

## ALTERNATIVE D

## RANGELAND RESOURCES

Soils

Broad based long-term erosion rates would show an average increase of 0.2 tons/acre/year (10%) 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 1,990 acres.

Commercial timber harvest is proposed on 200-1,200 acres annually with allowable annual cuts of approximately 2.9 million board feet. Selective and clearcutting would be used. To accomplish this harvest 5.8 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 includes 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 locatable and 456,289 acres for leasables. Impacts would be the same as described in Alternative A.

Range condition improvement is projected for 19% of the RMP area. See Chapter 2 - Livestock, Vegetation, and Wildlife, Alternative D for details of improvements. Range condition improvements would benefit the soil resources as discussed in Alternative B.

Range improvement activities (burning, spraying and disking) would impact the area as described in Alternative B. Thirty-six miles of pipelines are proposed.

Livestock AUM increases of 15% are proposed over a 20 year period. With the addition of grazing systems and the proposed range improvement projects this increase would result in a slight increase in erosion rates (up to 0.1 tons/ acre/year on grazed lands). Most studies have shown that runoff and erosion increase with grazing intensity (Lusby 1979a, Gifford and Hawkins

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1978). Erosion would show the largest increases around livestock concentration areas and on steep hillsides.

Fencing 14 miles and streambank planting of 17 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 to 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 increase slightly on four stream miles due to an increase in grazing. Water quality would be maintained or very slightly improve on 30 miles of perennial streams and 176 miles of intermittent streams due to management in revised and new AMPs.

A short-term increase in sedimentation would likely occur on a range of 8-49 miles of streams due to timber harvest activities. A slight increase in sedimentation would occur over the long term on the same 8-49 miles as above from the proposed 116 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.

Sedimentation due to ORV use would be negligible because 99% of the total area is classified as limited use.

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 decline.

### Vegetation

The long-term vegetative condition would show an overall improvement on 14 to 19% of the RMP area. This increase would not always reflect a total change in condition class. In many areas the general condition would improve but not enough to change classes. On approximately 19% of the poor condition range this change would reflect a seeding. Approximate breakdown where improvements are projected would be: poor changed or improved - 25% (46,000 acres), fair improved - 21% (40,500 acres), good improved - 3% (1,000 acres). See Appendix R for a comparison of vegetation condition changes by alternative. Trend data is not available.

Increasing livestock AUMs by 15% 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. These 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. See Livestock Management Alternative D for details.

Rangeland and wildlife improvements would affect 12% of the RMP area. These 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.

The gradual encroachment of annual grasses into poor and fair rangeland would continue (see Vegetation Alternatives A and B).

Impacts associated with ORV use would be similar to those discussed in Alternative C.

The curlew habitat and Columbian sharp-tailed grouse habitat areas 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 enhanced for 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 numbers due to the protection provided while other plant species would be stabilized. Some species may decrease in numbers outside of these protected areas because small scattered populations and undiscovered populations 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 wildfires which cause a perpetuation of annual grass ranges and poor ecological conditions. Some plant species could be eliminated or reduced in areas recurrently burned.

The exclusion of locatable mineral development on 1,355 acres would protect plant species within these areas. These restrictions would protect individual plants directly and indirectly by decreasing soil erosion and discouraging exotic weedy annuals, thereby decreasing the probability of

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wildfire. 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 in riparian areas.

Land transfer proposal would not impact the base of 122 miles of surveyed drainages. Two miles of unsurveyed perennial habitat would be transferred from public ownership. Habitat quality would be maintained on 94 miles of the 122 miles surveyed while 11 miles would improve to the next higher condition class due to a combination of reduced stocking levels and aquatic habitat improvement projects. Loss of habitat value due to increased stocking levels would occur on 17 miles of stream riparian habitat.

Revision of 7 existing AMPs and the proposed 23 new AMPs would result in some improvement of riparian habitat on approximately 30 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 174 miles of surveyed and unsurveyed intermittent riparian habitats.

Proposed timber harvest level of approximately 2.9 MMBF and the associated 116 miles of road construction would have a minimum impact on riparian habitat along 6-37 miles of the potentially impacted 39 miles of perennial streams and 2-12 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 impacts on riparian vegetation would be very slight due to limited use classification along streams in high erosion hazard areas. Streamside habitats are used occasionally by ORVs and established woody riparian vegetation would not be impacted.

Full fire suppression and rehabilitation efforts would have a long term beneficial impact because loss of riparian vegetation due to wild fires 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 in this proposal would eliminate 2 miles of aquatic/fisheries habitat from the 81 miles of the surveyed aquatic/fisheries habitat base. Habitat quality would be maintained on 55 miles of the remaining 79 miles and 10 miles would improve to the next higher condition class or greater due to aquatic habitat improvement projects. The remaining 14 miles would show a loss of habitat condition to the next lower condition class from impacts related to increased stocking rates.

The revision of 7 existing AMPs and the proposed 23 new AMPs would result in improved habitat quality on approximately 30 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 strategy would also benefit approximately 176 miles of surveyed and unsurveyed intermittent streamside habitats.

Proposed timber harvest levels of approximately 2.9 MMBF and the associated 116 miles of road construction would impact approximately 6-37 miles of the 39 miles of perennial streams within the total harvest acreage. Also impacted would be 2-12 miles of intermittent drainages. Short term increased sedimentation levels associated with this level of timber harvest would be minimized by Resource Management Guidelines and rehabilitation of major disturbed areas. A high increase in stream sedimentation over the long term would result from roads constructed in high erosion hazard areas and adjacent to perennial drainages. All roads would be reseeded and closures considered on a case-by-case basis to further minimize sediment loads.

