

## ALTERNATIVE C

## RANGELAND RESOURCES

Soils

Broad based long-term erosion rates would show an average decrease of 0.4 tons/acre/year (20%) from current levels. 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, 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 1,985 acres.

Commercial timber harvest is proposed on 50-200 acres annually with allowable annual cuts of approximately 0.5 million board feet. Selective cutting would generally be used with clearcutting as an option. To accomplish this harvest 1 mile/ 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 less (see Appendix B).

Under this alternative no lands would be disposed of for agricultural development.

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

Mineral exploration and development would be open on 452,586 acres for locatables and 454,389 acres for leasables. Impacts would be the same as described in Alternative A.

Range condition improvement is projected for 25% of the RMP area. See Chapter 2 - Livestock, Vegetation, and Wildlife, Alternative C for details of improvements. Range condition improvements would benefit the soil resource as discussed in Alternative B.

Range improvement activities (burning, spraying and discing) would impact the area as described in Alternative B. Six miles of pipeline are proposed.

Livestock AUM decreases of 19% are proposed over a 20 year period. By incorporating grazing systems and with the addition of range improvement projects this decrease in AUMs would result in an average decrease in soil loss of about 0.2 tons/acre/year on grazed lands. Erosion would still be a problem around livestock concentration areas.

Fencing 13 miles and streambank planting of 15 miles of riparian habitat would affect soils as described in Alternative A.

## Environmental Consequences

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

There would be no long-term adverse affects to air quality under this alternative. A one to two day localized decrease in air quality would occur due to prescribed burning for rangeland improvements and slash burning after timber harvest.

Where spraying of herbicides is used to control brush and/or annual grasses a one to two hour reduction in air quality would result.

### Water Quality

Parameters such as ammonia, total inorganic nitrogen, and fecal coliform that are influenced by livestock grazing would moderately improve due to the 14 stream miles of riparian exclosures and the 10 miles of improved stream habitat due to reduced stocking rates. Water quality would be maintained or very slightly improve 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 with revised and new AMPs.

A short-term increase in sedimentation would likely occur on a range of 3-11 miles of streams due to timber harvest activities. A slight increase in sedimentation would occur over the long term on the same 3-11 miles as above from the proposed 20 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 moderately improve.

### Vegetation

The long-term vegetative condition would show an overall improvement on 20 to 25% of the RMP area. Increases would dominantly be within the existing class, but many areas (fair condition mostly) would increase in condition to the next higher class. On approximately 9% of the poor condition range this change would reflect a seeding. Approximate breakdown where improvements are projected would be: poor changed or improved - 16% (33,000 acres), fair

improved - 35% (73,500 acres), good improved - 38% (13,000 acres). See Appendix R for a comparison of vegetation condition changes by alternative. Trend data is not available.

This increase would mainly be due to the projected 19% reduction in livestock AUMs (over 20 years) and the incorporation of grazing systems along with rangeland improvement projects. Decreased livestock AUMs would promote more vigor and productivity increasing total vegetative cover.

Livestock and wildlife improvement projects would occur on 10% of the RMP area. These and the areas 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).

Limited and closed ORV designation for most of the RMP area would protect and enhance the vegetative condition of areas that without this designation may have been adversely affected.

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

Some plant populations which have been damaged under current management practices might increase in number of individuals, vigor, and even new populations may be colonized because of the reduced grazing levels.

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 wildfire. No surface occupancy restrictions would protect plants on 2,545 acres from leasable mineral exploration and development.

## Environmental Consequences

### 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. One mile of unsurveyed perennial habitat would be transferred from public ownership. Habitat quality would be maintained on 107 miles of the 122 miles surveyed while 12 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 3 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 122 miles of surveyed and unsurveyed intermittent riparian habitats.

Proposed timber harvest level of approximately 0.5 MMBF and the associated 20 miles of road construction would have a minimum impact on riparian habitat along 2-8 miles of the potentially impacted 39 miles of perennial streams and 1-3 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

Due to land transfer proposals in this alternative one mile of perennial stream would be eliminated from the 81 miles of the surveyed aquatic/fisheries habitat base. Habitat quality would be maintained on 57 miles of the remaining 80 miles while 23 miles would improve to the next higher class in habitat quality due to a combination of reduced stocking levels and 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 strategy would also benefit approximately 124 miles of surveyed and unsurveyed intermittent streamside habitats.

Proposed timber harvest level of approximately 0.5 MMBF and the associated 20 miles of road construction would impact 2-8 miles of the 39 miles of perennial streams within the total harvest acreage. Also impacted would be 1-3 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 very slight 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 stabilized and closures considered on a case-by-case basis to further minimize sediment loads.

Sediment loads associated with ORV use would be negligible as 99% of the total area would be classified as limited use. This would protect high erosion hazard areas adjacent to drainages.

Redband trout populations would increase over the long term on segments of 6 creeks due to livestock exclusion fencing. Habitat components important for salmonid spawning and rearing would likely improve as livestock grazing pressure on 13 miles of riparian habitat is eliminated. Habitat condition improvement on 10 stream miles due to decreased stocking rates would result in a slight increase 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 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 and ORV use would likely be very slight. Resource Management Guidelines would minimize soil disturbance and sedimentation in streams. 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

Under this alternative both elk fall/winter ranges and crucial winter ranges would show a 7% increase in the number of acres in good condition. This would be due to the 27% decrease in livestock AUMs. An increase in the use of grazing systems and livestock management would also contribute to improving the habitat condition.

