however depend on the success of range improvement projects and how effectively grazing systems are utilized. Those increases in condition would be most notable on the fair condition rangeland. A majority of the RMP area would show good response to management due to productive soils and having an average annual precipitation of greater than 13 inches.

Rangeland and wildlife improvements would affect 10% of the RMP area. These improvements and the acres affected are listed in Chapter 2 - Livestock, Vegetation, and Wildlife. The success of rangeland seedings where poor condition annual range is converted is questionable at this point in time.

Impacts associated with ORV use would be the same as described in Alternative A.

The curlew habitat area and Columbian sharp-tailed grouse habitat area would be affected as discussed in Alternative A.

## Candidate and Sensitive Plant Species

The designation and management of 5 research natural areas totaling 1,355 acres would provide protection and increased vigor for several candidate, sensitive, or uncommon plant populations. These areas may act as centers of dispersal for the plant species. Public awareness would also be increased in these areas.

Closing ORV use on 1,545 acres, limiting ORV use on 1,000 acres and excluding surface and subsurface rights-of-way on 2,545 acres should provide for the continued existence of candidate, sensitive, or uncommon plant species. Some species may increase in number due to the protection provided while other plant species would be stabilized but would not have an opportunity to increase. Some species may decrease in numbers outside of these areas because small scattered populations and undiscovered populations

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would not be protected from grazing, ORV use, annual grass invasion or other hazards.

The increased grazing pressure would destroy some plant populations. This increased grazing would further the invasion of exotic weedy annuals by the selective grazing of the more palatable perennial species. Exotic weedy annuals compete with native flora, negatively impacting native plant populations. Annuals increase the probability of wild fires which cause a perpetuation of annual grass ranges and poor ecological conditions. Some plant species could be eliminated or reduced in areas recurrently burned.

Due to the lack of restrictions on locatable mineral development, some individual plants or small populations could be destroyed. Procedural compliance with the Endangered Species Act would keep these impacts below the level of significant to the species as whole. No surface occupancy restrictions would protect plants on 2,545 acres from leasable mineral exploration and development.

### Riparian Habitat

Resource management guidelines for various programs should maintain overall existing riparian habitat quality and minimize impacts of actions within riparian areas.

Land transfer proposals would not impact the base of 122 miles of surveyed drainages. One mile of unsurveyed perennial habitat would be transferred from public ownership. Habitat quality would be maintained on 102 miles of the 122 miles surveyed while 16 miles would improve to the next higher condition class due to a combination of reduced stocking levels and aquatic habitat improvement projects. Reduced habitat value due to increased stocking levels would occur on 4 miles of stream riparian habitat.

Revision of 7 existing AMPs and the proposed 12 new AMPs would result in some improvement of riparian habitat on approximately 18 miles of perennial stream habitat by including livestock grazing strategies that promote the vigor of streamside woody vegetation which is an important component of streambank stability. This management would also benefit 124 miles of surveyed and unsurveyed intermittent riparian habitats.

Proposed timber harvest level of approximately 1.7 MMBF and the associated 68 miles of road construction would have a minimum impact on riparian habitat along 5-22 miles of the potentially impacted 39 miles of perennial streams and 2-7 miles of the 13 miles of intermittent drainages within the total harvest acreages. Resource management guidelines would protect riparian vegetation by providing a no-cut buffer strip along drainages and prohibiting road construction within riparian areas (except for crossings where absolutely necessary).

ORV use in the limited use areas would occur on 47% of the area and would have a slight impact on riparian vegetation within those areas. Drainages are often used as travel corridors by wildlife and humans. With no use restrictions on 53% of the area, riparian areas within these open ORV use areas would likely be moderately impacted resulting in long term disturbances

to vegetation and soils and short term disturbance to associated riparian wildlife.

Full fire suppression and rehabilitation efforts would have a long term beneficial impact because loss of riparian vegetation due to wildfires would be minimized and gradually reduced.

Loss of riparian habitat attributed to a slight increase in mining activities would be minimal.

#### Aquatic/Fisheries Habitat

Land transfer proposals in this alternative would eliminate one mile of perennial stream from the 81 miles of the surveyed aquatic/fisheries habitat base. Habitat quality would be maintained on 66 miles of the remaining 80 miles while 14 miles would improve to the next higher condition class or greater due to aquatic habitat improvement projects.

Revision of 7 existing AMPs and the proposed 12 new AMPs would result in the improvement of approximately 18 miles of perennial stream habitat by including livestock grazing strategies that promote the vigor of streamside woody vegetation which is an important component of streambank stability. This management would also benefit 124 miles of surveyed and unsurveyed intermittent streamside habitats.

Proposed timber harvest level of approximately 1.7 MMBF and the associated 68 miles of road construction would impact 5-22 miles of the 39 miles of perennial streams within the total harvest acreage. Also impacted would be 2-7 miles of intermittent drainages. Short term increased sedimentation levels associated with this level of timber harvest would be minimized by Resource Management Guidelines and the rehabilitation of major disturbed areas. A slight increase in stream sedimentation over the long term would result from road construction in high erosion hazard areas and adjacent to perennial drainages. All roads would be stabilized and closures considered on a site specific basis to further minimize sediment loads.