Sedimentation, an impact on streams associated with ORV use, would be negligible with this alternative because 99% of the total area available would be classified as limited use. This use class would give protection to high erosion hazard areas adjacent to and within stream drainages.

Redband trout populations would increase over the long term on segments of 3 creeks due to livestock exclusion fencing. Habitat components important for salmonid spawning and rearing would likely improve as livestock grazing pressure on 10 miles of riparian habitat is eliminated. Decreased habitat condition on 14 stream miles due to increased stocking levels would cause a slight decrease in redband trout populations in those stream reaches over the long term. 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 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 would likely be high. Resource Management Guidelines would help minimize soil disturbance and sedimentation in streams. Flushing streamflows may not be adequate to prevent fine sediment accumulation in spawning gravels in some streams.

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

### Wildlife

#### Elk

Elk fall/winter range would show a slight improvement. This would occur due to improved livestock management. Most improvement would be located in allotments in the northern portions of the resource area. These are areas that are in a high-poor condition and would improve to fair.

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Approximately 1,100 acres of fall/winter range would be seeded to grass and forbs. These range projects would help increase the carrying capacity of the areas being seeded.

Approximately 3,977 acres of timber sales have been proposed in fall/winter range over the next 20 years. Impacts on the habitat would be minimal because of Resource Management Guidelines.

Crucial elk winter range is predicted to improve slightly over the next 20 years. This improvement would be due to increased use of grazing systems and livestock management.

Approximately 14,203 acres of timber sales are proposed in crucial elk winter range. Resource Management Guideline adherence would minimize the impacts. The 116 miles of proposed logging roads would open up more country and put more pressure on population.

There are approximately 10,400 acres of range and wildlife seeding proposed in this habitat. These seedings would be designed to protect the habitat and increase the carrying capacity of the area. Approximately 3,000 acres of crucial mule deer/elk habitat would be aerial seeded along the Snake River Breaks.

The 4,660 acres of proposed land actions in crucial areas would decrease habitat availability by 6%. If these lands are exchanged for lands of equal or better value, there would be no negative impacts.

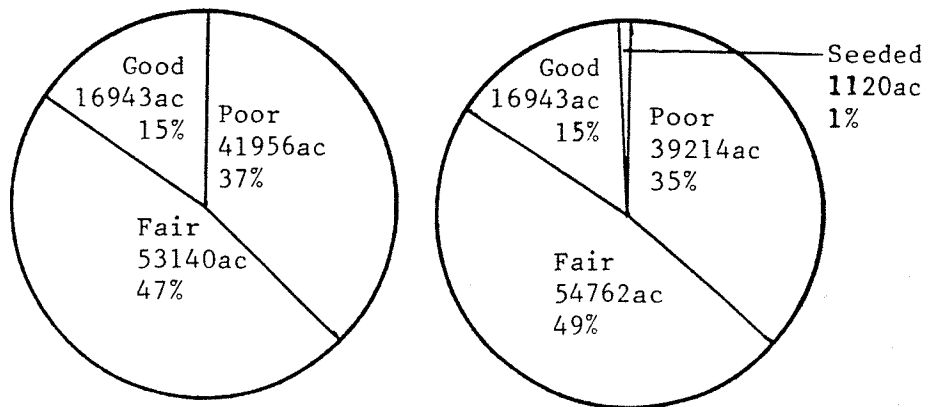
The range program is proposing a 15% increase in livestock AUMs over present stocking rates in the next 20 years. At this stocking level, less forage would be available for wildlife use. In the shrub communities, this may become a significant factor.

Overall, there would be increased range and wildlife seedings, fences, water developments and pipelines for livestock, increased use of grazing systems and 23 new AMPs. Due to these factors and the fact that currently only 35% of elk habitat is in poor condition the elk habitat should be able to support a 20% increase over current populations.

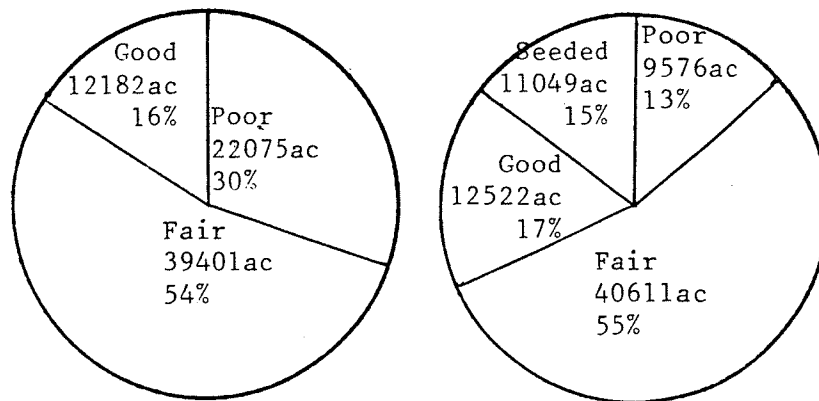
This would meet population goals set for the habitat by the Idaho Department of Fish and Game.

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

Elk Fall/Winter  
Existing Situation      End of 20 Years



Elk Crucial Winter  
Existing Situation      End of 20 Years



Mule Deer

Fall/winter ranges would show a slight increase from poor to fair. This increase would occur in the northern areas where higher rainfall occurs and would be due mainly to increased livestock management.

Crucial mule deer winter ranges are predicted to improve slightly over the next 20 years. This improvement would occur in the high-poor areas that would improve to fair condition. The improvement would occur from livestock management and use of grazing systems.

Approximately 2,400 acres of range projects are proposed in these ranges over the next 20 years. This would help increase the carrying capacity of the habitat.