Approximately 550 acres of fall/winter range would be seeded to grass and forbs. Range and wildlife seedings on 8,285 acres of crucial winter ranges, are proposed under this alternative. All these seedings would improve the

Environmental Consequences

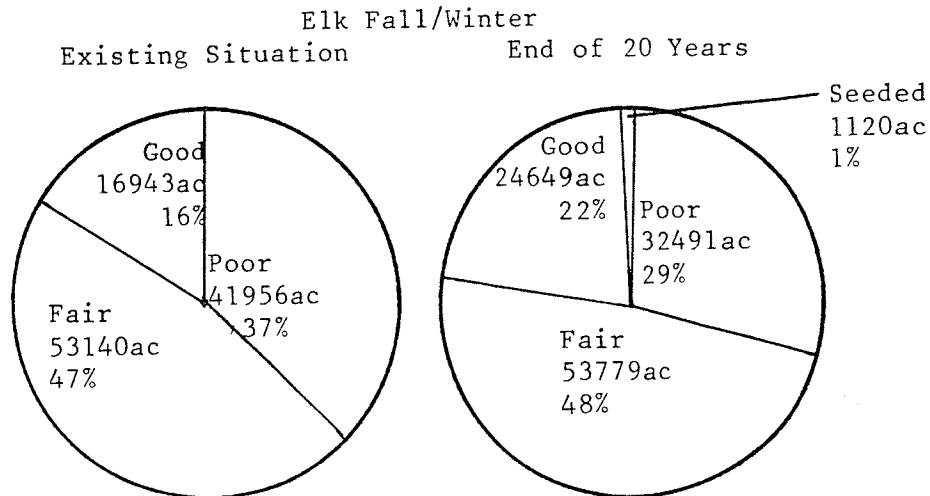
carrying capacity of the range. The 3,000 acres of aerial seeding proposed for the Snake River Breaks would also increase the shrub component on this crucial winter range.

There are approximately 280 acres of timber sales proposed in elk fall/winter ranges and 2,936 acres proposed on crucial winter ranges. The 20 miles of logging roads could put additional pressure on populations during hunting season. Resource Management Guideline adherence would keep impacts to a minimum.

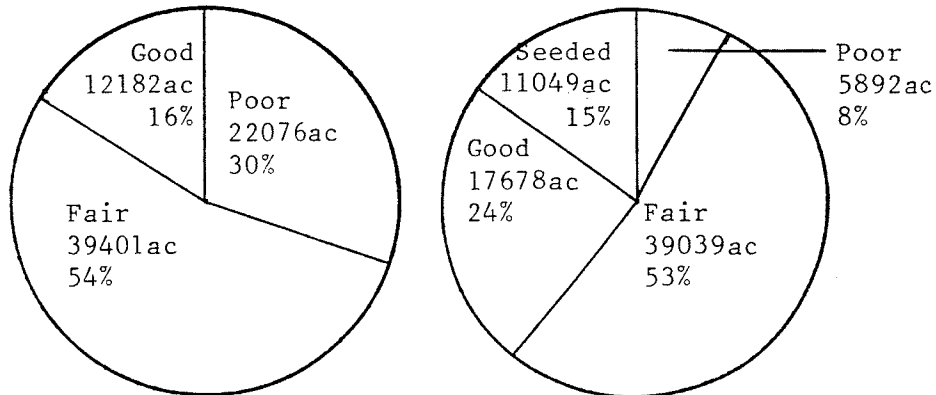
There are approximately 1,220 acres of crucial habitat proposed to be sold or exchanged. This would have negative impacts unless the land were exchanged for habitat of better or equal value.

Overall due to the 19% decrease in livestock AUMs in 20 years, fences, water developments and pipelines associated with the livestock program, the increased range and wildlife seedings, 12 new AMPs, and increased livestock management, the elk habitat is expected to be able to support a 35% increase in populations over current numbers. 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 Crucial Winter  
Existing Situation                      End of 20 Years



Mule Deer

The number of acres of mule deer fall/winter and crucial winter ranges in poor ecological condition would decrease by 7%. This would occur mainly because of the 27% decrease in livestock AUMs. The range program would also increase use of grazing systems and improve livestock management under this alternative.

There are 1,200 acres of range projects in fall/winter ranges and 16,880 acres of range and wildlife seeding projects in crucial winter ranges proposed under this alternative. These projects would increase the forage base and carrying capacity of the range. There are also 3,000 acres of deer and elk crucial habitat proposed to be aerial seeded along the Snake River Breaks.

The 134 acres of timber sales in the fall/winter ranges should have minimal impacts on the habitat. The 332 acres of timber sales in the crucial winter ranges and the 20 miles of proposed roads could produce more pressure on the population during the hunting season.

The 12,000 acre Boise Front ACEC would be managed for mule deer crucial winter range. Improvements to vegetation on the area would improve the carrying capacity of this crucial habitat.

The 19% decrease in livestock AUMs over 20 years, the fences, water developments, and pipelines for livestock, improved livestock management and wildlife seedings are expected to improve the carrying capacity of the habitat to support an overall 35% increase in the deer population of the resource area. This would exceed the population goals set for the habitat by the Idaho Department of Fish and Game.

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