Sediment load associated with ORV use would slightly increase within the open ORV use areas and result in a long term impact on low gradient streams unable to attain flushing flows. A slight increase in sediment would occur in streams within limited and closed ORV use areas.

Redband trout populations would increase over the long term on segments of 4 creeks due to livestock exclusion fencing. Habitat components important for salmonid spawning and rearing would likely improve as livestock grazing pressure on 11 miles of riparian habitat is eliminated. Livestock grazing strategies that are incorporated into AMPs to promote the vigor of woody streamside vegetation would help maintain existing good riparian habitat and would be expected to slightly improve existing poor and fair condition riparian habitat. A corresponding slight increase in redband trout populations in perennial streams within these AMP areas would likely occur.

Impacts on redband trout populations over the long term due to timber harvest activities and ORV use would likely be slight. Resource Management Guidelines would minimize soil disturbance and sedimentation in streams.

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Flushing streamflows would likely be adequate to prevent fine sediment accumulation in spawning gravels.

Warmwater and coldwater gamefish species confined to reservoir habitats would not be impacted by management actions in this alternative.

### Wildlife

#### Elk

Both fall/winter and crucial winter ranges would show a slight improvement in this alternative. The improvement would be in northern regions in the higher precipitation zones.

All seedings proposed in Alternative D are also proposed in this alternative.

Approximately 68 miles of roads (3.4 miles annually for 20 years) are proposed in deer and elk habitat to facilitate timber harvest. Approximately 8,200 acres over the life of the plan are proposed for timber harvest in crucial elk winter ranges. Negative impacts to the elk populations would occur due to increased hunter access along the logging roads and decreased crucial winter range.

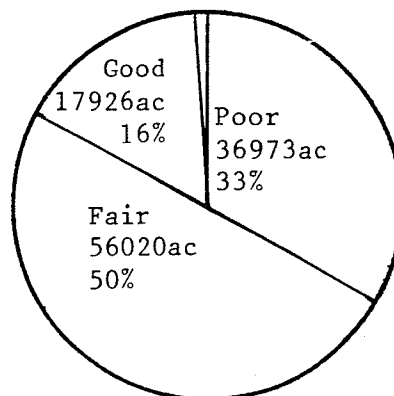
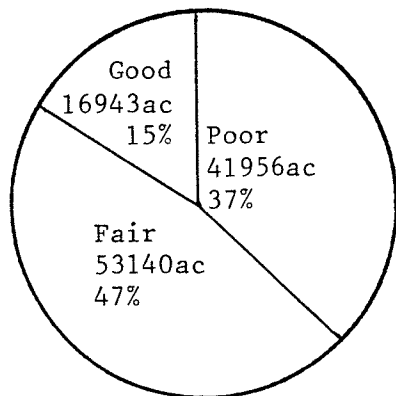
There are 4,660 acres of crucial habitat proposed for exchange with the state. Impacts would be minimal because the exchange would be for land of equal or greater value for wildlife.

Overall there would be increased range and wildlife seedings. These seedings, would be multi-purpose and the grass, forb and shrub mixture will consider the needs of both wildlife and livestock. Currently, 65% of the habitat is in fair to good condition. The cumulative improvements of range and wildlife seedings, fences, water developments and pipelines for livestock, increased use of grazing systems and more AUMs provided for elk would support the proposed 22% increase in the population.

This would exceed population goals set for the habitat by the Idaho Department of Fish and Game.

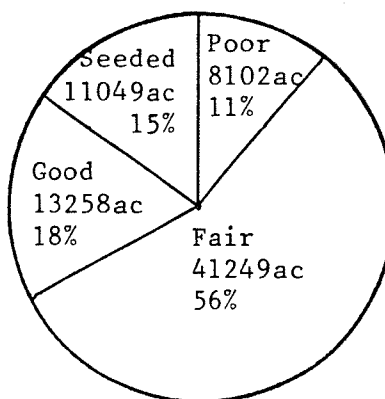
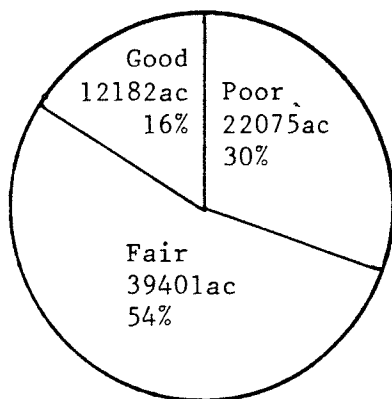
The acreages and percentages of existing and 20-year projected habitat conditions are shown below.

Elk Fall/Winter  
Existing Situation      End of 20 Years



Seeded  
1120ac  
1%

Elk Crucial Winter  
Existing Situation      End of 20 Years



Mule Deer

Fall/winter and crucial winter deer ranges should show a slight improvement over the current situation. These improvements would most likely occur in the higher precipitation zones.

All seedings proposed in Alternative D are also proposed in this alternative.

Over the life of the plan, timber harvest is proposed on approximately 1,100 acres in crucial mule deer winter range and 700 acres in fall/winter range areas. Negative impacts on the local mule deer populations would occur from reducing overall habitat and increased hunting pressure due to access along logging roads. Severe impacts should be minimized by following Resource Management Guidelines.